Pioneer

English

AVH-289BT
AVH-189DVD

Monitor RDS AV Receiver

Owner's 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

CAUTION
This product is a Class 1 laser product classified under the Safety of laser products, IEC 60825-1:2007, 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.

CLASS 1 LASER PRODUCT

CAUTION—CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

Licence, Warranty Disclaimer & Limitation of Liability

SAFETY PROVISIONS

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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.

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.

Precaution

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

When using a display connected to V OUT

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

⚠WARNING

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

To avoid battery exhaustion

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

⚠WARNING

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

Rear view camera

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

⚠WARNING

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

⚠CAUTION

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

Handling the USB connector

⚠CAUTION

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

In case of trouble

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

Visit our website

Visit us at the following site:
http://www.pioneer-india.in

- We offer the latest information about PIONEER CORPORATION on our website.
- Pioneer regularly provides software updates to further improve it's products. Please check the support section of the Pioneer website for all available software updates.

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 6

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

000BT	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.

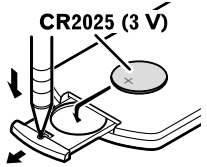
Precaution

Use and care of the remote control

Installing the battery

Slide the tray on the back of the remote control out and insert the battery with the plus (+) and minus (–) poles aligned properly.

- When using for the first time, pull out the film protruding from the tray.



⚠WARNING

- Keep the battery out of the reach of children. Should the battery be swallowed, consult a doctor immediately.
- 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, 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.

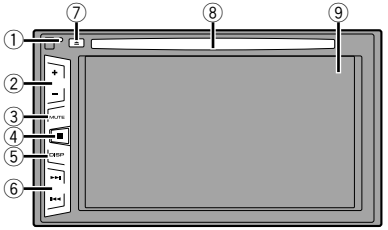
- The remote control may not function properly in direct sunlight.

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 accelerator.

Basic operation

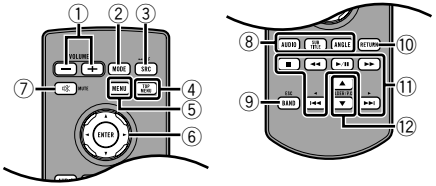
Checking part names and functions



1	**RESET** button	➲ *Resetting the microprocessor* on page 5
2	**Volume** (+/–) button	
3	**MUTE** button	Press to switch the mute setting to on or off.
4	⠿ button	Press to switch the display between the top menu screen and the current source screen.
5	**DISP** button	Press to turn the display on or off.
6	**TRK** (⏮/⏭) button	Performs manual seek tuning, fast forwards, reverse and track search controls. Press to answer or end a call.
7	⏏ button	
8	Disc-loading slot	➲ *Inserting and ejecting a disc* on page 7
9	LCD screen	

Basic operation

Remote control



1	**Volume** (+/–)	
2	**MODE**	Press to switch between the Application screen and the AV operation screen. Press and hold to switch to the camera view mode.
3	**SRC**	Press to cycle through all the available sources. Press and hold to turn the source off.
4	**TOP MENU**	Returns to the top menu during DVD playback.
5	**MENU**	Displays the DVD menu during DVD playback.
6	Thumb pad	Selects a menu on the DVD menu.
7	**MUTE**	
8	**AUDIO SUBTITLE ANGLE**	Changes the audio language, subtitle language or viewing angle during DVD playback.
9	**BAND**	Selects the tuner band when tuner is selected as a source. Cancels the control mode of functions. Switches between media file types when playing the data of Disc, USB.
10	**Return**	Returns to the specified point and begins playback from there.
11	▶/❚❚	Pauses or resumes playback.
	◀◀ or ▶▶	For audio: Press and hold to perform fast reverse or fast forwards. For video: Press to perform fast reverse or fast forwards.
	⏮ or ⏭	Press to return to the previous track (chapter) or go to the next track (chapter). Press to answer or end a call.
	■	Stops playback. If you resume playback, playback will start from the point where you stopped. Touch the key again to stop playback completely.
12	**FOLDER/P.CH**	Selects the next or previous disc or folder. Recalls radio station frequencies assigned to preset channel keys.

Inserting/ejecting/connecting media

⚠CAUTION

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

Inserting and ejecting a disc

Inserting a disc

1 Insert a disc into the disc-loading slot.

Ejecting a disc

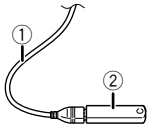
1 Press ⏏ button to eject a disc.

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.

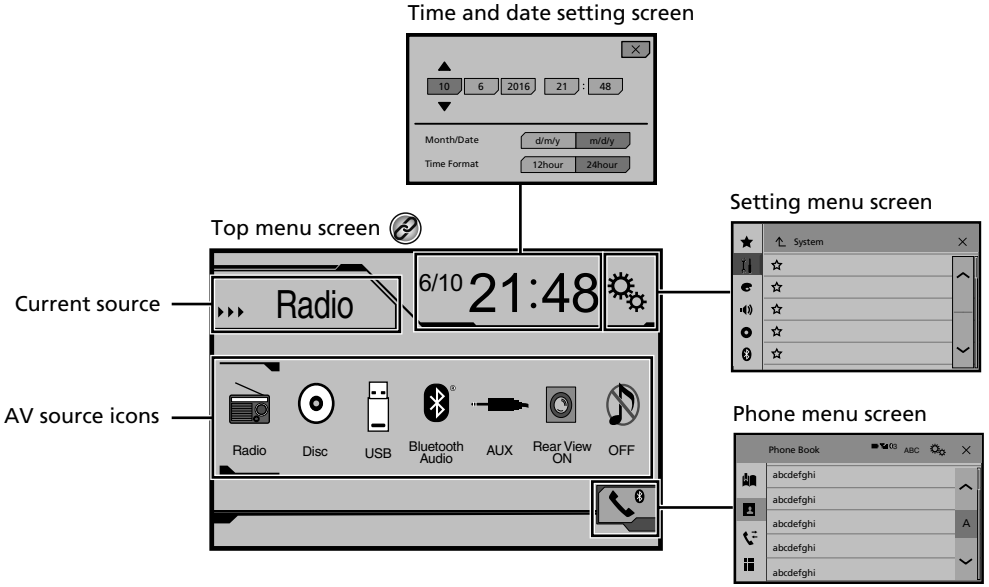
2 Touch the language that you want to use on screen.

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
- CD
- ROM (compressed audio files)
- DVD-Video

The following sources can be played back or used by connecting an auxiliary device.
- USB
- Bluetooth audio (AVH-289BT)
- AUX

Selecting a source

Source on the Top menu screen

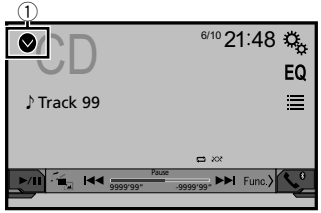
1 Press .

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 **Displays 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

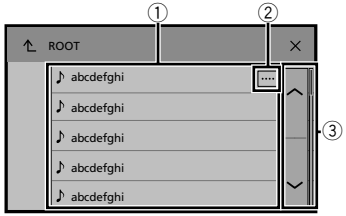
You can operate this product by touching the keys on the screen directly with your fingers.

❒ 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

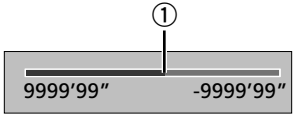


① Touching an item on the list allows you to narrow down the options and proceed to the next operation.

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

289BT

Displaying the “Bluetooth” screen

1 **Press ⁘.**

2 **Touch ⚙, and then ᛒ.**

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 10

1 **Activate the Bluetooth wireless technology on your devices.**

2 **Display the “Bluetooth” screen.**

➲ *Displaying the* “**Bluetooth**” screen on page 10

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.

➲ *Switching visibility* on page 10

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 10

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 10

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 10

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 10

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 10

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 10

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 10

Registration and connection of Bluetooth device

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 7

2 Display the "Bluetooth" screen.
➲ *Displaying the* "**Bluetooth**" screen on page 10

3 Touch [BT Software Update].

4 Touch [Start].
Follow the on-screen instructions to finish updating the Bluetooth software.

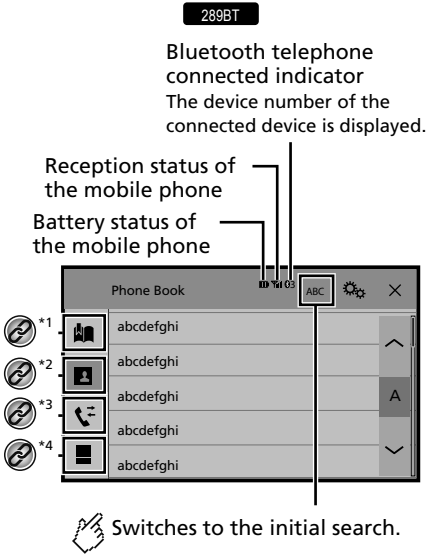
Displaying the Bluetooth software version

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 10

2 Touch [BT Version Info.].
The version of this product's Bluetooth module appears.

Hands-free phoning



*1	Displays the preset dial screen. ➲ *Using the preset dial lists* on page 12
*2	Switches to the phone book list. ➲ *Calling a number in the phone book* on page 11
*3	Switches to the missed, received and dialled call lists. ➲ *Dialling from the history* on page 11
*4	Switches the mode to enter the phone number directly. ➲ *Direct dialling* on page 11

⚠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 10

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 11

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 10

1 Display the "Phone menu" screen.
➲ *Displaying the Phone menu screen* on page 11

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 11

2 Touch [Received].

3 Touch the item to switch the history list.

The following items are available:

- [Received]: Received call list
- [Dialled]: Dialled call list
- [Missed]: Missed call list

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

The dial screen appears and dialling starts.

5 Touch [End] 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 11

2 Touch [Phone Book] or [Received].

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

3 Touch [Memory].

Dialling from the preset dial list

1 Display the "Phone menu" screen.

➲ *Displaying the Phone menu screen* on page 11

2 Touch [Phone Book].

3 Touch the desired item you want to dial.

The dial screen appears and dialling starts.

Receiving a phone call

1 Touch [Answer] to answer the call.

- If you touch [Answer] while getting a call waiting, you can switch to the talking person.
- Touch [End] to reject the call.

2 Touch [End] to end the call.

Changing the phone settings

Answering a call automatically

1 Display the "Bluetooth" screen.

➲ *Displaying the* "**Bluetooth**" screen on page 10

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 10

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 10

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 [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.

❒ Settings can be stored for each device.

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.

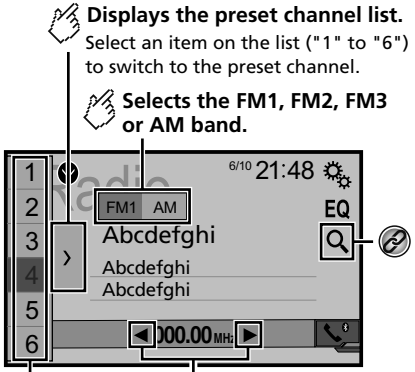
Phone book transfers

- 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.

Hands-free phoning

- Depending on the mobile phone, phone book transfer may not be available.

Radio



Searches for a broadcast by PTY information.
➲ *Searching by PTY information* on page 13

- ❒ 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.

Searching by PTY information

You can tune into a station using PTY (Programme Type Identification) information.

1 Touch 🔍.

2 Touch ⌃ or ⌄ to select the item.
The following items are available:
News&Info (default), **Popular**, **Classics**, **Others**.

3 Touch ↵ to start searching.

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

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 ›.

2 Touch BSM 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 .**
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 14
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 AM **Level1** or **Level2**).

❒ The FM "**Level4**" (AM "**Level2**") setting allows reception of only stations with the strongest signals.

Setting the FM or AM tuning step

You can switch the tuning step for FM or AM band.

❒ For FM band, the seek tuning step is fixed to 50 kHz.
❒ The tuning step remains at 50 kHz during manual tuning.

1 **Turn the source off.**
➲ *Source on the Top menu screen* on page 9
2 **Display the "Radio settings" screen.**
➲ *Displaying the "Radio settings" screen* on page 14
3 **Touch [FM Step] or [AM Step] to switch the tuning step.**

The following items are available for each setting:

FM Step
- **100kHz**(default)
- **50kHz**

AM Step
- **9kHz** (default)
- **10kHz**

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 14
2 **Touch [Alternative FREQ] to switch "On" or "Off" (default).**

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 9
2 **Display the "Radio settings" screen.**
➲ *Displaying the "Radio settings" screen* on page 14
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 14
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 14
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 14
2 **Touch [News Interrupt] to switch "On" or "Off" (default).**

Receiving alarm broadcasts

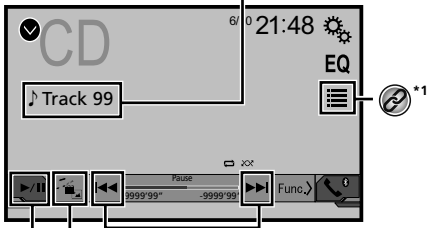
The alarm broadcast can be received from the last selected frequency, interrupting the other sources.

1 **Display the "Radio settings" screen.**
➲ *Displaying the "Radio settings" screen* on page 14
2 **Touch [Alarm Interrupt] to switch "On" (default) or "Off".**

Disc

Track number indicator

Audio source screen 1



*1

*2 **Skips files forward or backward.**

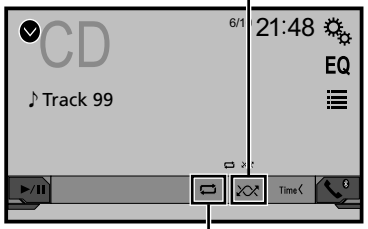
Switches between playback and pause.

Plays files in random order.
This function is available for music CD.

: Does not play tracks in random order.

: Plays all tracks in random order.

Audio source screen 2



Sets a repeat play range.

: Repeats the current disc.

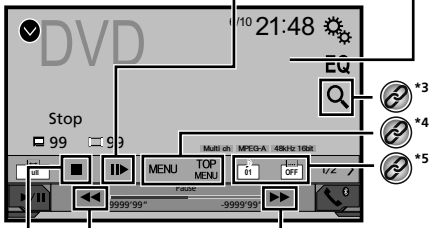
: Repeats the current track.

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

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

Video source screen 1



*3

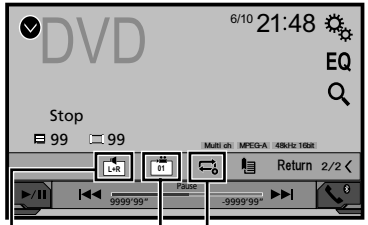
*4

*5

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

Stops playback.

Video source screen 2



Sets a repeat play range.

: Repeats all files.

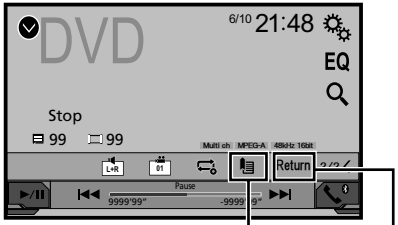
: Repeats the current chapter.

: Repeats the current title.

Changes the viewing angle (Multi-angle).
This function is available for DVDs featuring multi-angle recordings.

Selects the audio output from [L+R], [Left], [Right], [Mix].
This function is available for Video-CDs and DVDs recorded with LPCM audio.

Video source screen 2



Resumes playback (Bookmark).
This function is available for DVD-Video. You can memorise one point as a Bookmark for a disc (up to five discs). To clear the bookmark on the disc, touch and hold this key.

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

*1 Selects a track from the list.
➲ *Selecting files from the file name list* on page 16

*2 Switches the media file type.
➲ *Switching the media file type* on page 16

*3 Searches for the part you want to play.
➲ *Searching for the part you want to play* on page 16

*4 Displays the DVD menu.
➲ *Operating the DVD menu* on page 16

*5 Switches the subtitle/audio language.
➲ *Switching the subtitle/audio language* on page 16

❒ By pressing ⏮ or ⏭, you can also skip files/chapters forwards or backwards.
❒ By pressing and holding ⏮ or ⏭, you can also perform fast reverse or fast forwards.

❒ If a Video-CD with PBC On is being played, PBC On appears.
❒ Changing the wide screen mode.
➲ *Common operations* on page 28

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

⚠CAUTION

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

Starting procedure

1 Press ⁘.

2 Insert the disc you want to play.

The source changes and then playback will start.
➲ *Inserting and ejecting a disc* on page 7
❒ If the disc is already set, select [**Disc**] as the playing source.

Selecting files from the file name list

1 Touch ☰.

2 Touch a track on the list to play back.

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.
- **CD-DA**:
  Switches the media file type to CD (audio data (CD-DA)).

Searching for the part you want to play

❒ For DVD-Videos, you can select [**Title**], [**Chapter**] or [**10Key**].
❒ For Video-CDs, you can select [**Track**] or [**10Key**] (PBC only).

1 Touch 🔍.

2 Touch the item to select the search function.

3 Touch [0] to [9] to input the desired number.

❒ To cancel an input number, touch [**C**].

4 Touch ↵ to start playback from the number you registered.

Operating the DVD menu

You can operate the DVD menu by touching the menu item on the screen directly.

❒ This function may not work properly with some DVD disc content. In that case, use touch panel keys to operate the DVD menu.

1 Touch TOP MENU or MENU.

2 Touch the desired menu item.

Switching the subtitle/audio language

1 Touch ⬚ or ⬚ to change the language.

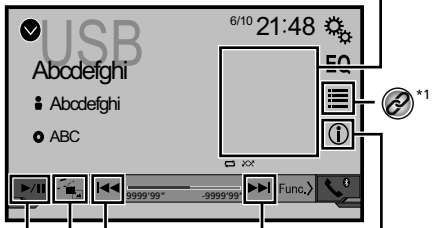
- ⬚: Changes the subtitle language.
- ⬚: Changes the audio language.

■ You can also switch the subtitle/audio languages using the "**DVD/DivX Setup**" menu.
➲ *Setting the top-priority languages* on page 26

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 (Example: USB)



*1

*2 Skips files forward or backward.

Switches between playback and pause.

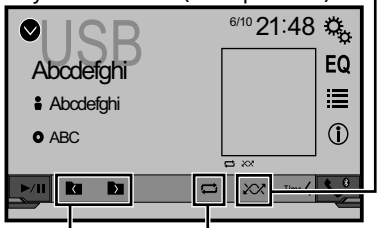
Switches the current music information display.

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 (Example: USB)



Sets a repeat play range.

or : Repeats all files.

: Repeats the current folder.

: Repeats the current file.

Selects the previous folder or the next folder.

*1 Selects a file from the list.
➲ *Selecting files from the file name list* on page 17

*2 Switches the media file type.
➲ *Switching the media file type* on page 17

❒ 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 disc or a USB storage device.
➲ *Media compatibility chart* on page 38

Starting procedure (for Disc)

1 Press ⠿.

2 Insert the disc you want to play.
The source changes and then playback will start.
➲ *Inserting and ejecting a disc* on page 7
❒ If the disc is already set, select [**Disc**] as the playing source.

Starting procedure (for USB)

1 Press ⠿.

2 Plug the USB storage device.
➲ *Plugging and unplugging a USB storage device* on page 7

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.

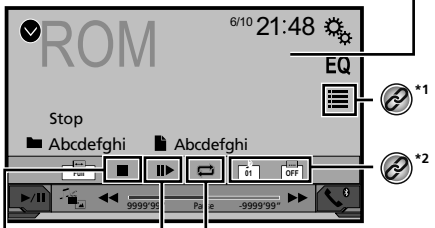
1 Touch .

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.
- **CD-DA**:
  Switches the media file type to CD (audio data (CD-DA)).
- **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.

(Example: Disc)



Sets a repeat play range.

or : Repeats all files.

: Repeats the current folder.

: Repeats the current file.

Performs frame-by-frame playback.

Performs slow-motion playback.

Stops playback.

(Example: Disc)

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 18

*2 Switches the subtitle/audio language.
➲ *Switching the subtitle/audio language* on page 16

*3 Switches the media file type.
➲ *Switching the media file type* on page 17

- ❒ 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 28

You can play compressed video files stored on a disc or in an USB storage device.

➲ *Media compatibility chart* on page 38

⚠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 17

Selecting files from the file name list

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

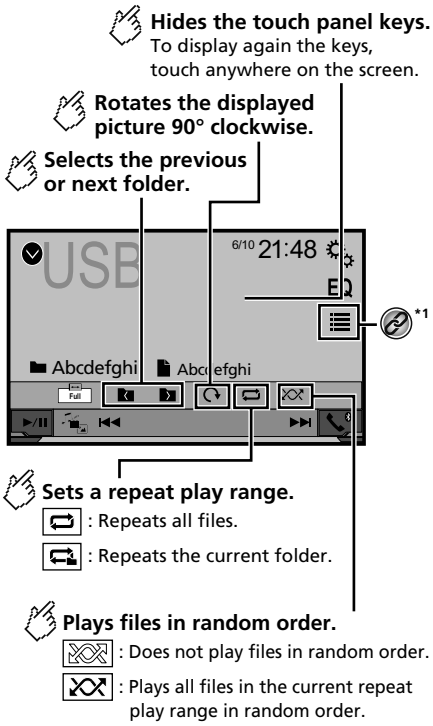
1 Touch .

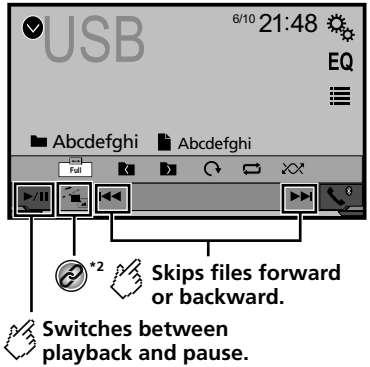
2 Touch a file on the list to play back.

❒ 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 19

*2 Switches the media file type.
➲ *Switching the media file type* on page 19

❒ 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 28

You can view still images stored in an USB storage device.
➲ *Media compatibility chart* on page 38

Starting procedure

1 Press ⠿.

2 Plug the USB storage device.
➲ *Plugging and unplugging a USB storage device* on page 7
❒ Playback is performed in order of folder numbers. Folders are skipped if they contain no playable files.

3 Touch [USB].
The image is displayed on the screen.

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.

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 data).

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**".

Bluetooth audio player

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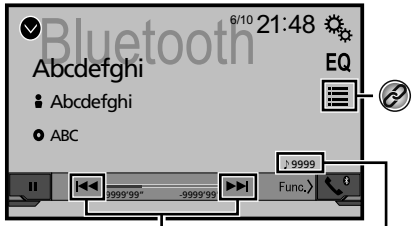
Playback screen 1

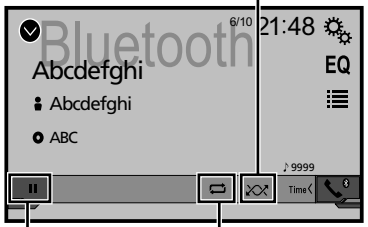


Skips files forward or backward.
You cannot use this function while the audio is played back.

Track number indicator

Plays files in random order.

Playback screen 2



Sets a repeat play range.

Switches between playback and pause.

Selects a file from the list.
➲ *Selecting files from the file name list* on page 20

- ❒ 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 10
- ❒ 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

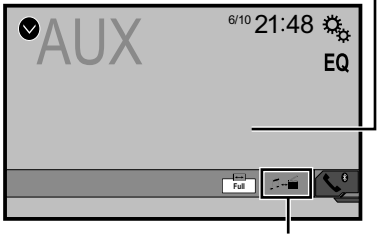
- ❒ This function may not be available depending on some Bluetooth device.

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.
  ➲ *External video component and the display* on page 32

⚠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].

AUX source

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.

Setting the steering wheel control

You can set the steering wheel control on the display via a wired remote cable.

➲ *Power cord* on page 31

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

❒ This setting is available when turn all the sources off.

This setting is required for using the steering wheel remote control function.

❒ You can set a function key to more than one steering wheel key.

❒ You can set only one function key to a steering wheel key.

❒ If you make a mistake after connecting this product with the supplied wired remote cable, please reset it.

❒ If this function does not work correctly, contact your dealer or an authorised Pioneer Service Station.

❒ When you start to set, all the default key settings is automatically cleared.

For steering wheel control adapter for Pioneer users

1 Display the "System" setting screen.

➲ *Displaying the "System" setting screen* on page 21

2 Touch [Steering Wheel Control].

3 Touch [With Adapter].

4 Touch [OK].

Registering function to each key manually

1 Display the "System" setting screen.

➲ *Displaying the "System" setting screen* on page 21

2 Touch [Steering Wheel Control].

3 Touch [No Adapter].

4 Touch the item to select the brand of your vehicle.

5 Touch the item to set.

Follow the on-screen instructions to register the function setting.

■ If you touch [**Clear**], all the settings is cleared.

Activating the Bluetooth audio source

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1 Display the "System" setting screen.

➲ *Displaying the "System" setting screen* on page 21

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 21

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 21

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 22

1 Display the "System" setting screen.

➲ *Displaying the* "**System**" setting screen on page 21

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

To display "**Rear View**" at all times, "**Rear View**" needs to be set to "**On**".

1 Press ⠿.

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

If no operations are performed for seven seconds on the AV operation screen, the camera view will appear automatically.

- ❒ To set the rear view camera for **Rear View** mode, set "**Back Camera Input**" to "**On**".

➲ *Setting rear view camera activation* on page 22

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 21

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 21

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 21

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

- ❒ 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 21

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.

Setting the dimmer duration in day or night

- ❒ You can use this function when "**Dimmer Trigger**" is set to "**Manual**".
- ❒ 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 21

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 21

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 28

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 21

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)
- **colour**:
  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 **colour**.
- 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 22

- 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 Output**" is set to "**Full**", and "**Preout**" is set to "**Rear**".

1 Display the "Audio" setting screen.

➲ *Displaying the* "**Audio**" setting screen on page 24

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 Output**" and "Preout" are set to "**Subwoofer Settings**".

1 Display the "Audio" setting screen.

➲ *Displaying the* "**Audio**" setting screen on page 24

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 24

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 24

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 24

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

Adjusting the subwoofer settings

❒ This function is available only when "**Subwoofer**" is "**On**".

➲ *Adjusting the subwoofer settings* on page 24

1 Display the "Audio" setting screen.

➲ *Displaying the* "**Audio**" setting screen on page 24

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 24

3 Touch [Rear Speaker Output].

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 Output**" 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 24

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 24

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 24

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.
- **Todoroki** 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 "**Todoroki**".

1 Display the "Audio" setting screen.

➲ *Displaying the* "**Audio**" setting screen on page 24

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**", "**Todoroki**", "**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 24

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.

Setting up the video player

Setting the top-priority languages

You can assign the top-priority language to the top-priority subtitle, audio and menu in initial playback. If the selected language is recorded on the disc, subtitles, audio and menu are displayed or output in that language.

❒ This setting is available when the selected source is "**Disc**", "**CD**", "**Video CD**" or "**DVD**".

Setting the subtitle language

You can set a desired subtitle language. When available, the subtitles will be displayed in the selected language.

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [Subtitle Language].
The pop-up menu appears.

4 Touch the desired language.
When you select "**Others**", a language code input screen is shown. Input the four-digit code of the desired language then touch ↵.

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

Setting the audio language

You can set the preferred audio language.

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [Audio Language].
The pop-up menu appears.

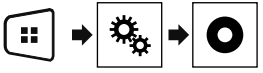
4 Touch the desired language.
When you select "**Others**", a language code input screen is shown. Input the four-digit code of the desired language then touch ↵.

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

Setting the menu language

You can set the preferred language in which the menus recorded on a disc are displayed.

1 Display the "Video Setup" screen.



2 Touch [DVD/DivX Setup].

3 Touch [Menu Language].
The pop-up menu appears.

4 Touch the desired language.
When you select "**Others**", a language code input screen is shown. Input the four-digit code of the desired language then touch ↵.

- If the selected language is not available, the language specified on the disc is displayed.

Setting the angle icon display

The angle icon can be set so it appears on scenes where the angle can be switched.

❒ This setting is available when the selected source is "**Disc**", "**CD**", "**Video CD**" or "**DVD**".

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [Multi Angle] repeatedly until the desired setting appears.

- **On** (default): Turns the multi-angle setting on.
- **Off**: Turns the multi-angle setting off.

Setting parental lock

Some DVD-Video discs let you use parental lock to set restrictions so that children cannot watch violent or adult-oriented scenes. You can set the parental lock level in steps as desired.

❒ When you set a parental lock level and then play a disc featuring parental lock, code number input indications may be displayed. In this case, playback will begin when the correct code number is input.

❒ This setting is available when the selected source is "**Disc**", "**CD**", "**Video CD**" or "**DVD**".

Setting the code number and level

When you first use this function, register your code number. If you do not register a code number, the parental lock will not operate.

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [Parental].
The "**Parental**" screen appears.

4 Touch [0] to [9] to input a four-digit code number.

5 Touch the following key.

↵	Registers the code number, and you can now set the level.

6 Touch any number between [1] to [8] to select the desired level.

- [**8**]: Enables playback of the entire disc (initial setting).
- [**7**] to [**2**]: Enables playback of discs for children and non-adult oriented discs.
- [**1**]: Enables only playback of discs for children.

7 Touch the following key.

↵	Sets the parental lock level.

- ❒ We recommend to keep 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 literature 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.

Setting the DivX Subtitle

- ❒ This setting is available when the selected source is "**Disc**" or "**USB**".

1 Display the "Video Setup" screen.

2 Touch [DivX Subtitle] to switch "Original" (default) or "Custom".

Displaying your DivX VOD registration code

If you want to play DivX® VOD (video on demand) content on this product, you must first register this product with your DivX VOD content provider. You do this by generating a DivX VOD registration code, which you submit to your provider.

- ❒ Keep a record of the code as you will need it when you register this product to the DivX VOD provider.
- ❒ This setting is available when the selected source is "**Disc**", "**CD**", "**Video CD**" or "**DVD**".

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [DivX® VOD].

The "**DivX® VOD**" screen appears.

- ❒ If a registration code has already been activated, it cannot be displayed.

4 Touch [Registration Code].

Your 10-digit registration code is displayed.

- ❒ Make a note of the code as you will need it when you deregister from a DivX VOD provider.

Displaying your DivX VOD deregistration code

A registration code registered with a deregistration code can be deleted.

- ❒ This setting is available when the selected source is "**Disc**", "**CD**", "**Video CD**" or "**DVD**".

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [DivX® VOD].

The "**DivX® VOD**" screen appears.

4 Touch [Deregistration Code].

Your 8-digit deregistration code is displayed.

- ❒ Make a note of the code as you will need it when you deregister from a DivX VOD provider.

Automatic playback of DVDs

When a DVD disc with a DVD menu is inserted, this product will cancel the menu automatically and start playback from the first chapter of the first title.

- ❒ Some DVDs may not operate properly. If this function is not fully operable, turn this function off and start playback.
- ❒ This setting is available when the selected source is "**Disc**", "**CD**", "**Video CD**" or "**DVD**".

1 Display the "Video Setup" screen.

2 Touch [DVD/DivX Setup].

3 Touch [DVD Auto Play] repeatedly until the desired setting appears.

- **Off** (default): Turns the DVD Auto Play setting off
- **On**: Turns the DVD Auto Play setting on

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.

Setting up the video player

- **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.

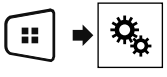
Favourite menu

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.



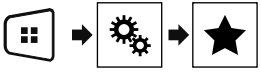
2 Touch the star icon of the menu item that you want to add to the favourite menu.

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

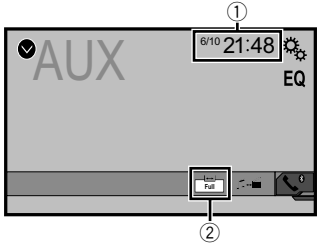
1 Display the "Favorites" screen.

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 28

② Screen display mode key

Changes the wide screen mode

➲ *Changing the wide screen mode* on page 28

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.

Common operations

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.

Other functions

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 5

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.

Connection

Precautions

Your new product and this manual

- 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.
- 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 of safety features, including airbags, hazard lamp buttons, or (iii) impair the driver's ability to safely operate the vehicle. In some cases, it may not be possible to install this product because of the vehicle type or the shape of the vehicle interior.

Important safeguards

⚠WARNING
Pioneer does not recommend that you install this product yourself. This product is designed for professional installation only. We recommend that only authorised Pioneer service personnel, who have special training and experience in mobile electronics, set up and install this product. NEVER SERVICE THIS PRODUCT YOURSELF. Installing or servicing this product and its connecting cables may expose you to the risk of electric shock or other hazards, and can cause damage to this product that is not covered by warranty.

Precautions before connecting the system

⚠WARNING
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.

Connection

⚠CAUTION

- **Secure all wiring with cable clamps or electrical tape. Do not allow any bare wiring to remain exposed.**
- **Do not directly connect the yellow lead of this product to the vehicle battery. If the lead is directly connected to the battery, engine vibration may eventually cause the insulation to fail at the point where the wire passes from the passenger compartment into the engine compartment. If the yellow lead's insulation tears as a result of contact with metal parts, short-circuiting can occur, resulting in considerable danger.**
- **It is extremely dangerous to allow cables to become wound around the steering column or gearstick. Be sure to install this product, its cables, and wiring away in such so that they will not obstruct or hinder driving.**
- **Make sure that the cables and wires will not interfere with or become caught in any of the vehicle's moving parts, especially the steering wheel, gearstick, handbrake, sliding seat tracks, doors, or any of the vehicle's controls.**
- **Do not route wires where they will be exposed to high temperatures. If the insulation heats up, wires may become damaged, resulting in a short circuit or malfunction and permanent damage to the product.**
- **Do not shorten any leads. If you do, the protection circuit (fuse holder, fuse resistor or filter, etc.) may fail to work properly.**
- **Never feed power to other electronic products by cutting the insulation of the power supply lead of this product and tapping into the lead. The current capacity of the lead will be exceeded, causing overheating.**

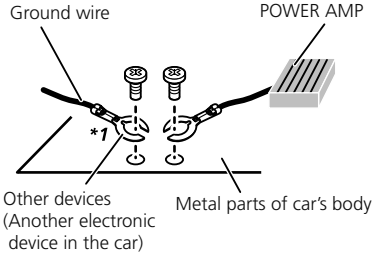
Before installing this product

- Use this unit with a 12-volt battery and negative earthing only. Failure to do so may result in a fire or malfunction.
- To avoid shorts in the electrical system, be sure to disconnect the (–) battery cable before installation.

To prevent damage

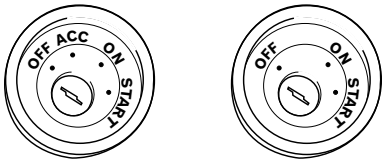
⚠WARNING

- **Use speakers over 50 W (output value) and between 4 Ω to 8 Ω (impedance value). Do not use 1 Ω to 3 Ω speakers for this unit.**
- **The black cable is earth. When installing this unit or power amp (sold separately), make sure to connect the earth wire first. Ensure that the earth wire is properly connected to metal parts of the car's body. The earth wire of the power amp and the one of this unit or any other device must be connected to the car separately with different screws. If the screw for the earth wire loosens or falls out, it could result in fire generation of smoke or malfunction.**



1 Non supplied for this unit

- **When replacing the fuse, be sure to only use a fuse of the rating prescribed on this product.**
- This product cannot be installed in a vehicle without ACC (accessory) position on the ignition switch.



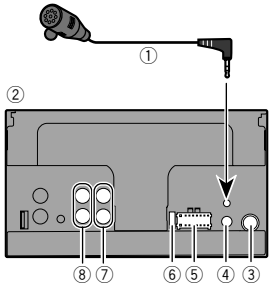
ACC position — No ACC position

- To avoid short-circuiting, cover the disconnected lead with insulating tape. It is especially important to insulate all unused speaker leads, which if left uncovered may cause a short circuit.
- For connecting a power amp or other devices to this product, refer to the manual for the product to be connected.

Notice for the blue/white lead

- When the ignition switch is turned on (ACC ON), a control signal is output through the blue/white lead. Connect to an external power amp's system remote control terminal, the auto-aerial relay control terminal, or the aerial booster power control terminal (max. 300 mA 12 V DC). The control signal is output through the blue/white lead, even if the audio source is switched off.

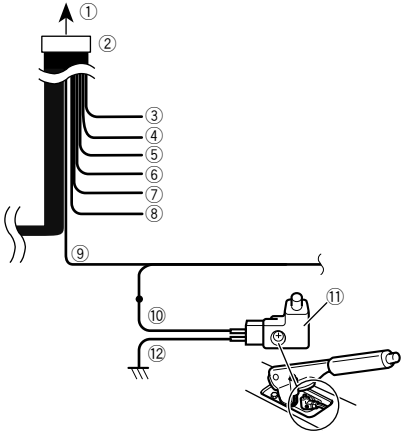
This product



① Microphone 4 m (AVH-289BT)
② This product
③ Aerial jack
④ Wired remote input
Hard-wired remote control adapter can be connected (sold separately).
⑤ Power supply
⑥ Fuse (10 A)
⑦ Front output
⑧ Rear output or subwoofer output

Connection

Power cord



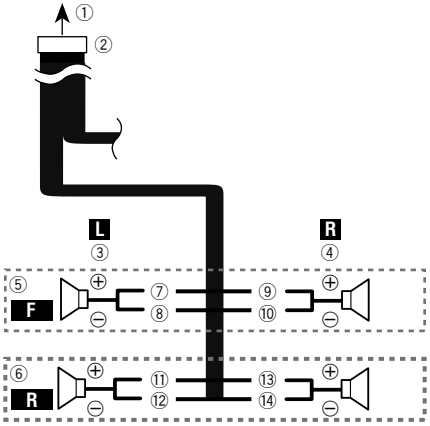
① To power supply
② Power cord
③ Yellow
To terminal supplied with power regardless of ignition switch position.
④ Red
To electric terminal controlled by ignition switch (12 V DC) ON/OFF.
⑤ Orange/white
To lighting switch terminal.
⑥ Black (earth)
To vehicle (metal) body.
⑦ Violet/white
Of the two lead wires connected to the back lamp, connect the one in which the voltage changes when the gear shift is in the REVERSE (R) position. This connection enables the unit to sense whether the car is moving forwardss or backwardss.
⑧ Blue/white
Connect to system control terminal of the power amp (max. 300 mA 12 V DC).
⑨ Light green
Used to detect the ON/OFF status of the handbrake. This lead must be connected to the power supply side of the handbrake switch.
⑩ Power supply side
⑪ Handbrake switch
⑫ Earth side

Parking Brake

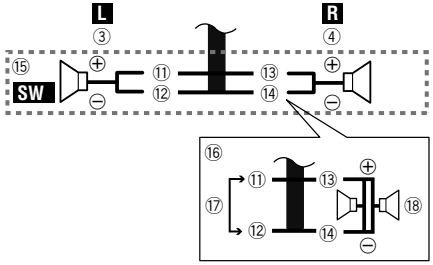
1 If "Light green" cable is connected to hand-brake switch, video image on the display will be controlled by this function.

2 The monitor displays the black screen with warning information to prevent the driver watching video contents during driving.

Speaker leads



Perform these connections when using a subwoofer without the optional amplifier.



① To power supply
② Power cord
③ Left
④ Right
⑤ Front speaker
⑥ Rear speaker
⑦ White
⑧ White/black
⑨ Grey
⑩ Grey/black
⑪ Green
⑫ Green/black
⑬ Violet
⑭ Violet/black
⑮ Subwoofer (4 Ω)
⑯ When using a subwoofer of 70 W (2 Ω), be sure to connect the subwoofer to the violet and violet/black leads of this unit. Do not connect anything to the green and green/black leads.
⑰ Not used.
⑱ Subwoofer (4 Ω) × 2

When a subwoofer is connected to this product instead of a rear speaker, change the rear output setting in the initial setting. The subwoofer output of this product is monaural.

➲ *Switching the rear speaker output* on page 24

With a two-speaker system, do not connect anything to the speaker leads that are not connected to speakers.

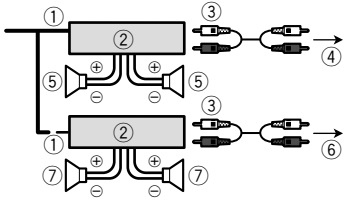
Connection

Power amp (sold separately)

Without internal amp

Important

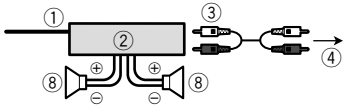
The speaker leads are not used when this connection is in use.



With internal amp

Important

Front speaker and Rear speaker signals are output from the speaker leads when this connection is in use.



① System remote control
Connect to Blue/white cable.
② Power amp (sold separately)
③ Connect with RCA cable (sold separately)
④ To Rear or subwoofer output
Connect a cable according to the preout setting.
⑤ Rear speaker or subwoofer
⑥ To Front output
⑦ Front speaker
⑧ Subwoofer

- You can change the RCA output of the subwoofer depending on your subwoofer system.
- The subwoofer output of this product is monaural.

Camera

About rear view camera

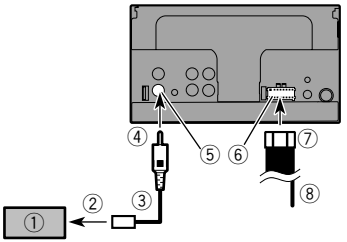
When you use the rear view camera, the rear view image is automatically switched from the video by moving the gearstick to **REVERSE** (**R**). **Rear View** mode also allows you to check what is behind you while driving.

⚠WARNING

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

⚠CAUTION

- The screen image may appear reversed.
- With the rear view camera you can keep an eye on trailers, or back into a tight parking spot. Do not use for entertainment purposes.
- Objects in rear view may appear closer or more distant than in reality.
- The image area of full-screen images displayed while backing or checking the rear of the vehicle may differ slightly.

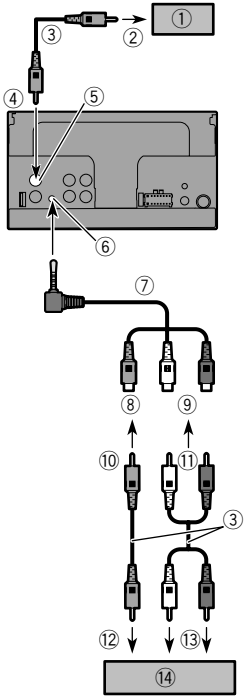


① Rear view camera (ND-BC8) (sold separately)
② To video output
③ RCA cable (supplied with ND-BC8)
④ This product
⑤ Brown (**R.C IN**)
⑥ Power supply
⑦ Power cord
⑧ Violet/white (**REVERSE-GEAR SIGNAL INPUT**)
➲ *Power cord* on page 31

- Connect only the rear view camera to **R.C IN**. Do not connect any other equipment.
- Some appropriate settings are required to use other view cameras.

➲ *Setting the rear view camera* on page 21

External video component and the display



① Rear display with RCA input jacks
② To video input
③ RCA cables (sold separately)
④ This product
⑤ Yellow (**V OUT**)
⑥ AUX input

Connection

⑦ Mini-jack AV cable (CD-RM10) (sold separately)
⑧ Yellow
⑨ Red, white
⑩ To Yellow
⑪ To Red, white
⑫ To video output
⑬ To audio outputs
⑭ External video component (sold separately)

The appropriate setting is required to use the external video component.

➲ *AUX source* on page 20

⚠WARNING

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

This product's rear video output is for connection of a display to enable passengers in the rear seats to watch the video source.

Installation

Precautions before installation

⚠CAUTION

Never install this product in places where, or in a manner that:

- **Could injure the driver or passengers if the vehicle stops suddenly.**
- **May interfere with the driver's operation of the vehicle, such as on the floor in front of the driver's seat, or close to the steering wheel or gearstick.**
- **To ensure proper installation, be sure to use the supplied parts in the manner specified. If any parts are not supplied with this product, use compatible parts in the manner specified after you have the parts' compatibility checked by your dealer. If parts other than supplied or compatible ones are used, they may damage internal parts of this product or they may work loose and the product may become detached.**
- **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 airbags, hazard lamp buttons or (iii) impair the driver's ability to safely operate the vehicle.**
- **Never install this product in front of or next to the place in the dashboard, door, or pillar from which one of your vehicle's airbags would deploy. Please refer to your vehicle's owner's manual for reference to the deployment area of the frontal airbags.**

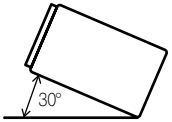
Before installing

- Consult with your nearest dealer if installation requires drilling holes or other modifications of the vehicle.
- Before making a final installation of this product, temporarily connect the wiring to confirm that the connections are correct and the system works properly.

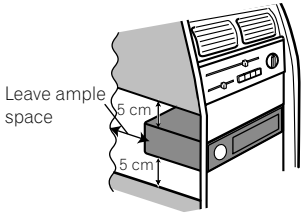
Installation notes

- Do not install this product in places subject to high temperatures or humidity, such as:
- Places close to a heater, vent or air conditioner.
- Places exposed to direct sunlight, such as on top of the dashboard.
- Places that may be exposed to rain, such as close to the door or on the vehicle's floor.
- Install this product horizontally on a surface within 0 to 30 degrees tolerance (within 5 degrees to the left or right).

Improper installation of the unit with the surface tilted more than these tolerances increases the potential for errors in the vehicle's location display, and might otherwise cause reduced display performance.



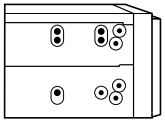
- When installing, to ensure proper heat dispersal when using this unit, make sure you leave ample space behind the rear panel and wrap any loose cables so they are not blocking the vents.



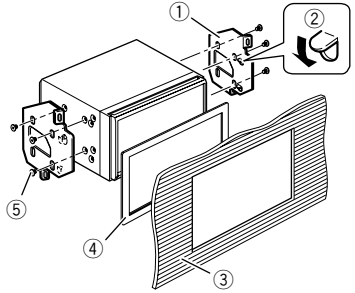
Installation using the screw holes on the side of this product

1 Fastening this product to the factory radio-mounting bracket.

Position this product so that its screw holes are aligned with the screw holes of the bracket, and tighten the screws at three locations on each side.



Installation



① Factory radio-mounting bracket
② If the pawl interferes with installation, you may bend it down out of the way.
③ Dashboard or console
④ Frame
In some types of vehicles, discrepancy may occur between the unit and the dashboard. If this happens, use the supplied frame to fill the gap.
⑤ Truss head screw
Be sure to use the screws supplied with this product.

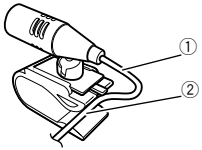
Installing the microphone

289BT

- Install the microphone in a place where its direction and distance from the driver make it easiest to pick up the driver's voice.
- Be sure to turn off (ACC OFF) the product before connecting the microphone.

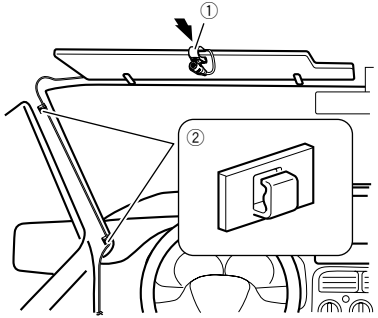
Mounting on the sun visor

1 Fit the microphone lead into the groove.



① Microphone lead
② Groove

2 Attach the microphone clip to the sun visor.

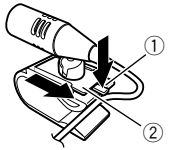


① Microphone clip
② Clamps
Use separately sold clamps to secure the lead where necessary inside the vehicle.

Install the microphone on the sun visor when it is in the up position. It cannot recognise the driver's voice if the sun visor is in the down position.

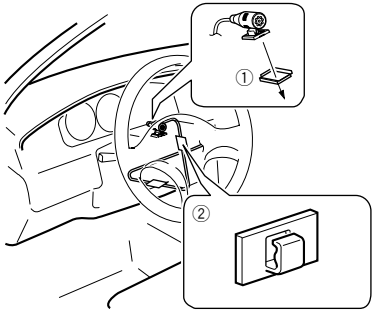
Installation on the steering column

1 Detach the microphone base from the microphone clip by sliding the microphone base while pressing the tab.



① Tab
② Microphone base

2 Mount the microphone on the steering column.



① Double-sided tape
② Clamps
Use separately sold clamps to secure the lead where necessary inside the vehicle.
Keeping it away from the steering wheel.

Adjusting the microphone angle

Appendix

Troubleshooting

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

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 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 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 forwards during the disc playback.
— For the media other than music CD (CD-DA), there is no sound on fast reverse or forwards.

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

The picture stops (pauses) and this product cannot be operated.
→ The reading of data is impossible during disc playback.
— Stop playback once, then restart.

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

A parental lock message is displayed and DVD playback is not possible.
→ The parental lock is on.
— Turn the parental lock off or change the level.

The parental lock for DVD playback cannot be cancelled.
→ The code number is incorrect.
— Input the correct code number.

Playback is not with the audio language and subtitle language settings selected in "DVD/DivX Setup".
→ The DVD playing does not feature dialogue or subtitles in the language selected in "**DVD/DivX Setup**".
— Switching to a selected language is not possible if the language selected in "**DVD/DivX Setup**" is not recorded on the disc.

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 analogue 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.

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.

Error messages

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

Common

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

Product overheat. System will be shut down automatically in 1 minute. Restart the product by ACC Off/On may fix this problem. If this message keep showing up, it is possible that some problem occurred in the product.
→ The temperature is too high for this product to operate.
— Follow the instructions displayed on the screen. If this does not solve the problem, contact your dealer or an authorised Pioneer Station for assistance.

Appendix

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 the **RESET** button.

Different Region Disc
→ The disc does not have the same region number as this product.
— Replace the DVD with one bearing the correct region number.

Unplayable Disc
→ This type of disc cannot be played on this product.
— Replace the disc with one that can be played on this product.

Unplayable File
→ This type of file cannot be played on this product.
— Select a file that can be played.

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.

This DivX rental has expired.
→ The inserted disc contains expired DivX VOD content.
— Select a file that can be played.

Video resolution not supported
→ Files that cannot be played on this product are included in the file.
— Select a file that can be played.

Unable to write to flash memory.
→ The playback history for VOD contents cannot be saved for some reason.
— Retry.
— If the message appears frequently, consult your dealer.

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

Video frame rate not supported
→ DivX file's frame rate is more than 30 fps.
— Select a file that can be played.

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

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.

Video resolution not supported
→ Files that cannot be played on this product are included in the file.
— Select a file that can be played.

USB was disconnected for device protection. Do not re-insert this USB memory into the unit. Please restart the unit.
→ The USB connector or USB cable 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.

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

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.

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 centre.
- 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 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 and the double-D symbol are trademarks of Dolby Laboratories.

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 playback DVD-ROM/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

- Unfinalised 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

- Unfinalised 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 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 41.
- Protocol: bulk
- You cannot connect a USB storage device to this product via a USB hub.
- Partitioned USB storage device is not compatible with this product.
- Firmly secure the USB storage device when driving. Do not let the USB storage device fall onto the floor, where it may become jammed under the brake or accelerator.
- There may be a slight delay when starting playback of audio files encoded with image data.
- Some USB storage devices connected to this product may generate noise on the radio.
- Do not connect anything other than the USB storage device.

The sequence of audio files on USB storage device
For USB storage device, the sequence is different from that of USB storage device.

Handling guidelines and supplemental information

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

Common notes about DivX files

Notes specific to DivX files

- Only DivX files downloaded from DivX partner sites are guaranteed for proper operation. Unauthorised DivX files may not operate properly.
- DRM rental files cannot be operated until playing back is started.
- This product corresponds to a DivX file display of up to 1 590 minutes 43 seconds. Search operations beyond this time limit are prohibited.
- DivX VOD file playback requires supplying the ID code of this product to the DivX VOD provider. Regarding the ID code, refer to *Displaying your DivX VOD registration code* on page 27.
- For details on the Divx video versions that can be played on this product, refer to *Specifications* on page 41.
- For more details about DivX, visit the following site: http://www.divx.com/

DivX subtitle files

- Srt format subtitle files with the extension ".srt" can be used.
- Only one subtitle file can be used for each DivX file. Multiple subtitle files cannot be associated.
- Subtitle files that are named with the same character string as the DivX file before the extension are associated with the DivX file. The character strings before the extension must be exactly the same. However, if there is only one DivX file and one subtitle file in a single folder, the files are associated even if the file names are not the same.
- The subtitle file must be stored in the same folder as the DivX file.
- Up to 255 subtitle files may be used. Any more subtitle files will not be recognised.
- Up to 64 characters can be used for the name of the subtitle file, including the extension. If more than 64 characters are used for the file name, the subtitle file may not be recognised.
- The character code for the subtitle file should comply with ISO-8859-1. Using characters other than ISO-8859-1 may cause the characters to be displayed incorrectly.
- The subtitles may not be displayed correctly if the displayed characters in the subtitle file include control code.
- For materials that use a high transfer rate, the subtitles and video may not be completely synchronised.
- If multiple subtitles are programed 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: ISO9660 level 1.ISO9660 level 2.Romeo, Joliet.UDF 1.02/1.50/2.00/2.01/2.50
Maximum number of folders: 300
Maximum number of files: 999
Playable file types: MP3, WMA, AAC, WAV, DivX, MPEG1, MPEG2, MPEG4

DVD-R/-R SL/-R DL/ DVD-RW
File system: ISO9660 level 1.ISO9660 level 2.Romeo, Joliet.UDF 1.02/1.50/2.00/2.01/2.50
Maximum number of folders: 300
Maximum number of files: 3 500
Playable file types: MP3, WMA, AAC, WAV, DivX, MPEG1, MPEG2, MPEG4

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

CD-R/-RW
File extension: .mp3
Bit rate: 8 kbps to 320 kbps (CBR), VBR
Sampling frequency: 16 kHz to 48 kHz (32 kHz, 44.1 kHz,48 kHz for emphasis)
ID3 tag: ID3 tag Ver. 1.0, 1.1, 2.2, 2.3

DVD-R/-R SL/-R DL/ DVD-RW
File extension: .mp3
Bit rate: 8 kbps to 320 kbps (CBR), VBR
Sampling frequency: 16 kHz to 48 kHz (32 kHz, 44.1 kHz,48 kHz for emphasis)

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WMA

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DivX

DivX Certified® devices have been tested for high-quality DivX® (.divx, .avi) video playback. When you see the DivX logo, you know you have the freedom to play your favourite DivX movies. DivX®, DivX Certified® and associated logos are trademarks of DivX, LLC and are used under license.
This DivX Certified® device has passed rigorous testing to ensure it plays DivX® video.
To play purchased DivX movies, first register your device at vod.divx.com. Find your registration code in the DivX VOD section of your device setup menu.
➲ *Displaying your DivX VOD registration code* on page 27

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.

Using app-based connected content

IMPORTANT

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

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

Limitations:

- Access to app-based connected content will depend on the availability of cellular and/or Wi-Fi network coverage for the purpose of allowing your smartphone to connect to the Internet.
- Service availability may be geographically limited to the region. Consult the connected content service provider for additional information.
- Ability of this product to access connected content is subject to change without notice and could be affected by any of the following: compatibility issues with future firmware versions of smartphone; compatibility issues with future versions of the connected content application(s) for the smartphone; changes to or discontinuation of the connected Content application(s) or service by its provider.

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.

Notice regarding MP3 file usage

Supply of this product only conveys a license for private, non-commercial use and does not convey a license nor imply any right to use this product in any commercial (i.e. revenue-generating) real time broadcasting (terrestrial, satellite, cable and/or any other media), broadcasting/streaming via internet, intranets

and/or other networks or in other electronic content distribution systems, such as pay-audio or audio-on-demand applications. An independent license for such use is required. For details, please visit
http://www.mp3licensing.com.

Using the LCD screen correctly

Handling the LCD screen

- When the LCD screen is subjected to direct sunlight for a long period of time, it will become very hot, resulting in possible damage to the LCD screen. When not using this product, avoid exposing it to direct sunlight as much as possible.
- The LCD screen should be used within the temperature ranges shown in *Specifications* on page 41.
- 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 (allowable voltage range: 12 V to 14.4 V DC)
Earthing system ..... Negative type
Maximum current consumption ..... 10 A
Dimensions (W × H × D):
D
Chassis ..... 178 mm × 100 mm × 165 mm
Nose ..... 171 mm × 97 mm × 9 mm
Weight ..... 1.7 kg

Display

Screen size/aspect ratio ..... 157.5 mm 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
Durable temperature range:
Power off ..... –20 °C to +80 °C

Audio

Maximum power output ..... •50 W × 4 ch/4 Ω •50 W × 2 ch/4 Ω + 70 W × 1 ch/2 Ω (for subwoofer)
Continuous power output ..... 22 W × 4 (50 Hz to 15 kHz, 5 %THD, 4Ω 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
HPF:
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

DVD drive

System ..... DVD-Video, VCD, CD, MP3, WMA, AAC, DivX, MPEG player
Usable discs .. DVD-VIDEO, VIDEO-CD, CD, CD-R, CD-RW, DVD-R, DVD-RW, DVD-RDL
Region number 5
Signal Format:
Sampling frequency ..... 32 kHz/44.1 kHz/48 kHz/96 kHz
Number of quantization bits ..... 16 bit/20 bit/24 bit; linear
Frequency response ..... 5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio ..... 91 dB (1 kHz) (IEC-A network) (RCA level)
Output level:
Video ..... 1.0 Vp-p/75Ω (±0.2 V)
Number of channels ..... 2 (stereo)
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): .m4a (Ver. 10.6 and earlier)
DivX decoding format Home Theater Ver. 3, 4, 5.2, 6 (Except ultra and HD) : .avi, .divx
MPEG video decoding format .. MPEG-1, MPEG-2, MPEG-4 (part2)

USB

USB standard spec ..... USB1.1, USB2.0 Full Speed, USB2.0 High Speed
USB standard spec ..... USB 2.0 high speed (For audio files)
Max current supply ..... 1.0 A

Appendix

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
Sampling Frequency..... MS ADPCM: 22.05 kHz/44.1 kHz
JPEG decoding format ..... .jpeg, .jpg, .jpe
Pixel Sampling 4:2:2, 4:2:0
Decode Size.....MAX: 8 192 (H) x 7 680 (W), MIN: 32 (H) x 32 (W)
MPEG4 video decoding format ..... Simple Profile

Bluetooth

(AVH-289BT)
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/75Ω , mono, S/N: 30 dB)
Signal-to-noise ratio .....72 dB (IEC-A network)

AM tuner

Frequency range .....530 kHz to 1 640 kHz (10 kHz)
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)

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

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

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.
253 Alexandra Road, #04-01, Singapore 159936
TEL: 65-6472-7555

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

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