SPH-DA230DAB
SPH-DA130DAB

RDS AV RECEIVER

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.

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.

If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).
For countries not mentioned above, please contact your local authorities for the correct method of disposal.
By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

⚠ WARNING

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product, and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered with items (such as papers, floor mat, cloths).

⚠ CAUTION

This product is evaluated in moderate and tropical climate condition under the Audio, video and similar electronic apparatus - Safety requirements, IEC 60065.

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.**
- **Do not take any steps to tamper with or disable the handbrake interlock system which is in place for your protection. Tampering with or disabling the handbrake interlock system could result in serious injury or death.**
- **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.

Rear view camera

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.

In case of trouble

Should this product fail to operate properly, contact your dealer or nearest authorised Pioneer Service Station.

Visit our website

Visit us at the following site:
http://www.pioneer-car.eu
• 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 it's 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.

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

DA000DAB	This indicates model names that are supported by the described operations.
👆	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.

Parts and controls

Main unit

DA230DAB
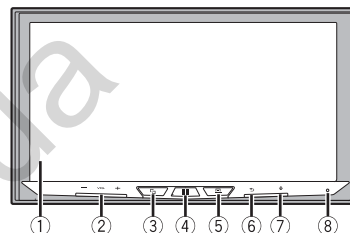
DA130DAB
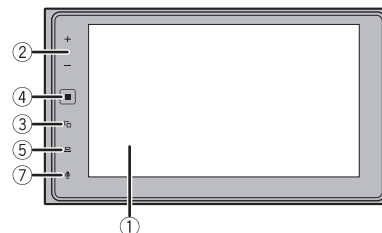
NOTE

For SPH-DA230DAB, press buttons on the main unit, and for SPH-DA130DAB, touch buttons on the main unit.

①	LCD screen
②	VOL (+/-)

③	⌐⌐	Press (touch) to switch between the Application screen and the AV operation screen. For SPH-DA230DAB, press and hold to switch to the camera view mode, and for SPH-DA130DAB, touch and hold to turn off the display. **NOTE** To activate the camera view mode with this button, set [Back Camera Input] to [On] or [AV Input] to [Camera] (page 34).
④	⊞	Press (touch) to display the top menu screen. Press (touch) and hold to power off. To power back on, press (touch) any button.
⑤	⊟	Press (touch) to display the menu bar (page 7). Press (touch) and hold to mute or unmute.
⑥	↰	Press to display the top menu screen or back to previous screen. Press and hold to turn off the display.
⑦	🎤	Press (touch) to activate the voice recognition mode such as Siri when the iPhone is connected to the unit via Bluetooth or USB.
⑧	RESET	Press to reset the microprocessor (page 6).

Basic operation

Resetting the microprocessor

DA230DAB

⚠ CAUTION

- Pressing the RESET button resets settings and recorded contents to the factory settings.
  - Do not perform this operation when a device is connected to this product.
  - Some of the settings and recorded contents will not be reset.
- The microprocessor must be reset under the following conditions:
  - Prior to using this product for the first time after installation.
  - If this product fails to operate properly.
  - If there appears to be problems with the operation of the system.

1 Turn the ignition switch OFF.

2 Press RESET with a pen tip or other pointed tools.
Settings and recorded contents are reset to the factory settings.

Remote control

DA230DAB

The remote control CD-R33 is sold separately. For details concerning operations, see the remote control manual.

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 Touch the language.

3 Touch ⟶.
The [Speaker Mode Settings] screen appears.

4 Touch the speaker modes.
[**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].

Initial Legal Disclaimer screen appears.

6 Touch [OK].

The top 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 43).

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 43).

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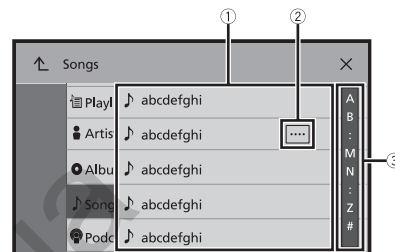
①	**Touching an item on the list allows you to narrow down the options and proceed to the next operation.**
②	**Appears when all characters are not displayed on the display area.** If you touch the key, the rests are scrolled for display.
	NOTE This function is available only when you stop your vehicle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

Operating the time bar
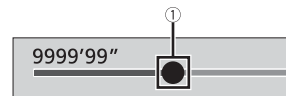
①	**You can change the playback point by dragging the key.** The playback time corresponding to the position of the key is displayed while dragging the key.

Operating the menu bar

1 Press (touch) ▭ .

The menu bar pops up on the screen.

NOTE

The menu bar availability may vary depending on the activating source.

abcdefgh

☀/🌙	**Switches the dimmer duration by day or night.** **NOTE** When AppRadio Mode + is on, AppRadio Mode + SideControlBar is displayed.
▶/❚❚	**Switches between playback and pause.**
❙◀◀ ▶▶❙	👆 **Skips files forwards or backwards.**
	👆 **Performs fast reverse or fast forwards.**
⚙	**Displays setting menu screen (page 33).**
✕	**Closes the menu bar.**

Top menu screen

6/10 | 12:48

iPod

AV

① ②

①	**Favourite source icons** **TIPS** • When you connect the external navigation system to this unit, the navigation mode key is displayed at the middle of the right side of the display. • If you select [Power OFF], you can turn off almost all functions. – An incoming call is received (only for hands-free phoning via Bluetooth). – A rear view camera image is input when the vehicle is in reverse. – A button on this unit is pressed (touched). – The ignition switch is turned off (ACC OFF), then turned on (ACC ON).
②	**AV operation key** Displays the current source. **TIP** When the last source is displayed behind the key, you can switch the source by touching the key.
🕐 12:48	**Setting the time and date (page 42)**
⚙	**Settings (page 33) and Favourite menu (page 42)**
📱	**Connected device key** Displays connected device. Switches the source or application with connected devices such as AppRadio Mode +, external navigation system, etc. **TIP** When a device with a compatible application is connected, the favourite application key appears. Once the key appears, you can adjust the range of the favourite application key area with the following steps. **1 Touch and hold 📱.** 🔄 appears at the top right of the favourite application key. **2 Drag 🔄 to the desired position.** To finish the adjusting, touch any place of the display except for the favourite application key. **NOTE** This function is available only when you stop your vehicle in a safe place and apply the handbrake.
🎵 AV	**AV source (page 15)**
📞	**Hands-free phoning (page 10)**

8 En

Bluetooth

Bluetooth connection

1 Turn on the Bluetooth function on the device.

2 Press (touch) ⊞.

3 Touch ⚙ then ⓑ.
The Bluetooth screen appears.

4 Touch [Connection].

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

6 Touch the Bluetooth device name.
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, [Memory Full] is displayed. Delete a paired device first (page 9).
- If your device supports SSP (Secure Simple Pairing), a six-digit number appears on the display of this product. Touch [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] menu is set to [On] (page 9). 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 9).

Bluetooth settings

1 Press (touch) ⊞.

2 Touch ⚙ then ⓑ.

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

Menu Item	Description
[Connection]	Connect, disconnect, or delete registered Bluetooth device manually. Touch 🗑 to delete registered device. To connect a registered Bluetooth device manually, touch the name of the device. To disconnect the device, touch the name of the connected device in the list. **NOTE** Connect the Bluetooth device manually in the following cases: • 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.
[Auto Connect] [On] [Off]	Select [On] to connect the last connected Bluetooth device automatically. **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.

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 9).
- 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 10).
- 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 9).

⚠ **CAUTION**

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

Making a phone call

1 Press (touch) 　.

2 Touch 　.
The phone menu screen appears.

3 Touch one of the call icons on the phone menu screen.

①	The following items are displayed.
	• 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
	TIP
	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.
②	**Switches the search language to English or system language.**
	NOTE
	It may not appear depending on the system language setting.
	Synchronises the contacts on this product's phone book with the contacts on your phone manually.
	Using preset dial list (page 10)
	Using phone book
	Select a contact from the phone book. Touch the desired name on the list then select the phone number.
	TIPS
	• The contacts on your phone will be automatically transferred to this product.
	• Update the phone book manually.
	NOTES
	• [Visibility] of the [Bluetooth] screen should be on (page 9).
	• If two mobile phones are automatically connected to this product with the Bluetooth device auto connect function, the phone book of the second phone is displayed.
	Using call history
	Make a phone call from the received call 　, dialled call 　, or missed call 　.
	Direct phone number input
	Enter the number keys to enter the phone number then touch 　 to make a call.

▶**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 Press (touch) 　.

2 Touch ⌕.

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 ▢.

2 Touch the desired entry on the list to make a call.

The dial screen appears and dialling starts.

▶**Deleting a phone number**

1 Press (touch) ▦.

2 Touch ⌕.

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.

NOTES
- When an iPhone is used, Siri Eyes Free Mode is available with this product.
- In this chapter, iPhone and iPod touch will be referred to as "iPhone".

1 Press (touch) ▦.

2 Touch ⌕.

3 Touch 🎙.

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

TIPS
- You can also launch the voice recognition function by pressing (touching) 🎙.
- 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 second 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.

Minimising the dial confirmation screen

1 Touch ▭.

TIP
To display the dial confirmation screen, touch ⌕ again.

NOTES
- The dial confirmation screen cannot be minimised on the AV operation screen.
- AV sources cannot be selected even if the dial confirmation screen is minimised while talking on the phone or receiving an incoming call.

Phone settings

1 Press (touch) ▦.

2 Touch ⚙ then 🅱.

Menu Item	Description
[Auto Answer] [On] [Off]	Select [On] to answer an incoming call automatically.
[Ring Tone] [On] [Off]	Select [On] if the ring tone does not come out from the car speakers.
[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 [⏸Private On] or [⏸Private Off] to turn private mode on or off.

• 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 [🎤Vol] 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 the same phone number is registered under different names, only the phone number will be displayed.

▶**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 9).

• 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 Press (touch) [▮▮].

2 Touch [⚙] then [⏐⏐].
The system setting screen appears.

3 Touch [AV Source Settings].

4 Confirm that [Bluetooth Audio] is turned on.

5 Press (touch) [▮▮].

6 Touch [AV].
The AV source screen appears.

7 Touch [Bluetooth Audio].

The Bluetooth audio playback screen appears.

Basic operation

Bluetooth audio playback screen

①	Track number indicator
▶ ⏸	**Switches between playback and pause.**
⏮ ⏭	**Skips files forwards or backwards.** • By pressing (touching) ⊡ then touch ⏮ or ⏭ , you can also skip files forwards or backwards. • By pressing (touching) ⊡ then touch and hold ⏮ or ⏭ , you can also perform fast reverse or fast forwards.
🔁	**Sets a repeat play range.**
🔀	**Plays files in random 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 9).**

AppRadio Mode +

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

NOTES
• The compatible finger gestures vary depending on the application for an iPhone or a smartphone.
• Even though an application is not compatible with AppRadio Mode +, depending on the application an image may be displayed. But you can not operate the application. To use AppRadio Mode +, install the AppRadio app on the iPhone or smartphone in advance. For details about the AppRadio app, visit the following site:
http://www.pioneer-car.eu/eur/appradiomode
• Be sure to read Using app-based connected content (page 52) before you perform this operation.
• Copyright protected files such as DRM cannot be played.
• AppRadio Mode + may be referred to as AppRadio Mode.

⚠ **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 AppRadio Mode +

🔁 **Important**
• 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 AppRadio Mode +, functionality through the product is limited while driving, with available functions determined by the App providers.
• Availability of AppRadio Mode + functionality is determined by the App provider, and not determined by Pioneer.
• AppRadio Mode + allows 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.

Starting procedure

When connecting an iPhone or a smartphone to this product, the settings are automatically configured according to the device to be connected. For details of the available connection, refer to iPod/iPhone or smartphone connection for AV source (page 17).

TIPS
• Touch the desired application icon after the AppRadio app is launched.

- If you connect your device to this product while an AppRadio Mode + compatible application is already running, the application operation screen will appear on this product.
- The desired application is launched, and the application operation screen appears.
- Press (touch) ▦ to go back to the top menu screen.

AppRadio Mode +
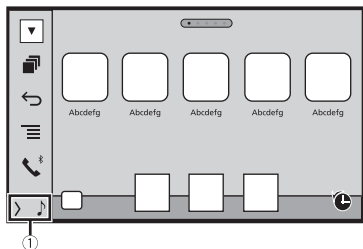
①	Displays the current source.
🗗	Displays the launcher application screen.
←	Displays the previous screen.
≣	Displays the menu screen.

- Press (touch) 🗗 then touch ⌐ to hide the AppRadio Mode + SideControlBar.
- Press (touch) 🗗 then touch ⌐ again to display the AppRadio Mode + SideControlBar again.
- ← and ≣ are not available depending on the type of device.

For iPhone users

1 **Connect your iPhone.**
Refer to the Installation Manual.

2 **Press (touch)** ▦ **.**

3 **Touch** ☐ **.**

4 **Touch [AppRadio Mode].**

5 **Touch desired icon in the tab.**
The AppRadio app is launched.

For smartphone (Android) users

NOTES
- [USB MTP] is set to [Off] to use AppRadio Mode + (page 34).
- The video playback capability depends on the connected Android device.

1 **Unlock your smartphone and connect it to this product via USB.**
Refer to the Installation Manual.

2 **Press (touch)** ▦ **.**

3 **Touch** ☐ **.**

4 **Touch [AppRadio Mode].**

5 **Touch desired icon in the tab.**
The AppRadio app is launched.

Using the keyboard

When you tap the text input area of an application for iPhone, a keyboard will be displayed on the screen. You can input desired text directly from this product.

NOTE
This function is only available in AppRadio Mode + on the iPhone.

⚠ CAUTION
For your safety, the keyboard functionality is only available when the vehicle is stopped and the handbrake is engaged.

1 **Start up the AppRadio Mode +.**

2 **Touch the text input area on the application operation screen.**
A keyboard for entering text appears.

TIP
You can select the keyboard language (page 35).

Using the audio mix function

You can output the audio mixing AV source and an application for iPhone or smartphone when AppRadio Mode + is used.

NOTE
Depending on the application or AV source, this function may not be available.

1 **Start up the AppRadio Mode +.**

2 **Press (touch) VOL (+/-).**

The audio mix menu will be displayed on the screen.
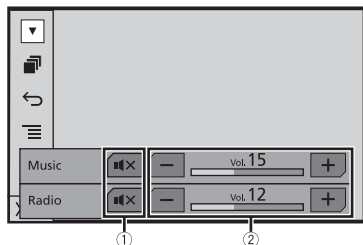
①	**Touch to mute. Touch again to cancel mute.**
②	**Adjusts the audio volume.**

TIP

The AV operation screen and the Application screen can be switched by pressing (touching) ▦ .

AV source

Supported AV source

You can play or use the following sources with this product.
• Radio
• Digital Radio
• USB
The following sources can be played back or used by connecting an auxiliary device.
• iPod
• Spotify®
• Bluetooth® audio
• AV input (AV)
• AUX

Displaying the AV operation screen

1 Press (touch) ▦ then touch the AV operation key.
The AV operation screen appears.

①	**Displays the source list.**

Autogoods "130"

Selecting a source

Source on the AV source selection screen

1 Press (touch) [▦] then touch [AV].

2 Touch the source icon.
When you select [Source OFF], the AV source is turned off.

Source on the source list

1 Press (touch) [▦] then touch AV operation key.

2 Touch [▼].

3 Touch the source key.
When you select [Source OFF], the AV source is turned off.

Changing the display order of source

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

Changing the display order of source icons

1 Press (touch) [▦] then touch [AV].

2 Touch and hold the source icon and drag the icon to the desired position.

Changing the display order of source keys

1 Press (touch) [▦] then touch AV operation key.

2 Touch [▼].

3 Touch [⊟].

4 Drag the source key to the desired position.

Adjusting the range of favourite source icons area

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

1 Press (touch) [▦].

2 Touch and hold [AV].
⊘ appears at the top left of the favourite source icons.

3 Drag ⊘ to the desired position.
To finish the adjusting, touch any place of the display except for the favourite source icons area.

Autogoods "130"

iPod/iPhone or smartphone connection for AV source

When using an iPod/iPhone or a smartphone with this product, the settings are automatically configured according to the device to be connected. This section describes source compatibility for each device with the connection.

NOTES
- Operation methods may vary depending on the iPod/iPhone model or smartphone and its software version.
- Depending on the software version of iPod/iPhone or the version of smartphone OS, it may not be compatible with this unit.

iPod/iPhone with a Lightning connector

These are the methods to connect an iPod/iPhone with a Lightning connector to this product. The available sources vary depending on the connection method.
- Connecting via Bluetooth (page 17)
- Connecting via CD-IU52* (page 17)
* Sold separately

Compatible iPod/iPhone models
- iPhone 7
- iPhone 7 Plus
- iPhone SE
- iPhone 6s
- iPhone 6s Plus
- iPhone 6
- iPhone 6 Plus
- iPhone 5s
- iPhone 5c
- iPhone 5
- iPod touch (6th generation)
- iPod touch (5th generation)
- iPod nano (7th generation)

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

TIP
You can connect and control an iPod/iPhone compatible with this product by using separately sold connector cables.

Connecting via Bluetooth

The following sources are available when an iPod/iPhone is connected to the unit via Bluetooth.
- iPod
- Spotify
- Bluetooth audio

1 Connect an iPod/iPhone with this product via Bluetooth (page 9).

2 Press (touch) [ ] then touch [AV].

3 Touch compatible desired source.

Connecting via CD-IU52

The following sources are available when an iPod/iPhone with a Lightning connector is connected to the unit via CD-IU52 (sold separately).
- iPod
- Spotify

1 Connect an iPod/iPhone to USB port of this product by CD-IU52.

2 Press (touch) [ ] then touch [AV].

3 Touch compatible desired source.

- AppRadio Mode +

1 Connect an iPod/iPhone to USB port of this product by CD-IU52.

2 Press (touch) [ ] then touch [ ].

3 Touch [AppRadio Mode].

4 Touch desired icon in the tab.

iPhone with a 30-pin connector

These are the methods to connect an iPhone with a 30-pin connector to this product. The available sources vary depending on the connection method.
- Connecting via Bluetooth (page 18)
- Connecting via CD-IU51* (page 18)
* Sold separately

Compatible iPhone model

- iPhone 4s

For details about iPhone compatibility with this product, refer to the information on our website.

TIP

You can connect and control an iPhone compatible with this product by using separately sold connector cables.

Connecting via Bluetooth

The following sources are available when an iPhone is connected to the unit via Bluetooth.

- iPod
- Spotify
- Bluetooth audio

1 Connect an iPhone with this product via Bluetooth (page 9).

2 Press (touch) | :::: | **then touch** | AV | .

3 Touch compatible desired source.

Connecting via CD-IU51

The following sources are available when an iPhone with a 30-pin connector is connected to the unit via CD-IU51 (sold separately).

- iPod
- Spotify

1 Connect an iPhone to USB port of this product by CD-IU51.

2 Press (touch) | :::: | **then touch** | AV | .

3 Touch compatible desired source.

Smartphone (Android™ device)

These are the methods to connect a smartphone to this product. The available sources vary depending on the connection method.

- Connecting via Bluetooth (page 18)
- Connecting via CD-MU200* (page 18)

* Sold separately

Compatible smartphones

Compatibility with all smartphones is not guaranteed. For details about smartphone compatibility with this product, refer to the information on our website.

Connecting via Bluetooth

The following sources are available when a smartphone is connected to the unit via Bluetooth.

- Spotify
- Bluetooth audio

1 Connect a smartphone with this product via Bluetooth (page 9).

2 Press (touch) | :::: | **then touch** | AV | .

3 Touch compatible desired source.

Connecting via CD-MU200

The following sources are available when a smartphone is connected to the unit via CD-MU200.

- AppRadio Mode +

1 Connect a smartphone to USB port of this product by CD-MU200.

2 Press (touch) | :::: | **then touch** | 🔲 | .

3 Touch [AppRadio Mode].

4 Touch desired icon in the tab.

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 ensembles support the same service component, switches to another ensemble that has better reception automatically.

Starting procedure

1 Press (touch) |⊞| then touch `AV`.

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

Digital Radio screen

1 ⋮ 6	**Recalls the preset channel stored to a key from memory.**
	Stores the current broadcast frequency to a key.
›	**Displays the preset channel list.** Select an item on the list to switch to the preset service.
DAB1	**Selects the DAB1, DAB2, or DAB3 band.**
◄ ►	**Manual tuning** When there are multiple services in the same frequency, switches the services one by one.
	Seek tuning Skips to the nearest ensemble.
	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. **NOTES** • 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.

	Selects a service component.
☰	Touch the following category then select each item.
	[**Station**]: Displays all service components.
	[**Program Type**] (PTY label): Searches from programme type information.
	[**Station Group**] (ensemble label): Displays the ensemble list.
	TIP
	If you touch [List Update], you can update station list information manually.
	NOTES
	• 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.

TIPS
- By pressing (touching) 🗔 then touch 🔽 or 🔼, you can also switch the preset channels.
- By pressing (touching) 🗔 then touch and hold ⏮ or ⏭ and releasing it, you can also perform seek tuning.

DAB settings

1 Press (touch) ▦ .

2 Touch ⚙ then ⏏ .
The system setting screen appears.

3 Touch [AV Source Settings].

4 Touch [DAB settings].

The menu items vary according to the source.

Menu Item	Description
[Service Follow]*1*2 [On] [Off]	Searches for another ensemble that supports the same service component with better reception. If no alternative service component can be found or reception remains poor, the unit will automatically switch to an identical FM broadcast. (HARD LINK)
[Antenna Power] [On] [Off]	Select whether to output power to a connected Digital Radio aerial. For details on how to connect a Digital Radio aerial, refer to the Installation Manual.

Menu Item	Description
[TA Interrupt]*2	Receives the traffic announcement from the last selected frequency, interrupting the other sources.
[TA OFF]	Disables this function.
[DAB+RDS TA]	Receives current traffic information for DAB and RDS (AN-DAB1 has priority) if available.
[RDS TA ONLY]	Receives current traffic information for only RDS if available.
[Soft Link]*2 [On] [Off]	When HARD LINK is unsuccessful, tunes to another ensemble that supports the similar service component. If no alternative service component can be found or reception remains poor, this function will automatically switch to a similar FM broadcast. **NOTES** • 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 Depending on the model used, this menu may not be displayed.

Radio

Starting procedure

1 **Press (touch)** ⬛⬛ **then touch** $\boxed{AV}$ **.**

2 **Touch [Radio].**
The Radio screen appears.

Basic operation

Radio screen

[1] ... [6]	👆	**Recalls the preset channel stored to a key from memory.**
	👇	**Stores the current broadcast frequency to a key.**
〉		**Displays the preset channel list.** Select an item on the list ([1] to [6]) to switch to the preset channel.
FM1 MW		**Selects the FM1, FM2, FM3, MW, or LW band.**
BSM		**Performs BSM (best stations memory) function (page 21).**

◀ ▶	👆	**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, performs non stop seek tuning.

TIPS
- By pressing (touching) 🔲 then touch ⏮ or ⏭, you can also switch the preset channels.
- By pressing (touching) 🔲 then touch and hold ⏮ or ⏭ and releasing it, you can also perform 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** 🔁 **to begin search.**
While the message is displayed, 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].**

Radio settings

1 **Press (touch)** ⬛⬛ **.**

2 **Touch** ⚙ **then** 🎚 **.**
The system setting screen appears.

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. **NOTE** [Level4] for FM and [Level2] for MW/LW are available only with the stations with the strongest signals.
[FM Step] [100kHz] [50kHz]	Select the seek tuning step for the FM band. **NOTE** The tuning step remains at [50kHz] during manual tuning.
[Regional] [On] [Off]	Switches whether the area code is checked during the Auto PI search.
[Alternative FREQ] [On] [Off]	Allow the unit to retune to a different frequency providing the same station.
[Auto PI] [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]*	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].
[TA OFF]	Disables this function.
[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 DAB+RDS TA if available.
[News Interrupt]* [On] [Off]	Interrupt the currently selected source with news programmes.
[Tuner Sound]*	Switches the sound quality of the FM tuner.
[Music]	Gives priority to the sound quality.
[Talk]	Gives priority to noise prevention.
[Standard]	Gives no effect.

Compressed files

Plugging/unplugging a USB storage device

You can play compressed audio, compressed video, or still image files stored in an external 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.
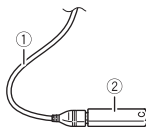
①	USB cable
②	USB storage device

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 **Press (touch)** [⊞] **then touch** [AV].

2 **Plug the USB storage device into the USB cable (page 23).**

3 **Touch [USB].**
Playback is performed in order of folder numbers. Folders are skipped if they contain no playable files.

Basic operation

TIPS
- By pressing (touching) ☷ then touch ◄◄ or ►►, you can also skip files/chapters forwards or backwards.
- By pressing (touching) ☷ then touch and hold ◄◄ or ►► on the audio or video file, you can also perform fast reverse or fast forwards.
- You can set the screen size for the video and image files (page 42).

Audio source

Audio source screen 1 (Example: USB)

①	**Displays the link search screen.** Touch the song to play back by touching the song information, after switching to Music Browse mode (page 24). **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.**
⤬ ⤬	**Plays files or does not play in random order.**
»	**Displays the hidden function bar.** **TIP** You can also display the hidden function bar by flicking the bar from the right to the left.
🖼	**Switches the following media file types.** **[Music]:** Compressed audio files **[Video]:** Compressed 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. **NOTE** When you play compressed audio files stored in a USB storage device, you can search for a file using Music Browse (page 24).
MIXTRAX EZ	**Displays the MIXTRAX screen (page 32).**

Audio source screen 2 (Example: USB)

«	**Displays the hidden function bar.** **TIP** You can also display the hidden function bar by flicking the bar from the left to the right.
◀ ▶	**Selects the previous folder or the next folder.**
DB:▦	**Constructs the database for using the Music Browse mode (page 24).**
ⓘ	**Switches the current music information display.**

▶**Selecting a file using Music Browse mode**

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

NOTES
• This function is available for the USB storage device only.
• Music Browse mode cannot be held once the power is turned off.

1 Touch DB:▦ **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 the USB storage, 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.

Video source screen (Example: USB)

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.**
❚▶	**Performs frame-by-frame playback.**
	Performs slow-motion playback.
⟲ ⟳ ⟳ ⟳	**Sets a repeat play range for all files/the current folder/the current file.**
01 OFF	**Switches the audio/subtitle language.** **TIP** The icons vary according to the file.
	Switches the following media file types. **[Music]:** Compressed audio files **[Video]:** Compressed 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

TIPS
- Image files are not displayed in the rear display.
- By pressing (touching) ☰ then touch and hold ◀◀ or ▶▶ on the still image file, you can search through 10 image files at a time. If the file currently being played is the first or last file in the folder, the search is not performed.

Still image screen

①	**Hides the touch panel keys.** To display the keys again, touch anywhere on the screen.
▶/❚❚	**Switches between playback and pause.**
◀◀ ▶▶	**Skips files forwards or backwards.**
◀ ▶	**Selects the previous folder or the next folder.**

English

(icon)	**Saves the current images as the wallpaper.** Touch the following items then touch [Yes] 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 top menu screen. [**As Both**]: Saves the image as the wallpaper for both the AV screen and top menu screen. **NOTE** If you save the new image, the current wallpaper is overwritten except for the preset image.
(icon)	**Rotates the displayed picture 90° clockwise.**
(icon) (icon)	**Sets a repeat play range for all files/the current folder.**
(icon) (icon)	**Plays all files in the current repeat play range or does not play them in random order.**
(icon)	**Switches the following media file types.** [**Music**]: Compressed audio files [**Video**]: Compressed video files [**Photo**]: Image files
(icon)	**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.

iPod

Connecting your iPod

When connecting an iPod to this product, the settings are automatically configured according to the device to be connected. For details of the available connection, refer to iPod/iPhone or smartphone connection for AV source (page 17).

NOTES
- Depending on the generation or version of the iPod, some functions may not be available.
- Do not delete the Apple Music® app from your iPod, since some functions may not be available.

1 Connect your iPod.

2 Press (touch) (icon) then touch AV .

3 Touch [iPod].

Basic operation

TIPS
- By pressing (touching) (icon) then touch (icon) or (icon) , you can also skip files forwards or backwards.
- By pressing (touching) (icon) then touch and hold (icon) or (icon) , you can also perform fast reverse or fast forwards.

Audio source

Audio source screen 1

| 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.
▶/Ⅱ	**Switches between playback and pause.**
◄◄ ►►	**Skips files forwards or backwards.**
(repeat icons)	**Sets a repeat play range for all in the selected list/the current song.**
(shuffle icons)	**Plays songs within the selected list/album randomly.**
≫	**Displays the hidden function bar.**
(device icon)	**Switches among connected devices.**
≡	**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. • You can play playlists created with the MusicSphere application. The application is available on our website. • When you touch Apple Music Radio station in the list screen, Apple Music Radio screen appears (page 27). **NOTES** • Depending on the generation or version of the iPod, some functions may not be available. • Only 16 000 songs in the iPod are available in the list if the iPod has more than 16 000 songs. Available songs depend on the iPod.

Audio source screen 2
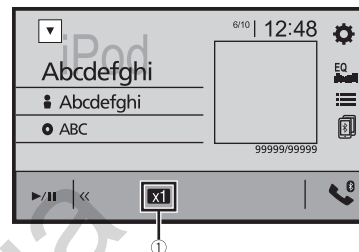
①	**Changes the audiobook speed.** Normal—Fast—Slow
≪	**Displays the hidden function bar.**

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: http://www.apple.com/music/

NOTE

This function is only available when using the iPod function with an iPhone 7, iPhone 7 Plus, iPhone SE, iPhone 6s, iPhone 6s Plus, iPhone 6, iPhone 6 Plus, iPhone 5s, iPhone 5c, iPhone 5 or iPod touch (5th and 6th generation).

Apple Music Radio screen

▶/Ⅱ	**Switches between playback and pause.**

★	**Displays the pop-up menu for Apple Music Radio.** • 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. **NOTE** This function may not be used depending on your Apple Music account status.
▶▶❘	**Skips tracks forwards.**

Spotify®

To enjoy Spotify as you drive, first download the Spotify app to your iPhone or smartphone. You can download it from the iTunes App Store or Google Play. Choose a free account or a paid Premium account, either in the app or at spotify.com. A Premium account gives you more features like offline listening. If you have Spotify already, please update the app so you have the latest version then connect your phone to your car. Now you can take your music on the road.

⚠ 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.

🔑 Important

• Confirm the requirements to access Spotify using Pioneer car audio/video (page 17).
• To use Spotify, you need to connect to the Internet via 3G, EDGE, LTE (4G), or a Wi-Fi network. If the data plan for your iPhone or smartphone does not provide for unlimited data usage, additional charges from your carrier may apply.
• For information on the countries and regions where Spotify can be used, take a look at https://www.spotify.com/us/select-your-country/.

Limitations:
• Depending on the availability of the Internet, you may not be able to receive the Spotify service.
• The Spotify service is subject to change without notice. The service could be affected by any of the following: firmware version of the iPhone or smartphone, firmware version of the Spotify application, changes to the Spotify music service.
• Certain functions of the Spotify service are not available when accessing the service through Pioneer car audio/video products.
• Spotify is a music service not affiliated with Pioneer. More information is available at https://support.spotify.com/.
• The Spotify application is available for most iPhone and smartphone, please visit https://support.spotify.com/ for the latest compatibility information.

Listening to Spotify

Update the firmware of the Spotify application to the latest version before use.

1 **Unlock the mobile device and connect it to this product.**
   • iPhone via USB or Bluetooth
   • Smartphone via Bluetooth

2 Press (touch) ⊞ .

3 Touch ✿ then ⫯⫯ .

4 Touch [AV Source Settings].

5 Confirm that [Spotify] is turned on.

6 Press (touch) ⊞ then touch AV .

7 Touch [Spotify].

NOTES
- For details on Bluetooth connection, see page 9.
- For details on USB connection for iPhone, refer to the Installation Manual.

Basic operation

Playback screen 1 (Track)

▶/❚❚	**Switches between playback and pause.**
⏮ ⏭	**Skips tracks forwards or backwards.** **TIP** By pressing (touching) ⊡ then touch ⏭, you can skip tracks forwards.
(•)	**Switches to radio mode.**
+	**Saves or deletes the current song information to or from Your Music.**

»	**Displays the hidden function bar.** **TIP** You can also display the hidden function bar by flicking the bar from the right to the left.
⊡	**Switches among connected devices.**
☰	**Selects a track or station from the list.** **Your Music**: Selects a track or station from the list of saved song information. **Browse**: Selects a track from the category list. **Radio**: Selects a station from the station list. **Recently Played**: Selects a track from recently played.

Playback screen 2 (Track)

«	**Displays the hidden function bar.** **TIP** You can also display the hidden function bar by flicking the bar from the left to the right.
⟲	**Sets a repeat play range.**
⤬	**Plays tracks in random order.**

Playback screen 1 (Radio mode)

►/II	**Switches between playback and pause.**
I◄◄ ►►I	**Skips tracks forwards or backwards.** **TIP** By pressing (touching) ⬚ then touch ⬚, you can skip songs forwards.
((•))	**Starts new radio mode.**
✛	**Saves or deletes the current song information to or from Your Music.**
≫	**Displays the hidden function bar.** **TIP** You can also display the hidden function bar by flicking the bar from the right to the left.
⬚	**Switches among connected devices.**
☰	**Selects a track or station from the list.** **Your Music**: Selects a track or station from the list of saved song information. **Browse**: Selects a track from the category list. **Radio**: Selects a station from the station list. **Recently Played**: Selects a track from recently played.

Playback screen 2 (Radio mode)

≪	**Displays the hidden function bar.** **TIP** You can also display the hidden function bar by flicking the bar from the left to the right.
👍	**Gives a Thumbs Up to the playing track.**
👎	**Gives a Thumbs Down to the playing track and skips to the next track.**

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 Installation Manual.

Starting procedure

1 Press (touch) [⊞].

2 Touch [⚙] then [⫴].

3 Touch [Input/Output settings].

4 Confirm that [AUX Input] is turned on.

5 Press (touch) [⊞] then touch [AV].

6 Touch [AUX].
The AUX screen appears.

Basic operation

AUX screen
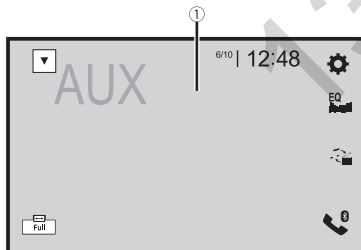
①	**Hides the touch panel keys.** To display the keys again, touch anywhere on the screen.
	TIP You can set the screen size for the video image (page 42).
🖼	**Switches between the video input and audio input.**

English

AV input

You can display the video image output by the device connected or the camera to video input. For details, refer to the Installation Manual.

⚠ 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.

Starting procedure

1 Press (touch) ⊞ .

2 Touch ⚙ then ⫯⫯ .

3 Touch [Input/Output settings].

4 Touch [AV Input].

5 Touch [Source] for AV source or [Camera] for camera.

6 Press (touch) ▥ then touch _AV_ .

7 Touch [AV] for AV source or [Camera View] for camera.
   The image is displayed on the screen.

MIXTRAX

MIXTRAX is an original technology for creating non-stop mixes of selections from your audio library, complete with DJ effects.

MIXTRAX EZ operation

You can use this unit to play USB audio files.
MIXTRAX EZ is used to add a variety of sound effects between songs for arranging the pauses between songs.
It allows you to enjoy listening to music non-stop.

NOTES
- This function is only available when a file on a USB storage device is being played.
- Depending on the file/song, sound effects may not be available.
- Depending on the file/song, non-stop playback may not be available.

Starting procedure

1 Touch MIXTRAX EZ .

   (Example: USB)

MIXTRAX EZ	Activates the MIXTRAX mode.
►/Ⅱ	Switches between playback and pause.
◄◄ ►►Ⅰ	Selects a track.

MIXTRAX settings

1 Press (touch) ⊞ .

2 Touch ⚙ then ⑾ .

The system setting screen appears.

3 Touch [AV Source Settings].

4 Touch [MIXTRAX Settings].

Menu Item	Description
[Short Playback Mode] [Off] [60s] [90s] [120s] [150s] [180s] [Random]	Specify the playback portion.
[Display Effect] [On] [Off]	Set the effect display for MIXTRAX.
[Cut-In Effect] [On] [Off]	Set the effect tone that sounds when you skip tracks forwards or backwards.
[Effect Setting] [Standard] [Simple] [Custom]	Set and play back the MIXTRAX effect that you want.
[Flash Pattern]	The flashing colour changes with the changes in the sound and bass levels.
[Sound1] to [Sound6]	The flash pattern changes according to the sound level.
[L-Pass1] to [L-Pass6]	The flash pattern changes according to the bass level.
[Random1]	The flash pattern changes randomly according to the sound level mode and low pass mode.
[Random2]	The flash pattern changes randomly according to the sound level mode.
[Random3]	The flash pattern changes randomly according to the low pass mode.
[Off]	Set the flash pattern to off.

Settings

You can adjust various settings in the main menu.

Displaying the setting screen

1 Press (touch) ⊞ .

2 Touch ⚙ .

3 Touch one of the following categories, then select the options.

⑾ System settings (page 33)
⊙ Theme settings (page 37)
◀ Audio settings (page 38)
▣ Video settings (page 41)
⑧ Bluetooth settings (page 9)

⑾ System settings

The menu items vary according to the source.

[AV Source Settings]

Menu Item	Description
[MIXTRAX Settings]	(page 33)
[Radio settings]	(page 21)
[DAB settings]	(page 20)
[Bluetooth Audio] [On] [Off]	Setting Bluetooth audio source activation.
[Spotify] [On] [Off]	Setting Spotify source activation.

[Beep Tone]

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

[Auto Mix]

Menu Item	Description
[Auto Mix] [On] [Off]	Select whether to perform mixing the sound output from AppRadio Mode + and AV source sound automatically.

[Input/Output settings]

Menu Item	Description
[USB MTP] [On] [Off]	Select whether or not to activate USB MTP (Media Transfer Protocol) connection.
[AppRadio Mode Sound]	Set where the sound for AppRadio Mode + is output when it is used with a smartphone.
[AVH]	The sound is output from the speakers of this unit.
[Smartphone]	The sound is output from the speakers of the smartphone. **NOTE** With an iPhone, the sound is always output from the speakers of this unit.
[AV Input] [Source] [Camera] [Off]	Select AV input source (page 32).
[AUX Input] [On] [Off]	Set to [On] for AUX source (page 31).

[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 AV source selection screen (page 16).
To close the camera view mode, touch ⊠ on the camera view screen.

NOTES
- To set the rear view camera as the camera for Camera View mode, set [Back Camera Input] to [On] (page 34).
- When using the 2nd camera, set [AV Input] to [Camera] (page 32).
- 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
[Back Camera Input] [On] [Off]	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 [Back 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.

34 En

Menu Item	Description
[Parking Assist Guide Adjust]	Adjusting the guidelines by dragging or touching ▲/▼/◀/▶/▶ ◀/◀▶ on the screen. Touch [Default] to reset the settings. **⚠ CAUTION** • 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. **NOTES** • 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. 2 m, 50 cm, 25 cm, 25 cm, Markings, Markings, Rear bumper
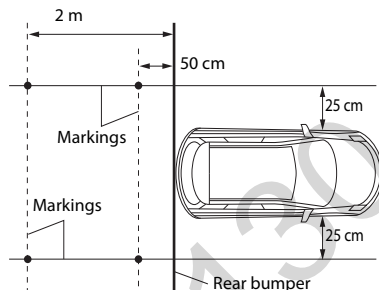
[Safe Mode]

Menu Item	Description
[Safe Mode] [On] [Off]	Set the safe mode that regulate operating some functions only when you stop your vehicle in a safe place and apply the handbrake.

[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** • 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
[All Settings]	Touch [Restore] to restore the settings to the default settings. **⚠ CAUTION** Do not turn off the engine while restoring the settings. **NOTES** • 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.

[Keyboard]

Menu Item	Description
[Keyboard]	You can use the keyboard in AppRadio Mode + by setting the language of the keyboard for iPhone. **NOTES** • Set the same system language setting as the iPhone to operate this function properly. • This function is only available in AppRadio Mode + on the iPhone.

[Touch panel calibration]

DA230DAB

If you feel that the touch panel keys on the screen deviate from the actual positions that respond to your touch, adjust the response positions of the touch panel screen.

NOTES

- Do not use sharp pointed tools such as ballpoint or mechanical pens. They may damage the screen.
- Do not turn off the engine while saving the adjusted position data.
- This setting is available only when you stop your vehicle in a safe place and apply the handbrake.

Menu Item	Description
[Touch panel calibration]	1 **Touch [Yes].** 2 **Touch two corners of the screen along the arrows then touch the centres of the two [+] marks at the same time twice.** 3 **Press (touch) ▣.** The adjustment results are saved. 4 **Press (touch) ▣ once again.** Proceed to 16-point adjustment. 5 **Gently touch the centre of the [+] mark displayed on the screen.** The target indicates the order. • When you press (touch) ▣, the previous adjustment position returns. • When you press (touch) and hold ▣, the adjustment is cancelled. 6 **Press (touch) and hold ▣.** The adjustment results are saved.

[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.
[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.

Menu Item	Description
[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.
[Dimmer Duration]	Adjust the time that the dimmer is turned on or off by dragging the cursors or touching ◀ or ▶. You can use this function when [Dimmer Trigger] is set to [Time]. **TIPS** • 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. **NOTE** The time display of the dimmer duration adjusting bar depends on the clock display setting (page 42).

[Picture Adjustment]

You can adjust the picture for each source and 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.

Menu Item	Description
[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 36).
- 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]	**⚠ CAUTION** • 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. **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 23). **4** Turn the source off (page 16). **5** Display the [System] setting screen (page 33). **6** Touch [System Information]. **7** Touch [Firmware Update]. **8** Touch [Continue]. 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.
[Licence]	Displaying the open source licence.

⊙ Theme settings

The menu items vary according to the source.

Menu Item	Description
[Background] [Home] [AV]	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 top menu screen and AV operation screen.
Preset Display	Select the desired preset background display.
▦ (custom)*1	Displays the background display image imported from the external storage device.
OFF (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 ⊙. **TIP** You can also adjust the colour tone by dragging the colour bar.
⊙ (rainbow)	Shifts gradually between the preset colours in sequence.
[Theme]*2	Select the theme colour.
[Clock]	Select the style of the clock from the preset image.
Preset Images	Select the desired preset style for the clock.
OFF (off)	Hides the clock display.

*1 Refer to Still image source (page 25).
*2 You can preview the top 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 or the source is off.

Menu Item	Description
[Graphic EQ] [Super 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** • If you make adjustments when a curve [Super 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.
[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** Only the balance can be adjusted when [Network Mode] is selected as the speaker mode.
[Mute Level]	Select mute or attenuate the AV source volume and iPhone or smartphone application volume when the navigation outputs the guidance voice.
[ATT]	The volume becomes 20 dB lower than the current volume.
[Mute]	The volume becomes 0.
[Off]	The volume does not change.

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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** • 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. • This function is available only for the currently selected source.
[Subwoofer] [On] [Off]	Select enable or disable rear subwoofer output from this product.
[Speaker Level] **Listening position*1*2** [Off] [Front-L] [Front-R] [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** This function is available when [Subwoofer] is set to [On].
[Crossover]*4	Select a speaker unit (filter) to adjust the HPF or LPF cutoff frequency and the slope for each speaker unit (page 41).
[Subwoofer Settings]*4	Select the subwoofer phase (page 41).
[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
[Time Alignment] [On] [Off] **Listening position*1*2** [Off] [Front-L] [Front-R] [Front] [All] **Standard Mode*3*5** [Front Left] [Front Right] [Rear Left] [Rear Right] [Subwoofer] **Network Mode*3*5** [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-L] or [Front-R].
[Auto EQ] [On] [Off]	Set the auto-adjusted equaliser to suit the vehicle's acoustics. To use this function, the Auto EQ measurement must be done in advance (page 40).
[A-EQ&TA Measurement]	Measures and adjusts the vehicles acoustics, equaliser, and time alignment automatically to suit the vehicle interior (page 40).
[Save Settings]	Save to recall the following current sound settings by touching [OK]: bass boost, slope, subwoofer phase, speaker level, Graphic EQ, HPF/LPF, listening position, crossover, time alignment. **TIP** When you touch [Cancel], return to the [Audio] setting screen.
[Load Settings] [Initial Settings] [Sound Setting] [Auto EQ&TA Setting]	Load the sound settings. **NOTES** • [Sound Setting] is available only when you have already saved the sound settings (page 39). • [Auto EQ&TA Setting] is available only when you have already performed Auto EQ measurement (page 40).
[Bass Boost] [0] to [6]	Adjust the bass boost level.
[Rear Speaker Output] [Rear] [Subwoofer]	Select the rear speaker output. **NOTE** This function is available when [Standard Mode] is selected as the speaker mode.
[Loudness] [Off] [Low] [Mid] [High]	Compensates for deficiencies in the low-frequency and high-frequency ranges at low volume.

Menu Item	Description
[Automatic Level Control]	Corrects automatically the audio level difference between the music files or the sources.
[Off]	Turns the auto level control setting off.
[Mode1]	Corrects a little the audio level difference between the music files or the sources (for the narrow dynamic range audio signal).
[Mode2]	Corrects widely the audio level difference between the music files or the sources (for the wide dynamic range audio signal).
[Sound Retriever] [Off] [Mode1] [Mode2]	Enhances compressed audio and restores rich sound automatically. **TIP** [Mode2] has a stronger effect than [Mode1].

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

Adjusting the equaliser curve automatically (Auto EQ)

By measuring the vehicle's acoustics, the equaliser curve can be adjusted automatically to suit the vehicle interior.

⚠ WARNING

A loud tone (noise) may be emitted from the speakers when measuring the vehicle's acoustics. Never perform Auto EQ measurement while driving.

⚠ CAUTION

- Thoroughly check the conditions before performing Auto EQ as the speakers may be damaged if this is performed under the following conditions:
  – When the speakers are incorrectly connected. (For example, when a rear speaker is connected as a subwoofer output.)
  – When a speaker is connected to a power amp delivering output higher than the speaker's maximum input power capability.
- If a microphone for acoustical measurement (sold separately) is not placed in the appropriate location, the measurement tone may become loud and measurement may take a long time, resulting in battery drainage. Be sure to place the microphone in the specified location.

▶ **Before operating the Auto EQ function**

- Perform Auto EQ in a quiet place with the vehicle engine and air conditioning switched off. Also, cut the power of car phones or mobile phones in the vehicle, or remove them in advance. Surrounding sounds may prevent correct measurement of the vehicle's acoustics.
- Be sure to use the microphone for acoustical measurement (sold separately). Using other microphones may prevent measurement, or result in incorrect measurement of the vehicle's acoustics.
- To perform Auto EQ, the front speakers must be connected.
- When this product is connected to a power amp with input level control, Auto EQ may be impossible if the power amp's input level is set below the standard level.
- When this product is connected to a power amp with an LPF (low pass filter), turn the LPF off before performing Auto EQ. Also, set the cutoff frequency for the built-in LPF of an active subwoofer to the highest frequency.
- The distance has been calculated by a computer to provide optimum delay to ensure accurate results. Do not change this value.
  – The reflected sound within the vehicle is strong and delay occurs.
  – The LPF on active subwoofers or external amps delay the lower sounds.
- If an error occurs during measurement, check the following before measuring the vehicle's acoustics.
  – Front speakers (left/right)
  – Rear speakers (left/right)
  – Noise
  – Microphone for acoustical measurement (sold separately)
  – Low battery

▶ **Performing Auto EQ**

⚠ CAUTION

Do not turn off the engine while the measurement is in progress.

NOTES
- Auto EQ changes the audio settings as follows:
  – The fader/balance settings return to the centre position (page 38).
- Previous settings for Auto EQ will be overwritten.

1 **Stop the vehicle in a quiet place, close all doors, windows, and sun roof, and then turn the engine off.**

If the engine is left running, engine noise may prevent correct Auto EQ.

NOTE
If driving restrictions are detected during measurement, the measurement is cancelled.

2 **Fix the microphone for acoustical measurement (sold separately) in the centre of the headrest of the driver's seat, facing forwards.**

The Auto EQ may differ depending on where you place the microphone. If desired, place the microphone on the front passenger seat and perform Auto EQ.

3 Disconnect the iPhone or smartphone device.

4 Turn on the ignition switch (ACC ON).
If the vehicle's air conditioner or heater is turned on, turn it off.

5 Switch the AV source to [Source OFF] (page 16).

6 Press (touch) [▦].

7 Touch [⚙] then [◀)].

8 Touch [A-EQ&TA Measurement].

9 Connect the microphone for acoustical measurement (sold separately) with this product.
Plug the microphone into the AUX input jack on the back panel of this product.

NOTE
Use an extension cable (sold separately) if the cord of the microphone (sold separately) is not long enough.

10 Touch [Front Left] or [Front Right] to select the current listening position.

11 Touch [Start].
A 10-second countdown starts.

NOTE
The Bluetooth connection is disconnected before the process starts.

12 Exit the vehicle and keep the doors closed until the countdown finishes.
When the countdown finishes, a measurement tone (noise) is emitted from the speakers and Auto EQ measurement begins.

13 Wait until the measurement is completed.
When Auto EQ is completed, a message is displayed.

NOTE
The measurement time varies depending on the type of vehicle.

TIP
To stop the measurement, touch [Stop].

14 Store the microphone carefully in the glove box or another safe place.
If the microphone is subjected to direct sunlight for an extended period, high temperatures may cause distortion, colour change, or malfunction.

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 Press (touch) [▦].

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.

Phase ◀ : ▶	Switches the subwoofer phase between normal and reverse position.
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
[**AV**] [Auto] [PAL] [NTSC] [PAL-M] [PAL-N] [SECAM]	Select the suitable video signal setting when you connect this product to an AV equipment.
[**AUX**] [Auto] [PAL] [NTSC] [PAL-M] [PAL-N] [SECAM]	Select the suitable video signal setting when you connect this product to an AUX equipment.
[**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.

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 Press (touch) ▦ then touch ⚙ .

2 Touch the star icon of the menu item.
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 Press (touch) ▦ then touch ⚙ .

2 Touch ★ .

3 Touch the menu item.

Removing a shortcut

1 Press (touch) ▦ then touch ⚙ .

2 Touch ★ .

3 Touch and hold the favourite menu column.
The selected menu item is removed from the [Favourites] screen.

TIP
You can also remove a shortcut by touching and holding the registered menu column.

Other functions

Setting the time and date

1 Touch the current time on the screen.

2 Touch ▲ or ▼ to set the correct time and date.
You can operate the following items: Year, month, date, hour, minute.

TIPS
• You can change the time display format to [12hour] or [24hour].
• You can change the order of date display format: Day-month, Month-day.

Changing the wide screen mode

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

1 Touch the screen display mode key.
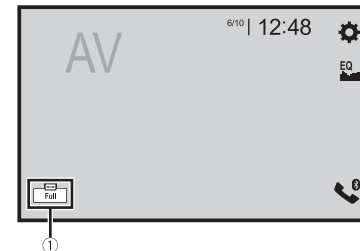
| ① | Screen display mode key |

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.

NOTE

Image files can be set to either [Normal] or [Trimming] in wide screen mode.

Restoring this product to the default settings

You can restore settings or recorded content to the default settings from [Restore Settings] in the [System] menu (page 35).

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

iPhone 7, iPhone 7 Plus, iPhone SE, iPhone 6s, iPhone 6s Plus, iPhone 6, iPhone 6 Plus, iPhone 5s, iPhone 5c, iPhone 5

NOTE

The compatible finger gestures vary depending on the application for the iPhone.

⚠ 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:
http://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.

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 Press (touch) ⊞ .

2 Touch ⚙ then 🎛 .

The system setting screen appears.

3 Touch [Driving Position].

4 Touch the item.

[**Left**]

Select for a left-hand drive vehicle.

[**Right**]

Select for a right-hand drive vehicle.

Starting procedure

1 Connect an Apple CarPlay compatible device to this product via USB.

2 Press (touch) ▦ .

3 Touch ☐ .

4 Touch [Apple CarPlay].

5 Touch Apple CarPlay icon in the tab.

The application screen appears.

TIP

You can use Siri function by pressing (touching) 🎤 once Apple CarPlay is activated.

NOTES

• If an Apple CarPlay compatible device has been connected and another screen is displayed, touch [Apple CarPlay] on the top menu 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.

• Refer to the Installation Manual for details on connecting a device to this product.

Adjusting the volume

You can adjust the guidance volume separately from the main sound volume when Apple CarPlay is used.

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

The volume menu will be displayed on the screen.
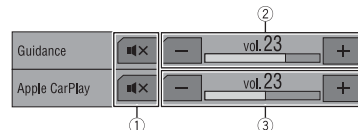
①	**Touch to mute. Touch again to cancel mute.**
②	**Touch [+]/[-] to adjust the guidance volume.**
③	**Displays the main sound volume. To adjust the main sound volume, press (touch) VOL (+/-) on the unit or touch [+]/[-].**

NOTE

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

Android Auto™

DA230DAB

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

Compatible Android devices

Requires the Android Auto app on Google Play and an Android compatible smartphone running Android 5.0 Lollipop or higher.

NOTES
- [USB MTP] is set to [Off] to use Android Auto (page 34).
- 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: http://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.

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 Press ▦ .

2 Touch ⚙ then 🎚 .

The system setting screen appears.

3 Touch [Driving Position].

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

Starting procedure

1 Connect an Android Auto™ compatible device to this product via USB.

2 Press ▦ .

3 Touch ☐ .

4 Touch [Android Auto].

5 Touch Android Auto icon in the tab.
The application screen appears.

TIP

You can use voice recognition function by pressing 🎤 once Android Auto is activated.

NOTES
- 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 [BT Settings] and delete the devices manually (page 9).
- 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.
- Refer to the Installation Manual for details on connecting a device to this product.

Adjusting the volume

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

1 While Android Auto is activated, press VOL (+/-).
The volume menu will be displayed on the screen.
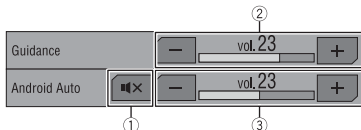
①	Touch to mute. Touch again to cancel mute.
②	Touch [+]/[-] to adjust the guidance volume.
③	Displays the main sound volume. To adjust the main sound volume, press VOL (+/-) on the unit or touch [+]/[-].

NOTE

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

Setting the auto-launch function

If this function is set to on, Android Auto will launch automatically when an Android Auto compatible device is connected to this product.

NOTE

Android Auto will launch automatically only when an Android Auto compatible device is correctly connected to this product.

1 Press ▦ .

2 Touch ⚙ then 🎛 .

3 Touch [Android Auto Auto-launch] to switch [On] or [Off].

Appendix for Apple CarPlay and Android Auto

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.

Apple CarPlay

Attempting to connect to Apple CarPlay.
• 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.
If the error message is still displayed after performing the above action, please contact your dealer or an authorised Pioneer Service Station.

Android Auto

DA230DAB

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.
If the error message is still displayed after performing the above action, please contact your dealer or an authorised Pioneer Service Station.
• The time set in this product is not correct.
  – Check if the time is correctly set.

Bluetooth pairing failed. Please pair your Android phone manually.
• 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 regarding connected iPod devices

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

iOS

iOS is a trademark on which Cisco holds the trademark right in the US and certain other countries.

iPhone, iPod and Lightning

Made for
 iPhone | iPod

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, iPod, iPod nano, iPod touch, and Lightning are trademarks of Apple Inc., registered in the U.S. and other countries.

Apple CarPlay

Works with
Apple CarPlay

Apple CarPlay is a trademark of Apple Inc. Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards.

Siri

Works with Siri through the microphone.

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 adapter 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 Apple CarPlay and Android Auto, functionality through the product is limited while driving, with available functions determined by the App providers.
- Availability of Apple CarPlay and Android Auto functionalities is determined by the App provider, and not determined by Pioneer.

- 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.

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.
  – Press (touch) any button on this product to release the mode.

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 handbrake interlock is activated.
  – 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.

Random playback in Music Browse mode is released in the USB storage device.
→ Random playback in Music Browse mode is cancelled after the ignition switch is turned off (ACC OFF).
  – Switch to Music Browse mode again and turn on random playback.

The picture is stretched, with an incorrect aspect ratio.
→ The aspect setting is incorrect for the display.
  – Select the appropriate setting for that image.

iPod cannot be operated.
→ The iPod is frozen.
  – Reconnect the iPod with the USB interface cable for iPod/iPhone.
  – Update the iPod software version.
→ An error has occurred.
  – Reconnect the iPod with the USB interface cable for iPod/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 iPod software version.
→ Cables are not connected correctly.
  – Connect the cables correctly.

Sound from the iPod cannot be heard.
→ The audio output direction may switch automatically when the Bluetooth and USB connections are used at the same time.
  – Use the iPod to change the audio output direction.

Problems with the phone screen

Dialing is impossible because the touch panel keys for dialing 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.
  – Press (touch) ▦ to display the top 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.

Sound from AppRadio Mode + of the Android device cannot be heard from the speakers of this unit.
→ Depending on the Android device, the sound from AppRadio Mode + may not be output from the speakers of this unit.
  – Switch to [Smartphone] in the [AppRadio Mode Sound] settings (page 34).

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.

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.

Spotify

Skip limit reached.
→ Skip limit reached.
– Do not exceed the skip limit.
– Spotify limits the total number of skips per hour.

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.

No Spotify
→ The Spotify application is not installed in the connected device.
– Install the Spotify application in your mobile device.

Update App
→ The Spotify application is out of date.
– Update to the latest Spotify application.

Please Log-in
→ You are not logged in to the Spotify application.
– Please log in to the Spotify application.

No Signal
→ The connected device is out of area.
– Connect the device to a network.

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.

USB was disconnected for device protection. Do not re-insert this USB memory into the unit. Please restart the unit.
→ 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 iPod/iPhone has short-circuited.
– Confirm that the USB interface cable for iPod/iPhone or USB cable is not caught in something or damaged.

Your device is not authorized to play this DivX protected video.
→ This product's DivX registration code has not been authorised by the DivX VOD contents provider.

Audio Format not supported
→ This type of file is not supported on this product.
– Select a file that can be played.

iPod

Error-02-6X/-9X/-DX
→ iPod failure.
– Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.

Error-02-67
→ The iPod firmware version is old.
– Update the iPod version.

Bluetooth

Error-10
→ 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.

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 53).
- 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

- This product is not compatible with the Multi Media Card (MMC).
- 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 53).
- For more details about DivX, visit the following site: http://www.divx.com/

DivX subtitle files

- Srt format subtitle files with the extension ".srt" can be used.
- Only one subtitle file can be used for each DivX file. Multiple subtitle files cannot be associated.

- Subtitle files that are named with the same character string as the DivX file before the extension are associated with the DivX file. The character strings before the extension must be exactly the same. However, if there is only one DivX file and one subtitle file in a single folder, the files are associated even if the file names are not the same.
- The subtitle file must be stored in the same folder as the DivX file.
- Up to 255 subtitle files may be used. Any more subtitle files will not be recognised.
- Up to 64 characters can be used for the name of the subtitle file, including the extension. If more than 64 characters are used for the file name, the subtitle file may not be recognised.
- The character code for the subtitle file should comply with ISO-8859-1. Using characters other than ISO-8859-1 may cause the characters to be displayed incorrectly.
- The subtitles may not be displayed correctly if the displayed characters in the subtitle file include control code.
- For materials that use a high transfer rate, the subtitles and video may not be completely synchronised.
- If multiple subtitles are programmed to display within a very short time frame, such as 0.1 seconds, the subtitles may not be displayed at the correct time.

Media compatibility chart

General

- Maximum playback time of audio file stored on an USB storage device: 7.5 h (450 minutes)

USB storage device
File system: FAT16/FAT32/NTFS
Maximum number of directory: 8
Maximum number of folders: 1 500
Maximum number of files: 15 000

Playable file types: MP3, WMA, AAC, WAV, FLAC, DivX, H.264, H.263, MPEG-2, MPEG-4, VC-1, FLV, MKV, JPEG, PNG, BMP

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

USB storage device
File extension: .mp3
Bit rate: 8 kbps to 320 kbps (CBR), VBR
Sampling frequency: 8 kHz to 48 kHz
ID3 tag: ID3 tag Ver. 1.0, 1.1, 2.2, 2.3, 2.4

WMA compatibility

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

USB storage device
File extension: .wma
Bit rate: 8 kbps to 320 kbps (CBR), VBR
Sampling frequency: 32 kHz to 48 kHz

WAV compatibility

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

USB storage device
File extension: .wav
Format: Linear PCM (LPCM)
Sampling frequency: 16 kHz to 48 kHz

AAC compatibility

- This product plays back AAC files encoded by iTunes.

USB storage device
File extension: .m4a
Bit rate: 16 kbps to 320 kbps (CBR)
Sampling frequency: 8 kHz to 48 kHz

FLAC compatibility

USB storage device
File extension: .flac
Sampling frequency: 8 kHz to 192 kHz

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
- If a file contains more than 4 GB, playback stops before the end.
- Some special operations may be prohibited because of the composition of DivX files.

Video files compatibility (USB)

- 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 encoding or writing software.

.avi

Format: MPEG-4/DivX/H.264/H.263
Compatible video codec: MPEG-4 (Simple Profile/Advanced Simple Profile)/DivX (Home Theater Profile)/H.264 (Base Line Profile/Main Profile/High Profile)/H.263 (Baseline Profile 0/3)
Maximum resolution: 1 920 pixels × 1 080 pixels (MPEG-4/H.264/H.263)
Maximum resolution: 720 pixels × 576 pixels (DivX)
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.mp4

Format: MPEG-4/H.264/H.263
Compatible video codec: MPEG-4 (Simple Profile/Advanced Simple Profile)/H.264 (Base Line Profile/Main Profile/High Profile)/H.263 (Baseline Profile 0/3)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.3gp

Format: H.263
Compatible video codec: H.263 (Baseline Profile 0/3)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.mkv

Format: MPEG-4/H.264/VC-1
Compatible video codec: MPEG-4 (Simple Profile/Advanced Simple Profile)/H.264 (Base Line Profile/Main Profile/High Profile)/VC-1 (Simple Profile/Main Profile/Advanced Profile)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.mov

Format: MPEG-4/H.264/H.263
Compatible video codec: MPEG-4 (Simple Profile/Advanced Simple Profile)/H.264 (Base Line Profile/Main Profile/High Profile)/H.263 (Baseline Profile 0/3)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.flv

Format: H.264
Compatible video codec: H.264 (Baseline Profile/Main Profile/High Profile)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.m4v

Format: MPEG-4/H.264/H.263
Compatible video codec: MPEG-4 (Simple Profile/Advanced Simple Profile)/H.264 (Base Line Profile/Main Profile/High Profile)/H.263 (Baseline Profile 0/3)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.asf

Format: VC-1
Compatible video codec: VC-1 (Simple Profile/Main Profile/Advanced Profile)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.wmv

Format: VC-1
Compatible video codec: VC-1 (Simple Profile/Main Profile/Advanced Profile)
Maximum resolution: 1 920 pixels × 1 080 pixels
Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

.divx

Format: DivX
Compatible video codec: DivX (Home Theater Profile)
Maximum resolution: 720 pixels × 576 pixels

Maximum frame rate: 30 fps
- Files may not be able to be played back depending on the bit rate.

Example of a hierarchy

NOTE

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

Bluetooth

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WMA

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FLAC

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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 stream digital video.

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.

Google™, Google Play, Android

Google, Google Play, Android and Android Auto are trademarks of Google Inc.

MIXTRAX

MIXTRAX is a trademark of the PIONEER CORPORATION.

Detailed information regarding connected iPod devices

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

iPhone, iPod and Lightning

Made for
 iPhone | iPod

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, iPod, iPod nano, iPod touch, and Lightning are trademarks of Apple Inc., registered in the U.S. and other countries.

App Store

App Store is a service mark of Apple Inc.

iOS

iOS is a trademark on which Cisco holds the trademark right in the US and certain other countries.

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.

Siri

Works with Siri through the microphone.

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 adapter 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.

Spotify®

SPOTIFY and the Spotify logo are among the registered trademarks of Spotify AB. Compatible mobile digital devices and premium subscription required, where available, see https://www.spotify.com.

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.

Notice regarding MP3 file usage

Supply of this product only conveys a license for private, non-commercial use and does not convey a license nor imply any right to use this product in any commercial (i.e. revenue-generating) real time broadcasting (terrestrial, satellite, cable and/or any other media), broadcasting/streaming via internet, intranets and/or other networks or in other electronic content distribution systems, such as pay-audio or audio-on-demand applications. An independent license for such use is required. For details, please visit http://www.mp3licensing.com.

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 53.
- 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 10 000 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):
(SPH-DA230DAB)
DIN
Chassis:
178 mm × 100 mm × 157 mm
Nose:
188 mm × 118 mm × 21 mm
D

Chassis:
178 mm × 100 mm × 164 mm
Nose:
171 mm × 97 mm × 14 mm
(SPH-DA130DAB)
DIN
Chassis:
178 mm × 100 mm × 157 mm
Nose:
188 mm × 118 mm × 14 mm
D
Chassis:
178 mm × 100 mm × 164 mm
Nose:
171 mm × 97 mm × 7 mm
Weight:
1.2 kg

Display

Screen size/aspect ratio:
(SPH-DA230DAB)
6.94 inch wide/16:9 (effective display area: 156.24 mm × 81.605 mm)
(SPH-DA130DAB)
6.2 inch wide/16:9 (effective display area: 137.52 mm × 77.232 mm)
Pixels:
(SPH-DA230DAB)
1 209 600 (2 520 × 480)
(SPH-DA130DAB)
1 152 000 (2 400 × 480)
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 ch/4 Ω
• 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): 4.0 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:
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, OFF
Subwoofer/LPF:
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, OFF
Gain:
+10 dB to -24 dB (1 dB/step)
Phase: Normal/Reverse
Time alignment:
0 to 140 step (2.5 cm/step)
Bass boost:
Gain: +12 dB to 0 dB
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
HPF (Mid):

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, OFF
LPF (Mid):
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, OFF
Subwoofer:
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, OFF
Gain:
+10 dB to -24 dB (1 dB/step)
Phase: Normal/Reverse
Time alignment:
0 to 140 step (2.5 cm/step)
Bass boost:
Gain: +12 dB to 0 dB
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:
Ver. 1.3.0 (Free Lossless Audio Codec)
WAV signal format (MSC Mode only):
Linear PCM
Sampling frequency:
Linear PCM:
16 kHz/22.05 kHz/24 kHz/32 kHz/44.1 kHz/48 kHz
<USB image>
JPEG decoding format (MSC Mode only):
.jpeg, .jpg, .jpe
Pixel Sampling: 4:2:2, 4:2:0
Decode Size:
MAX: 8 192 (H) × 7 680 (W)
MIN: 32 (H) × 32 (W)
PNG decoding format (MSC Mode only):
.png
Decode Size:
MAX: 720 (H) × 576 (W)
MIN: 32 (H) × 32 (W)
BMP decoding format (MSC Mode only):
.bmp
Decode Size:
MAX: 1 920 (H) × 936 (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 4.1 certified
Output power:
  +4 dBm Max. (Power class 2)
Frequency band:
  2 400 MHz to 2 483.5 MHz

FM tuner

Frequency range:
  87.5 MHz to 108 MHz
Usable sensitivity:
  12 dBf (1.1 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio:
  72 dB (IEC-A network)

MW tuner

Frequency range:
  531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity:
  28 μV (S/N: 20 dB)
Signal-to-noise ratio:
  62 dB (IEC-A network)

LW tuner

Frequency range:
  153 kHz to 281 kHz
Usable sensitivity:
  30 μV (S/N: 20 dB)
Signal-to-noise ratio:
  62 dB (IEC-A network)

DAB tuner

Frequency range (Band III):
  174.928 MHz to 239.200 MHz (5A to 13F)
Frequency range (L Band):
  1 452.960 MHz to 1 490.624 MHz (LA to LW)
Usable sensitivity (Band III):
  -96 dBm
Usable sensitivity (L Band):
  -94 dBm
Signal-to-noise ratio: 85 dB

NOTE

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

http://www.pioneer-car.eu

Visit **www.pioneer-car.co.uk** (or **www.pioneer-car.eu**) to register your product.

PIONEER CORPORATION
28-8, Honkomagome 2-chome, Bunkyo-ku,
Tokyo 113-0021, Japan

PIONEER ELECTRONICS (USA) INC.
P.O. Box 1540, Long Beach, California 90801-1540, U.S.A.
TEL: (800) 421-1404

PIONEER EUROPE NV
Haven 1087, Keetberglaan 1, B-9120 Melsele, Belgium/Belgique
TEL: (0) 3/570.05.11

PIONEER ELECTRONICS ASIACENTRE PTE. LTD.
2 Jalan Kilang Barat, #07-01, Singapore 159346
TEL: 65-6378-7888

PIONEER ELECTRONICS AUSTRALIA PTY. LTD.
5 Arco Lane, Heatherton, Victoria, 3202 Australia
TEL: (03) 9586-6300

PIONEER ELECTRONICS DE MÉXICO S.A. DE C.V.
Blvd. Manuel Ávila Camacho 138, 10 piso
Col.Lomas de Chapultepec, México, D.F. 11000
Tel: 52-55-9178-4270, Fax: 52-55-5202-3714

先鋒股份有限公司
台北市內湖區瑞光路407號8樓
電話： 886-(0)2-2657-3588

先鋒電子（香港）有限公司
香港九龍長沙灣道909號5樓
電話： 852-2848-6488

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