

# Pioneer

English

**AVH-4850BT**

DVD AV RECEIVER

## Owner's Manual



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# Precaution

Thank you for purchasing this PIONEER product.

To ensure proper use, please read through this manual before using this product. It is especially important that you read and observe WARNINGS and CAUTIONS in this manual. Please keep the manual in a safe and accessible place for future reference.

## IMPORTANT SAFEGUARDS

Please read all of these instructions regarding your display and retain them for future reference.

1. Do not install the display where it may (i) obstruct the driver's vision, (ii) impair the performance of any of the vehicle's operating systems or safety features or (iii) impair the driver's ability to safely operate the vehicle.
2. Do not operate this display if doing so in any way will divert your attention from the safe operation of your vehicle. Always observe safe driving rules and follow all existing traffic regulations. If you experience difficulty in operating the system or reading the display, park your vehicle in a safe location and make necessary adjustments.
3. Please remember to wear 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.
4. Never use headphones while driving.
5. To promote safety, certain functions are disabled unless the parking brake is on, and the vehicle is not in motion.
6. Never set the volume of your display so high that you cannot hear outside traffic and emergency vehicles.

### ⚠ WARNING

Do not attempt to install or service your display by yourself. Installation or servicing of the display 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 or other hazards.

## 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.

- To avoid the risk of damage and injury and the potential violation of applicable laws, this unit is not for use with video that is visible to the driver.
- To avoid the risk of accident and the potential violation of applicable laws, no viewing of front seat video should ever occur while the vehicle is being driven.
- In some countries or states the viewing of images on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed and this unit's video features should not be used.

When you attempt to watch a video image while driving, the warning "Viewing of front seat video source while driving is strictly prohibited." will appear on the front display. To watch a video image on the front display, park your vehicle in a safe place and apply the parking brake.

### When using a display connected to rear monitor output

The rear monitor output on this unit (REAR MONITOR OUTPUT) is used to connect a rear display that allows passengers in the rear seats to watch videos.

### ⚠ WARNING

Never install the rear display in a location where the driver can watch videos while driving.

### When using the rear view camera

With an optional rear view camera, this unit can be used as an aid to keep an eye on trailers, or when 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 camera function is to be used as an aid to keep an eye on trailers, or while backing up. Do not use for entertainment purposes.
- Please note that the edges of the rear view camera images may differ slightly according to whether full screen images are displayed when backing up, and whether the images are used for

checking the rear when the vehicle is moving forward.

### To avoid battery exhaustion

Keep the vehicle engine running when using this unit to avoid draining the battery power.

- When no power is supplied to this unit, such as when the vehicle battery is being replaced, the microcomputer of this unit returns to its initial condition. We recommend that you transcribe the audio adjustment data.

### ⚠ WARNING

Do not use with vehicles that do not feature an ACC position.

## About this unit

CAUTION: USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION: THE USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARD.

### CAUTION

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

CLASS 1 LASER PRODUCT

### ⚠ CAUTION

- Do not allow this unit to come into contact with liquids. Electrical shock could result. Also, damage to this unit, smoke, and overheating could result from contact with liquids.
- Keep this manual handy for future reference.
- Always keep the volume low enough to hear outside sounds.
- Avoid exposure to moisture.
- If the battery is disconnected or discharged, any preset memory will be erased.

# Precaution

## Information to User

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

Information to User - Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

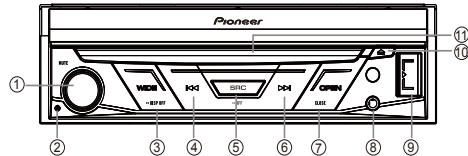
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Consult the dealer or an experienced radio/TV technician for help.

## DVD video disc region numbers

Only DVD video discs with compatible region numbers can be played on this player. You can find the region number of the player on the bottom of this unit and in this manual.

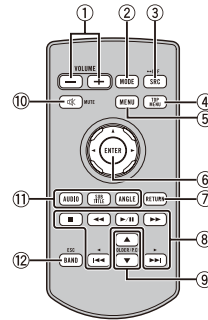
# Basic operation

## Head Unit



Part	Operation
① <b>ROTARY</b>	<ul style="list-style-type: none"> <li>• Turn to adjust the volume.</li> <li>• Press to mute on/off.</li> </ul>
② <b>RESET</b>	<ul style="list-style-type: none"> <li>• Reset the unit</li> </ul>
③ <b>WIDE</b>	<ul style="list-style-type: none"> <li>• Change display mode (press)</li> <li>• Display off (press and hold)</li> </ul> <p>• Radio:                      Preset down/up (press)                      Auto search down (press and hold)                      Disc (when disc inserted):                      Chapter down/up (press)</p> <p>④  Chapter down/up (press and hold)                      ⑥  Fast reverse / forward (press and hold)</p> <ul style="list-style-type: none"> <li>• USB (when USB connected):                      The function same to the DISC.                      • Bluetooth Audio (when BT connected)                      Chapter down/up (press)</li> </ul>
⑤ <b>SRC</b>	<ul style="list-style-type: none"> <li>• Press the button to return the source menu</li> <li>• Press and hold SRC button to be OFF</li> </ul>
⑦ <b>OPEN /CLOSE</b>	<ul style="list-style-type: none"> <li>• Open/close the LCD panel</li> <li>• By pressing and holding the key, the unit becomes LCD panel angle adjustment mode.</li> </ul>
<b>AUX input jack</b>	
⑧ (3.5mm stereo /video jack)	Use to connect an auxiliary device.
⑨	Slip the cover of the USB connector to the right. Insert a USB device into the USB slot.
⑩	Eject button
⑪ <b>Disc loading slot</b>	

## Remote control



- ① **+/- (VOLUME)**
- ② **MODE**  
No use in this model.
- ③ **SRC/OFF**
  - Select playing mode:  
 Radio / Disc (when disc inserted)/USB (when USB connected) / AUX / BT/ AV / Camera View
  - Press and hold SRC button to be OFF.
- ④ **TOP MENU**  
Press to return to the top menu during DVD playback.
- ⑤ **MENU**  
Press to display the DVD menu during DVD playback.
- ⑥ **Thumb pad**  
Use to select a menu on the DVD menu.
- ⑦ **RETURN**  
Press to display the PBC (playback control) menu during PBC playback.
- ⑧ **▶/||**  
Press to pause or resume playback.  
 Press to perform fast reverse.  
 Press to change the fast reverse speed.  
 Press to perform fast forward.  
 Press to change the fast forward speed.

- Press to return to the previous track (chapter).  
 Press to go to the next track (chapter).  
 Press to stop playback.  
 If you resume playback, playback will start from the point where you stopped.  
 Touch the key again to stop playback completely.
- ⑨ **FOLDER/P.CH**  
Press to select the next or previous disc or folder.  
Press to recall radio station frequencies assigned to preset tuning keys.
- ⑩ **MUTE**  
Press to mute. Press again to unmute.
- ⑪ **AUDIO**  
Press to change the audio language during DVD playback.  
Press to switch audio output for Divx/MPEG-4.  
**SUBTITLE**  
Press to change the subtitle language during DVD/Divx/MPEG-4 playback.  
**ANGLE**  
Press to change the viewing angle during DVD playback.
- ⑫ **BAND/ESC**  
Press to select the tuner band when tuner is selected as a source.

### ► Important

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

# Basic operation

## Use and care of the remote control

### Using the remote control

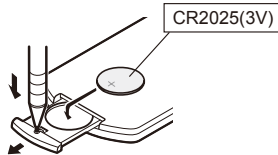
Point the remote control in the direction of the front panel to operate.

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

### Replacing 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

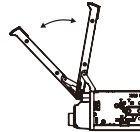
- Remove the battery if the remote control is not used for a month or longer.
- There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type.
- Do not handle the battery with metallic tools.
- Do not store the battery with metallic objects.
- If 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.

## Adjusting the LCD panel angle

### CAUTION

Keep hands and fingers clear of the unit when opening, closing, or adjusting the display. Be especially cautious of children's hands and fingers.

Press and hold the **OPEN/CLOSE** button until display the [  ] / [  ] icon on the screen, touch them to adjust the LCD panel angle position.



### Important

- When adjusting the LCD panel angle, be sure to press and hold **OPEN/CLOSE** button. Forcibly adjusting the LCD panel by hand may damage it.



- As the set angle is saved, the LCD panel will automatically be adjusted to the same position the next time the LCD panel is opened.

## Inserting/ejecting/connecting media

### Insert a disc

1. Insert a disc into the disc loading slot.
2. Disc can be inserted without opening LCD panel.
3. The unit will change to disc mode automatically.

### Notes:

- Please confirm whether there is a disc in the unit before you insert another one.
- The unit will exit current playing source and enter DVD mode when one disc is inserted.
- The following format disc will be support: CD-R, CD-RW, DVD-R, DVD+R, DVD-RW, DVD+RW .

### CAUTION

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

### Ejecting a disc

Press the  button on the front panel to eject the disc.

## Plugging and unplugging a USB storage device

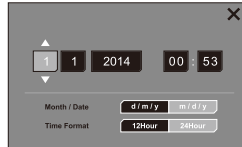
- This product may not achieve optimum performance with some USB storage devices.
- Connection via a USB hub is not possible.
- 1. Slip the USB cover from left to right.
- 2. Plug in the USB storage device using an appropriate cable.
- Check that no data is being accessed before pulling out the USB storage device.

# Basic operation

## How to Use the screens

Press **SRC** button to display Top menu screen.

### Time and date setting screen



Switching to clock adjustment display.

**Select the Month or Date.**

- Touch ▲ or ▼ to set the correct time.

**Select the time format.**

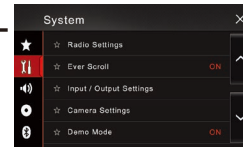
- Touch 12Hour or 24Hour to set the correct time.
- Touch [ X ] on the upper right of the screen to exit.

### Top menu screen



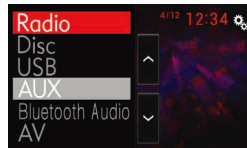
Current Source display

### Setting menu screen



- Touch [ X ] on the upper right of the screen to exit. Refer to System settings on page 19.

### AV source list screen



Selecting a source using the touch panel keys  
Touch the source icon and then touch the desired source name.

- Radio-radio
- Disc-Built-in DVD player
- USB-USB
- AUX-AUX
- AV-AV input
- Bluetooth Audio
- Camera View-Camera View

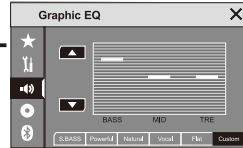
### AV operation screen



Selecting a favorite source.  
When the source icon is not displayed, it can be displayed by pressing the source key.

- Touch [  ] to turn the source off.

### EQ setup screen



- Touch [ X ] on the upper right of the screen to exit. Refer to Audio settings on page 19.

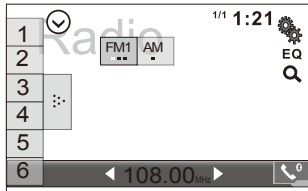
Touch [  ], displaying the phone menu screen



# Radio

## Select radio as playing source

Touch [Radio] on the source menu to the radio mode.



## Select one radio band

Press the BAND button on the remote control or touch the [FM1] / [AM] icon on the user interface to select one radio band among FM1, FM2, FM3, and AM.

## Tune

### Auto tuning

Press and hold the ◀▶ button on the remote control or touch and hold the [◀] / [▶] icon on the user interface to seek a higher / lower station.

To stop searching, repeat the operation above or press other keys having radio functions.

#### Note:

When a station is received, searching stops and the station is played.

### Manual tuning

During manual tuning, the frequency will be changed in steps. Press the ◀▶ button on the remote control or touch the [◀] / [▶] icon on the user interface to tune in a higher / lower station.

### Preset station

The unit has 4 bands, such as FM1, FM2, FM3 and AM, and each band can store 6 stations; hence the unit can store 24 stations in total.

## Storing the strongest stations

BSM (best stations memory) automatically stores the six strongest stations in the order of their signal strength. Storing broadcast frequencies with BSM may replace broadcast frequencies you have saved using the preset tuning keys.

1. Touch [◻◻◻].
  2. Touch [BSM] to begin a search.  
The six strongest broadcast frequencies will be stored under preset tuning keys in order of their signal strength.
- To cancel the storage process, touch any key on the screen.

## Manual store

1. Tune to a station.
2. Touch and hold one of the channels 1 to 6 to save the selected band.

## Search Stations Automatically

1. Touch [BSM] to search and store stations.
2. The unit will scan play the preset stations automatically.
3. To cancel, touch any key on the user interface.

## Recalling a station

1. Select a band (if needed).
2. Touch an on-screen preset button to select the corresponding stored station.

## Displays the preset channel list

If you touch the [◻◻◻] to display the preset channel list.

## Local/Distance

Select Local to receive only stations with extremely strong signal.

1. Touch [Local/Distance] in Radio settings menu of System setup.
- How to enter Radio Setting, please refer to the System setting page 19.
2. Touch [Local/Distance] to switch "Local" or "Distance"(default).

## Setting the FM tuning step

You can switch the seek tuning step for FM band.

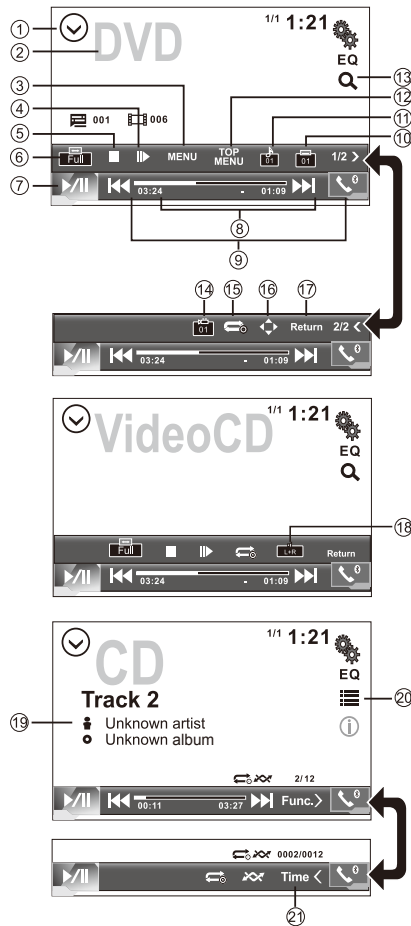
- The tuning step remains at 50 kHz during manual tuning.
1. Touch [FM Step] in Radio settings menu of System setup to select the FM tuning step.
  - How to enter Radio Setting, please refer to the System setting page 19.
  2. Touching FM step will switch the FM tuning step between 50 kHz and 100 kHz(default). The selected FM tuning step will appear.

## Setting the AM tuning step

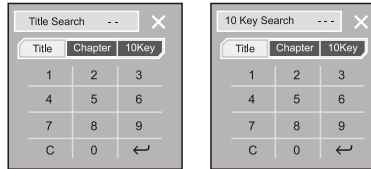
You can switch the seek tuning step for AM band.

1. Touch [AM Step] in Radio settings menu of System setup to select the AM tuning step.
- How to enter Radio Setting, please refer to the System setting page 19.
2. Touching AM Step will switch the AM tuning step between 9 kHz and 10 kHz. The selected AM tuning step will appear in the display.  
**Latin America model: 10kHz**  
**Middle East Asia models: 9kHz**  
When the setting is changed, the frequency and preset channels are initialized.

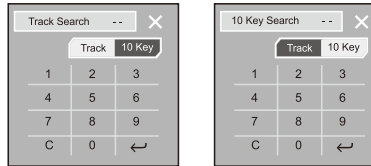
# Disc



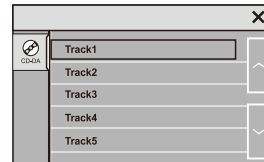
## DVD title/chapter select



## VCD track select



## CD track select



- |   |   |
|---|---|
| ① | Return the source menu key<br>Returning to the source menu during DVD playback. |
| ② | Correct disc type   |
| ③ | <b>MENU key (DVD)</b><br>Displaying the DVD menu during DVD playback.           |

## Frame-by-frame playback key (DVD/VCD)

To return to normal playback, touch [▶/||].

## ④ Slow-motion playback key (DVD/VCD)

1. Touch and hold down the [▶] to start the slow motion playback.
2. Each time you touch [▶] it changes the speed in six steps in the following order: x1/2 x1/3 x1/4 x1/5 x1/6 x1/7.

## Stop playback entirely (DVD/VCD)

1. During playback, touch [■] once to stop the playback and the relevant location on the disc is saved, touch [▶/||] to resume the playback from the saved disc location.
2. Touch [■] twice to cease the playback. Touch [▶/||] to start the playback from the very beginning the Title page of the DVD or the first track of VCD / CD.

## Changing the wide-screen mode (DVD/VCD)

Selecting the appropriate screen ratio for the playback video.

Touch [Full] to select the [Full] / [Normal].

Touch the desired wide mode setting.

### FULL (full screen)

The 4:3 picture is enlarged in the horizontal direction only, granting viewers a 4:3 TV picture (normal picture) without any omissions.

### NORMAL (normal)

The 4:3 picture is displayed as is, granting viewers no sense of disparity as the proportions are the same as that of the normal picture.

### Notes:

- You cannot operate this function while driving.
- When a video is viewed in a wide screen mode that does not match its original aspect ratio, it may appear different.
- Remember that using the wide mode feature of this system for commercial or public viewing purposes may constitute an infringement on the author's rights protected by the Copyright Law.

# Disc

⑦	<p><b>Playback/Pause</b></p> <ol style="list-style-type: none"> <li>When a disc is inserted, display shows "Format read". For MP3/WMA or disc with mixed files, reading time may exceed 1 minute.</li> <li>While audio/photo/video files playback, list menu will appear on the display. The list menu and operations are the same with USB playback. <ul style="list-style-type: none"> <li>During playback, press [▶/  ] to pause playback.</li> <li>The sound will be muted.</li> <li>Display shows "PAUSE". Press [▶/  ] again to continue playback. To resume normal play, repeat the operation.</li> </ul> </li> </ol>
⑧	<p><b>Elapsed time/Remaining time of the track.</b></p> <p>Touch [◀◀] / [▶▶], you can also skip track/chapters forward or backward.</p>
⑨	<p><b>Fast forward/backward during playback</b></p> <p>Touch [◀◀] / [▶▶] for more than 2 seconds repeatedly to select X2, X4, X8, X20.</p> <ul style="list-style-type: none"> <li>During the fast forward or backward operation, touch [▶/  ] briefly to playback again.</li> <li>During the fast forward or backward operation, the volume will be muted.</li> </ul>
⑩	<p><b>Subtitle select (DVD/VCD)</b></p> <p>Open/Close the title language. Touch [Ⓜ] to select the subtitle language.</p>
⑪	<p><b>Audio select (DVD/VCD)</b></p> <p>Touch [Ⓜ] to select audio language.</p>
⑫	<p><b>Top Menu key (DVD)</b></p> <p>Returning to the top menu during DVD playback.</p>
⑬	<p><b>Goto (DVD/VCD)</b></p> <p>For DVD, you can select [Title], [Chapter], [10key]. For VCD, you can select [Track], [10key] (PBC only).</p> <ol style="list-style-type: none"> <li>Touch [Q].</li> <li>Touch the item to select the search function.</li> <li>Touch [0] to [9] to input the desired number.</li> <li>To cancel an input number, touch [C].</li> <li>Touch [←] to start playback from the number you registered.</li> </ol>
⑭	<p><b>Angle adjustment (DVD)</b></p>

⑮	<p><b>Repeat</b></p> <p>During playback, press icon on the screen to select repeat playback, as below:</p> <p>DVD</p> <p> : Repeat all   : Repeat title   : Repeat chapter</p> <p>VCD</p> <p> : Repeat all   : Repeat one</p> <p>CD</p> <p> : Repeat all   : Repeat Single</p>
⑯	<p><b>Operating the DVD menu using touch panel keys (DVD)</b></p> <p>If items on the DVD menu appear, the touch panel keys may overlay them. If so, select an item using those touch panel keys.</p> <p>[↶]: Touch to return the playback menu.  [↷]: Start playback from the selected menu item.  [Key]: Touch to return the DVD playback menu.  Touch [▲] / [▼] / [◀] / [▶] to select the upper / lower / left / right menu item.</p> <ul style="list-style-type: none"> <li>If the touch panel keys for DVD menu selection disappear, touch anywhere on the screen, and then touch [↶↷]. The touch panel keys are displayed.</li> <li>If you touch [↶↷], the touch panel keys disappear and touch [↶↷] is displayed.</li> </ul>
⑰	<p><b>Return key (DVD/VCD with PBC)</b></p> <p>Returns to the specified point and begins playback from there.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>The specified point differs depending on the disc.</li> </ul>

⑰	<p><b>Audio output select (DVD/VCD)</b></p> <p>Touch [L+R] to select audio channel to listen (Left, Right, Mix, L+R).</p>
⑱	<p><b>Title/Chapter display information (DVD)</b></p> <p><b>Track display information (VCD/CD)</b></p>
⑳	<p><b>Enter to the track list (CD)</b></p> <p>Touch [Ⓜ] Press [▲] / [▼] to skip to the previous/next track.</p>
㉑	<p><b>Random track playback (CD)</b></p> <p>During playback, touch [↻] to select random on and display the icon.</p>

**Notes:**

- After ejecting the disc, the unit reverts to other mode automatically.
- If the disc is not removed from the unit within 10 seconds, the disc will be reloaded to prevent accidental damage.

# Registration and connection of Bluetooth device



## Pairing

1. Switch the Bluetooth on in the system setting menu.
2. Turn on Bluetooth function of your mobile phone.
3. Enter mobile phone's Bluetooth setup menu.
4. Search for new Bluetooth devices.
5. Select AVH-4850BT from the pairing list on the mobile phone, and paired automatically.
6. After pairing successfully, the unit will show "Pairing code: \*\*\*\*\*". Then press "Pairing" on the mobile phone.

### Notes

- The unit only pair one mobile phone, and only memory the last pair device.  
When power on, only search the last pair device.
- All HFP function sources can connect; A2DP function only can connect the BT source, enter other source will disconnect automatically, and switch BT source again will paired automatically.


## Displaying the "Bluetooth" screen

Touch , and then .

The "Bluetooth" screen appears.

## Registering your Bluetooth devices

If three devices are already registered? "Full" is displayed. Delete a paired device first. (Deleting a registered device on page 12)

1. Activate the Bluetooth wireless technology on your devices.
2. Display the "Bluetooth" screen.  
(Displaying the "Bluetooth" screen on page 12)
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 12)


## 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 meters apart.

1. Display the "Bluetooth" screen. (Displaying the "Bluetooth" screen on page 12)
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 12)
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 12)
  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 12)
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 12)
2. Touch [PIN Code Input].
3. Touch [C], the default PIN code is being deleted.
4. Touch [0] to [9] to input the pin code (up to 4 - digits).
5. Touch .

The default PIN code is "0000".

## Displaying the device information

1. Display the "Bluetooth" screen. (Displaying the "Bluetooth" screen on page 12)
  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 parking brake.

### CAUTION

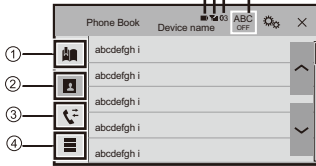
Never turn this product off while the Bluetooth memory is being cleared.

1. Display the "Bluetooth" screen. (Displaying the "Bluetooth" screen on page 12)
  2. Touch [Bluetooth Memory Clear].
  3. Touch [Clear].
- The confirmation screen appears.

# Hands-free phoning

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

Reception status of the cellular phone  
Battery status of the cellular phone  
Switches to the initial search.



①	Displays the preset dial screen.(Using the preset dial lists on page 13)
②	Switches to the phone book list.(Calling a number in the phone book on page 13)
③	Switches to the missed, received and dialed call lists.(Dialing from the history on page 13)
④	Switches the mode to enter the phone number directly.(Direct dialing on page 13)

## CAUTION

For your safety, avoid talking on the phone as much as possible while driving.  
To use this function you need to connect your cellular phone to this product via Bluetooth in advance.(Registration and connection of Bluetooth device on page 12)

## Displaying the Phone menu screen

Touch .  
The Phone menu screen appears.

## Making a phone call

You can make a phone call in many different ways.

## Direct dialing

1. Display the "Phone menu" screen.(Displaying the Phone menu screen on page 13)
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 12)
1. Display the "Phone menu" screen.(Displaying the Phone menu screen on page 13)
  2. Touch .
  3. Touch the desired name on the list.
  4. Touch the phone number you want to dial.  
The dial screen appears and dialing starts.
  5. Touch to end the call.

## Dialing from the history

1. Display the "Phone menu" screen.(Displaying the Phone menu screen on page 13)
2. Touch .
3. Touch the item to switch the history list.  
The following items are available:

: Received call list

: Dialed call list

: Missed call list

4. Touch the desired entry on the list to make a call.  
The dial screen appears and dialing starts.
5. Touch to end the call.

## Using the preset dial lists

### Registering a phone number

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

1. Display the "Phone menu" screen.(Displaying the Phone menu screen on page 13)
2. Touch or .
3. Touch .

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

## Dialing from the preset dial list

1. Display the "Phone menu" screen.(Displaying the Phone menu screen on page 13)
2. Touch .
3. Touch the desired item you want to dial.  
The dial screen appears and dialing starts.

## Receiving a phone call

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

## Changing the phone settings

### Answering a call automatically

1. Display the "Bluetooth" screen.(Displaying the "Bluetooth" screen on page 12)
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 12)
2. Touch [Ring Tone] to switch "On" (default) or "Off".

## Setting the private mode

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

- Touch or to turn private mode on or off.

# Hands-free phoning

## Notes for hands-free phoning

### General notes

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

### Registration and connection

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

### Making and receiving calls

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

### The received call and the dialed number histories

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

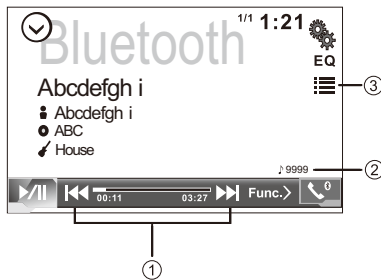
### Phone book transfers

- If there are more than 1 000 phone book entries on your cellular phone, not all entries may download completely.

- Depending on the phone, this product may not display the phone book correctly.
- If the phone book in the phone contains image data, the phone book may not be transferred correctly.
- Depending on the cellular phone, phone book transfer may not be available.

# Bluetooth audio player

## Playback screen 1



- By pressing the ◀◀ or ▶▶ button, you can also skip files forward or backward.
- By pressing and hold the ◀◀ or ▶▶ button, you can also perform fast reverse or fast forward.
- Before using the Bluetooth audio player, register and connect the device to this product. (Registering your Bluetooth devices on page 12)
- 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.

## Playback screen 2



## 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.

①	<p>Skips files forward or backward. You cannot use this function while the audio is played back.</p>
②	Track number indicator
③	Selects a file from the list. (Selecting files from the file name list on page 14)
④	<p>Switches between playback and pause.</p>
⑤	<p>Sets a repeat play range.</p>
⑥	<p>Plays files in random order.</p>

# Compressed files



## Notes:

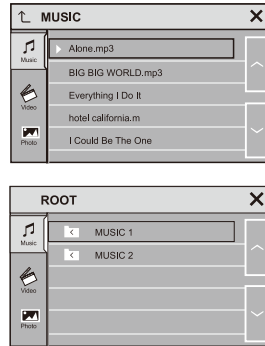
- If there are audio files supported in the disc/USB stick, the system will enter the audio files menu automatically. If there are no audio files, but there are video files supported in the disc/USB stick, the system will enter the video files menu automatically.
- If there are no audio or video files, but there are picture files supported in the disc/USB stick, the system will enter the picture files menu automatically.
- If there no above audio/video/picture files supported in the disc/USB stick, the icon will turn gray on the left list menu of screen.
- Not all kinds of USB devices are compatible with the unit.
- Disconnect USB storage devices from the unit when not in use.
- It will take several minutes when playing external storage devices that contain a mixture of various media file types.
- Do not use unauthorized products.

## Selecting file category

During playback, touch [≡] to enter the list menu of file category (Music, Video, Photo), touch it to select.

## Selecting a folder

Touch [↑] to enter the folder list (if there are folders in the disc/USB storage device), touch it to select.

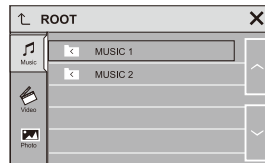


## Selecting file

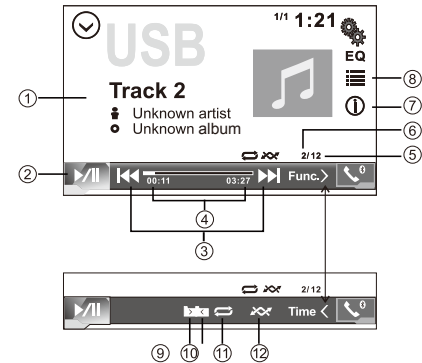
In file list menu, touch [^] or [v] on screen to select file type, touch it and the unit will load the file and start playback.

## Selecting a file of other folder

- If there are more than 1 folder in the USB storage device, a folder icon appears upon the file's names.
- Touch the folder name to select and touch again to show all the files.



## Playing audio files

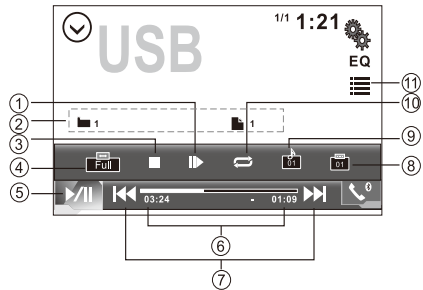


- 1 Playback information (artist name/ album name/ folder name/track name)
- 2 Playback/Pause
- 3 Previous/next file
- 4 Fast forward/backward during playback
- 5 Elapsed time/Remaining time of the file
- 6 The amount of the file
- 7 The current track of playback
- 7 Touch to display the other playback information
- 8 Enter to the playback list
- 9 Touch [◀] / [▶] to select the last / next folder
- 10 Repeat (the function same to the CD)
  - ① : Repeat file
  - ⏮ : Repeat folder
  - ⏮ : Repeat all
- 12 Random



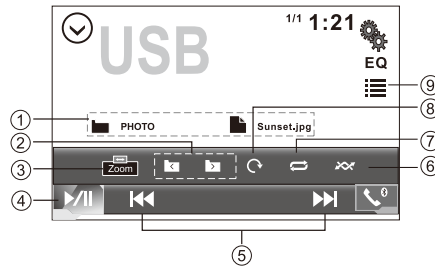
# Compressed files

## Playing video files



- ① Slow-motion playback key (the function same to the DVD)
- ② Track information
- ③ Stop playback entirely
- ④ Changing the wide-screen mode (the function same to the DVD)
- ⑤ Playback/pause
- ⑥ Elapsed time/Remaining time of the file
- ⑦ Previous/next file
- ⑧ Fast forward/backward during playback (the function same to the DVD)  
Subtitle select
- ⑧ Touch [ 01 ] to select the subtitle language to show, if the video file has multiple language subtitles.  
Audio select
- ⑨ Touch [ 01 ] to select audio language to listen if the DVD has multiple audio languages.  
Repeat
- ⑩ : Repeat one  
: Repeat folder  
: Repeat all
- ⑪ Enter to the playback list

## Playing photo files



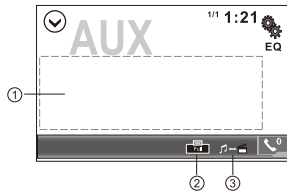
- ① Track information
- ② Previous/next folder
- ③ Zoom
- ④ Playback/pause
- ⑤ Previous/next file
- ⑥ Random
- Repeat
- ⑦ : Repeat one  
: Repeat folder  
: Repeat all
- ⑧ Rotation  
Rotates the displayed photo 90° clockwise.
- ⑨ Enter to playback list

## Other source

### AUX source

You can connect an external audio/video device to the unit.

- Connect the external audio/video device to the **AUX input jack**.
- Turn on the AV input setting. Refer to the System setting page 19.

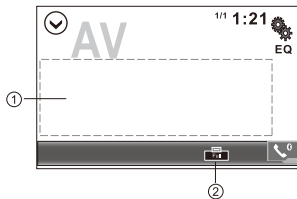


- ① Hides the touch panel keys. Touch anywhere on the screen to display the touch panel keys again.
- ② Changes the wide screen model.
- ③ Switch the operation screen.

### AV source

You can connect an external audio/video device to the unit.

- Connect the external audio/video device to the **VIDEO INPUT/AUDIO INPUT**.
- Turn on the AV input setting. Refer to the System setting page 19.



- ① Hides the touch panel keys. Touch anywhere on the screen to display the touch panel keys again.
- ② Changes the wide screen model.

### Camera View

A separately sold rear view camera is required for utilizing the rear view camera function. (For details, consult your dealer.)

### Rear view camera

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

### Camera for Camera View mode

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

To display the camera image, touch [Camera View] on the Top menu screen or AV source list screen.

Refer to "How to Use the screens" on page 8

To set the rear view camera as the camera for Camera View mode, set "Back Camera Input" to "On".

Refer to "System settings" on page 19.

### 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 shift lever is moved to REVERSE (R) from another position.
- When the screen changes to full-screen rear view camera image during normal driving, switch to the opposite setting in [Camera Polarity].
- If you touch [X] while the camera image is displayed, the displayed image will turn off temporarily.

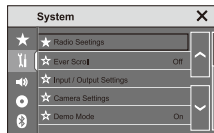
# Settings

## Setting menu

On the source menu, touch [  ] to enter setting menu.




The unit could not enter the setting menu when the system is busy, such as loading disc or USB.

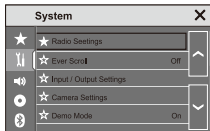
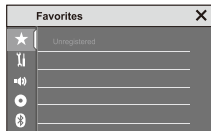
1. Touch and select the category.
2. Touch to select the desired.
- Touch to select the upper catalog.





## Favorites settings

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

1. Touch [  ] that you want to add to the favorite menu, and the icon change to [  ].
2. To cancel the registration, touch [  ] in the menu column again.



## System settings

1. Touch [  ], if necessary.
2. Touch to highlight a setting.
3. Touch to display/select an option.
4. Touch [  ] on the upper right of the screen to exit.

<b>Radio settings</b>	Refer to Radio on page 9.			
<b>Ever Scroll</b>	On	When it is set to "On", recorded text information scrolls continuously in the display. Set to "Off" if you prefer the information to scroll just once.		
	Off (default)			
<b>Input/Output Settings</b>	AV Input	On	Displays the video image output by the connected external device.	
		Off (default)		
	AUX Input	On (default)		
		Off		
<b>Camera Settings</b>	Back Camera Input	On or Off.	Select Back Camera Input On or Off.	
	Camera Polarity	Battery(default)/Ground		Select Camera Polarity Battery/Ground.
<b>Demo Mode</b>	On (default)	Select Demo On or Off.		
	Off			
<b>System Language</b>	You can select the system language from English/Spanish[Español]/Portuguese[Português]/Russian[Русский].			
<b>Restore Settings</b>	You can select the All Settings/System Settings/Audio settings/Video settings to reset.			
<b>Beep Tone</b>	On (default)	Select beep sound On or Off.		
	Off			
<b>Touch Panel Calibration</b>	Refer to "Touch Panel Calibration" on page 19.			
<b>Dimmer Settings</b>	Dimmer Trigger	Auto (default)	You can set Auto/Manual/Time if you need.	
		Manual		
		Time		
	Day/Night	Day (default)	Select Day or Night.	
Dimmer Duration	Refer to "Dimmer Duration" on page 19.			
<b>Picture Adjustment</b>	Brightness	Adjusts the black intensity.		
	Contrast	Adjusts the contrast.		
	Saturation	Adjusts the color saturation.		
<b>Steering Wheel Control</b>	Refer to "Steering Wheel Control" on page 20.			

### Note:

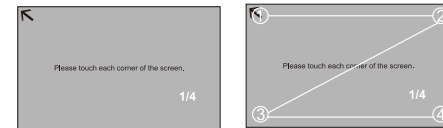
For safety reasons, you cannot use some of these functions while your vehicle is in motion. To enable these functions, you must stop in a safe place and apply the parking brake.




## Touch Panel Calibration

Calibrate the touch panel screen.

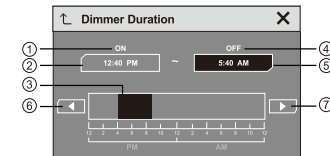
When the touch operation is not sensitive or valid, you should calibrate the touch panel screen using the calibration setting function.

Adjust the response positions of the touch panel as follows:



1. Press the [Touch Panel Calibration] option on the setting menu to enter.
2. Press and hold the corner of [  ] for 2 seconds, the [  ] will move automatically.
3. Aim at corner of [  ], follow the path as shown in the figure. Once steps 1/4-4/4 are complete the system will automatically exit calibrating mode.

## Dimmer Duration



- ① ON: Dimmer Begins
- ② When users touch this button, users can adjust "Dimmer Begins" time.
- ⑤ When "12 hours" is selected in Time setting menu, AM/PM doesn't appear. Otherwise "24 hours" is selected, AM/PM doesn't appear.
- ③ Users touch this area to adjust the time.
- ④ OFF: Dimmer Ends
- ⑥ Time can be adjusted by this button.
- ⑦ Time can be adjusted by this button.

# Settings

## Steering Wheel Control

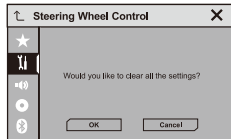
1. Touch [Steering Wheel Control], the SWC menu will display.



2. There are 9 default keys, and you can also set the function that you want.

Setting step as below:

1. Touch [Clear] to reset the default keys, and display as below:



2. Touch any key the current function key turns bright.
3. The function menu is displayed, as below:  
AV Source / [Mute] / [Mute] / [Mute] / [Mute] / [Mute] / [Mute] / [Mute] / [Mute] / [Band]
4. Select one function key that you want.
5. For example press [AV Source] on the function menu.
6. Display below picture and according to the prompt operate.



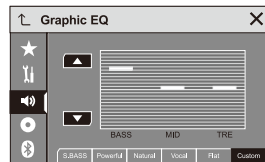
6. Press each individual steering wheel control button for each corresponding function.
7. When success, the current interface return to the previous menu automatically.
8. If you don't select, touch [Cancel] to cancel.
9. The other keys setting operation same to the [AV Source] key.
10. Once the final steering wheel control button is programmed, the functions are saved and the programming will end.

## Adjust Audio settings

1. Touch [Speaker icon].
2. Touch to highlight a setting.
3. Touch to display/select an option.
4. Touch [X] on the upper right of the screen to exit.

<b>Fader/Balance</b>	▲ (Front speaker)	Adjust fader/balance value from 0 to 12.	
	▼ (Rear speaker)		
	◀ (Left speaker)		
	▶ (Right speaker)		
<b>Graphic EQ</b>	Refer to "Graphic EQ" on page 19.		
<b>Loudness</b>	Off (default)	Select low frequency boost only or high and low frequency boost.	
	Low		
	High		
<b>Subwoofer</b>	Subwoofer	On (default)	Select subwoofer On or Off.
		Off	
	Level	Adjust level value from -24 to +6.	
	Frequency	80 Hz (default)	Select a crossover frequency to set a cutoff frequency for the subwoofer's LPF (low-pass filter).
120 Hz			
	160 Hz		
<b>Source Level Adjuster</b>	Refer to "Source Level Adjuster" on page 20.		
<b>DRC</b>	On (default)	Set the DRC (Dynamic Range Control) On or off.	
	Off		

## Graphic EQ



## Select Preset Equalizer

1. Enter the EQ setup mode  
Touch the [Graphic EQ] in Audio setting menu and the EQ setup interface will display on the screen.
2. Touch [▲] / [▼] to adjust the level of [BASS] / [MID] / [TRE].

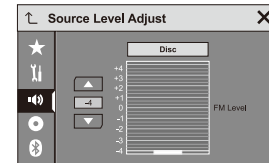
## Select EQ mode

Touch the desired EQ selection: [S.BASS] / [Powerful] / [Natural] / [Vocal] / [Flat] / [Custom], and the EQ mode will change.

### Notes:

- The EQ mode will change to 'Custom' automatically when you adjust the frequency value in all modes besides 'Custom'.
- The value of Sub is independent of EQ mode and can be adjusted separately.

## Source Level Adjuster



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

Touch [▲] / [▼] to increases / decreases the source volume.

### Notes:

- If you directly touch the area where the cursor can be moved, the Source Level Adjuster setting will be changed to the value of the touched point.
- The scope of adjustment: -4 to +4.
- 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.

## Adjust Video Settings

1. Touch [Video icon].
2. Touch to highlight a setting.
3. Touch to display/select an option.
4. Touch [X] on the upper right of the screen to exit.

# Settings

DVD/ DivX Setup	Subtitle Language	Select DVD subtitle/audio/menu language. Options available depending on DVD disc.	
	Audio Language		
	Menu Language		
	Multi Angle	On (default)	Turns the multi-angle setting on or off, only for CD/Video CD/DVD model.
		Off	
	TV Aspect	16:9 (default)	Displays the wide screen image (16:9) as it is (initial setting).
		Letter Box	Makes the image in the shape of a letterbox with black bands on the top and bottom of the screen.
Pan Scan		Cuts the image short on the right and left sides of the screen.	
Parental	Refer to "Setting parental lock" on page 21.		
DivX® VOD	Refer to the "Displaying the DivX® VOD registration code" or "Displaying the deregistration code" on page 21		
Time Per Photo Slide	5 sec	Select the time to switch to JPEG image.	
	10 sec (default)		
	15 sec		
manual	JPEG images can be switched manually.		

## Setting parental lock

- Touch [ 0 ] to [ 9 ] to input a four-digit code number and touch [ ↵ ] to enter.
- Touch any number between [ 1 ] to [ 8 ] to select the desired level.
  - 8:** Enables playback of the entire disc.
  - 7 to 2:** Enables playback of discs for children and non-adult oriented discs.
  - 1:** Enables only playback of discs for children.

- Touch [ ↵ ] set the parental lock level while the input number is displayed.

### Notes:

- We recommend that you keep a record of your code number in case you forget it.
- The parental lock level is recorder 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.

## Displaying the DivX® VOD registration code

In order to play DivX VOD (video on demand) contents on this unit, the unit must first be registered with a DivX VOD contents provider. For registration, generate a DivX VOD registration code and submit it to your provider.

- Keep a record of the code as you will need it when you register your unit to the DivX VOD provider.
- In Video settings menu, touch [DivX®VOD] to display the Registration code.
  - Touch [OK].

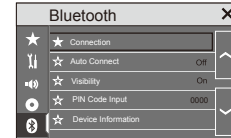
## Displaying the deregistration code

If your device is already registered, deregister it by entering the deregistration code.

- In Video settings menu, touch [DivX® VOD] to display the Deregistration code.
- The deregistration is complete.

## Adjust Bluetooth Settings

- Touch [ Ⓜ ].
- Touch to highlight a setting.
- Touch to display/select an option.
- Touch [ ✕ ] on the upper right of the screen to exit.



<b>Connection</b>	Refer to "Registering your Bluetooth devices" on page 12.	
<b>Auto Connect</b>	On	Refer to "Connecting to a Bluetooth device automatically" on page 12.
	Off	
<b>Visibility</b>	On	Refer to "Switching visibility" on page 12.
	Off	
<b>PIN Code Input</b>	Refer to "Entering the PIN code for Bluetooth wireless connection" on page 12.	
<b>Device Information</b>	Refer to "Displaying the device information" on page 12.	
<b>Auto Answer</b>	On	If the Auto Answer is set to Auto, then BT of the unit will answer the in-coming call automatically when the BT is already connected with your HFP device( Bluetooth must be "On"), otherwise you have to answer the in-coming call by press answer button of the remote or panel.
	Off	
<b>Ring Tone</b>	On	You can select whether or not to use this product's ring tone.. (Refer to "Switching the ring tone" on page 13.)
	Off	
<b>Bluetooth Memory Clear</b>	This setting is available only when you stop your vehicle in a safe place and apply the parking brake.(Refer to "Clearing the Bluetooth memory" on page 12.)	

# Connection/Installation

## Connecting the unit

### ⚠ WARNING

- To avoid the risk of accident and the potential violation of applicable laws, no viewing of front seat video should ever occur while the vehicle is being driven.
- In some countries or states the viewing of images on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed.

### ⚠ WARNING

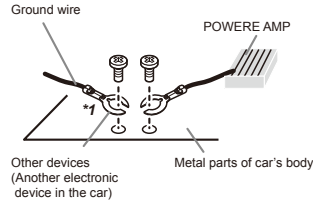
LIGHT GREEN LEAD AT POWER CONNECTOR IS DESIGNED TO DETECT PARKED STATUS AND MUST BE CONNECTED TO THE POWER SUPPLY SIDE OF THE PARKING BRAKE SWITCH. IMPROPER CONNECTION OR USE OF THIS LEAD MAY VIOLATE APPLICABLE LAW AND MAY RESULT IN SERIOUS INJURY OR DAMAGE.

### ⚠ CAUTION

- PIONEER does not recommend that you install or service your display unit yourself. Installing or servicing the product may expose you to risk of electric shock or other hazards. Refer all installation and servicing of your display unit to authorized Pioneer service personnel.
- Secure all wiring with cable clamps or electrical tape. Do not allow any bare wiring to remain exposed.
- Do not drill a hole into the engine compartment to connect the yellow cable of the display unit to the vehicle 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. Take extra care in securing the wire at this point.
- It is extremely dangerous to allow the microphone lead to become wound around the steering column or gearstick. Be sure to install the unit in such a way that it will not obstruct driving.
- Make sure that cables will not interfere with moving parts of the vehicle, such as the gearshift, parking brake or seat sliding mechanism.
- Do not shorten any cables. If you do, the protection circuit may fail to work properly.

### ⚠ WARNING

- Use speakers over 50 W (maximum input power) and between 4  $\Omega$  to 8  $\Omega$  (impedance value). Do not use 1  $\Omega$  to 3  $\Omega$  speakers for this unit.
- The black cable is ground. When installing this unit or power amp (sold separately), make sure to connect the ground wire first. Ensure that the ground wire is properly connected to metal parts of the car's body. The ground 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 ground wire loosens or falls out, it could result in fire, generation of smoke or malfunction.



\*No supplied for this unit.

### ➤ Important

- This unit cannot be installed in a vehicle without ACC (accessory) position on the ignition switch.



ACC position



No ACC position

- Use this unit with a 12-volt battery and negative grounding only. Failure to do so may result in a fire or malfunction.
- To prevent a short-circuit, overheating or malfunction, be sure to follow the directions below.
  - Disconnect the negative terminal of the battery before installation.
  - Secure the wiring with cable clamps or adhesive tape. Wrap adhesive tape around wiring that comes into contact with metal parts to protect the wiring.
  - Place all cables away from moving parts, such as the gear shift and seat rails.
  - Place all cables away from hot places, such as near the heater outlet.
  - Do not connect the yellow cable to the battery by passing it through the hole to the engine compartment.
  - Cover any disconnected cable connectors with insulating tape.
  - Do not shorten any cables.
  - Never cut the insulation of the power cable of this unit in order to share the power with other devices. The current capacity of the cable is limited.
  - Use a fuse of the rating prescribed.
  - Never wire the negative speaker cable directly to ground.

— Never band together negative cables of multiple speakers.

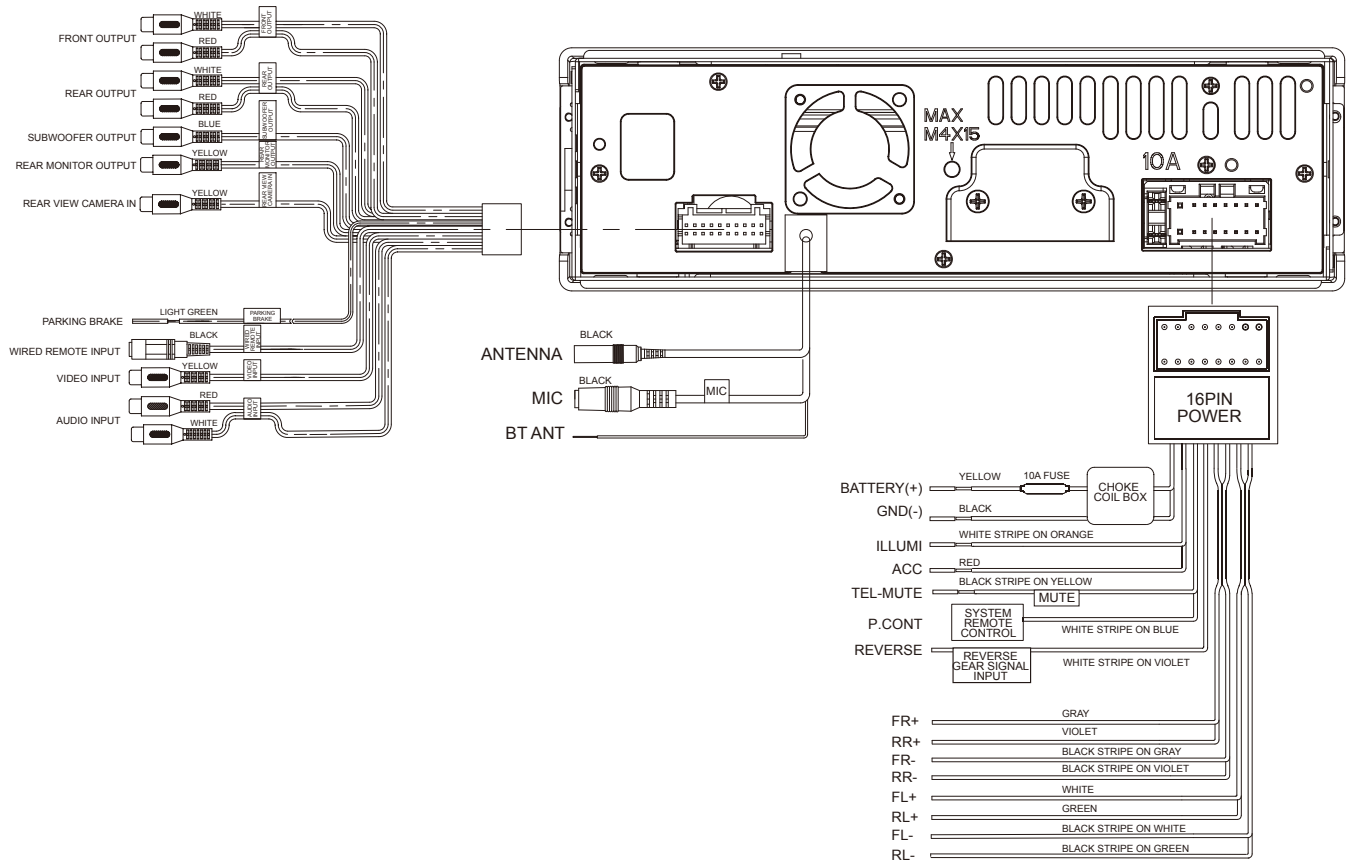
- When this unit is on, control signals are sent through the blue/white cable. Connect this cable to the system remote control of an external power amp or the vehicle's auto-antenna relay control terminal (max. 300 mA 12 V DC). If the vehicle is equipped with a glass antenna, connect it to the antenna booster power supply terminal.
- Never connect the blue/white cable to the power terminal of an external power amp. Also, never connect it to the power terminal of the auto antenna. Doing so may result in battery drain or a malfunction.

## Notes of connection

- This unit is designed to be used in a vehicle with a 12-volt battery and negative grounding. Before installing this unit to a recreational vehicle, a bus, or a truck, make sure the battery voltage is appropriate for this unit to be used, otherwise, install a transformer by professional to convert the output voltage to 12V.
- Replacing a new fuse with 10A rating when the old one is broken, using no fuse or fuse with improper rating may cause damage to this unit or even fires. If a proper fuse is installed and electrical problems still occur, please contact with any professional car shops for inquiry.
- DO NOT connect other equipments with the car battery to avoid battery overheating.
- Please make sure all the wiring connections & the cables of the speakers are well-insulated. Otherwise, this unit may be damaged by short circuit.

# Connection/Installation

## Wiring diagram



# Connection/Installation

## Control Cables

### Auto Brightness Control

To avoid the display being too bright at night time, if the headlight cable is connected to ILLUMI, turning on the headlight will dim the backlight of the TFT LCD and vice versa.

### Telephone Mute

If the MUTE cable is connected to a car phone, other audio outputs mute when one call is received by the car phone.

### Reverse Driving

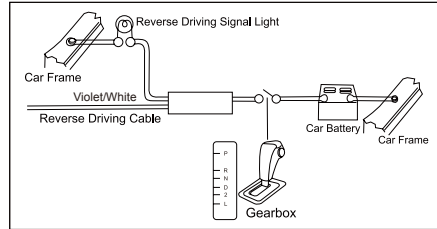
If a rear view camera is connected with the unit, the playing source switches to CAMERA automatically when you start reverse driving.

As the reverse driving is done, the playing source switches to the previous.

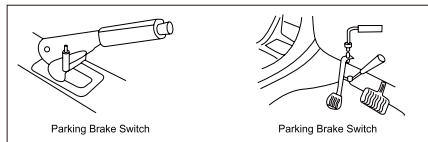
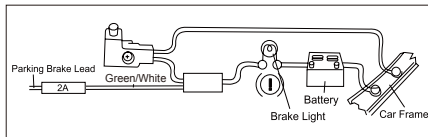
### Parking Brake

1. If "PARKING BRAKE" cable is connected to hand brake switch, video display on the TFT monitor will be controlled by this function. Parking cable function ceases when the playing source is CAMERA.
2. The monitor displays the black screen with warning information to prevent the driver watching video contents during driving, but the passengers at the rear seat can watch video contents normally.

## Reverse Driving Cable Connections



## Parking Brake Cable Connections



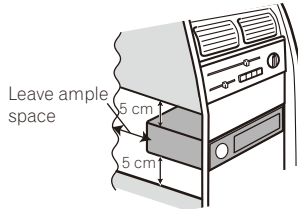


# Connection/Installation

## Installation

### Notes of installation

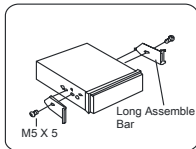
- Before installation, please make sure proper connections are conducted and the unit operates normally. Improper connection may result in damage to the unit.
- Use only accessories designed and manufactured for this unit and other unauthorized accessories may result in damage to the unit.
- Before installation, please fasten all power cables.
- DO NOT install the unit in the place where close to hot area to prevent damage to electrical components such as the laser head.
- Install the unit horizontally. Installing the unit more than 30 degree vertically may result in worse performance.
- DO NOT block the cooling fan exit to ensure sufficient heating dissipation of this unit, or it may result in damage to this unit.



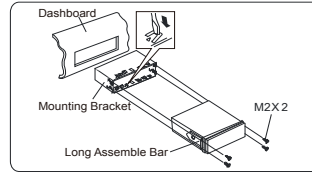
### Unit Installation

#### Method A

1. Insert mounting bracket into dash board, choose appropriate mounting tab according to the gap width, bending the mounting tab outwards with a screwdriver to fix the mounting bracket in place.
2. Use 2 pieces of M5x5 cone shaped screw to fix two assemble bars on both sides of the unit. (see picture 1)



(Picture 1)



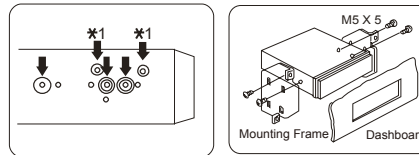
(Picture 2)

3. Insert the unit into the bracket, and use 4 pieces of M2x2 screw to lock the assemble bars and the mounting bracket in position.

#### Note:

According to the depth of the opening, use different position of M5 screw holes on the unit accordingly. If the opening is too shallow, the monitor may be extended out 10mm from the dashboard.

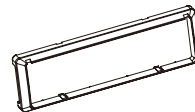
#### Method B



1. Insert this unit directly to the opening of the dashboard.
2. Place M4x3, M5x5 cylindrical screw or M5x5 cone shaped screw through the holes of the mounting frame located inside the opening to holes of the unit and fasten the screws to left & right.

### Trim Ring installation

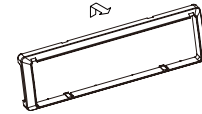
Attach the trim ring around the front panel with two indentions on one side facing upwards



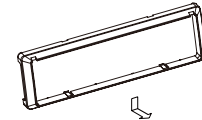
## Uninstall

### Disassemble trim ring

1. Push the trim ring upward and pull out the upper part.

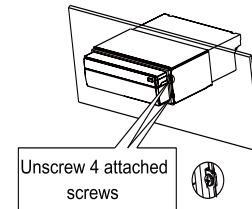


2. Push the trim ring downward and pull out the lower part.



### Disassemble the unit

1. Unscrew the 4 pieces M2x2 screws.
2. Use a screwdriver to bend straight the bended mounting tab and tip out the unit from the mounting bracket.



3. Pull out the unit from the mounting bracket with both hands.

# Appendix

## Troubleshooting

### Common

Symptom	Cause	Action
The power will not turn on. The unit will not operate.	Leads and connectors are incorrectly connected.	Confirm once more that all connections are correct.
	The fuse is blown.	Rectify the cause and then replace the fuse. Be sure to install a fuse with the same rating.
	Noise and/or other factors are causing the built-in microprocessor to operate incorrectly.	Press <b>RESET</b> .
Operation with the remote control is not possible. The unit does not operate correctly even when the appropriate remote control buttons are pressed.	Battery power is low.	Load a new battery.
There is no sound. The volume level will not rise.	Cables are not connected correctly.	Connect the cables correctly.
The aspect ratio is incorrect and the image is stretched.	The aspect ratio setting is incorrect for the display.	Select the appropriate setting for your display.
There is no image displayed.	The parking brake cable is not connected.	Connect the parking brake cable, and apply the parking brake.
The image displayed stops (pauses) and the unit cannot be operated.	The data could no longer be read during playback.	Stop playback once, and start playback again.
There is no sound. The volume level is low.	The volume level is low.	Adjust the volume level.

The sound and video skip.	The unit is not firmly secured.	Firmly secure the unit.
Sub-folders cannot be played back.	Folder repeat play has been selected.	Select the repeat range again.
	Another folder was selected during repeat play.	Select the repeat range again.
The repeat range changes automatically.	Track search or fast forward/reverse was performed during file repeat play.	Select the repeat range again.
	There is a call in progress on a Bluetooth connected cellular phone.	The sound will be played back when the call is terminated.
The sound from the Bluetooth audio source is not played back.	A Bluetooth connected cellular phone is currently being operated.	Do not operate the cellular phone at this time.
	A call was made with a Bluetooth connected cellular phone and then immediately terminated.	Reconnect the Bluetooth connection between this unit and the cellular phone.
	As a result, communication between this unit and the cellular phone was not terminated properly.	

### Error messages

When you contact your dealer or your nearest Pioneer Service Center, be sure to note the error message.

Message	Cause	Action
Bad Disc	Disc is dirty.	Clean disc with soft cloth.
	Disc is upside down.	Insert disc with label side up.
Unsupported Video	The video resolution exceeds 720X576.	Change to a supported file.
Unsupported format	File format is not compatible with this unit.	Change to a supported file.
File Error	File format is not compatible with this unit.	Change to a supported file.
Disc region incorrect	Disc format is not compatible with this unit.	Change another disc.
Amplifier Error!	Unit fails to operate or speaker connection is incorrect; protective circuit is activated.	Check the speaker connection. If the message fails to disappear even after the engine is switched off/on, contact your dealer or an authorized Pioneer Service Station for assistance.
Format read	Disc or storage device is being read.	Please wait, it may take several minutes for some disc or storage device.
Check USB	The USB over rated current.	Check the USB device or change the USB device.

# Appendix

## Handling guidelines

### Discs and player

Use discs featuring any of the following logos.



Use 12-cm discs. Do not use 8-cm discs or an adapter for 8-cm discs.

Use only conventional, fully circular discs. Do not use shaped discs.



Do not insert anything other than a DVD-R/RW or CD-R/RW into the disc loading slot.

Do not use cracked, chipped, warped, or otherwise damaged discs as they may damage the player.

Unfinalized CD-R/RW discs cannot be played back.

Do not touch the recorded surface of the discs.

Store discs in their cases when not in use.

Do not attach labels, write on or apply chemicals to the surface of the discs.

To clean a disc, wipe the disc with a soft cloth outward from the center.

Condensation may temporarily impair the player's performance. Let it rest for about one hour to adjust to a warmer temperature. Also, wipe any damp discs off with a soft cloth.

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.

Certain functions may not be available for some DVD video discs.

It may not be possible to play back some DVD video discs.

It is not possible to play back DVD-RAM discs.

This unit is not compatible with discs recorded in AVCHD (Advanced Video Codec High Definition) format. Do not insert AVCHD discs as you may not be able to eject the disc.

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 commercially available labels or other materials to the discs.

- The discs may warp making the disc unplayable.
- The labels may come off during playback and prevent ejection of the discs, which may result in damage to the equipment.

### DVD-R/RW discs

Unfinalized DVD-R/RW discs which have been recorded in the Video format (video mode) cannot be played back.

Playback of DVD-R/RW discs may not be possible, due to disc characteristics, scratches or dirt on the disc, or dirt, condensation, etc. on the lens of this unit.

Depending on the application settings and the environment, playback of discs recorded on a personal computer may not be possible. (For details, contact the manufacturer of the application.)

### CD-R/RW discs

When CD-R/RW discs are used, playback is possible only for discs which have been finalized.

Playback of CD-R/RW discs recorded on a music CD recorder or a personal computer may not be possible due to disc characteristics, scratches or dirt on the disc, or dirt, condensation, etc., on the lens of this unit.

Depending on the application settings and the environment, playback of discs recorded on a personal computer may not be possible. (For details, contact the manufacturer of the application.)

Playback of CD-R/RW discs may become impossible in case of direct exposure to sunlight, high temperatures, or the storage conditions in the vehicle.

Titles and other text information recorded on a CD-R/RW discs may not be displayed by this unit (in the case of audio data (CD-DA)).

### 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 unit.

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 unit.

Frequent loading and ejecting of a DualDisc may result in scratches on the disc.

Serious scratches can lead to playback problems on this unit. 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 unit.

Please refer to the information from the disc manufacturer for more detailed information about DualDiscs.

### USB storage device

- Address any questions you have about your external storage device (USB) to the manufacturer of the device.
- Do not leave the external storage device (USB) in places with high temperatures.
- Depending on the external storage device (USB), the following problems may occur.
  - Operations may vary.
  - The storage device may not be recognized.
  - Files may not be played back properly.
- Connections via USB hub are not supported.
- Do not connect anything other than a USB storage device.
- Firmly secure the USB storage device when driving. Do not

# Appendix

let the USB storage device fall onto the floor, where it may become jammed under the brake or accelerator pedal.

- 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 pedal.
- Depending on the USB storage device, the device may cause noise to occur in the radio.
  - The device may generate noise in the radio.
- This unit can play back files in the USB portable audio player/USB memory that is USB Mass Storage Class. However, copyright protected files that are stored in the USB devices cannot be played back.
- You cannot connect a USB portable audio player/USB memory to this unit via USB hub.
- Partitioned USB memory is not compatible with this unit.
- Depending on the kind of USB portable audio player/USB memory you use, the device may not be recognized or audio files may not be played back properly.
- Do not leave the USB portable audio player/USB memory in direct sunlight for extended amounts of time. Doing so may cause the device to malfunction from the extreme rise in temperature.
- Up to 300 folders and 2 000 files can be recognized.

## ⚠ CAUTION

Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using this product.

- There may be a slight delay at the start of playback of audio files embedded with image data or audio files stored on a USB storage device that has numerous folder hierarchies.

## JPEG picture files

JPEG is short for Joint Photographic Experts Group and refers to a still image compression technology standard.

There is no progressive JPEG compatibility.

## ► Important

- When naming a JPEG image file, add the corresponding filename extension (.jpg, .jpeg, .jpe or .jif).
- This unit plays back files with these filename extensions (.jpg, .jpeg, .jpe or .jif) as a JPEG image file. To prevent malfunctions, do not use these extensions for files other than JPEG image files.

## ⚠ CAUTION

Pioneer accepts no responsibility for data lost on the USB memory/USB portable audio player even if that data is lost while using this unit.

## DivX video files

Depending on the composition of the file information, such as the number of audio streams or file size, there may be a slight delay when playing back discs.

Some special operations may be prohibited due to the composition of the DivX files.

Only DivX files downloaded from a DivX partner site are guarantee for proper operation. Unauthorized DivX files may not operate properly.

DRM rental files cannot be operated until playback is started.

Recommended file size: 2 GB or less with a transmission rate of 2 Mbps or less.

The ID code of this unit must be registered to a DivX VOD provider in order to playback DivX VOD files. For information on ID codes, refer to Displaying the DivX® VOD registration code in this manual.

For more details about DivX, visit the following site:  
<http://www.divx.com/>

## MPEG-1/MPEG-2/MPEG-4 video files

Elapsed playback time may not be displayed correctly.

## Compressed audio compatibility (disc, USB)

### WMA

File extension: .wma

Bit rate: 16 kbps to 320 kbps (CBR), VBR

Sampling frequency: 8 kHz to 48 kHz

Windows Media™ Audio Professional, Lossless, Voice/DRM Stream/Stream with video: Not compatible

### MP3

File extension: .mp3

Bit rate: 16 kbps to 320 kbps (CBR), VBR

Sampling frequency: 8 kHz to 48 kHz

Compatible ID3 tag version: 1.0, 1.1, 2.2, 2.3 (ID3 tag Version 2.x is given priority over Version 1.x.)

M3u playlist: Not compatible

MP3i (MP3 interactive), mp3 PRO: Not compatible

## AAC

Compatible format: AAC encoded by iTunes

File extension: .m4a

Sampling frequency: 11.025 kHz to 48 kHz

Bit rate: 16 kbps to 320 kbps

Apple Lossless: Not compatible

AAC file bought from the iTunes Store (.m4p file extension): Not compatible

## DivX compatibility

Compatible format: DivX video format implemented in relation to DivX standards.

File extensions: .avi or .divx

DivX Ultra format: Not compatible

DivX HD format: Not compatible

DivX files without video data: Not compatible

DivX plus: Not compatible

Compatible audio codec: MP2, MP3, Dolby Digital

LPCM: Compatible

Bit rate: 16 kbps to 320 kbps (CBR), VBR

Sampling frequency: 8 kHz to 48 kHz

Compatible external subtitle file extension: .srt

## MPEG-1/MPEG-2/MPEG-4 video

File extensions: .mpg or .mpeg (MPEG-1/MPEG-2), .avi (MPEG-4)

# Appendix

Compatible audio codec:  
MP2 (MPEG-1/MPEG-2), MP2, MP3, Dolby Digital

LPCM: Not compatible

Bit rate: 16 kbps to 320 kbps (CBR), VBR

Sampling frequency: 8 kHz to 48 kHz

	Version	Bitrate	Input Sample rate	Output Sample rate
MPEG	V1/L1	32k--448k	32K, 44.1K, 48K	32K, 44.1K, 48K
	V1/L2	32k--192k(single channel), 64K, 96K->384K (2 channel)	32K, 44.1K, 48K	
	V2/L2	8k--192k(single channel), 32K, 48K->640K (multi channel)	22.05K(LSF), 32K, 44.1K, 48K	

## Supplemental information

Some characters in a file name (including the file extension) or a folder name may not be displayed.

This unit may not work properly depending on the application used to encode WMA files.

There may be a slight delay at the start of playback of audio files embedded with image data or audio files stored on a USB storage device that has numerous folder hierarchies.

## Disc

File system: ISO 9660 Level 1 and 2, Romeo, Joliet, UDF 1.02 (DVD-R/RW)

Regardless of the length of blank sections between the songs from the original recording, compressed audio discs play with a short pause between songs.

## External storage device (USB)

Playable folders: up to 300

Playable files: up to 2 000

Playable of copyright-protected files: Not compatible

Partitioned external storage device (USB): Only the first playable partition can be played.

There is no compatibility for Multi Media Cards (MMC).

### CAUTION

- Pioneer accepts no responsibility for data lost on the USB memory/USB portable audio player even if that data is lost while using this unit.
- Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using this product.
- Do not leave the discs/external storage device (USB) or iPod in places with high temperatures.

## Sequence of audio files

The user cannot assign folder numbers and specify playback sequences with this unit.

### Disc

Folder selection sequence or other operation may differ depending on the encoding or writing software.

External storage device (USB)

The playback sequence is the same as the recorded sequence in the external storage device (USB).

To specify the playback sequence, the following method is recommended.

- Create a file name that includes numbers that specify the playback sequence (e.g., 01xxx and 099yyy).
- Put those files into a folder.
- Save the folder that contains the files to the external storage device (USB).

However, depending on the system environment, you may not be able to specify the playback sequence.

For USB portable audio players, the sequence is different and depends on the player.

## Using the display correctly

### CAUTION

- If liquid or foreign matter should get inside this unit, turn off the power immediately and consult your dealer or the nearest authorized PIONEER Service Station. Do not use the unit in this condition because doing so may result in fire, electric shock, or

other failure.

- If you notice smoke, a strange noise or smell, or any other abnormal signs from the display, turn off the power immediately and consult your dealer or the nearest authorized PIONEER Service Station. Using this unit in this condition may result in permanent damage to the system.
- Do not disassemble or modify this unit, as there are high-voltage components inside which may cause electric shock. Be sure to consult your dealer or the nearest authorized PIONEER Service Station for internal inspection, adjustments, or repairs.

## Handling the display

- Never touch the screen with anything besides your finger when operating the touch panel function. The screen can scratch easily.
- When the display is subjected to direct sunlight for a long period of time, it will become very hot resulting in possible damage to the LCD screen. You should avoid exposing the display unit to direct sunlight as much as possible.
- The display should be used within the temperature range of -20°C to +60°C.

At temperatures higher or lower than this operating temperature range, the display may not operate normally.

- The LCD screen is exposed in order to increase its visibility within in the vehicle. Do not press it strongly on it as this may damage it.

## Liquid crystal display (LCD) screen

- Heat from the heater may damage the LCD screen, and cool air from the cooler may cause moisture to form inside the display resulting in possible damage. Also, if the display is cooled down by the cooler, the screen may become dark, or the life span of the small fluorescent tube used inside the display may be shortened.
- 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.
- When using a cellular phone, keep the antenna away from the display to prevent disruption of the video image by the appearance of spots, colored stripes, etc.

## Keeping the display in good condition

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

# Appendix

## LED (light-emitting diode) backlight

- At low temperatures, using the LED backlight may increase image lag and degrade the image quality due to the characteristics of the LCD screen. Image quality will improve with an increase in temperature.
- To protect the LED backlight, the display will darken in the following environments:
  - In the direct sunlight
  - Near the heater vent
- 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 dark and the image will no longer be projected. In such cases, please consult your dealer or the nearest authorized PIONEER Service Station.

## Copyright and trademark

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.

### DVD video

 is a trademark of DVD Format/Logo Licensing Corporation.

### MP3

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### WMA

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### DivX®

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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](http://vod.divx.com). Find your registration code in the DivX VOD section of your device setup menu.

### Dolby Digital

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

### Bluetooth

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by PIONEER CORPORATION is under license. Other trademarks and trade names are those of their respective owners.

### 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.

### FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body

# Appendix

## Specifications

### General

Rated power source .....	14.4 V DC (allowable voltage range: 10.8 V to 15.1 V DC)
Preout maximum output level .....	2 V
Maximum current consumption ....	10.0 A
Dimensions (W × H × D):	
Chassis.....	178 mm x 50 mm x 158 mm
Nose .....	188 mm x 58 mm x 35.5 mm
Weight .....	2.0 kg

### Display

Screen size/aspect ratio .....	7 inch wide/16:9 (effective display area: 154.08*85.92 mm)
Pixels .....	800*480

### DVD Player

System.....	DVD video, Video CD, CD, WMA, MP3, DivX, JPEG, AAC, MPEG4
Usable disc.....	DVD video, Video CD, CD, CD-R/RW, DVD±R/RW/R DL
Region number.....	4 for Latin America models 2 for Middle East Asian models
Frequency response.....	20 Hz to 20 kHz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio.....	75 dB (1 kHz) (IEC-A network) (RCA level)
Output level:	
Video .....	1.0 Vp-p/75 Ω (±0.2 V)
Number of channels .....	2 (stereo)
MP3 decoding format .....	MPEG-1 & 2 Audio Layer 3
WMA decoding format.....	Ver. 7, 8, 9 (CBR, VBR) (Support 353 format)
AAC decoding format .....	Support AAC LC (2ch)
MPEG video decoding format.....	MPEG-1/MPEG-2/MPEG-4 video
DivX decoding format .....	Home Theater Ver. 3, 4, 5, 6 (.avi, .divx)
DVD video output .....	NTSC

### Audio

Maximum power output .....	50 W × 4
Continuous power output.....	22 W × 4 (50 Hz to 15 000 Hz, 10 %THD, 4 Ω load, both channels driven)
Load impedance .....	4 Ω (4 Ω to 8 Ω (2 Ω for 1 ch) allowable)
Preout maximum output level .....	2 V
Equalizer.....	3-Band Parametric Equalizer
Gain .....	-12 dB to + 12 dB

### Subwoofer (mono):

Frequency.....	80 Hz/120 Hz/160 Hz
Gain .....	-79 dB to 0 dB

### USB

USB standard specification .....	USB 1.1, USB 2.0 high speed
Maximum current supply .....	500 mA
File system .....	FAT 16, FAT 32

### FM tuner

Frequency range .....	87.5 MHz to 108.0 MHz
Usable sensitivity.....	15 dBuV (S/N: 30 dB)

### AM tuner

Frequency range .....	531 kHz to 1 602 kHz (9 kHz) 530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity.....	30 dBuV (S/N: 20 dB)

### Bluetooth

Version .....	V2.1+EDR
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### Note:

Specifications and the design are subject to modifications without notice.

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