

Pioneer

MVH-AV280BT

MVH-AV180

RDS AV RECEIVER

Operation Manual

Contents

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

Important

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

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Precaution

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



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

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

Important safety information

⚠ WARNING

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

turn off the power immediately and consult your dealer or the nearest authorised Pioneer Service Station. Using this product in this condition may result in permanent damage to the system.

- Do not disassemble or modify this product, as there are high-voltage components inside which may cause an electric shock. Be sure to consult your dealer or the nearest authorised Pioneer Service Station for internal inspection, adjustments or repairs.

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

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

⚠ CAUTION

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

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 handbrake interlock system which is in place for your protection. Tampering with or disabling the handbrake interlock system could result in serious injury or death.**
- **To avoid the risk of damage and injury and the potential violation of applicable laws, this product is not for use with a video image that is visible to the driver.**
- In some countries the viewing of video image on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed.

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

When using a display connected to V OUT

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

⚠ WARNING

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

To avoid battery exhaustion

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

⚠ WARNING

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

Rear view camera

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

Precaution

▲WARNING

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

▲CAUTION

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

Handling the USB connector

▲CAUTION

- To prevent data loss and damage to the storage device, never remove it from this product while data is being transferred.
- Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, iPhone, smartphone, or other devices while using this product.

In case of trouble

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

Visit our website

Visit us at the following site:

<http://www.pioneer.eu>

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

About this product

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

Protecting the LCD panel and screen

- Do not expose the LCD screen to direct sunlight when this product is not used. This may result in LCD screen malfunction due to the resulting high temperatures.
- When using a mobile phone, keep the aerial of the mobile phone away from the LCD screen to prevent disruption of the video in the form of spots, coloured stripes, etc.
- To protect the LCD screen from damage, be sure to touch the touch panel keys only with your finger and do so gently.

Notes on internal memory

Before removing the vehicle battery

- Some of the settings and recorded contents will not be reset.

Data subject to erasure

The information is 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.

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.
- If your vehicle position is shown on the map with a significant positioning error.

1 Turn the ignition switch OFF.





2 Press the RESET button with a pen tip or other pointed implement.

☞ *Checking part names and functions* on page 5
Settings and recorded contents are reset to the factory settings.

About this manual

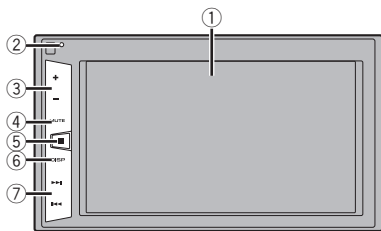
This manual uses diagrams of actual screens to describe operations. However, the screens on some units may not match those shown in this manual depending on the model used.

Meanings of Symbols Used in This Manual

	This indicates model name that are supported the described operations.
	This indicates to touch an appropriate soft key on the touch screen.
	This indicates to touch and hold an appropriate soft key on the touch screen.
	This indicates that there is a reference or supplementary for the key or screen.

Basic operation

Checking part names and functions



1	LCD screen
2	RESET button Resetting the microprocessor on page 4
3	Volume (+/-) button
4	MUTE button Press to switch the mute setting to on or off.
5	button Press to switch the display between the top menu screen and the current source screen.
6	DISP button Press to turn the display on or off.
7	Track () button Performs manual seek tuning, fast forwards, reverse and track search controls. Press to answer or end a call.

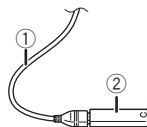
Remote control

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

Plugging and unplugging a USB storage device

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

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



- ① USB cable
- ② USB storage device
- Check that no data is being accessed before pulling out the USB storage device.

On first-time startup

1 Start the engine to boot up the system.

After a short pause, the splash screen comes on for a few seconds.

The "Select Program Language" screen appears.

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

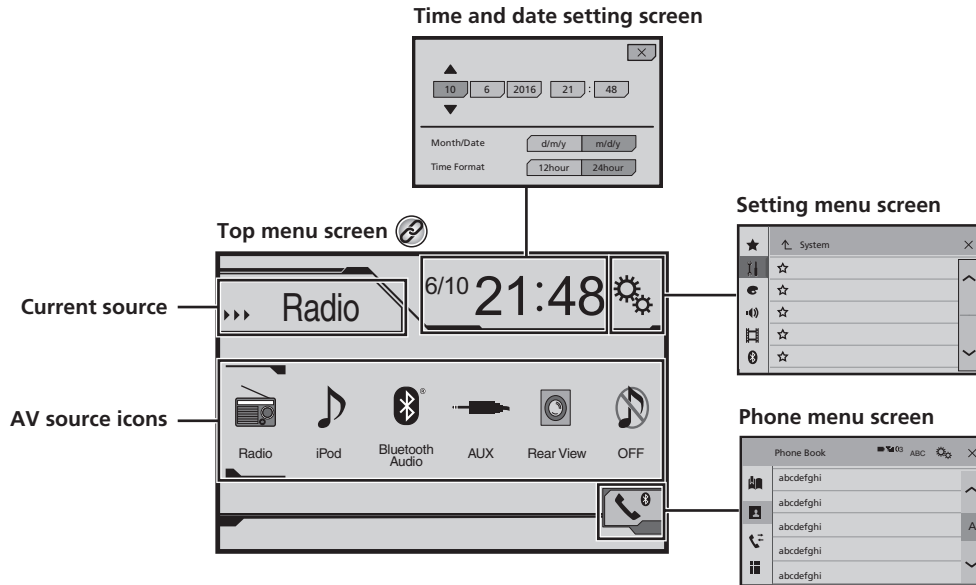
2 Touch the language that you want to use on screen.



3 Touch .

The top menu screen appears.

Basic operation

How to use the screens



 By pressing the  button on any screen you can display the Top menu screen.

Basic operation

Supported AV source

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

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

- USB
- iPod (MVH-AV280BT)
- Bluetooth audio (MVH-AV280BT)
- AUX

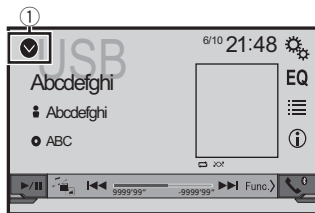
Selecting a source

Source on the Top menu screen

- 1 Press **⏏**.
- 2 Touch the source icon you want to select.
 - When you select "OFF", the AV source is turned off.

Source on the source list

- 1 Display the source list.



- 1 Display the source list.
- 2 Touch the source key you want to select.
 - When you select "OFF", the AV source is turned off.

Using the touch panel

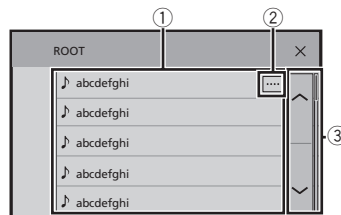
You can operate this product by touching the keys on the screen directly with your fingers.

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

Using the common touch panel keys

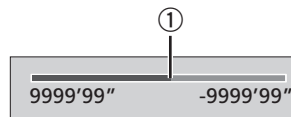
- **⏪**: Returns to the previous screen.
- **✕**: Closes the screen.

Operating list screens



- 1 Touching an item on the list allows you to narrow down the options and proceed to the next operation.
- 2 Appears when all characters are not displayed on the display area.
 - If you touch the key, the rest are scrolled for display.
- 3 Appears when items cannot be displayed on a single page. Touch **⏪** or **⏩** to view any hidden items.

Operating the time bar



- 1 You can change the playback point by dragging the key.
 - This function is not available when the Bluetooth Audio is selected as the AV source.

Switching the operation panel

- 1 **Func.**: Switches the operation panel of AV sources.

This key is not available on all sources.

Registration and connection of Bluetooth device

AV280BT

Displaying the "Bluetooth" screen

- 1 Press **⏏**.
- 2 Touch **📶**, and then **📶**.
The "Bluetooth" screen appears.

Registering your Bluetooth devices

- If three devices are already paired, "Memory Full" is displayed. Delete a paired device first.
- *Deleting a registered device on page 8*

 - 1 Activate the Bluetooth wireless technology on your devices.
 - 2 Display the "Bluetooth" screen.
 - *Displaying the "Bluetooth" screen on page 7*
 - 3 Touch [Connection].
 - 4 Touch **📶**.
The system searches for Bluetooth devices waiting for a connection and displays them in the list if a device is found.
 - 5 Touch the Bluetooth device name you want to register.

- 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.
- Once the connection is established, the device name is displayed. Touch the device name to disconnect.
After the device is successfully registered, a Bluetooth connection is established from the system.
- The Bluetooth connection can be also made by detecting this product from the Bluetooth device. Before registration, make sure that "Visibility" in the "Bluetooth" menu is set to "On". For details on a Bluetooth device operations, refer to the operating instructions supplied with the Bluetooth device.

Registration and connection of Bluetooth device

⇒ Switching visibility on page 8

Connecting to a Bluetooth device automatically


This function connects the last connected Bluetooth device to this product automatically as soon as the two devices are less than a few metres apart.

- 1 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7
- 2 **Touch [Auto Connect] to switch “On” (default) or “Off”.**

Deleting a registered device

⚠CAUTION

Never turn this product off while the paired Bluetooth device is being deleted.

- 1 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7
- 2 **Touch [Connection].**
- 3 **Touch .**

Connecting a registered Bluetooth device manually

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.

- 1 **Activate the Bluetooth wireless technology on your devices.**
- 2 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7
- 3 **Touch [Connection].**
- 4 **Touch the name of the device that you want to connect.**

Switching visibility


This function sets whether or not to make this product visible to the other device.

- 1 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7
- 2 **Touch [Visibility] to switch “On” (default) or “Off”.**

Entering the PIN code for Bluetooth wireless connection

To connect your Bluetooth device to this product, you need to enter a PIN code.

You can change the PIN code with this function.

- 1 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7
- 2 **Touch [PIN Code Input].**
- 3 **Touch [0] to [9] to input the pin code (up to 8-digits).**
- 4 **Touch .**
 The default PIN code is “0000”.

Displaying the device information

- 1 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7
- 2 **Touch [Device Information].**

The device name and address of the Bluetooth device and this product are displayed.

Clearing the Bluetooth memory

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

⚠CAUTION

Never turn this product off while the Bluetooth memory is being cleared.

- 1 **Display the “Bluetooth” screen.**
⇒ Displaying the “Bluetooth” screen on page 7

- 2 **Touch [Bluetooth Memory Clear].**

- 3 **Touch [Clear].**

The confirmation screen appears.

Updating Bluetooth software

This function is used to update this product with the latest Bluetooth software. For details on Bluetooth software and updating, refer to our website.

- The source is turned off and the Bluetooth connection is disconnected before the process starts.
- This setting is available only when you stop your vehicle in a safe place and apply the handbrake.
- You need to store the version up file to the USB storage device in advance.

⚠CAUTION

Never turn this product off and never disconnect the phone while the software is being updated.

- 1 **Connect the USB storage device stored the version update file to this unit.**

⇒ Plugging and unplugging a USB storage device on page 5

- 2 **Display the “Bluetooth” screen.**

⇒ Displaying the “Bluetooth” screen on page 7

- 3 **Touch [BT Software Update].**

- 4 **Touch [Start].**

Follow the on-screen instructions to finish updating the Bluetooth software.

Displaying the Bluetooth software version

If this product fails to operate properly, you may need to consult your dealer for repair.

In such cases, perform the following procedure to check the software version on this unit.

- 1 **Display the “Bluetooth” screen.**

⇒ Displaying the “Bluetooth” screen on page 7

- 2 **Touch [BT Version Info.].**

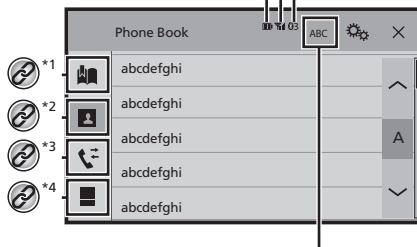
The version of this product’s Bluetooth module appears.

Hands-free phoning

AV280BT

Bluetooth telephone connected indicator
The device number of the connected device is displayed.

Reception status of the mobile phone
Battery status of the mobile phone



Switches to the initial search.

- *1 Displays the preset dial screen.
↳ *Using the preset dial lists on page 9*
- *2 Switches to the phone book list.
↳ *Calling a number in the phone book on page 9*
- *3 Switches to the missed, received and dialled call lists.
↳ *Dialling from the history on page 9*
- *4 Switches the mode to enter the phone number directly.
↳ *Direct dialling on page 9*

CAUTION

For your safety, avoid talking on the phone as much as possible while driving.
To use this function you need to connect your mobile phone to this product via Bluetooth in advance.

↳ *Registration and connection of Bluetooth device on page 7*

Displaying the Phone menu screen

- 1 Press **☰**.
- 2 Touch **☎**.

The Phone menu screen appears.

Making a phone call

You can make a phone call in many different ways.

Direct dialling

- 1 Display the "Phone menu" screen.
↳ *Displaying the Phone menu screen on page 9*
- 2 Touch **☎**.
- 3 Touch the number keys to enter the phone number.
- 4 Touch **☎** to make a call.
- 5 Touch **☎** to end the call.
 You may hear a noise when you hang up the phone.

Calling a number in the phone book

- The contacts on your phone will be automatically transferred to this product.
 - "Visibility" of the "Bluetooth" screen should be on.
↳ *Switching visibility on page 8*
- 1 Display the "Phone menu" screen.
↳ *Displaying the Phone menu screen on page 9*
 - 2 Touch **☎**.
 - 3 Touch the desired name on the list.
 - 4 Touch the phone number you want to dial.
The dial screen appears and dialling starts.
 - 5 Touch **☎** to end the call.

Dialling from the history

- 1 Display the "Phone menu" screen.
↳ *Displaying the Phone menu screen on page 9*

- 2 Touch **☎**.

- 3 Touch the item to switch the history list.

The following items are available:

- **☎** Received call list
- **☎** Dialled call list
- **☎** Missed call list

- 4 Touch the desired entry on the list to make a call.

The dial screen appears and dialling starts.

- 5 Touch **☎** to end the call.

Using the preset dial lists

Registering a phone number

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

- 1 Display the "Phone menu" screen.
↳ *Displaying the Phone menu screen on page 9*

- 2 Touch **☎** or **☎**.

On the "Phone Book" screen, touch the desired name.

- 3 Touch **☎**.

Dialling from the preset dial list

- 1 Display the "Phone menu" screen.
↳ *Displaying the Phone menu screen on page 9*

- 2 Touch **☎**.

- 3 Touch the desired item you want to dial.

The dial screen appears and dialling starts.

- 4 Touch **☎** to end the call.

Receiving a phone call

- 1 Touch **☎** to answer the call.

- If you touch **☎** while getting a call waiting, you can switch to the talking person.
- Touch **☎** to reject the call.

- 2 Touch **☎** to end the call.

Hands-free phoning

Changing the phone settings

Answering a call automatically

1 Display the “Bluetooth” screen.

☞ *Displaying the “Bluetooth” screen on page 7*

2 Touch [Auto Answer] to switch “On” or “Off” (default).

Switching the ring tone

You can select whether or not to use this product’s ring tone.

1 Display the “Bluetooth” screen.

☞ *Displaying the “Bluetooth” screen on page 7*

2 Touch [Ring Tone] to switch “On” (default) or “Off”.

Inverting names in the phone book

1 Display the “Bluetooth” screen.

☞ *Displaying the “Bluetooth” screen on page 7*

2 Touch [Invert Name].


Setting the private mode

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

1 Touch  or  to turn private mode on or off.

Adjusting the other party’s listening volume

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

1 Touch  to switch between the three volume levels.

Notes for hands-free phoning

General notes

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

Registration and connection

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

Making and receiving calls

- You may hear a noise in the following situations:
 - When you answer the phone using the button on the phone.
 - When the person on the other end of the line hangs up the phone.
- If the person on the other end of the line cannot hear the conversation due to an echo, decrease the volume level for hands-free phoning.
- With some mobile phones, even after you press the accept button on the mobile phone when a call comes in, hands-free phoning may not be performed.
- The registered name will appear if the phone number is already registered in the phone book. When one phone number is registered under different names, only the phone number will be displayed.

The received call and the dialled number histories

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

Phone book transfers

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

Setup for iPod

AV280BT

When using an iPod with this product, configure the settings of this product according to the device to be connected.

iPod compatibility

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

- iPhone 4, 4s, 5, 5c, 5s, 6, 6 Plus: iOS 7.0 or later.
- iPhone 3GS: iOS 6.0.1
- iPod touch (4th, 5th generation): iOS 6.0.1
- iPod touch (3rd generation): iOS 5.1.1
- iPod touch (2nd generation): iOS 4.2.1
- iPod classic 160GB (2009): Ver. 2.0.4
- iPod classic 160GB (2008): Ver. 2.0.1
- iPod classic 80GB: Ver. 1.1.2
- iPod nano (7th generation)
- iPod nano (6th generation): Ver. 1.2
- iPod nano (5th generation): Ver. 1.0.2
- iPod nano (4th generation): Ver. 1.0.4
- iPod nano (3rd generation): Ver. 1.1.3

- You can connect and control an iPod compatible with this product by using separately sold connector cables.
- Operation methods may vary depending on the iPod model and the software version.
- Depending on the software version of the iPod, it may not be compatible with this product.
For details about iPod compatibility with this product, refer to the information on our website.

This manual applies to the following iPod models.

iPod with 30-pin connector

- iPhone 3GS, 4, 4s
- iPod touch 2nd, 3rd, 4th generation
- iPod classic 80GB, 160GB
- iPod nano 3rd, 4th, 5th, 6th generation

iPod with Lightning connector

- iPhone 6, 6 Plus
- iPhone 5, 5s, 5c
- iPod touch 5th generation
- iPod nano 7th generation

Information on the connections and functions

The settings and cables required for connecting each device, and the available sources are as follows.

iPod / iPhone with a 30-pin connector

When connecting via CD-IU201V (sold separately)

- Available sources
iPod (audio)
iPod (video)

iPod / iPhone with a Lightning connector

When connecting via CD-IU52 (sold separately)

- Available sources
iPod (audio)

Radio

The diagram shows a radio interface with a channel list on the left and a main display area. The channel list has buttons numbered 1 to 6. The main display shows 'FM1 MW', 'Abcdefghi', 'Abcdefghi', and 'Abcdefghi'. There are also buttons for 'EQ', 'FM1 MW', and a 'HOLD' button. A hand icon points to the '1' button, and another hand icon points to the 'FM1 MW' button. A third hand icon points to the 'HOLD' button. A fourth hand icon points to the 'HOLD' button.

- 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, MW or LW band.
- Performs manual tuning.
- Performs seek tuning or non stop seek tuning. Releasing the key in a few seconds, skips to the nearest station from the current frequency. If you touch again while the system is searching, cancels seek tuning and performs manual tuning. Keeping holding the key for a long seconds, performs non stop seek tuning.
- Recalls the preset channel stored to a key from memory.
- Stores the current broadcast frequency to a key.

- By pressing **◀◀** or **▶▶**, you can also switch the preset channels.
- By pressing and hold **◀◀** or **▶▶** and release, you can also perform seek tuning.
- By keeping pressing and holding **◀◀** or **▶▶**, you can perform non stop seek tuning. If you press again, non stop seek tuning is cancelled and the preset channel is switched.

Starting procedure

- 1 Press **⏏**.
- 2 Touch **[Radio]**.
The "Radio" screen appears.

Storing the strongest broadcast frequencies

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

- 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 **[Σ]**.
- 2 Touch **[A]** to begin a search.

While the message is displayed, the six strongest broadcast frequencies will be stored under the preset tuning keys in order of their signal strength.

- If you touch **[Cancel]**, the storage process is cancelled.

Displaying the "Radio settings" screen

- 1 Press **⏏**.
- 2 Touch **[⊙]**, and then **[Y]**.
- 3 Touch **[AV Source Settings]**.
- 4 Touch **[Radio settings]**.

Tuning into strong frequencies

- You can use this function when "Radio" is selected as the source.

Local seek tuning allows you to only tune into those radio stations with sufficiently strong signals.

- 1 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 2 Touch **[Local]**.

3 Touch the item you want to set.

- **Off** (default):
Turns the seek tuning setting off.
- **Level1 to Level4**:
Sets the level of sensitivity for FM to **Level1** to **Level4** (for MW and LW to **Level1** or **Level2**).
- The FM "Level4" (MW and LW "Level2") setting allows reception of only stations with the strongest signals.

Setting the FM tuning step

You can switch the seek tuning step for FM band.

- The tuning step remains at 50 kHz during manual tuning.

- 1 Turn the source off.
➤ Source on the Top menu screen on page 7
- 2 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 3 Touch **[FM Step]** to switch the step to "100kHz" (default) or "50kHz".

Switching the sound quality of the FM tuner

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

- 1 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 2 Touch **[Tuner Sound]** to select the item.
 - **Music** (default):
Gives priority to the sound quality.
 - **Talk**:
Gives priority to noise prevention.
 - **Standard**:
Gives no effect.

Setting the alternative frequency search

When the tuner cannot get a good reception, tunes to another broadcast station that supports the same programme in the current network.

- 1 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 2 Touch **[Alternative FREQ]** to switch "On" (default) or "Off".

Setting the Auto PI search

When you switch to the broadcast station containing RDS data, searches for the same PI (Programme Identification) code broadcast station from all frequency band automatically.

- 1 Turn the source off.
➤ Source on the Top menu screen on page 7
- 2 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 3 Touch **[Auto PI]** to switch "On" or "Off" (default).
 - Even if you set to "Off", the PI search is automatically performed when the tuner cannot get a good reception.

Limiting stations to regional programming

You can switch whether the area code is checked during the auto PI search.

- 1 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 2 Touch **[Regional]** to switch "On" (default) or "Off".

Receiving traffic announcements (TA)

The traffic announcement can be received from the last selected frequency, interrupting the other sources.

- 1 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 2 Touch **[TA Interrupt]** to switch "On" or "Off" (default).

Receiving news announcements

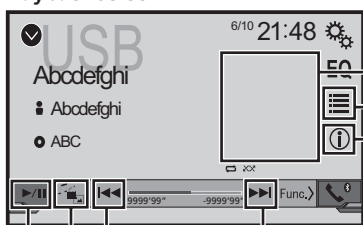
The news can be received from the last selected frequency, interrupting the other sources.



- 1 Display the "Radio settings" screen.
➤ Displaying the "Radio settings" screen on page 12
- 2 Touch **[News Interrupt]** to switch "On" or "Off" (default).

Compressed audio files

Displays the artwork when the file with the artwork is being played. The artwork file type needs to be JPEG, and the file size should be less than 99 KB.

Playback screen 1





 *2  Skips files forward or backward.

 Switches between playback and pause.

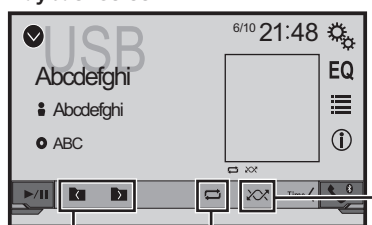
 Switches the current music information display.

 Plays files in random order.

: Does not play files in random order.

: Plays all files within the repeat range in random order.

Playback screen 2








 Sets a repeat play range.





: Repeats all files.



: Repeats the current file.

: Repeats the current folder.

 Selects the previous folder or the next folder.

 *1  Selects a file from the list.
  *Selecting files from the file name list on page 13*

 *2  Switches the media file type.
  *Switching the media file type on page 13*

By pressing  or , you can also skip files forwards or backwards.

By pressing and holding  or , you can perform fast reverse or fast forwards.


You can play compressed audio files stored in a USB storage device.

  *Media compatibility chart on page 26*

Starting procedure

1 Press .

2 Plug the USB storage device.

 *Plugging and unplugging a USB storage device on page 5*

3 Touch [USB].

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

Selecting files from the file name list

You can find files or folders to play back using the file name or folder name list.

1 Touch .

2 Touch a file on the list to play back.

Files are played back in file number order.

Switching the media file type


When playing a digital media containing a mixture of various media file types you can switch between media file types to play.

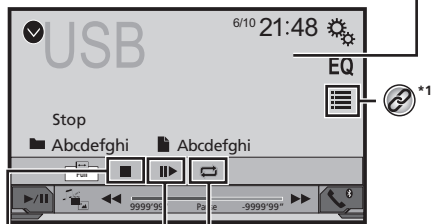
1 Touch .


2 Touch the item you want to set.




- **Music:**
Switches the media file type to music (compressed audio).
- **Video:**
Switches the media file type to video.
- **Photo:**
Switches the media file type to still image (JPEG or BMP data).

Compressed video files

 **Hides the touch panel keys.**
To display again the keys,
touch anywhere on the screen.



 **Sets a repeat play range.**


-  : Repeats all files.
-  : Repeats the current file.
-  : Repeats the current folder.


 **Performs frame-by-frame playback.**



 **Performs slow-motion playback.**





 **Stops playback.**



 **Performs fast reverse
or fast forward.**
Touch again to change the
playback speed.

 **Switches between
playback and pause.**

-  *1 Selects a file from the list.
↳ *Selecting files from the file name list* on page 14
-  *2 Switches the media file type.
↳ *Switching the media file type* on page 13

- By pressing  or , you can also skip files forwards or backwards.
 - By pressing and holding  or , you can perform fast reverse or fast forwards.
 - Changing the wide screen mode.
↳ *Common operations* on page 23
- You can play compressed video files stored in a USB storage device.
- ↳ *Media compatibility chart* on page 26

⚠ CAUTION

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

Starting procedure

↳ *Compressed audio files* on page 13

Selecting files from the file name list

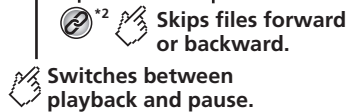
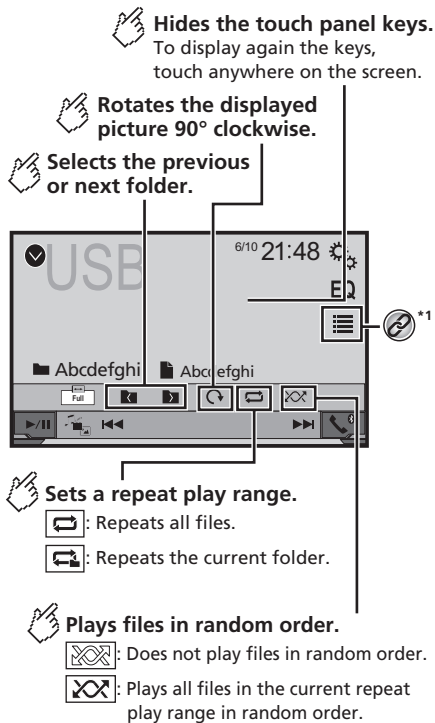
You can select files to view using the file name list.

1 Touch .

2 Touch a file on the list to play back.

- Files are played back in file number order and folders are skipped when they contain no files.
- Touch the playback sign of the thumbnail to preview the file.

Still image files



- *1 Selects a file from the list.
⇒ *Selecting files from the file name list on page 15*
- *2 Switches the media file type.
⇒ *Switching the media file type on page 13*

- By pressing [◀◀] or [▶▶], you can also skip files forwards or backwards.
- By pressing and holding [◀◀] or [▶▶], you can search 10 files at a time. If the file currently being played is the first or last file in the folder, the search is not performed.
- Changing the wide screen mode.
⇒ *Common operations on page 23*
You can view still images stored in an USB storage device.
⇒ *Media compatibility chart on page 26*

Starting procedure

- ⇒ *Compressed audio files on page 13*

Selecting files from the file name list

You can select files to view using the file name list.

- 1 Touch [☰].
- 2 Touch a file on the list to play back.

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

Setting the slideshow interval

JPEG or BMP files can be viewed as a slideshow on this product. In this setting, the interval between each image can be set.

- This setting is available during playback of the JPEG or BMP files.

- 1 Display the “Video Setup” screen.



- 2 Touch [Time Per Photo Slide].

- 3 Touch the item you want to set.

The following items are available:

“10sec” (default), “5sec”, “15sec”, “Manual”.

AV280BT

Audio source screen 1



Skips files forward or backward.

Switches between playback and pause.

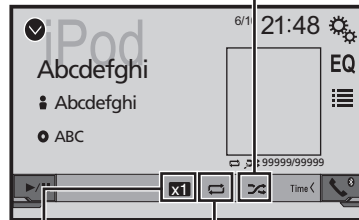


Sets a shuffle play.

: Plays randomly songs or videos within the selected list.

: Plays album randomly.

Audio source screen 2



Sets a repeat play range.

: Repeats all in the selected list.

: Repeats the current song or video.



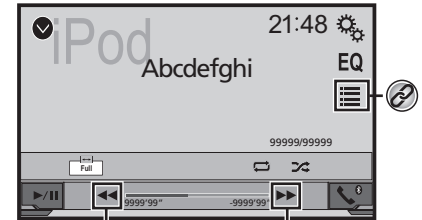
Changes the audiobook speed.

: Normal playback

: Fast playback

: Slow-motion playback

Video source screen



Performs fast reverse or fast forward.



Selects a track from the list.

Selecting song or video sources from the playlist screen on page 17

- By pressing the or , you can also skip files forwards or backwards.
- By pressing and hold the or , you can also perform fast reverse or fast forwards.
- Changing the wide screen mode.
- Common operations on page 23*

Connecting your iPod

For iPod with a 30-pin connector users

Via USB cable

- Depending on your iPod, a USB interface cable for iPod / iPhone (CD-IU201V) (sold separately), is required to connect. iPod audio and/or video sources are enabled if either of the cables is connected.
- For details on how to connect an iPhone with 30-pin connector, refer to the installation manual.

For iPod / iPhone with a Lightning connector users

Via USB cable

- With a USB interface cable for iPod/iPhone (CD-IU52) (sold separately), iPod audio source is available. However, functions related to iPod video files are not available.
- For details on how to connect an iPhone with Lightning connector, refer to the installation manual.

⚠ CAUTION

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

Starting procedure**1 Connect your iPod.**



➔ *Connecting your iPod on page 16*

The source changes and then playback will start.

- If connecting an iPhone or iPod touch, quit applications before.

2 Press .**3 Touch [iPod].****Selecting song or video sources from the playlist screen**

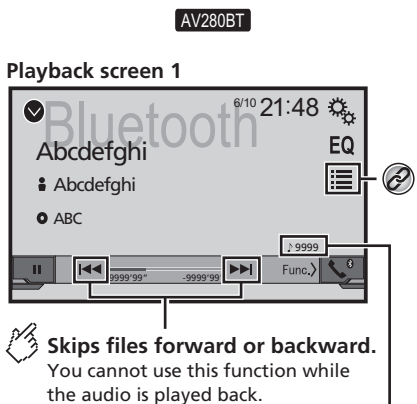
You can search for the song or video you want to play from the playlist screen.

1 Touch .**2 Touch  or  to switch the music or video category list.****3 Touch the category you want to search for.**

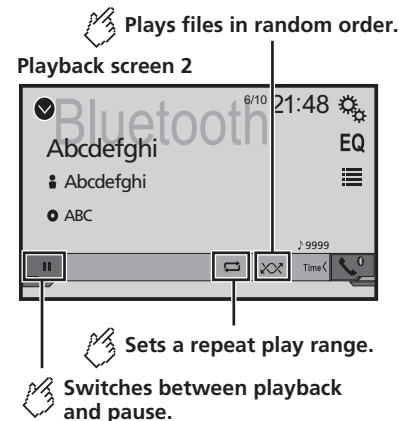
If you use English as the system language, the alphabet search function is available. Touch the initial search bar to use this function.

4 Touch the title of the list that you want to play.**5 Start playback of the selected list.**

- Depending on the generation or version of the iPod, some functions may not be available.
- You can play playlists created with the **MusicSphere** application. The application is available on our website.
- Up to 1 000 items can be displayed in the list.







Track number indicator



Selects a file from the list.

➔ *Selecting files from the file name list on page 17*

- By pressing the  or  button, you can also skip files forwards or backwards.
- By pressing and hold the  or  button, you can also perform fast reverse or fast forwards.
- Before using the Bluetooth audio player, register and connect the device to this product.
- ➔ *Registering your Bluetooth devices on page 7*
- 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, please 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.

Starting procedure**1 Display the “System” setting screen.****2 Touch [AV Source Settings].****3 Confirm that “Bluetooth Audio” is turned on.****4 Press .****5 Touch [Bluetooth Audio].****Selecting files from the file name list**

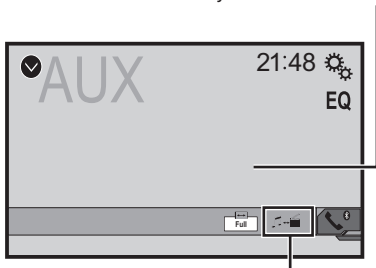
- This function may not be available depending on some Bluetooth device.

1 Touch .**2 Touch a file or a folder on the list to play back.**

AUX source



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



Switches between the screen to
operate video files and that to
operate music files.

- is only available when there are both audio and video files on the auxiliary equipment.
- A Mini-jack AV cable (CD-RM10) (sold separately) is required for connection.
 - For details on how to connect the external video component, refer to the installation manual.

CAUTION

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

Starting procedure

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

- 1 Display the “System” setting screen.



- 2 Confirm that “AUX Input” is turned on.
- 3 Press .

- 4 Touch [AUX].

The image is displayed on the screen.

Setting the video signal

When you connect this product to an AUX equipment, select the suitable video signal setting.

- You can operate this function only for the video signal input into the AUX input.

- 1 Display the “Video Setup” screen.



- 2 Touch [Video Signal Setting].
- 3 Touch [AUX].

- 4 Touch the item you want to set.

The following items are available:

Auto (default), PAL, NTSC, PAL-M, PAL-N, SECAM.

System settings

Displaying the “System” setting screen

- 1 Press .
 - 2 Touch , and then .
- The “System” setting screen appears.

Activating the Bluetooth audio source

AV280BT

- 1 Display the “System” setting screen.
 - *Displaying the “System” setting screen on page 18*
- 2 Touch [AV Source Settings].
- 3 Touch [Bluetooth Audio] to switch “On” (default) or “Off”.

Setting the ever scroll

When “Ever Scroll” is set to “On”, the recorded text information scrolls continuously in the display while the vehicle is stopped.

- 1 Display the “System” setting screen.
 - *Displaying the “System” setting screen on page 18*
- 2 Touch [Ever Scroll] to switch “On” or “Off” (default).

Setting the rear view camera

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

Rear view camera

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


Camera for Rear View mode

Rear View can be displayed at all times. Please 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.

System settings

⚠ 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 a rear view camera image when the gearstick is moved to REVERSE (R) from another position.
- ❑ When the screen changes to full-screen rear view camera image during normal driving, switch to the opposite setting in "Camera Polarity".
- ❑ If you touch  while the camera image is displayed, the displayed image will turn off temporarily.

Setting rear view camera activation

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [Camera settings].

3 Touch [Back Camera Input] to switch "On" or "Off" (default).

Setting the polarity of the rear view camera

- ❑ This function is available when "Back Camera Input" is "On".
- *Setting rear view camera activation on page 19*

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [Camera settings].

3 Touch [Camera Polarity].

- **Battery** (default):
The polarity of the connected lead is positive.
- **Ground**:
The polarity of the connected lead is negative.

Setting the camera for Rear View mode

1 Press .

2 Touch [Rear View].

- ❑ To set the rear view camera for **Rear View** mode, set "Back Camera Input" to "On".
- *Setting rear view camera activation on page 19*

Setting the safe mode

You can set the safe mode that regulate operating some functions only when you stop your vehicle in a safe place and apply the handbrake.

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [Safe Mode] to switch "On" (default) or "Off".

Selecting the system language

- If the embedded language and the selected language setting are not the same, text information may not display properly.
- Some characters may not be displayed properly.

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [System Language].

3 Touch the language that you want to use.

Setting the beep sound

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [Beep Tone] to switch "On"(default) or "Off".

Adjusting the response positions of the touch panel (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.

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

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [Touch panel calibration].

3 Touch [Yes].

4 Touch four corners of the screen along the arrows.

5 Press .



The adjustment results are saved.

6 Press once again.

Proceed to 16-point adjustment.

7 Gently touch the centre 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 cancelled.

8 Press and hold .

The adjustment results are saved.

Setting the dimmer

Setting the dimmer trigger

1 Display the "System" setting screen.

➤ *Displaying the "System" setting screen on page 18*

2 Touch [Dimmer Settings].

3 Touch [Dimmer Trigger].

4 Touch the item.

- **Auto** (default):
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.

System settings

Setting the dimmer duration in day or night

- You can use this function when "Dimmer Trigger" is set to "Manual".

1 Display the "System" setting screen.

- ☞ *Displaying the "System" setting screen on page 18*

2 Touch [Dimmer Settings].

3 Touch [Day/Night] to switch the following items.

- **Day** (default):
Turns the dimmer manually to off.
- **Night**:
Turns the dimmer manually to on.

Setting the dimmer duration optional

You can adjust the time that the dimmer is turned on or off.

- You can use this function when "Dimmer Trigger" is set to "Time".
- This setting is available only when you stop your vehicle in a safe place and apply the handbrake.

1 Display the "System" setting screen.

- ☞ *Displaying the "System" setting screen on page 18*





2 Touch [Dimmer Settings].

3 Touch [Dimmer Duration].

The "Duration Setting" screen appears.

4 Touch the time display to activate the adjustment mode.

5 Touch the graph to set the dimmer duration.

- You can also set the dimmer duration touching  or .
Each touch of  or  moves the cursor backwards or forwards in the 15 minute width.
- The default setting is 18:00-6:00 (6:00 PM-6:00 AM).
- 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.
 - The time display of the dimmer duration adjusting bar is depending on the clock display setting.
- ☞ *Setting the time and date on page 23*

Adjusting the picture

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

⚠CAUTION

For safety reasons, you cannot use some of these functions while your vehicle is in motion. To enable these functions, you must stop in a safe place and apply the handbrake. Refer to Important Information for the User (a separate manual).

1 Display the screen you wish to adjust.

2 Display the "System" setting screen.

- ☞ *Displaying the "System" setting screen on page 18*

3 Touch [Picture Adjustment].

4 Touch the item to select the function to be adjusted.

- **Brightness**:
Adjusts the black intensity. (-24 to +24)
 - **Contrast**:
Adjusts the contrast. (-24 to +24)
 - **Color**:
Adjusts the colour saturation. (-24 to +24)
 - **Hue**:
Adjusts the tone of colour (which colour is emphasised, red or green). (-24 to +24)
 - **Dimmer**:
Adjusts the brightness of the display. (+1 to +48)
 - With some pictures, you cannot adjust **Hue** and **Color**.
 - When you touch [Rear View], the mode changes to the picture adjustment for rear view. By touching [Source], you can return to the picture adjustment for AV source.
- ### 5 Touch , , , to adjust.
- 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 whether the vehicle's headlights are on or off.
- "Dimmer" can be changed the setting or the time to switch it to on or off.
- ☞ *Setting the dimmer on page 19*
- The setting contents can be memorised separately.

Audio adjustments

Displaying the "Audio" setting screen

- 1 Press **⏸**.
- 2 Touch **[⏸]**, and then **[🔊]**.
The "Audio" setting screen appears.

Using fader/balance adjustment

- This function is available when "Rear Speaker" is set to "Full", and "Preout" is set to "Rear".
- 1 Display the "Audio" setting screen.
➤ Displaying the "Audio" setting screen on page 21
 - 2 Touch [Fader/Balance].
 - 3 Touch **[▲]** or **[▼]** to adjust the front/rear speaker balance.
 - 4 Touch **[◀]** or **[▶]** to adjust the left/right speaker balance.
- "Front15" to "Rear15" is displayed as the front/rear speaker balance moves from the front to rear.
 - "Left15" to "Right15" is displayed as the left/right speaker balance moves from the left to right.
 - The default setting is "F/R 0 L/R 0".
- You can also set the fader/balance by touching the point on the displayed table.

Using balance adjustment

- This function is available when "Rear Speaker" and "Preout" are set to "Subwoofer Settings".
- 1 Display the "Audio" setting screen.
➤ Displaying the "Audio" setting screen on page 21
 - 2 Touch [Balance].
 - 3 Touch **[◀]** or **[▶]** to adjust the left/right speaker balance.
- "Left15" to "Right15" is displayed as the left/right speaker balance moves from the left to right.
 - The default setting is "L/R 0".
- You can also set the fader/balance by dragging the point on the displayed table.

Adjusting source levels

SLA (source level adjustment) lets you adjust the volume level of each source to prevent radical changes in volume when switching between sources.

- 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.

1 Compare the FM tuner volume level with the level of the source you want to adjust.

2 Display the "Audio" setting screen.

➤ Displaying the "Audio" setting screen on page 21

3 Touch [Source Level Adjuster].

4 Touch **[▲]** or **[▼]** to adjust the source volume.

- If you directly touch the area where the cursor can be moved, the SLA setting will be changed to the value of the touched point.
- "+4" to "-4" is displayed as the source volume is increased or decreased.
- The default setting is "0".

Adjusting loudness

This function compensates for deficiencies in the low-frequency and high-frequency ranges at low volume.

- This function is not available while you make or receive a call using the hands-free function.

1 Display the "Audio" setting screen.

➤ Displaying the "Audio" setting screen on page 21

2 Touch [Loudness].

3 Touch the item.

The following items are available:

Off (default), **Low**, **Mid**, **High**.

Using the subwoofer output

This product is equipped with a subwoofer output mechanism, which can be turned on or off.

1 Display the "Audio" setting screen.

➤ Displaying the "Audio" setting screen on page 21

2 Touch [Subwoofer] to switch "On" (default) or "Off".

Adjusting the subwoofer settings

- This function is available only when "Subwoofer" is "On".
- Using the subwoofer output on page 21

1 Display the "Audio" setting screen.

➤ Displaying the "Audio" setting screen on page 21

2 Touch [Subwoofer Settings].

3 Touch **[👁]** or **[👂]** to turn the subwoofer phase to normal or reverse.

4 Touch **[◀]** or **[▶]** to adjust the subwoofer level between -24 and 6.

5 Touch **[◀]** or **[▶]** to adjust the subwoofer frequency.

The following items are available:
80Hz (default), **50Hz**, **63Hz**, **80Hz**, **100Hz**, **125Hz**.

Switching the rear speaker output

1 Turn the source off.

2 Display the "Audio" setting screen.

➤ Displaying the "Audio" setting screen on page 21

3 Touch [Rear Speaker].

4 Touch to switch "Full" (default) or "Subwoofer".

- When this function is set to "Subwoofer Settings", "Preout" is fixed to "Subwoofer Settings".

Switching the RCA rear output

When "Rear Speaker" is set to "Subwoofer Settings", this setting is fixed to "Subwoofer Settings".

1 Display the "Audio" setting screen.

➤ Displaying the "Audio" setting screen on page 21

2 Touch [Preout] to switch "Subwoofer Settings" (default) or "Rear".

Audio adjustments

Boosting the bass

1 Display the "Audio" setting screen.

➤ *Displaying the "Audio" setting screen on page 21*

2 Touch [Bass Booster].

3 Touch to select the bass boost level from 0 to +6.

Setting the high pass filter

1 Display the "Audio" setting screen.

➤ *Displaying the "Audio" setting screen on page 21*

2 Touch [High Pass Filter].

3 Touch the item.

The following items are available:

Off(default), 50Hz, 63Hz, 80Hz, 100Hz, 125Hz.

Using the equaliser

Recalling equaliser curves

There are seven stored equaliser curves that you can easily recall at any time. Here is a list of the equaliser curves:

- **S.Bass** is a curve in which only low-pitched sound is boosted.
 - **Powerful** is a curve in which low- and high-pitched sounds are boosted.
 - **Natural** is a curve in which low- and high-pitched sounds are slightly boosted.
 - **Vocal** is a curve in which the midrange, which is the human vocal range, is boosted.
 - **Flat** is a flat curve in which nothing is boosted.
 - **Custom1** is an adjusted equaliser curve that you create. If you select this curve, the effect is applied to all AV sources.
 - **Custom2** is an adjusted equaliser curve that you create. If you select this curve, the effect is applied to all AV sources.
- The default setting is "Powerful".

1 Display the "Audio" setting screen.

➤ *Displaying the "Audio" setting screen on page 21*

2 Touch [Graphic EQ].

3 Touch the equaliser you want.

Customising the equaliser curves

You can adjust the currently selected equaliser curve setting as desired. Adjustments can be made with a 5-band graphic equaliser.

- If you make adjustments when a curve "S.Bass", "Powerful", "Natural", "Vocal", or "Flat" is selected, the equaliser curve settings will be changed to "Custom1" mandatorily.
- If you make adjustments when the "Custom2" curve is selected for example, the "Custom2" curve will be updated.
- "Custom1" and "Custom2" curves can be created common to all sources.

1 Display the "Audio" setting screen.

➤ *Displaying the "Audio" setting screen on page 21*

2 Touch [Graphic EQ].

3 Select a curve that you want to use as the basis of customising.

4 Touch the frequency for which you want to adjust the level.

- If you trail a finger across the bars of multiple equaliser bands, the equaliser curve settings will be set to the value of the touched point on each bar.

Theme menu

Selecting the theme colour

A theme colour can be selected from 3 different colours.

1 Display the "Theme" screen.



2 Touch [Theme].

3 Touch the colour you want.

Favourite menu

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

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

Creating a shortcut

- 1 Display the "Settings" screen.



- 2 Touch the star icon of the menu item that you want to add to the favourite menu.

The star icon for the selected menu is filled in.

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

Selecting a shortcut

- 1 Display the "Favorites" screen.



- 2 Touch the desired menu item.

Removing a shortcut

- 1 Display the "Favorites" screen.

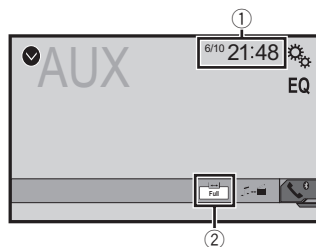


- 2 Touch and hold the favourite menu column you want to remove.

The selected menu item is removed from the "Favorites" screen.

- You can also remove a shortcut by touching the star icon in the registered menu column.

Common operations



- ① Clock display
Displays the time and date setting screen
➔ *Setting the time and date* on page 23
- ② Screen display mode key
Changes the wide screen mode
➔ *Changing the wide screen mode* on page 23

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.

- You can change the time display format to "12hour" (default) or "24hour".
- You can change the order of date display format: Day-month-year, Month-day-year.

Changing the wide screen mode

You can set the screen size for the video and JPEG/BMP images.

- The default setting is "Full", and for JPEG/BMP images is "Normal".
- When there are touch panel keys on the screen, images are displayed with the "Full" mode regardless of your setting.

- 1 Touch the following key.
 - The appearance of this key changes according to the current setting.
- 2 Touch the desired mode.
 - Full:

A 4:3 picture is enlarged in the horizontal direction only, enabling you to enjoy an image without any omissions.

- **Zoom:**
A 4:3 picture is enlarged in the same proportion both vertically and horizontally.
- **Normal:**
A 4:3 picture is displayed normally, without changing its proportion.
- You cannot operate this function while driving.
- Different settings can be stored for each video source.
- When a video is viewed in a wide screen mode that does not match its original aspect ratio, it may appear different.
- The video image will appear coarser when viewed in "Zoom" mode.

Setting the video signal for the rear view camera

When you connect a rear view camera to this product, select the suitable video signal setting.

- You can operate this function only for the video signal input into the AV input.

1 Display the “Video Setup” screen.



2 Touch [Video Signal Setting].

3 Touch [Camera].

The pop-up menu appears.

4 Touch the item you want to set.

- **Auto** (default): Adjusts the video signal setting automatically.
- **PAL**: Sets the video signal to PAL.
- **NTSC**: Sets the video signal to NTSC.
- **PAL-M**: Sets the video signal to PAL-M.
- **PAL-N**: Sets the video signal to PAL-N.
- **SECAM**: Sets the video signal to SECAM.

Resetting various settings/ Restoring this product to the default settings

You can restore settings or recorded content to the default settings. Various methods are used to clear user data.

Method 1: Remove the vehicle battery

Resets various settings registered to this product.

- The settings configured on the “Theme” screen are not reset.

Method 2: Initialise from the “System” menu

Method 3: Press the RESET button

↻ *Resetting the microprocessor on page 4*

Restoring the default settings

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

⚠CAUTION

Do not turn off the engine while restoring the settings.

1 Display the “System” setting screen.



2 Touch [Restore Settings].

A message confirming whether to initialise the settings appears.

3 Touch [Restore].

- The source is turned off and the Bluetooth connection is disconnected before the process starts.

Troubleshooting

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

Problems with the AV screen

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

- The handbrake lead is not connected or applied.
 - Connect the handbrake lead correctly, and apply the handbrake.
- The handbrake interlock is activated.
 - Park your vehicle in a safe place and apply the handbrake.

The audio or video skips.

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

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

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

The picture is stretched, with an incorrect aspect ratio.

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

iPod cannot be operated.

- The iPod is frozen.
 - Reconnect the iPod with the USB interface cable for iPod / iPhone.
 - Update the iPod software version.
- An error has occurred.
 - Reconnect the iPod with the USB interface cable for iPod / iPhone.
 - Park your vehicle in a safe place, and turn off the engine. Turn the ignition key back to off (ACC OFF). Then restart the engine, and turn the power to this product back on.
 - Update the iPod software version.
- Cables are not connected correctly.
 - Connect the cables correctly.

Appendix

Problems with the phone screen

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

- Your phone is out of range for service.
 - Retry after re-entering the range for service.
- The connection between the mobile phone and this product cannot be established now.
 - Perform the connection process.

Problems with the Application screen

A black screen is displayed.

- While operating an application, the application was ended on the smartphone side.
 - Press **■** to display the Top menu screen.
- The smartphone OS may be awaiting screen operation.
 - Stop the vehicle in a safe place and check the screen on the smartphone.

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

- An error has occurred.
 - Park your vehicle in a safe place, and then turn off the ignition switch (ACC OFF). Subsequently, turn the ignition switch to on (ACC ON) again.

The smartphone was not charged.

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

Error messages

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

Common

AMP Error

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

USB storage device

Error-02

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

Unplayable File

- This type of file cannot be played on this product.
 - Select a file that can be played.
- Security for the connected USB storage device is enabled.
 - Follow the USB storage device instructions to disable security.

Skipped

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

Protect

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

Incompatible USB

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

Check USB

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

USB was disconnected for device protection. Do not reinsert this USB memory into the unit. Press reset to restart USB memory.

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

Audio Format not supported

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

iPod

Error-02-6X

- iPod failure.
 - Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.

Error-02

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

Bluetooth

Error-10

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

Detailed information for playable media

Compatibility

Common notes about the USB storage device

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

USB storage device compatibility

- For details about USB storage device compatibility with this product, refer to *Specifications* on page 29.
 - Protocol: bulk
 - You cannot connect a USB storage device to this product via a USB hub.
 - Partitioned USB storage device is not compatible with this product.
 - Firmly secure the USB storage device when driving. Do not let the USB storage device fall onto the floor, where it may become jammed under the brake or accelerator.
 - There may be a slight delay when starting playback of audio files encoded with image data.
 - Some USB storage devices connected to this product may generate noise on the radio.
 - Do not connect anything other than the USB storage device.
- The sequence of audio files on USB storage device
For USB storage device, the sequence is different from that of USB storage device.

Handling guidelines and supplemental information

- This product is not compatible with the Multi Media Card (MMC).
- Copyright protected files cannot be played back.

Media compatibility chart

General

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

USB storage device

File system: FAT16/FAT32
Maximum number of folders: 300
Maximum number of files: 15 000
Playable file types: MP3, WMA, AAC, WAV, MPEG4, JPEG, BMP

MP3 compatibility

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

USB storage device

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

WMA compatibility

- This product is not compatible with the following: Windows Media™ Audio 9 Professional, Lossless, Voice

USB storage device

File extension: .wma
Bit rate: 5 kbps to 320 kbps (CBR), VBR
Sampling frequency: 8 kHz to 48 kHz

WAV compatibility

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

USB storage device

File extension: .wav
Format: Linear PCM (LPCM)
Sampling frequency: 16 kHz to 48 kHz
Quantization bits: 8 bits and 16 bits

AAC compatibility

- This product plays back AAC files encoded by iTunes.

USB storage device

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

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 may not operate correctly, depending on the application used to encode WMA files.
- Depending on the version of Windows Media™ Player used to encode WMA files, album names and other text information may not be correctly displayed.
- There may be a slight delay when starting playback of audio files encoded with image data.
- This product is not compatible with packet write data transfer.
- This product can recognise up to 32 characters, beginning with the first character, including extension for the file and folder name. Depending on the display area, this product may try to display them with a reduced font size. However, the maximum number of the characters that you can display varies according to the width of each character, and of the display area.
- Folder selection sequence or other operations may be altered, depending on the encoding or writing software.

.avi

Format: MPEG-4
Compatible video codec: MPEG-4
Compatible audio codec: Linear PCM(LPCM) MP3
Maximum resolution: 720 pixels x 480/576 pixels
Maximum Frame rate: 30 fps

- Files may not be able to be played back depending on the bit rate.

.mp4

Format: MPEG-4
Compatible video codec: MPEG-4
Compatible audio codec: AAC
Maximum resolution: 720 pixels x 480/576 pixels
Maximum Frame rate: 30 fps

- Files may not be able to be played back depending on the bit rate.

.mov

Format: MPEG-4
Compatible video codec: MPEG-4
Compatible audio codec: AAC/Linear PCM(LPCM) MP3
Maximum resolution: 720 pixels x 480/576 pixels
Maximum Frame rate: 30 fps

- Files may not be able to be played back depending on the bit rate.

Example of a hierarchy

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

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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 accelerator.

For details, refer to the iPod manuals.

iPod and iPhone



"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, respectively, 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 iPod or iPhone may affect wireless performance.

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Notice regarding video viewing

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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 29.
- Do not use the LCD screen at temperatures higher or lower than the operating temperature range, because the LCD screen may not operate normally and could be damaged.
- The LCD screen is exposed in order to increase its visibility within the vehicle. Please do not press strongly on it as this may damage it.
- Do not push the LCD screen with excessive force as this may scratch it.
- Never touch the LCD screen with anything besides your finger when operating the touch panel functions. The LCD screen can scratch easily.

Liquid crystal display (LCD) screen

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

Maintaining the LCD screen

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

LED (light-emitting diode) backlight

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

- At low temperatures, using the LED backlight may increase image lag and degrade the image quality because of the characteristics of the LCD screen. Image quality will improve with an increase in temperature.
- The product lifetime of the LED backlight is more than 10 000 hours. However, it may decrease if used in high temperatures.
- If the LED backlight reaches the end of its product lifetime, the screen will become dimmer and the image will no longer be visible. In that case, please consult your dealer or the nearest authorised Pioneer Service Station.

Specifications

General

Rated power source	14.4 V DC (10.8 V to 15.1 V allowable)
Earthing system	Negative type
Maximum current consumption	10 A
Dimensions (W × H × D):	
DIN	
Chassis	178 mm × 100 mm × 157 mm
Nose	188 mm × 118 mm × 17 mm
D	
Chassis	178 mm × 100 mm × 165 mm
Nose	171 mm × 97 mm × 9 mm
Weight	1.1 kg

Display

Screen size/aspect ratio	6.2 inch wide/16:9 (effective display area: 137.52 mm × 77.232 mm)
Pixels	1 152 000 (2 400 × 480)
Display method	TFT Active matrix driving
Colour system	PAL/NTSC/PAL-M/PAL-N/SECAM compatible

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
Equaliser (5-Band Graphic Equaliser):	
Frequency	100 Hz/315 Hz/1.25 kHz/3.15 kHz/8 kHz
Gain	±12 dB
HPPF:	
Frequency	50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope	-12 dB/oct
Subwoofer/LPF:	
Frequency	50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope	-18 dB/oct
Gain	+6 dB to -24 dB
Phase	Normal/Reverse
Bass boost:	
Gain	+12 dB to 0 dB

USB

USB standard spec	USB1.1, USB2.0 Full Speed, USB2.0 High Speed
Max current supply	1.0 A

USB Class	MSC (Mass Storage Class)
File system	FAT16, FAT32
MP3 decoding format	MPEG-1 & 2 Audio Layer 3
WMA decoding format	Ver.7, 7.1, 8, 9 (2 ch audio) (Windows Media Player)
AAC decoding format	MPEG-4 AAC (iTunes encoded only) (Ver. 10.6 and earlier)
WAVE signal format	Linear PCM: wav
Sampling Frequency	Linear PCM: 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
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)
MPEG4 video decoding format	Simple Profile

Bluetooth

(MVH-AV280BT)	
Version	Bluetooth 3.0 certified
Output power	+4 dBm Max. (Power class 2)

FM tuner

Frequency range	87.5 MHz to 108 MHz
Usable sensitivity	11 dBf (0.8 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio	72 dB (IEC-A network)

MW tuner

Frequency range	531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity	25 μV (S/N: 20 dB)
Signal-to-noise ratio	62 dB (IEC-A network)

LW tuner

Frequency range	153 kHz to 281 kHz
Usable sensitivity	28 μV (S/N: 20 dB)
Signal-to-noise ratio	62 dB (IEC-A network)

- Specifications and design are subject to possible modifications without notice due to improvements.
- This product is made in Thailand.

<http://www.pioneer.eu>

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

PIONEER CORPORATION

1-1, Shin-ogura, Saiwai-ku, Kawasaki-shi,
Kanagawa 212-0031, JAPAN

Корпорация Пайонир

1-1, Син-Огура, Сайвай-ку, г. Кавасаки,
префектура Канагава, 212-0031, Япония

Импортер ООО "ПИОНЕР РУС"

105064, Россия, г. Москва, Нижний Сусальный
переулок, дом 5, строение 19
Тел.: +7(495) 956-89-01

PIONEER ELECTRONICS (USA) INC.

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

PIONEER ELECTRONICS OF CANADA, INC.

340 Ferrier Street, Unit 2, Markham, Ontario L3R 2Z5,
Canada

TEL: 1-877-283-5901

TEL: 905-479-4411

PIONEER EUROPE NV

Haven 1087, Keetberglaan 1, B-9120 Melsele, Belgium/
Belgique

TEL: (0) 3/570.05.11

PIONEER ELECTRONICS ASIACENTRE PTE. LTD.

2 Jalan Kilang Barat, #07-01, Singapore 159346
TEL: 65-6378-7888

PIONEER ELECTRONICS AUSTRALIA PTY. LTD.

5 Arco Lane, Heatherton, Victoria, 3202, Australia
TEL: (03) 9586-6300

PIONEER ELECTRONICS DE MEXICO S.A. DE C.V.

Blvd. Manuel Avila Camacho 138, 10 piso
Col.Lomas de Chapultepec, Mexico, D.F. 11000
Tel: 52-55-9178-4270, Fax: 52-55-5202-3714

先鋒股份有限公司

台北市內湖區瑞光路407號8樓

電話：886-(0)2-2657-3588

先鋒電子(香港)有限公司

香港九龍長沙灣道909號5樓

電話：852-2848-6488