

Pioneer

SPH-EVO950DAB

RDS AV RECEIVER

English

Operation Manual

Contents

Thank you for buying this Pioneer product.
Please read through these instructions so you will know how to operate your model properly. After you have finished reading the instructions, keep this document in a safe place for future reference.

Important

The screen shown in the examples may differ from actual screens, which may be changed without notice for performance and function improvements.

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Precaution

Certain country and government laws may prohibit or restrict the placement and use of this product in your vehicle. Please comply with all applicable laws and regulations regarding the use, installation and operation of this product.

Important safety information

WARNING

- Do not attempt to install or service this product by yourself. Installation or servicing of this product by persons without training and experience in electronic equipment and automotive accessories may be dangerous and could expose you to the risk of electric shock, injury or other hazards.
- Do not allow this product to come into contact with liquids. Electrical shock could result. Also, damage to the product, smoke, and overheating could result from contact with liquids.
- If liquid or foreign matter should get inside this product, park your vehicle in a safe place, turn the ignition switch off (ACC OFF) immediately and consult your dealer or the nearest authorised Pioneer Service Station. Do not use this product in this condition because doing so may result in a fire, electric shock, or other failure.
- If you notice smoke, a strange noise or odour from this product, or any other abnormal signs on the LCD screen, turn off the power immediately and consult your dealer or the nearest authorised Pioneer Service Station. Using this product in this condition may result in permanent damage to the system.
- Do not disassemble or modify this product, as there are high-voltage components inside which may cause an electric shock. Be sure to consult your dealer or the nearest authorised Pioneer Service Station for internal inspection, adjustments or repairs.

Before using this product, be sure to read and fully understand the following safety information:

- Do not operate this product, any applications, or the rear view camera option (if purchased) if doing so will divert your attention in any way from the safe operation of your vehicle. Always observe safe driving rules and follow all existing traffic regulations. If you experience difficulty in operating this product, pull over, park your vehicle in a safe location and apply the handbrake before making the necessary adjustments.
- Never set the volume of this product so high that you cannot hear outside traffic and emergency vehicles.
- To promote safety, certain functions are disabled unless the vehicle is stopped and the handbrake is applied.
- Keep this manual handy as a reference for operating procedures and safety information.
- Do not install this product where it may (i) obstruct the driver's vision, (ii) impair the performance of any of the vehicle's operating systems or safety features, including air bags or hazard lamp buttons or (iii) impair the driver's ability to safely operate the vehicle.

- Please remember to fasten your seat belt at all times while operating your vehicle. If you are ever in an accident, your injuries can be considerably more severe if your seat belt is not properly buckled.
- Never use headphones while driving.

To ensure safe driving

WARNING

- **LIGHT GREEN LEAD AT POWER CONNECTOR IS DESIGNED TO DETECT PARKED STATUS AND MUST BE CONNECTED TO THE POWER SUPPLY SIDE OF THE HANDBRAKE SWITCH. IMPROPER CONNECTION OR USE OF THIS LEAD MAY VIOLATE APPLICABLE LAW AND MAY RESULT IN SERIOUS INJURY OR DAMAGE.**
- **To avoid the risk of damage and injury and the potential violation of applicable laws, this product is not for use with a video image that is visible to the driver.**
- In some countries the viewing of video image on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed.

If you attempt to watch video image while driving, the warning **“Viewing of front seat video source while driving is strictly prohibited.”** will appear on the screen. To watch video image on this display, stop the vehicle in a safe place and apply the handbrake. Please keep the brake pedal pushed down before releasing the handbrake.

When using a display connected to V OUT

The video output terminal (**V OUT**) is for connection of a display to enable passengers in the rear seats to watch video images.

WARNING

NEVER install the rear display in a location that enables the driver to watch video images while driving.

To avoid battery exhaustion

Be sure to run the vehicle engine while using this product. Using this product without running the engine can drain the battery.

WARNING

Do not install this product in a vehicle that does not have an ACC wire or circuitry available.

Camera function

With an optional rear view camera, you are able to use this product as an aid to keep an eye on trailers, or backing into a tight parking spot.

⚠ WARNING

- SCREEN IMAGE MAY APPEAR REVERSED.
- USE INPUT ONLY FOR REVERSE OR MIRROR IMAGE REAR VIEW CAMERA. OTHER USE MAY RESULT IN INJURY OR DAMAGE.

⚠ CAUTION

The rear view mode is to use this product as an aid to keep an eye on the trailers, or while backing up. Do not use this function for entertainment purposes.

Handling the USB connector

⚠ CAUTION

- To prevent data loss and damage to the storage device, never remove it from this product while data is being transferred.
- Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, iPhone, smartphone, or other devices while using this product.
- It may not be recognised properly by this product if a USB device that had been incorrectly disconnected from the computer is connected.

In case of trouble

Should this product fail to operate properly, contact your dealer or nearest authorised Pioneer Service Station. When taking this product to the dealer or authorised Pioneer Service Station, make sure to bring both the unit and LCD display.

Visit our website

Visit us at the following site:

<https://www.pioneer-car.eu/eur/>

- Register your product. We will keep the details of your purchase on file to help you refer to this information in the event of an insurance claim such as loss or theft.
- We offer the latest information about PIONEER CORPORATION on our website.
- Pioneer regularly provides software updates to further improve its products. Please check the support section of the Pioneer website for all available software updates.

About this product

- This product does not work correctly in areas other than Europe. The RDS (Radio Data System) function operates only in areas with FM stations broadcasting RDS signals. The RDS-TMC service can also be used in the area where there is a station that broadcasts the RDS-TMC signal.
- The Pioneer CarStereo-Pass is for use only in Germany.

Protecting the LCD panel and screen

- Do not expose the LCD screen to direct sunlight when this product is not used. This may result in LCD screen malfunction due to the resulting high temperatures.
- When using a mobile phone, keep the aerial of the mobile phone away from the LCD screen to prevent disruption of the video in the form of spots, coloured stripes, etc.
- To protect the LCD screen from damage, be sure to touch the touch panel keys only with your finger and do so gently.
- A shatterproof film is attached to the unit's display. This film cannot be taken off or replaced with an alternative film. There may be glue on the edge of the film. However, this does not affect the usability of this unit.





Notes on internal memory

- The information will be erased by disconnecting the yellow lead from the battery (or removing the battery itself).
- Some of the settings and recorded contents will not be reset.

About this manual

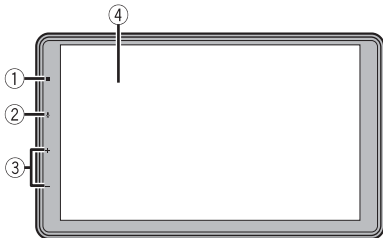
- This manual uses diagrams of actual screens to describe operations. However, the screens on some units may not match those shown in this manual depending on the model used.




Meanings of symbols used in this manual

	This indicates to touch the appropriate soft key on the touch screen.
	This indicates to touch and hold the appropriate soft key on the touch screen.
	This indicates to swipe in the direction of the arrow on the touch screen.
	This indicates to drag in the direction of the arrow on the touch screen.

Parts and controls

Main unit



①		<p>Touch to display the home menu screen. Touch and hold to power off. To power back on, touch any button.</p> <p>NOTE When the home menu screen is displayed, touch to display the previously used AV source screen.</p>
②		<p>Touch to activate the voice recognition mode such as Siri when the iPhone is connected to the unit via Bluetooth or USB. Touch and hold to display mobile device search or select screen.</p>
③		Volume
④	LCD screen	

Basic operation

Starting up the unit

- 1 Start the engine to boot up the system.**
The [Select Program Language] screen appears.

NOTE

From the second time on, the screen shown will differ depending on the previous conditions.

- 2 Select the language.**

- 3 Touch .**

The [Speaker Mode Settings] screen appears.

- 4 Select the speaker mode.**

[Standard Mode]

4-speaker system with front and rear speakers, or a 6-speaker system with front and rear speakers and subwoofers.

[Network Mode]

3-way system with a high range speaker, middle range speaker and subwoofer (low range speaker) for reproduction of high, middle and low frequencies (bands).



WARNING

Do not use the unit in Standard Mode when a speaker system for 3-way Network Mode is connected to the unit. This may cause damage to the speakers.

- 5 Touch [OK].**

The [DAB ANTENNA POWER SETTING] screen appears.

- 6 Touch [Yes] to use the DAB aerial power (page 39).**

Initial Legal Disclaimer screen appears.

- 7 Touch [OK].**

The home menu screen appears.

NOTE

Once the speaker mode is set, the setting cannot be changed unless this product is restored to the default settings. Restore the default settings to change the speaker mode setting (page 95).

Switching the speaker mode

To change the speaker mode, you need to restore this product to the default settings.

1 Restore the default setting (page 95).

Using the touch panel


You can operate this product by touching the keys on the screen directly with your fingers.

NOTE

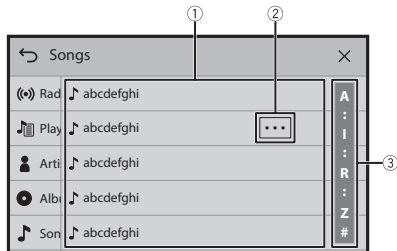
To protect the LCD screen from damage, be sure to touch the screen only with your finger gently.

Common touch panel keys

: Returns to the previous screen.

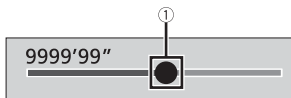
: Close the screen.

Operating list screens



①	<p>Touching an item on the list allows you to narrow down the options and proceed to the next operation. Drag the list to view any hidden items.</p>
②	<p>Appears when all characters are not displayed on the display area. If you touch the key, the rests are scrolled for display.</p> <p>NOTE This function is available only when you stop your vehicle in a safe place and apply the handbrake.</p>
③	<p>Appears when items cannot be displayed on a single page. Drag the side bar or the initial search bar to view any hidden items.</p>

Operating the time bar

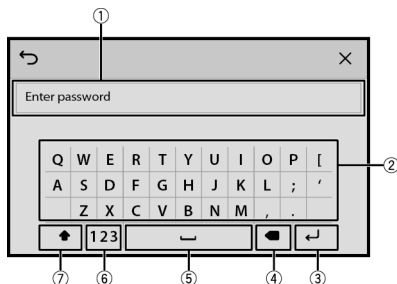


①

You can change the playback point by dragging the key.

The playback time corresponding to the position of the key is displayed while dragging the key.

Operating the on-screen keyboard



①

Displays the characters that are entered.

②

Enters the characters in the text box.

③

Confirms the entry and proceeds to the next step.

④

Deletes the input text to the left of the cursor one letter at a time.

⑤

Enters a space.

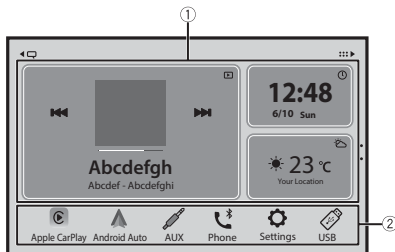
⑥

Switches between alphabet and numbers/symbols.

⑦

Switches between capital and lower case letters.

Home menu screen



①		Widget (page 15) Touch to see the selected source/application.
		Customising the widget (page 15) When you finish customising, touch
②		Favourite source/application area Touch to see the selected source/application.
		Customising the home menu screen (page 12) The following items can be customised. <ul style="list-style-type: none">• Changing the home menu screen layout (page 13)• Rearranging the icons in the favourite source/application area (page 13)• Rearranging the displayed icons in the favourite source/application area (page 13) When you finish customising, touch .
		Notification (page 15)
		Source/application (page 34)
		Favourite radio stations (page 13)


Customising the home menu screen

NOTES


- You can synchronise the layout of the widgets and favourite icons displayed on the home menu screen between the mobile device and the unit that are connected via Bluetooth. You need to install CarAVAssist on the device to use this function (page 31).

- This function is available only when you stop your vehicle in a safe place and apply the handbrake.
- The [Apple CarPlay] icon and the [Android Auto] icon cannot be removed from the favourite source/application area.


► Changing the home menu screen layout

- 1 Touch and hold the favourite source/application area.
- 2 Touch .
- 3 Select [Lower Dock Area] or [Upper Dock Area].

► Rearranging the icons in the favourite source/application area

- 1 Touch and hold the favourite source/application area.
- 2 Drag the icon to the desired position.
When you finish rearranging, touch .

► Rearranging the displayed icons in the favourite source/application area


- 1 Touch and hold the favourite source/application area.
The source/application list area appears on the screen.
- 2 Drag unneeded icon in the favourite source/application area to the source/application list area if the favourite source/application area is full.
- 3 Drag the icon to the desired location in the favourite source/application area.
When you finish rearranging, touch .

Favourite radio stations

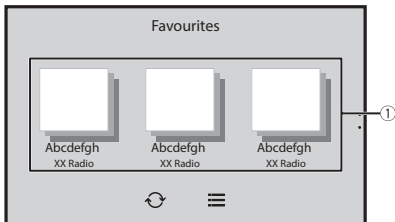
Registering your favourite radio stations allows you to quickly jump to the registered radio stations.

For details on how to register the radio stations, refer to Registering your favourite radio stations (page 42).

Displaying the favourite radio stations screen

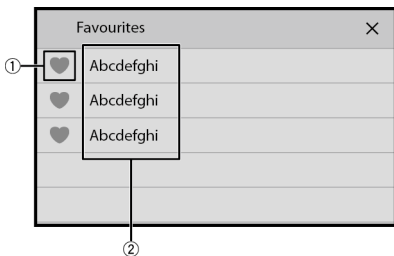
- 1 Touch  then swipe up on the screen.
Swipe down on the screen when you finish.

Favourite radio stations screen



①	<p>Favourite radio stations Touch to make changes to the selected radio station.</p>
☰	<p>List of favourite radio stations Touch to select the favourite radio station from the list screen (page 14).</p>
↻	<p>Updates the favourite radio stations. The next 3 stations on the favourites list are displayed.</p> <p>NOTE This function is only available when there are more than 4 favourite radio stations on the list.</p>

List screen



①	<p>Adds/removes a favourite.</p>
②	<p>Available radio stations Touch to tune in to the selected radio station.</p>


Notification

Notification displays the notifications from the connected iPhone or smartphone (Android) registered on CarAVAssist.

NOTE

To enable this function, establish a Bluetooth connection between this product and an iPhone or a smartphone with CarAVAssist installed (page 31). For iPhone, connection is made with Bluetooth Low Energy. For details on Bluetooth connection, refer to Bluetooth connection (page 17).

Displaying the notification screen

- 1 Touch  then swipe right on the screen.
When you finish, swipe left on the screen.



①

Received notifications

Touch to display the details of the notification.



Widget

Widgets enable you to see your favourite sources and application information on the home menu screen and access shortcuts to them.


Customising the widget

NOTE



This function is available only when you stop your vehicle in a safe place and apply the handbrake.

- 1 Touch .
- 2 Touch and hold the widgets area.
- 3 Touch the widget that you want to customise.
When you finish customising, touch .



①	<p>Widget area To rearrange the widgets, drag them to the desired locations. To remove a widget, drag the widget to ②.</p>
②	<p>Available source/application lists for the widgets Flick left/right to switch between widget lists.</p>
	<p>Adjusts the size of the widgets Touch a corner of the selected widget and drag it to adjust the size.</p> <p>TIP You can fit up to four widgets in the widgets area by adjusting their size.</p> <p>NOTE The size can only be adjusted for widgets that display an adjustment key.</p>

► Switching the widgets





- 1 Touch .
- 2 Touch and hold the widgets area.
- 3 Drag unwanted source/application widgets to the source/application list area.
A maximum of four widgets can fit in the widgets area.
- 4 Drag the desired source/application to the widgets area.
When you finish switching, touch .

NOTE


Some widgets cannot be placed together in the widgets area. Also, some widget functions may be limited due to the combination of widgets.

Bluetooth®

Bluetooth connection

- 1 Turn on the Bluetooth function on the device.
- 2 Display the connected Bluetooth device list screen on the device.
- 3 Touch  then swipe left on the screen.
- 4 Touch  then .
- 5 Touch [Connection].
- 6 Touch .

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

- 7 Touch  in the list.

TIP

If you touch the device name, a connection with Apple CarPlay, Android Auto, or CarAVAssist may be established.

- 8 Touch [Yes] to pair with the device.
- 9 Perform the pairing operation by operating the device.
After the device is successfully registered, a Bluetooth connection is established by the system. Once the connection is established, the device name is displayed on the list.

NOTES




- If five devices are already paired, the message confirming whether to delete the registered device is displayed. If you want to delete the device, touch [Agree]. If you want to delete other device, touch [Go to DeviceList] and delete the devices manually on the mobile device select screen.
- If your device supports SSP (Secure Simple Pairing), a six-digit number appears on the display of this product. Make sure that the six-digit number matches the one that is displayed on the mobile device before touching [Yes] to pair the device.
- If you try to connect an unconnected mobile phone while two mobile phones are already connected, the first one of the two connected mobile phones will be disconnected and the unconnected mobile phone will be connected instead.

TIPS

- The Bluetooth connection can also be made by detecting this product from the Bluetooth device. Before registration, make sure that [Visibility] in the [Bluetooth Settings] menu is set to [On] (page 18). For details on Bluetooth device operations, refer to the operating instructions supplied with the Bluetooth device.


- Two mobile phones can be connected to this product at the same time (page 18).

Bluetooth settings

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Bluetooth Settings].

CAUTION

Never turn this product off and disconnect the device while the Bluetooth setting operation is being processed.

Menu Item	Description
[Auto Connect] [On] [Off]	Select [On] to connect the last connected Bluetooth device automatically when using the hands-free phone function. NOTE If two Bluetooth devices were connected the last time, the two devices are connected to this product automatically in the order that they are registered in the device list.
[Visibility] [On] [Off]	Select [On] to make this product visible to the other device.
[PIN Code Input]	Change the PIN code for Bluetooth connection. The default PIN code is "0000". 1 Touch [0] to [9] to input the pin code (up to 8 digits). 2 Touch .
[Device Information]	Displaying the device name and address of this product.
[Bluetooth Memory Clear]	Touch [Clear] then [OK] to clear the Bluetooth memory.
[Sound Quality Settings] [Quality] [Connectivity]	Select [Quality] to prioritise the Bluetooth sound quality. Select [Connectivity] to prioritise the Bluetooth connection.

Switching the connected Bluetooth device

After registering and connecting the Bluetooth devices to this product, you can switch among the devices using the switch devices key in the phone function and some audio sources.

- You can register up to five Bluetooth devices on this product (page 17).
- You can connect one of the registered devices to this product. In cases where the registered device is equipped with a phone function, a total of two devices can be connected at the same time when using the phone function. If two of the five

- registered devices are already connected, you can connect the remaining third device to use the audio function only from the switch devices key on the audio source screen.
- The icon for the mobile phone currently being used is displayed on the phone menu screen. If you connect two mobile phones to this product at the same time, you can switch between the mobile phones using the switch devices key. The contents of the phone menu are memorised for each connected mobile phone (page 19).
 - The switch devices key will appear for some audio sources. The audio source may automatically switch to another source depending on the selected device.


Hands-free phoning

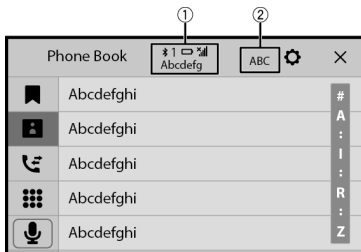
To use this function, you need to connect your mobile phone to this product via Bluetooth in advance (page 17).









CAUTION

For your safety, avoid talking on the phone as much as possible while driving.

Making a phone call

- 1 Touch  then swipe left on the screen.
- 2 Touch [Phone].
The phone menu screen appears.
- 3 Touch one of the call icons on the phone menu screen.



<p>①</p>	<p>The following items are displayed.</p> <ul style="list-style-type: none"> • Name of the current mobile phone • List number of the current mobile phone • Reception status of the current mobile phone • Battery status of the current mobile phone <p>TIP</p> <p>If you connect two mobile phones to this product at the same time, you can switch between the mobile phones using the switch devices key.</p> <p>NOTE</p> <p>When you switch the connected mobile phone, the following items are also switched:</p> <ul style="list-style-type: none"> • Widgets on the home menu screen • Favourite icons on the home menu screen • Notification settings • [Background] settings for the home menu screen and AV operation screen <p>For details, refer to CarAVAssist (page 31).</p>
<p>②</p>	<p>Switches the search language to English or system language.</p> <p>NOTE</p> <p>It may not appear depending on the system language setting.</p>
	<p>Using the preset dial lists (page 21)</p>
	<p>Using phone book</p> <p>Select a contact from the phone book. Touch the desired name on the list then select the phone number.</p> <p>TIPS</p> <ul style="list-style-type: none"> • The contacts on your phone will be automatically transferred to this product. • Update the phone book manually. <p>NOTES</p> <ul style="list-style-type: none"> • [Visibility] of the [Bluetooth Settings] screen should be on (page 18). • If two mobile phones are automatically connected to this product with the Bluetooth device auto connect function, the phone book of the first phone is displayed.
	<p>Using call history</p> <p>Make a phone call from the received call , dialled call , or missed call .</p>
	<p>Direct phone number input</p> <p>Touch the number keys to enter the phone number then touch  to make a call.</p>





► **To end the call**

- 1 Touch .



Using the preset dial lists

► Registering a phone number




You can easily store up to six phone numbers per device as presets.

- 1 Touch  then swipe left on the screen.
- 2 Touch [Phone].
- 3 Touch  or .
On the [Phone Book] screen, touch the desired name to display the contact's phone number.
- 4 Touch .



► Dialling from the preset dial list

- 1 Touch  then swipe left on the screen.
- 2 Touch [Phone].
- 3 Touch .
- 4 Touch the desired entry on the list to make a call.
The dial screen appears and dialling starts.



► Deleting a phone number

- 1 Touch  then swipe left on the screen.
- 2 Touch [Phone].
- 3 Touch .
- 4 Touch .
- 5 Touch [Yes].

Receiving a phone call

- 1 Touch  to answer the call.
Touch  to end the call.

TIPS

- Touch  while getting a call waiting, switch to the talking person.
- Touch  while getting a call waiting to reject the call.

NOTE

When two phones are connected at the same time, if an incoming call is received on the second phone while you are talking on the first phone, the dial confirmation screen for the second phone will be displayed.

Voice recognition function (for iPhone)


By connecting your iPhone to this product, you can use the voice recognition function (Siri Eyes Free Mode) on this product.

NOTE

When an iPhone is used, Siri Eyes Free Mode is available with this product.



1 Touch  then swipe left on the screen.

2 Touch [Phone].

3 Touch .

The voice recognition function launches and the voice control screen appears.

TIPS

- You can also launch the voice recognition function by touching  button.
- If two mobile phones are automatically connected to this product with the Bluetooth device auto connect function, the voice recognition function (Siri Eyes Free Mode) will be set on the first phone.
- If you want to use the voice recognition function (Siri Eyes Free Mode) on another connected iPhone, touch  with numbered to the other iPhone. The iPhone that you switch to will be set as the current device.

Phone settings

1 Touch  then swipe left on the screen.



2 Touch  then .

3 Touch [Bluetooth Settings].

Menu Item	Description
[Auto Answer] [On] [Off]	Select [On] to answer an incoming call automatically.
[Ring Tone] [On] [Off]	Select [Off] to use the ring tone of the paired device, or select [On] to use the ring tone of this unit.
[Invert Name]	Select [Yes] to change the order of the first and last names in the phone book.

Setting the private mode

During a conversation, you can switch to private mode (talk directly on your mobile phone).

1 Touch  or  to turn private mode on or off.

NOTES

- If two mobile phones are connected to this product and the first phone is set to private mode, you can receive incoming calls on the second phone while maintaining the call in progress on the first phone.
- When two mobile phones are connected to this product and private mode of the first phone is turned off, if an incoming call on the second phone is answered while a call is in progress on the first phone or while dialling or receiving a call on the first phone, the call, dialling, or receiving on the first phone is ended.

Adjusting the other party's listening volume

This product can be adjusted to the other party's listening volume.

1 Touch  to switch between the three volume levels.

Notes for hands-free phoning

► General notes

- Connection to all mobile phones featuring Bluetooth wireless technology is not guaranteed.
- The line-of-sight distance between this product and your mobile phone must be 10 metres or less when sending and receiving voice and data via Bluetooth technology.
- With some mobile phones, the ring sound may not be output from the speakers.
- If private mode is selected on the mobile phone, hands-free phoning may be disabled.

► Registration and connection

- Mobile phone operations vary depending on the type of mobile phone. Refer to the instruction manual that came with your mobile phone for detailed instructions.
- When phone book transfer does not work, disconnect your phone and then perform pairing again from your phone to this product.

► Making and receiving calls

- You may hear a noise in the following situations:
 - When you answer the phone using the button on the phone.
 - When the person on the other end of the line hangs up the phone.
- If the person on the other end of the line cannot hear the conversation due to an echo, decrease the volume level for hands-free phoning.
- With some mobile phones, even after you press the accept button on the mobile phone when a call comes in, hands-free phoning may not be performed.

- The registered name will appear if the phone number is already registered in the phone book. When multiple names are registered for the same phone number, the names are displayed in the same order as in the phone book.

► **The received call and dialled number histories**

- You cannot make a call to the entry of an unknown user (no phone number) in the received call history.
- If calls are made by operating your mobile phone, no history data will be recorded in this product.

► **Phone book transfers**





- If there are more than 1 000 phone book entries on your mobile phone, not all entries may download completely.
- Depending on the phone, this product may not display the phone book correctly.
- If the phone book in the phone contains image data, the phone book may not be transferred correctly.
- Depending on the mobile phone, phone book transfer may not be available.

Bluetooth audio

Before using the Bluetooth audio player, register and connect the device to this product (page 17).

NOTES









- Depending on the Bluetooth audio player connected to this product, the available operations with this product may be limited to the following two levels:
 - A2DP (Advanced Audio Distribution Profile): Only playing back songs on your audio player is possible.
 - A2DP and AVRCP (Audio/Video Remote Control Profile): Playing back, pausing, selecting songs, etc., are possible.
- Depending on the Bluetooth device connected to this product, the available operations with this product may be limited or differ from the descriptions in this manual.
- While you are listening to songs on your Bluetooth device, refrain from operating the phone function as much as possible. If you try operating, the signal may cause noise for song playback.
- When you are talking on the Bluetooth device connected to this product via Bluetooth, it may pause playback.

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [AV Source Settings].
- 4 Confirm that [Bluetooth Audio] is turned on.
- 5 Touch  then swipe left on the screen.
The source/application screen appears.

- 6** Touch [Bluetooth Audio].
The Bluetooth audio playback screen appears.

Basic operation



①	Track number indicator
 	Switches between playback and pause.
 	Skips files forwards or backwards.
	Sets a repeat play range.
	Switches between random and normal file playback order.
	Selects a file or folder from the list to playback. NOTE This function is available only when the AVRCP version of the Bluetooth device is 1.4 or higher.
	Switches among the Bluetooth devices when the devices are connected to this product via Bluetooth (page 18).

Wi-Fi®





By connecting this unit to a Wi-Fi network, you can display the weather information on the unit and use Apple CarPlay or Android Auto via the wireless connection.

See the following chapters for the procedure on how to use Apple CarPlay or Android Auto wirelessly.

- Apple CarPlay (page 60)
- Android Auto (page 65)

Wi-Fi connection

The following procedure describes how to connect manually to a Wi-Fi network.

- 1 Turn on the Wi-Fi function on the device.
- 2 Touch  then swipe left on the screen.
- 3 Touch  then .
- 4 Touch [Select Wi-Fi] then [Hotspot].
- 5 Touch [Wi-Fi Settings: Hotspot].
- 6 Touch [Hotspot setting].
- 7 Touch .
The available Wi-Fi networks appear on the list.
- 8 Touch one of the listed Wi-Fi networks on the list.
The network password input screen appears if a password is required.
- 9 Input the network password then touch [Connect].

Important

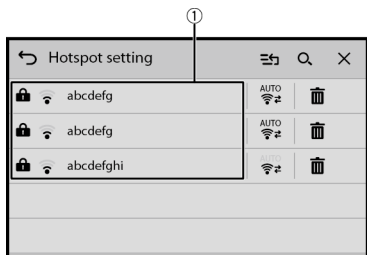
When you connect this unit to the Internet via Wi-Fi for the first time, the Internet Communication Service the Terms of Use and Privacy Policy is displayed. To use the Internet service, you need to accept the policy. Otherwise, most of the applications that use the Internet are not available. You can select to accept or withdraw from the policy at any time in [Terms of Use / Privacy] (page 84).






Setting the Wi-Fi access point

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Wi-Fi Settings: Hotspot].

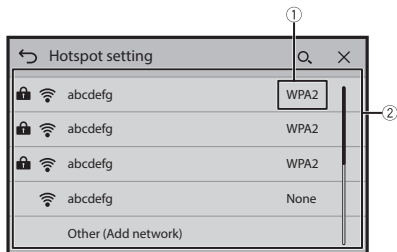
4 Touch [Hotspot setting].

Access point setting screen




①	Available network SSIDs Touch to connect selected network.
	Automatic connection status Touch to switch between the network automatically or manually.
	Network connection priority Drag the network upwards to prioritise the connection by touching  .
	Searches for existing networks. Touch to go to Adding access point screen (page 27).
	Deletes the networks.




Adding access point screen



①	Wi-Fi network type
---	---------------------------

②	<p>Connects Wi-Fi network. Touch to select desired network then enter the password if required.</p> <p>TIP If you want to connect to a network that is not listed on the screen, touch [Other (Add network)] and enter the required information.</p>
	<p>Searches again for existing networks.</p>

Wi-Fi settings

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Wi-Fi Settings: Hotspot].

NOTE

This setting is available only when you stop your vehicle in a safe place and apply the handbrake.

The menu items vary according to the source/application.

Menu Item	Description
[Hotspot setting]	Set up the Wi-Fi access point (page 26).
[MAC Address]	Displays the MAC address.
[IP Address]	Displays the IP address.

Access point via Wi-Fi

This unit can be an access point of the infrastructure mode network. Use this unit as an access point to use Apple CarPlay or Android Auto via Wi-Fi network.

Access point settings

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Wi-Fi Settings: Smartphone].

Menu Item	Description
[Device Information]	Displays this unit's infrastructure mode network information.
[Password]	Displays the infrastructure mode network password.

Menu Item	Description
[Password reset]	Touch [OK] to reset the infrastructure mode network password.

Using Receiver Internet Access

Using the CarAVAssist app and wireless data from your connected mobile device, you can use the weather function that require an internet connection.

- Compatible Pioneer receiver, compatible mobile device with CarAVAssist app, and wireless services data plan required.
- NOTE: This function uses data from the mobile device that you connect to this unit. Data usage will depend on the functions used on this unit.






NOTE

This function may not be available depending on your smartphone or the OS version.

Starting procedure

NOTES

- You need to install CarAVAssist on your device to use this function (page 31).
- For details of the CarAVAssist operation in the following steps, refer to "Help" in the CarAVAssist application.

- 1 Turn on the Wi-Fi and Bluetooth functions on your iPhone or smartphone.
- 2 Touch  then swipe left on the screen.
- 3 Touch  then .
- 4 Touch [Select Wi-Fi] then [Smartphone].
- 5 Touch [Connection].
- 6 Touch .
The unit starts to search for available devices, then displays them in the device list.
- 7 Touch  in the list.
A connection confirmation message appears on the screen.
- 8 Touch [Yes] on the pop-up message.
Transfer mode screen is displayed.
- 9 Open CarAVAssist on the connected iPhone or smartphone then add this product on the top menu screen of the application.
- 10 Activate the [Receiver Internet Access] setting in the application.

11 Follow the message displayed on the connected iPhone or smartphone to make a Wi-Fi connection with this unit.

Receiver Internet Access connection is successfully established.

NOTE

If Receiver Internet Access connection is not established, try the followings:

- Activate the Wi-Fi setting on your mobile device.
- Deactivate the Wi-Fi connection via mobile device tethering.
- Confirm that [Select Wi-Fi] is set to [Smartphone] (page 91).
- For Android OS 10, turn off the Wi-Fi function on the smartphone and then turn it on, if the infrastructure mode network password is reset in the [Password reset] setting after the previous connection (page 29).

TIPS

- The second and subsequent Receiver Internet Access connections are automatically made if the following conditions are met:
 - For Android device, the connection between this product and CarAVAssist app is established.
 - For iPhone, the Bluetooth Low Energy connection between this product and iPhone is established.
- Android Auto and Receiver Internet Access can be used at the same time. If Android Auto connection is not established, put the CarAVAssist app in the background. And touch the Android Auto icon on Home menu screen (page 12) or touch the name of device at a list of mobile devices (page 91) for an Android Auto connection.
- If iPhone connection is not established, the Bluetooth Low Energy registration may have failed. In that case, delete the unit's information registered via Bluetooth Low Energy in the Bluetooth setting on your iPhone, and then try your iPhone registration on CarAVAssist app again.

CarAVAssist

CarAVAssist is an application that allows you to configure and transfer various settings of this unit. You can also update this unit's firmware wirelessly by using this application.

Before you start

WARNING

Do not attempt to operate the application while driving. Make sure to pull off the road and park your vehicle in a safe location before attempting to use the controls on the application.

For iPhone users

This function is compatible with iOS 12.0 or later.
You can download CarAVAssist on the App Store.



For smartphone (Android) users

This function is compatible with devices that have Android OS 6.0 or later installed.
You can download CarAVAssist on Google Play.



What kind of functions does the application have?

Promoting the use of the unit



The interface of the unit can be changed by using your iPhone/smartphone (Android).



Examples

- Customising the home menu screen including the widget
- Customising the wallpaper
- Organising notifications on your smartphone (Android) for displaying on the unit
- Downloading the latest firmware

For details, refer to "Help" in the CarAVAssist application.

Transferring the data




- 1 Connect your iPhone or smartphone with CarAVAssist installed on it to this product via Bluetooth (page 17).
- 2 Touch  then swipe left on the screen.
- 3 Touch .
- 4 Open CarAVAssist on the connected iPhone or smartphone then touch the connection button on the top menu screen of the application.
- 5 Touch one of the transfer modes.

	iPhone/smartphone to main unit
	Main unit to iPhone/smartphone

Updating the firmware wirelessly

CAUTION

- Never turn this product or your iPhone/smartphone off while the firmware is being updated.
- You can only update the firmware when the vehicle is stopped and the handbrake is engaged.
- You cannot update the old firmware version once the latest firmware is updated.

- 1 Download the firmware update files into your iPhone or smartphone through CarAVAssist.
- 2 Connect your CarAVAssist-installed iPhone or smartphone to this unit via Wi-Fi network (page 26).
- 3 Touch  then swipe left on the screen.
- 4 Touch  then .
- 5 Touch [System Information].
- 6 Touch [Firmware Update].
- 7 Touch [CarAVAssist].
Follow the on-screen instructions to finish updating the firmware.

NOTES

- This product will reset automatically after the firmware update is completed if the update is successful.
- If an error message appears on the screen, touch the display and perform the above steps again.

Source/application

Supported source and application


You can play or use the following sources or application with this product.

- Digital Radio (page 37)
- Radio (page 41)
- USB (page 45)

The following sources or applications can be played back or used by connecting an auxiliary device.



- Bluetooth audio (page 24)
- Wi-Fi audio (iPhone (page 52) or Smartphone (Android) (page 56))
- AUX (page 69)
- Weather (page 68)
- Camera view (page 71)
- Car Features (page 72)

Displaying the source/application list screen


- 1 Touch  then swipe left on the screen.

The source/application screen appears.






①	<p>Source list Touch to see the selected source.</p> <p>TIP Selecting [Power OFF] will turn off most of the functions on this unit. The [Power OFF] mode is released in the following cases:</p> <ul style="list-style-type: none"> • Footage from the rear view camera is input when the vehicle is in reverse. • A button on this unit is touched. • The ignition switch is turned off (ACC OFF), then turned on (ACC ON).
②	<p>Displays the connected Wi-Fi network when [Hotspot] is selected in the [Select Wi-Fi] setting. Displays the device connected via Receiver Internet Access when [Smartphone] is selected in the [Select Wi-Fi] setting. Touch to go to the Communication settings (page 91).</p>
③	<p>Connected mobile device Touch to start searching screen when the device is not connected. Touch to go to the device select screen when the device is already connected.</p>
④	<p>Application list Touch to see the selected application.</p>
	<p>Displays the next items in the list if there are more.</p>
	<p>Displays the previous screen.</p>

Displaying the AV operation screen

- 1 Touch  then touch the AV operation key.
The AV operation screen appears.



①	<p>Displays the source/application list.</p>
---	---


	Settings (page 74) and Favourite menu (page 93)
	Selects or customises the equaliser curve (page 88).
	Hands-free phoning (page 19)

Selecting a source/an application


NOTE

[Source OFF] is only available for AV sources.

Source/application selection screen

- 1 Touch  then swipe left on the screen.
- 2 Touch the source/application icon.
When you select [Source OFF], the AV source is turned off.



Source/application list

- 1 Touch  when the AV source is in use.
- 2 Touch the source/application key.
When you select [Source OFF], the AV source is turned off.

Rearranging the display order of source

NOTE

This function is available only when you stop your vehicle in a safe place and apply the handbrake.

- 1 Touch  when the AV source is in use.
- 2 Touch .
- 3 Drag the source/application key to the desired position.

Digital Radio

Digital Radio tuner operations

For improved Digital Radio reception, make sure a Digital Radio aerial with phantom power input (active type) is used. Pioneer recommends using AN-DAB1 (sold separately) or CA-AN-DAB.001 (sold separately).

Current consumption of Digital Radio aerial should be 100 mA or less.


NOTES

- High sound quality (nearly as high as for CDs, although it may be reduced in some cases in order to allow more services to be broadcast)
- Interference-free reception
- Some stations perform broadcast testing.

MFN support

When some station groups support the same station, switches to another station group that has better reception automatically.

Starting procedure

- 1 Touch  then swipe left on the screen.
- 2 Touch [Digital Radio].
The Digital Radio screen appears.


NOTE

The service list will be automatically updated when the Digital Radio function is started for the first time. If the update succeeds, the station listed at the top of the service list will be automatically tuned in to.




Basic operation



	<p>Recalls the preset channel stored to a key from memory.</p>
	<p>Stores the current broadcast station to a key.</p>
	<p>Displays the preset channel list. Select an item on the list to switch to the preset channel.</p>
	<p>Selects the DAB1, DAB2, or DAB3 band.</p>
	<p>DAB slideshow Touch to hide or display the images delivered by DAB as a slide show.</p>
	<p>Manual tuning Switches the services one by one.</p>
	<p>Seek tuning Skips to the nearest station group.</p>
	<p>Updates the station list.</p>
	<p>Stores recent broadcasts to memory automatically (time shift mode). Pause or listen to the stored broadcasts again by touching . Touch to resume the live broadcast.</p> <p>NOTES</p> <ul style="list-style-type: none"> • Stored broadcast is overwritten by the latest broadcast. • If the duration that a selection is paused exceeds the length of the memory capacity, playback will resume from the beginning of the selection in memory.

	<p>Selects a station.</p> <p>Touch the following category then select each item.</p> <p>[Station]: Displays all service components.</p> <p>[Program Type] (PTY label): Searches from programme type information.</p> <p>[Station Group]: Displays the ensemble list.</p> <p>TIP</p> <p>If you touch [List Update], you can update station list information manually.</p> <p>NOTES</p> <ul style="list-style-type: none"> • Station list information is automatically updated, when you start to use this source. • When there is any changes in the current station group, station list information automatically updated.
---	--

DAB settings

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [AV Source Settings].
- 4 Touch [DAB settings].

Menu Item	Description
<p>[Service Follow]*1 [On] [Off]</p>	<p>Searches for another station group that supports the same station with better reception. If no alternative station can be found or reception remains poor, the unit will automatically switch to an identical FM broadcast. (HARD LINK)</p>
<p>[Antenna Power]*2 [On] [Off]</p>	<p>Select whether to output power to a connected Digital Radio aerial. For details on how to connect a Digital Radio aerial, refer to the Quick start guide.</p>
<p>[TA Interrupt]*1</p> <p>[DAB+RDS TA]</p> <p>[RDS TA ONLY]</p>	<p>Receives the traffic announcement from the last selected frequency, interrupting the other sources.</p> <p>Receives current traffic information for DAB and RDS (AN-DAB1 has priority) if available.</p> <p>Receives current traffic information for only RDS if available.</p>


Menu Item	Description
[TA OFF]	Disables this function.
[Soft Link]*1 [On] [Off]	<p>When HARD LINK is unsuccessful, tunes to another station group that supports the similar station. If no station can be found or reception remains poor, this function will automatically switch to a similar FM broadcast.</p> <p>NOTES</p> <ul style="list-style-type: none">• This setting is available only when [Service Follow] is set to [On].• Only available in areas where SOFT LINK function is supported.• The broadcast content of the switched channel may differ from the content of the original channel.

*1 This setting is available only when [Digital Radio] is selected as the source.

*2 This setting is available only when the source is off.

Radio









Starting procedure




- 1 Touch  then swipe left on the screen.
- 2 Touch [Radio].
The radio screen appears.

Basic operation

Radio screen



	 <p>Recalls the preset channel stored to a key from memory.</p>
	 <p>Stores the current broadcast frequency to a key.</p>
	<p>Displays the preset channel list. Select an item on the list ([1] to [6]) to switch to the preset channel.</p>
	<p>Selects the FM1, FM2, FM3 or MW/LW band.</p>
	 <p>Performs BSM (best stations memory) function (page 42).</p>

		Manual tuning
		Seek tuning or non stop seek tuning Releasing the key in a few seconds skips to the nearest station from the current frequency. Keep holding the key for long seconds to perform non stop seek tuning.

Storing the strongest broadcast frequencies (BSM)

The BSM (best stations memory) function automatically stores the six strongest broadcast frequencies under the preset channel keys [1] to [6].

NOTES

- Storing broadcast frequencies with BSM may replace those you have already saved.
- Previously stored broadcast frequencies may remain stored if the number of frequencies stored has not reached the limit.

1 Touch and hold  to begin search.

The six strongest broadcast frequencies will be stored under the preset channel keys in the order of their signal strength.

To cancel the storage process


1 Touch [Cancel].

Registering your favourite radio stations

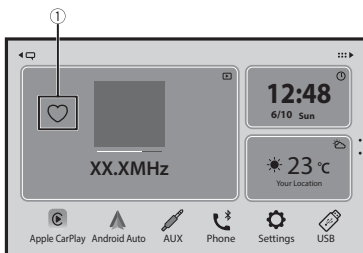
Register your favourite radio stations to quickly receive these stations by a single touch on the favourite radio stations screen (page 13).

1 Tune the radio to the station you want to register.




2 Touch .

3 Touch  (①) in the widget area.

The icon colour changes to pink.



Radio settings

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [AV Source Settings].
- 4 Touch [Radio settings].

The menu items vary according to the source.

Menu Item	Description
[Local] [Off] FM: [Level1] [Level2] [Level3] [Level4] MW/LW: [Level1] [Level2]	Local seek tuning allows you to only tune into radio stations with sufficiently strong signals. NOTES <ul style="list-style-type: none"> • [Level4] for FM and [Level2] for MW/LW are available only with the stations with the strongest signals. • This setting is available only when [Radio] is selected as the source.
[FM Step]*1 [100kHz] [50kHz]	Select the seek tuning step for the FM band. NOTE The tuning step remains at [50kHz] during manual tuning.
[Regional]*2 [On] [Off]	Switches whether the area code is checked during the Auto PI search.
[Alternative FREQ]*2 [On] [Off]	Allow the unit to retune to a different frequency providing the same station.

Menu Item	Description
[Auto PI]*1 [On] [Off]	Searches for the same PI (Programme Identification) code broadcast station from all frequency bands automatically when the broadcasting station contains RDS data. NOTE Even if you set to [Off], the PI search is automatically performed when the tuner cannot get a good reception.
[TA Interrupt]*2	Receives the traffic announcement from the last selected frequency, interrupting the other sources. TIP The selected setting also applies to [TA Interrupt] under [DAB settings].
[DAB+RDS TA]	Receives current traffic information for DAB and RDS (DAB has priority) if available.
[RDS TA ONLY]	Receives current traffic information for only RDS if available.
[TA OFF]	Disables this function.
[NEWS Interrupt]*2 [On] [Off]	Interrupt the currently selected source with news programmes.
[Tuner Sound]*2	Switches the sound quality of the FM tuner.
[Talk]	Gives priority to noise prevention.
[Standard]	Gives no effect.
[Music]	Gives priority to the sound quality.

*1 This setting is available only when the source is off.

*2 This function is available only when you receive the FM band.

USB

Plugging/unplugging a USB storage device

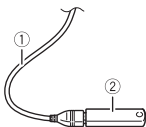
You can play audio, video, or still image files stored in a USB storage device.

Plugging a USB storage device

- 1 Pull out the plug from the USB port of the USB cable.
- 2 Plug a USB storage device into the USB cable.

NOTES

- This product may not achieve optimum performance with some USB storage devices.
- Connection via a USB hub is not possible.
- A USB cable is required for connection.



①	USB cable
②	USB storage device


Unplugging a USB storage device

- 1 Pull out the USB storage device from the USB cable.

NOTES

- Check that no data is being accessed before pulling out the USB storage device.
- Turn off (ACC OFF) the ignition switch before unplugging the USB storage device.

Starting procedure

- 1 Plug the USB storage device into the USB cable.
- 2 Touch  then swipe left on the screen.

3 Touch [USB].

Playback is performed in order of folder numbers. Folders are skipped if they contain no playable files.

Basic operation

TIP

You can set the screen size for the video and image files (page 94).

Audio source

Audio source screen 1



①

Displays the link search screen.

Touch the song to play back followed by the song information, after switching to Music Browse mode (page 48).

TIP

If you touch the artwork, the list of songs in the album is displayed.

NOTE

This function is available for the USB storage device only.



Switches between playback and pause.






Skips files forwards or backwards.



Sets a repeat play range for all files/the current folder/the current file.








Switches between random and normal file playback order.

	<p>Displays the hidden function bar.</p> <p>TIP You can also display the hidden function bar by flicking the bar from the right to the left.</p>
	<p>Switches the following media file types.</p> <p>[Music]: Audio files [Video]: Video files [Photo]: Image files</p>
	<p>Selects a file from the list.</p> <p>Touch a file on the list to playback.</p> <p>TIP Touching a folder on the list shows its contents. You can play a file on the list by touching it.</p> <p>NOTE When you play audio files stored in a USB storage device, you can search for a file using Music Browse (page 48).</p>

Audio source screen 2



	<p>Displays the hidden function bar.</p> <p>TIP You can also display the hidden function bar by flicking the bar from the left to the right.</p>
 	<p>Selects the previous folder or the next folder.</p>
	<p>Constructs the database for using the Music Browse mode (page 48).</p>
	<p>Switches the current music information display.</p>

▶ Selecting a file using Music Browse mode

You can select files to play back using the category list if the files contain tag information.

NOTE

This function is available for the USB storage device only.

1 Touch to create a database.

Music Browse mode will be available after the database has been created.

2 Touch .

3 Touch the desired category to display the file list.


4 Touch the item.

Refine the item until the desired song title or file name is displayed on the list.

5 Touch the desired song title or file name to play back.

If the selection made with Music Browse has been cancelled, you can switch to Music Browse mode again by touching the [Tag] tab on the file/folder list screen and touching the desired track.

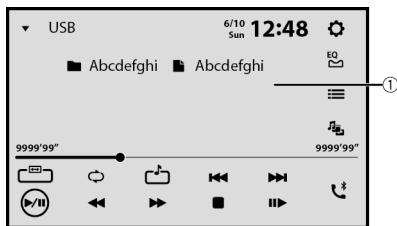
TIP

Once the database is created in this unit, there is no need to create the database again as long as the same contents are saved. To enter the Music Browse mode directly, touch  and then touch [Tag] before selecting the song.

Video source

⚠ CAUTION












For safety reasons, video images cannot be viewed while your vehicle is in motion. To view video images, stop in a safe place and apply the handbrake.



①

Hides the touch panel keys.

To display the keys again, touch anywhere on the screen.









	Switches between playback and pause.
	Performs fast reverse or fast forwards. Touch again to change the playback speed.
	Stops playback. Touch again to start from the beginning next time.
	 Performs frame-by-frame playback.
	 Performs slow-motion playback.
	Sets a repeat play range for all files/the current folder/the current file.
	Switches the audio language.
	Switches the following media file types. [Music]: Audio files [Video]: Video files [Photo]: Image files
	Selects a file from the list. Touch a file on the list to playback. TIP Touching a folder on the list shows its contents. You can play a file on the list by touching it.
	Skips files forwards or backwards.

Still image source

TIP

Image files are not displayed in the rear display.



①	<p>Hides the touch panel keys. To display the keys again, touch anywhere on the screen.</p>
	<p>Switches between playback and pause.</p>
	<p>Skips files forwards or backwards.</p>
	<p>Selects the previous folder or the next folder.</p>
	<p>Saves the current images as the wallpaper. Touch the following items to overwrite the image. [As AV Screen]: Saves the image as the wallpaper for the AV screen. [As HomeScreen]: Saves the image as the wallpaper for the home menu screen. [As Both]: Saves the image as the wallpaper for both the AV screen and home menu screen.</p> <p>NOTE If you save the new image, the current wallpaper is overwritten except for the preset image.</p>
	<p>Rotates the displayed picture 90° clockwise.</p>
	<p>Sets a repeat play range for all files/the current folder.</p>
	<p>Switches between random and normal playback order of the files that are currently selected for repeat playback.</p>
	<p>Switches the following media file types. [Music]: Audio files [Video]: Video files [Photo]: Image files</p>



Selects a file from the list.

Touch a file on the list to playback.

TIP

Touching a folder on the list shows its contents. You can play a file on the list by touching it.

iPhone

Connect your iPhone to this product to play music in your iPhone or listen to the radio on Apple Music.


NOTE

Before connecting your iPhone, make sure that Apple CarPlay is enabled (page 60).

Connecting your iPhone

When connecting an iPhone to this product, the settings are automatically configured according to the device to be connected. For details of the compatibility, refer to Compatible iPhone models (page 106).


Wired connection

- 1 Connect an Apple CarPlay compatible device to this product via USB.
- 2 Touch  then swipe left on the screen.
- 3 Touch [Apple CarPlay] displayed in place of [USB] in the source list (page 35).
The playback screen appears.

NOTES

- [Apple CarPlay] is displayed instead of [USB] when the Apple CarPlay is enabled.
- For USB connection, refer to the Quick start guide.

Wireless connection

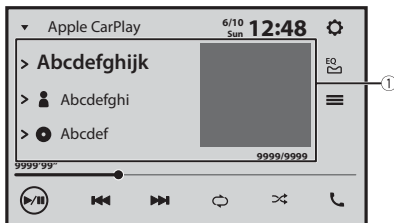
- 1 Connect an Apple CarPlay compatible device to this product wirelessly (page 61).
- 2 Touch  then swipe left on the screen.
- 3 Touch [Apple CarPlay] displayed in place of [Wi-Fi Audio] in the source list (page 35).
The playback screen appears.

NOTE

- [Apple CarPlay] is displayed instead of [Wi-Fi Audio] when the Apple CarPlay is enabled.

Basic operation

Audio source



①

Displays the link search screen.

Select a song from the list related to the song currently playing.

TIP

If you touch the artwork, the list of songs in the album is displayed.

NOTE

This function is not available while playing Apple Music radio.



Switches between playback and pause.



Skips files forwards or backwards.



Sets a repeat play range for all in the selected list/the current song.



Plays songs within the selected list/album randomly.



Selects a song from the list.

Touch the category then the title of the list to playback of the selected list.

TIPS

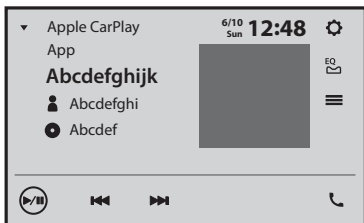
- If you use English as the system language, the alphabet search function is available. Touch the initial search bar to use this function.
- When you touch an Apple Music radio station in the list screen, the Apple Music radio screen appears (page 54).

NOTE

Only 15 000 songs in the iPhone are available in the list if the iPhone has more than 15 000 songs. Available songs depend on the iPhone.

iPhone application screen

You can also play and control the music application in your iPhone in the iPhone source.



Switches between playback and pause.

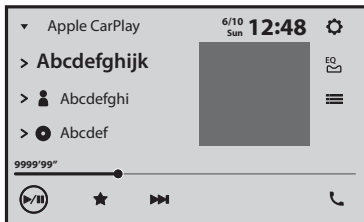





Skips files forwards or backwards.

Apple Music radio source

Important

Apple Music radio may not be available in your country or region. For details about Apple Music radio, visit the following site: <https://www.apple.com/music/>



	Switches between playback and pause.
	<p>Displays the radio pop-up menu for Apple Music.</p> <ul style="list-style-type: none"> • Touch [Play More Like This] to play back songs similar to the current song. • Touch [Play Less Like This] to set it not to play back the current song again. • Touch [Add to iTunes Wish List] to add the current song to the iTunes wish list. <p>NOTE This function may not be used depending on your Apple Music account status.</p>
	Skips tracks forwards.

Smartphone (Android™)


Connect your smartphone to this product to play music in your smartphone.

NOTE

Before connecting your Android device, make sure that Android Auto is enabled (page 64).

Connecting your Android device


Wired connection

- 1 Connect an Android Auto compatible device to this product via USB.
- 2 Touch  then swipe left on the screen.
- 3 Touch [Android Auto] displayed in place of [USB] in the source list (page 35).
The playback screen appears.

NOTES

- [Android Auto] is displayed instead of [USB] when the Android Auto is enabled.
- For USB connection, refer to the Quick start guide.

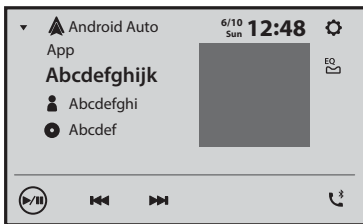
Wireless connection



- 1 Connect an Android Auto compatible device to this product wirelessly (page 65).
- 2 Touch  then swipe left on the screen.
- 3 Touch [Android Auto] displayed in place of [Wi-Fi Audio] in the source list (page 35).
The playback screen appears.

NOTE

- [Android Auto] is displayed instead of [Wi-Fi Audio] when the Android Auto is enabled.

Basic operation



	Switches between playback and pause.
	Skips files forwards or backwards.

WebLink™

You can operate WebLink compatible applications with finger gestures such as tapping, dragging, scrolling, or flicking on the screen of this product.

NOTES

- The supported finger gestures may vary depending on the WebLink compatible application.
- To use WebLink, you must first install the WebLink Host app on the iPhone or smartphone. For details about the WebLink Host app, visit the following site: <https://www.abaltatech.com/weblink/>
- Be sure to read Using app-based connected content (page 107) before you perform this operation.
- Copyright protected files such as DRM cannot be played.

WARNING

Certain uses of the iPhone or smartphone may not be legal while driving in your jurisdiction, so you must be aware of and obey any such restrictions. If in doubt as to a particular function, only perform it while the car is parked. No feature should be used unless it is safe to do so under the driving conditions you are experiencing.

Using WebLink

Important


- Pioneer is not responsible for content or functions accessed via WebLink, which are the responsibility of the application and content providers.
- Availability of non-Pioneer content and services, including apps and connectivity, may change or discontinue without notice.
- When using WebLink with the Pioneer product, available content and functions will be limited while driving.

Starting procedure

For iPhone users

WebLink Supported iPhone Operating Systems

iOS 15 or higher

- 1 Unlock your iPhone and connect it to this product via USB.
- 2 Touch  then swipe left on the screen.
- 3 Touch [WebLink].

NOTE


For USB connection, refer to the Quick start guide.

WebLink Supported Smartphone Operating Systems

Android 9.0 or higher

NOTES

- [USB MTP] must be set to [Off] to use WebLink (page 75).
- The video playback capability depends on the connected Android device.

- 1 **Unlock your smartphone and connect it to this product via USB.**
- 2 Touch  then swipe left on the screen.
- 3 Touch [WebLink].

NOTES

- For USB connection, refer to the Quick start guide.
- Make sure that file transfer mode for USB connection is enabled on your smartphone if WebLink does not start automatically.

Basic operation

Touch the desired application icon after the WebLink app is launched. The desired application is launched, and the application operation screen appears.



Displays the main menu of the WebLink source screen.

TIPS

- If you connect your device to this product while a WebLink compatible application is already running, the application operation screen will appear on this product.
- Check the Bluetooth connection between the mobile device and this unit if there is no sound output from this unit (page 17).

Apple CarPlay

You can operate iPhone applications with finger gestures such as tapping, dragging, scrolling, or flicking on the screen of this product.

Compatible iPhone models

For details about compatibility of iPhone models, refer to the following website.
<https://www.apple.com/ios/carplay>

NOTES

- The compatible finger gestures vary depending on the application for the iPhone.
- To use the Apple CarPlay function, first turn off the CarAVAssist function.

WARNING

Certain uses of the iPhone may not be legal while driving in your jurisdiction, so you must be aware of and obey any such restrictions. If in doubt as to a particular function, only perform it while the car is parked. No feature should be used unless it is safe to do so under the driving conditions you are experiencing.

Using Apple CarPlay

Important

Apple CarPlay may not be available in your country or region.


For details about Apple CarPlay, visit the following site:



<https://www.apple.com/ios/carplay>

- The content and functionality of the supported applications are the responsibility of the App providers.
- In Apple CarPlay, usage is limited while driving, with availability of functions and content determined by the App providers.
- Apple CarPlay allows access to applications other than those listed that are subject to limitations while driving.
- PIONEER IS NOT RESPONSIBLE AND DISCLAIMS LIABILITY FOR THIRD PARTY (NON-PIONEER) APPS AND CONTENT, INCLUDING WITHOUT LIMITATION ANY INACCURACIES OR INCOMPLETE INFORMATION.
- Before using Apple CarPlay, make sure the GPS aerial and speed cable are properly connected and installed, and the unit angle is properly set. For details on the installation, refer to the Quick start guide.

Setting the driving position

To achieve optimum usability of Apple CarPlay, set the driving position setting correctly according to the vehicle. The setting will be applied the next time an Apple CarPlay compatible device is connected to this product.

- 1 Touch  then swipe left on the screen.

- 2 Touch  then .

The communication setting screen appears.

- 3 Touch [Driving Position].
- 4 Select the item.
 - [Left]
Select for a left-hand drive vehicle.
 - [Right]
Select for a right-hand drive vehicle.

Starting procedure

Wired connection

- 1 Connect an Apple CarPlay compatible device to this unit via USB.
- 2 Touch the Apple CarPlay icon.
The Apple CarPlay home screen appears.

TIP

You can also start the Apple CarPlay from the source/application list screen by swiping the screen to the left on the home menu screen.


Wireless connection

Before using Apple CarPlay wirelessly, perform the following:


- Attach the GPS aerial to this product.
- Turn on Apple CarPlay in the setting menu of your iPhone.


NOTE

[Select Wi-Fi] needs to be set to [Smartphone] to use the wireless connection (page 91).

- 1 Turn on the Wi-Fi function and the Bluetooth function on the device.
- 2 Display the Bluetooth setting menu on the device.
- 3 Touch .
- 4 Touch the Apple CarPlay icon.
The device search screen appears.

NOTE


You can also display the device search screen by touching and holding .

- 5 Touch  if the device that you want to connect does not appear.

The available devices appear on the list.

6 Touch the desired device on the screen.

TIP

If the device that you want to connect does not appear, touch  on the screen again. You can also start Apple CarPlay with the desired device by opening the Bluetooth or Apple CarPlay setting menu while displaying the device search or device list screen.

7 Touch [Yes] to pair with the device.

8 Perform the pairing operation by operating the device.

The unit configures the connection then starts the application.

TIP

You can use Siri function by touching  button once Apple CarPlay is activated.

NOTES

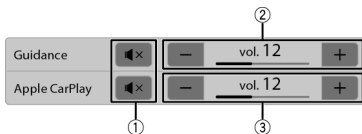
- For details on USB connection, refer to the Quick start guide.
- When the device for Apple CarPlay is connected to this unit, the device is also connected via Bluetooth at the same time. If five devices are already paired, the message confirming whether to delete the registered device is displayed. If you want to delete the device, touch [Agree]. If you want to delete other device, touch [Go to DeviceList] and delete the devices manually on the mobile device select screen.
- If an Apple CarPlay compatible device has been connected and another screen is displayed, touch Apple CarPlay icon on the source/application screen to display the Application menu screen.
- The Bluetooth connection with the Apple CarPlay compatible device will be terminated automatically if Apple CarPlay is turned on. While Apple CarPlay is turned on, only a Bluetooth audio connection will be possible for devices other than the device connected via Apple CarPlay.
- Hands-free phoning via Bluetooth wireless technology is not available while Apple CarPlay is on. If Apple CarPlay is turned on during a call on a mobile phone other than an Apple CarPlay compatible device, the Bluetooth connection will be terminated after the call ends.

Adjusting the volume

You can adjust the enhanced Siri (if available on your device) or guidance volume separately from the main sound volume when Apple CarPlay is used.

1 While Apple CarPlay is activated, touch VOL (+/-).

The volume menu will be displayed on the screen.



①	<p>Touch to mute. Touch again to cancel mute.</p> <p>NOTE The mute function is not available while the enhanced Siri function is used.</p>
②	<p>Touch [+] / [-] to adjust the guidance volume.</p>
③	<p>Displays the main sound volume. To adjust the main sound volume, touch VOL (+/-) on the unit or touch [+] / [-].</p>

NOTE

The volume menu is displayed for four seconds. If the menu disappears, touch **VOL (+/-)** again. The menu reappears.


Using the split screen

You can display the screen of Apple CarPlay and of the unit at the same time on one screen if the split screen function is available on your iPhone.

This function is useful such as when you want to operate the radio source while displaying the map screen.




1 Touch  to switch to the split screen view.

TIP

Touch  if you want to return to the full screen.

TIP

The screen positions of the Apple CarPlay and of the unit depend on the [Driving Position] setting (page 60).

	<p>Displays the source list. Touch to see the selected source.</p>
 *	<p>Displays the control panel corresponding to the selected source.</p> <p>NOTE The control panel is not displayed according to the source.</p>
 *	<p>Displays the selected source information or function key.</p>

* This button is displayed when vehicle equipment information function is available.

Android Auto™

You can operate Android applications with finger gestures such as tapping, dragging, scrolling, or flicking on the screen of this product.

Compatible Android devices

For details about compatibility of Android models, refer to the following website.
<https://support.google.com/androidauto>

For wireless connections

To wirelessly use Android Auto on your vehicle display, you need a compatible Android smartphone with an active data plan. You can check which smartphones are compatible at g.co/androidauto/requirements.

NOTES

- [USB MTP] must be set to [Off] to use Android Auto (page 75).
- The compatible finger gestures vary depending on the application for the smartphone.



WARNING

Certain uses of the smartphone may not be legal while driving in your jurisdiction, so you must be aware of and obey any such restrictions. If in doubt as to a particular function, only perform it while the car is parked. No feature should be used unless it is safe to do so under the driving conditions you are experiencing.

Using Android Auto



Important

Android Auto may not be available in your country or region.




For details about Android Auto, please refer to the Google support site:

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

- The content and functionality of the supported applications are the responsibility of the App providers.
- In Android Auto, usage is limited while driving, with availability of functions and content determined by the App providers.
- Android Auto allows access to applications other than those listed that are subject to limitations while driving.
- PIONEER IS NOT RESPONSIBLE AND DISCLAIMS LIABILITY FOR THIRD PARTY (NON-PIONEER) APPS AND CONTENT, INCLUDING WITHOUT LIMITATION ANY INACCURACIES OR INCOMPLETE INFORMATION.
- Before using Android Auto, make sure the GPS aerial and speed cable are properly connected and installed, and the unit angle is properly set. For details on the installation, refer to the Quick start guide.

Setting the driving position

To achieve optimum usability of Android Auto, set the driving position setting correctly according to the vehicle. The setting will be applied the next time an Android Auto compatible device is connected to this product.

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .

The communication setting screen appears.

- 3 Touch [Driving Position].
- 4 Select the item.
 - [Left]
Select for a left-hand drive vehicle.
 - [Right]
Select for a right-hand drive vehicle.

Starting procedure


Wired connection

- 1 Connect an Android Auto compatible device to this product via USB.
- 2 Touch the Android Auto icon.
The Android Auto home screen appears.


Wireless connection


NOTE

[Select Wi-Fi] needs to be set to [Smartphone] to use the wireless connection (page 91).

- 1 Turn on the Wi-Fi function and the Bluetooth function on the device.
- 2 Display the connected Bluetooth devices list screen on the device.
- 3 Touch .
- 4 Touch the Android Auto icon then [Yes] to display the device search screen.
The device search screen appears.

TIP


You can also display the device search screen by touching and holding .

- 5 Touch  if the device that you want to connect does not appear.

The available devices appear on the list.

6 Touch the desired device on the screen.

TIP

If the device that you want to connect does not appear, touch  on the screen again.

7 Touch [Yes] to pair with the device.

8 Perform the pairing operation by operating the device.

The unit configures the connection then starts the application.

TIP

You can use voice recognition function by touching  button once Android Auto is activated.

NOTES

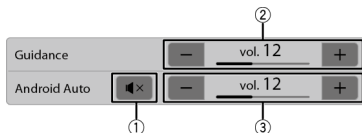
- For details on USB connection, refer to the Quick start guide.
- When the device for Android Auto is connected to this unit, the device is also connected via Bluetooth at the same time. If five devices are already paired, the message confirming whether to delete the registered device is displayed. If you want to delete the device, touch [Agree]. If you want to delete other device, touch [Go to DeviceList] and delete the devices manually on the mobile device select screen.
- If Android Auto is turned on during a call on a mobile phone other than the Android Auto compatible device, the Bluetooth connection will switch to the Android Auto compatible device after the call.

Adjusting the volume

You can adjust the voice recognition or guidance volume separately from the main sound volume when Android Auto is used.

1 While Android Auto is activated, touch VOL (+/-).

The volume menu will be displayed on the screen.



①	Touch to mute. Touch again to cancel mute.
②	Touch [+] / [-] to adjust the guidance volume.
③	Displays the main sound volume. To adjust the main sound volume, touch VOL (+/-) on the unit or touch [+] / [-].

NOTE




The volume menu is displayed for four seconds. If the menu disappears, touch **VOL (+/-)** again. The menu reappears.

Setting the auto-launch function

If this function is set to on, the Android Auto screen is displayed automatically when an Android Auto compatible device is connected to this unit.

NOTE

The Android Auto screen is displayed automatically only when an Android Auto compatible device is correctly connected to this product.

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Android Auto Auto-launch] to switch [On] or [Off].

Using the split screen

You can display the screen of Android Auto and of the unit at the same time on one screen.

This function is useful such as when you want to operate the radio source while displaying the map screen.




NOTE

[Android Auto split screen] must be set to [On] to use the split screen function (page 92).

- 1 Touch  or  to toggle whether to display the screen of the unit.

TIP

The screen positions of the Android Auto and of the unit depend on the [Driving Position] setting (page 65).

	Displays the source list. Touch to see the selected source.
 *	Displays the control panel corresponding to the selected source. NOTE The control panel is not displayed according to the source.
 *	Displays the selected source information or function key.

* This button is displayed when vehicle equipment information function is available.

Weather


Display the current temperature and daily or hourly forecast in your current location. The weather function uses a location service to determine your current location.

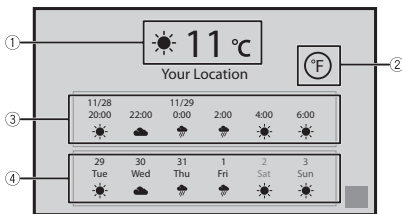
Using weather

Important

- To use the weather function, you need to connect this unit to the Internet via a Wi-Fi network (page 26).
- To use the weather function, you need to accept the Internet Communication Service the Terms of Use and Privacy Policy (page 84).
- Before connecting this unit to the Internet, make sure that the GPS aerial is installed properly so that your correct location and time can be used for the weather service and location service. For details on GPS aerial installation, refer to the Quick start guide.

Starting procedure

- 1 Touch  then swipe left on the screen.
- 2 Touch [Weather].



①	Current temperature
②	Switches the temperature unit between Fahrenheit and Celsius.
③	Current hourly forecast
④	Current daily forecast

NOTE

If a data item is unknown or missing, "-" is displayed.

AUX

You can display the video image output by the device connected to video input.





CAUTION

For safety reasons, video images cannot be viewed while your vehicle is in motion. To view video images, stop in a safe place and apply the handbrake.

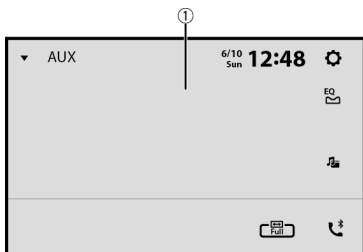
NOTE


A Mini-jack AV cable (sold separately) is required for connection. For details, refer to the Quick start guide.

Starting procedure

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Input/Output settings].
- 4 Confirm that [AUX Input] is turned on.
- 5 Touch  then swipe left on the screen.
- 6 Touch [AUX].
The AUX screen appears.

Basic operation




①	Hides the touch panel keys. To display the keys again, touch anywhere on the screen. TIP You can set the screen size for the video image (page 94).
	Switches between the video input and audio input.

External component






Camera view

You can display the video image output using the device connected to the back camera input or 2nd camera input. For details, refer to the Quick start guide.

Starting procedure

- 1 Touch  then swipe left on the screen.
- 2 Touch [Camera View].
Video footage is displayed on the screen.

Displaying 2nd camera view

- 1 Touch  then swipe left on the screen.
- 2 Touch  then .
- 3 Touch [Input/Output settings].
- 4 Touch [AV Input].
- 5 Touch [2nd Camera].
- 6 Touch  then swipe left on the screen.
- 7 Touch [Camera View].
- 8 Touch  to switch the camera view.
The 2nd camera video footage is displayed on the screen.

Vehicle equipment information

Using the Vehicle Bus adapter

By connecting the optional Vehicle Bus adapter, you can display the operation status such as gauges, vehicle information, climate control, and parking assist.

Important

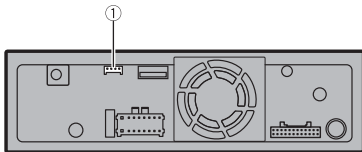
- For information on installing the Vehicle Bus adapter, see the operating manual of the Vehicle Bus adapter.
- After installing the Vehicle Bus adapter, be sure to check operations.
- For details about vehicle models that are compatible with Vehicle Bus adapters, refer to the information on our website.
- Functions and displays vary depending on the vehicle model. For details of the functions available according to the model, refer to the information on our website.


Limitation

The data is transmitted to this product from your vehicle system via the connected Vehicle Bus adapter. Therefore, the actual data contents displayed on your product may differ from the contents on the screen described in this manual.

Starting procedure

- 1 Connect the Vehicle Bus adapter cable (sold separately) to the Vehicle Bus conversion input (①) on the rear panel.







- 2 Touch  then swipe left on the screen.
- 3 Touch [Car Features].
The menu screen appears.

NOTE

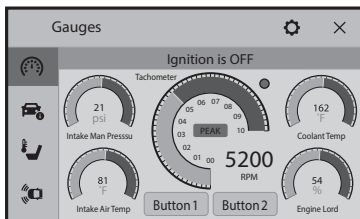
This function is available only when the input signal is received by the Vehicle Bus adapter.

Using the functions on [Car Features]

You can check and use the following screens after selecting [Car Features] in the starting procedure. Touch one of the icons on the left side of the screen to change a feature.

	Displays the Gauge screen.
	Displays the Vehicle Information screen.
	Displays the Climate screen.
	Displays the Parking Assist screen.

Example: Gauges screen




Displaying obstacle detection information

CAUTION

This function is intended solely to assist the driver's vision. It does not detect all dangers and obstacles and is not a substitute for your attentiveness, judgement, and care while parking your vehicle.

NOTES

- This function is only available for vehicles equipped with a parking sensor system.
- The Parking Assist screen is not displayed until this product boots up completely.

1 Touch  then swipe left on the screen.

2 Touch [Car Features].








3 Touch .

The Parking Assist screen appears.

Settings

You can adjust various settings in the main menu.

Displaying the setting screen

- 1 Touch  then swipe left on the screen.
- 2 Touch .
- 3 Touch one of the following categories, then select the options.
 -  System settings (page 74)
 -  Theme settings (page 84)
 -  Audio settings (page 86)
 -  Video settings (page 90)
 -  Communication settings (page 91)

System settings

The menu items vary according to the source.

[AV Source Settings]

Menu Item	Description
[Radio settings]	(page 43)
[DAB settings]	(page 39)
[Bluetooth Audio] [On] [Off]	Setting Bluetooth audio source activation.

[Beep Tone]

Menu Item	Description
[Beep Tone] [On] [Off]	Select [Off] to disable the beep sound when the button or the screen is touched.

[Input/Output settings]

Menu Item	Description
[USB MTP] [Off] [On]	Select [On] to use the USB MTP (Media Transfer Protocol) connection. Select [Off] to use Android Auto or WebLink.
[AV Input] [2nd Camera] [Off]	Select AV input source.
[2nd Camera view] [Normal] [Reverse]	Select the way the screen image of a camera appears.
[AUX Input] [On] [Off]	Set to [On] for AUX source (page 69).

[Camera settings]

A separately sold rear view camera (e.g. ND-BC8) is required for utilising the rear view camera function. (For details, consult your dealer.)

►Rear view camera

This product features a function that automatically switches to the full-screen image of the rear view camera installed on your vehicle when the gearstick is in the REVERSE (R) position.

Camera View mode also allows you to check what is behind you while driving.

►Camera for Camera View mode

Camera View can be displayed at all times. Note that with this setting, the camera image is not resized to fit, and that a portion of what is seen by the camera is not viewable. To display the camera image, touch [Camera View] on the source/application selection screen (page 36).


NOTES

- To set the rear view camera as the camera for Camera View mode, set [Rear Viewing Camera Input] to [On] (page 76).
- When using the 2nd camera, set [AV Input] to [2nd Camera] (page 75).
- When the camera view of both the rear view camera and 2nd camera are available, the key to switch the display appears. Touch this key to switch the display between the rear view image and 2nd camera image.

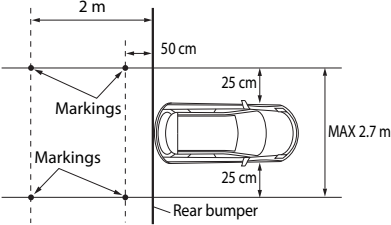
CAUTION

Pioneer recommends the use of a camera which outputs mirror reversed images, otherwise the screen image may appear reversed.

- Immediately verify whether the display changes to the rear view camera image when the gearstick is moved to REVERSE (R) from another position.
- When the screen changes to full-screen rear view camera image during normal driving, switch to the opposite setting in [Camera Polarity].

- If you touch  while the camera image is displayed, the displayed image turns off temporarily.

Menu Item	Description
[Rear Viewing Camera Input] [Off] [On]	Setting rear view camera activation.
[Camera Polarity]	Setting the polarity of the rear view camera.
[Battery]	The polarity of the connected lead is positive.
[Ground]	The polarity of the connected lead is negative.
	NOTE This function is available when [Rear Viewing Camera Input] is set to [On].
[Parking Assist Guide] [On] [Off]	You can set whether to display the parking assist guidelines on the rear view camera images when backing up your vehicle.

Menu Item	Description
[Parking Assist Guide Adjust]	<p>Adjusting the guidelines by dragging or touching ▲/▼/◀/▶/◀▶ on the screen. Touch [Default] to reset the settings.</p> <p>⚠ CAUTION</p> <ul style="list-style-type: none"> When adjusting the guidelines, be sure to park the vehicle in a safe place and apply the handbrake. Before getting out of the car to place the markings, be sure to turn the ignition switch off (ACC OFF). The range projected by the rear view camera is limited. Also, the vehicle width and distance guidelines displayed on the rear view camera image may differ from the actual vehicle width and distance. (The guidelines are straight lines.) The image quality may deteriorate depending on the usage environment, such as at night or in dark surroundings. <p>NOTES</p> <ul style="list-style-type: none"> This setting is available only when you stop your vehicle in a safe place and apply the handbrake. Using packing tape or similar tape place markings as shown below before setting up the guidelines so that the guidelines can be overlaid to the markings. Install the rear view camera as near the centre of the vehicle as possible, and do not install it too low. Otherwise, the guideline comes on the edge of the screen, preventing the guideline from being adjusted. 

[Safe Mode]

Menu Item	Description
[Safe Mode] [On] [Off]	Set to [Off] to enable operating some function that is restricted while driving.


[Demo Mode]

Menu Item	Description
[Demo Mode] [On] [Off]	Setting the demo mode.

[System Language]

Menu Item	Description
[System Language]	Select the system language. NOTES <ul style="list-style-type: none">• If the embedded language and the selected language setting are not the same, the text information may not display properly.• Some characters may not be displayed properly.

[Restore Settings]

Menu Item	Description
[Restore Settings]	Touch [Restore] to restore the settings to the default settings.  CAUTION Do not turn off the engine while restoring the settings. NOTES <ul style="list-style-type: none">• This setting is available only when you stop your vehicle in a safe place and apply the handbrake.• The source is turned off and the Bluetooth connection is disconnected before the process starts.• Before starting the restore process, disconnect any device that is connected to the USB port. Otherwise, some settings may not be restored correctly.

[Clock Settings]





Menu Item	Description
[Clock Settings]	Setting or adjusting the following time and clock display. <ul style="list-style-type: none"> • Date display format: day-month-year, month-day-year, or year-month-day • Time display format: [12hour] or [24hour] • UTC (Universal Time Coordinated) time zone difference: [UTC-12h] to [UTC+14h] • Day-light saving time: [On] or [Off]

[Dimmer Settings]

NOTE

This setting is available only when you stop your vehicle in a safe place and apply the handbrake.

Menu Item	Description
[Dimmer Trigger]	Setting the dimmer brightness. When [Dimmer] is selected in the [Appearance] setting (page 85), the Light mode or the Dark mode is switched automatically according to the following settings.
[Auto]	Switches the dimmer to on or off automatically according to your vehicle's headlight turning on or off.
[Manual]	Switches the dimmer to on or off manually.
[Time]	Switches the dimmer to on or off at the time you adjusted.
[Day/Night]	Setting the dimmer duration by day or night. You can use this function when [Dimmer Trigger] is set to [Manual].
[Day]	Turns the dimmer function to off.
[Night]	Turns the dimmer function to on.





Menu Item	Description
[Dimmer Duration]	<p>Adjust the time that the dimmer is turned on or off by dragging the cursors or touching  or .</p> <p>You can use this function when [Dimmer Trigger] is set to [Time].</p> <p>TIPS</p> <ul style="list-style-type: none"> • Each touch of  or  moves the cursor backwards or forwards in the 15 minute width. • When the cursors are placed on the same point, the dimmer available time is 0 hours. • When the cursor for off time setting is placed on the left end and the cursor for on time setting is placed on the right end, the dimmer available time is 0 hours. • When the cursor for on time setting is placed on the left end and the cursor for off time setting is placed on the right end, the dimmer available time is 24 hours. <p>NOTE</p> <p>The time display of the dimmer duration adjusting bar depends on the clock display setting (page 94).</p>

[Picture Adjustment]

You can adjust the picture for each source, rear view camera.

CAUTION

For safety reasons, you cannot use some of these functions while your vehicle is in motion. To enable these functions, you must stop in a safe place and apply the handbrake.

To adjust following menu, touch , , ,  to adjust.

Menu Item	Description
[Brightness] [-24] to [+24]	Adjust the black intensity.
[Contrast] [-24] to [+24]	Adjust the contrast.
[Colour]* [-24] to [+24]	Adjust the colour saturation.
[Hue]* [-24] to [+24]	Adjust the tone of colour (which colour is emphasised, red, or green).
[Dimmer] [+1] to [+48]	Adjust the brightness of the display.
[Temperature] [-3] to [+3]	Adjust the colour temperature, resulting in a better white balance.


* With some pictures, you cannot adjust [Hue] and [Colour].

NOTES

- The adjustments of [Brightness], [Contrast], and [Dimmer] are stored separately when your vehicle's headlights are off (daytime) and on (nighttime).
- [Brightness] and [Contrast] are switched automatically depending on the setting of [Dimmer Settings].
- [Dimmer] can be changed the setting or the time to switch it to on or off (page 79).
- The picture adjustment may not be available with some rear view cameras.
- The setting contents can be memorised separately.

[System Information]

Menu Item	Description
[Firmware Information]	Displaying the firmware version.




Menu Item	Description
[Firmware Update]	<p>Update to the latest version of the firmware by using a USB storage device or wireless connection. To update the firmware via wireless connection, CarAVAssist is required. For details on performing the wireless update, refer to Updating the firmware wirelessly (page 32).</p> <p> CAUTION</p> <ul style="list-style-type: none">• The USB storage device for updating must contain only the correct update file.• Never turn this product off, disconnect the USB storage device while the firmware is being updated.• You can only update the firmware when the vehicle is stopped and the handbrake is engaged. <ol style="list-style-type: none">1 Download the firmware update files into your computer.2 Connect a blank (formatted) USB storage device to your computer then locate the correct update file and copy it onto the USB storage device.3 Connect the USB storage device to this product (page 45).4 Turn the source off (page 36).5 Display the [System Settings] screen (page 74).6 Touch [System Information].7 Touch [Firmware Update].8 Touch [USB].9 Touch [Continue]. <p>Follow the on-screen instructions to finish updating the firmware.</p> <p>NOTES</p> <ul style="list-style-type: none">• This product will reset automatically after the firmware update is completed if the update is successful.• If an error message appears on the screen, touch the display and perform the above steps again.








Menu Item	Description
[3D Calibration Status]	<p>Check the sensor learning status, such as the degree of learning. You can also check the current sensor values and the total number of speed pulses.</p> <p>To delete the learned results stored in the sensor, follow the below instructions.</p> <ol style="list-style-type: none"> 1 Touch [Distance] or [Speed Pulse], and then touch [Yes]. 2 Touch [Learning status] and then touch [Reset All]. <p>TIP</p> <p>Touch [Reset All] to reset the sensor after changing the installation position or angle.</p> <p>NOTE</p> <p>If you touch [Reset Distance], all learned results stored in [Distance] are cleared.</p>
[Connection Status]	<p>Check that the leads are properly connected between this product and vehicle.</p>
[GPS Antenna]	<p>Displays the connection status of the GPS aerial ([OK] or [NOK]) and the reception sensitivity.</p> <p>NOTE</p> <p>If reception is poor, change the installation position of the GPS aerial.</p>
[Positioning Status]	<p>Displays the positioning status (3D positioning, 2D positioning, or no positioning), the number of satellites used for positioning (orange), and the number of satellites that have received signals (yellow). If signals from more than three satellites are received, the current location can be measured.</p>
[Installation]	<p>Indicates whether the installation position of this product is correct or not. If installed correctly, [OK] appears. When this product is installed at an extreme angle exceeding the limitation of the installing angle, [NOK(Inst. Angle)] is displayed. If the installation of this product is continually changed and it is not firmly fixed into place, [NOK(Vibration)] is displayed.</p>
[Speed Pulse]	<p>The speed pulse value detected by this product is shown.</p>
[Back Signal]	<p>When the gearstick is gearchanged to "R" (reverse position), the signal switches to [High] or [Low]. The signal displayed varies depending on the vehicle.</p>
[Licence]	<p>Displays the open source licence for this unit.</p>

Menu Item	Description
[Terms of Use / Privacy]	Select to accept or withdraw from the Internet Communication Service the Terms of Use and Privacy Policy. NOTE Weather function is not activated unless you agree to the Internet Communication Service the Terms of Use and Privacy Policy.

Theme settings

The menu items vary according to the source.

Menu Item	Description
[Background]	Select the wall paper from the preset items in this product or original pictures via the external device. The wall paper can be set from selections for the home menu screen and AV operation screen. TIP You can preview how each wallpaper will appear in [Light mode] or [Dark mode]. NOTE The [Background] settings are saved for each mobile phone connected via Bluetooth. The settings change depending on the mobile phone that is connected to this unit. If two mobile phones are connected to this unit at the same time, the settings of the first phone are applied.
Preset Display	Select the desired preset background display. TIP When the preset background display image with the  icon (for the AV operation screen only) is selected, the colour changes to match the colour of the artwork image.
 (custom)*1	Displays the background display image imported from the USB storage device. TIP Depending on the selected background image, the characters on the display may be difficult to see. In that case, try to set [Background filter On].
 (off)	Hides the background display.

Menu Item	Description
[Illumination]*2	Select an illumination colour from the colour list or create a defined colour.
Coloured Keys	Select the desired preset colour.
 (custom)	Displays the screen to customise the illumination colour. To customise the defined colour, touch  then touch  or  to adjust the brightness and the level of red, green and blue to create favourite colour. To store the customised colour in the memory, touch and hold [Memo], and the customised colour will be available at the next illumination setting by touching  .
 (rainbow)	Shifts gradually between the preset colours in sequence.
[Theme]*2	Select the theme colour. NOTE This function is not available when Light mode is activated.
[Clock]	Select the style of the clock from the preset image for the [Home] or [AV] screen.
Preset Images	Select the desired preset style for the clock.
 (off)	Hides the clock display on the [AV] screen.
[Home Custom Setting]	Customise the home menu screen of the following items. <ul style="list-style-type: none"> • Switch the favourite source/application area • Customise the displayed favourite source/application • Rearrange the displayed favourite source/application
[Appearance]	Switches the screen appearance to Light mode or Dark mode. (This setting is also applied to the screen of Apple CarPlay or Android Auto.)
[Dimmer]	Switches to the Light mode or the Dark mode automatically according to the [Dimmer Settings] (page 79).
[Light]	Sets the Light mode to see the screen clearly under strong sunlight.
[Dark]	Sets the Dark mode when the inside of your vehicle is dark.

Menu Item	Description
[Splash screen] [Import] [Restore]	Select [Import] to change the image on the opening screen to the one imported from the connected USB device. Select [Restore] to restore the default image. NOTES <ul style="list-style-type: none"> The image files that can be imported are as follows: <ul style="list-style-type: none"> Format: BMP and JPEG Data size: 3.5 MB or less (for both BMP and JPEG) Image size (W×H): 1 024 × 600 pixels If multiple image files are stored on the USB device, the desired image file may not be imported from the USB device. Store only one desired image file on the USB device.

*1 Refer to Still image source (page 49).







*2 You can preview the home menu screen or the AV operation screen by touching [Home] or [AV] respectively.



Audio settings

The menu items vary according to the source. Some of the menu items become unavailable when the volume is set to mute.

Menu Item	Description
[Fader/Balance]	Touch or to adjust the front/rear speaker balance. Set [Front] and [Rear] to [0] when using a dual speaker system. Touch or to adjust the left/right speaker balance. TIP You can also set the value by dragging the point on the displayed table. NOTE This function is available when [Standard Mode] is selected as the speaker mode and [Rear] is selected in [Rear Speaker Output].
[Loudness] [Off] [Low] [Mid] [High]	Compensates for deficiencies in the low-frequency and high-frequency ranges at low volume.

Menu Item	Description
[Source Level Adjuster] [-4] to [+4]	Adjust the volume level of each source to prevent radical changes in volume when switching between sources other than FM. Touch  or  to adjust the source volume after comparing the FM tuner volume level with the level of the source. TIP If you directly touch the area where the cursor can be moved, the SLA (source level adjustment) setting will be changed to the value of the touched point. NOTES <ul style="list-style-type: none"> • Settings are based on the FM tuner volume level, which remains unchanged. • This function is not available when the FM tuner is selected as the AV source.
[Sound Retriever] [Off] [Mode1] [Mode2]	Enhances compressed audio and restores rich sound automatically. TIP [Mode2] has a stronger effect than [Mode1].
[Speaker Level] Listening Position*1*2 [Off] [Front Left] [Front Right] [Front] [All] Standard Mode*3 [Front Left] [Front Right] [Rear Left] [Rear Right] [Subwoofer] Network Mode*3 [High Left] [High Right] [Mid Left] [Mid Right] [Subwoofer] Speaker output level [-24] to [10]	Adjust the speaker output level of the listening position. 1 Touch  or  to select the listening position then select the output speaker. 2 Touch  or  to adjust the selected speaker output level. NOTE You can adjust the subwoofer output level if the [Subwoofer] setting is set to [On].
[Listening Position]*1 [Off] [Front Left] [Front Right] [Front] [All]	Select a listening position that you want to make as the centre of sound effects.

Menu Item	Description
[Balance]	Touch ◀ or ▶ to adjust the left/right balance. NOTE This function is available when [Network Mode] is selected as the speaker mode, or when [Standard Mode] is selected as the speaker mode and [Subwoofer] is selected in [Rear Speaker Output].
[Time Alignment] [On] [Off] Listening Position*1*2 [Off] [Front Left] [Front Right] [Front] [All] Standard Mode*3*4 [Front Left] [Front Right] [Rear Left] [Rear Right] [Subwoofer] Network Mode*3*4 [High Left] [High Right] [Mid Left] [Mid Right] [Subwoofer] Distance [0] to [350]	Select or customise the time alignment settings to reflect the distance between the listener's position and each speaker. You need to measure the distance between the head of the listener and each speaker unit. 1 Touch ◀ or ▶ to select the listening position then select the alignment speaker. 2 Touch ◀ or ▶ to input the distance between the selected speaker and listening position. TIP If you touch [TA On], the time alignment is turned off mandatorily. NOTE This function is available only when the listening position setting is set to [Front Left] or [Front Right].
[Graphic EQ] [Super Bass (S.Bass)] [Powerful] [Natural] [Vocal] [Flat] [Custom1] [Custom2]	Select or customise the equaliser curve. Select a curve that you want to use as the basis of customising then touch the frequency that you want to adjust. TIPS <ul style="list-style-type: none"> • If you make adjustments when a curve [Super Bass (S.Bass)], [Powerful], [Natural], [Vocal] or [Flat] is selected, the equaliser curve settings will be changed to [Custom1] mandatorily. • If you make adjustments when the [Custom2] curve is selected for example, the [Custom2] curve will be updated. • [Custom1] and [Custom2] curves can be created common to all sources. • If you trail a finger across the bars of multiple equaliser bands, the equaliser curve settings will be set to the value of the touched point on each bar.
[Subwoofer] [On] [Off]	Select enable or disable rear subwoofer output from this product.
[Crossover]*5	Select a speaker unit (filter) to adjust the HPF or LPF cutoff frequency and the slope for each speaker unit (page 89).
[Bass Boost] [0] to [+6]	Adjust the bass boost level.

Menu Item	Description
[Rear Speaker Output] [Rear] [Subwoofer]	Select the rear speaker output. NOTE This function is available when [Standard Mode] is selected as the speaker mode and the source is off.
[Mute Level]	If an interruption caused by an audio signal occurs while Apple CarPlay or Android Auto is being used, select mute or attenuate the volume of the AV source and iPhone/ smartphone application.
[ATT]	The volume becomes 10 dB lower than the current volume.
[Mute]	The volume becomes 0.
[Off]	The volume does not change.
[Subwoofer Settings]*5	Select the subwoofer phase (page 89).
[Save Settings]	Save to recall the following current sound settings by touching [OK]: slope, subwoofer phase, speaker level, Graphic EQ, HPF/LPF, listening position, crossover, time alignment. TIP When you touch [Cancel], return to the [Audio Settings] screen.
[Load Settings] [Initial Settings] [Sound Setting]	Load the sound settings. NOTE [Sound Setting] is available only when you have already saved the sound settings (page 89).

- *1 [All] is not available when [Network Mode] is selected as the speaker mode.
 *2 If you change the listening position setting, the set values for all speakers will change in conjunction with this setting.
 *3 To use this function, the vehicle's acoustics must be measured in advance.
 *4 This function is available only when the listening position setting is set to [Front Left] or [Front Right].
 *5 This function is not available when adjusting the High speaker in [Network Mode].

Adjusting the cutoff frequency value

You can adjust the cutoff frequency value of each speaker.

The following speakers can be adjusted:





[Standard Mode]: Front, Rear, Subwoofer.


[Network Mode]: High, Mid, Subwoofer.

NOTE

[Subwoofer Settings] is available only when [Subwoofer] is [On].

- 1 Touch  then swipe left on the screen.

- 2 Touch  then .
- 3 Touch [Crossover] or [Subwoofer Settings].
- 4 Touch  or  to switch the speaker.
- 5 Drag the graph line to set the cutoff position.
- 6 Drag the lowest point of the graph to set the cutoff slope.
The following items can also be set.

	Switches the subwoofer phase between normal and reverse position. TIP You can also adjust the [High] and [Mid] phase in [Network Mode].
[LPF]/[HPF]	Switches the [LPF]/[HPF] setting to [On] or [Off]. When it is turned off, the high-pass filter or low-pass filter of each speaker can also be turned on by touching the graph lines.



Video settings

The menu items vary according to the source.

[Time Per Photo Slide]

Menu Item	Description
[Time Per Photo Slide] [5sec] [10sec] [15sec] [Manual]	Select the interval of image file slideshows on this product.

[Video Signal Setting]

Menu Item	Description
[AUX] [Auto] [PAL] [NTSC] [PAL-M] [PAL-N] [SECAM]	Select the suitable video signal setting when you connect this product to an AUX equipment.
[Rear Viewing Camera] [Auto] [PAL] [NTSC] [PAL-M] [PAL-N] [SECAM]	Select the suitable video signal setting when you connect this product to a rear view camera.
[2nd Camera] [Auto] [PAL] [NTSC] [PAL-M] [PAL-N] [SECAM]	Select the suitable video signal setting when you connect this product to a 2nd camera.



Communication settings

[Connection]

Menu Item	Description
[Connection]	<p>Displaying a list of mobile devices that have been connected via Bluetooth or USB. Connect, disconnect, or delete registered mobile device manually. Touch to delete registered device. To connect a registered device manually, perform the following:</p> <ul style="list-style-type: none">• For an Apple CarPlay or Android Auto connection, touch the name of the device.• For a Bluetooth connection, touch . <p>To disconnect the device, touch in the list.</p> <p>TIP When there is not device in the list, the device search list screen appears then you can connect selected device.</p> <p>NOTES</p> <ul style="list-style-type: none">• Connect the Bluetooth device manually in the following cases:<ul style="list-style-type: none">– Two or more Bluetooth devices are registered, and you want to manually select the device to be used.– You want to reconnect a disconnected Bluetooth device.– Connection cannot be established automatically for some reason.• If you have deleted the registered Bluetooth device from the unit, also delete the registered unit's information from your iPhone or smartphone.

[Bluetooth Settings]

Setting the Bluetooth (page 18) and Hands-free phone (page 22).

[Select Wi-Fi]

Menu Item	Description
[Select Wi-Fi]	Select the following Wi-Fi mode.
[Smartphone]	Enable if you want to use this unit as an access point of the infrastructure mode network to connect your device to the unit wirelessly.

Menu Item	Description
[Hotspot]	Enable if you want to connect this unit to a Wi-Fi network.
[Off]	Disable the Wi-Fi function.

[Wi-Fi Settings: Smartphone]

Setting the infrastructure mode network (page 28).

[Wi-Fi Settings: Hotspot]

Setting the Wi-Fi connection and network (page 28).

[Driving Position]

Menu Item	Description
[Driving Position] [Right] [Left]	Setting the driving position. <ul style="list-style-type: none"> • Apple CarPlay (page 60) • Android Auto™ (page 64)

[Android Auto Auto-launch]

Menu Item	Description
[Android Auto Auto-launch] [On] [Off]	Select [On] to display the Android Auto screen automatically when an Android device is connected to the unit.

[Android Auto split screen]

Menu Item	Description
[Android Auto split screen] [On] [Off]	Select [On] to display the button for switching to the split screen view on the Android Auto screen.



Favourite menu

Registering your favourite menu items in shortcuts allows you to quickly jump to the registered menu screen by a simple touch on the [Favourites] screen.

NOTE

Up to 12 menu items can be registered in the favourite menu.




Creating a shortcut

- 1 Touch  then swipe left on the screen.
- 2 Touch .
- 3 Touch the star icon of the menu item for which to create a shortcut.
The star icon for the selected menu is filled in.




TIP

To cancel the registration, touch the star icon in the menu column again.

Selecting a shortcut

- 1 Touch  then swipe left on the screen.
- 2 Touch .
- 3 Touch .
- 4 Touch the desired menu item.

Removing a shortcut

- 1 Touch  then swipe left on the screen.
- 2 Touch .
- 3 Touch .
- 4 Touch and hold the menu item that you want to remove.
The selected menu item is removed from the [Favourites] screen.

Other functions

Setting the clock display

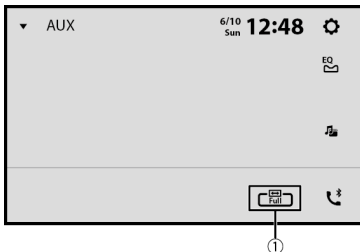
You can set the time format, time zone, daylight saving, and the date format. However, the time and date are automatically adjusted by the GPS aerial and cannot be adjusted by the user.

- 1 Touch the current time on the screen.
- 2 Set the following items in the settings.
 - The date display format:
day-month-year, month-day-year, or year-month-day
 - The time display format:
[12hour] or [24hour]
 - The UTC (Universal Time Coordinated) time zone difference:
[UTC-12h] to [UTC+14h]
 - Day-light saving time:
[On] or [Off]
 You can also configure these items in [Clock Settings] (page 79).

Changing the wide screen mode

You can set the screen mode for AV screen and image files.

- 1 Touch the screen display mode key.



①

Screen display mode key

2 Touch the desired mode.

[Full]	Displays images across the entire screen. NOTE Some images may not be displayed across the entire screen.
[Zoom]	Displays the images enlarging them vertically.
[Normal]	Displays images without changing the ratio.
[Trimming]	An image is displayed across the entire screen with the horizontal-to-vertical ratio left as is. If the screen ratio differs from the image, the image may be displayed partly cut off either at the top/bottom or sides. NOTE [Trimming] is for image files only.


TIPS

- Different settings can be stored for each video source.
- When a video is viewed in wide screen mode that does not match its original aspect ratio, it may appear different.
- The video image will appear coarser when viewed in [Zoom] mode.

NOTES

- Image files can be set to either [Normal] or [Trimming] in wide screen mode.
- Depending on the software version of this unit, this function may vary.

Restoring this product to the default settings

You can restore settings or recorded content to the default settings from [Restore Settings] in  (page 78).

Appendix

Troubleshooting

If you have problems operating this product, refer to this section. The most common problems are listed below, along with likely causes and solutions. If a solution to your problem cannot be found here, contact your dealer or the nearest authorised Pioneer service facility.

Common problems

A black screen is displayed, and operation is not possible using the touch panel keys.

- [Power OFF] mode is on.
 - Touch any button on this product to release the mode.

Bluetooth operation does not work.

- The power failed for the Bluetooth module of this product.
 - Turn the ignition switch to OFF and then to ON.
 If the error message is still displayed after performing the above action, please contact your dealer or an authorised Pioneer Service Station.

Problems with the AV screen

The screen is covered by a caution message and the video cannot be shown.

- The handbrake lead is not connected or the handbrake is not applied.
 - Connect the handbrake lead correctly, and apply the handbrake.
- The speed sensor detects that the vehicle is moving.

- Park your vehicle in a safe place and apply the handbrake.

No video output from the connected equipment.


- The [AV Input] or [AUX Input] setting is incorrect.
 - Correct the settings.

The audio or video skips.

- This product is not firmly secured.
 - Secure this product firmly.

No sounds are produced. The volume level will not rise.

- Cables are not connected correctly.
 - Connect the cables correctly.

The icon  is displayed, and operation is impossible.

- The operation is not compatible with the video configuration.
 - The operation is not possible.

The picture is stretched, with an incorrect aspect ratio.

- The aspect setting is incorrect for the display.
 - Select the appropriate setting for that image.

iPhone cannot be operated.

- The iPhone is frozen.
 - Reconnect the iPhone with the USB interface cable for iPhone.
 - Update the iPhone software version.
- An error has occurred.
 - Reconnect the iPhone with the USB interface cable for iPhone.
 - Park your vehicle in a safe place, and then turn off the ignition switch (ACC OFF). Subsequently, turn the ignition switch to on (ACC ON) again.

- Update the iPhone software version.
 - Reconnect the iPhone via the Wi-Fi connection.
- Cables are not connected correctly.
- Connect the cables correctly.

Sound from the iPhone cannot be heard.

- The audio output direction may switch automatically when the Bluetooth and USB connections are used at the same time.
- Use the iPhone to change the audio output direction.


Problems with the phone screen

Dialling is impossible because the touch panel keys for dialling are inactive.

- Your phone is out of range for service.
- Retry after re-entering the range for service.
- The connection between the mobile phone and this product cannot be established.
- Perform the connection process.
- Of the two mobile phones connected to this product at the same time, if the first phone is dialling, ringing or a call is in progress, dialling cannot be performed on the second phone.
- When the operation on the first of the two mobile phones is completed, use the switch devices key to switch to the second phone and then dial.

Problems with Application screen

A black screen is displayed.

- While operating an application, the application was ended on the smartphone side.
- Touch  to display the home menu screen.

- The smartphone OS may be awaiting screen operation.
- Stop the vehicle in a safe place and check the screen on the smartphone.

The screen is displayed, but operation does not work at all.

- An error has occurred.
- Park your vehicle in a safe place, and then turn off the ignition switch (ACC OFF). Subsequently, turn the ignition switch to on (ACC ON) again.
 - When an Android device is connected, disconnect the Bluetooth connection from this product and then reconnect it.

The smartphone was not charged.

- Charging stopped because the temperature of the smartphone rose due to prolonged use of the smartphone during charging.
- Disconnect the smartphone from the cable, and wait until the smartphone cools down.
- More battery power was consumed than was gained from charging.
- This problem may be resolved by stopping any unnecessary services on the smartphone.

Error messages

When problems occur with this product, an error message appears on the display. Refer to the table below to identify the problem, then take the suggested corrective action. If the error persists, record the error message and contact your dealer or your nearest Pioneer service centre.

Common

AMP Error

- This product fails to operate or the speaker connection is incorrect; the protective circuit is activated.
 - Check the speaker connection. If the message fails to disappear even after the engine is switched off/on, contact your dealer or an authorised Pioneer Service Station for assistance.

Product overheat. System will be shut down automatically in 15 seconds. Restart the product by ACC-Off/On may fix this problem. If this message keeps showing up, it is possible that some problem occurred in the product.

- The temperature of the main unit is too high.
 - Turn off the ignition switch (ACC OFF) then wait until the main unit temperature reaches low.

DAB tuner

Antenna Error

- The aerial connection is incorrect or an unusual voltage has been detected.
 - Turn the ignition switch OFF and connect the aerial correctly. After connecting, turn back ON again.

USB storage device

Error-02-9X/-DX

- Communication failed.
 - Turn the ignition switch OFF and back ON.
 - Disconnect the USB storage device.
 - Change to a different source. Then, return to the USB storage device.

Unplayable File

- There is no playable file in the USB storage device.
 - Check that the files in the USB storage device are compatible with this product.
- Security for the connected USB storage device is enabled.
 - Follow the USB storage device instructions to disable security.

Skipped

- The connected USB storage device contains DRM protected files.
 - The protected files are skipped.

Protect

- All the files on the connected USB storage device are embedded with DRM.
 - Replace the USB storage device.

Incompatible USB

- The connected USB storage device is not supported by this product.
 - Disconnect your device and replace it with a compatible USB storage device.

Check USB

- The USB connector or USB cable has short-circuited.
 - Check that the USB connector or USB cable is not caught in something or damaged.
- The connected USB storage device consumes more than maximum allowable current.
 - Disconnect the USB storage device and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect a compliant USB storage device.

HUB Error

- The connected USB hub is not supported by this product.

- Directly connect the USB storage device to this product.

No Response

- This product cannot recognise the connected USB storage device.
 - Disconnect the device and replace it with another USB storage device.
- The USB connector or USB cable has short-circuited.
 - Check that the USB connector or USB cable is not caught in something or damaged.
- The connected USB storage device consumes more than maximum allowable current.
 - Disconnect the USB storage device and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect a compliant USB storage device.
- The USB interface cable for iPhone has short-circuited.
 - Confirm that the USB interface cable for iPhone or USB cable is not caught in something or damaged.

Your device is not authorized to play this DivX protected video.

- This product cannot play copy-protected DivX files.
 - Select a file that can be played.

Audio Format not supported

- This type of file is not supported on this product.
 - Select a file that can be played.

iPhone

There was a problem communicating with your iPhone. Please reconnect.

- iPhone failure.
 - Disconnect the cable from the iPhone. Once the iPhone's main menu is

displayed, reconnect the iPhone and reset it.

- The iPhone firmware version is old.
 - Update the iPhone version.

Apple CarPlay

Connection failed.

- Communication failed and the system is trying to connect.
- Wait for a while. Then, perform the actions below if the error message is still displayed.
 - Restart the iPhone.
 - Disconnect the cable from the iPhone, and then connect the iPhone again after a few seconds.
 - Turn the ignition switch to OFF and then to ON.

Please attach the GPS antenna in order to use Apple CarPlay over Wireless.

- This unit cannot properly detect the GPS signal from the GPS aerial.
 - Check the GPS aerial installation and connection. For details about the connection and installation, refer to the Quick start guide.

The speed sensor is disconnected. Please attach it.

- The speed sensor cannot detect any signal.
 - Check the speed signal cable connection. For details about the connection, refer to the Quick start guide.

Please attach the GPS antenna and the speed sensor in order to use Apple CarPlay over Wireless.

- This unit cannot detect the GPS signal from the GPS aerial and the speed signal from the speed sensor.
 - Check the connection and installation for both. For details about the

connection and installation, refer to the Quick start guide.

If the error message is still displayed after performing the above action, please contact your dealer or an authorised Pioneer Service Station.

Android Auto

Android Auto has stopped.

- The connected device is not compatible with Android Auto.
 - Check if the device is compatible with Android Auto.
- The startup of Android Auto failed for some reasons.
 - Disconnect the cable from the smartphone, and then connect the smartphone again after a few seconds.
 - Restart the smartphone.
 - Turn the ignition switch to OFF and then to ON.

Android Auto has stopped. Please check the screen of your Android phone when it is safe to do so.

- The time set in the smartphone is not correct.
 - Set the correct time.

If the error message is still displayed after performing the above action, please contact your dealer or an authorised Pioneer Service Station.

Bluetooth pairing failed.

- The Bluetooth pairing failed for some reasons.
 - Pair this product with the device manually.

To use Android Auto, please stop your car and check your Android phone.

- The default settings are displayed on the screen of the Android Auto compatible device or images are not

output from the Android Auto compatible device.

- Park your vehicle in a safe place, and follow the instructions displayed on the screen. If the error message is still displayed after performing on-screen instructions, please reconnect the device.

Detailed information for playable media

Compatibility

Common notes about the USB storage device

- Do not leave the USB storage device in any location with high temperatures.
- Depending on the kind of the USB storage device you use, this product may not recognise the storage device or files may not be played back properly.
- The text information of some audio and video files may not be correctly displayed.
- File extensions must be used properly.
- There may be a slight delay when starting playback of files on an USB storage device with complex folder hierarchies.
- Operations may vary depending on the kind of an USB storage device.
- It may not be possible to play some music files from USB because of file characteristics, file format, recorded application, playback environment, storage conditions, and so on.

USB storage device compatibility

- For details about USB storage device compatibility with this product, refer to Specifications (page 109).
- Protocol: bulk
- You cannot connect a USB storage device to this product via a USB hub.

- Partitioned USB storage device is not compatible with this product.
- Firmly secure the USB storage device when driving. Do not let the USB storage device fall onto the floor, where it may become jammed under the brake or accelerator.
- There may be a slight delay when starting playback of audio files encoded with image data.
- Some USB storage devices connected to this product may generate noise on the radio.
- Do not connect anything other than the USB storage device.

The sequence of audio files on USB storage device.

For USB storage device, the sequence is different from that of USB storage device.

Handling guidelines and supplemental information

- Copyright protected files cannot be played back.

Common notes about DivX files

Notes specific to DivX files

- Only DivX files downloaded from DivX partner sites are guaranteed for proper operation. Unauthorised DivX files may not operate properly.
- This product corresponds to a DivX file display of up to 1 590 minutes 43 seconds. Search operations beyond this time limit are prohibited.
- For details on the DivX video versions that can be played on this product, refer to Specifications (page 109).
- For more details about DivX, visit the following site: <https://www.divx.com/>

Media compatibility chart

General

- Maximum playback time of audio file stored on an USB storage device: 8 h (480 minutes)

USB storage device

CODEC FORMAT	MP3, WMA, WAV, AAC, FLAC, DSD, AVI, MPEG-PS, MPEG-TS, MP4, 3GP, MKV, MOV, ASF, FLV, M4V
--------------	---

MP3 compatibility

- Ver. 2.x of ID3 tag is prioritised when both Ver. 1.x and Ver. 2.x exist.
- This product is not compatible with the following: MP3i (MP3 interactive), mp3 PRO, m3u playlist

SAMPLING FREQUENCY	8 kHz to 48 kHz
TRANSMISSION RATE	8 kbps to 320 kbps (CBR)/VBR
ID3 TAG	Folder Browse mode ver.1.0/1.1/2.2/ 2.3/2.4 Music Browse mode ver.2.2/2.3/2.4

WMA compatibility

- This product is not compatible with the following: Windows Media™ Audio 9.2 Professional, Lossless, Voice

SAMPLING FREQUENCY	32 kHz to 48 kHz
TRANSMISSION RATE	8 kbps to 320 kbps (CBR)/VBR

WAV compatibility

- The sampling frequency shown in the display may be rounded.

- If the sampling frequency of the file exceeds 48 kHz, the sampling frequency is reduced automatically to 48 kHz when the file is played.

SAMPLING FREQUENCY	16 kHz to 192 kHz
QUANTIZATION BIT RATE	8 bit/16 bit/24 bit/32 bit (int only)

AAC compatibility

- This product plays back AAC files encoded by iTunes.

SAMPLING FREQUENCY	8 kHz to 48 kHz
TRANSMISSION RATE	16 kbps to 320 kbps (CBR)

FLAC compatibility

- If the sampling frequency of the file exceeds 48 kHz, the sampling frequency is reduced automatically to 48 kHz when the file is played.

SAMPLING FREQUENCY	8 kHz to 192 kHz
QUANTIZATION BIT RATE	8 bit/16 bit/24 bit

DSD compatibility

- If the sampling frequency of the file exceeds 48 kHz, the sampling frequency is reduced automatically to 48 kHz when the file is played.

SAMPLING FREQUENCY	DSD64: 2.8 MHz DSD128: 5.6 MHz
QUANTIZATION BIT RATE	1 bit

DivX compatibility

- This product is not compatible with the following: DivX Ultra format, DivX files without video data, DivX files encoded with LPCM (Linear PCM) audio codec.

- Some special operations may be prohibited because of the composition of DivX files.

USB storage device

EXTENSION	.divx, .avi
MAX RESOLUTION	720 × 576

Video files compatibility

- Files may not be played back properly depending on the environment in which the file was created or on the contents of the file.
- This product is not compatible with packet write data transfer.
- This product can recognise up to 32 characters, beginning with the first character, including extension for the file and folder name. Depending on the display area, this product may try to display them with a reduced font size. However, the maximum number of the characters that you can display varies according to the width of each character, and of the display area.
- Folder selection sequence or other operations may be altered, depending on the order in which files are saved to the USB storage device.
- Regardless of the length of blank section between the songs of original recording, compressed audio files play with a short pause between songs.
- Files may not be able to be played back depending on the bit rate.
- The maximum resolution depends on the compatible video codec.
- This product's display does not have Full HD rendering capability.

.avi

Compatible video codec	MPEG4, DivX, H.264, H.263
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.mpg/.mpeg

Compatible video codec	MPEG2
Maximum resolution	720 × 576
Maximum frame rate	30 fps

.divx

Compatible video codec	DivX
Maximum resolution	720 × 576
Maximum frame rate	30 fps

.mp4

Compatible video codec	MPEG4, H.264, H.263
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.3gp

Compatible video codec	H.263
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.mkv

Compatible video codec	MPEG4, H.264, VC-1
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.mov

Compatible video codec	MPEG4, H.264, H.263
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.flv

Compatible video codec	H.264
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.wmv/.asf

Compatible video codec	VC-1
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.m4v

Compatible video codec	MPEG4, H.264, H.263
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

.ts/.m2ts/.mts

Compatible video codec	MPEG4, H.264, MPEG2
Maximum resolution	1 920 × 1 080
Maximum frame rate	30 fps

Example of a hierarchy**NOTE**

This product assigns folder numbers. The user cannot assign folder numbers.

Bluetooth

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Dolby®

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WMA

Windows Media is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

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FLAC

Copyright © 2000-2009 Josh Coalson

Copyright © 2011-2013 Xiph.Org
Foundation

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DivX



DivX® Home Theater Certified devices have been tested for high-quality DivX Home Theater video playback (including .avi, .divx). When you see the DivX logo, you know you have the freedom to play your favorite videos.

DivX®, DivX Certified® and associated logos are trademarks of DivX, LLC and are used under license.

This DivX Certified® device can play DivX® Home Theater video files up to 576p (including .avi, .divx).

Download free software at www.divx.com to create, play and cast digital videos.

AAC

AAC is short for Advanced Audio Coding and refers to an audio compression technology standard used with MPEG-2 and MPEG-4. Several applications can be used to encode AAC files, but file formats and extensions differ depending on the application which is used to encode. This unit plays back AAC files encoded by iTunes.

WebLink

WebLink™ is a trademark of Abalta Technologies, Inc.

Google, Android, Google Play

Google, Android and Google Play are trademarks of Google LLC.

Android Auto



Android Auto is a trademark of Google LLC.

T-Kernel 2.0

This Product uses the Source Code of T-Kernel 2.0 under T-License 2.2 granted by TRON Forum (www.tron.org).

Detailed information regarding connected iPhone devices

- Pioneer accepts no responsibility for data lost from an iPhone, even if that data is lost while using this product. Please back up your iPhone data regularly.
- Do not leave the iPhone in direct sunlight for extended amounts of time. Extended exposure to direct sunlight can result in iPhone malfunction due to the resulting high temperature.
- Do not leave the iPhone in any location with high temperatures.
- Firmly secure the iPhone when driving. Do not let the iPhone fall onto the floor, where it may become jammed under the brake or accelerator.
- For details, refer to the iPhone manuals.

iPhone, Siri, and Lightning



Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge and has been certified by the developer to meet 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 accessory with an Apple product may affect wireless performance. iPhone, Lightning, and Siri are trademarks of Apple Inc., registered in the U.S. and other countries. Works with Siri through the microphone.

App Store

App Store is a service mark of Apple Inc., registered in the U.S. and other countries.

iOS

iOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.

iTunes

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

Apple Music

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

Apple CarPlay



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

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

Compatible iPhone models

- iPhone 13 Pro Max
- iPhone 13 Pro
- iPhone 13
- iPhone 13 mini
- iPhone 12 Pro Max
- iPhone 12 Pro
- iPhone 12
- iPhone 12 mini
- iPhone SE (2nd generation)
- iPhone 11 Pro Max
- iPhone 11 Pro
- iPhone 11
- iPhone XR
- iPhone XS Max
- iPhone XS
- iPhone X

- iPhone 8
- iPhone 8 Plus
- iPhone 7
- iPhone 7 Plus
- iPhone SE (1st generation)
- iPhone 6s
- iPhone 6s Plus

Depending on the iPhone models, it may not be compatible with some AV sources. For details about iPhone compatibility with this product, refer to the information on our website.

Using app-based connected content

Important

Requirements to access app-based connected content services using this product:

- Latest version of the Pioneer compatible connected content application(s) for the smartphone, available from the service provider, downloaded to your smartphone.
- A current account with the content service provider.
- Smartphone Data Plan.
Note: if the Data Plan for your smartphone does not provide for unlimited data usage, additional charges from your carrier may apply for accessing app-based connected content via 3G, EDGE and/or LTE (4G) networks.
- Connection to the Internet via 3G, EDGE, LTE (4G) or Wi-Fi network.
- Optional Pioneer adaptor cable connecting your iPhone to this product.

Limitations:

- Access to app-based connected content will depend on the availability of cellular and/or Wi-Fi network coverage for the purpose of allowing your smartphone to connect to the Internet.

- Service availability may be geographically limited to the region. Consult the connected content service provider for additional information.
- Ability of this product to access connected content is subject to change without notice and could be affected by any of the following: compatibility issues with future firmware versions of smartphone; compatibility issues with future versions of the connected content application(s) for the smartphone; changes to or discontinuation of the connected Content application(s) or service by its provider.
- Pioneer is not liable for any issues that may arise from incorrect or flawed app-based content.
- The content and functionality of the supported applications are the responsibility of the App providers.
- In WebLink, Apple CarPlay and Android Auto, functionality through the product is limited while driving, with available functions determined by the App providers.
- Availability of WebLink, Apple CarPlay and Android Auto functionalities is determined by the App provider, and not determined by Pioneer.
- WebLink, Apple CarPlay and Android Auto allow access to applications other than those listed (subject to limitations while driving), but the extent to which content can be used is determined by the App providers.
- Connected services require connection to a wireless network via a compatible iPhone or Android smartphone device, which is subject to your wireless carrier's terms of service and data plan. Review your wireless service and data plan terms for any applicable restrictions, limitations and charges. Ability to use such services will depend on network availability and carrier terms of service. Availability of

non-Pioneer content and services, including apps and connectivity, may change without notice due to changes in operating systems, firmware or app versions; changes to, restrictions on or discontinuation of the service or service plans; non-Pioneer hardware changes; or other events.

Notice regarding video viewing

Remember that use of this system for commercial or public viewing purposes may constitute an infringement on the author's rights as protected by the Copyright Law.

Using the LCD screen correctly

Handling the LCD screen

- When the LCD screen is subjected to direct sunlight for a long period of time, it will become very hot, resulting in possible damage to the LCD screen. When not using this product, avoid exposing it to direct sunlight as much as possible.
- The LCD screen should be used within the temperature ranges shown in Specifications on page 109.
- Do not use the LCD screen at temperatures higher or lower than the operating temperature range, because the LCD screen may not operate normally and could be damaged.
- The LCD screen is exposed in order to increase its visibility within the vehicle. Please do not press strongly on it as this may damage it.

- Do not push the LCD screen with excessive force as this may scratch it.
- Never touch the LCD screen with anything besides your finger when operating the touch panel functions. The LCD screen can scratch easily.

Liquid crystal display (LCD) screen

- If the LCD screen is near the vent of an air conditioner, make sure that air from the air conditioner is not blowing on it. Heat from the heater may break the LCD screen, and cool air from the cooler may cause moisture to form inside this product, resulting in possible damage.
- Small black dots or white dots (bright dots) may appear on the LCD screen. These are due to the characteristics of the LCD screen and do not indicate a malfunction.
- The LCD screen will be difficult to see if it is exposed to direct sunlight.
- When using a mobile phone, keep the aerial of the mobile phone away from the LCD screen to prevent disruption of the video in the form of disturbances such as spots or coloured stripes.

Maintaining the LCD screen

- When removing dust from or cleaning the LCD screen, first turn this product off and then wipe the screen with a soft dry cloth.
- When wiping the LCD screen, take care not to scratch the surface. Do not use harsh or abrasive chemical cleaners.

LED (light-emitting diode) backlight

A light emitting diode is used inside the display to illuminate the LCD screen.

- At low temperatures, using the LED backlight may increase image lag and degrade the image quality because of the characteristics of the LCD screen. Image quality will improve with an increase in temperature.
- The product lifetime of the LED backlight is more than 30 000 hours. However, it may decrease if used in high temperatures.
- If the LED backlight reaches the end of its product lifetime, the screen will become dimmer and the image will no longer be visible. In that case, please consult your dealer or the nearest authorised Pioneer Service Station.

Specifications

General

Rated power source:

14.4 V DC (10.8 V to 15.1 V allowable)

Earthing system:

Negative type

Maximum current consumption:

10.0 A

Dimensions (W × H × D):

Body:

178 mm × 50 mm × 153 mm

Nose:

170 mm × 46 mm × 10.5 mm

Monitor:

234.5 mm × 136.5 mm × 35.5 mm

Weight:

Body:

0.99 kg

Monitor:

0.75 kg

Display

Screen size/aspect ratio:

9.0 inch wide/16:9 (effective display area:
196.608 mm × 114.15 mm)

Pixels:

1 024 (Width) × 600 (Height) × 3 (RGB)

Display method:

TFT Active matrix driving

Colour system:

PAL/NTSC/PAL-M/PAL-N/SECAM
compatible

Temperature range:

-10 °C to +60 °C

Audio

Maximum power output:

- 50 W × 4
- 50 W × 2 ch/4 Ω + 70 W × 1 ch/2 Ω (for subwoofer)

Continuous power output:

22 W × 4 (50 Hz to 15 kHz, 5 %THD, 4 Ω
LOAD, Both Channels Driven)

Load impedance:

4 Ω (4 Ω to 8 Ω [2 Ω for 1 ch] allowable)

Preout output level (max): 2.0 V

Equaliser (13-Band Graphic Equaliser):

Frequency:

50 Hz/80 Hz/125 Hz/200 Hz/315 Hz/
500 Hz/800 Hz/1.25 kHz/2 kHz/3.15
kHz/5 kHz/8 kHz/12.5 kHz

Gain: ±12 dB (2 dB/step)

<Standard Mode>

HPF: ON/OFF

Frequency:

25 Hz/31.5 Hz/40 Hz/50 Hz/63 Hz/80
Hz/100 Hz/125 Hz/160 Hz/200 Hz/250
Hz

Slope:

-6 dB/oct, -12 dB/oct, -18 dB/oct, -24
dB/oct

LPF (Subwoofer): ON/OFF

Frequency:

25 Hz/31.5 Hz/40 Hz/50 Hz/63 Hz/80
Hz/100 Hz/125 Hz/160 Hz/200 Hz/250
Hz

Slope:

-6 dB/oct, -12 dB/oct, -18 dB/oct, -24
dB/oct, -30 dB/oct, -36 dB/oct

Phase: Normal/Reverse

Time alignment:

0 to 350 cm (1.4 cm/step)

Speaker level:

+10 dB to -24 dB (1 dB/step)

<Network Mode>

HPF (High):**Frequency:**

1.25 kHz/1.6 kHz/2 kHz/2.5 kHz/3.15 kHz/4 kHz/5 kHz/6.3 kHz/8 kHz/10 kHz/12.5 kHz

Slope:

-6 dB/oct, -12 dB/oct, -18 dB/oct, -24 dB/oct

Phase (High): Normal/Reverse**HPF (Mid): ON/OFF****Frequency:**

25 Hz/31.5 Hz/40 Hz/50 Hz/63 Hz/80 Hz/100 Hz/125 Hz/160 Hz/200 Hz/250 Hz

Slope:

-6 dB/oct, -12 dB/oct, -18 dB/oct, -24 dB/oct

LPF (Mid): ON/OFF**Frequency:**

1.25 kHz/1.6 kHz/2 kHz/2.5 kHz/3.15 kHz/4 kHz/5 kHz/6.3 kHz/8 kHz/10 kHz/12.5 kHz

Slope:

-6 dB/oct, -12 dB/oct, -18 dB/oct, -24 dB/oct

Phase (Mid): Normal/Reverse**LPF (Subwoofer): ON/OFF****Frequency:**

25 Hz/31.5 Hz/40 Hz/50 Hz/63 Hz/80 Hz/100 Hz/125 Hz/160 Hz/200 Hz/250 Hz

Slope:

-6 dB/oct, -12 dB/oct, -18 dB/oct, -24 dB/oct, -30 dB/oct, -36 dB/oct

Phase (Subwoofer): Normal/Reverse**Time alignment:**

0 to 350 cm (1.4 cm/step)

Speaker level:

+10 dB to -24 dB (1 dB/step)

USB**USB standard spec:**

USB 1.1, USB 2.0 full speed, USB 2.0 high speed

Max current supply: 1.5 A**USB Class:**

MSC (Mass Storage Class), MTP (Media Transfer Protocol)

File system: FAT16, FAT32, NTFS

<USB audio>

MP3 decoding format:

MPEG-1 & 2 & 2.5 Audio Layer 3

WMA decoding format:

Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio) (Windows Media Player)

AAC decoding format:

MPEG-4 AAC (iTunes encoded only) (Ver. 12.5 and earlier)

FLAC decoding format (MSC Mode only):

Ver. 1.3.0

Sampling frequency:

8 kHz to 192 kHz

WAV signal format (MSC Mode only):

Linear PCM

Sampling frequency:

16 kHz/22.05 kHz/24 kHz/32 kHz/44.1 kHz/48 kHz/96 kHz/192 kHz

DSD64, DSD128 format (MSC Mode only):

.dff, .dsf

<USB image>

JPEG decoding format (MSC Mode only):

.jpeg, .jpg, .jpe

Pixel Sampling: 4:2:2, 4:2:0

Decode Size:

MAX: 7 680 (H) × 8 192 (W)

MIN: 32 (H) × 32 (W)

PNG decoding format (MSC Mode only):

.png

Decode Size:

MAX: 576 (H) × 720 (W)

MIN: 32 (H) × 32 (W)

BMP decoding format (MSC Mode only):

.bmp

Decode Size:

MAX: 936 (H) × 1 920 (W)

MIN: 32 (H) × 32 (W)

<USB video>

H.264 video decoding format:

Base Line Profile, Main Profile, High Profile

H.263 video decoding format:

Base Line Profile 0/3

VC-1 video decoding format:

Simple Profile, Main Profile, Advanced Profile

DivX:

Home Theater

MPEG4 video decoding format:

Simple Profile, Advanced Simple Profile

MPEG2 video decoding format:

Main Profile

Bluetooth

Version:

Bluetooth 5.2 certified

Output power:

+4 dBm Max. (Power class 2)

Bluetooth Low Energy output power:

+5 dBm Max.

Frequency band(s):

2 402 MHz to 2 480 MHz

Bluetooth profiles:

HFP (Hands Free Profile) 1.7.2

PBAP (Phone Book Access Profile) 1.2.3

A2DP (Advanced Audio Distribution Profile) 1.3.2

AVRCP (Audio/Video Remote Control Profile) 1.6.2

SPP (Serial Port Profile) 1.2

AVCTP (Audio/Video Control Transport Protocol) 1.4

AVDTP (Audio/Video Distribution Transport Protocol) 1.3

DIP (Device ID Profile) 1.3

GAVDP (Generic Audio/Video Distribution Profile) 1.3

IOP (Interoperability Test Specification)

OPP (Object Push Profile) 1.2.1

RFCOMM (RFCOMM with TS 07.10) 1.2

FM tuner

Frequency range:

87.5 MHz to 108 MHz

Usable sensitivity:

12 dBf (1.1 μ V/75 Ω , mono, S/N: 30 dB)

Signal-to-noise ratio:

65 dB (IEC-A network)

MW tuner

Frequency range:

531 kHz to 1 602 kHz

Usable sensitivity:

25 μ V (S/N: 20 dB)

Signal-to-noise ratio:

60 dB (IEC-A network)

LW tuner

Frequency range:

153 kHz to 281 kHz

Usable sensitivity:

28 μ V (S/N: 20 dB)

Signal-to-noise ratio:

60 dB (IEC-A network)

DAB tuner

Frequency range:

174.928 MHz to 239.200 MHz (5A to 13F) (Band III)

1 452.960 MHz to 1 490.624 MHz (LA to LW) (L Band)

Usable sensitivity :

-99 dBm (Band III)

-97 dBm (L Band)

Signal-to-noise ratio: 85 dB

Wi-Fi

Version:

IEEE 802.11 b/g/n (2.4 GHz)

IEEE 802.11 a/n/ac (5 GHz)

Frequency channel:

1 to 11 ch (2.4 GHz)

149, 151, 155 ch (5 GHz)

Security:

OPEN/WPA (Personal)/WPA2 (Personal)/WPA3 (Personal)

Output power:

+16.5 dBm Max (2.4 GHz)

+17.5 dBm Max (5 GHz)

GPS

GNSS receiver

System:

GPS L1C/Ac, SBAS L1C/A, GLONASS

L10F, Galileo E1B/C

SPS (Standard Positioning Service)

Reception system:

72 channel Multi-channel reception system

Reception frequency:

1 575.42 MHz/1 602 MHz

Sensitivity:

-140 dBm (typ)

Frequency:

Approx. once per second

GPS aerial

Aerial:

Micro strip flat aerial/right-handed helical polarization

Aerial cable:

3.55 m

Dimensions (W × H × D):

33 mm × 14.7 mm × 36 mm

Weight:

73.7 g

NOTE

Specifications and design are subject to possible modifications without notice due to improvements.

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