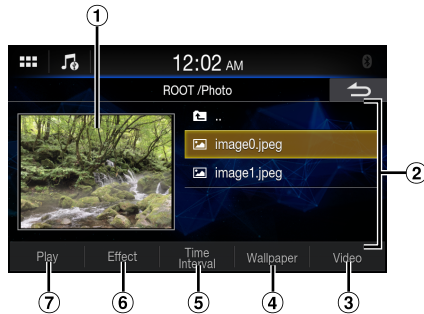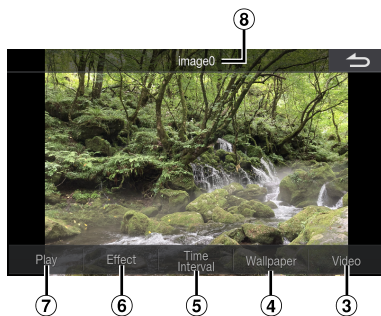# USB Photo

■ USB Photo mode Preview screen

■ USB Photo mode screen

① Photo Preview
② Photo files List
③ Switches to USB Video mode
④ Sets the photo as a wallpaper (page 17)
⑤ Sets the Time Interval for the Slide Show
⑥ Applies an Effect to the photo
⑦ Plays the Slide Show
⑧ File Name

During the USB Photo playback, touch the screen to display the operation screen.

• *The operation screen changes to the visual screen in the USB Photo mode for 5 seconds after an operation has been performed.*

Playback

1 Touch the ⠿ (HOME) button and select USB Photo mode.

The display shows the USB Photo mode screen.

• To select USB Photo mode, touch the [**Photo**] or [**Photo Frame**] widget on the HOME screen.

2 Select the desired photo from the photo files list.

• *To select the other photo (file), touch [⬑] to return to the previous screen.*

Slide Show

The Slide Show shows photos that change every 3 seconds.

Touch [Play].

• *To stop the Slide Show, touch the screen.*

Setting the Effect for Playback

You can set the playback effect how switches to the photo for Slide Show.

Touch [Effect], and then select the desired effect.

Setting the Time Interval for Slide Show

You can set the time interval to switch to the next photo.

Touch [Time Interval], and then select the desired time interval.

Setting a Wallpaper with a Photo

To set a wallpaper with your favorite photo, refer to "Setting a Wallpaper using your image" (page 17).

iPod mode on iPhone (Optional)

A separately sold Lightning to USB cable (KCU-471i), etc., is required.

- *This unit does not support video playback from iPhone which connected to this unit via USB Connector.*
- *Internet or telephone function, etc., of the iPhone is not controllable from the unit, but these functions can be controlled using the iPhone itself.*
- *Before operating iPod mode on iPhone, set "Apple CarPlay" to [***Off***] (page 21).*

■ **iPod main screen example**
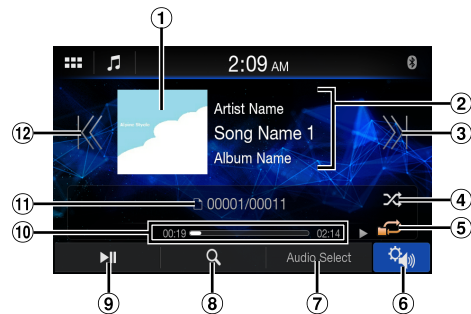
① Artwork display
② Information display*
③ Finds the beginning of the current file/Finds a previous file within one second after playback starts/Fast-reverses when touched for at least 1 second
④ Shuffle mode
⑤ Repeat mode
⑥ Displays the Sound Setup Menu screen (page 24).
⑦ Switches to the USB Flash drive or Bluetooth Audio.
⑧ Displays the search screen
⑨ Pause and Play
⑩ Elapsed time/Total time for playing
⑪ Current song no./Total song no.
⑫ Finds the beginning of the current file/Finds a previous file within one second after playback starts/Fast-reverses when touched for at least 1 second

∗ Podcast mode.

Playback

1 **Touch the ▦ (HOME) button and select iPod mode.**

The display shows the iPod mode screen.

2 **Touch [⟨⟨] or [⟩⟩] or to select the desired track (file).**

Returning to the beginning of the current (or previous) track (file):
Touch [⟨⟨].

Fast reverse the current track :
Touch and hold [⟨⟨].

Advancing to the beginning of the next track (file) :
Touch [⟩⟩].

Fast forward the current track :
Touch and hold [⟩⟩].

3 **To pause playback, touch [▶❚❚].**

- *If a song is playing on the iPhone before it is connected to the unit, it will continue playing when it is connected.*
- *An episode may have several chapters. The chapter can be changed by touching [⟨⟨] or [⟩⟩].*
- *If the artist, album or song name, created in iTunes, has too many characters, songs may not be played back when connected to the unit. Therefore, a maximum of 64 characters is recommended. The maximum number of characters for the unit is 64.*
- *Some characters may not be correctly displayed.*
- *When selecting a [***Audio***] widget on the HOME screen, touch [***Audio Select***] to select [***iPod***]. If [***iPod***] is already selected, you can start playback by selecting a [***Audio***] widget on the HOME screen.*

Searching for a Music File

An iPhone can contain thousands of songs. For this reason, this unit can make various searches using the search function as shown below.
Using the Playlist/Artist/Album/Podcast/Audiobook/Genre/Composer/Song/Radio search mode's individual hierarchy, you can narrow down your search as shown in the table below.

<Music Search Menu>

Hierarchy 1	Hierarchy 2	Hierarchy 3	Hierarchy 4
Playlists	Songs	—	—
Artists	Albums	Songs	—
Albums	Songs	—	—
Songs	—	—	—
Genres	Artists	Albums	Songs
Composers	Albums	Songs	—
Podcasts	Episodes	—	—
Audiobooks	—	—	—
Radio	—	—	—

For example: Searching by Artist name
The following example explains how an Artists search is performed.
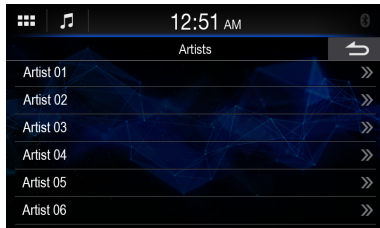
1 Touch [🔍] (Search) during playback.

2 Touch [Artists].

The Artists search screen is displayed.

3 Touch the desired artist's name.

4 Touch the desired album's name.

All songs of the selected album are displayed.

5 Touch the desired song's name.

The selected song is played back.

Repeat Play

Touch [🔁] to select Repeat Play mode.

ALL 🔁 :   All files are repeatedly played back.

File 🔂 :   Only the file currently playing is repeatedly played back.

OFF 🔁 :   Repeat mode is Off.

Shuffle Play

Touch [🔀] to select Shuffle Play mode.

Songs 🔀 :   Song shuffle randomly plays back songs within a selected category (playlist, album, etc.). The songs within the category are played just once until all songs have been played.

OFF 🔀 :   Shuffle mode is Off.

SiriusXM Satellite Radio Operation (Optional)

SiriusXM Tuner operation:

When an optional SiriusXM Tuner is connected to this unit, the following operations may be performed.

■ **SiriusXM main screen example (Song Info. Mode)**

① Signal Indicator
   Indicates the signal strength of SiriusXM.
② Information display
   Channel Info. Mode:
   Channel No/Long Channel Name/Category Name
   Song Info.Mode:
      Artist Name/Song Name/Content Info
③ Changes to the next channel
④ Preset buttons
   Displays the preset channels with a short touch.
   Touch for at least 1 second to memorize the current channel as a preset channel.
⑤ Displays the Sound Setup Menu screen (page 24).
⑥ Select the channel number
⑦ Changes text information
⑧ Displays the search screen
⑨ Changes to category browsing mode
⑩ Changes to the previous channel

Receiving Channels with the SiriusXM Tuner

About SiriusXM Satellite Radio

Only SiriusXM® brings you more of what you love to listen to, all in one place. Get over 140 channels, including commercial-free music plus the best sports, news, talk, comedy and entertainment. Welcome to the world of satellite radio. A SiriusXM Vehicle Tuner and Subscription are required. For more information, visit www.siriusxm.com.

After you have found the SiriusXM Radio ID, you can activate your radio. See "Checking the SiriusXM Radio ID Number" (page 42).

In the USA, you can activate online or by calling SiriusXM Listener Care:
* *Visit www.siriusxm.com/activatenow*
* *Call SiriusXM Listener Care at 1-866-635-2349*

For Canadian Subscriptions, please contact:
* *Visit www.siriusxm.ca/activatexm*
* *Call XM Customer Care at 1-877-438-9677*
* *The SiriusXM Satellite Radio controls on this unit are available only when a SiriusXM Tuner is connected.*

1 **Touch the ▦ (HOME) button and select SiriusXM mode.**

The display shows the SiriusXM mode screen.

2 **Touch [《] or [》] to select the desired channel. Touching and holding either button will rapidly browse through the channels.**

* *Refer to the SiriusXM Tuner User Guide for details on how to install the SiriusXM Tuner.*

Tuning Channels by Category

Channels are grouped into categories based on the type of content heard on the channels.

1 **Touch [Category] on the SiriusXM main screen to activate the category browsing mode.**

The channels within the category of the current channel are listed.

■ **Category browsing mode screen example**
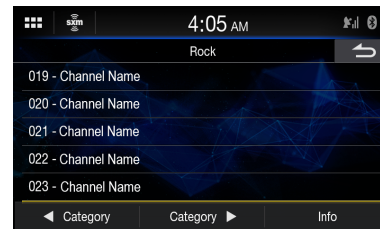
* Touching [**Info**] changes the display of information for the channels in the category with the following three options.
   Channel No./Channel Name → Channel No./Artist Name → Channel No./Song Title → Channel No./ Content Info → Channel No./ Channel Name

2 **Touch [◀ Category] or [▶ Category] on the category browsing mode screen to select a desired category.**

The Category Name is shown at the top of the display.

3 **Select the desired channel.**

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Changing the Display

Text information, such as the channel name, artist name/feature, and song/program title, is available with SiriusXM. The unit can display this text information as explained below.

Touch [Info].

Each time you touch this button, the Channel Info. mode and the Song Info. mode switch alternately. For displayed contents, see "SiriusXM main screen example (Song Info. Mode)" (page 41).

Checking the SiriusXM Radio ID Number

To subscribe to the SiriusXM Satellite Radio service, it is necessary to locate and identify the Radio ID of your SiriusXM Tuner. You can check the Radio ID on the bottom surface of the SiriusXM Tuner box. You can also check it from this unit by performing the following procedure.

1 While receiving SiriusXM Radio, touch [K] or [≫] to select channel "0".

The unit displays the Radio ID number.

2 To cancel the Radio ID number display, change the channel to a channel other than "0".

- *The SiriusXM Radio ID does not contain the letters I, O, S, or F.*

Storing Channel Presets

You can store 6 of your favorite SiriusXM channels for easy recall with Preset buttons.

1 Touch and hold the Preset number you want to store for at least 1 second to store the channel.

2 Repeat the procedure to store up to 5 other channels.

A total of 6 channels can be stored in the preset memory.

- *If you store a new channel into a preset which already has a channel assigned, the current channel will be cleared and replaced with the new one.*

Tuning Channels using Presets

Touch any one of the Preset numbers you have already stored in the Preset mode screen.

The preset channel is received.

Search Function

1 Touch [🔍].

The Search list screen appears.

Search item:
    All Channels / Category Name*

* The Category name for the channel currently being received is displayed.

- *You can switch the category by touching [◀] or [▶] on the List screen after selecting a Search item.*
- *You can switch the display format by touching [Info] in the List screen after selecting a Search item.*
  Channel No./Channel Name → Channel No./Artist Name → Channel No./Song Title → Channel No./Content Info → Channel No./Channel Name

Searching by Channel

2 Touch [All Channels].

All Channels will be displayed in a list.

3 Touch the selected channel.

The channel you selected is received.

Searching by Category

2 Touch Category Name.

The channels within the category of the current channel are listed.

3 Touch the selected channel.

The channel you selected is received.

Selecting the Channel Directly

You can directly select the channel number by using the numeric keypad.

1 Touch [Direct Tune].

The numeric keypad input screen is displayed.

2 Touch to input the channel number.

3 Touch [OK].

The selected channel is received.

Parental Lock Function

The Parental Control feature allows you to limit access to any SiriusXM channels, including those with mature content. When enabled, the Parental Control feature requires you to enter a passcode to tune to the locked channels. For information on setting the Parental Control passcode, see "Setting the Parental Lock" (page 15). When a locked channel is selected, "Channel <xxx> Locked" is displayed and then the numeric keypad appears for you to enter the passcode.

Input the 4-digit passcode you set in "Setting the Parental Lock" (page 15).

The initial number is 0000.

- *If you input a wrong passcode, "Incorrect Pass Code entered" is displayed.*
- *After entering the correct passcode, you can access all locked channels without entering the passcode again until the unit is powered off and then back on.*

HDMI Device (Optional)

Devices supporting HDMI can connect and play back through this unit (for example, an optional DVD Player, iPhone or other Smartphones).

- *The HDMI/MHL connecting cable differs depending on the connected device corresponding to HDMI. Prepare optional HDMI/MHL connecting cable sets suitable for your device.*

HDMI Operation

■ iPhone, Smartphone, etc.

The output of your electronic device will be mirrored on this unit through the HDMI connector. Control from this unit is not possible.

- *The electronic device must possess an HDMI output interface.*
- *Not all devices with an HDMI output interface can be recognised by this unit.*
- *Use only the Alpine Special HDMI connection cable.*

1 Touch the ⊞ (HOME) button to select HDMI.

The display shows the HDMI mode screen.

- *You can select and change the source in the HOME screen (page 12).*
- *For your safety, video is not displayed and only audio can be heard while driving.*

2 In HDMI player mode, the screen of the device displays the content of electronic equipment by mirror image.
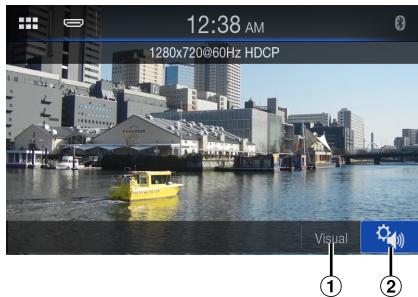
① **Sets the Brightness and Contrast**

② **Displays the Sound Setup Menu screen (page 24).**

Setting the Brightness and Contrast

1 Touch [Visual].

2 Touch [+] or [−] to adjust the Brightness and Contrast.

☼ : Adjusting the Brightness

◗ : Adjusting the Contrast

Bluetooth Operation

Setup Before Using

About Bluetooth

Bluetooth is a wireless technology allowing communication between a mobile device or personal computer over short distances. This enables a hands-free call or data transmission between Bluetooth compatible devices. Bluetooth transmission is available in the unlicensed 2.4 GHz spectrum if the distance between devices is within 10 meters. For details, refer to the Bluetooth website (http://www.bluetooth.com/).

- *Depending on the Bluetooth version, a Bluetooth compatible device may not be able to communicate with this unit.*
- *Proper function of this unit with all Bluetooth compatible devices is not guaranteed. For handling of the Bluetooth compatible device, consult your Alpine dealer or Alpine website.*
- *Depending on the surroundings, Bluetooth wireless connection may be unstable.*
- *When you place a call, or perform setup operations, be sure to stop your car in a safe place.*
- *Depending on the connected Bluetooth compatible device(s), the function may differ. Also refer to the Owner's Manual of the connected device(s).*

About the Hands-free Phone

Hands-free calls are possible when using a HFP (Hands-Free Profile) compatible mobile phone with this unit.

- *Avoid performing a hands-free call in heavy traffic or on narrow or winding streets.*
- *Close the windows while calling to reduce background noise.*
- *If both calling parties are using hands-free devices, or the call is made in a noisy location, difficulty hearing the other person's voice is normal.*
- *Depending on telephone line conditions or certain mobile devices used, voices may sound unnatural.*
- *When using a microphone, speak as directly as you can into the microphone to obtain the best sound quality.*
- *Certain mobile phone features are dependent on the capabilities and settings of your service provider's network. Additionally, certain features may not be activated by your service provider, and/or the provider's network settings may limit the feature's functionality.*
  Always contact your service provider about feature availability and functionality.
  All features, functionality, and other product specifications, as well as the information contained in the Owner's Manual are based upon the latest available information and are believed to be accurate at the time of printing.
  Alpine reserves the right to change or modify any information or specifications without notice or obligation.
- *Notice that when you connect an iPhone 5s or later/Android smartphone which installed Android Auto App, the operation screen may differ from this section.*

Before Using Bluetooth

Before using the hands-free phone/audio function, the following settings need to be made.

Register a Bluetooth device in this unit.

- *See "Connection (Bluetooth) Setup" (page 20).*
- *You can search for this unit using a Bluetooth compatible device, and then connect that Bluetooth compatible device to this unit. The device name of this unit is "iLX-407" and the initial number of the passcode is "0000." Also refer to the Owner's Manual of the connected device(s).*

Hands-free Phone Control

Touch the Phone button to display the Phone menu screen.
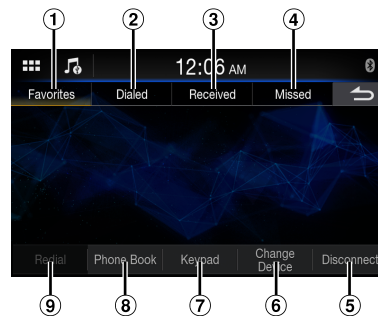

Phone button

- *You can also display the Phone menu screen by selecting the [**Phone**] widget on the HOME screen.*

■ **Phone menu screen example**

① Favorite
   Displays a list of numbers set as your favorite.
② Dialed
   Displays a list of dialed calls.
③ Received
   Displays a list of the received calls.
④ Missed
   Displays a list of the missed calls.

5 Disconnect

Disconnects the Bluetooth device. After disconnecting, the display changes to [**Reconnect**] to connect the disconnected device again.

6 Change Device

Displays the Bluetooth Setup screen.

7 Keypad

Use to type a phone number.

8 Phone Book*

You can make a phone call from the Phone Book, or edit the Phone Book.

9 Redial

Dials to the last called number.

∗ If the Hands-Free Phone is not connected, the Bluetooth Setup screen will be displayed. See "Connection (Bluetooth) Setup" (page 20).
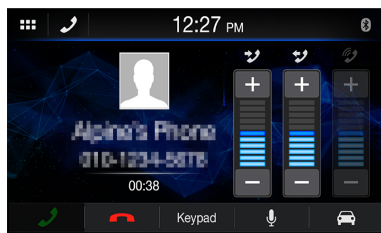
Answering a Call

1 An incoming call triggers the ringtone and an incoming call display.
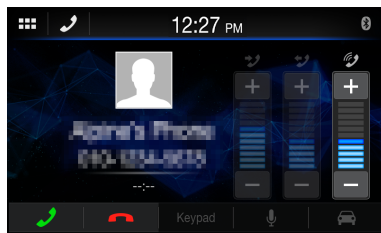
- You can adjust the ringtone volume by touching [+] or [−] of "Ringtone Volume ( )".

2 Touch [📞].

The call starts.

- *During a call, the audio for the current mode on the unit is muted. After calling, playback will resume.*
- *When the caller's number is transmitted to the system, if the caller's name is stored in the phone book, the name is displayed. If the name is not stored, the number is displayed.*
- *Touch [📞] (Decline) to reject an incoming call.*
- *By touching [🎤], you can mute the microphone. To cancel MUTE mode, touch [🎤]. For details, see "Phone Operation Screen" (page 48).*
- *If another call comes during a call, operate on the Bluetooth Device.*

Hanging up the Telephone

1 Touch [📞] (End Call).

The call finishes.

Calling

Making a phone call using the Phone Menu

Making a phone call from the Recent Events list

1 Select a category from [Favorite], [Dialed], [Received] or [Missed] on the Phone menu.
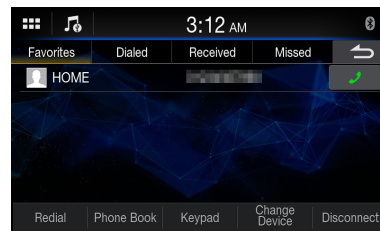
2 Touch [📞] of the name or number of the contact which you want to call.

3 Touch [Call].

The phone call is started.

- *To use [**Favorite**], see "Setting contacts as Favorites (Shortcut Dialing)" (page 49).*

Calling from the Phone Book

1 Touch [Phone Book] on the Phone menu.

The Phone Book screen appears.
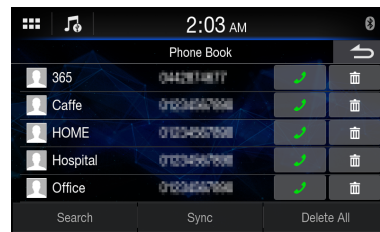
2 Touch [📞] of the name or number of the contact which you want to call.

The phone call is started.

Entering a Phone Number to Make a Call

1 Touch [Keypad] on the Phone menu.

The number input screen (Keypad) appears.

Touch [⨯] to delete an entered number.

2 Enter the phone number you wish to call.

- You can enter up to 21 digits.

3 Touch [✎] (Call).

A confirmation message of the phone number appears.

4 Touch [Call].

The phone call is started.

Calling in Private

When using the Private Call setting, the conversation is not output through the speaker.

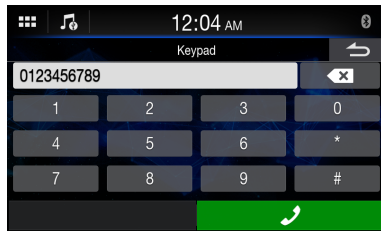**Touch [▯] during the call.**

- *To change the Bluetooth device, touch [**Change Device**] to display the Bluetooth Setup screen. See "Connection (Bluetooth) Setup" (page 20).*

Using Voice Recognition function

You can use Siri function of your iPhone or make a telephone call by using voice operation of your smartphone.

- *When using Apple CarPlay or Android Auto, the operation screen may differ from the screen design in the Owner's Manual.*

Using Siri

You can use the Siri function of your iPhone. To use this function, set the Siri setting of your iPhone to ON.

- *Connect your iPhone to the unit via Bluetooth, then set to "Hands-free" (page 20).*
- *The available functions differ depending on the connected iPhone.*
- *Ask Siri to play a track from the music library applies only to USB source.*
- *Siri and other streaming services are enabled by connecting to compatible smartphones that are able to receive data. Please ensure that cellular data and/or Wi-Fi is turned on in the smartphone to enjoy these features.*

- *Extensive use of Siri or other streaming services may increase your phone's data usage. Please check with your phone company to ensure you have an appropriate Data plan.*

1 Touch [🎤] button.
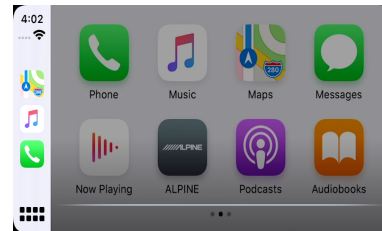
The Voice Recognition mode screen is displayed.

2 Speak into the microphone supplied with this unit.

3 To finish the Voice Control mode, touch [Cancel].

- *Depending on the iPhone, the Siri function may finish automatically.*
- *For adjusting the volume, see "Adjusting the Speech Volume" (page 48).*

Voice Dial Function

You can make a telephone call by using voice operation.

- *Connect your smartphone to the unit via Bluetooth, then set to "Hands-free" (page 20).*

1 Touch [🎤] button.

The Voice Dial mode screen is activated.

2 Say the telephone number* or name* you want to call, into the microphone.

* The number and name depend on the voice dial information stored in the smartphone.

3 To finish the Voice Dial mode, touch [Cancel].

- *You can perform this operation only when a voice dial compatible smartphone is connected.*
- *The Voice Dial function performance depends on the recognition range of the smartphone and mounting location of the microphone.*
  Note when the microphone is mounted.

- *Voice dial operation depends on the function being available on the smartphone. For details, refer to the owner's manual of the smartphone.*
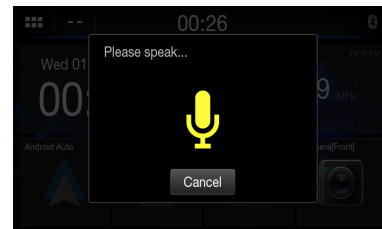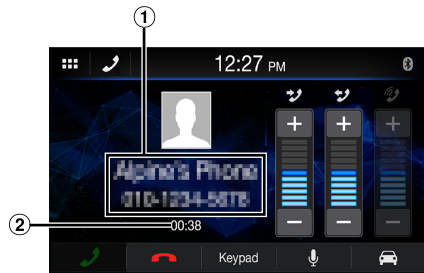- *Depending on the smartphone, the Voice Dial operation may finish automatically.*
- *For adjusting the volume, see "Adjusting the Speech Volume" (page 48).*

Phone Operation Screen

① Name and phone number
  - If it is registered with a Group, the Group Name is also displayed. Although, depending on the connected mobile phone, it may not be displayed.

② Conversation time

Adjusting the Speech Volume

You can adjust Caller Level and Microphone Level.

Touch [—] or [+] of "Speaker Volume ( )" or "Mic Level ( )".

You can adjust the volume in 11 levels.

Changing the Voice Output

The voice output for calls is switchable between car speakers and the mobile phone speaker.

Touch [ ] or [ ].

- *Depending on the mobile phone, this operation may not be possible.*

Muting the Microphone

Touch [ ].

- *To cancel MUTE mode, touch [ ].*

DTMF (Touch-Tone) Function

Transmits a DTMF (Touch-Tone) during a call.

1 Touch [Keypad].

The number input screen (Keypad) appears.

2 Input number.

- *You can transmit a Touch-Tone signal during a call.*

Phone Book Function

Phone Book screen example
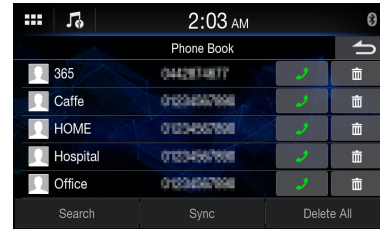
Searching in the Phone Book

You can make a call using the phone book search function.

1 Touch [Search] on the Phone Book screen.

The Input User Name screen (Keypad) is displayed.

2 Input the string of letters of the name that you want to search, then touch [OK].

A list of names beginning with the string of letters you entered is displayed.

3 Touch [ ] of the name or number of the contact which you want to call.

The phone call is started.

- *If there are fewer than five registered items in the phone book, you cannot use the phone book search function.*

Synchronizing the Phone Book

You can synchronize the system's phone book with the mobile phone's phone book.

1 Touch [SYNC] on the Phone Book screen.

The confirmation screen is displayed.

2 Touch [Yes].

Synchronization of the phone books starts.

- *You can store up to 1,000 registered name in the phone book.*
- *You can store up to 5 phone numbers by one person's name.*

Deleting the Phone Book Entries

Deleting One Entry from the Phone Book

Touch [🗑] of the contact name (or phone number) you want to delete.

The selected number is deleted.

Deleting All Entries from the Phone Book

1 Touch [Delete All] on the Phone Book screen.

The confirmation screen is displayed.

2 Touch [Yes].

All entries of the phone book are deleted.

Setting contacts as Favorites (Shortcut Dialing)

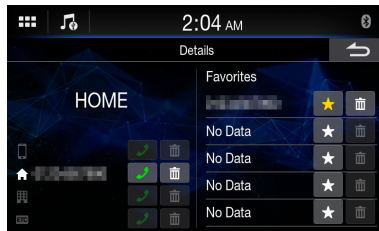You can set contacts from the Phone Book, Dialed, Received, and Missed list as favorites.

1 Touch the name or phone number on the list.

2 Touch [★] of "Favorites."

The phone number is set as a Favorite.

- *Up to 5 contacts can be set as Favorites.*
- *If [★] has already been set with a number, touching it overwrites the number.*
- *To delete a contact from the Favorites list, touch [🗑].*

Bluetooth Audio

If a Bluetooth compatible mobile phone, portable player, etc. is connected by wireless, you can play back a song (operation is controllable from the unit).

- *Operation may vary, depending on the Bluetooth compatible device.*

■ Bluetooth Audio main screen example
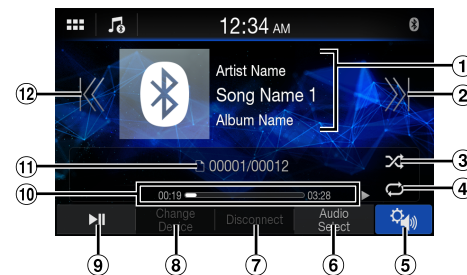
① Information display
② Finds the beginning of next chapter/Fast-forwards when touched for at least 1 second
③ Shuffle mode
④ Repeat mode
⑤ Displays the Sound Setup Menu screen (page 24).
⑥ Switches to the USB Flash drive or iPod mode of iPhone.
⑦ Disconnects the Bluetooth device
⑧ Changes the Bluetooth device.
⑨ Pause and Play
⑩ Elapsed time/Total time for playing
⑪ Current track number/Total track number
⑫ Finds the beginning of the current file/Finds a previous file within one second after playback starts/Fast-reverses when touched for at least 1 second

- *The displayed onscreen buttons may differ depending on the AVRCP version.*
- *Song title/Artist title/Album title/Elapsed time do not display for AVRCP Ver. 1.0.*
- *To play back audio, a mobile phone or a portable player conforming to A2DP (Advanced Audio Distribution Profile) or AVRCP (Audio/Video Remote Control Profile) is required. Not all functions work with all devices.*
- *During a call, sound on the Bluetooth audio source is paused.*

Compatible AVRCP versions: 1.0, 1.3, 1.4, 1.5
- *Available functions may differ depending on the AVRCP version.*

Playback

1 Touch the ⊞⊞⊞ (HOME) button and select Bluetooth Audio mode.

The display shows the Bluetooth Audio mode screen.

2 Touch [⟨⟨] or [⟩⟩] to select the desired track (file).

Returning to the beginning of the current file:
Touch [⟨⟨].

Fast backward the current file:
Touch and hold [⟨⟨].

Advance to the beginning of the next file:
Touch [⟩⟩].

Fast forward the current file:
Touch and hold [⟩⟩].

3 To pause playback, touch [▶❙❙].

• *When selecting a [Audio] widget on the HOME screen, touch [Audio Select] to select [BT]. If [BT] is already selected, you can start playback by selecting a [Audio] widget on the HOME screen.*

Repeat Play

Available for AVRCP Ver. 1.4 and 1.5 only.

Touch [⟳] repeatedly to select Repeat Play mode.

File ⟳❶ : Only the track currently playing is repeatedly played back.

ALL ⟳ALL : Once all of the songs have finished playing, play back is repeated, starting with the first song.

Off ⟳ : Repeat mode is Off.

• *Operations may differ depending on the connected Bluetooth compatible device.*

Shuffle Play

Available for AVRCP Ver. 1.4 and 1.5 only.

Touch [⤫] to select Shuffle Play mode.

ALL ⤫ALL : All songs in the Bluetooth compatible devices are played back in random sequence. Any one song does not play back again until all songs have been played back.

Off ⤫ : Shuffle mode is Off.

• *Operations may differ depending on the connected Bluetooth compatible device.*

Connecting a Bluetooth Device

Registering a Bluetooth device in the unit enables automatic connection.
If it does not connect automatically, run through the connection procedure again.

Touch [Reconnect] on the Bluetooth Audio screen.

The Bluetooth connection will start.

Disconnecting the Bluetooth Connection

Touch [Disconnect] on the Bluetooth Audio screen.

The Bluetooth connection is disconnected.

Switching the connecting Bluetooth Device

If multiple Bluetooth devices are registered in this device, you can change the connection among the registered devices.

1 Touch [Change Device] on the Bluetooth Audio screen.

2 Touch the device name.

The connection will transfer to the selected device.

Auxiliary Device (Optional)

Operating Auxiliary Devices (Optional)

To operate devices connected to the AUX terminals of the unit, follow the procedure described below.

- *Set up the "AUX Setup" (page 16).*
- *Depending on the connected unit, the onscreen buttons may not work, or their operation may differ.*

> ⚠ **WARNING**
>
> **It is dangerous (and illegal in many states) for the driver to watch video while driving the vehicle. The driver may be distracted from looking ahead and an accident could occur.**
>
> **Install the unit correctly so that the driver cannot watch video unless the car is stopped and the parking brake is applied.**
>
> **If the unit is not installed correctly, the driver will be able to watch video while driving and may be distracted from looking ahead and cause an accident. The driver or other people could be severely injured.**

1 Touch the ⠿ (HOME) button to select Auxiliary (AUX) mode.

The display shows the Auxiliary (AUX) mode screen.
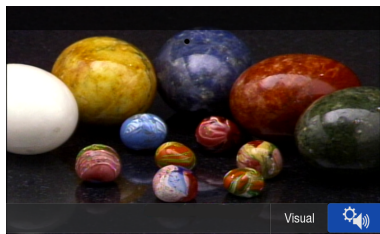
- *When AUX Select is set to "Factory Media + Drive Recorder", only the video will be displayed. Audio will not be played. For details, see "Setting the AUX Select" (page 16).*
- *For your safety, video is not displayed and only audio can be heard while driving.*
- *For details on the connected auxiliary device, refer to its owner's manual.*

Setting the Brightness and Contrast

1 Touch [Visual].

2 Touch [+] or [−] to adjust the Brightness and Contrast.

☀ : Adjusting the Brightness

◑ : Adjusting the Contrast

Camera Operation (Optional)

When an optional camera is connected, the view video of camera can be output to the monitor.

Rear camera:
If a rear camera is connected, when the vehicle is reversed, the rear camera view (guide marks for vehicle width and available distance) is displayed automatically on the screen of this unit.

Front camera:
If a front camera is connected, it can assist to check the condition in front of the car, such as when the road visibility is bad.

> You can adjust the quality of the camera image.
> Setting items: Brightness / Color / Contrast
> See "Camera Picture Quality Setup" (page 22).

Rear Camera Operation

Displaying the Camera Image from the HOME screen

1 Touch the ⠿ (HOME) button.

The HOME screen is displayed.

[Camera[Rear]] button

- If [**Camera Select**] in the Rear Camera setting is set to [**Off**] (page 21), the [**Camera[Rear]**] button cannot be selected.

2 Touch [Camera[Rear]].

The Rear Camera view image is displayed.

- *Touch [⤺] to return to the main source screen or previous screen.*
- *You can perform a Guide Adjustment for the rear view image. For details, see "About the Rear Camera Guide" (page 52).*

Displaying the rear view video while the car is in reverse

1 Shift the gear lever to the reverse (R) position.

The rear view image is displayed while the car remains in reverse.

2 If you shift the gear lever to a position other than reverse (R), the monitor returns to the previous screen.

- *Never depend solely on the camera when backing up. Always turn and look and only use the camera for additional assistance.*
- *This function is effective when the reverse wire is properly connected.*
- *Touch [⤺] to return to the main source screen or previous screen.*
- *You can perform a Guide Adjustment for the rear view image. For details, see "About the Rear Camera Guide" (page 52).*

About the Rear Camera Guide

To display the guide, set "Turning the Rear Camera Guide On/Off" (page 22) to On. Also, to adjust the guide, see "Rear Camera Guide Settings" (page 22).

■ Indication mark meaning

When the car is put into reverse gear, the monitor switches to the rear view camera image. Guides appear to help visualize the car's width and distance from the rear bumper.
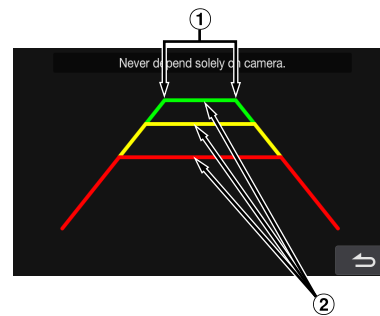
① **Car width extension lines (red, yellow and green in order of distance)**
If properly calibrated, the marks indicate the car's width. This helps guide the car's path when backing up in a straight line.

The marks represent the distance from the rear of the car (from the rear end of the bumper).
- The marks do not move in synchronization with the steering wheel.
- Set the marks to suit the car's width.

② **Distance guidance lines**

The marks represent the distance from the rear of the car (from the rear end of the bumper).
- The marks do not move in synchronization with the steering wheel.
- We recommend that you measure the actual distance to the marks when parked on a level surface.

- *Depending on the condition of the car or road surface, the range of vision may vary.*
- *The camera has a limited range of vision. Objects at extreme angles to the camera (e.g. under the bumper or at opposite ends of the bumper) may not be in the its field-of-vision.*
- *The rear camera image may have a tint which is different from the actual surroundings.*
- *Depending on the car, the guidance may deviate to the right or left. This is not a malfunction.*

■ **Distance guidance mark**

The distance guides represent the ground level distance from the rear bumper. It is difficult to accurately estimate the distance to objects above ground level.

In the following example, the distance to A is 0.5 m and the distance to B is 1 m.

<Screen>

C
B
A
(about 0.5 m)

Never depend solely on camera.

<Positions of A, B and C>
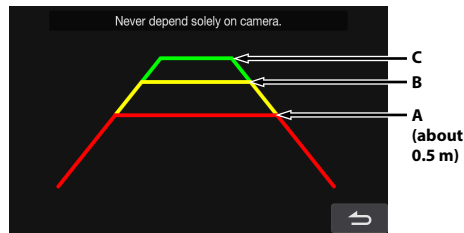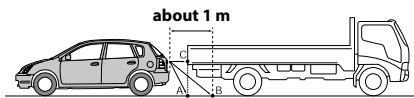
about 1 m

In the screen, according to the distance guidance marks, the truck seems to be parked about 1 m away (at the position B). In actual fact, however, if you reversed to position A, you would collide with the truck.

In the screen, positions A, B and C seem to be located in order of proximity. However, in actual fact, the position A and C are the same distance, and B is farther away than positions A and C.

- *The car width extension mark represents the distance to the road surface. The distance to an object on the road is not accurately represented by the guides.*

Error between the screen and the actual road surface

In the following conditions, errors are produced between the screen guidance and the actual road surface. (The illustrations represent a case when the camera is installed in the standard position.)

■ **When there is a steep upward slope behind the car (example)**

<Screen>

Never depend solely on camera.

B
A

Distance guidance marks

<Situation of the car>

Actual distances

A B

Error Error
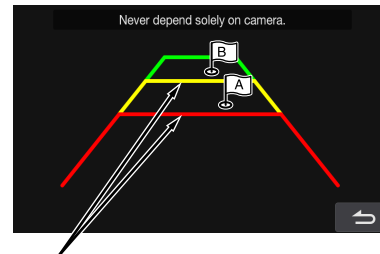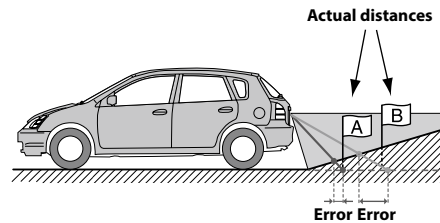
The distance guidance mark represents the distance to a flat road surface. Therefore in the case of an upward slope behind the car, the distance guides are displayed closer to the rear bumper than the actual distance. For example, if there is an obstacle on the upward slope, it may appear farther away than its actual position.

Also, an error may occur between the guidance and the actual path of the car on the road surface.

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■ **When there is a steep downward slope behind the car (example)**

<Screen>

Never depend solely on camera.

<Situation of the car>

Error   Error
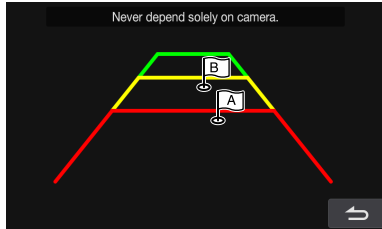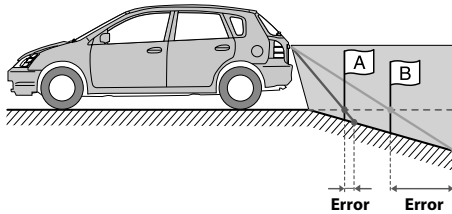
In the case of a downward slope behind the car, the distance guides are displayed farther from the rear bumper than the actual distance.

If there is an obstacle on the downward slope, it seems closer than its actual position.

Also, an error may occur between the guidance and the actual path of the car on the road surface.

Front Camera Operation

Displaying the Camera Image from the HOME screen

1 Touch the ▦ (HOME) button.

The HOME screen is displayed.

[Camera[Front]] button

- If [**Camera Select**] in the Front Camera setting is set to [**Off**] (page 23), the [**Camera[Front]**] button cannot be selected.

2 Touch [Camera[Front]].

The Front Camera view image is displayed.

- *Touch [↩] to return to the main source screen or previous screen.*

iDataLink Operation

When the unit is connected to the car's iDataLink module, you can transfer and receive data between the car and the unit to check the car's status, or to make various operations from the unit.

- *An iDataLink module (sold separately) is required.*
- *Available functions differ depending on your vehicle. For details, refer to your vehicle's instruction manual.*

About Audio Interrupt

Audio Interrupt is the function that outputs sound from the unit when Voice Information (audio reading from the phone book, etc.)* from the vehicle occurs.

- *The Audio Interrupt function of the vehicle differs depending on the type and grade of the vehicle.*

∗ For your safety, when interrupted with Voice Information, you cannot operate the buttons on the front panel or the touch buttons on the display, except for some operations.
  – The operating restrictions may differ depending on which mode the unit is in during Voice Information.
  – You can use the [+] / [−] (UP/DOWN) button to control the volume of Voice Information.

Access to iDataLink Mode

You can check the car's status, set the air conditioning, etc.

1 **Touch the ⚏ (HOME) button to select Vehicle info mode.**

  - The iDataLink mode screen selected in "Setting the Default Vehicle Screen" (page 19) is displayed.

2 **Touch the desired tag on the top of the screen.**

Select item:
  Climate / Gauges / Park Sensor / Vehicle Info. / Car Setting

- *The displayed tag options differ depending on the type of vehicle.*

3 **Adjust or confirm the item/information accordingly.**

- *Operable functions and displays may differ depending on the vehicle.*

iDataLink Function Screen example

■ Climate screen example
You can control the temperature inside the vehicle, etc.

■ Gauges screen example
You can check the vehicle's speed, the engine's rotation speed, etc.

■ Parking sensor screen example
You can check the distance from the front and rear of the vehicle to an obstacle.
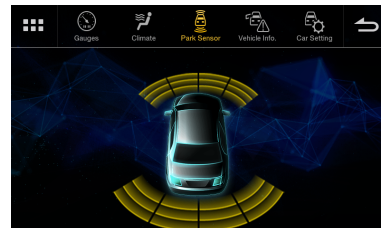
- *If the car sensor detects an obstacle, the screen automatically changes to the Parking sensor screen. For details, see "About Parking Sensor screen" (page 56).*

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■ **Vehicle Information screen example**

You can check for open doors, check the tire pressure, the battery life, etc. for the vehicle.

■ **Car Setting screen example (Generic List screen)**

The Generic List/Popup Window/Current source control screen is displayed.
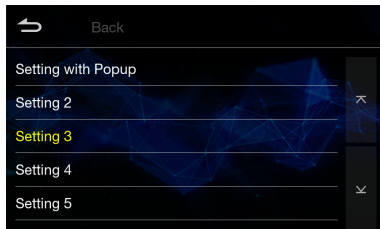
About Parking Sensor screen

The Parking sensor screen turns on when the front or rear sensor on your vehicle detects an obstacle within a certain distance.

Parking Sensor Full screen example

When the front or rear sensor detects an obstacle within a certain distance, the Parking Sensor screen is displayed, and the indicator (① - ⑧) that corresponds with that area lights up.
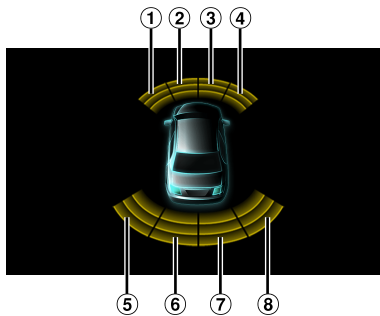
Indicator colors when an obstacle is detected.

Red: close distance
Orange: medium distance
Yellow: long distance

- *Depending on the speed of the vehicle, when moving faster than a certain speed, the Parking Sensor screen may not be displayed.*
- *Vehicles that do not have the obstacle detection sensor cannot use this function.*

Parking Sensor Camera interlock screen example (Rear camera)

You can check for obstacles through an interlocked camera image by connecting a Rear Camera or Front Camera.

Never depend solely on camera.
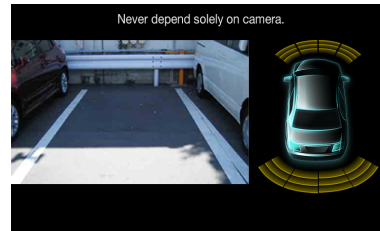
- *Touch the Camera image area to switch to the Camera full screen.*
  (While displaying the Camera full screen, touch the Camera screen, then touch [⤺] to return to the Parking Sensor Camera interlock screen.)
- *Touch the car icon to switch to the Parking sensor full screen. (Touch [⤺] on the Parking Sensor full screen to return to the Parking Sensor Camera interlock display.)*
- *To use this function, set the Camera Select setting of the Rear Camera and Front Camera, to "Rear" or "Front". For details, see "Camera Input Setting" (page 21 or page 23).*

Factory Media Operation

You can operate the Factory Audio (USB/iPod/Bluetooth Audio) from this unit.

Touch the ⊞ (HOME) button to select Factory Media mode.

The display shows the Factory Media mode screen.

- *For the basic operations on Factory Media mode, refer to "USB Audio" (page 35), "iPod mode on iPhone (Optional)" (page 39) and "Bluetooth Audio" (page 49).*
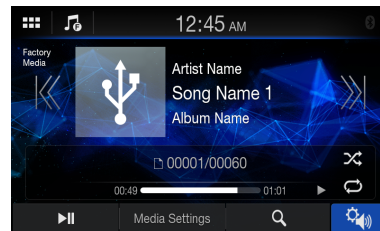
Swipe to the right or left to change to the Function mode.

- *Available functions differ depending on your vehicle.*

Factory SiriusXM Operation

You can operate the Factory SiriusXM from this unit.

Touch the ⊞ (HOME) button to select Factory SiriusXM mode.

The display shows the Factory SiriusXM mode screen.

- *For the basic operations on Factory SiriusXM mode, refer to "SiriusXM Satellite Radio Operation (Optional)" (page 41).*
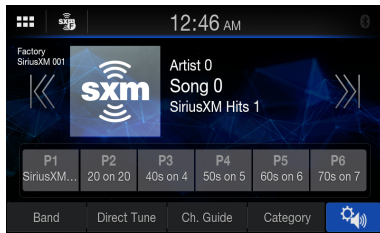
Swipe to the right or left to change to the Function mode.

- *Available functions differ depending on your vehicle.*

Information

Product Software Update

This product use software that can be updated through a USB flash drive. Download the software from the Alpine website and update the product using the USB flash drive.

Updating this product

Check the Alpine website for details on updating.
http://www.alpine-usa.com

Important information on the software

About the software license of the product
The software installed in the product contains open-source software.
For details, refer to the "Open source licenses" screen on this unit. See "Displaying Warranty/Copyright Information" (page 18).

About the Supported Formats

About MP3/WMA/AAC/FLAC/WAV

⚠ **CAUTION**

Except for private use, duplicating audio data (including MP3/WMA/AAC/FLAC/WAV data) or distributing, transferring, or copying it, whether for free or for a fee, without permission of the copyright holder is strictly prohibited by the Copyright Act and by international treaty.

What is MP3?

MP3, whose official name is "MPEG Audio Layer 3," is a compression standard prescribed by the ISO, the International Standardization Organization and MPEG which is a joint activity institution of the IEC.

MP3 files contain compressed audio data. MP3 encoding is capable of compressing audio data at extremely high ratios, reducing the size of music files to as much as one-tenth their original size. This is achieved while still maintaining near CD quality. The MP3 format realizes such high compression ratios by eliminating the sounds that are either inaudible to the human ear or masked by other sounds.

What is WMA?

WMA, or "Windows Media™ Audio," is compressed audio data.
WMA is similar to MP3 audio data.

What is AAC?

AAC is the abbreviation for "Advanced Audio Coding," and is a basic format of audio compression used by MPEG2 or MPEG4.

What is FLAC?

FLAC (Free Lossless Audio Codec) is an audio file codec for lossless compression, developed and offered as open source software.

Codecs with lossy compression forms, such as MP3 and AAC, reduce part of the data to improve compression efficiency.

However, FLAC can reconstruct compressed data to be an identical copy of the original data by performing lossless compression. The compression ratio of FLAC is about 50%.

Method for creating MP3/WMA/AAC/FLAC/WAV (USB Flash drive) files

Audio data is compressed using software with MP3/WMA/AAC/FLAC/WAV (USB Flash drive) codecs. For details on creating MP3/WMA/AAC/FLAC/WAV (USB Flash drive) files, refer to the user's manual for that software.

MP3/WMA/AAC/FLAC/WAV (USB Flash drive) files that are playable on this device have the file extensions.

MP3: "mp3"
WMA: "wma"
AAC: "m4a"
FLAC: "flac"/"fla"
WAV: "wav"

WMA is not supported for the following files, Windows Media Audio Professional, Windows Media Audio 10 std or Windows Media Audio 10 Pro Lossless.

There are many different versions of the AAC format. Confirm that the software being used conforms to the acceptable formats listed above. It's possible that the format may be unplayable even though the extension is valid.

Playback of AAC files encoded by iTunes is supported.

Supported playback sampling rates and bit rates

MP3 (USB Flash drive)

Sampling rates:	8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
Bit rates:	8 - 320 kbps

WMA (USB Flash drive)

Sampling rates:	8 - 48 kHz
Bit rates:	8 - 384 kbps

AAC (USB Flash drive)

Sampling rates:	8 - 48 kHz
Bit rates:	8 - 384 kbps

FLAC (USB Flash drive)

Sampling rates:	8 - 48 kHz
Bit rates:	8 - 384 kbps

WAV (USB Flash drive)

Sampling rates:	8 - 48 kHz
Bit rates:	64 - 1,536 kbps

This device may not play back correctly depending on sampling rates.

ID3 tags/WMA tags

This device supports ID3 tag v1.0, v1.1, v2.2, v2.3, v2.4, and WMA tag Ver.1.x. If tag data is in an MP3/WMA/AAC file, this device can display the title (track title), artist name, and album name ID3 tag/WMA tag data.

For non-supported characters, "?" is displayed.

The number of characters may be limited, or not correctly displayed, depending on the tag information.

Playing back MP3/WMA/AAC/FLAC/WAV

MP3/WMA/AAC files are prepared, then written to a USB flash drive.

- Maximum numbers of playable files/folders
  USB Flash drive: 10,000 files/folders (including Root Folder)
- Largest playable file size: 512 MB

Playback may not be performed if a USB flash drive exceeds the limitations described above.

If a file/folder name is long, the maximum possible number of files may decrease.

- Both Audio and Video files are counted if their formats are playable on this unit.

Media supported

The media that this device can play back a USB flash drive.

Corresponding File Systems

This device supports FAT 16/32.

The maximum nested folder depth is 8 (including the root directory). File names are limited to 256 characters (including the extension).

Valid characters for folder/file names are letters A-Z (all caps), numbers 0-9, and '_' (underscore).

Order of files

Files are played back in the order that the writing software writes them to the USB flash drive. Therefore, the playback order may not be what's expected. Verity the writing order in the software's documentation. The playback order of the folders and files is as follows. (The following numbers may differ from actually displayed numbers.)

▢ **Folder**	▯ **MP3/WMA/AAC/ FLAC/WAV File**
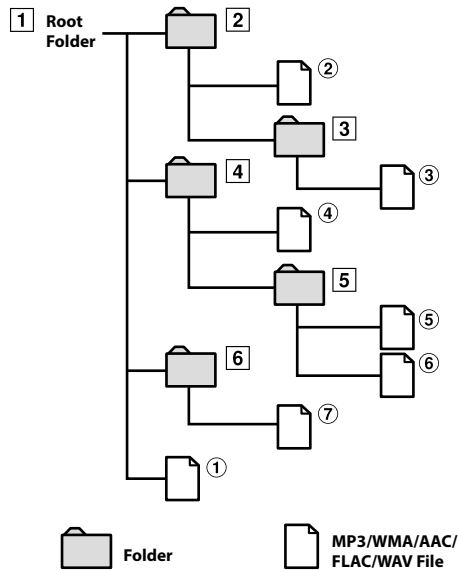
Terminology

Bit rate
This is the "sound" compression rate specified for encoding. The higher the bit rate, the higher the sound quality, but also the larger the files.

Sampling rate
This value shows how many times per second the data is sampled (recorded). For example, music CDs use a sampling rate of 44.1 kHz, so the sound is sampled (recorded) 44,100 times per second. The higher the sampling rate, the higher the sound quality, but also the larger the volume of data.

Encoding
Converting music CDs, WAVE (AIFF) files, and other sound files into the specified audio compression format.

Tag
Song information such as track titles, artist names, album names, etc., written into MP3/WMA/AAC/FLAC/ WAV (USB flash drive) files.

Root folder
The root folder (or root directory) is found at the top of the file system. The root folder contains all folders and files. It is created automatically for all USB flash drive.

In Case of Difficulty

If you encounter a problem, please turn the power off, then on again. If the unit is still not functioning normally, please review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected, or then consult your authorized Alpine dealer.

Basic

No function or display.
- Vehicle's ignition is off.
  – If connected according to the instructions, the unit will not operate with the vehicle's ignition off.
- Improper power lead connections.
  – Check power lead connections.
- Blown fuse.
  – Check the fuse on the battery lead of the unit; replace with the proper value if necessary.

No sound or unnatural sound.
- Incorrect setting of volume/balance/fader controls.
  – Readjust the controls.
- Connections are not properly or securely made.
  – Check the connections and firmly connect.

Screen not displayed.
- Brightness/Contrast control is set at the minimum position.
  – Adjust the Brightness/Contrast control.
- Temperature in the vehicle is too low.
  – Increase the vehicle's interior temperature to operation temperature range.
- Connections to the Auxiliary Device are not securely made.
  – Check the connections and firmly connect.
- The Parking Brake Lead is not connected.
- The Parking Brake is not engaged.
  – Connect the Parking Brake Lead, then engage the Parking Brake.

Movement of displayed picture is abnormal.
- Temperature in the vehicle is too high.
  – Allow the vehicle's interior temperature to cool.

Radio

Unable to receive stations.
- No antenna, or open connection in the antenna cable.
  – Make sure the antenna is properly connected; replace the antenna or cable if necessary.

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Unable to tune stations in the seek mode.
- You are in a weak signal area.
  – Make sure the tuner is in DX mode.
- If the area you are in is a primary signal area, the antenna may not be grounded and connected properly.
  – Check your antenna connections; make sure the antenna is properly grounded at its mounting location.
- The antenna may not be the proper length.
  – Make sure the antenna is fully extended; if broken, replace the antenna with a new one.

Broadcast is noisy.
- The antenna is not the proper length.
  – Extend the antenna fully; replace it if it is broken.
- The antenna is poorly grounded.
  – Make sure the antenna is grounded properly at its mounting location.
- The station signal is weak and noisy.
  – If above solution does not work, tune in another station.

USB Audio

Unit does not operate.
- Condensation.
  – Wait a while (about 1 hour) for the condensation to dry.

Picture is unclear or noisy.
- Vehicle's battery power is weak.
  – Check the battery power and wiring.
  (The unit may malfunction if the battery power is under 11 volts with a load applied.)

Handsfree Phone

Ringtone is small
- Depending on your phone, the ringtone volume may be small, it is not a failure.

If this Message Appears

Various messages are displayed on the screen during operation. In addition to the messages telling you the current status or providing guidance for the next operation, there are also the following error messages. If one of these error messages is displayed, carefully follow the instructions in the solution column.

System

This operation is prohibited for your safety.
- A setup operation, etc., was carried out while the vehicle was running.
  – Move the vehicle to a safe location, stop, and engage the parking brake, then carry out this operation.

Unsupported USB device connected.
- A USB flash drive with a hub is connected.
  – You cannot play back from a USB flash drive with a hub. USB hub connections are also not supported.

Audio/Visual

Unsupported USB device connected.
- An iPhone that is not supported by the unit is connected.
  – Connect an iPhone that is supported by the unit.
- A USB device that is not supported by the unit is connected.
  – Attempt to connect another USB flash drive.
- Communication error.
  – Turn the ignition key off, and then set to ON again.
  – Check the display by reconnecting between the iPhone and the unit, using the iPhone cable.
  – Check the display by reconnecting between the USB flash drive and the unit.
- Caused by the iPod/iPhone Software Version not being compatible with this unit.
  – Update the iPhone Software Version to be compatible with this unit.
- The iPhone is not verified.
  – Change to another iPhone.

No Song
- There are no data in the iPhone.
  – Download data to the iPhone and connect to the unit.

No File
- There are no data in the USB flash drive.
  – Download data to the USB flash drive and connect to this unit.

File format not supported.
- A copy-protected WMA file has been detected.
  – You can only play back non-copy-protected files.
- A sampling rate/bit rate not supported by the unit is used.
  – Use a sampling rate/bit rate supported by the unit.

Bluetooth

No Bluetooth
- The Bluetooth audio device was not connected correctly.
  – Check the settings for the unit and the Bluetooth audio device and reconnect.

SiriusXM

Check Tuner
- The SiriusXM Tuner is disconnected or the unit is having trouble communicating with the Tuner.
  – Connect the Tuner or check the Tuner connection to the back of the unit.

Check Antenna
- The SiriusXM Satellite Radio antenna or cable is either damaged or not connected correctly to the SiriusXM Tuner.
  - Check that the SiriusXM antenna cable is connected to the SiriusXM Tuner and check that the antenna cable is not kinked or otherwise damaged. Replace the antenna if necessary.
  - SiriusXM products are available at your local car audio retailer or online at www.shop.siriusxm.com.

No Signal
- The SiriusXM satellite signal is too weak at the current location.
  - Move the vehicle to a location with a clear view of the southern sky.
  - Make sure the Satellite Radio antenna is properly mounted and not obstructed by metal objects.

Channel Not Subscribed

Call SiriusXM to Subscribe
- The active channel has become unsubscribed or the requested channel is not available in your subscription package.
  - In the U.S.A., visit www.siriusxm.com or call 1-866-635-2349 if you have questions about your subscription package or would like to subscribe to this channel. In Canada, visit www.siriusxm.ca or call 1-877-438-9677.
  - The unit will revert to the previously selected channel or to channel 1 automatically.

Channel <xxx> Not Available
- The active channel is no longer in the SiriusXM channel lineup or the user has entered an invalid channel number.
  - Visit www.siriusxm.com for information on the current channel lineup.
- The unit will revert to the previous channel or to channel 1 automatically.

Subscription Updated

Press Any Key to Continue
- Your subscription has been updated.
  - Touch [OK] to clear this message.

Channel <xxx> Locked
- A locked channel is selected.
  - Input the passcode on the number keypad screen, see "Parental Lock Function" (page 43). If wrong passcode is entered, "Incorrect Pass Code entered" will be displayed and the unit will revert to the previous channel.

Specifications

MONITOR SECTION

Screen Size	6.95"
LCD Type	Transparent type TN LCD
Operation System	TFT active matrix
Number of Picture Elements	
	1,152,000 pcs.
	$(800 \times 480 \times 3$ (RGB))
Effective Number of Picture Elements	
	99% or more
Illumination System	LED

FM TUNER SECTION

Tuning Range	87.7 – 107.9 MHz
Mono Usable Sensitivity	
	9.3 dBf (0.8 µV/75 ohms)
50 dB Quieting Sensitivity	
	13.5 dBf (1.3 µV/75 ohms)
Alternate Channel Selectivity	
	80 dB
Signal-to-Noise Ratio	
	65 dB
Stereo Separation	35 dB
Capture Ratio	2.0 dB

AM TUNER SECTION

Tuning Range	530 – 1,710 kHz
Usable Sensitivity	25.1 µV/28 dBf
HD RADIO SECTION	
HD Sensitivity	FM: 83 dBm
	AM: 90 dBm
Distortion	0.3 %
Separation	65 dB

HD RADIO SECTION

HD Sensitivity	FM: 83 dBm
	AM: 90 dBm
Distortion	0.3 %
Separation	65 dB

USB SECTION

USB requirements	USB 2.0
Max. Power Consumption	
	1,500 mA (CDP Support)
USB Class	USB (Play From Device)/
	USB (Mass Storage Class)
File System	FAT16/32
Number of Channels	
	2-Channels (Stereo)
Frequency Response*1	
	5 – 20,000 Hz (±1 dB)
Total Harmonic Distortion	
	0.008% (at 1 kHz)
Dynamic Range	95 dB (at 1 kHz)
Signal-to-Noise Ratio	
	100 dB
Channel Separation	85 dB (at 1 kHz)

*1 Frequency response may differ depending on the encoder software/bit rate.

HDMI SECTION

Input Format	720p/480p/VGA

Bluetooth SECTION

Bluetooth Specification	
	Bluetooth V4.1
Output Power	+4 dBm Ave. (Power class 2)
Profile	HFP (Hands-Free Profile)
	PBAP (Phone Book Access Profile)
	A2DP (Advanced Audio Distribution Profile)
	AVRCP (Audio/Video Remote Control Profile)

GENERAL

Power Requirement	14.4 V DC
	(11–16 V allowable)
Operating temperature	
	-4°F to +140°F
	(-20°C to + 60°C)
Power Output	16 W RMS × 4*2

*2 Primary amplifier ratings per CEA-2006 Standard
- Power output: measured at 4 Ohms and ≤ 1% THD+N
- S/N: 70 dBA (reference: 1 W into 4 Ohms)

Weight	1.0 kg (2 lbs. 3.3 oz)

Audio output level	Preout (Front, Rear):	4V/10k ohms (max.)
	Preout (Subwoofer):	4V/10k ohms (max.)

CHASSIS SIZE

Width	178 mm (7")
Height	100 mm (4")
Depth	60 mm (2-6/16")

- *Due to continuous product improvement, specifications and design are subject to change without notice.*
- *The LCD panel is manufactured using an extremely high precision manufacturing technology. Its effective pixel ratio is over 99.99%. This means that there is a possibility that 0.01% of the pixels could be either always ON or OFF.*

Installation and Connections

Before installing or connecting the unit, please read the following and pages 6 to 8 of this manual thoroughly for proper use.

⚠ WARNING

KEEP SMALL OBJECTS SUCH AS SCREWS OUT OF THE REACH OF CHILDREN.

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

MAKE THE CORRECT CONNECTIONS.

Failure to make the proper connections may result in fire or product damage.

USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

BEFORE WIRING, DISCONNECT THE CABLE FROM THE NEGATIVE BATTERY TERMINAL.

Failure to do so may result in electric shock or injury due to electrical shorts.

DO NOT ALLOW CABLES TO BECOME ENTANGLED IN SURROUNDING OBJECTS.

Arrange wiring and cables in compliance with the manual to prevent obstructions when driving. Cables or wiring that obstruct or hang up on places such as the steering wheel, gear lever, brake pedals, etc. can be extremely hazardous.

DO NOT SPLICE INTO ELECTRICAL CABLES.

Never cut away cable insulation to supply power to other equipment. Doing so will exceed the current carrying capacity of the wire and result in fire or electric shock.

DO NOT DAMAGE PIPE OR WIRING WHEN DRILLING HOLES.

When drilling holes in the chassis for installation, take precautions so as not to contact, damage or obstruct pipes, fuel lines, tanks or electrical wiring. Failure to take such precautions may result in fire.

DO NOT USE BOLTS OR NUTS IN THE BRAKE OR STEERING SYSTEMS TO MAKE GROUND CONNECTIONS.

Bolts or nuts used for the brake or steering systems (or any other safety-related system), or tanks should NEVER be used for installations or ground connections. Using such parts could disable control of the vehicle and cause fire etc.

DO NOT INSTALL IN LOCATIONS WHICH MIGHT HINDER VEHICLE OPERATION, SUCH AS THE STEERING WHEEL OR GEARSHIFT.

Doing so may obstruct forward vision or hamper movement etc. and results in serious accident.

⚠ CAUTION

HAVE THE WIRING AND INSTALLATION DONE BY EXPERTS.

The wiring and installation of this unit requires special technical skill and experience. To ensure safety, always contact the dealer where you purchased this product to have the work done.

USE SPECIFIED ACCESSORY PARTS AND INSTALL THEM SECURELY.

Be sure to use only the specified accessory parts. Use of other than designated parts may damage this unit internally or may not securely install the unit in place. This may cause parts to become loose resulting in hazards or product failure.

ARRANGE THE WIRING SO IT IS NOT CRIMPED OR PINCHED BY A SHARP METAL EDGE.

Route the cables and wiring away from moving parts (like the seat rails) or sharp or pointed edges. This will prevent crimping and damage to the wiring. If wiring passes through a hole in metal, use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole.

DO NOT INSTALL IN LOCATIONS WITH HIGH MOISTURE OR DUST.

Avoid installing the unit in locations with high incidence of moisture or dust. Moisture or dust that penetrates into this unit may result in product failure.

Precautions

- Be sure to disconnect the cable from the (–) battery post before installing your unit. This will reduce any chance of damage to the unit in case of a short-circuit.
- Be sure to connect the color coded leads according to the diagram. Incorrect connections may cause the unit to malfunction or damage to the vehicle's electrical system.
- When making connections to the vehicle's electrical system, be aware of the factory installed components (e.g. on-board computer). Do not tap into these leads to provide power for this unit. When connecting the unit to the fuse box, make sure the fuse for the intended circuit of the unit has the appropriate amperage. When in doubt, consult your Alpine dealer.
- The unit uses female RCA-type jacks for connection to other units (e.g. amplifier) having RCA connectors. You may need an adaptor to connect other units. If so, please contact your authorized Alpine dealer for assistance.
- Be sure to connect the speaker (–) leads to the speaker (–) terminal. Never connect left and right channel speaker cables to each other or to the vehicle body.

Accessory List

Installation

Caution
• Do not block the unit's fan, thus preventing air circulation. If blocked, heat will accumulate inside the unit and may cause a fire.

Heat sink
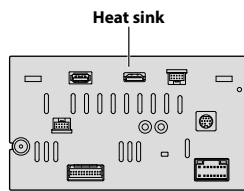
Rear of the Unit

Caution concerning the installation location

Angle of installation

Install at an angle between horizontal and 30°. Note that installing at an angle outside of this range will result in a loss of performance and possibly damage.

0 - 30°
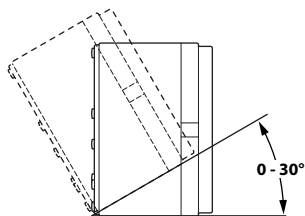
Mounting the Microphone

For safe use, make sure of the following:
• Location is stable and firm.
• Does not interfere with safety equipment.
• Driver's view and operations are not obstructed.
• Microphone is located where the driver's voice can be easily picked up (for example, on the sun visor).

When you speak into the microphone, you should not have to change your driving posture. This may cause a distraction, taking your attention away from safely driving your vehicle. Carefully consider direction and distance while mounting the microphone. Confirm that the driver's voice can be easily picked up at the selected location.

Microphone

Cable clamp (sold separately)
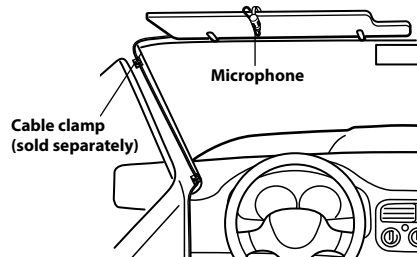
Installation example using the Original Mounting Bracket

1 Mount the original mounting bracket to the unit using the supplied screws.

Original Mounting Bracket

Screws (M5×8) (included)

Ground Lead*

Chassis
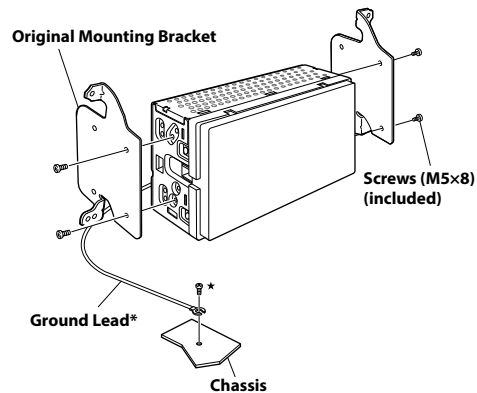
2 Connect all other leads of the unit according to details described in the "Connections" (page 65).

3 Mount the unit in a car.

* To securely connect the ground lead, use an already installed screw on a metal part of the vehicle (marked (★)) or a clean, bare metal spot on the vehicle's chassis.
• Fix the cables carefully. Do not damage them by mounting them into movable parts, such as the seat rail, or by locating them against sharp or pointed edges.

4 Reattach the removed vehicle parts (panels, etc.) or other aftermarket dash kit back onto the vehicle.

Connections

Vehicle Antenna

CAN Interface Connector (included) — To Interface Box

USB extension cable (included) — To USB flash drive, iPhone or Android smartphone

Microphone (included)

VIDEO IN ② — To drive recorder, DVD player, etc.

VIDEO OUT ③ — To Rear monitor

VIDEO IN/OUT cable

REMO ④ — To amplifier or equalizer
(10 Blue/White)

REVERSE ⑤ — To plus side of the back lamp signal lead of the car
(2 Orange/White)

P. ANT ⑥ — To power antenna
(9 Blue)

PARKING BRAKE ⑦ — To the parking brake signal lead
(11 Yellow/Blue)

ACC ⑧
(1 Red)

Ignition key

BATT ⑨ ⑩
(16 Yellow)

GND ⑪
(8 Black)

Battery

(14 Green) ⑫ — Rear Left

(15 Green/Black) ⑬

(6 White) ⑭ — Front Left

(7 White/Black) ⑮

(5 Gray/Black) ⑯ — Front Right   Speakers

(4 Gray) ⑰

(13 Violet/Black) ⑱ — Rear Right

(12 Violet) ⑲

PRE OUT cable   **Power cable**

AUX INPUT ⑳ — To AUX output device or iDataLink module (Audio only, no Video)

REAR VIEW CAMERA ㉑ — To RCA Rear camera

FRONT VIEW CAMERA ㉒ — To RCA Front camera

SUBW ㉓

FRONT OUT ㉔ — To input terminal of amplifier when adding an external amplifier

REAR OUT ㉕

㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞

16 15 14 13 12 11 10 9
8 7 6 5 4 3 2 1

① Radio Antenna Receptacle

② Video Input Lead

③ Video Output Lead

④ Remote Turn-On Lead (Blue/White)
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

⑤ Reverse Lead (Orange/White)

⑥ Power Antenna Lead (Blue)
Connect this lead to the +B terminal of your power antenna, if applicable.
* This lead should be used only for controlling the vehicle's power antenna. Do not use this lead to turn on an amplifier or a signal processor, etc.

⑦ Parking Brake Lead (Yellow/Blue)
Connect this lead to the power supply side of parking brake switch to transmit the parking brake status signals to the unit.

⑧ Switched Power Lead (Ignition) (Red)
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source that provides (+) 12V only when the ignition is turned on or in the accessory position.

⑨ Fuse Holder (15A)

⑩ Battery Lead (Yellow)
Connect this lead to the positive (+) post of the vehicle's battery.

⑪ Ground Lead (Black)
Connect this lead to a good chassis ground on the vehicle.
Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

⑫ Left Rear (+) Speaker Output Lead (Green)

⑬ Left Rear (–) Speaker Output Lead (Green/Black)

⑭ Left Front (+) Speaker Output Lead (White)

⑮ Left Front (–) Speaker Output Lead (White/Black)

⑯ Right Front (–) Speaker Output Lead (Gray/Black)

⑰ Right Front (+) Speaker Output Lead (Gray)

⑱ Right Rear (–) Speaker Output Lead (Violet/Black)

⑲ Right Rear (+) Speaker Output Lead (Violet)

⑳ AUX Input Connector
Input lead for AUX audio signal or iDataLink audio signal.
• A separately sold AV/RCA interface cable (3-pole mini AV plug to 2-RCA) is required. For details on using an AV/RCA interface cable (3-pole mini AV plug to 2-RCA), see "Usable AV/RCA Interface Cable (3-pole mini AV plug to 2-RCA)" (page 67).

㉑ REAR CAMERA Input RCA Connector
Use when connecting a rear camera with RCA Output Connector.

㉒ FRONT CAMER Input RCA Connector
Use when connecting a front camera with RCA Output Connector.

㉓ Subwoofer RCA Connectors

㉔ Front Output RCA Connectors
Can be used as Front Output RCA Connectors. RED is right and WHITE is left.

㉕ Rear Output RCA Connectors
Can be used as Rear Output RCA Connectors. RED is right and WHITE is left.

㉖ USB Connector
To USB flash drive, iPhone or Android smartphone.

㉗ HDMI Input Connector
• To connect to the HDMI Input Connector, use an optional HDMI cable with an L-Type (270 degree) connector.
• Please take note of the size of the HDMI cable's L-Type connector. An HDMI cable with a connector exceeding this size will not be able to connect, as it will interfere with the peripheral cables, stacking amplifiers, etc.

28.9 mm or less
21 mm or less
2.5 mm or less
28 mm or less
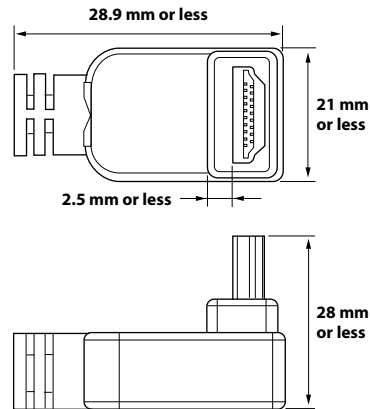
㉘ VIDEO Input/Output Connector

㉙ MAESTRO Connector
To Interface Box.

㉚ MIC Input Connector
  To microphone (included)

㉛ Steering Remote Control Interface Connector
  To steering remote control interface.
  For details about connections, consult your nearest Alpine dealer.

㉜ SiriusXM Tuner Input Connector
  To SiriusXM Tuner (sold separately).
  • For more information on how to install the SiriusXM Connect Vehicle tuner, consult the installation guide included with the tuner.

㉝ AUX/PRE OUT/CAMERA Connector

㉞ Power Supply Connector

Usable AV/RCA Interface Cable (3-pole mini AV plug to 2-RCA)

Wiring convention of this system is as follows;

Audio L (White)
Audio R (Red)
Ground

(Red)
(White)
Audio input terminal (R, L)
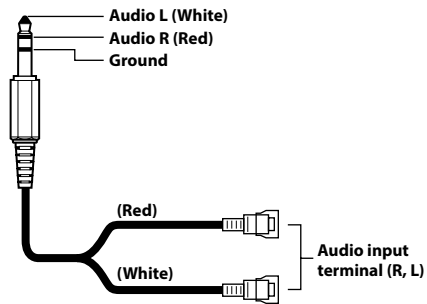
• *Configuration commercially available 3-pole mini AV plugs is not standardized.*

If an ACC power supply is not available

Connection Diagram of SPST Switch (sold separately)
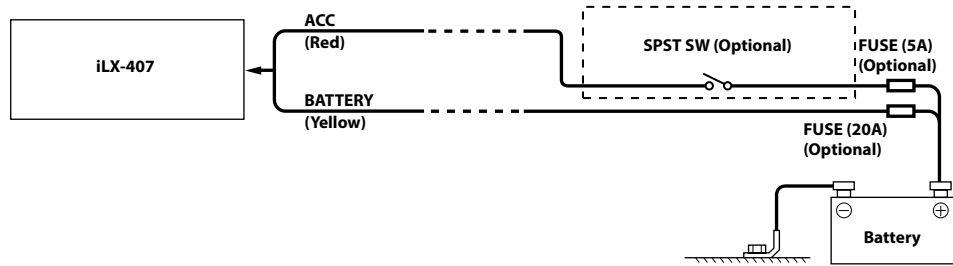
- *If your vehicle has no ACC power supply, add an SPST (single-pole, single-throw) switch (sold separately) and fuse (sold separately).*
- *The diagram and the fuse amperage shown above are in the case when the unit is used individually.*
- *If the switched power (ignition) lead of the unit is connected directly to the positive (+) post of the vehicle's battery, the unit draws some current (several hundred milliamperes) even when its switch is placed in the OFF position, and the battery may be discharged.*

IMPORTANT

Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number plate is located on the bottom of the unit.

SERIAL NUMBER: _____

INSTALLATION DATE: _____

INSTALLATION TECHNICIAN: _____

PLACE OF PURCHASE: _____

To prevent external noise from entering the audio system.
- Locate the unit and route the leads at least 10 cm away from the car harness.
- Keep the battery power leads as far away from other leads as possible.
- Connect the ground lead securely to a bare metal spot (remove any paint, dirt or grease if necessary) of the car chassis.
- If you add an optional noise suppressor, connect it as far away from the unit as possible. Your Alpine dealer carries various noise suppressors, contact them for further information.
- Your Alpine dealer knows best about noise prevention measures so consult your dealer for further information.

System Example

<u>Connection of an iPhone</u>

■ **When connecting to an iPhone with a Lightning connector**

USB connector

iPhone with a Lightning connector
(sold separately)

USB extension cable (included)

Lightning to USB Cable
KCU-471i (sold separately)
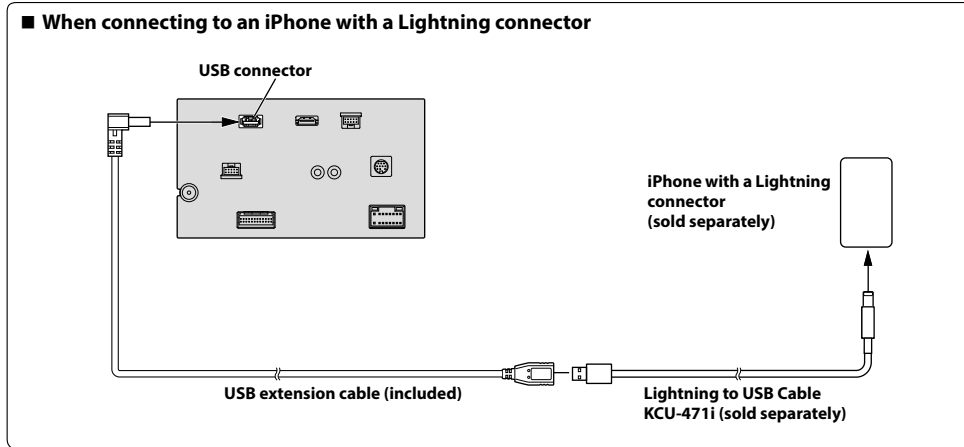
• *Do not leave an iPhone in a vehicle for a long time. Heat and humidity may damage the iPhone, and you may not be able to play it again.*

<u>Connection of a USB Flash Drive</u>

USB connector

USB extension cable (included)

USB Flash Drive
(sold separately)
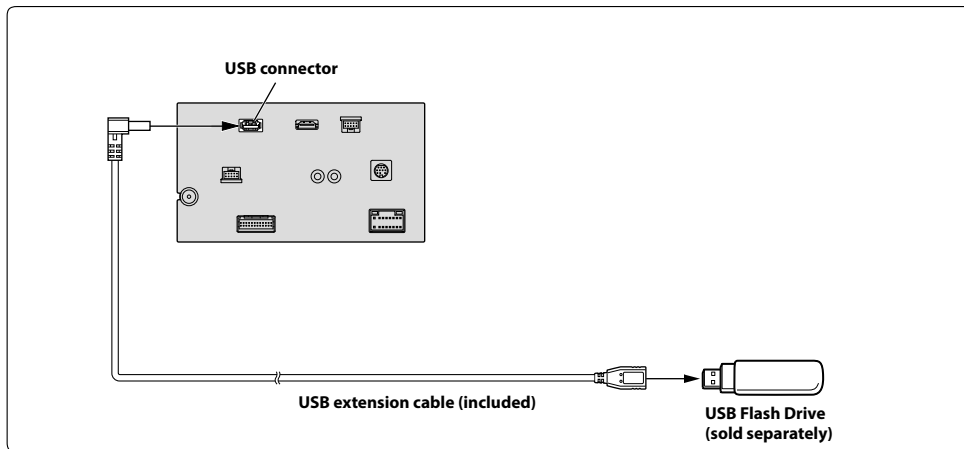
• *Do not leave a flash drive in a vehicle for a long time. Heat and humidity may damage the flash drive.*

69-EN

Connection of an HDMI Device (iPhone with a Lightning connector)

USB connector **HDMI input connector**

Connect using an L-Type HDMI cable that is within the size as illustrated below.

28.9 mm

21 mm

2.5 mm

28 mm

Lightning Digital AV Adapter (Apple Inc., products) (sold separately)

HDMI extension cable (sold separately)

USB extension cable (Included)

Lightning to USB Cable KCU-471i (sold separately)

iPhone with a Lightning connector (sold separately)
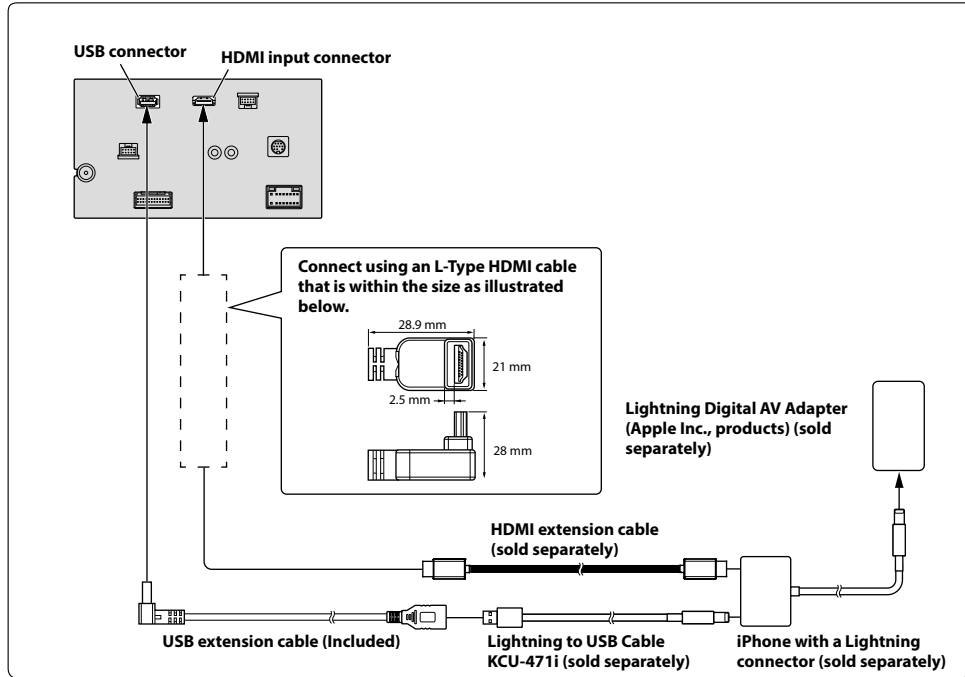
Connection of an HDMI Device (Android device)

USB connector   HDMI input connector

Connect using an L-Type HDMI cable that is within the size as illustrated below.

28.9 mm
21 mm
2.5 mm
28 mm

USB extension cable (Included)

Android device with HDMI connector (sold separately)

■ **MHL connection kit KCU-610HD (sold separately)**

HDMI Type-D conversion adapter

HDMI connection cable

Micro USB conversion cable

Android device with MHL connector (sold separately)

■ **MHL connection kit KCU-610MH (sold separately)**

HDMI connection cable

Micro USB conversion cable

MHL conversion adapter

• *A connection kit or adapter kit suitable for the type of terminal on the connecting device is required.*

Connection of an External Device)
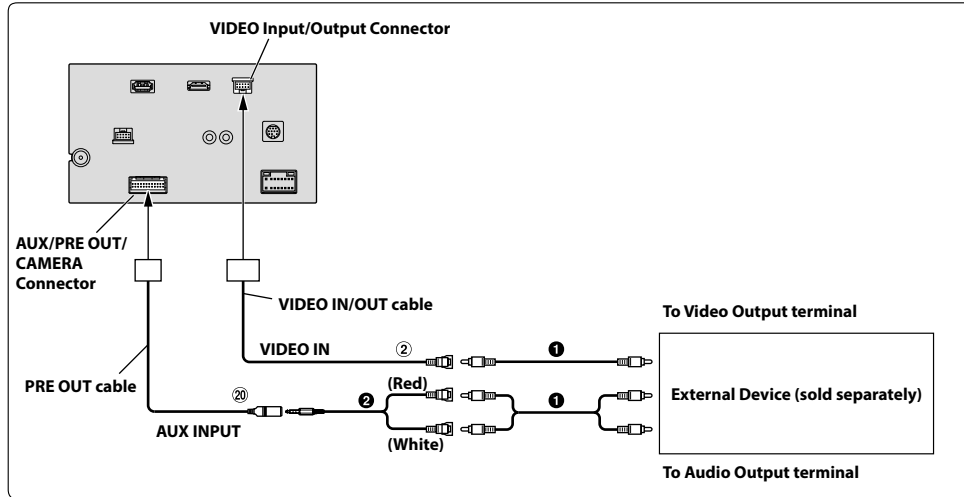
VIDEO Input/Output Connector

AUX/PRE OUT/ CAMERA Connector

VIDEO IN/OUT cable

VIDEO IN

PRE OUT cable

AUX INPUT

(Red)

(White)

To Video Output terminal

External Device (sold separately)

To Audio Output terminal

② Video Input Lead

⑳ AUX Input Connector

❶ RCA Extension Cable (sold separately)

❷ AV/RCA Interface Cable (3-pole mini AV plug to 2-RCA) (sold separately)

- *You can change the name of an external device. For details, refer to "Setting the Auxiliary (AUX) Name" in the OWNER'S MANUAL.*
- *For details on using an AV/RCA interface cable (3-pole mini AV plug to 2-RCA), see "Usable AV/RCA Interface Cable (3-pole mini AV plug to 2-RCA)" (page 67).*

Connection of an External Amplifier
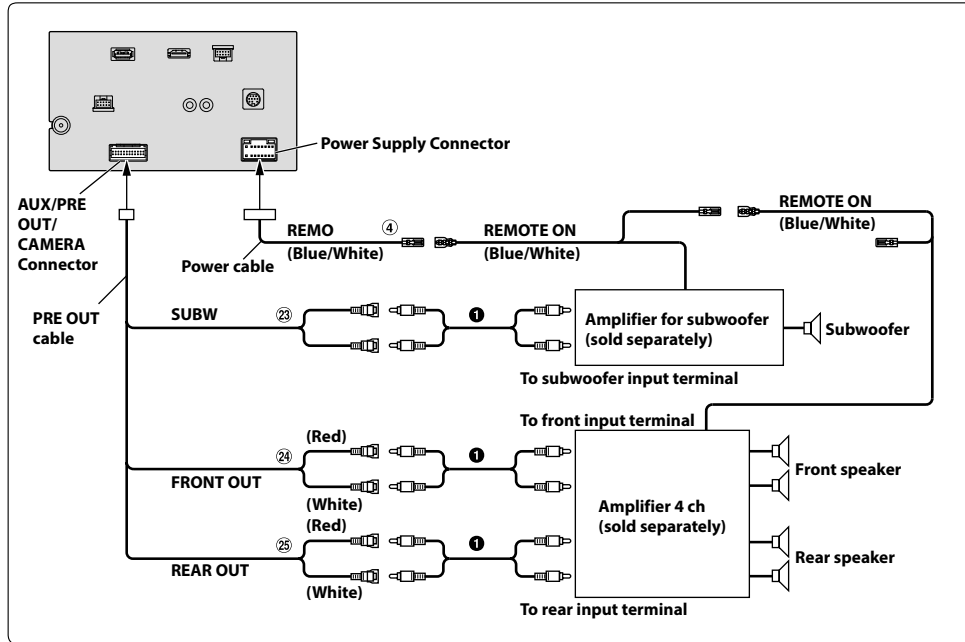
④ Remote Turn-On Lead (Blue/White)   ❶ RCA Extension Cable (sold separately)

㉓ Subwoofer RCA Connectors

㉔ Front Output RCA Connectors

㉕ Rear Output RCA Connectors

Connection of a Camera

AUX/PRE OUT/ CAMERA Connector

Power Supply Connector

Power cable

Reverse (Orange/White) ⑤ Connect to the plus side of the car's reverse lamp.

PRE OUT cable

To Video Output terminal

㉑ ❶ REAR VIEW CAMERA Camera with RCA video output (sold separately)

To Video Output terminal

㉒ ❶ FRONT VIEW CAMERA Camera with RCA video output (sold separately)
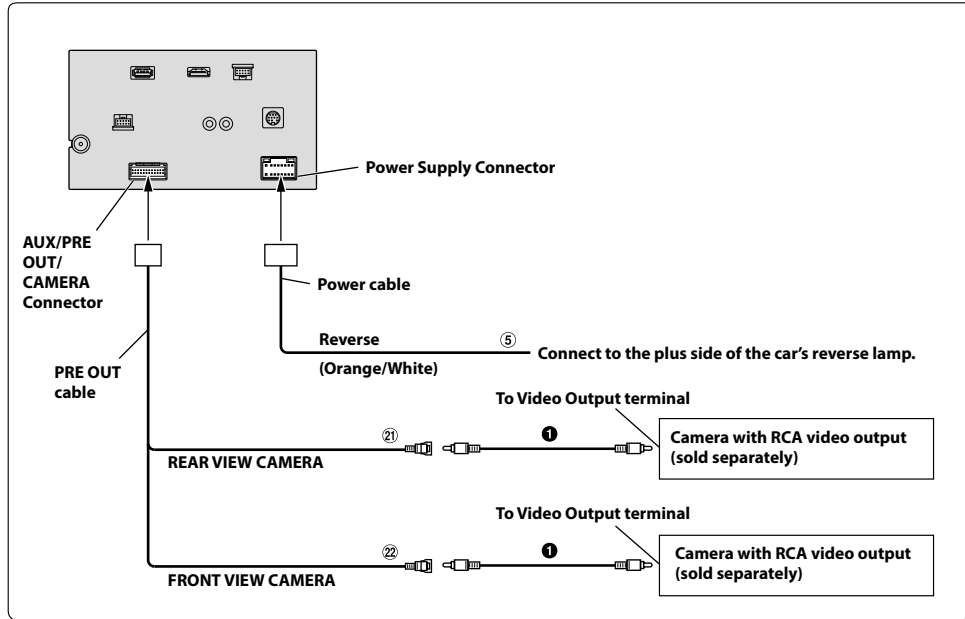
⑤ Reverse Lead (Orange/White)   ❶ RCA Extension Cable (sold separately)

㉑ REAR CAMERA Input RCA Connector

㉒ FRONT CAMERA Input RCA Connector

//////ALPINE

LIMITED WARRANTY

ALPINE ELECTRONICS OF AMERICA, INC. ("Alpine"), is dedicated to quality craftsmanship and is pleased to offer this Warranty. We suggest that you read it thoroughly. Should you have any questions, please contact your Dealer or contact Alpine at one of the telephone numbers listed below.

● **PRODUCTS COVERED:**

This Warranty covers Car Audio Products and Related Accessories ("the product"). Products purchased in the Canada are covered only in the Canada. Products purchased in the U.S.A. are covered only in the U.S.A.

● **LENGTH OF WARRANTY:**

This Warranty is in effect for one year from the date of the first consumer purchase.

● **WHO IS COVERED:**

This Warranty only covers the original purchaser of the product, who must reside in the United States, Puerto Rico or Canada.

● **WHAT IS COVERED:**

This Warranty covers defects in materials or workmanship (parts and labor) in the product.

● **WHAT IS NOT COVERED:**

This Warranty does not cover the following:

1. Damage occurring during shipment of the product to Alpine for repair (claims must be presented to the carrier).
2. Damage caused by accident or abuse, including burned voice coils caused by over-driving the speaker (amplifier level is turned up and driven into distortion or clipping). Speaker mechanical failure (e.g. punctures, tears or rips). Cracked or damaged LCD panels. Dropped or damaged hard drives.
3. Damage caused by negligence, misuse, improper operation or failure to follow instructions contained in the Owner's manual.
4. Damage caused by act of God, including without limitation, earthquake, fire, flood, storms or other acts of nature.
   Any cost or expense related to the removal or reinstallation of the product.
5. Service performed by an unauthorized person, company or association.
6. Any product which has the serial number defaced, altered or removed.
7. Any product which has been adjusted, altered or modified without Alpine's consent.
8. Any product not distributed by Alpine within the United States, Puerto Rico or Canada.
9. Any product not purchased from an Authorized Alpine Dealer.

● **HOW TO OBTAIN WARRANTY SERVICE:**

1. You are responsible for delivery of the product to an Authorized Alpine Service Center or Alpine for repair and for payment of any initial shipping charges. Alpine will, at its option, repair or replace the product with a new or reconditioned product without charge. If the repairs are covered by the warranty, and if the product was shipped to an Authorized Alpine Service Center or Alpine, Alpine will pay the return shipping charges.

2. You should provide a detailed description of the problem(s) for which service is required.
3. You must supply proof of your purchase of the product.
4. You must package the product securely to avoid damage during shipment. To prevent lost packages it is recommended to use a carrier that provides a tracking service.

● **HOW WE LIMIT IMPLIED WARRANTIES:**

ANY IMPLIED WARRANTIES INCLUDING FITNESS FOR USE AND MERCHANTABILITY ARE LIMITED IN DURATION TO THE PERIOD OF THE EXPRESS WARRANTY SET FORTH ABOVE AND NO PERSON IS AUTHORIZED TO ASSUME FOR ALPINE ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT.

● **HOW WE EXCLUDE CERTAIN DAMAGES:**

ALPINE EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES CAUSED BY THE PRODUCT. THE TERM "INCIDENTAL DAMAGES" REFERS TO EXPENSES OF TRANSPORTING THE PRODUCT TO THE ALPINE SERVICE CENTER, LOSS OF THE ORIGINAL PURCHASER'S TIME, LOSS OF THE USE OF THE PRODUCT, BUS FARES, CAR RENTALS OR OTHERS COSTS RELATING TO THE CARE AND CUSTODY OF THE PRODUCT. THE TERM "CONSEQUENTIAL DAMAGES" REFERS TO THE COST OF REPAIRING OR REPLACING OTHER PROPERTY WHICH IS DAMAGED WHEN THIS PRODUCT DOES NOT WORK PROPERLY. THE REMEDIES PROVIDED UNDER THIS WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS.

● **HOW STATE/PROVINCIAL LAW RELATES TO THE WARRANTY:**

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state and province to province. In addition, some states/provinces do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages. Accordingly, limitations as to these matters contained herein may not apply to you.

● **IN CANADA ONLY:**

This Warranty is not valid unless your Alpine car audio product has been installed in your vehicle by an Authorized Installation Center, and this warranty stamped upon installation by the installation center.

● **HOW TO CONTACT CUSTOMER SERVICE:**

Should the product require service, please call the following number for your nearest Authorized Alpine Service Center.

CAR AUDIO	1-800-ALPINE-1 (1-800-257-4631)
NAVIGATION	1-888-NAV-HELP (1-888-628-4357)

Or visit our website at; http://www.alpine-usa.com

ALPINE ELECTRONICS OF AMERICA, INC., 1500 Atlantic Blvd, Auburn Hills, Michigan 48326, U.S.A.
Do not send products to this address.
Call the toll free telephone number or visit the website to locate a service center.

About the Rules of Bluetooth Electromagnetic Radiation Regulation

USA/Canada	**FCC/IC CAUTION** This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body.
	Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage; (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation de l'exposition maximale autorisée (MPE). Cependant, il est souhaitable qu'il devrait être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

Don't forget to take a moment to protect your purchase by registering your product now at the following address: www.alpine-usa.com/registration.

N'oubliez pas de consacrer un moment à la protection de votre achat en enregistrant votre produit dès maintenant à l'adresse suivante : www.alpine-usa.com/registration.

Recuerde que con solo unos pocos pasos podrá proteger su producto, registrándolo a través de la siguiente dirección: www.alpine-usa.com/registration.