AVH-220EX
AVH-221EX

DVD RDS AV RECEIVER

English

Operation Manual

Important (Serial number)

The serial number is located on the bottom of this unit. For your own security and convenience, be sure to record this number on the enclosed warranty card.

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.

220EX

Remote control
The remote control is sold separately. For details concerning operations, see the remote control manual.

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English

Precaution

Information to user

–MODEL NO.: AVH-220EX/AVH-221EX
FCC ID: AJDK071
IC: 775E-K071
–This device contains licence-exempt transmitter(s)/receiver(s) that complies with Part 15 of FCC Rules and Innovation, Science, and Economic Development Canada licence-exempt RSS(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.
–The Bluetooth antenna cannot be removed (or replaced) by user.
–This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

–This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.
–Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.
–NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

CAUTION:
USE OF CONTROL OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
CAUTION:
THE USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARD.

CAUTION
This product is a Class 1 laser product classified under the safety standard, IEC 60825-1:2014, and contains a class 1M laser module. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

FEDERAL COMMUNICATIONS COMMISSION SUPPLIER'S DECLARATION OF CONFORMITY
Product Name: DVD RDS AV RECEIVER
Model Number: AVH-220EX/AVH-221EX
Responsible Party Name: PIONEER ELECTRONICS (USA), INC. SERVICE SUPPORT DIVISION
Address: 2050 W. 190TH STREET, SUITE 100, TORRANCE, CA 90504, U.S.A.
Phone: 1-800-421-1404
URL: https://www.pioneerelectronics.com

CAN ICES-3 B/NMB-3 B

⚠ WARNING

- This product contains chemicals known to the State of California and other governmental entities to cause cancer and birth defects or other reproductive harm. ***Wash hands after handling***.
- 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.

The Safety of Your Ears is in Your Hands

Get the most out of your equipment by playing it at a safe level—a level that lets the sound come through clearly without annoying blaring or distortion and, most importantly, without affecting your sensitive hearing. Sound can be deceiving.
Over time, your hearing "comfort level" adapts to higher volumes of sound, so what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

▸ESTABLISH A SAFE LEVEL:

– Set your volume control at a low setting.
– Slowly increase the sound until you can hear it comfortably and clearly, without distortion.

– Once you have established a comfortable sound level, set the dial and leave it there.

▶BE SURE TO OBSERVE THE FOLLOWING GUIDELINES:

– Do not turn up the volume so high that you can't hear what's around you.
– Use caution or temporarily discontinue use in potentially hazardous situations.
– Do not use headphones while operating a motorized vehicle; the use of headphones may create a traffic hazard and is illegal in many areas.

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 authorized 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 odor from this product, or any other abnormal signs on the LCD screen, turn off the power immediately and consult your dealer or the nearest authorized 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 authorized 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 parking brake 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 parking brake 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.
- Rear visibility systems (backup cameras) are required in certain new vehicles sold in the U.S. and Canada. U.S. regulations began according to a two year phase-in on May 1, 2016, and both the U.S. and Canada require that all such vehicles manufactured on or after May 1, 2018 have rear visibility systems. **Owners of vehicles equipped with compliant rear visibility systems should not install or use this product in a way that alters or disables that system's compliance with applicable regulations.** If you are unsure whether your vehicle has a rear visibility system subject to the U.S. or Canadian regulations, please contact the vehicle manufacturer or dealer.

  If your vehicle has a compliant backup camera that displays the backup view through the factory receiver, do not use the Pioneer receiver unless it is connected to and displays the same view as the factory backup camera. Connection to the factory backup camera will require an adaptor, sold separately. Not all vehicles may be able to connect. Please check with a qualified professional installer for installation options specific to your vehicle.

Parking brake interlock

Certain functions (such as viewing of video image and certain touch panel key operations) offered by this product could be dangerous (possibly resulting in serious injury or death) and/or unlawful if used while driving. To prevent such functions from being used while the vehicle is in motion, there is an interlock system that senses when the parking brake is set and when the vehicle is moving. If you attempt to use the functions described above while driving, they will become disabled until you stop the vehicle in a safe place, and (1) apply the parking brake, (2) release the parking brake, and then (3) apply the parking brake again. Please keep the brake pedal pushed down before releasing the parking brake.

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 PARKING BRAKE 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 parking brake interlock system which is in place for your protection. Tampering with or disabling the parking brake 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 parking brake. Please keep the brake pedal pushed down before releasing the parking brake.

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.

Failure to operate

After-sales service for Pioneer products

Please contact the dealer or distributor from which you purchased the product for after-sales service (including warranty conditions) or any other information. In case the necessary information is not available, please contact the companies listed below.
Please do not ship your product to the companies at the addresses listed below for repair without making advance contact.
–USA&CANADA
Pioneer Electronics (USA) Inc.
CUSTOMER SUPPORT DIVISION
P.O. Box 1760 Long Beach, CA 90801-1760
800-421-1404
For warranty information, please see the Limited Warranty sheet included with your product.

Visit our website

Visit us at the following site:
https://www.pioneerelectronics.com
https://www.pioneerelectronics.ca

1. **Register your product.**
2. **Receive updates on the latest products and technologies.**
3. **Download owner's manuals, order product catalogs, research new products, and much more.**
4. **Receive notices of software upgrades and software updates.**

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 cellular phone, keep the antenna of the cellular phone away from the LCD screen to prevent disruption of the video in the form of spots, colored 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

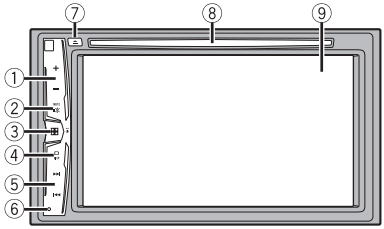
This manual uses diagrams of actual screens to describe operations. However, the screens on some units may not match those shown in this manual depending on the model used.

Meanings of symbols used in this manual

000EX	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

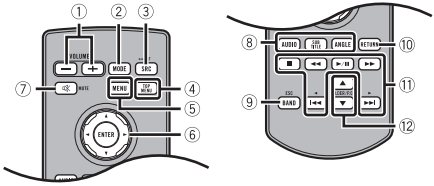


①	VOL (+/-)
②	MUTE

③	⊞	Press to display the top menu screen. Press and hold to power off. To power back on, press any button. **NOTE** The ⊞ icon appears when the power is on.
④	DISP	Press to turn the display on or off.
⑤	⏮ or ⏭	Performs manual seek tuning, fast forwards, reverse and track search controls. Press to answer or end a call.
⑥	RESET	Press to reset the microprocessor (page 11).
⑦	⏏	Refer to Inserting and ejecting a disc (page 25).
⑧	Disc-loading slot	
⑨	LCD screen	

Remote Control

221EX



①	Volume (+/-)	
②	MODE	Press to turn the display on or off.
③	SRC	Press to cycle through all the available sources. Press and hold to turn the source off.
④	TOP MENU	Press to return to the top menu during DVD playback.
⑤	MENU	Displays the DVD menu during DVD playback.
⑥	Thumb pad	Use to select a menu on the DVD menu.
⑦	MUTE	
⑧	AUDIO SUBTITLE ANGLE	Press to change the audio language, subtitle language or viewing angle during DVD playback.
⑨	BAND/ESC	Press to select the tuner band when tuner is selected as a source. Press to switch between media file types when playing the following types of data: Disc, USB
⑩	RETURN	Press to return to the specified point and start playback from there.

⑪	▶/❚❚	Press to pause or resume playback.
	◀◀ or ▶▶	For audio: Press and hold to perform fast reverse or fast forward. For video: Press to perform fast reverse or fast forward.
	⏮ or ⏭	Press to return to the previous track (chapter) or go to the next track (chapter). Press to answer or end a call.
	■	Press to stop playback. If you resume playback, playback will start from the point where you stopped. Press the button again to stop playback completely.
⑫	FOLDER/P.CH	Press to select the next or previous title or folder. Press to recall radio station frequencies assigned to preset channel keys. Press to answer or end a call.

Basic operation

Resetting the microprocessor

⚠ 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.**

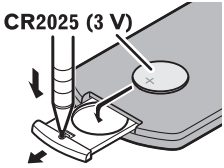
2 **Press RESET with a pen tip or other pointed tools.**
Settings and recorded contents are reset to the factory settings.

Preparing the remote control

221EX

Remove the insulation sheet before use.

How to replace the battery



Insert the CR2025 (3 V) battery with the plus (+) and minus (-) poles orientated properly.

⚠ WARNING

- Do not ingest the battery, Chemical Burn Hazard.
  (The remote control supplied with) This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
  Keep new and used batteries away from children.
  If the battery compartment does not close securely, stop using the product and keep it away from children.
  If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- Batteries (battery pack or batteries installed) must not be exposed to excessive heat such as sunshine, fire or the like.

⚠ CAUTION

- Remove the battery if the remote control is not used for a month or longer.
- There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type.
- Do not handle the battery with metallic tools.
- Do not store the battery with metallic objects.
- If the battery leaks, wipe the remote control completely clean and install a new battery.
- When disposing of used batteries, please comply with governmental regulations or environmental public institutions' rules that apply in your country/area.
- "Perchlorate Material – special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate. (Applicable to California, U.S.A.)"

Using the remote control

Point the remote control in the direction of the front panel to operate.

NOTE

The remote control may not function properly in direct sunlight.

Important

- Do not store the remote control in high temperatures or direct sunlight.
- Do not let the remote control fall onto the floor, where it may become jammed under the brake or gas pedal.

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 top menu screen appears.

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

►/II	**Switches between playback and pause.**
► II	
I◄◄ ►►I	**Skips files (or tracks) forward or backward.**
◄◄ ►►	**Performs fast reverse or fast forward.** Touch again to change the playback speed.
■	**Stops playback.**

Text information	**When all characters are not displayed, the rests are automatically scrolled on the display. The characters are displayed by touching the text information.** **NOTE** This function is available only when you stop your vehicle in a safe place and apply the parking brake.
	Returns to the previous screen.
	Close the screen.

Operating list screens

	Starts playback the item.
	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 parking brake.
	Appears when items cannot be displayed on a single page. Touch ∧ or ∨ to view any hidden items.

Operating the time bar

	You can change the playback point by dragging the key. **NOTE** The time bar function may vary depending on the activating source.

Top menu screen

①	**Source icons**
21:48	**Setting the time and date (page 46)**
	Settings (page 35) and Favorite menu (page 45)
	Hands-free phoning (page 18)
	AV source off
	If you select , you can turn off almost all functions. The unit turns on by operating following 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. • The ignition switch is turned off (ACC OFF), then turned on (ACC ON).

Bluetooth

Bluetooth connection

1 **Turn on the Bluetooth function on the device.**

2 **Press .**

3 **Touch [⚙] then [ᛒ].**
The Bluetooth menu 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 three devices are already paired, [Memory Full] is displayed. Delete a paired device first (page 17).
- 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.
- [🔍] is invalid when the device is already connected, also is invalid during connecting or disconnecting.

TIP

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 17). For details on Bluetooth device operations, refer to the operating instructions supplied with the Bluetooth device.

Bluetooth settings

1 **Press [⊞].**

2 **Touch [⚙] then [ᛒ].**

⚠ 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.
[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.
[BT Software Update]	Updates the Bluetooth software version by connecting the external memory. **TIP** This function is available when the source is off.
[BT Version Info]	Displaying the Bluetooth version.

Switching the connected Bluetooth device

You can switch among the connected Bluetooth devices using the switch devices key in the Bluetooth menu.

- You can register up to three Bluetooth devices on this product (page 15).
- The Bluetooth audio player can be switched to other Bluetooth devices on the Bluetooth audio playback screen.
- Only one device can be connected as a hands-free phoning.

Hands-free phoning

To use this function you need to connect your cellular phone to this product via Bluetooth in advance (page 15).

⚠ CAUTION

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

Making a phone call

1 **Press [⊞], then touch [📞].**
The phone menu screen appears.

2 **Touch one of the call icons on the phone menu screen.**

	The following items are displayed. • Name of the current cellular phone • List number of the current cellular phone • Reception status of the current cellular phone • Battery status of the current cellular phone
	Initial searches the phone book. Each time you press the button, English and system language may switch depending on the system language setting. Touch the list area to stop initial search.
	Using preset dial list (page 19)
	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.
	Using call history Make a phone call from the received call [📞], dialed 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 [ ], then touch [ ].**

2 **Touch [ ] or [ ].**
On the [Phone Book] screen, touch the desired name to display the contact's phone number.

3 **Touch [ ].**

▸Dialing from the preset dial list

1 **Touch [ ].**

2 **Touch the desired entry on the list to make a call.**
The dial screen appears and dialing starts.

▸Deleting a phone number

1 **Press [ ], then touch [ ].**

2 **Touch [ ] then [ ].**

3 **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.

Phone settings

1 **Press [ ], then touch [ ] and [ ].**

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.

English

Menu Item	Description
[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 cellular phone).

1 Touch [Private On] or [Private Off] to turn private mode on or off.

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

▸Registration and connection

- Cellular phone operations vary depending on the type of cellular phone. Refer to the instruction manual that came with your cellular 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 cellular phones, even after you press the accept button on the cellular 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 dialed 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 cellular 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 cellular 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 cellular 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 15).

NOTES

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

1 **Press [⊞].**

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

3 **Touch [AV Source Settings].**

4 **Confirm that [Bluetooth Audio] is turned on.**

5 **Press [▮▮].**

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

Description of Bluetooth audio playback screen

♪ 9999	**Track number indicator**
	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 17).

AV source

Supported AV source

You can play or use the following sources with this product.
- Radio
- CD
- ROM (compressed audio or video files on discs)
- DVD-Video
- USB

The following sources can be played back or used by connecting an auxiliary device.
- iPod
- Bluetooth® audio
- AUX

Selecting a source

Source on the AV source selection screen

1 Press [▮▮].

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

Source on the source list

1 **Touch [▼] on the AV Source screen.**

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

Smartphone connection for AV source

When using a smartphone with this product, the settings are automatically configured according to the device to be connected.

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

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 23)

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.
- Bluetooth audio

1 **Connect a smartphone with this product via Bluetooth (page 15).**

2 **Press [⊞].**

3 **Touch compatible desired source.**

Radio

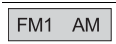
Starting procedure

1 **Press** [⊞].

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

Basic operation

Description of Radio screen

	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.
	**Selects the FM1, FM2, FM3, or AM band.**
	Performs BSM (best stations memory) function (page 24).
	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.

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 [BSM] to begin search.**
While searching, 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 [⊞].**

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] **AM:** [Level1] [Level2]	Local seek tuning allows you to only tune into radio stations with sufficiently strong signals. **NOTE** The FM [Level4] (AM [Level2]) setting allows reception of only stations with the strongest signals.

Disc

Inserting and ejecting a disc

You can play a normal music CD, Video-CD, or DVD-Video using the built-in drive of this product.

⚠ CAUTION

Do not insert anything other than a disc into the disc-loading slot.

Inserting a disc

1 Insert a disc into the disc-loading slot.
The source changes and then playback will start.

NOTE
If the disc is already set, select [Disc] as the playing source.

Ejecting a disc

1 Press ⏏.

Basic operation

TIPS
- If a Video-CD with PBC (playback control) ON is being played, PBCON appears.
- You can set the screen size for the video image (page 46).

Audio source

Description of Audio source screen

♪ Track 99	**Track number indicator**
	Sets a repeat play for the current disc/the current track.
	Plays or does not play tracks in random order.
	Selects a track from the list. Touch a track on the list to play back.

Video source

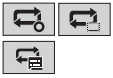
⚠ CAUTION

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 parking brake.

Description of Video source screen

TIP

Touch anywhere on the screen, the touch panel keys appear.

	Performs frame-by-frame playback.
	Performs slow-motion playback. Each time you touch [⏭], it changes the speed in four steps in the following order: 1/16 -> 1/8 -> 1/4 -> 1/2 **TIP** Reverse slow-motion playback is only for Video CD.
	Displays the DVD menu. **NOTE** This function may not work properly with some DVD disc content. In that case, use touch panel keys to operate the DVD.
	**Sets a repeat play for all files/the current chapter/the current title.**
	Switches the audio/subtitle language.
	Displays the hidden function bar.
	Searches for the part you want to play. Touch [Title], [Chapter], [10Key], or [Track] then input the desired number from [0] to [9]. To start playback from the number you registered, touch [↵]. **TIPS** • To cancel an input number, touch [C]. • For DVD-Videos, you can select [Title], [Chapter] or [10Key]. • For Video-CDs, you can select [Track] or [10Key].*
	Selects the audio output from [L+R], [Left], [Right], [Mix]. This function is available for Video-CDs and DVDs recorded with LPCM audio.
	Changes the viewing angle (Multi-angle). This function is available for DVDs featuring multi-angle recordings.
	Resumes playback (Bookmark). This function is available for DVD-Video. You can memorize one point as a Bookmark for a disc (up to five discs). To clear the bookmark on the disc, touch and hold this key.

Return	**Returns and begins playback from the specified point.** This function is available for DVD-Video and Video-CDs featuring PBC (playback control).

* PBC (playback control) only

Compressed files

Inserting and ejecting media

You can play compressed audio, compressed video, or still image files stored in a disc or an external storage device.

⚠ CAUTION

Do not insert anything other than a disc into the disc-loading slot.

Inserting a disc

1 Insert a disc into the disc-loading slot.
The source changes and then playback will start.

NOTE

If the disc is already set, select [Disc] as the playing source.

Ejecting a disc

1 Press ⏏.

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.

TIP

Connect the USB cable to the USB port on the rear panel of this product.

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.

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

For Disc

1 Insert the disc (page 28).

TIP

If the disc is already set, select [Disc] as the playing source.

For USB

1 Plug the USB storage device into the USB cable (page 28).

TIP

If the USB is already set, select [USB] as the playing source.

Basic operation

TIP

You can set the screen size for the video and image files (page 46).

Audio source

Description of Audio source screen (Example: USB)

TIP

When you touch text information, all information is displayed by scrolling only when the parking brake is applied.

	Sets a repeat play range for all files/the current folder/the current file. **NOTE** The types of repeat play range depend on the source.

	Plays files or does not play in random order.
	Displays the hidden function bar.
	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.
	When you touch the memory select icon while connecting an Android device, it switches between internal memory and external memory.
	Selects the previous folder or the next folder.
	Switches the current music information display.

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 parking brake.

Description of Video source screen (Example: Disc)

TIP

Touch anywhere on the screen, the touch panel keys appear.

	Performs frame-by-frame playback.
	Performs slow-motion playback.
	Sets a repeat play range for all files/the current folder/the current file. **NOTE** The types of repeat play range depend on the source.

	Switches the audio/subtitle language.
	Switches the following media file types. **[Music]:** Compressed audio files **[Video]:** Compressed video files **[CD-DA]:** Audio data (CD-DA)
	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.

Still image source

Description of Still image screen

TIP

Touch anywhere on the screen, the touch panel keys appear.

	Selects the previous folder or the next folder.
	Rotates the displayed picture 90° clockwise.
	Sets a repeat play range for all files/the current folder.
	Plays all files in the current repeat play range or does not play them in random order.
	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.

iPod

Setup for iPod

When connecting an iPod/iPhone to this product, the settings are automatically configured according to the device to be connected.

iPod/iPhone compatibility

This product supports only the following iPod/iPhone models and iPod software versions. Other may not work correctly.

- iPhone 7
- iPhone 7 Plus
- iPhone SE
- iPhone 6s
- iPhone 6s Plus
- iPhone 6
- iPhone 6 Plus
- iPhone 5s
- iPhone 5c
- iPhone 5
- iPhone 4s
- iPod touch (6th generation)
- iPod touch (5th generation)
- iPod nano (7th generation)

Connecting your iPod

The following connections are available.

- iPhone with a 30-pin connector
  Connecting via CD-IU51 (sold separately)
- iPod/iPhone with a Lightning connector
  Connecting via CD-IU52 (sold separately)

For details of connection, refer to the Installation Manual.

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/iPhone.**

2 **Press** [⊞].

3 Touch [iPod].

Basic operation

Audio source

Description of Audio source screen

TIP

When you touch text information, all information is displayed by scrolling only when the parking brake is applied.

	Sets a repeat play range for all in the selected list/the current song.
	Plays songs within the selected list/album randomly.
	Selects a song from the list. Touch the category then the title of the list to playback of the selected list. **NOTE** Each time you connect an iPod/iPhone, it will require extra time to access your playlist. If there are 10,000 songs on the iPod/iPhone, it will require almost one hour to populate. **TIP** When you touch Apple Music Radio station in the list screen, Apple Music Radio screen appears (page 33).
	Changes the audiobook speed.

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, iPhone 4s or iPod touch (5th and 6th generation).

Description of Apple Music Radio screen

★	**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.
☰	**Select Apple Music Radio station.** **TIP** When you select a song, the audio source screen appears.

AUX

The video image or sound can be played via the device connected to AUX 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 parking brake.

NOTE

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

Starting procedure

1. **Press [⊞].**
2. **Touch [⚙] then [🔧].**
3. **Confirm that [AUX Input] is turned on.**
4. **Press [⊞].**
5. **Touch [AUX].**
   The AUX screen appears.

Basic operation

Description of AUX screen

TIPS

• Touch anywhere on the screen, the touch panel keys appear.

• You can set the screen size for the video image (page 46).

	Switches between the video input and audio input.

Settings

You can adjust various settings in the main menu.

Displaying the setting screen

1 **Press** .

2 **Touch** .

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

- System settings (page 35)
- Theme settings (page 40)
- Audio settings (page 41)
- Video settings (page 43)
- Bluetooth settings (page 16)

System settings

The menu items vary according to the source.

[AV Source Settings]

Menu Item	Description
[Radio Settings]	(page 25)
[Bluetooth Audio] [On] [Off]	Setting Bluetooth audio source activation.

[AUX Input]

Menu Item	Description
[AUX Input] [On] [Off]	Set to [On] for AUX source (page 34).

[Camera Settings]

A separately sold rear view camera (e.g. ND-BC8) is required for utilizing 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 shift lever 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 22).

NOTE

To set the rear view camera as the camera for Camera View mode, set [Back Camera Input] to [On] (page 36).

⚠ 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 shift lever 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] [Off] [On]	Setting rear view camera activation.
[Camera Polarity]	Setting the polarity of the rear view camera.
[Battery]	The polarity of the connected lead is positive.
[Ground]	The polarity of the connected lead is negative. **NOTE** This function is available when [Back Camera Input] is set to [On].

[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
[Restore 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 parking brake. • The source is turned off and the Bluetooth connection is disconnected before the process starts.

[Beep Tone]

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

[Touch Panel Calibration]

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 parking brake.

Menu Item	Description
[Touch Panel Calibration]	**1 Touch [Yes].** **2 Touch four corners of the screen along the arrows.** **3 Press [■].** The adjustment results are saved. **4 Press [■] once again.** Proceed to 16-point adjustment. **5 Gently touch the center of the [+] mark displayed on the screen.** The target indicates the order. • When you press [■], the previous adjustment position returns. • When you press and hold [■], the adjustment is canceled. **6 Press and hold [■].** The adjustment results are saved.

[Dimmer Settings]

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.
[Day/Night]		Setting the dimmer duration by day or night. You can use this function when [Manual] is set to [Dimmer Trigger].
	[Day]	Turns the dimmer function to off.
	[Night]	Turns the dimmer function to on.

Menu Item	Description
[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 backward or forward 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. **NOTES** • The time display of the dimmer duration adjusting bar depends on the clock display setting (page 46). • This setting is available only when you stop your vehicle in a safe place and apply the parking brake.

[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 parking brake.

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.
[Color]* [-24] to [+24]	Adjust the color saturation.
[Hue]* [-24] to [+24]	Adjust the tone of color (which color is emphasized, red, or green).
[Dimmer] [+1] to [+48]	Adjust the brightness of the display.

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

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 38).
- The picture adjustment may not be available with some rear view cameras.
- The setting contents can be memorized separately.

[USB MTP]

Menu Item	Description
[USB MTP] [On] [Off]	Set to [On] when using the MTP connection.

Theme settings

Menu Item	Description
[Background] [Home] [AV]	Select the wall paper from the preset items in this product. 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.
OFF (off)	Hides the background display.
[Illumination]*	Select an illumination color from the color list or create a defined color.
Colored Keys	Select the desired preset color.
(custom)	Displays the screen to customize the illumination color. To customize the defined color, touch then touch ◀ or ▶ to adjust the brightness and the level of red, green and blue to create favorite color. To store the customized color in the memory, touch and hold [Memo], and the customized color will be available at the next illumination setting by pressing . **TIP** You can also adjust the color tone by dragging the color bar.
(rainbow)	Shifts gradually between the preset colors in sequence.
[Theme]*	Select the theme color.

* 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 muted.

Menu Item	Description
[Graphic EQ] [S.Bass] [Powerful] [Natural] [Vocal] [Flat] [Custom1] [Custom2]	Select or customize the equalizer curve. Select a curve that you want to use as the basis of customizing then touch the frequency that you want to adjust. **TIPS** • If you make adjustments when a curve [S.Bass], [Powerful], [Natural], [Vocal], or [Flat] is selected, the equalizer 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.
[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 fader can be adjusted when [Rear] is selected as the speaker mode.
[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.
[Subwoofer] [On] [Off]	Select enable or disable subwoofer output from this product.

English

Menu Item	Description
[Speaker Level] [Front Left] [Front Right] [Rear Left] [Rear Right] [Subwoofer] [Listening Position]	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** For rear speaker, this function is available only when [Rear] is selected in [Rear Speaker Output].
[Crossover]	Select a speaker unit (filter) to adjust the HPF or LPF cutoff frequency and the slope for each speaker unit (page 42).
[Subwoofer Settings]	Select the subwoofer phase, LPF cut-off frequency and the slope (page 42).
[Listening Position] [Off] [Front-L] [Front-R] [Front] [All]	Select a listening position that you want to make as the center of sound effects.
[Time Alignment] [Front Left] [Front Right] [Rear Left] [Rear Right] [Subwoofer] [Listening Position]	Select or customize 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.** **NOTE** This function is available only when the listening position setting is set to [Front Left] or [Front Right].
[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 the source is off.
[Loudness] [Off] [Low] [Mid] [High]	Compensates for deficiencies in the low-frequency and high-frequency ranges at low volume.

Adjusting the cutoff frequency value

You can adjust the cutoff frequency value of each speaker.
The following speakers can be adjusted:
Front, Rear, Subwoofer.

NOTE

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

1 **Press** [⊞].

2 **Touch** [⚙] **then** [🔊].

3 **Touch [Crossover] or [Subwoofer Settings].**

4 **Touch** [〈] **or** [〉] **to switch the speaker.**

5 **Touch** [〈] **or** [〉] **to set the cutoff position.**

6 **Touch** [〈] **or** [〉] **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].

Video settings

The menu items vary according to the source.

[DVD Setup]

This setting is available when the selected source is [Disc].

Menu Item	Description
[Subtitle Language]*1*2*3	Set a subtitle language preference. When you select [Others], a language code input screen is shown. Input the four-digit code of the desired language then touch [↵].
[Audio Language]*1*2*3	
[Menu Language]*1*2*3	

Menu Item	Description
[Parental]	Set restrictions so that children cannot watch violent or adult-oriented scenes. You can set the parental lock level in steps as desired. **1 Touch [0] to [9] to input a four-digit code number.** **2 Touch [↵].** Registers the code number, and you can now set the level. **3 Touch any number between [1] to [8] to select the desired level.** The lower the level is set, the tighter the restriction is applied. **4 Touch [↵].** Sets the parental lock level. **NOTES** • We recommend keeping a record of your code number in case you forget it. • The parental lock level is recorded on the disc. You can confirm it by looking at the disc package, the included booklet, or the disc itself. You cannot use parental lock with discs that do not feature a recorded parental lock level. • With some discs, parental lock operates to skip certain scenes only, after which normal playback resumes. For details, refer to the disc's instructions.
[DVD Auto Play] [On] [Off]	Set to display the DVD menu automatically and start playback from the first chapter of the first title when a DVD disc with a DVD menu is inserted. **NOTE** Some DVDs may not operate properly. If this function is not fully operable, turn this function off and start playback.

*1 You can switch the language by touching the switch languages key during playback.
*2 The setting made here will not be affected even if the language is switched during playback using the appropriate key.
*3 If the selected language is not available, the language specified on the disc is displayed.

[Time Per Photo Slide]

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

[Video Signal Setting]

Menu Item	Description
[AUX] [Auto] [PAL] [NTSC] [PAL-M] [PAL-N] [SECAM]	Select the suitable video signal setting when you connect this product to an AUX equipment.
[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.

Favorite menu

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

NOTE

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

Creating a shortcut

1. **Press [⊞] 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/removing a shortcut

1. **Press [⊞] then touch [⚙].**
2. **Touch [★].**
3. **To select, touch the menu item.**
   To remove, touch and hold the favorite menu column.
   The selected menu item is removed from the [Favorites] screen.

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.**

	Screen display mode key

2 **Touch the desired mode.**

[Full]	Displays 16:9 images on the full screen without changing the ratio. **NOTE** Video images are enlarged or reduced to fit on the screen, and the original aspect ratio is maintained.
[Zoom]	Displays the images enlarging them vertically.
[Normal]	Video images are reduced horizontally in comparison to [Full] mode. Still images are enlarged or reduced to fit on the screen, and the original aspect ratio is maintained.
[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.
- Enlarged images may appear coarser.

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 37).

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 authorized 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 any button on this product to release the mode.

Problems with the AV screen

CD or DVD playback is not possible.

→ The disc is inserted upside down.
– Insert the disc with the label upward.
→ The disc is dirty.
– Clean the disc.
→ The disc is cracked or otherwise damaged.
– Insert a normal, round disc.
→ The files on the disc are in an irregular file format.
– Check the file format.
→ The disc format cannot be played back.
– Replace the disc.
→ The loaded disc is a type this product cannot play.
– Check what type of disc it is.

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

→ The parking brake lead is not connected or the parking brake is not applied.
– Connect the parking brake lead correctly, and apply the parking brake.
→ The parking brake interlock is activated.
– Park your vehicle in a safe place and apply the parking brake.

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

→ The system is performing still, slow motion, or frame-by-frame playback with DVD-Video.
– There is no sound during still, slow motion, or frame-by-frame playback with DVD-Video.
→ The system is paused or performing fast reverse or forward during the disc playback.
– For the media other than music CD (CD-DA), there is no sound on fast reverse or forward.

The icon ⃠ is displayed, and operation is impossible.

→ The operation is not compatible with the video configuration.
– The operation is not possible. (For example, the DVD playing does not feature that angle, audio system, subtitle language, etc.)

The picture is extremely unclear/ distorted and dark during playback.

→ The disc features a signal to prohibit copying. (Some discs may have this.)
– Since this product is compatible with the copy guard analog copy protect system, the picture may suffer from horizontal stripes or other imperfections when a disc with that kind of protection signal is viewed on some displays. This is not a malfunction.

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.

No back camera image when the vehicle is in reverse.

→ The back camera input setting on the receiver is set to Off.
- Change the back camera setting to On in the settings menu. (Refer to the System Settings section of this manual to adjust.)

→ The camera input may be loose or not connected.
- Check the connection and make sure the male end of the camera is connected to the brown input on the back of the receiver. (Refer to the installation manual.)

→ The reverse lead on the receiver may not be connected to the proper wire at the reverse lamp.
- Check the connection and make sure that the violet/white lead of the receiver is connected to the lead whose voltage changes when the shift lever is put in reverse. (Refer to the installation manual.)

Black screen displayed when the vehicle is in reverse, with no camera installed.

→ Back camera input is set to On.
- Turn the setting to Off in the settings menu. (Refer to the System Settings section of this manual to adjust.)

Back image displayed when vehicle is not in reverse.

→ The camera polarity is not set properly in the Camera settings menu.
- Review System Settings section of this manual for steps to switch the camera polarity. Park in a safe place, then while keeping your foot firmly on the brake, put the vehicle in reverse, access the System Settings menu, and change the camera polarity setting. Put vehicle back in park. (Refer to the System Settings section of this manual to adjust.)

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 cellular phone and this product cannot be established.
- Perform the connection process.

→ Of the two cellular phones connected to this product at the same time, if the first phone is dialing, ringing or a call is in progress, dialing cannot be performed on the second phone.
- When the operation on the first of the two cellular phones is completed, use the switch devices key to switch to the second phone and then dial.

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 center.

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 authorized Pioneer Service Station for assistance.

Disc

Error-02-XX
→ The disc is dirty.
– Clean the disc.
→ The disc is scratched.
– Replace the disc.
→ The disc is loaded upside down.
– Check that the disc is loaded correctly.
→ There is an electrical or mechanical error.
– Press RESET.

Skipped
→ The inserted disc contains DRM protected files.
– The protected files are skipped.

Protect
→ All the files on the inserted disc are embedded with DRM.
– Replace the disc.

TEMP
→ The temperature of this product is outside the normal operating range.
– Wait until this product returns to a temperature within the normal operating limits.

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.

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.

iPod

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

Error-02-60
→ 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 authorized Pioneer Service Station.

Handling and care of discs

Some basic precautions are necessary when handling your discs.

Built-in drive and care

- Use only conventional, fully circular discs. Do not use shaped discs.
- Do not use cracked, chipped, warped, or otherwise damaged discs as they may damage the built-in drive.
- Use 12-cm discs. Do not use 8-cm discs or an adapter for 8-cm discs.
- When using discs that can be printed on label surfaces, check the instructions and the warnings of the discs. Depending on the discs, inserting and ejecting may not be possible. Using such discs may result in damage to this equipment.
- Do not attach labels, write on or apply chemicals to the surface of the discs.
- Do not attach commercially available labels or other materials to the discs.
- To clean a disc, wipe it with a soft cloth, moving outward from the center.
- Condensation may temporarily impair the built-in drive's performance.
- Playback of discs may not be possible because of disc characteristics, disc format, recorded application, playback environment, storage conditions and so on.
- Road shocks may interrupt disc playback.
- Read the precautions for discs before using them.

Ambient conditions for playing a disc

- At extremely high temperatures, a temperature cutout protects this product by switching it off automatically.
- Despite our careful design of the product, small scratches that do not affect actual operation may appear on the disc surface as a result of mechanical wear, ambient conditions for use or handling of the disc. This is not a sign of the malfunction of this product. Consider it to be normal wear and tear.

Playable discs

DVD-Video

- DVD is a trademark of DVD Format/Logo Licensing Corporation.
- It is not possible to play DVD Audio discs. This DVD drive may not be able to play all discs bearing the marks shown above.

CD

AVCHD recorded discs

This unit is not compatible with discs recorded in AVCHD (Advanced Video Codec High Definition) format. Do not insert in AVCHD discs. If inserted, the disc may not be ejected.

Playing DualDisc

- DualDiscs are two-sided discs that have a recordable CD for audio on one side and a recordable DVD for video on the other.
- Playback of the DVD side is possible with this product. However, since the CD side of DualDiscs is not physically compatible with the general CD standard, it may not be possible to play the CD side with this product.
- Frequent loading and ejecting of a DualDisc may result in scratches to the disc.
- Serious scratches can lead to playback problems on this product. In some cases, a DualDisc may become stuck in the disc-loading slot and will not eject. To prevent this, we recommend you refrain from using DualDisc with this product.
- Please refer to the manufacturer for more detailed information about DualDiscs.

Dolby Digital

This product will down-mix Dolby Digital signals internally and the sound will be output in stereo.

- Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio and the double-D symbol are trademarks of Dolby Laboratories.

DOLBY AUDIO

Detailed information for playable media

Compatibility

Common notes about disc compatibility

- Certain functions of this product may not be available for some discs.
- Compatibility with all discs is not guaranteed.
- It is not possible to play DVD-RAM discs.
- Playback of discs may become impossible with direct exposure to sunlight, high temperatures, or depending on the storage conditions in the vehicle.

DVD-Video discs

- DVD-Video discs that have incompatible region numbers cannot be played on this DVD drive. The region number of the player can be found on this product's chassis.

DVD-R/DVD-RW/DVD-R SL (Single Layer)/DVD-R DL (Dual Layer) discs

- Unfinalized discs which have been recorded with the Video format (video mode) cannot be played back.
- Discs which have been recorded with the Video Recording format (VR mode) cannot be played back.
- DVD-R DL (Dual Layer) discs which have been recorded with Layer Jump recording cannot be played back.
- For detailed information about recording mode, please contact the manufacturer of media, recorders, or writing software.

CD-R/CD-RW discs

- Unfinalized discs cannot be played back.
- It may not be possible to playback CD-R/CD-RW discs recorded on a music CD recorder or a computer because of disc

characteristics, scratches or dirt on the disc, or dirt, scratches or condensation on the lens of the built-in drive.
- Playback of discs recorded on a computer may not be possible, depending on the recording device, writing software, their settings, and other environmental factors.
- Please record with the correct format. (For details, please contact manufacturer of media, recorders, or writing software.)
- Titles and other text information recorded on a CD-R/CD-RW disc may not be displayed by this product (in the case of audio data (CD-DA)).
- Read the precautions with CD-R/CD-RW discs before using them.

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 recognize 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 59).
- 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 gas pedal.
- 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. Unauthorized 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 59).
- For more details about DivX, visit the following site: https://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 recognized.
- 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 recognized.
- 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 synchronized.
- 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 in the disc: 60 h
- Maximum playback time of audio file stored on an USB storage device: 7.5 h (450 minutes)

CD-R/-RW

File system: ISO 9660 level 1 and level 2, Romeo, Joliet
Maximum number of folders: 300
Maximum number of files: 999
Playable file types: MP3, WMA, AAC, DivX, MPEG-1, MPEG-2, MPEG-4

DVD-R/-R SL/-R DL/DVD-RW

Maximum number of folders: 300
Maximum number of files: 3 500
Playable file types: MP3, WMA, AAC, DivX, MPEG-1, MPEG-2, MPEG-4

* Tag information can be displayed only in the language set in the system.

USB storage device

File system: FAT16/FAT32
Maximum number of directory: 8
Maximum number of folders: 300
Maximum number of files: 15 000
Playable file types: MP3, WMA, AAC, WAV, DivX, MPEG-2, MPEG-4, JPEG, BMP

MP3 compatibility

- Ver. 2.x of ID3 tag is prioritized 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
- tag information can be displayed with the language set by the system language setting.

CD-R/-RW, DVD-R/-R SL/-R DL/DVD-RW

File extension: .mp3
Bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192, 224, 256, 320 kbps (CBR), VBR
Sampling frequency: 16, 22.05, 24, 32, 44.1, 48 kHz
ID3 tag: ID3 tag Ver. 1.0, 1.1, 2.2, 2.3

USB storage device
File extension: .mp3
Bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192, 224, 256, 320 kbps (CBR), VBR
Sampling frequency: 16, 22.05, 24, 32, 44.1, 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 Professional, Lossless, Voice

CD-R/-RW, DVD-R/-R SL/-R DL/DVD-RW
File extension: .wma
Bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192 kbps (CBR)
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48 kHz

USB storage device
File extension: .wma
Bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192 kbps (CBR)
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48 kHz

WAV compatibility

- The sampling frequency shown in the display may be rounded.
- WAV files on the CD-R/-RW, DVD-R/-RW/-R SL/-R DL cannot be played.

USB storage device
File extension: .wav
Format: Linear PCM (LPCM)
Bit rate: Approx. 1.5 Mbps
Sampling frequency: 16, 22.05, 24, 32, 44.1, 48 kHz

AAC compatibility

- This product plays back only LC-AAC files encoded by iTunes.

CD-R/-RW, DVD-R/-R SL/-R DL/DVD-RW
File extension: .m4a, .aac
Bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192, 224, 256, 320 kbps (CBR), VBR
Sampling frequency: 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 64, 88.2, 96 kHz

USB storage device
File extension: .aac, .m4a
Bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192, 224, 256, 320 kbps (CBR), VBR
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 64, 88.2, 96 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
- Depending on the file information composition, such as the number of audio streams, there may be a slight delay in the start of playback on discs.
- 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.
- Files with high transfer rates may not be played back correctly. The standard transfer rate is 4 Mbps for CDs and 10.08 Mbps for DVDs.

CD-R/-RW, DVD-R/-R SL/-R DL/DVD-RW
File extension: .avi/.divx
Profile (DivX version): Home Theater Profile
Maximum image size: 720 pixels × 576 pixels

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.

- Folder selection sequence or other operations may be altered, depending on the encoding or writing software.
- Regardless of the length of blank section between the songs of original recording, compressed audio discs play with a short pause between songs.

.avi

Format: MPEG-4/DivX
Compatible video codec: MPEG4 (part2)/ 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.

.mpg/.mpeg

Format: MPEG-1 PS/MPEG-2 PS
Compatible video codec: MPEG-1/MPEG-2
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.

.divx

Format: MPEG-4/DivX
Compatible video codec: MPEG4 (part2)/ 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

Windows Media is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
- This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from Microsoft Licensing, Inc.

DivX

DivX® Home Theater Certified devices have been tested for high-quality DivX Home Theater video playback (including .avi, .divx). When you see the DivX logo, you know you have the freedom to play your favorite videos.
DivX®, DivX Certified® and associated logos are trademarks of DivX, LLC and are used under license.
This DivX Certified® device can play DivX® Home Theater video files up to 576p (including .avi, .divx).
Download free software at www.divx.com to create, play and cast digital videos.

AAC

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

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 gas pedal.
- For details, refer to the iPod manuals.

iPhone, iPod and Lightning

Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.
Please note that the use of this accessory with an Apple product may affect wireless performance.
iPhone, iPod, iPod nano, iPod touch, and Lightning are trademarks of Apple Inc., registered in the U.S. and other countries.

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.

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 DVD-Video viewing

This item incorporates copy protection technology that is protected by U.S. patents and other intellectual property rights of Rovi Corporation. Reverse engineering and disassembly are prohibited.

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 59.
- 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 cellular phone, keep the antenna of the cellular phone away from the LCD screen to prevent disruption of the video in the form of disturbances such as spots or colored 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 authorized Pioneer Service Station.

Specifications

General

Rated power source:
14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system:
Negative type
Maximum current consumption:
10.0 A
Dimensions (W × H × D):
D
Chassis:
178 mm × 100 mm × 159 mm (7 in. × 3-7/8 in. × 6-1/4 in.)
Nose:
171 mm × 97 mm × 5 mm (6-3/4 in. × 3-7/8 in. × 1/4 in.)
Weight:
1.4 kg (3.0 lbs)

Display

Screen size/aspect ratio:
6.2 inch wide/16:9 (effective display area: 137.52 mm × 77.232 mm) (5-3/8 in. × 3 in.)
Pixels:
1 152 000 (2 400 × 480)
Display method:
TFT Active matrix driving
Color system:
PAL/NTSC/PAL-M/PAL-N/SECAM compatible
Durable temperature range:
-10 ˚C to +60 ˚C (14 ˚F to +140 ˚F) (Power off)

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): 2.0 V
Equalizer (13-Band Graphic Equalizer):
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)
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
Phase: Normal/Reverse
Time alignment:
0 to 140 step (1 inch/step)
Bass boost:
Gain: +12 dB to 0 dB
Speaker level:
+10 dB to -24 dB (1 dB/step)

DVD drive

System:
DVD-V, VCD, CD, MP3, WMA, AAC, DivX, MPEG player
Usable discs:
DVD-VIDEO, VIDEO-CD, CD, CD-R, CD-RW, DVD-R, DVD-RW, DVD-R DL
Region number: 1
Signal Format:
Sampling frequency:
8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Number of quantization bits:
16 bit/20 bit/24 bit; linear

Frequency response:
5 Hz to 22 000 Hz (with DVD, at sampling frequency 48 kHz)
Signal-to-noise ratio:
91 dB (1 kHz) (IHF-A network) (RCA level)
Output level:
Video:
1.0 Vp-p/75 Ω (±0.2 V)
Number of channels: 2 (stereo)
MP3 decoding format:
MPEG-1 & 2 & 2.5 Audio Layer 3
WMA decoding format:
Ver. 7, 7.1, 8, 9, 9.1, 9.2 (2 ch audio) (Windows Media Player)
AAC decoding format:
MPEG-4 AAC (iTunes encoded only): .m4a (Ver. 10.6 and earlier)
DivX decoding format:
Home Theater (Except ultra and HD): .avi, .divx
MPEG video decoding format:
MPEG1 (Low Level), MPEG2 (Main Level), MPEG4 (part2) (Main Level)

USB

USB 1.1, USB 2.0 full speed, USB 2.0 high speed
Max current supply: 1.0 A
USB Class:
MSC (Mass Storage Class), MTP (Media Transfer Protocol)
File system: FAT16, FAT32
<USB audio>
MP3 decoding format:
MPEG-1 & 2 & 2.5 Audio Layer 3
WMA decoding format:
Ver. 7, 7.1, 8, 9, 9.1, 9.2 (2 ch audio) (Windows Media Player)
AAC decoding format:
MPEG-4 AAC (iTunes encoded only): .m4a (Ver. 10.6 and earlier)
WAV signal format:
Linear PCM : wav
Sampling frequency:
Linear PCM:
16 kHz/22.05 kHz/24 kHz/32 kHz/44.1 kHz/48 kHz
<USB image>
JPEG decoding format:
.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)
BMP decoding format: .bmp
Decode Size:
MAX: 1 920 (H) × 936 (W)
MIN: 32 (H) × 32 (W)
DivX decoding format:
Home Theater (Except ultra and HD) : .avi, .divx
MPEG video decoding format:
MPEG1 (Low Level), MPEG2 (Main Level), MPEG4 (part2) (Main Level)

Bluetooth

Version:
Bluetooth 3.0 certified
Output power:
+4 dBm Max. (Power class 2)
Frequency band(s):
2 400 MHz to 2 483.5 MHz

FM tuner

Frequency range:
87.9 MHz to 107.9 MHz
Usable sensitivity:
12 dBf (1.1 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio:
72 dB (IHF-A network)

AM tuner

Frequency range:
530 kHz to 1 710 kHz (10 kHz)
Usable sensitivity:
28 µV (S/N: 20 dB)
Signal-to-noise ratio:
62 dB (IHF-A network)

CTA2006 Specifications

Power output:
14 W RMS × 4 Channels (4 Ω and ≦ 1 % THD+N)
S/N ratio:
91 dBA (reference: 1 W into 4 Ω)

NOTE

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

Register your product at

https://www.pioneerelectronics.com

in Canada **https://www.pioneerelectronics.ca**

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