

# Modus



**USER MANUAL | AIM-10 | 10.1" Automotive Receiver | Modular Chassis | 8-Channel RCA Output | FLAC Playback**





## **Welcome to Modus.**

You've chosen precision performance that works seamlessly in the background of every adventure. This user manual will help you unlock your system's full potential.

Take a moment to review these guidelines, then keep this guide handy for future reference.

Your journey starts now.

If you have any technical questions, please contact:

Customer care: 805-790-7383

Online support: <https://support.modusglobal.com>

Register your purchase now to receive future firmware updates and warranty coverage. Purchase receipt is required.

Complete the information below and keep for your records.

Model	
Serial Number	
Date of Purchase	

*Serial number is located on the packaging and the top of the product chassis, or can be found in this receiver's general settings menu (P.26).*

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# Important Information

## About this Manual

To understand how to properly use this product, it is recommended to read this user manual in its entirety, and keep it in a safe place for future reference.

This manual uses illustrations to show you how to use this product safely and alert you to potential dangers resulting from improper connections and operation. It is important to fully understand the meaning of each one of these illustrations in order to use this manual and system properly.



**WARNING**

The **WARNING** illustration denotes very important instructions. Failure to follow them can result in damage to equipment, serious injury or death.



**CAUTION**

The **CAUTION** illustration denotes important instructions. Failure to follow them can result in injury or material property damage.



**IMPORTANT NOTE**

The **IMPORTANT NOTE** illustration denotes important instructions for product features and limitations. Failure to follow them will result in product misuse and/or unexpected behavior.



The **PARKING BRAKE** illustration denotes features that can only be used with vehicle not in motion and parking brake engaged. Failure to follow them will result in product misuse and/or unexpected behavior.

## Operation Warnings



**WARNING**

### OPERATION OF THIS PRODUCT WHILE DRIVING IS DANGEROUS

Users should come to a complete stop and in a safe location before using any feature that requires extended periods of time.

### PAY ATTENTION TO ROAD CONDITIONS

Avoid operating product under dangerous road conditions and abide by regulations over information contained on the map display. Follow traffic restrictions and circumstances while driving.

Familiarize yourself with your local and state laws regarding mobile devices. Certain functions of the mobile phones might be prohibited and or illegal while driving in your location.

## OPERATE AT SAFE VOLUME LEVELS

Excessive volume levels may obstruct sounds such as emergency vehicle sirens or road warning signals; can be dangerous and may result in an accident. Listening at high volume levels can also cause hearing damage.

## DO NOT WATCH VIDEO WHILE DRIVING

Watching video content may distract the driver from looking ahead of the vehicle and can potentially cause an accident.

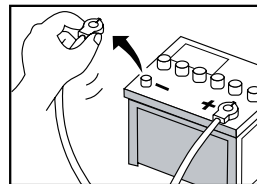
## Installation Warnings

### CERTIFIED PROFESSIONAL INSTALLATION

Installation and service repair of this product by anyone without professional training and experience in consumer electronics and mobile vehicle accessories may be dangerous and result in electric shock, injury or other hazards.

### DISCONNECT BATTERY

To avoid potential shorts in the electrical system, be sure to disconnect the **NEGATIVE (-)** terminal cable before beginning this product installation. Failure to do so may result in electric shock, fire, damage to product and/ or property damage.



## Important Information

### DO NOT DISASSEMBLE OR ALTER PRODUCT

Disassembly of product may result in an accident, fire or electric shock.

### REPLACE FUSE WITH THE CORRECT RATING

Failure to do so may result in fire or property damage.

### PARKING BRAKE INSTALLATION WIRING

Installing this product incorrectly may enable the user to watch video while driving. This may cause distraction, preventing the driver to focus on the road and potentially cause an accident. The driver and passengers can be severely injured.



## Screen Care

### USE

This receiver utilizes a capacitive touchscreen, the same type that is used on high-end mobile devices. It should be used for and cared for like that type of device. As with all capacitive type technology, if your fingers are wet or sweaty, it will not function properly.

Do not allow any sharp objects to come in contact with the screen.

### CLEANING

To clean the screen, use a dry or slightly damp micro fiber type cloth. Do not use ammonia, window cleaner, or any other type

of household chemicals to clean the screen. Abrasives should never be used.

Best to clean the screen when the unit is powered off, cool and not in direct sunlight.

## Notice



Apple CarPlay is a trademark of Apple Inc. iPhone® is a trademark of Apple Inc., registered in the U.S. and other countries.

Use of the Apple CarPlay logo means that this user interface meets Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this product with iPhone may affect wireless performance.



Android Auto is a trademark of Google LLC.



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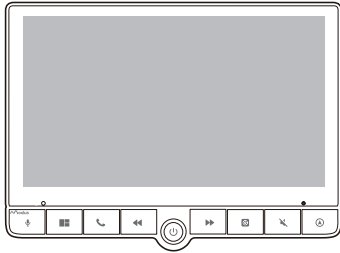


HD Radio™ Technology manufactured under license from iBiquity Digital Corporation, a subsidiary of Xperi Inc., U.S. and Foreign Patents. For patents see <https://xperi.com/hd-radio-patents/>. Xperi, HD Radio, HD, and 'ARC' logos and their respective logos are trademarks or registered trademarks of Xperi Inc. and its subsidiaries in the United States and other countries.

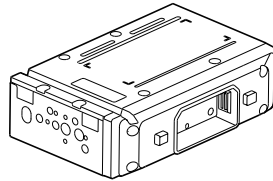
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# Basic Operation

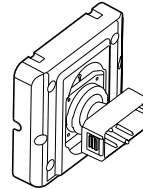
## What Comes in the Box



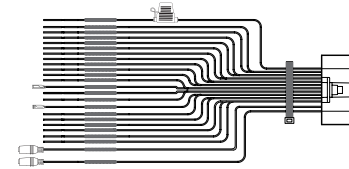
10.1" Display



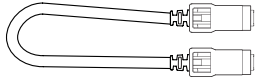
Chassis



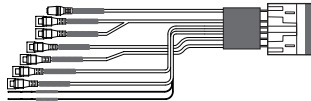
Display mount



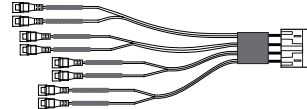
Main/Power harness



Display power cable (20")



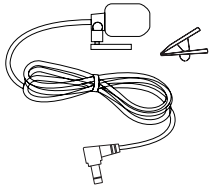
AV cable harness



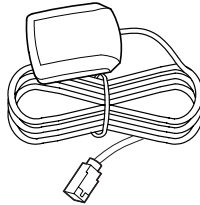
Pre-amp out RCA cable harness



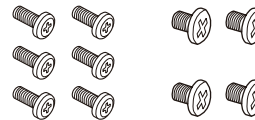
Data link wire harness



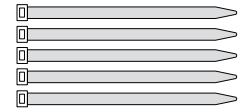
Microphone with 3.5mm plug + sponge cover + adhesive stand + clip



GPS antenna with magnetic base (used for driving direction and navigation)



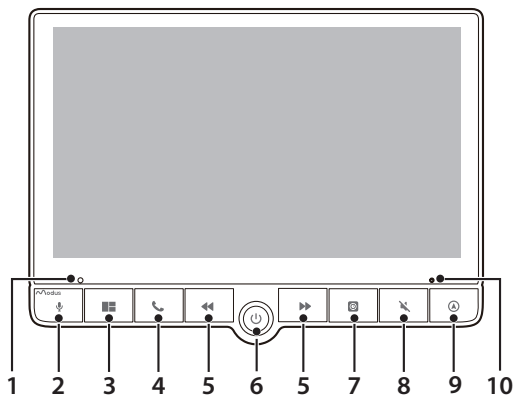
6x Screws (M4 x 10mm)  
4x Screws (M5 x 8mm)



5x Cable ties

# Basic Operation

## Control Panel



### Tips:

To turn the screen off when powered on, press and hold **■** on the front panel.

When the unit is powered off, touch the screen to turn on or off time/date display.

### Quick access to individual volume controls

Press or rotate the volume knob (6) to access individual volume adjustment for media, phone call, voice assistance, navigation voice and ring tone. (P.24)

### 1 Built-in microphone

Input sound when using voice assistant or making a phone call.

The built-in microphone is disabled for use when the supplied external microphone is connected.

### 2 (Voice assistant)

Press to activate voice assistant.

Enable Apple CarPlay or Android Auto to use voice assistant.

### 3 (Home/Screen off)

- Press to switch between the home menu and the last selected source.
- When powered on, press and hold to turn the screen off.

### 4 (Phone)

Quick access to phone call interface, or access to device connection settings if no device is connected.

### 5 (Next/Previous)

- During media playback, press to skip to the next/previous media file.
- In FM/AM source, press and hold to tune to a radio station; press to select HD Radio main channel or a sub-channel if receiving HD Radio signal.

### 6 (Power/Volume)

- Press to power on the unit.
- Press and hold to power off the unit, and time/date is displayed.
- Rotate to adjust volume.
- When powered on, press to mute or unmute the volume.

### 7 (Camera)

Quick access to camera view.

### 8 (Mute)

Mute or unmute the volume.

### 9 (Navigation)

Quick access to navigation app.

Enable Apple CarPlay or Android Auto to use the navigation.

### 10 Reset button

Use a needle or pin to press the button. Reset the unit if the unit fails to function normally.

# Basic Operation

## Home Screen Description

### Apps window

Select a source or settings option (swipe left/right to access more options).

### Clock window

Touch the clock image to access the clock settings; touch the top left icon (🕒) to display clock on full screen.

### Phone/CarPlay/Android Auto window

- Access device connection settings (If no device is connected).
- Display Bluetooth phone call interface (If Bluetooth is connected).
- Display CarPlay/Android Auto icon (If enabled) and touch the icon to switch to CarPlay/Android Auto.

### Accessory control window

Display vehicle's accessory control buttons for On/Off switch, if vehicle's accessory controls are set. (P.23)

Touch the top left icon (🔌) to access the control settings.

### Radio/Media playback window

- Display controls for radio broadcast or media playback.
- Touch the icon to switch to the radio broadcast or media playback screen.

### Maestro features window

Touch the top left icon (🕒) to access visual display of vehicle features, if a Maestro device is connected. (P.19)



### Re-position a Window

Touch and hold a window then drag it to another window position, then the two window positions will swap. Repeat the step to further adjust window position.

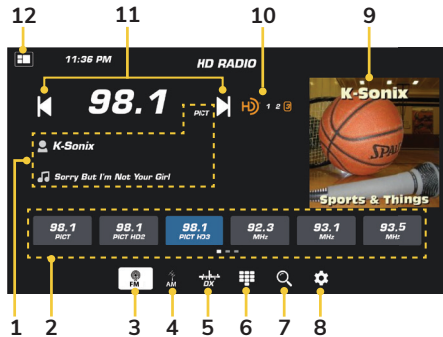
### Expand a Window Size

To expand the window size 1X, touch the 🕒 icon. To expand the window 2X, touch the icon again. Touch the icon once more to return to the normal size.

# HD Radio™ Reception

## Using HD Radio Features

### HD Radio Reception Screen



- 1 Program data service display zone: Display station name, program type, artist/song name when broadcasting an HD Radio station.
- 2 Select a preset station. Touch and hold to save the current station as a preset. Swipe to access more store stations.
- 3 Switch to FM radio.
- 4 Switch to AM radio.
- 5 Switch between local and distant station reception (only applicable to FM).
- 6 Search for a radio station by frequency input.
- 7 Preview each scanned station for 10 seconds.
- 8 Access HD Radio reception settings.

- 9 Album art picture (Artist Experience): Displayed only if the current station supports the service.
- 10 HD logo: Displayed when receiving an FM/AM station with HD Radio signal. Main channel ("1") and sub-channels (e.g. "2" and "3") indicators when receiving HD Radio signal.
- 11 Touch and hold to tune to a radio station. Touch to adjust radio frequency step by step, or if available, switch between main channel and sub-channels of the HD Radio station
- 12 Return to the home screen.

### HD Radio Features Introduction

## HD Radio®

HD Radio Technology transmits digital signals using the traditional FM and AM stations, providing the following key features:

### Program Info

Program Info: Contributes to the superior user experience of HD Radio Technology. Presents song name, artist, station IDs, HD2/HD3 Channel Guide, and other relevant data streams.

### HD2/HD3

Adjacent to traditional main stations are extra local FM channels. These HD2/HD3 Channels provide new, original music as well as deep cuts into traditional genre.

### Digital Sound

Digital, CD-quality sound. HD Radio Technology enables local radio stations to broadcast a clean digital signal. AM sounds like today's FM and FM sounds like a CD.

### Artist Experience

Visual information related to content being played on your HD Radio receiver, such as Album Art, historical photographs, still art from live broadcasts, among other related content.

Visit [www.hdradio.com](http://www.hdradio.com) for more about HD Radio stations in your area.

### Tune to a Radio Station

Touch and hold **◀** or **▶** to tune to a station.

If HD Radio signal is received, HD logo is displayed, and its sub-channels (e.g. "2" and "3") are also displayed adjacent to "1" (main channel).

# HD Radio™ Reception

## Using HD Radio Features


### Select Main and Sub-channels

Many HD Radio stations add sub-channels (e.g. HD2 and HD3) adjacent to the main channel (HD1). The main channel makes digital-analog transmission, and the sub-channels transmit digital signals only.


When sub-channels (e.g. "2" or "3") are displayed, touch **K** or **M** to select a sub-channel or main channel ("1").

### Search by Program Type

You can search for radio stations via a program type (e.g. news, sports, talk or music).

Touch  on the bottom screen to access HD Radio reception settings, then **[Search by Genre]** to select a program type for searching.


### Search via Frequency Input

Touch  on the screen to display a numeric keypad. Input a station frequency to find your station.

### Preset a Radio Station

Touch and hold a channel button on the screen. The current station will be stored as a preset.

### Auto Store Radio Stations

Touch  on the bottom screen to access HD Radio reception settings, then **[Auto Presets]** to activate FM or AM station searching. Up to 18 FM or 12 AM stations will be stored.


### FM Local and Distant

Touch **"DX"** or **"LOC"** on the screen to select local or distant station reception. "LOC" indicates local reception, "DX" for distant reception.

Select "DX" when most FM stations are weak (e.g. in the countryside). Stations with both strong and weak signals will be received.


Select "LOC" when most FM stations are strong enough (e.g. in urban areas). Only the stations with strong signal will be received.

### Adjust Search Sensitivity

Touch  on the bottom screen to access HD Radio reception settings, then **[Receiver Sensitivity Boost]** to adjust search sensitivity levels.

High sensitivity receives most radio channels containing most weak channels. Med/Low sensitivity level receives fewer channels. Select **[Off]** to receive the only channels with the strongest signals.

### Turn on/off HD Radio Reception


Touch  on the bottom screen to access HD Radio reception settings, then **[HD Radio™ Features]** for On or Off.

When enabled, the unit will first tune to the station's digital signal, or fall back to the station's analog signal if digital reception is lost.

When disabled, the unit will tune to analog-only radio stations.

If you want to receive a radio station without HD Radio signal or the digital reception is poor, disable HD Radio reception.

### Turn on/off Album Art Picture

Touch  on the bottom screen to access HD Radio reception settings, then **[Artist Experience]** for On or Off.

Enabled to turn on display of images (album art) related to a specific program, or station logos.

# SiriusXM® Radio

## Using SiriusXM Radio

SiriusXM brings you ultimate entertainment.

- Hits before they hit.
- Late game comebacks.
- Exclusive celebrity visits.
- Listen in your car, or on your mobile and home devices with the SiriusXM App.

For more information, visit [siriusxm.com](http://siriusxm.com).

## Preparation

### 1. Connect a SiriusXM Vehicle Tuner (not included) to the SiriusXM-Ready® connector on the back of this unit. (P.40)

After installing your SiriusXM Vehicle Tuner and antenna, power on this receiver and select SiriusXM mode. Make sure you have a clear view of the sky and then you should be able to hear the SiriusXM preview channel 1.

If you cannot hear the preview channel, please check the installation instructions to make sure your SiriusXM Vehicle Tuner is properly installed.

### 2. Check your Radio ID for activation.

The SiriusXM Radio ID is required for activation and can be found by tuning to Channel 0 as well as by looking on the label found on the SiriusXM Vehicle Tuner and its packaging.

- The Radio ID does not include the letters I, O, S or F.

### 3. Activate the subscription.

For users in the U.S.A.:

Visit [www.siriusxm.com/activatenow](http://www.siriusxm.com/activatenow), or call SiriusXM Listener Care at 1-866-635-2349

For users in Canada:

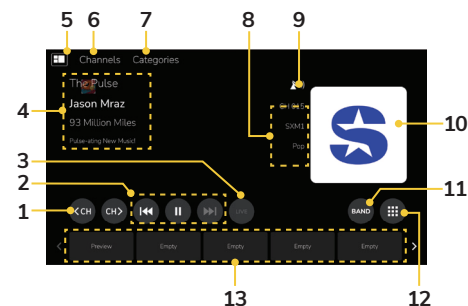
Visit [www.siriusxm.ca/activate](http://www.siriusxm.ca/activate), or call SiriusXM Customer Care at 1-888-539-7474

### 4. Confirm the activation.

As part of the activation process, the SiriusXM satellites will send an activation message to your SiriusXM Vehicle Tuner. When this receiver detects that the Tuner has received the activation message, this receiver will display **[Subscription Updated]**.

Once subscribed, you can tune to channels in your subscription plan. Note, the activation process usually takes 10 to 15 minutes, but may take up to an hour. This receiver will need to be powered on and receive the SiriusXM signal to obtain the activation message.

## SiriusXM Home Screen



- 1 Select the previous/next channel.
- 2 Playback control buttons to pause, rewind and replay live satellite radio.
- 3 Return to live music or content.
- 4 Display channel name, song title, artist name, and content info (if available).
- 5 Return to the home menu.
- 6 Access the channel list to select a channel.
- 7 Access the category list to select a channel.
- 8 Display information of the current channel.
- 9 SiriusXM signal strength indicator.
- 10 Album Art: Display the image that represents the current music channel. When album art image is not available, the channel logo or SiriusXM logo will be displayed.


## Using SiriusXM Radio

Compatible with SXV200 or later (SiriusXM Vehicle Tuner). Not all music channels contain album art images.

- 11 Select SXM1, SXM2 or SXM3 band.
- 12 Search a channel by input of channel number, or access the parental control settings.
- 13 Select a stored channel; touch and hold to preset the current channel.

### Select a Channel

You can select a channel via one of the followings.








- Touch **CH** </> to select the previous or next channel.
- Touch **[Channels]** to access the channel lists. Find a channel by channel number, artist name, song title, or content info.
- Touch **[Categories]** to access the category lists. Find a channel via category name.
- Touch  to display the numeric keypad. Input a channel number.
- Touch a channel button at the bottom of the home screen to select a preset channel.

### Preset a Channel

1. Touch **BAND** to select **SXM1**, **SXM2**, or **SXM3**. Each SXM band can store six channels.
2. Touch and hold a channel button at the bottom of the home screen. The current channel will be stored as a preset. Repeat the step to preset more channels.


### Replay

The replay feature allows you to pause, rewind and replay live SiriusXM satellite radio programming.

- To skip to the previous or next track, touch   .
- To rewind or fast forward, touch and hold  .
- To play or pause, touch  or .
- To return to live content, touch **LIVE**.


### Parental Controls

This feature allows you to restrict access to SiriusXM channels with mature content. A password is required to tune to the locked channels.

1. Touch  on the screen to display the **[Parental Controls]** option.
2. Touch **[Parental Controls]** to access the parental controls settings, and touch **[Lock Mature Channels]**. A numeric keypad is displayed.
3. Input 4-digit password (1234 as default) on the numeric keypad. All the channels with mature content will be locked.

### Change Password

You can change the password for the parental control.

From the SiriusXM home screen, touch  > **[Parental Controls]** > **[Set Lock Code]**, enter your current 4-digit password (1234 as default), then enter your new password.

## Using Apple CarPlay

### Apple CarPlay Introduction

Apple CarPlay provides a smarter, safer way to use your iPhone while driving. The apps on your iPhone can be loaded and displayed on the screen of this unit. Thus you can navigate, call, control your music, and so more.

For more details about Apple CarPlay, visit <https://www.apple.com/ios/carplay>.

### Compatible iPhones

Apple CarPlay works with iPhone 5 and all the way up to the most recent versions.

### Wired Connection

To enable Apple CarPlay connection, connect your iPhone to the unit's **USB C 3.0** port (not **2.0** or **USB A** port), using an Apple-certified USB cable with factory length or shorter (not included). (P.40)

Before the initial connection, enable Wi-Fi and Bluetooth on your iPhone. You will be prompted to enable wireless CarPlay on your iPhone during initial connection.

### Wireless Connection

For first-time use of wireless CarPlay, you need to enable wireless CarPlay use on your iPhone via either of the following pairing.


- On your iPhone, enable Wi-Fi, and access **Settings > Bluetooth** then select "**AIM-10 MODUS**" for Bluetooth pairing. When prompted on your iPhone, make sure to enable wireless CarPlay use . When connection options are prompted on the unit's screen, select "**Apple CarPlay**" for connection.
- Initial wired connection to enable wireless CarPlay use on your iPhone.



#### IMPORTANT NOTE

If you do not allow wireless CarPlay use on your iPhone during initial pairing, wireless CarPlay will be disabled on your iPhone. To use wireless CarPlay later, you need to manually enable CarPlay on your iPhone (access **Settings > General > CarPlay > paired device** then enable CarPlay).

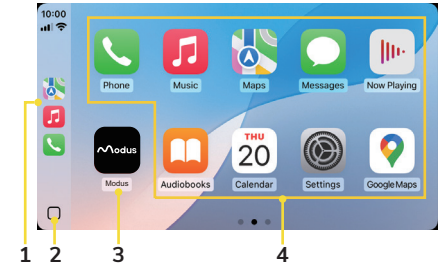
Enabling Apple CarPlay will disable Bluetooth connection and vice versa.

### Switch between CarPlay and Bluetooth

From the Apps window on the home screen, select  (**BT PHONE**) to access the Device Connection List.

Touch  to disconnect the current connection. Touch  to re-connect, and select CarPlay or Bluetooth for connection when connection options are prompted on the unit's screen.

### CarPlay Home Menu Description



- 1 Menu bar:** Touch an app icon for quick access.
- 2 CarPlay home button:** Return to the CarPlay home screen.
- 3 Unit's home button:** Exit the CarPlay screen and return to the unit's home menu.
- 4 Apps loaded from the iPhone.**

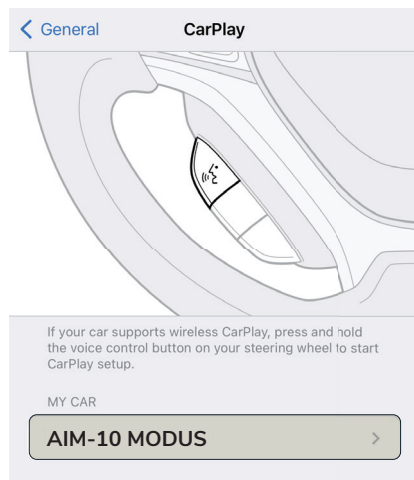
# Apple CarPlay®

## Using CarPlay

### Arrange your CarPlay Apps

You can add, remove, or arrange the order of the apps on the CarPlay screen of the unit.

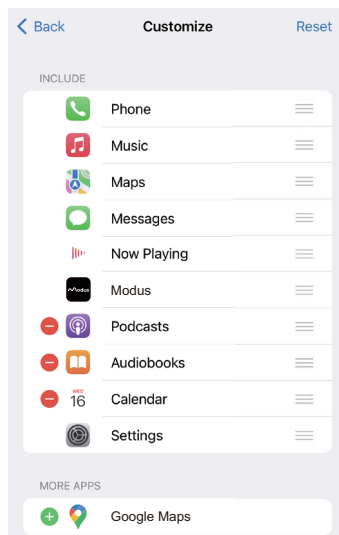
1. On your iPhone, go to **Settings > General > CarPlay**, select this unit's name from the device list (shown below). Then select **Customize** to access CarPlay apps.



2. Touch and drag an app (≡) to change the order of the app.

Touch **-** or **+** to remove and add apps.

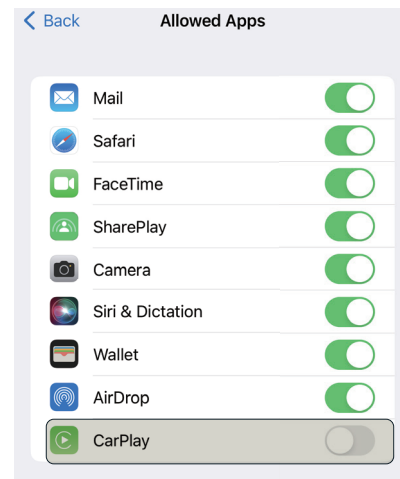
Only apps with **-** or **+** can be removed from CarPlay or added in CarPlay.



### Disable CarPlay Apps

You can disable all CarPlay apps to restrict CarPlay use on this unit.

On your iPhone, go to **Settings > Screen Time > Contents & Privacy Restrictions > Allowed Apps > CarPlay**.



# Android Auto™

## Using Android Auto

### Android Auto Introduction

Android Auto allows the apps on your Android phone to be loaded and displayed on the screen of this unit. Thus, you can navigate, call, control your music, and so more.

For more details about Android Auto, visit <https://www.android.com/auto>.

### Compatible Android Phones

- Wired connection: Android 6.0 and later.
- Wireless connection: Android 11.0 and later.

### Android Auto App

- Phones with Android 9.0 and earlier needs Android Auto app downloaded from Google Play Store.
- Phones with Android 10 and above do not need to download Android Auto app.

### Wired Connection

To enable Android Auto connection, connect your Android phone to the unit's **USB C 3.0** port (not **2.0** or **USB A** port), using a certified cable with factory length or shorter (not included). (P.40)

Before the initial connection, enable Wi-Fi and Bluetooth on your phone. Wireless Android Auto use will be enabled on your phone during initial connection.

### Wireless Connection


For first-time use of wireless Android Auto, you need to enable wireless Android Auto use on your phone via either of the following pairing.



- On your Android phone, enable Wi-Fi, and access **Settings > Bluetooth** then select "**AIM-10 MODUS**" for Bluetooth pairing to enable wireless Android Auto use. When connection options are prompted on the unit's screen, select "**Android Auto**" for connection.
- Initial wired connection to enable wireless Android Auto use on your phone.

#### IMPORTANT NOTE

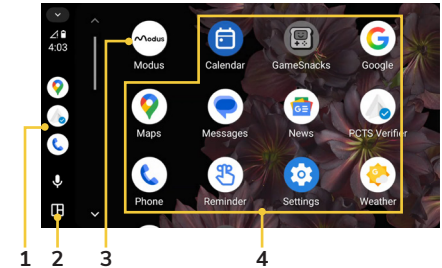
Enabling Android Auto will disable Bluetooth connection and vice versa.

### Switch between Android Auto and Bluetooth

From the Apps window on the home screen, select  (BT PHONE) to access the Devices List.

Touch  to disconnect the current connection. Touch  to re-connect, and select Android Auto or Bluetooth for connection when connection options are prompted on the unit's screen.

### Android Auto Home Menu Description



- 1 Menu bar:** Touch an app icon for quick access.
- 2 Android Auto Home button:** Return to the Android Auto home screen.
- 3 Unit's Home button:** Exit the Android Auto screen and return to the unit's home menu.
- 4 Apps loaded from the Android Phone.**

# Bluetooth

## Connection

## Streaming

### IMPORTANT NOTE



Bluetooth on the unit is enabled only when Apple CarPlay or Android Auto is disabled. Make sure your Apple CarPlay or Android Auto is disabled for Bluetooth use.

### First Time Connection

Before you can stream audio or make phone calls through Bluetooth, pair your device with this unit.

Bluetooth pairing can be made through initial connection to CarPlay (P.13) or Android Auto (P.15).

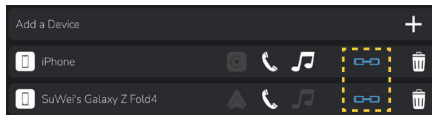
Or, complete Bluetooth pairing as follows.

1. Make sure Bluetooth is enabled on your mobile phone.
  2. From the Apps window on the home screen, select  (BT PHONE) to access the Devices List. Then touch  to search for available Bluetooth devices and select your device name to pair.
- When prompted on your phone screen for phone contacts sync, select "Allow" so that phone contacts can be displayed on the unit's screen.
  - Select Bluetooth for connection when prompted on the unit's screen.

### Connect Two Devices Simultaneously

The unit allows you to connect two devices simultaneously in Bluetooth mode. Connect the second by repeating the same steps as the first.

If two devices are connected,  is displayed for each device in the Devices List.






To re-connect the device, touch .

To delete a paired device, touch .

### Switch between Bluetooth and CarPlay/Android Auto


Enabling Bluetooth connection will disable CarPlay/Android Auto.

From the Apps window on the home screen, select  (BT PHONE) to access the Devices List.







From the Devices List, touch  to disconnect the current connection then touch  to re-connect. When connection options are prompted on the unit's screen, select Bluetooth or CarPlay/Android Auto for connection.

### Audio Streaming

Before you can stream audio from your mobile device to this unit, make sure Bluetooth connection is made.

1. From the Apps window on the home screen, select  (BT MUSIC) to switch to Bluetooth streaming screen.

### Playback Control

- To play or pause, touch  or .
- To skip to previous or next track, touch .
- To search fast backward or forward, touch and hold .
- To select a repeat mode, touch .
- To turn on or off shuffle play, touch .

### Play from Two Connected Devices


If two devices are Bluetooth connected to the unit simultaneously, the two device names are displayed in the upper right of the Bluetooth streaming screen.

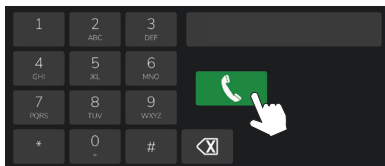
Touch the grayed-out device name to switch the device for Bluetooth streaming.

# Bluetooth

## Hands-free Call





### Make a Call

From the Apps window on the home screen, select  (BT PHONE) to access the phone call screen.



### 3 Options to Dial a Bluetooth Call

From the phone call screen, select a phone call option.

- Touch **[Keypad]** tab to display the virtual keypad, then input a phone number and touch .
- Touch **[Recent]** tab to access your call history, then touch a number.  (Outgoing),  (Incoming),  (missed)
- Touch **[Contacts]** tab to access your phonebook, then touch a contact.

### Dial from Two Connected Devices








If two mobile phones are Bluetooth connected to the unit simultaneously, the two phone names are displayed in upper right of the phone call screen.

Touch the grayed-out phone name to switch the phone for dialing a Bluetooth call.

### Dial a Bluetooth Call from Home Screen

If your mobile phone is Bluetooth connected to the unit, the home screen displays the Phone window for you to directly access Call History, Phonebook and Keypad.




### Operation During a Call


- To end a call, touch .
- To switch to private mode, touch . The call will move to your mobile device.
- To return to hands-free mode, touch . The call will move back to the unit.
- To mute a call, touch .
- To adjust call volume, touch  / .
- To use a keypad during a call, touch .

### Call Waiting


Make sure call waiting feature is enabled on your phone for use.

Calling waiting prompts appear on the unit's screen when there is another incoming call during the call.

- To reject the second call, touch .
- To answer the second call and end the current call, touch .
- To answer the second call and place the current call on hold, touch .

During the call, to switch between the second and current call, touch the double arrow icon (.

### Call Volume Setting

From the Apps window on the home screen, select  (BT PHONE) > **[Settings]** to access and set the default call volumes.

**[Ring Tone Level]:** Set volume level of incoming call ring tone.

**[Phone Call Level]:** Set phone call volume level.

**[Microphone Level]:** Set microphone input volume level.

## USB Playback

You can play audio, video and photos stored on a USB flash drive.


1. Using extension cable (not included), connect your USB flash drive to one of the unit's USB ports (**USB A**, **USB C 2.0**, or **USB C 3.0**). (P.40)

USB-C 3.0 port provides much faster data speed than USB-C 2.0/USB-A 2.0. Use a certified USB-C 3.0 cable when connecting to the USB-C 3.0 port to ensure faster data speed.

2. From the Apps window on the home screen, select **[USB]** to switch to USB playback screen.

If there are audio, video and photo files in the USB, audio files will play first.

### Browse USB for Media Files

1. On the USB playback screen, touch the folder icon (e.g. ) to display the content browser.



2. Touch **[Songs]**, **[Videos]**, or **[Photos]** tab to navigate and select an audio/video/picture file to play. Only audio/video/picture files are visible.






### IMPORTANT NOTE

Video and photo cannot be viewed while driving. The vehicle must be stationary and the parking brake applied to enable viewing.

To activate viewing, also make sure the parking brake switch wire (light green) is properly connected to your vehicle. (P.34)




### Audio Playback



On the audio playback screen, playback control is displayed.

- To play or pause, touch .
- To skip to the previous or next file, touch .
- To search fast backward or forward, touch and hold .
- To select a repeat mode, touch .
- To turn on or off shuffle play, touch .







### Video Playback

On the video playback screen, touch the screen to display playback control.

- To play or pause, touch .
- To skip to the previous or next file, touch .
- To search fast backward or forward, touch and hold .

- To select a repeat mode, touch .
- To turn on or off shuffle play, touch .

### Photo Slideshow with Music

1. Play music stored in the USB flash drive.
2. Navigate and select a photo to display, then touch  on the screen to start slideshow.
3. On the photo screen, touch the screen to display slideshow control.
  - To play or pause slideshow, touch  or .
  - To skip to the previous or next photo, touch .
  - To rotate the photo, touch .
  - To enlarge the photo, touch  then drag the magnifying slider.

### WARNING

Watching video or photo while driving is against Federal, State, and Local laws.

Do not use features of this unit if it cannot be operated safely and legally in your location.

## Factory Features Retention

### iDatalink Maestro Setup

Maestro functions allow the unit to retain the functionalities that are originally available in your vehicle (e.g. steering wheel controls), and additionally allows for visual display of vehicle features (e.g. vehicle info, and gauges, etc.). For more information, visit [www.idatalinkmaestro.com](http://www.idatalinkmaestro.com)

1. Prepare an iDatalink Maestro RR device (not included) as an adapter to data link this receiver and your vehicle.
2. Program the Maestro device. Follow the quick start guide included with your Maestro device to complete programming. When prompted to input the product serial number, refer to the unit chassis or the packaging for the serial number. The serial number can also be attained on the screen of the unit: From the Apps window on the home screen, access **[Settings] > [General] > [Version]**. (P.26)
3. Connect the unit to the Maestro device using the supplied iDatalink cable (P.39), and complete wiring between the Maestro device and your vehicle according to the installation guide downloaded from Maestro device programming.

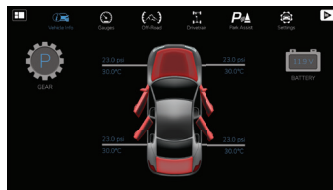
### IMPORTANT NOTE

We recommend having your Maestro device installed/wired by a certified technician. Maestro features are vehicle specific. Some features displayed on the screen may not be supported by your vehicle.

For troubleshooting information about iDatalink Maestro, visit [www.idatalinkmaestro.com](http://www.idatalinkmaestro.com)

### Vehicle Information

From the Apps window on the home screen, select **[Vehicle]** to access Maestro features.



The screen displays vehicle information such as battery voltage and tire pressure (if installed with the tire pressure management system in your vehicle). You can change vehicle information settings.

### Performance Gauges



Only the gauges which are supported in your vehicle are activated. You can change gauge settings.

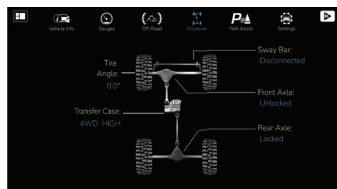
### Off-Road Information



The screen displays your vehicle's geographical location in geo-coordinates, position of altitude, driving direction, tipping degrees from front to back (pitch) and from side to side (roll), when supported by your vehicle.

## Factory Features Retention

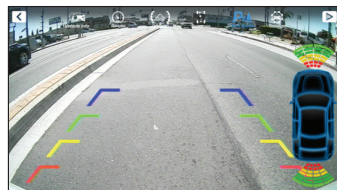
### Tire Alignment



The screen displays wheel alignment status, tire angles, condition of sway bar, front/rear axles and transfer case.

### Parking Assist

Access Maestro features to select **[Park Assist]**.



When selecting **[Park Assist]**, a camera view will trigger (if installed), and the visual warning for obstacle detection will also display (if installed with parking sensors).

To trigger rear camera, make sure the rear camera is selected for viewing. (P.22)

### Climate Control

From the Apps window on the home screen, select **[Climate]**.



Touch the buttons on the screen to adjust the climate options. Only the climate controls which are supported in your vehicle are activated.

### **i** IMPORTANT NOTE

Climate control is vehicle-specific. Some features may not be supported by your vehicle.

### Change Settings

Access Maestro features to select **[Settings]** for setup, gauges and alerts configuration.

# Audio/Video Input

## HDMI Input

### Playback via HDMI

The unit is equipped with a Micro HDMI input which allows you to play video and audio from a device with HDMI or other AV outputs (e.g. a DVR/dash cam, tablet, or laptop, etc.).

HDMI is used to digitally transmit high-definition video and audio between devices.

### HDMI Input Selection

From the Apps window on the home screen, select **[HDMI]** to switch to HDMI source.

HDMI input screen is displayed.

### HDMI Cable Connection

Using a Micro HDMI cable (not included), connect the Micro HDMI input on the unit's back to the Micro HDMI output on your device. (P.40)

An adapter (not included), e.g. Micro HDMI to HDMI/USB-C/RCA, is required if your device's AV output is a standard HDMI, USB-C or RCA.

## Analog AV Input

### Playback via Analog AV

You can listen to audio from an audio device (e.g. a smartphone/MP3 player/dash cam) via 3.5mm audio input, or play video from a device (e.g. a DVR/dash cam, ) via RCA video input.

### Analog AV Input Selection

From the Apps windows on the home screen, Select **[AV In]** to switch to AV source.

AV input screen is displayed.

### Audio Cable Connection

Connect the 3.5mm audio input (labeled **Aux In**) of the supplied AV cable harness to the audio output on your device, using the following cable (not included). (P.38)

- For a mobile device with 3.5mm headphone jack, use a 3.5mm audio cable.
- For a mobile device with USB-C port, use USB-C to 3.5mm cable.

### Video Cable Connection

Using a RCA video cable (not included), connect the RCA video input (labeled **AUX IN VIDEO**) of the supplied AV cable harness to the RCA output on your playback device. (P.38)

### IMPORTANT NOTE

Use the controls on the external device for playback control.

Video and photo cannot not be viewed while driving. The vehicle must be stationary and the parking brake applied to enable viewing.

To activate viewing, also make sure the parking brake switch wire (light green) is properly connected to your vehicle. (P.34)

# Four-Camera System


## Using Camera

The unit allows you to connect four cameras at a time. The system provides you with flexibility in location of your cameras as well as the option to trigger them manually or automatically.

You can select a pre-defined camera icon to be displayed for camera identification, depending on a specific camera location. (P.29)

### Manual Camera Trigger

You can manually turn on a camera. Make sure each camera is connected through RCA camera input (P.38), and each camera is activated for output (P.28).

1. From the Apps window on the home screen, select **[Camera]**, or press  on the front panel to access the camera screen.
2. Touch the camera screen to display camera options and select the camera you want to view (e.g. front, rear, left or right camera).

You can also manually trigger a camera using the steering wheel control if your steering wheel control is programmed for a camera switch via SWC learning setup. (P.29)

### Automatic Camera Trigger

The unit is equipped with four camera trigger wires (P.36). If connected, the camera will trigger automatically.

#### Rear Camera Trigger

The rear camera will turn on automatically when shifting to the reverse gear, and will turn off automatically when shifting out of the reverse gear.

For automatic rear camera trigger, make sure the purple/white wire (labeled **REVERSE SW**) is connected to the reverse light. (P.36)

When the camera auto triggers, the other cameras are not accessible.

#### Front Camera Trigger

The front camera will turn on automatically when shifting out of the reverse gear, and remain on until your vehicle speed is below 8 KPH (or 5 MPH).

The front camera does not require a separate trigger wire. (P.36)

To exit the front camera screen during auto triggering, touch the screen.

### Left/Right Camera Trigger

The left or right camera will turn on automatically with the left or right turn signal. For automatic left/right camera trigger, make sure a trigger wire is connected. (P.36)

When the left/right camera auto triggers, the other cameras are not accessible.



Never rely solely on the backup camera; always check your surroundings before backing up.

Images may appear reversed if your camera is not properly installed or set up.

## Using Accessory Controls

## Using Optical

### Accessory Control Setup


The unit offers quick access to turn on or off your accessories (e.g. vehicle lights) through accessory control buttons on the home screen.

#### What You Need

- Make sure the supplied accessory control wires are connected to your vehicle. (P.39)
- 1. From the App window on the home screen, select **[Acc Cont.]** > **[Settings]** to access accessory control settings.
- 2. Select one method to turn on your accessory.  
**[Momentary]:** Touch and hold to turn on.  
**[Latched]:** Single touch to turn on.
- 3. Select an accessory (e.g. a light) from the settings list to complete accessory control setup.

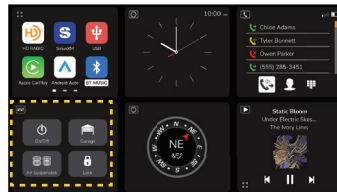
Repeat the steps above to set up totally four accessory controls.

#### To Re-name your accessory

Access the accessory control settings and touch the keyboard icon (  ), then input a control name on the pop-up keyboard.

### Turn on/off Accessory Control

The accessory control window on the home screen displays the control buttons you have set.



#### To turn on an accessory:

- Touch and hold a control button if turn-on option is set as **[Momentary]**, and release the button to turn off.
- Or, touch a control button if turn-on option is set as **[Latched]**, and touch the button again to turn off.

### Audio Output via Optical

The unit is equipped with Optical/Toslink output which allows you to output audio to an external amplifier or sound system with optical input.

Optical/Toslink provides high quality audio in digital format.

#### Activate Optical Output

From the Apps window on the home screen, select **[Audio]** to access audio settings, and select **[Toslink]** on the audio settings screen to enable optical output. (P.24)

#### Optical Cable Connection

Using an optical cable (not included), connect the optical output on the unit's back to the optical input (or labeled "TOSLINK") on an external amplifier or a sound system. (P.40)

# Sound Settings

## Set Sound Effects

From the Apps window on the home screen, select **[Audio]** > **[Audio Settings]** to access the following settings on this page.

### Volume Balance Setting

Select **[Audio Settings]** to access the settings.

- **[Balance]:** Touch **<** or **>** to adjust right and left volume balance until you are pleased with the sound and a suitable balance is found.
- **[Fader]:** Touch **^** or **v** to adjust front and rear volume balance until the sound has a satisfying depth.

### Subwoofer Control

Select **[Audio Settings]** to access the settings.

- **[Subwoofer ON/OFF]:** Enable/disable subwoofer output.
- **[Subwoofer 0°/180°]:** Reverse audio phase (0° or 180°) for bass response improvement.
- **Subwoofer Slider:** Adjust subwoofer volume.

### Loudness Control

Select **[Audio Settings]** to access the settings.

- **[Loudness]:** Enable to boost output of low and high frequencies.

### Optical Output Control

Select **[Audio Settings]** to access the settings.

- **[Toslink]:** Select **ON** to enable audio output via optical cable connection to an external amplifier. (P.40).  
When **ON**, EQ, crossover and time alignment settings will be deactivated.  
Select **OFF** to disable audio output via Optical connection.

### Tone Defeat

Use this feature to hear the differences between the current audio settings and factory default settings.

Select **[Audio Settings]** to access the settings.

- **[Tone Defeat]:** Select **ON** to disable your current audio settings and return to factory settings. Select **OFF** to re-activate your current audio settings.  
When **ON**, EQ, crossover and time alignment settings are not possible.

### Reset Audio to Factory Settings

Select **[Audio Settings]** to access the settings.

- **[Audio Reset]:** Clear the customized audio settings and restore to factory settings.

### Customization of a Source Volume

You can adjust a source volume independently, without affecting volume of other sources.

Select **[Audio Settings]** to access the settings, then swipe the more-options icon (**≡**) at the bottom of the screen to access Source Gain settings screen.

- **[HD Radio]:** Adjust volume for FM/AM radio.
- **[SiriusXM]:** Adjust volume for SiriusXM radio
- **[Apple CarPlay]:** Adjust volume for CarPlay.
- **[Android Auto]:** Adjust volume for Android Auto.
- **[USB Audio]:** Adjust volume for audio playback in USB mode.
- **[USB Video]:** Adjust volume for video playback in USB mode.
- **[BT Music]:** Adjust volume for Bluetooth audio streaming.
- **[AV In]:** Adjust volume for AV source input.

# Sound Settings

## Set Sound Effects

### Customized EQ Setting

Adjust the volume of certain frequencies of audio signal for optimal sound.

From the Apps window on the home screen, select **[Audio]** > **[Equalizer]** to access the settings.

1. Adjust each frequency bar to set decibel output.
2. Touch and hold a **[Preset]** button to save the EQ setting. Up to six EQ presets can be stored.

To clear the settings, touch the **[Flat]** button.

### Crossover Frequency Setting

From the Apps window on the home screen, select **[Audio]** > **[Crossover]** to access the settings.

1. Select speakers for crossover settings:  
Front, Rear and Subwoofer.
  2. Adjust the following crossover settings for the selected speakers, if applicable.
- Select **[High Pass]** > **[Frequency]**: Adjust High Pass Filter (HPF). Only the frequencies above the one you set will be received to reproduce sound.

- Select **[Low Pass]** > **[Frequency]**: Adjust Low Pass Filter (LPF). Only the frequencies below the one you set will be received to reproduce sound.

- Select **[High Pass]** > **[Slope]**: Set a high pass filter slope in decibels. The HPF slope determines the rate that attenuates the frequencies below the set one.

- Select **[Low Pass]** > **[Slope]**: Set a low pass filter slope in decibels. The LPF slope determines the rate that attenuates the frequencies above the set one.

- **[Level]**: Adjust output volume of the speakers.

3. After completing the settings, touch and hold a **[Preset]** button to save the settings. Up to four crossover presets can be stored.

To clear the settings, touch the **[Flat]** button.

### Time Alignment Setting

Compensate the time delays caused by the different distances between the speakers and your ears. Adjust delay time so that sound from all the speakers arrives at the listener simultaneously.

From the Apps window on the home screen, select **[Audio]** > **[Time Alignment]** to access the settings.

1. Touch **[ms]** (millisecond) or **[inch]** to select time or distance measurement.
2. Touch **<** or **>** to set delay time for front and rear speakers, and subwoofer.
3. Touch and hold a **[Preset]** button to save the setting. Up to six presets can be stored as different listening positions.

Experiment with different time values to find the optimal settings for you.


To clear the settings, touch the **[Flat]** button.



### Factory EQ Selection



You can select a pre-defined sound mode (EQ settings at factory) to suit your music.

From the Apps window on the home screen, select **[Audio]** > **[Factory EQ]** to access the settings to select a factory EQ.

### Source Volume Controls

By pressing the volume knob (  ) on the front panel, you can access the following separate volume controls:


Main volume (  ); Phone call (  );

Voice assistant (  ); Navigation voice (  );

Ring tone (  ).

# System Settings

## General Settings

From the Apps window on the home screen, select  (**Settings**) > **[General]** to access the following settings on this page.

### Key Tone and Language Setting

Select **[General]** to access the settings.

- **[Beep]:** Select a sound volume level (Mid, Low or Off) when touching an icon on the screen or pressing a button on the front panel.
- **[Language]:** Select English, French or Spanish as menu language.

### Set Date and Time Manually

Select **[General]** > **[Clock]** to access the settings.

- **[Current Time]:** Touch to access time setting screen. On the time setting screen, you can set Day, Month, Year, Hour, Minute and hour format.
- **[Clock Format]:** Select 12 or 24 hour format.
- **[Daylight Saving Time]:** Enable to adjust daylight saving automatically.
- **[Time Zone]:** Select a time zone in your current location.

### Set Date and Time Automatically

Select **[General]** > **[Clock]** to access the settings.

- **[GPS]:** Enable to automatically set date and time from GPS signals. Make sure the supplied GPS antenna is attached to the unit. (P.40).
- **[Phone Sync]:** Enable to automatically set date and time from Apple CarPlay.
- **[Manual]:** If selected, automatic date/time setting is disabled.

### GPS Information Display

Select **[General]** to access the settings.

- **[GPS Information]:** Access the navigational information that your vehicle is currently traveling, e.g. vehicle's geographical location in geo-coordinates, satellite signals and vehicle speed.  
Make sure the supplied GPS antenna is attached to the unit. (P.40)

### Change Menu Bar Position

Select **[General]** to access the settings.

- **[Right Hand Drive]:** For driving convenience, you can change the Apple CarPlay menu bar from the left side to the right side of the screen and vice versa. Restart your vehicle to make the change effective.

### Startup Warning Message Display

Select **[General]** to access the settings.

- **[Boot Warning Message]:** Turn on or off the warning message about driving safety notice when the unit is powered on from vehicle engine ignition.

### System Information Display

Select **[General]** to access the settings.

- **[Version]:** Display the unit's versions for hardware, software and Bluetooth, etc. You can also find the serial number of this unit.

### Firmware Update

We continually try to improve our product. The product can be updated if needed.

Select **[General]** to access the settings.

- **[System]:** Touch to prompt firmware update.  
Please visit the product page on our website ([www.modusglobal.com](http://www.modusglobal.com)) to see if there is an update available and pay close attention to the update instructions included online.

### Reset the Unit


Select **[General]** to access the settings.

- **[Factory Reset]:** Reset the unit to the factory settings.

Reset the unit only when the unit fails to function normally. All your settings will be erased after resetting.

# System Settings

## Display Settings

From the Apps window on the home screen, select  (Settings) > [Display] to access the settings on this page.

### Screen Brightness

Select [Display] to access the settings.

- [Brightness]: Adjust screen brightness.
- [Auto Dimmer]: When enabled and the vehicle light is turned on, the screen brightness and panel button light will automatically dim.



#### IMPORTANT NOTE

To enable night detection for auto dimming, make sure the orange wire (labeled **ILLUMINATION**) is connected to your vehicle's parking light. (P.34)

### Panel Button Light Setting

Select [Display] to access the settings.

- [Animation Effect]: Enable to automatically cycle the panel button lights through six different colors.
- [Illumination Color]: Select one of the preset colors for panel button lights.

Make sure [Animation Effect] is disabled to activate light color selection.

### Customize Button Light Color

Select [Display] > [Illumination Color] to display button lights setting screen.

Use the Color slider to set a color. Use the Color Intensity slider to set color brightness.

Make sure [Animation Effect] is disabled to activate light color selection.


### Theme Color Setting

Select [Display] to access the settings.

- [GUI Color]: Select a display color for the graphic user interface.

# System Settings

## Camera Settings

From the Apps window on the home screen, select  (Settings) > [Camera] to access the following settings.

### Camera Trigger Control

Select [Camera] to access the settings.


- [Camera 1]/ [Camera 2]/ [Camera 3]/ [Camera 4]: Enable or disable camera signal input for a camera (e.g. rear, left, right and front camera).

### Parking Assist Guidelines Setting

Select [Camera] to access the settings.

- [Parking Guidelines]: Disable the parking assist guidelines built in the unit if your rear camera view has its own parking assist guides.

## Bluetooth Settings

From the Apps window on the home screen, select  (Settings) > [Device] to access the following settings.

- [Devices]: Access to connect or disconnect a device for Bluetooth, Apple CarPlay/Android Auto, or switch between Bluetooth and CarPlay/Android Auto use.
- [Bluetooth]: Access to enable or disable automatic connection to the paired Bluetooth device when powered on.

### Backup Camera Sound

If your camera is equipped with a microphone for sound input, the input sound from your vehicle's surroundings can play through the unit.

Select [Camera] to access the settings.

- [Reverse Cam Audio]: Turn on or off the backup camera sound output.  
When enabled, use the slider to adjust backup camera sound level if your backup camera has a microphone.

Backup camera sound is available only when the vehicle is in reverse.

### IMPORTANT NOTE

For automatic rear camera trigger, make sure the purple/white wire (labeled **Reverse SW**) is connected to the reverse light. (P.36)

# System Settings

## Advanced Options

From the Apps window on the home screen, select **Settings** > **Installer** to access the advanced options on this page.

You need to input the password ("3451") on pop-up keypad when prompted to access **Installer** for setting of steering wheel controls and camera.

### Steering Wheel Controls (SWC)

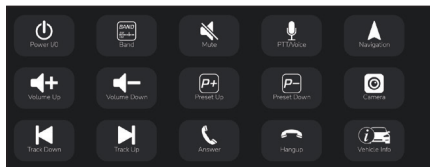
The unit allows you to retain your steering wheel controls through learning setup or fixed setup.

#### Option 1: Learning Setup

Select **Installer** > **Steering Wheel Control** to access the function mapping chart.

Retain the steering wheel controls through the mapping chart if your vehicle does not need a steering wheel interface (not included) for SWC setup connection. (P.36)

The mapping chart shows the functions which can be programmed on your steering wheel buttons.



1. Touch a button icon from the mapping chart. The function button will be highlighted.
2. Press a button on your steering wheel to set the function. A green dot will appear in the top left corner of the button icon if the mapping is successful.
3. Repeat the steps above to map the other functions.

To clear the mapping, touch the **Reset** button on the mapping chart screen.

#### **i** IMPORTANT NOTE

The mapping chart/tool is resistance based, and not compatible with all vehicles.

#### Option 2: Fixed Setup

Use the fixed setup if your vehicle needs a steering wheel interface (not included) for SWC setup connection. (P.36)

Follow the instructions of your steering wheel interface to map the steering wheel controls.

### Camera View Control

1. Select **Installer** > **Camera** to access the camera settings screen. Input the password ("3451") on pop-up keypad when prompted to access **Installer**.
2. Touch **>** to access camera view control for each camera.

**[Mirror Image]:** When enabled, the camera view will be laterally (left/right) inverted.

### Change Camera Icon

For your convenience of identifying a specific camera location, you can select a pre-defined camera icon.

From the camera settings screen (**Installer** > **Camera**), touch the icon for Camera 2, Camera 3 or Camera 4 to access multiple camera icons for selection.

The Camera 1 icon is designed to work with the rear camera, and is not able to be changed.

For explanation of **[Reverse Cam Audio]** and **[Parking Guidelines]** options, refer to the Camera Settings section. (P.28)

# Unit Installation

## Dash Mounting



**WARNING**

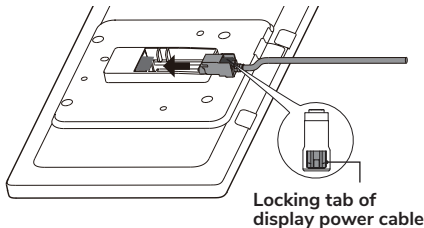
See the section "Installation Warnings". (P.4)

### Unit Assembly

The unit comes with a display, display mount and main unit for you to assemble as a whole.

#### Step 1: Attach the display power cable

Insert one end of the supplied display power cable (20") to the connector on the back of the display. Fully insert the cable until it clicks.

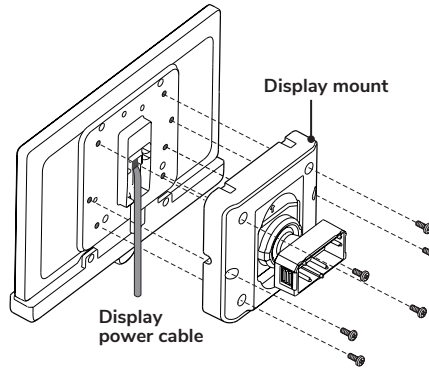


Locking tab of display power cable

To detach the cable, hold down the **locking tab** on the cable connector and pull out the cable.

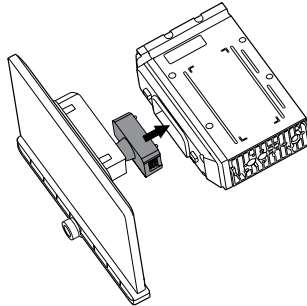
#### Step 2: Attach the display mount

Correctly orient the display mount (illustrated next), then fix the display mount to the back of the display using the six supplied screws (M4 x 10 mm).



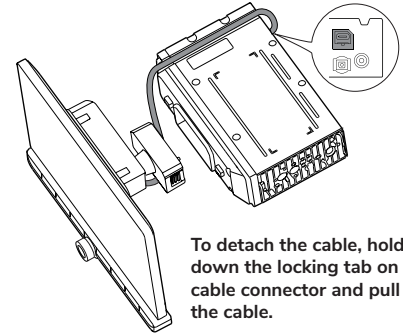
#### Step 3: Attach the display

Insert the display (with the mount) into the main unit until it clicks.



#### Step 4: Set display power cable ready

To complete the display power cable setup, insert the other end of the display power cable to the unit's rear top right connector.



To detach the cable, hold down the **locking tab** on the cable connector and pull out the cable.

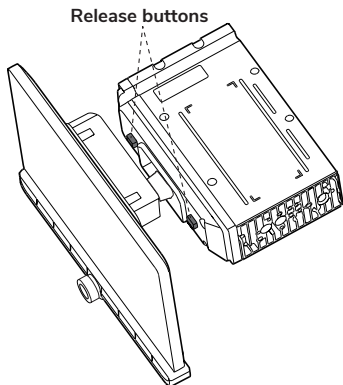
**Note:** complete this step only when other wirings are being made.

# Unit Installation

## Dash Mounting

### Detach the Display

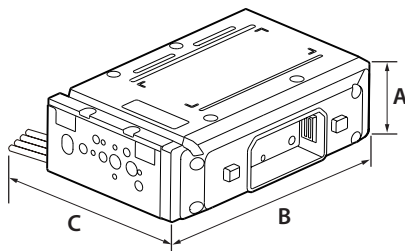
Hold down two release buttons to unlock the display and pull it out.



### Mounting in Dash

This unit is designed to be a universal single DIN receiver which fits a standard single DIN opening in a vehicle.

### Chassis Mounting Dimensions



Mounting Hole (A x B):

1.97" x 7.01" (50 x 178 mm)

Mounting Depth (C): 6.18" (157 mm)



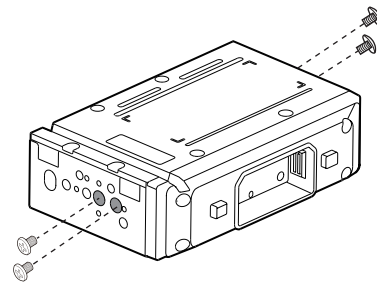
### IMPORTANT NOTE

Before you mount the unit into the dash, complete the wiring connection (P. 34 to 41).

### Secure the Unit

Access the factory radio opening, and place the unit in the opening then secure the unit as follows:

Using the four supplied screws (M5 x 8mm), fasten two factory brackets on both sides of the unit to secure.



# Unit Installation

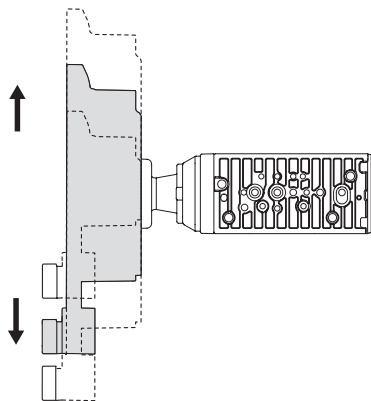
## Display Positioning

### Adjust Positioning of the Display

Adjust the display angle so that your view is clear and it does not impair your driving.

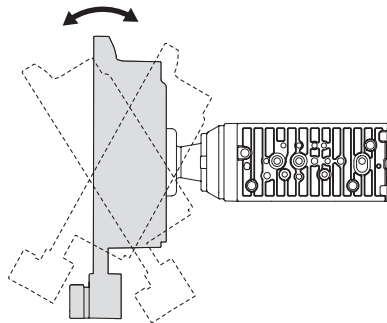
### Adjust the Display Height

Hold the display then slide it up or down to adjust the height.



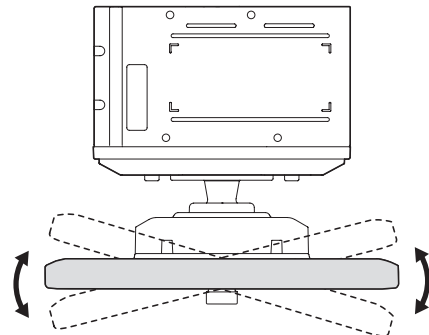
### Tilt the Display Up and Down

The display can be vertically tilted by 25 degrees.



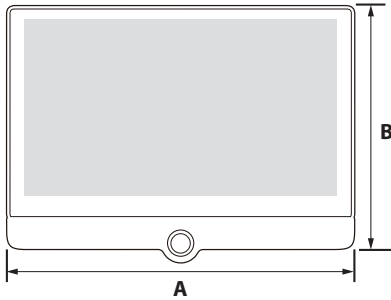
### Tilt the Display Left and Right

The display can be horizontally tilted by 15 degrees.

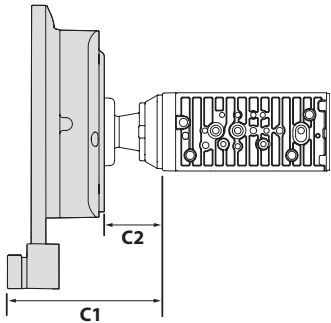


# Unit Installation

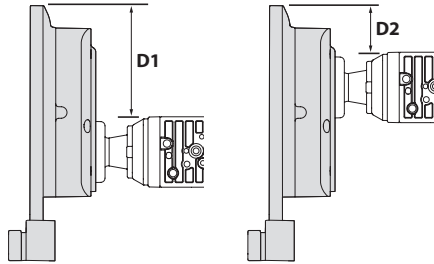
## Display Mounting Dimensions



A: 9.65" (245 mm)      B: 6.77" (172 mm)

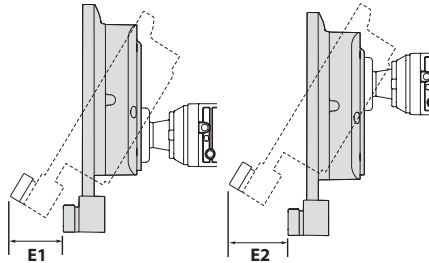


C1: 3.83" (97.4 mm)      C2: 1.57" (40 mm)



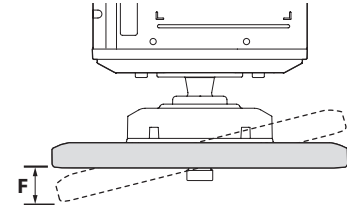
D1 (at highest position): 2.72" ( 69 mm)

D2 (at lowest position): 1.4" ( 35.6 mm)



E1 (with maximum tilting angle at highest position): 1.25" (31.7 mm)

E2 (with maximum tilting angle at lowest position): 1.81" (46 mm)



F (with maximum tilting angle): 0.95" (24.1 mm)

# Connections

## Power/Parking Brake Wiring

### ⚠ WARNING

See the section "Installation Warnings". (P.4)

Unused input/output wires need to be insulated with tape, heat shrink, or crimp connectors. **Never use wire nuts.**

Always replace the faulty fuse with the same type and rating (15A).

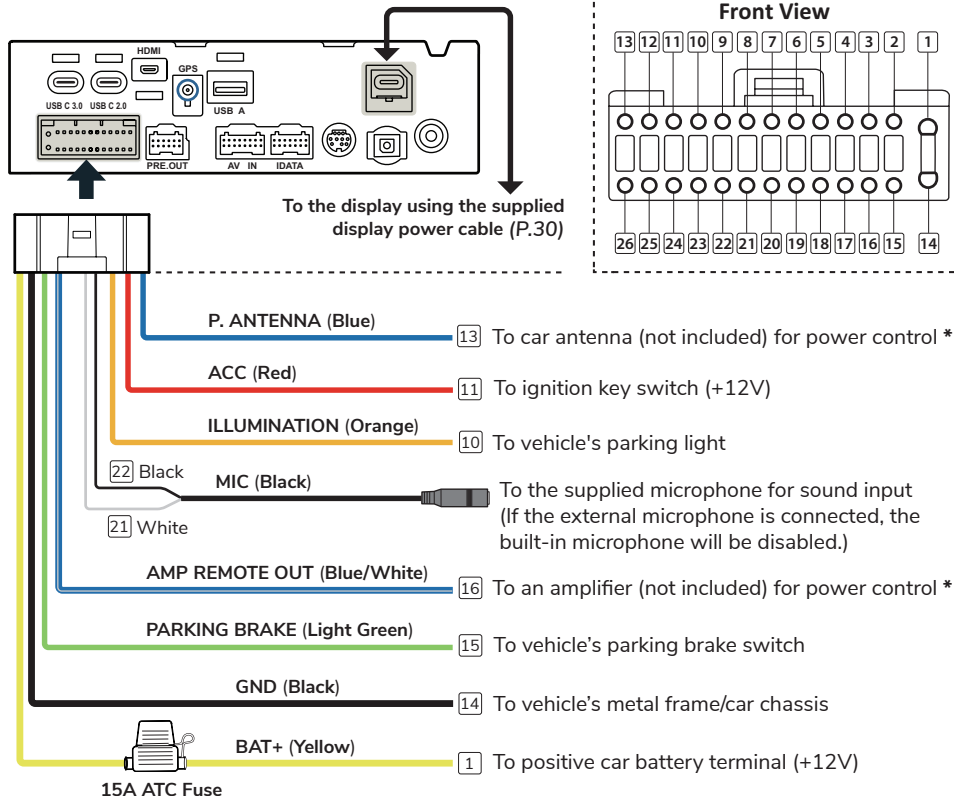
Improper connection or use of the parking brake switch wire (e.g. defeating the safety feature) violates Federal, State, and Local laws. This may lead to injury, property damage, and/or death

### 📌 IMPORTANT NOTE

"Parking Brake" wire (light green) must be connected to the vehicle's parking brake switch to enable video and photo playback.

"Illumination" wire (orange) must be connected to the parking light for night detection to auto dim the screen.

\* Power output is max 500mA, 12V. It is recommended to use a relay if additional power is required.



# Connections

## Speaker Wiring

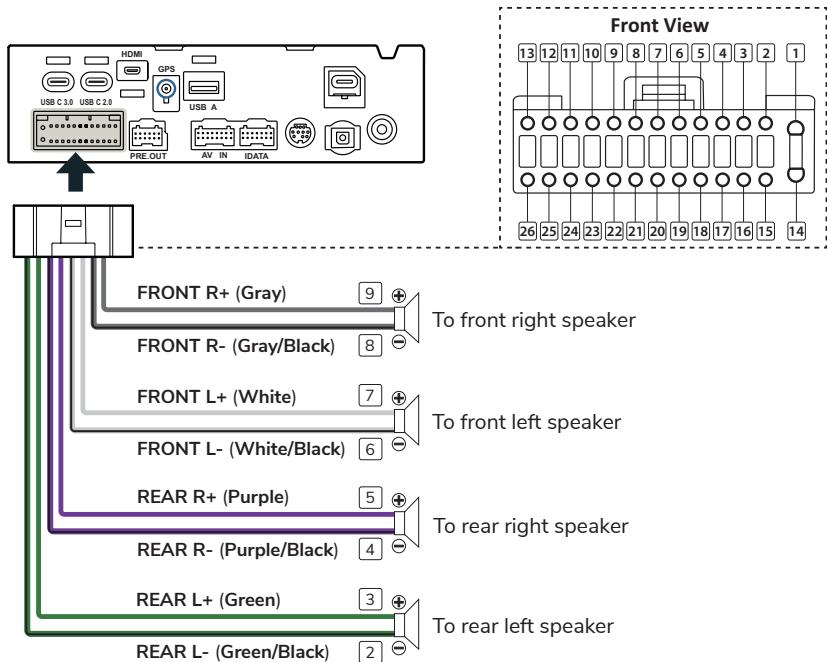
### CAUTION

Do not chassis ground any speaker wire leads.  
Only use 4-8  $\Omega$  speakers.  
**DO NOT** use 1-3  $\Omega$  speakers.  
Do not bridge any of the channels. They are only to be wired in stereo mode.

### IMPORTANT NOTE

Unused speaker wires need to be insulated with tape, heat shrink, or crimp connectors to avoid damage to the unit. **Never use wire nuts.**

Double check speaker polarity when making connections.



# Connections

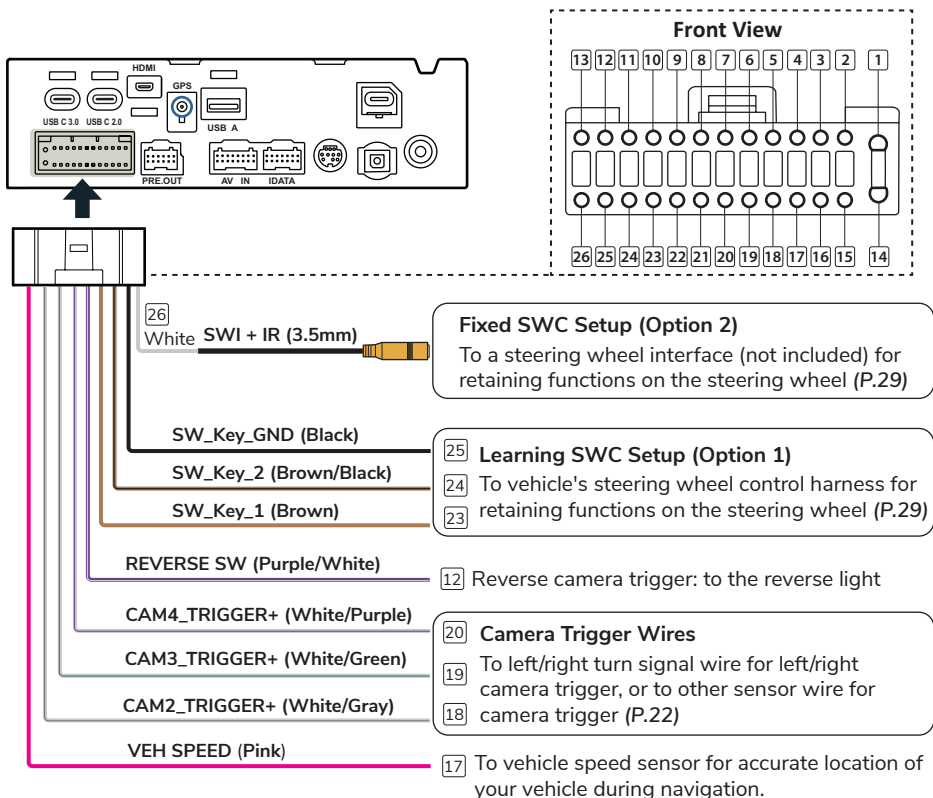
## Steering Wheel Control and Camera Trigger Wiring

### IMPORTANT NOTE

For fixed SWC setup, consult a professional installer for a correct steering wheel interface to match your vehicle and follow the instructions of the steering wheel interface to complete wiring and button programming.

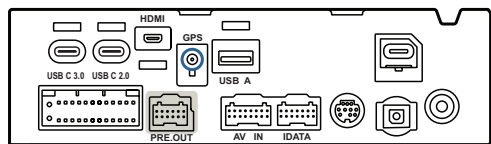
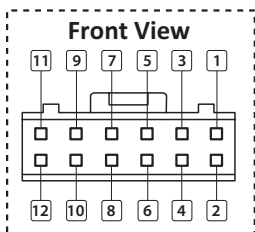
For learning SWC setup, consult a professional installer for wiring to your vehicle's steering wheel control harness and complete button programming described in this manual. (P.29)

Camera trigger wires must be connected to your vehicle so that a camera can automatically trigger (e.g. rear camera trigger when changing the gear to reverse).



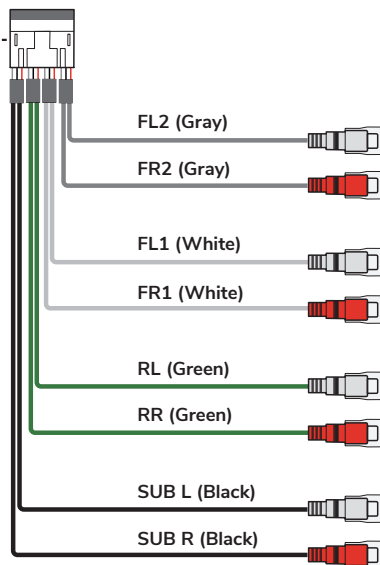
# Connections

## Pre-amp Audio Output Wiring



Pre-amp Out Connector

No.	Function /Color
1/3	Subwoofer L (Red) / GND (Black)
2/3	Subwoofer R (White) / GND (Black)
4/6	Rear Speaker L (White) / GND (Black)
5/6	Rear Speaker R (Red) / GND (Black)
7/9	Front Speaker 1 L (White) / GND (Black)
8/9	Front Speaker 1 R (Red) / GND (Black)
10/12	Front Speaker 2 L (Red) / GND (Black)
11/12	Front Speaker 2 R (White) / GND (Black)



FL2 (Gray)

FR2 (Gray)

FL1 (White)

FR1 (White)

RL (Green)

RR (Green)

SUB L (Black)

SUB R (Black)

### IMPORTANT NOTE

Subwoofer pre-amp is a non-fading mono output.

Always run signal wires away from power cables to reduce the possibility of noise.

To front RCA audio input on your amplifier using RCA audio cables (not included), white connector for left output, red for right output

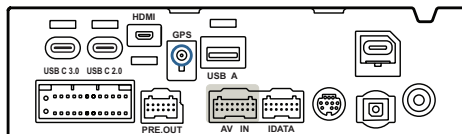
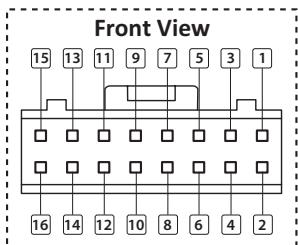
To front RCA audio input on your amplifier using RCA audio cables (not included), white connector for left output, red for right output

To rear RCA audio input on your amplifier using RCA audio cables (not included), white connector for left output, red for right output

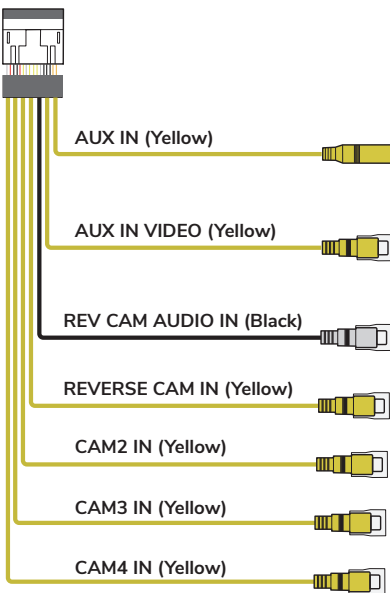
To subwoofer RCA audio input on your amplifier using RCA audio cables (not included), white connector for left output, red for right output

# Connections

## AV Input and Camera Wiring



↑ AV In Connector



No.	Function /Color
1/2	Audio In L+ (White) / GND (Black)
3/2	Audio In R+ (Red) / GND (Black)
5/4	AUX_Video In (Red) / GND (Black)
6/4	Cam1_Video In (White) / GND (Black)
7/8	Cam2_Video In (Yellow) / GND (Black)
9/10	Cam3_Video In (Yellow) / GND (Black)
11/12	Cam4_Video In (Yellow) / GND (Black)
13/14	Reverse Audio (White) / GND (Black)



Never rely solely on the backup camera. Always check your surroundings before backing up.

Images may appear reversed if your camera is not properly installed or set up.

To audio output on external audio source (e.g. mobile phone or MP3) for audio input, using 3.5mm audio cable (not included) or 3.5mm to USB-C/RCA cable (not included) (P.21)

To yellow RCA video output on external video source (e.g. DVR) for video input, using RCA cable (not included) (P.21)

To RCA audio output on your rear camera for audio input (if a microphone exists on the camera) (P.28)

To RCA plug of the rear camera for video input

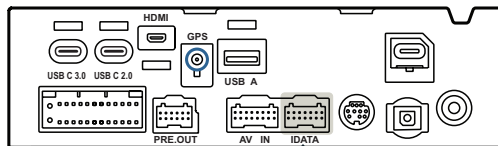
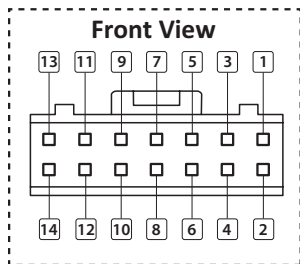
To RCA plug of the 2nd camera (e.g. left camera) for video input

To RCA plug of the 3rd camera (e.g. right camera) for video input

To RCA plug of the 4th camera (e.g. front camera) for video input

# Connections

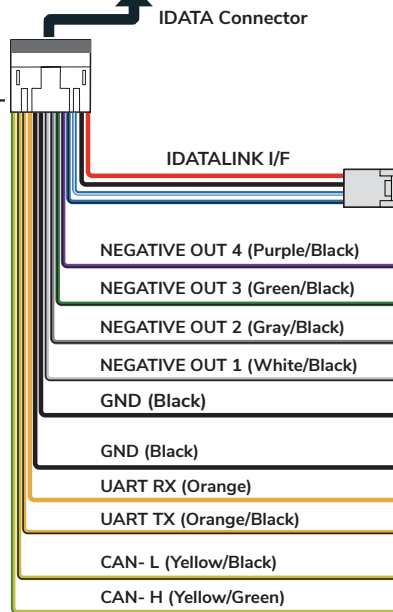
## iDatalink Maestro and Accessory Controls Wiring



### IMPORTANT NOTE

We recommend having your Maestro device installed/wired by a certified technician.

No.	Function /Color
1	CAN- H (Yellow/Green) - For future use
2	CAN- L (Yellow/Black) - For future use
3	UART Tx (Orange/Black) - For future use
4	UART Rx (Orange) - For future use
5	GND (Black) - For future use
6	GND (Black)
7	Negative Output 1 (White/Black)
8	Negative Output 2 (Gray/Black)
9	Negative Output 3 (Green/Black)
10	Negative Output 4 (Purple/Black)
<b>iDatalink Connector</b>	
11	iData Tx to Unit (Blue/White)
12	iData Rx from Unit (Blue/Black)
13	GND (Black)
14	Power (Red)



### iDatalink Maestro Connector

To a Maestro RR device (not included) for Maestro features. Consult a professional installer for wiring.

### Accessory Controls Wiring

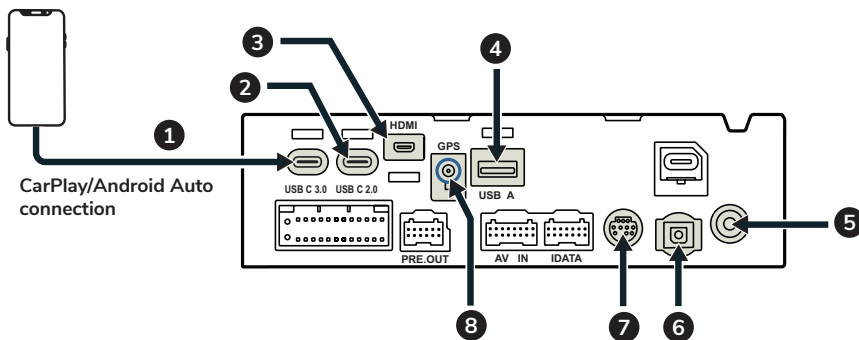
To vehicle's accessory controls for power on/off control. Consult a professional installer for wiring (200mA output).

For future use.

For future use.

# Connections

## USB/SXM/GPS/HDMI/Optical Wiring



- 1 USB C 3.0 Port:** Using a USB-C cable, connect to your mobile phone for wired CarPlay/Android Auto use, or for charging. USB C 3.0 port provides much faster data speed than USB C 2.0 and USB A port. Use a certified USB C 3.0 cable to ensure faster data speed.
- 2 USB C 2.0 Port:** Using a USB-C cable or USB-C adapter, connect to a USB flash drive for media playback or to a mobile phone for charging.
- 3 Micro HDMI Input:** Using a Micro HDMI cable or Micro HDMI to standard/USB-C/RCA adapter, connect to a device with HDMI or other AV outputs (e.g. a DVR/dash cam, tablet, or laptop, etc.).
- 4 USB A Port:** Using a USB cable, connect to a USB flash drive for media playback, or to a mobile phone for charging.
- 5 FM/AM Antenna Connector:** Connect to an FM/AM antenna for better radio reception.
- 6 Optical Output:** Using an optical cable, connect to an external amplifier with optical input.
- 7 SiriusXM Connector:** Connect to a SiriusXM Vehicle Tuner before you can activate and receive satellite radio. For more information on how to install the SiriusXM Vehicle Tuner, consult the SiriusXM Vehicle Tuner Installation Guide.
- 8 GPS Antenna Connector:** Connect to the supplied GPS antenna for driving direction and navigation.

# Connections

## Hands-Free Mic Installation

The unit comes with a built-in microphone and an external microphone.

The built-in microphone will be disabled if the external microphone is connected.

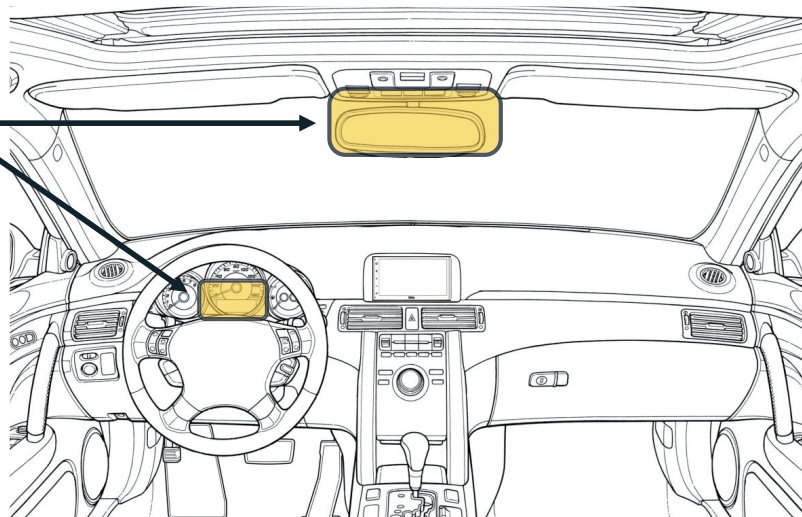
Follow the instructions below to install the external microphone.

### Placement

The **Yellow** shaded areas are the recommended locations for best microphone performance.

Items to look for before placement:

- Do not place in front of air vents.
- If the vehicle has tweeters placed on sail panel, do **NOT** install the microphone on steering column area.
- The front of the microphone must not be blocked.
- Microphone should be firmly attached to mounting location.
- Do not cover the grille openings surrounding the microphone.
- To avoid excessive wind noise, do not place near the sunroof opening.



Run the microphone wire where it will **NOT** impede with the operation of any safety items (e.g. airbags, knee airbags, etc.)

### Option 1: Adhesive Mount

1. Attach the microphone to the supplied sticky stand.
2. Remove the backing paper from the microphone stand, then stick the stand on a clean mounting surface.
3. Route and secure the microphone wire properly.

### Option 2: Clip Mount

1. Attach the microphone to the supplied clip.
2. Attach the clip to a proper position.
3. Route and secure the microphone wire properly.

# Troubleshooting

## Important!

If the problem persists after checking the list below, turn off the vehicle for 10 seconds and restart. If the issue continues, use a small pin to press the reset button on the front panel. For ongoing problems, contact customer services.

### General

#### No response / Unit not powered on / Bad or incorrect picture quality.

- Restart the unit by turning off the vehicle for ten seconds, then turning the vehicle back on.
- The display power cable is not securely connected. (P.30)

#### No sound from the unit.

- The unit is muted. Adjust the volume.
- Select the correct audio source on the unit.

### USB

#### Cannot play a media file.

- The media format on the USB is not supported. Change media files.
- The file system of the USB is not supported. Change the USB.

#### No video playback or picture display.

- Video or picture display is enabled only when the parking brake is engaged, and the parking brake switch wire is connected to your vehicle. (P.34)

### Apple CarPlay/Android Auto

#### Cannot start Apple CarPlay/Android Auto.

- CarPlay/Android Auto is disabled. Enable CarPlay (P.13) or Android Auto (P.15).
- For CarPlay, make sure CarPlay is enabled on your iPhone (**Settings > General > CarPlay > Paired device > Enable CarPlay**).
- Delete the paired device on both your phone and the unit. Make the connection again.

### Bluetooth

#### Cannot make Bluetooth connection.

- CarPlay/Android Auto connection disables Bluetooth connection. Disable CarPlay/Android Auto connection. (P.16)
- Delete the paired device on both your phone and the unit. Make the connection again.

#### Cannot stream via Bluetooth.

- Pair and connect your mobile phone. (P.16)
- Bluetooth connection is disabled. Enable Bluetooth connection. (P.16)
- Delete the paired device on both your phone and the unit. Make the connection again.

#### Phonebook is not displayed.

- Delete and repair your mobile phone, select "Allow" when prompted on the phone screen for phonebook sync.

#### Poor hands-free phone call quality/No sound from Microphone.

- Check signal strength on your mobile phone.
- Check that the external microphone is firmly attached and plugged in. Or relocate the microphone for noise reduction. (P.41)

### FM/AM Radio

#### Poor radio reception.

- FM/AM antenna is not connected or extended. Connect and secure an FM/AM antenna (not included). (P.40)
- The antenna output wire is not connected. Connect the wire. (P.34)

# Troubleshooting

## SiriusXM Radio

### "Check Antenna" appears.

- Check that the antenna cable is connected to the SiriusXM Vehicle Tuner.
- Check the antenna cable for damage and kinks. Replace the antenna cable if damaged. SiriusXM products are available at your local car audio retailer or online at <https://shop.siriusxm.com/all-parts/>.

### "Check Tuner" appears.

- Check that SiriusXM Vehicle Tuner is securely connected to the unit (P.40), or the Tuner is damaged.

### "Subscription Updated" appears.

- Your subscription is updated. Press the appropriate button to clear the message.

### "Channel Unavailable" appears.

- The selected channel is not available. For more information about SiriusXM channel lineup, visit [www.siriusxm.com](http://www.siriusxm.com).

### "No Signal" appears.

- Verify that your vehicle is outdoors with a clear view of the sky.
- Verify that the SiriusXM magnetic base antenna is mounted on a metal surface on the outside of the vehicle.
- Move the SiriusXM antenna away from any obstructions.
- Check the antenna cable for damage and kinks.
- Consult the SiriusXM Vehicle Tuner installation manual for more information on antenna installation.

### "Channel Unsubscribed" appears.

- The selected channel is not subscribed. If you have questions about your subscription package or would like to subscribe to this channel, in the USA, visit [www.siriusxm.com](http://www.siriusxm.com) or call 1-866-635-2349; in Canada, visit [www.siriusxm.ca/activate](http://www.siriusxm.ca/activate) or call 1-888-539-7474.

### "Channel Locked" appears.

- The selected channel is locked by the Parental Control feature. Enter the correct password to unlock. (P.12)

# Specifications

## General

Input voltage.....	9 – 16 VDC 14.4 VDC (Nominal)
Current consumption.....	Max. 15 A
Fuse .....	15 A (ATC, blade)
Mounting hole (H x W).....	1.97" x 7.01"
Mounting depth.....	6.18"
Display power cable.....	20"
Unit weight.....	5.66lbs.
Operational temperature.....	-4 – 140°F

## Display

Screen size.....	10.1"
Aspect ration.....	16:9
Resolution.....	1920 x 1080
Screen type.....	TFT-LED active matrix

## Audio

Power output.....	25 W x 4 RMS
Speaker impedance .....	4 – 8 Ω
Preset EQ.....	Spoken, Vivid, Casual, Tranquil, Heavy
EQ (15 bands).....	25/40/63/100/160/250/400 /630/1k/1.6k/2.5k/4k/6.3k/10k/16k Hz
EQ boost/cut .....	±6 dB
High pass filter.....	25/40/63/100/250/500 /1k/3.5k/5k Hz

Low pass filter (Sub).....	25/40/63/100/250 Hz
Slope.....	-12/-18/-24 dB/Oct
Gain.....	0 to -12 dB
Pre-amp output.....	4x Front (5V, full range) 2x Rear (5V, full range) 2x Sub (Mono, 5V, LPF)
Audio input .....	Micro HDMI, digital 3.5mm AUX, analog
Audio output.....	Optical/TOSLINK, digital

## Video

Signal system.....	NTSC/PAL
Video Input.....	Micro HDMI, digital RCA male, analog

## Radio

Frequency range.....	87.5 – 107.9 MHz (FM) 530 – 1710 kHz (AM)
Radio services .....	Analog FM/AM HD Radio reception SiriusXM radio

## Apple CarPlay

Device support.....	iPhone 5 or later
iOS.....	iOS 7.1 or later

## Android Auto

Wired .....	Android 6.0 or later
Wireless .....	Android 11.0 or later

## USB

USB-C 3.0.....	CarPlay/Android Auto Media/Charging (3A)
USB-C 2.0.....	Media/Charging (1.5A)
USB-A 2.0.....	Media/Charging (1.5A)
Supported USB device .....	Max. 32GB
File system.....	FAT32
Audio playback.....	FLAC (192kHz/24bit) MP3, WAV

Video playback.....	AVI, MKV, WMV
Picture playback.....	JPG, PNG, BMP

**Note:** Not all listed media files are guaranteed to play due to different creation methods or file contents.

## Bluetooth

Bluetooth version .....	V5.0 + EDR
Transmission range.....	33ft/10m (line of sight)
Bluetooth profiles.....	A2DP, AVRCP, HFP, PBAP, HSP, HID, GATT, SPP

## Wi-Fi

Frequency band .....	2.4/5 GHz
(Only used in wireless connection for Apple CarPlay/Android Auto)	

Specifications are subject to change without notice.

# Notice

## FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# USER MANUAL

Modus

[www.modusglobal.com](http://www.modusglobal.com)

Customer Service 805-790-7383

Tech Support: <https://support.modusglobal.com>



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