Using an iPod (iPod)

Narrowing down a video with the list

1 Touch the category you want.



- 2 Touching ☑ or ☑ switches the selection to the next or previous page in the list.
- **3** Touch the item that you want to refine. Refine the item until the track title is displayed on the list.
- 4 On the video list, touch the video you want to play.
 - After you select the video using this function, touching [Menu] displays the list previously selected.

Searching for applicable items alphabetically

Using the search control displays the page which includes the first applicable option.

☐ This function is available for the alphabetical list only.



Search control

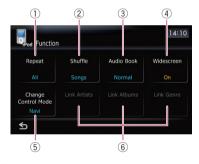
- 1 Touch the category you want.
- 2 Touch the item that you want to refine.
- 3 Touch [◄] or [▶] to select the character.
 - An article listed below and space at the beginning of the artist name will be ignored

and the next character will be taken into account for searching.

- "A" or "a"
- "AN", "An", or "an"
- "THE", "The", or "the"
- 4 Touch the character key to display the page which includes applicable options.
- 5 On the video list, touch the video you want to play. ■

Using the "Function" menu

- 1 Touch [iPod] on the "AV Source" menu to display the control screen for "iPod".
 - ➡ For details concerning operations, refer to Screen switching overview on page 34.
- 2 Touch 🕸 .



Setting repeat play

There are two repeat play types for play-back.

Each touch of [**Repeat**] changes the setting as follows:

- One Repeats just the current track
- All Repeats all tracks in the selected list

2 Setting the shuffle play for music

This function shuffles songs or albums and plays them in random order.

Each touch of [**Shuffle**] changes the setting as follows:

- Off Does not shuffle.
- Shuffle Songs Plays back songs in random order within the selected list

Using an iPod (iPod)

- Shuffle Albums Selects an album randomly, and then plays back all songs in that album in order
- 3 Setting the audiobook play speed While listening to an audiobook on iPod, playback speed can be changed. Each touch of [Audio Book] changes the setting as follows:
 - Normal Playback in normal speed
 - Slower Playback slower than normal sneed.
 - Faster Playback faster than normal speed
- Playback video in wide screen mode If the video is compatible with wide screen format, set [Widescreen] to [On] in order to view the video image in the wide screen. Each touch of [Widescreen] changes the setting as follows:
 - On Outputs the wide-screen video from iPod
 - Off Outputs the normal-sized video from iPod
 - Display size is changed after you change "Widescreen" setting and select the video to play.
 - ☐ This setting is available only during the video operation.

5 Setting iPod control mode

While the control mode is set to iPod, you can operate iPod function from the connected iPod.

Each touch of [Change Control Mode] changes the setting as follows:

- Navi This navigation system's iPod function can be operated from this navigation system.
- iPod This navigation system's iPod function can be operated from the connected iPod.
- Playing songs related to the currently playing song

Songs related to the currently playing song are played. You can play songs of the following lists.

- · Artist list of currently playing genre
- Album list of currently playing artist
- Song list of currently playing album

- Depending on the number of files in the iPod, there may be a delay when displaying a list.
- **Link Artist** Songs related to the currently playing artist will be played.
- Link Album Songs related to the currently playing album will be played.
- **Link Genre** Songs related to the currently playing genre will be played.

Using the Bluetooth audio player

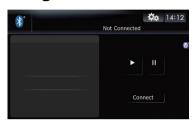
You can control the Bluetooth audio player featuring Bluetooth wireless technology.

- Before using the Bluetooth audio player, you need to register and connect the device to this navigation system.
 - ⇒ For more details of the operation, refer to Registering and connecting the Bluetooth device on page 76.
- Depending on the Bluetooth audio player connected to this navigation system, the available operations with this navigation system are limited to the following two leyels:
 - A2DP profile (Advanced Audio Distribution Profile): Only playing back songs on your audio player is possible.
 - AVRCP profile (Audio/Video Remote Control Profile): Playing back, pausing, selecting songs, etc., are possible.
- ☐ Since there are a number of Bluetooth audio players available on the market, operations with your Bluetooth audio player using this navigation system vary greatly in range. Please refer to the instruction manual that came with your Bluetooth audio player as well as this manual while operating your player on this navigation system.
- While you are listening to songs on your Bluetooth audio player, please refrain from operating your cellular phone as much as possible. If you try operating on your cellular phone, the signal from your cellular phone may cause a noise on the song playback.
- Even if you switch to another source while listening to a song on your Bluetooth audio player, the playback of song continues to elapse.
- Depending on the Bluetooth audio player you connected to this navigation system, operations on this navigation system to control the player may differ from those explained in this manual.

Touch [Bluetooth Audio] on the "AV Source" menu to display the "Bluetooth Audio" screen.

⊃ For details concerning operations, refer to *Screen switching overview* on page 34.

Reading the screen



- 1 Source icon
 - Shows which source has been selected.
- ② Track number indicator
- 3 Play time indicator

Shows the elapsed playing time within the current track.

- 4 Device name
- (5) Bluetooth connection status indicator
- 6 File number indicator

Shows the file number currently playing.

7) Track title indicator*

Shows the title of the track currently playing (when available).

Artist name indicator*

Shows the artist name currently playing (when available).

Album title indicator*

Shows the title of the album for the current track (when available).

10 Playback condition indicator

The marks shown below appears and indicates the current playback condition.

: Random play

: Repeat play

Indicator	Meaning
Media Repeat	All audio files in the current
ALL REPEAT RAMDOM	 Bluetooth audio player are played repeatedly. This is the default condition.

Using the Bluetooth audio player

Track Repeat	The current file is played repeatedly.
Track Repeat Random	
Media Random	All audio files in the current Bluetooth audio player are played in random order.

⊃ For more information, refer to *Using the* "Function" menu on page 132. ■

Using the touch panel keys

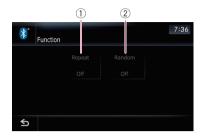


- 1) Display the "Function" menu
 - → For details, refer to Using the "Function" menu on page 132.
- ② Connect the Bluetooth audio player Touching [Connection] connects the Bluetooth audio player manually.

Using the "Function" menu

- 1 Touch [Bluetooth Audio] on the "AV Source" menu to display the "Bluetooth Audio" screen.
 - **⊃** For details concerning operations, refer to *Screen switching overview* on page 34.

2 Touch 🔅 .



Repeating play

Each touch of [**Repeat**] changes the setting as follows:

- All Repeat Repeats all compressed audio files in the Bluetooth audio player
- Track Repeat Repeats just the current track
- Off Does not repeat.
- If you skip the file forward or backward when the repeat play range in "Track Repeat", the repeat play range changes to "All Repeat".

2 Play tracks in a random order

Random play lets you playback tracks in random order within the current repeat range.

Touching [Random] switches between "On" and "Off". ■

You can use the navigation system to control an XM satellite digital tuner, which is sold separately.

For details concerning operation, refer to the XM tuner's operation manuals. This section provides information on XM operations with the navigation system which differs from that described in the XM tuner's operation man

The following XM satellite digital tuner units cannot be connected:

GEX-P900XM, GEX-P910XM

Reading the screen

ALL CH MODE

Cannot capture

CATEGORY MODE

Cannot capture

About the logo for channel name

Only the logo data that is contained in the navigation system can be displayed for each channel. The logo of a newly established channel that is not contained cannot be displayed. When no logo may be displayed, the following substitute icon is displayed.

Substitute icon



- ☐ The icon of each broadcast station is contained in the hard disk drive based on the data provided by XM Satellite Radio as of December 2008.
- Any changes made by XM Satellite Radio in the lineup or icon of the broadcast station in the future may not be supported by the navigation system, and may cause the unit to display incorrect icons.
- 1 Source icon

Shows which source has been selected.

2 XM band indicator

Shows the XM band that has been selected.

3 Preset number indicator

Shows what preset item has been selected.

- XM channel number indicator
 Shows the XM channel number the tuner is
 currently tuned to.
- (5) Current time
- 6 XM channel category

Shows the category of broadcast channel.

(7) XM channel select mode indicator Shows what channel select mode has been

selected. You can select a channel from all channels in **ALL CH MODE**, and select a channel from selected category in

CATEGORY MODE.

- (8) XM station name logo
 - □ The message "ON THE AIR" disappears if the navigation system cannot receive XM tuner reception for some reason.
- 9 XM station name indicator

Shows the XM broadcast station name the tuner is currently tuned in.

(10) Detail information

Shows the detailed information of the broadcast channel currently being received.

Using the touch panel keys

- Touch [XM] on the "AV Source" menu to display the "XM" screen.
 - **⇒** For details concerning operations, refer to *Screen switching overview* on page 34.

ALL CH MODE

Cannot capture

CATEGORY MODE

Cannot capture

- Memorize the current sona
 - **⊃** For details, refer to *Memorizing the song* on the next page.
- ② Display the "Function" menu
 - ➡ For details, refer to Using the "Function" menu on page 147.
- 3 Recalling channels from the preset Touch to recall the preset channel.
- 4 Perform manual tuning

The channels move up or down one at a time.

- ☐ If you keep touching [◄] or [►] you can skip the broadcasting channels.
- ⑤ Select an XM band

Touch [Band] repeatedly until the desired XM band is displayed: XM 1, XM 2 or

XM 3. This is useful for switching the preset item.

- 6 Preset key for receiving the traffic audio service
 - → For details, refer to Using the direct traffic announcement function on page 147.
- Switching the XM channel select mode You can switch the mode between the two methods for selecting and listing the chan-

ALL CH MODE:

nel.

You can select a channel from all channels when you operate this function.

CATEGORY MODE:

You can select a channel within a selected category that you operate this function.

- 8 Selecting an XM channel directly
 - **⇒** For details, refer to *Selecting an XM channel directly* on this page.
- 9 Switching to the list display

You can select the desired channel from the list display.

- **⊃** For details, refer to *Selecting a channel from the list* on the next page.
- Switching the channel category
 Touch [◄] or [►] to select the desired category.

Selecting an XM channel directly

You can select an XM channel directly by entering the desired channel number.

- 1 Touch [Direct].
- 2 Touch [0] to [9] to input the desired channel number.

To cancel the input numbers, touch [Clear].

3 While the input number is displayed, touch [Enter].

The XM channel that was entered is selected.

4 Touch 5.

You return to the previous display.

Displaying the Radio ID

If you select CH: 000, the Radio ID is displayed.

- 1 Touch [Direct].
- 2 Input [000] and then touch [Enter].

If you select another channel, display of the Radio ID is canceled.

Storing and recalling broadcast stations

With a touch of any of the preset tuning keys ([P1] to [P6]), you can easily store up to six broadcast channels for later recall (also with the touch of a key).

- 1 Select the channel that you want to store in memory.
- 2 Touch [Preset] to display the preset list.
- 3 Keep touching a preset tuning key [P1] to [P6].

The selected station has been stored in memory.

The next time you touch the same preset tuning key [P1] to [P6] the station is recalled from memory.

- ☐ Up to 18 stations, 6 for each of three XM bands can be stored in memory.
- ☐ You can also touch [◄] or [►] to recall stations assigned to preset tuning keys [P1] to [P6] in the detailed information display during the "ALL CH MODE".

Selecting a channel from the list

The list content can be switched so you can search for the track you want to listen to not only by the channel name but also by the artist name or song title.

☐ The channel list shows all channels during ALL CH MODE, and the channels included in the selected category during CATEGORY MODE. To switch the channel mode, touch [Mode].

1 Touch [List].

XM channel list appears in the display. Each touch of [**List**] changes the screen as follows:

Detail information display or Preset list display — CH name list (Channel name) — Song title list (Song title) — Artist name list (Artist name)

2 Touch the desired channel that you want to listen to.

Cannot capture

- □ During CATEGORY MODE, touch [◄] or [▶] to switch to another category.
- When the list switching operation is started from the detailed information display, the preset list appears in the end of the list selection.

Using "My Mix" function

"My Mix" function memorizes the song title and artist name of the song currently being received. When the song that matches the memorized song title and artist name is being broadcast on a station other than the one you are listening to, you will be alerted, and you can switch the station to listen to that song.

A track itself is NOT downloaded. ONLY the song title and the artist name are memorized.

Memorizing the song

The song title and artist name of the song you are listening to can be memorized to "My Mix".

Touch [Memo].

The song title and artist name of current song you are listening to are memorized, and a confirmation message appears.

The song title and artist name of up to 12 songs can be memorized. Trying to save more than 12 songs will result in older ones being overwritten.

- ☐ You cannot memorize the song title or the artist name when "----" is displayed on the title information.
- ☐ This function is invalid for the channel "000"
- ☐ The memorized title may not be displayed correctly depending on the conditions.
- You can customize the setting for the memorized songs later.
 - For more details concerning the operation, refer to Setting the memorized songs on the next page.

When the memorized song is broadcast

A beep sounds, and a message is displayed. Touch **[Yes]** to switch to that station and listen to that track.

- If the memorized song is not checked or when [Off] is selected on [Alert] on "MEMO Edit" screen, no alert will be provided.
 - ⇒ Refer to **Setting the memorized songs** on the next page.
- Notification may not be provided depending on the status of the Navigation System.
- If there is even a slight difference between the memorized title and the title of the song being broadcast, no notification will be provided even though they are the same song.

Using the direct traffic announcement function

You can listen to the memorized "Instant Traffic & Weather" channel by directly calling it up with [TRAFFIC]. (Only one station can be memorized.)

Memorizing an "Instant Traffic & Weather" channel

1 Tune into "Instant Traffic & Weather" channel.

2 Touch and hold [TRAFFIC] for two seconds or more.

That "Instant Traffic & Weather" channel will be memorized.

Even if you use the SiriusConnect universal tuner together, only one station can be memorized. The station memorized afterward will overwrite the existing one.

Tuning in to the memorized channel

- Touch [TRAFFIC].
 - You can also perform this operation by touching [TRAFFIC] on the "AV Source" menu.
 - You can even call up a "Instant Traffic & Weather" channel from a source other than the XM source.
 - ☐ To cancel the announcement, touch [TRFC Off] on the screen. ■

Using the "Function" menu

- 1 Touch [XM] on the "AV Source" menu to display the "XM" screen.
 - **⊃** For details concerning operations, refer to *Screen switching overview* on page 34.
- 2 Touch [Func].

Cannot capture

1) Setting the memorized songs

Setting the memorized songs Selecting the songs to alert

The list of song titles memorized for the MyMix Function (MyMix list) is displayed. You can change the notification setting when the song is broadcast again. You can enable or disable notification for each song.

- 1 Touch [Memo Edit].
- 2 Touch the song title that you want to exclude from the notification list.

The check mark is removed, and the song title is excluded from the notification list.

Changing the alert setting

You can enable or disable alerts for all items at the same time. This function is useful when you want to turn alerts off temporarily without changing each memorized song.

- 1 Touch [Memo Edit].
- 2 Touch [Alert On] or [Alert Off].

Touch to toggle the selection.

Deleting the memorized songs

You can delete each one of the memorized songs from the song title list.

- 1 Touch [Memo Edit].
- 2 Touch and hold the song you want to delete.
 - ☐ To delete all songs that are memorized, touch [**Delete All**].
- 3 Touch [Yes].

You can use the navigation system to control a Pioneer Sirius satellite digital tuner, which is sold separately.

For details concerning operation, refer to the SIRIUS tuner's operation manuals. This section provides information on SIRIUS operations with navigation system which differs from that described in the SIRIUS tuner's operation manual.

When you use the SiriusConnect universal tuner (sold separately) with this navigation system, Pioneer SIRIUS BUS INTERFACE is required. For details concerning operation, refer to the owner's manual of Pioneer SIR-IUS BUS INTERFACE and SiriusConnect universal tuner.

Reading the screen

All Ch Mode

Cannot capture

Category Mode

Cannot capture

- 1 Source icon
 - Shows which source has been selected.
- 2 SIRIUS band indicator

Shows the SIRIUS band that has been selected.

- ③ Preset number indicator
 - Shows what preset item has been selected.
- (4) SIRIUS channel number indicator

- Shows the SIRIUS channel number that the tuner is tuned to
- SIRIUS channel select mode indicator Shows what channel select mode has been selected. You can select a channel from all channels in All Ch Mode, and select a channel from the selected category in

Category Mode.

- → For details, refer to Switch the SIRIUS channel select mode on the next page.
- **6** SIRIUS station name logo
 - □ The message "ON THE AIR" disappears if the navigation system cannot receive SIRIUS tuner reception for some reason.
- 7 Variable information area

Shows various information about the broadcast channel currently being received.

⇒ For more details about the displayed information, refer to Switch the SIRIUS display on the next page.

Using the touch panel keys

- Touch [SIRIUS] on the "AV Source" menu to display the "SIRIUS" screen.
 - **⇒** For details concerning operations, refer to *Screen switching overview* on page 34.

All Ch Mode

Cannot capture

Category Mode

Cannot capture

1) Memorize the current song

⊃ For details, refer to *Memorizing the song* on the next page.

2 Switch the SIRIUS Instant replay mode

→ For details, refer to Using the "Instant Replay" function on page 152.

3 Recall equalizer curves

 For details, refer to Recalling equalizer curves on page 164.

4 Display the "Function" menu

→ For details, refer to Using the "Function" menu on page 152.

5 Recalling channels from the preset

Touch to recall the preset channel.

Storing broadcast stations

You can register the channel currently being broadcast to the preset list.

6 Perform manual tuning

The channels move up or down one at a time.

☐ If you keep touching [◄] or [►] you can skip the broadcasting channels.

(7) Select a SIRIUS band

Touch [Band] repeatedly until the desired SIRIUS band is displayed, SIRIUS 1,

SIRIUS 2, or **SIRIUS 3**. This is useful for switching the preset.

8 Display the map screen

Preset key for receiving the traffic audio service

For details, refer to Using the direct traffic announcement function on the next page.

Switch the SIRIUS channel select mode

You can switch the mode between the two methods for selecting and listing the channel.

All Ch Mode:

You can select a channel from all channels when you operate this function.

Category Mode:

You can select a channel within a selected category that you operate this function.

11) Select a SIRIUS channel directly

⊃ For details, refer to Selecting a SIRIUS channel directly on this page.

12 Switch the SIRIUS display

Each touch of [**Disp**] changes the display information.

Channel number — Channel name — Channel category — Artist name/feature — Song/program title — Composer

③ Switch the channel category Touch [◄] or [►] to select the desired category.

Selecting a SIRIUS channel directly

You can select a SIRIUS channel directly by entering the desired channel number.

- 1 Touch [Direct].
- 2 Touch [0] to [9] to input the desired channel number.

To cancel the input numbers, touch [Clear].

3 While the input number is displayed, touch [Enter].

The SIRIUS channel that was entered selected.

4 Touch ≤5.

You return to the previous display.

Display the Radio ID

If you select CH: 000, the Radio ID is displayed.

- 1 Touch [Direct].
- 2 Input [000] and then touch [Enter].

If you select another channel, display of the Radio ID is canceled.

Storing and recalling broadcast stations

With a touch of any of the preset tuning keys [P1] to [P6], you can easily store up to six broadcast stations for later recall (also with the touch of a key).

- 1 Select the channel that you want to store in memory.
- 2 Touch [Preset] to display the preset list.

3 Keep touching a preset tuning key [P1] to [P6].

The selected station has been stored in memory.

The next time you touch the same preset tuning key [P1] to [P6] the station is recalled from memory.

- ☐ Up to 18 stations, 6 for each of three SIRIUS bands can be stored in memory.
- ☐ You can also touch [◄] or [►] to recall stations assigned to preset tuning keys [P1] to [P6] in the detailed information display during "All Ch Mode".

Using "My Mix" function

The MyMix function memorizes the song title and artist name of the song currently being received. When a track that matches the memorized song title and artist name is being broadcast on a station other than the one you are listening to, you will be alerted, and you can switch the station to listen to that song.

The track itself is NOT downloaded; only the song title and the artist name are memorized.

Memorizing the song

The song title and artist name of the song you are listening to can be memorized.

• Touch [Memo].

The song title and artist name of the song you are listening to are memorized, and a confirmation message appears.

- Up to 10 song titles and artist names can be memorized.
- ☐ You cannot memorize the song title or the artist name when "----" is displayed on the title information.
- ☐ You cannot memorize the song title or the artist name of channel "000".
- ☐ The memorized title may not be displayed correctly.

When the memorized song is broadcast

A beep sounds, and a message is displayed.

Touch [Yes] to switch to that station and listen to that track.

- ☐ If the alert for the song is "Off" or [Alert Off] is selected, no notification will be provided even when that song is broadcast.
 - **⇒** For details, refer to **Setting the memorized songs** on the next page.
- Notification may not be provided depending on the situation of the Navigation System.
 - **⊃** For details, refer to *Selecting the songs to alert* on the next page.
- If there is even a slight difference between the memorized title and the title of the track being broadcast, no notification will be provided even though they are the same song.

Using the direct traffic announcement function

You can listen to a memorized traffic channel by directly calling it up with the [**TRAFFIC**] (Only one station can be memorized).

Memorizing an traffic channel

- 1 Tune in to a traffic channel.
- 2 Touch and hold [TRAFFIC] for two seconds or more.

The traffic channel will be memorized.

- Even if you use this with the XM satellite radio tuner, only one station can be memorized. The station memorized afterward will overwrite the existing one.
- ☐ The channels 000 can not be memorized.

Tuning in to the memorized channel

- Touch [TRAFFIC].
 - You can also perform this operation by touching [TRAFFIC] on the "AV Source" menu.
 - ☐ To cancel a traffic announcement, touch [TRFC Off].

Using the "Instant Replay" function

The "Instant Replay" function allows you to replay the stored broadcast on the SIRIUS tuner (if the tuner capable for this function). As soon as you tune to a channel, the SIRIUS tuner automatically begins storing the broadcast. It can store approximately up to 44 minutes previous (depending on the selected channel and the memory capacity of connected tuner).

1 Touch [Instant Replay] on the SIRIUS screen to activate the "Instant Replay" mode.

2 Touch keys for "Instant Replay".

[144]	Return to the start of the current song or program. Touching again will skip back to the previous song or program.
[I◀◀] and hold	Fast reverses.
[▶► I]	Forwards play to the next song or program
[►►I] and hold	Fast-forwards.
[> /II]	Touching [►/II] switches between playback and pause.

- During "Instant Replay" mode, each touch of [Disp] changes the display information as follows;
 - Time position Channel number Channel name Channel category Artist name/feature Song/program title Composer
- ☐ You cannot replay the broadcast prior to the beginning of stored data.
 ☐

Using the "Function" menu

- 1 Touch [SIRIUS] on the "AV Source" menu to display the "SIRIUS" screen.
 - **⊃** For details concerning operations, refer to *Screen switching overview* on page 34.

2 Touch [Func].

Cannot capture

- 1 Setting the memorized songs
 - **⊃** For details, refer to this page.
- 2 Using the Game Alert function
 - ⇒ For details, refer to the next page.
- Displaying Game Information
 For details, refer to the next page.

Setting the memorized songs Selecting the songs to alert

Display the song title list memorized for the MyMix Function (MyMix list). You can change the setting of the notification when the song is broadcast again. You can enable or disable notification for each song.

- 1 Touch [Memo].
- 2 Touch [◀ Prev] or [Next ▶] to select the desired song.

Cannot capture

3 Touch [On/Off] to turn the setting on.

When the alert for the song is activated, **[ON]** appears at the beginning of the selected title.

☐ Touch [On/Off] again to turn the setting off.

Changing the alert setting

You can enable or disable alerts for all items at the same time. This function is useful when you want to turn alerts off temporarily without changing each memorized song.

- Touch [Memo].
- 2 Touch [Alert On] or [Alert Off].
 - □ Touch to toggle the selection.

Deleting the memorized songs

You can delete each one of the memorized tracks from the song title list.

- 1 Touch [Memo].
- 2 Touch [◄ Prev] or [Next ►] to select the song title that you want to delete.
- 3 Touch [Delete] when the song you want to delete is displayed.

A message will appear asking you to confirm the deletion.

4 Touch [Yes].

Using the Game Alert function Selecting teams for Game Alert

This navigation system can alert you when games involving your favorite sports teams are about to start. To use this function you need to store the teams you want to follow in advance.

Cannot capture

- 1 Touch [Game Alert].
- 2 Touch [◀ Prev] or [Next ▶] to select the league.
- 3 Touch [◀ Prev] or [Next ▶] to select the team.

4 Touch [On/Off].

The team displayed as [ON] is the alert target.

- □ When the selected team is excluded from the alert target, the team is displayed as [OFF]. Up to 12 teams can be selected. When you have already made 12 team selections, "FULL" is displayed and additional team selection is not possible. In this case, first delete the team selection and then try again.
- 5 Touch [Alert On].

Cannot capture

Changing the alert setting

You can enable or disable the alert for selected items. This function is useful when to want to turn the alert off temporarily without changing the setting of each selected team.

- 1 Touch [Game Alert].
- 2 Touch [Alert On] or [Alert Off].
 - Touch to toggle the selection.

When a game involving one of your teams is broadcast

A message is displayed. Touch [Jump] to switch the station, and you can view the game information. If you touch [Stay], the channel does not switch.

☐ Alerts may not be provided depending on the status of the navigation system.

Displaying Game Information

An alert will be displayed when a game with the team you selected is about to start (or is currently under way). You can also display game information and changes to the broadcast channel.

- ☐ The Game Information function is available when [Alert] is [On] in "Game Alert".
- 1 Touch [Game Info].
- 2 Touch [Prev] or [Next] to view the game score information which is registered.
 - ☐ The game score will be updated automatically.
 - ☐ Touch [**Tune To**] to switch to the channel that broadcasts the displayed game.
 - ☐ If you have not made any team selections, "Not Set" is displayed.
 - When no games involving your favorite teams are currently being played "NO GAME" is displayed.

Using AV input

You can display "video image" output by **AV1 Input** or **AV2 Input** to the screen of the navigation system. For details of the connection method, refer to "Installation Manual".



CAUTION

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

Using AV1

You can display "video image" output by the equipment connected to "AV1 Input".

- 1 Touch [AV1 Input] on the "AV System Settings" menu.
 - ⇒ For details, refer to Setting video input 1 (AV1) on page 159.
- **2** Touch [AV1] on the "AV Source" menu. The image is displayed on the screen.
 - **⇒** For details concerning operations, refer to *Screen switching overview* on page 34. ■

Using AV2

You can display "video image" output by the equipment connected to "AV2 Input".

- 1 Touch [AV2 Input] on the "AV System Settings" menu.
 - ⇒ For details, refer to Setting video input 2 (AV2) on page 159.
- 2 Touch [AV2] on the "AV Source" menu.

The image is displayed on the screen.

⊃ For details concerning operations, refer to *Screen switching overview* on page 34. ■

Using the touch panel keys

• Touch the screen to display the touch panel keys.

Cannot capture

① Hide the touch panel keys

Touching [**Hide**] hides the touch panel keys. Touch anywhere on the LCD screen to display the touch panel keys again.

Using the external unit (EXT1, EXT2)

The term "external unit" refers to future Pioneer devices that are not currently planned for, or to devices that allow control of basic functions although they are not fully controlled by the navigation system. Two external units can be controlled by this navigation system. When two external units are connected, the navigation system allocates them as external unit 1 or external unit 2.

For details of the connection method, refer to "Installation Manual".

For details concerning operation, refer to the external unit's operation manual. This section provides information on external unit operations with the navigation system that differ from those described in the external unit's operation manual.

Operation varies depending on the external unit connected. (In some cases, the external unit may not respond.)

Reading the screen

Cannot capture

- 1 Source icon
 - Shows which source has been selected.
- 2 External unit indicator
 - Displays the information that is sent by connected external units.
- 3 Auto/Manual mode indicator Shows the current mode.
- 4 Current time

Using the touch panel keys

- Touch [EXT1] or [EXT2] on the "AV Source" menu to select the external unit.
 - → For details concerning operations, refer to Screen switching overview on page 34.

Cannot capture

Send a band command

Touch to send a band command to the external unit.

- Operation varies depending on the external unit connected. (In some cases, the external unit may not respond.)
- ② Send an [▲], [▼], [◄], or [►] command Touch to operate the external unit.
 - Operation varies depending on the external unit connected. (In some cases, some functions may not be used until you touch and hold the key.)
- 3 Switching between automatic and manual function

You can turn automatic and manual function on or off.

You can switch between **Auto** and **Manual** functions of the external unit connected. Initially, this function is set to **Auto**.

Operating commands set for Auto and Manual operations vary depending on the external unit connected.

(4) Send a 1 key to 6 key command

The external unit can be operated by transmitting the operating commands set to **1** key — **6** key.

- Operation varies depending on the external unit connected. (In some cases, some functions may not be used until you touch and hold the key.)
- ⑤ Use F1 F4 to operate the external unit The external unit can be operated by transmitting the operating commands set to F1
 - ☐ The operating commands set to F1 —F4 vary depending on the external unit.
 - ☐ Some functions may not be used until you touch and hold the key. ■

Other functions

Selecting the video for "Rear display"

You can choose either to show the same image as the front screen or to show the selected source on the "Rear display".

Touch [Rear View] on the "AV Source" menu.

Each touch of [Rear Screen] changes the settings as follows:

- Mirror AV The video on the front screen of the navigation unit is output to the "Rear display"
- **iPod** The video and sound of the iPod are output to the "Rear display"
- Disc The video and sound of the DVDs are output to the "Rear display"
- AV1 The video and sound of AV1 are output to the "Rear display"
- AV2 The video and sound of AV2 are output to the "Rear display"
- When [Mirror AV] is selected, the following restrictions are applied to "Rear display".
 - When selecting [Rear View] in the map display, nothing is displayed.
 - All sounds cannot be output for "Rear display".
- ☐ When **Disc** is selected, the following restrictions are applied to "Rear display".
 - When a CD or MP3/WMA/AAC disc is set in the built-in DVD drive, nothing is output.
- When **iPod** is selected, the following restrictions are applied to "Rear display".
 - The "Video image" and sound are output only when the appropriate setting on [AV1 Input] is [iPod].
- When AV is selected, the following restrictions are applied to "Rear display".
 - The "Video image" and sound are output only when AV1/AV2 has both video and sound.
 - The "Video image" and sound are output only when the appropriate setting on [AV1 Input] or [AV2 Input] are [Video].

Operating the picture adjustment



CAUTION

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

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

Press and hold the MODE button. Press and hold to display the "Picture Adjustment" screen.



- **Brightness** Adjusts the black intensity
- Contrast Adjusts the contrast
- Color Adjusts the color saturation
- **Temp** Adjusts the tone of color (red is emphasized or green is emphasized)
- Dimmer Adjusts the brightness of display
- [Camera] Shows the picture adjustment display for the rear view camera
- □ Touching [Source] while adjusting the rear view camera image returns you to the previous screen.
- ☐ The adjustments of **Brightness** and **Contrast** are stored separately when your vehicle's headlights are off (daytime) and when your vehicle's headlights are on (nighttime). These are switched automatically depending on the vehicle's headlights are on or off.

Other functions

- You cannot adjust Color and Temp for the source without a video and navigation map display.
- The setting contents can be memorized separately for the following screen and the "Video image".
 - AM/FM/CD/ROM/iPod(Music)/SD (audio)/USB(audio)/Bluetooth Audio/ XM/SIRIUS/Digital Radio screen
 - AV1 and iPod(Video)
 - DVD-V, DVD-VR, DivX SD(Video) and USB(Video)
 - AV2 and EXT1, EXT2
 - Rear view camera image
 - Navigation map and menu screen
- ☐ The picture adjustment may not be available with some rear view cameras.
- Because of the LCD screen characteristics, you may not be able to adjust the screen at low temperatures.

2 Touch [+] or [-] to adjust the desired item.

Each time you touch [+] or [-] increases or decreases the level of the desired item.

3 Touch **≤** to return to the previous screen. ■

Options on the "AV System Settings" **menu**

Displaying the "AV System Settings" **menu**

- 1 Press the HOME button to display the "Top Menu".
- 2 Touch [Settings].

The "Settings Menu" screen appears.



3 Touch [AV Settings].

The "AV System Settings" menu appears.



- ☐ You can only adjust [**Wide Mode**] when selecting an AV source with video.
- You can only adjust the following items when the AV source is "Off";

[Rear SP], [Auto PI] and [FM Step]

Setting video input 1 (AV1)

You can switch this setting according to the connected component.

This setting applies to RCA inputs (AUDIO INPUT and VIDEO INPUT) on the back of the system.

Touch [AV1 Input] on the "AV System Settings" menu.

→ For details, refer to Displaying the "AV System Settings" menu on this page.

Each touch of [**AV1 Input**] changes the setting as follows:

- iPod iPod connected with the USB Interface cable for iPod (CD-IU50V)
- Video External video component
- Off No video component is connected

Setting video input 2 (AV2)

You can switch this setting according to the connected component.

- ☐ This setting applies to mini-jack input.
- Touch [AV2 Input] on the "AV System Settings" menu.
 - ⇒ For details, refer to Displaying the "AV System Settings" menu on this page.

Each touch of [AV2 Input] changes the setting as follows:

- Off No video component is connected
- EXT Pioneer external unit connected with the RCA video cable
- Video External video component
- Use AV2 Input when connecting CD-V150M (sold separately) through the external video component.

Switching the auto antenna setting

If the blue lead of the navigation system is connected to the antenna control terminal of the vehicle, select either of the following settings.

- Power The antenna extends or turns on when the ignition switch is turned on. The antenna is stored or turned off when the ignition switch is turned off.
- Radio The antenna extends or turns on only when the audio source is FM or AM.
 The antenna is stored or turned off when the AV source is switched to another source.

• Touch [ANT CTRL] on the "AV System Settings" menu.

- ⇒ For details, refer to Displaying the "AV System Settings" menu on the previous page. Touching [ANT CTRL] switches between [Radio] and [Power].
 - Regardless of whether [Radio] or [Power] is selected, turning off the ignition switch will cause the antenna to automatically retract or turn off.

Changing the wide screen mode

Touch [Wide Mode] on the "AV System Settings" menu.

⇒ For details, refer to Displaying the "AV System Settings" menu on the previous page. Each touch of [Wide Mode] changes the setting as follows:

Full (full)

A 4:3 picture is enlarged in the horizontal direction only, enabling you to enjoy a 4:3 TV picture (normal picture) without any omissions.

Cinema (cinema)

A picture is enlarged by the same proportion as **Full** or **Zoom** in the horizontal direction and by an intermediate proportion between **Full** and **Zoom** in the vertical direction; ideal for a cinema-sized picture (wide screen picture) where captions lie outside the frame.

Zoom (zoom)

A 4:3 picture is enlarged in the same proportion both vertically and horizontally; ideal for a cinema-sized picture (wide screen picture).

· Normal (normal)

A 4:3 picture is displayed normally, giving you no sense of disparity since its proportions are the same as that of the normal picture.

- ☐ Different settings can be stored for each video source.
- ☐ The same setting is automatically applied for the following grouping.

- DVD-V, DVD-VR, DivX
- EXT1 and EXT2
- AV1 and AV2
- iPod
- When video is viewed in a wide screen mode that does not match its original aspect ratio. it may look strange.
- Remember that use of this system for commercial or public viewing purposes may constitute an infringement on the author's rights protected by the Copyright Law.
- ☐ The navigation map and the rear view camera picture is always viewed at **Full**.

Setting the rear output

The navigation system's rear output can be used for a full-range speaker or subwoofer connection. If you switch **Rear SP** to **Sub. W**, you can connect a rear speaker lead directly to a subwoofer without using an auxiliary amp. Initially, the navigation system is set for a rear full-range speaker connection (**Full**).

- Both rear speaker leads output and RCA rear output are switched simultaneously in this setting. (When you use the product without RCA rear output, this setting only applies to the rear speaker leads.)
- ☐ Rear SP can be set only when the source is [Off].

1 Touch [Rear SP] on the "AV System Settings" menu.

→ For details, refer to Displaying the "AV System Settings" menu on the previous page.

2 Touch [Rear SP] to switch the rear output setting.

When no subwoofer is connected to the rear output, select **Full**.

When a subwoofer is connected to the rear output, select **Sub. W**.

Switching the muting/ attenuation timing

You can mute the AV source volume or attenuate the output signal. This setting is invalid for the mute signal has been received from the MUTE lead connected to the navigation unit. (Even if this setting is [Off], the navigation system will mute or attenuate the audio source volume when the signal is output via MUTE lead.)

• Touch [Mute] on the "AV System Settings" menu.

Each touch of [Mute] changes the settings as follows:

- Guide/Tel/VR The volume is muted or attenuated according to the following conditions
 - When the navigation outputs the guidance voice.
 - When you use a cellular phone via Bluetooth technology (dialing, talking, incoming call).
 - When the voice recognition mode is activated.
- **Tel/VR** The volume is muted or attenuated according to the following conditions
 - When you use a cellular phone via Bluetooth technology (dialing, talking, incoming call).
 - When the voice recognition mode is activated.
- Off The volume does not change
- Operation returns to normal when the correspond action is ended.

Switching the muting/ attenuation level

You can select the muting/attenuation level of [**Mute**]. This setting is also effective for a mute signal that has been received from the MUTE lead connected to the navigation unit.

- This menu is not available in the following cases:
 - AV source is [Off]

During muting/attenuation

• Touch [Mute Level] on the "AV System Settings" menu.

Each touch of [**Mute Level**] changes the settings as follows:

- ATT The volume becomes 1/10
- 10dB The volume becomes 1/3
- Mute The volume becomes 0
- When you select [Mute], [Mute] is displayed and no audio adjustments are possible during the sound is turned off.
- When you select [ATT] or [10dB], no audio adjustments, except volume control, are possible during the sound is attenuated.
- Operation returns to normal when the correspond action is ended.
- Even when a mute signal has been received from MUTE lead connected to the navigation unit, navigation voice guidance cannot be attenuated or muted.

Changing the voice output of the navigation guidance

You can set the speaker to output the navigation guidance and phone voice, etc.

Touch [Guidance/Tel SP] on the "AV System Settings" menu.

Each touch of [**Guidance/Tel SP**] changes the settings as follows:

- L+R SP Uses both the front right and left speakers
- **Left SP** Uses only the front left speaker
- Right SP Uses only the front right speaker

Acquiring/Cataloging iPod music information

If you always set the language other than "English" on "Program language", this setting is unnecessary.

Unless [VR Catalog Mode] is turned off, this navigation system tries to acquire the information needed to operate iPod with voice commands. It may take a short period of time to transfer the information. Change the setting according to your usage.

The navigation system starts acquiring/cataloging music information (1) when the iPod is connected or when the system boots up while the iPod is connected and (2) when iPod is the selected and displayed AV Source, unless [VR Catalog Mode] is turned off.

- ☐ If you do not use iPod, this setting is unnecessary.
- During transfer, iPod operations (such as [Shuffle], [Menu], or [Video]) are not available.
- Once the cataloging is completed, you can deactivate [VR Catalog Menu] until you update the content/data on iPod. If you update the iPod data, activate [VR Catalog Menu] again to transfer the music information and synchronize the music information for voice commands with the data on iPod.
- After you select "Off" in [VR Catalog Mode], the system doesn't catalog the data on the iPod. In such case, the previously cataloged data are available as voice commands.
- Once you start the cataloging process, only a few basic voice commands can be used for iPod until the process has completely finished.
- If unreadable characters are included in the data on your iPod, names or types may not be available as voice commands.

Important Notice regarding Voice Control for iPods

Voice Control for iPods may be limited if cataloging of iPod content is not completed. Cataloging of iPod content only occurs when the system is in "AV Source" mode and the "iPod" is the selected and displayed "AV Source" screen. Cataloging of iPod content will not occur if the system is off, if any other "AV Source" is selected (aside from iPod), or if the

system is in any other mode (aside from "AV Source" mode) such as "Destination Menu", "Contacts List", "Settings Menu", "Phone Menu" or the map screen. If you wish to use Voice Control for all iPod content, it is recommended that you first connect your iPod, select "iPod" as the AV source, and keep the iPod screen displayed until cataloging is completed — cataloging of iPod content should only take a few minutes, and will depend on the size of the conent stored on your iPod. A message will be displayed when cataloging is completed.

1 Touch [VR Catalog Menu] on the "AV System Settings" menu.

- → For details, refer to Displaying the "AV System Settings" menu on page 159.
- 2 Touch [On] or [Off] to activate or deactivate "VR Catalog Mode".

Displaying your DivX VOD registration code

In order to play DivX VOD (video on demand) content on this navigation system, you first need to register the unit with your DivX VOD content provider. You do this by generating a DivX VOD registration code, which you submit to your provider.

New translation required.

• Touch [DivX VOD] on the "AV System Settings" menu.

Your 8-digit registration code is displayed.

Make a note of the code as you will need it when you register with a DivX VOD provider.

The "AV Sound Settings" menu options

Displaying the "AV Sound Settings" menu

- 1 Press the HOME button to display the "Top Menu".
- 2 Touch [Settings].

The "Settings Menu" screen appears.



3 Touch [AV Sound].

The "AV Sound Settings" screen appears.



- You cannot make adjustments in the following situations:
 - AV source is [Off]
 - During muting/attenuation
- ☐ You cannot select [SLA] when the FM tuner is selected as the AV source.

Using balance adjustment

You can select a fader/balance setting that provides an ideal listening environment in all occupied seats.

1 Touch [FAD/BAL] on the "AV Sound Settings" menu.

⇒ For details, refer to *Displaying the "AV* **Sound Settings**" *menu* on this page.

When [Sub. W] is selected in [Rear SP], [Balance] will be displayed instead of [FAD/BAL] and front/rear speaker balance cannot be adjusted.

⇒ Refer to Setting the rear output on page 160.

2 Touch [▲] or [▼] to adjust front/rear speaker balance.

Each time you touch [A] or [V], the front/rear speaker balance moves towards the front or the rear.

"Front:15" to "Rear:15" is displayed as the front/rear speaker balance moves from front to rear.

Setting "Front:" and "Rear:" to "0" is correct when using a two speaker system.

3 Touch [◄] or [▶] to adjust left/right speaker balance.

Each time you touch $[\blacktriangleleft]$ or $[\blacktriangleright]$, the left/right speaker balance moves towards the left or the right.



Left:15 to **Right:15** is displayed as the left/right speaker balance moves from left to right.

Using the equalizer

The equalizer lets you adjust equalization to match vehicle interior acoustic characteristics as desired.

Recalling equalizer curves

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

Equalizer curve

Super Bass

Super Bass is a curve in which only low-pitched sound is boosted.

Powerful

Powerful is a curve in which low-pitched and highpitched sounds are boosted.

Natural

Natural is a curve in which low-pitched and highpitched sounds are slightly boosted.

Vocal

Vocal is a curve in which the midrange, which is the human vocal range, is boosted.

Flat

Flat is a flat curve in which nothing is boosted.

Custom

Custom is an adjusted equalizer curve that you create. A separate custom curve can be created for each source.

Custom2

Custom2 is an adjusted equalizer curve that you create. If you select this curve, the effect is reflected all AV source.

Touch [EQ] on the "AV Sound Settings" menu.



- For details, refer to Displaying the "AV Sound Settings" menu on the previous page.
- 2 Touch the equalizer you want.

New translation required.

New translation required. New translation required.

- Super Bass
- Powerful
- Natural
- Vocal

1 Touch [EQ] on the "AV Sound Settings" menu.

- For details, refer to Displaying the "AV Sound Settings" menu on the previous page.
- 2 Touch [+] or [-] next to "Nuance".
- 3 Touch the equalizer you want.
 - New translation required.
 - New translation required.

Adjusting the equalizer curves

You can adjust the currently selected equalizer curve setting as desired. Adjustments can be made with a 7-band graphic equalizer.

The difference between "Custom" and "Custom2"

- A separate Custom curve can be created for each source. If you make adjustments when a curve Super Bass, Powerful, Natural, Vocal, Flat, or Custom is selected, the equalizer curve settings will be memorized in Custom.
- A Custom2 curve can be created common to all sources. If you make adjustments when Custom2 curve is selected, the Custom2 curve will be updated.
- The adjusted Custom curve is memorized for each of the source selected, but one curve is shared for the following sources.
 - CD. ROM. DVD-V. DVD-VR. DivX

- AM and FM
- EXT1 and EXT2
- AV1 and AV2
- SD and USB
- The different source volume level can be set between iPod and USB.
- When [Flat] is selected, no supplement or correction is made to the sound. This is useful to check the effect of the equalizer curves by switching alternatively between [Flat] and a set equalizer curve.
- 1 Touch [EQ] on the "AV Sound Settings" menu.
 - For details, refer to Displaying the "AV Sound Settings" menu on page 163.
- 2 Touch the one of keys to select a curve that you want to use as the basis of customizing.
- 3 Touch [Customize].
- 4 Touch the frequency that you want to adjust the level.
- 5 Touch [▲] or [▼] to adjust the level of the equalizer band.

Each time you touch $[\blacktriangle]$ or $[\blacktriangledown]$, the level of the equalization band increases or decreases.

Adjusting loudness

Loudness compensates for deficiencies in the low- and high-sound ranges at low volume.

- 1 Touch [Loudness] on the "AV Sound Settings" menu.
 - → For details, refer to Displaying the "AV Sound Settings" menu on page 163.
- 2 Touch [Loudness] to select the level you want.

Each time you touch [**Loudness**], the level is selected in the following order:

Off — Low — Mid — High

Using subwoofer output

The navigation system is equipped with a subwoofer output mechanism, which can be turned on or off.

- ☐ Only when "Sub Woofer" is [On], you can adjust "Phase", "Level" and "Frequency".
- 1 Touch [Sub Woofer] on the "AV Sound Settings" menu.
 - ➤ For details, refer to Displaying the "AV Sound Settings" menu on page 163.
- 2 Touch [On] to turn subwoofer output on.

To turn subwoofer output off, touch [Off].



- 3 Touch [Reverse] or [Normal] to select the phase of subwoofer output.
- 4 Touch [+] or [-] next to "Level" to adjust the output level.

+6 to -24 is displayed as the level is increased or decreased.

5 Touch [◄] or [▶] next to "Frequency" to select cut-off frequency.

Each time you touch [◄] or [▶], cut-off frequencies are selected in the following order:

50 Hz — 63 Hz — 80 Hz — 100 Hz — 125 Hz

Only frequencies lower than those in the selected range are output from the subwoofer.

Using the high pass filter

When you do not want low sounds from the subwoofer output frequency range to play from the front or rear speakers, activate **HPF** (high pass filter). Only frequencies higher than those in the selected range are output from the front or rear speakers.

- 1 Touch [HPF] on the "AV Sound Settings" menu.
 - For details, refer to Displaying the "AV Sound Settings" menu on page 163.
- **2 Touch [HPF] to select cut-off frequency.** Each time you touch **[HPF]** selects cut-off frequencies in the following order:

Off — 50 Hz — 63 Hz — 80 Hz — 100 Hz — 125 Hz

Adjusting source levels

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

- ☐ Settings are based on the FM tuner volume level, which remains unchanged.
- 1 Compare the FM tuner volume level with the level of the source you wish to adjust.
- 2 Touch [SLA] on the "AV Sound Settings" menu.
 - ➡ For details, refer to Displaying the "AV Sound Settings" menu on page 163.
- 3 Touch [+] or [-] to adjust the source volume.

SLA +4 to **SLA -4** is displayed as the source volume is increased or decreased.

The following AV sources are set to the same source level adjustment volume automatically.

- DVD-V and DVD-VR
- CD. ROM. DivX
- EXT1 and EXT2
- AV1 and AV2
- SD and USB
- The different source volume level can be set between iPod and USB.

Enhancing bass (Bass Booster)

The "Bass Booster" enhances bass sounds, which can be muted by driving noise.

- 1 Touch [Bass Booster] on the "AV Sound Settings" menu.
 - ⇒ For details, refer to Displaying the "AV Sound Settings" menu on page 163.
- 2 Touch [+] or [-] to adjust the range from 0 to 6.

Setting the simulated sound stage

You can select the desired effect from various simulated sound stages, such as Music Studio or Dynamic Theater. You can also adjust a listener positioning effect.

Setting a stage that fits your image

- 1 Touch [Staging] on the "AV Sound Settings" menu.
- 2 Touch desired stage setting.



- ☐ [Living Room] setting that emphasizes mid-range sound hardly has any effect near the maximum volume level.
- When you set staging to an option other than [Off], the high pass filter (HPF) setting turns [Off].
- **⊃** For details, refer to *Using the high pass filter* on this page.

Adjusting a position effect

You can select a listener position that you want to make as the center of sound effects.

- 1 Touch [Staging] on the "AV Sound Settings" menu.
- 2 Touch [Position].
- 3 Touch desired position.



To Ensure Safe Driving

 Λ

CAUTION

For your safety, avoid viewing the screen in the voice operation as much as possible while driving.

If you use voice operation, select [English] in [Program language] of "Language". If you select other languages, voice operation will not be available.

Basics of Voice Operation

Your Pioneer navigation system uses the latest in voice recognition technology. You can use voice commands to operate many of its functions. This chapter describes where you can use voice commands, and also what commands the system accepts.

Flow of voice operation

You can start voice operation any time even when the map screen is displayed or audio is operating. (Some operations are not available.) The basic steps of voice operations are as follows.

- 1 Switch the screen to map screen or AV operation screen.
- 2 Press the VOICE button to activate voice operations.
- 3 Speak a command into the microphone after the beep.
- 4 When the command is recognized, the navigation system displays next options on the screen, and pronounces it in some cases.
- 5 Repeat previous step as necessary.
- 6 The requested operation will be carried out.
- The voice operation may not be operable for a minute after the navigation system has booted up.

Starting voice operation

 Press the VOICE when the map screen or the AV operation screen is displayed.

The voice operation screen appears.



1 ?:

You can listen to the brief operating instruction.

2 X

cancels voice operation.

You can cancel the voice operation feature at any time by saying "Cancel". After you cancel voice operations, the display returns to the screen displayed before the voice operation screen appeared.

How to use the voice operation Searching for a location by address

In this example, you want to search for a location by address and set it as your destination.

- 1 Press the MODE button to display the map screen or the AV operation screen.
- 2 Press the VOICE button to activate voice operations.

A list of commands for voice operation appears. After the message, the beep indicates that the system is ready to accept your voice command. Say a command after this beep.

3 Say "I need directions".

New translation required.

4 Say "Find an address".

A message to prompt the next operation is given.

- 5 New translation required.
 - When the list of candidates with number appears, say the number that you want to select.

When you select the entry next to "1", say "Number One".

New translation required.

Searching for a location by address

In this example, you want to search for a POI and set it as your destination.

- 1 Press the MODE button to display the map screen or the AV operation screen.
- 2 Press the VOICE button to activate voice operations.

A list of commands for voice operation appears. After the message, the beep indicates that the system is ready to accept your voice command. Say a command after this beep.

3 Say "I need directions".

New translation required.

4 Say "Point of interest".

A message to prompt the next operation is given.

5 New translation required.

When the list of candidates with number appears, say the number that you want to select.

When you select the entry next to "1", say "Number One".

New translation required.

Calling the entry on "Contacts"

A method for dialing the entry named "Nancy" is described here along with an operational example.

- 1 Press the VOICE button to activate voice operations.
- **2** Say "Call Nancy" to make a call. Dialing starts.

Operating iPod by voice

You can play music using voice operation from the iPod connected to the navigation system.

- ☐ Playback of iPod movies is not available using voice commands.
- To use the content/data on the iPod for voice operation, transfer the data to this system first.
 - → For details, refer to Acquiring/Cataloging iPod music information on page 161.

Examples of voice operation of the iPod are shown below. (A method for playing the album title named "Pioneer" is described here, along with an operational example.)

- 1 Press the VOICE button to activate voice operations.
- 2 Say "Change Source" to display the AV source selection screen.
- 3 Say "iPod" on the selection screen to switch the AV source to iPod.
 - ☐ Touching the item on the screen also enables you to select the desired AV source.
- 4 Press the VOICE button to activate voice operations.
- 5 Say "Play the album Pioneer" to playback the album name "Pioneer".

If the command is recognized properly, playback starts from the first song of "Pioneer".

Available Basic Voice Commands

The navigation system can also recognize the words in the following list.

Basic commands

Voice commands and operations

Back → Returns the previous screen.

Cancel → Cancels the voice operation.

Help → Outputs the brief operating instruction by voice.

Next page, Previous page → Switch the page.

Last page, First page → Switch to the last or first page.

Voice operation for the iPod

For <Artist name>, <Album name>, <Playlist name>, <Genre name> shown on the following chart, say the name their name in the iPod.

☐ Playback of iPod movies is not available using voice commands.

Voice commands and operations

Shuffle play \rightarrow Plays all songs randomly.

Pause the music, Stop the music \rightarrow Pauses the song currently playing.

Resume the music \rightarrow Resumes the song currently playing.

Next song \rightarrow Plays the next song.

Previous song → Plays the previous song or return to the beginning of the song currently playing.

Play songs → Start playback from the top of "Songs".

Play artists → Start playback from the top of "Artists".

Play the artist <Artist name> → Start playback from the top of the selected artist.

Play albums → Start playback from the top of "Albums".

Play the album <Album name> → Start playback from the top of the selected album.

Play playlists → Start playback from the top of "Playlists".

Play the playlist <Playlist name> → Start playback from the top of the selected playlist.

Play genres → Start playback from the top of "Genres".

Play the genre <Genre name $> \rightarrow$ Start playback from the top of the selected genre.

Show artists \rightarrow Displays the artist list together with sub-screen to continue the voice operation. \rightarrow Say the desired voice commands.

Show the artist <Artist name $> \rightarrow$ Displays the album list of the selected artist together with sub-screen to continue the voice operation. \rightarrow Say the desired voice commands.

Show albums → Displays the album list together with sub-screen to continue the voice operation. → Say the desired voice commands.

Show the album <album name> \rightarrow Displays the song list of the selected album together with sub-screen to continue the voice operation. \rightarrow Say the desired voice commands.

Show playlists → Displays the playlist together with sub-screen to continue the voice operation. → Say the desired voice commands.

Show the playlist < Playlist name $> \rightarrow$ Displays the song list of the selected playlist together with sub-screen to continue the voice operation. \rightarrow Say the desired voice commands.

Show genre \rightarrow Displays the genre list together with sub-screen to continue the voice operation. \rightarrow Say the desired voice commands.

Show the genre <Genre name $> \rightarrow$ Displays the song list of the selected genre list together with sub-screen to continue the voice operation. \rightarrow Say the desired voice commands.

Show songs → Displays the song list together with sub-screen to continue the voice operation. → Say the desired voice commands.

Next page, Previous page → Displays the previous or next page of the selection list. (Note 1)

(Note 1) The voice commands is available only when the selection list is displayed.

Voice operation for AV source (other than iPod)

AV source selection

Voice commands and operations

Change Source to DISC → Switch the AV source to **DISC**.

Change Source to FM \rightarrow Switch the AV source to FM.

Change Source to $AM \rightarrow Switch$ the AV source to AM.

Change Source to XM Satellite Radio → Switch the AV source to XM.

Change Source to SIRIUS Satellite Radio → Switch the AV source to SIRIUS.

Change Source to HD Radio → Switch the AV source to **Digital Radio**.

Change Source to SD Media → Switch the AV source to SD.

Change Source to USB \rightarrow Switch the AV source to USB.

Change Source to iPod → Switch the AV source to iPod.

Change Source to Bluetooth Audio → Switch the AV source to Bluetooth Audio.

External storage device (USB, SD)

Voice commands and operations

Shuffle play → Plays all songs randomly.

Pause the music, Stop the music \rightarrow Pauses the song currently playing .

Resume the music → Resumes the song currently playing.

Next song \rightarrow Plays the next song.

Previous song → Plays the previous song or return to the beginning of the song currently playing.

Voice commands related to hands-free phoning

- You can make a phone call by voice dialing if the cellular phone featuring Bluetooth wireless technology is being paired with the navigation system.
- For <entry's name> shown on the following chart, say the name of the entry stored in "Contacts".
- ☐ For <phone number> shown on the following chart, say the desired phone number.

Voice commands and operations

Call < entry's name $> \rightarrow$ Make a call to the entry (Note 2).

Call <entry's name> mobile → Dial the cellular phone number of the entry (Note 3).

Call <entry's name> home → Dial the home phone number of the entry (Note 3).

Call <entry's name> office \rightarrow Dial the office phone number of the entry (Note 3).

Call <phone number> → Dial the phone number.

Make a call → Say the phone number you want to call → The system starts dialing to the number.

 $Make\ a\ call \rightarrow Say$ the name of entry stored on "Contacts" you want to call \rightarrow The system starts dialing to the number (Note2).

List outgoing calls → Display the list of recent outgoing calls ("Dialled Calls") to select the number and call.

List recent calls → Incoming calls (Note 4) → Display the list of recently received calls ("Received Calls") to select the number and call.

List recent calls → Outgoing calls (Note 4) → Display the list of recent outgoing calls ("Dialled Calls") to select the number and call.

List recent incoming calls → Display the list of recently received calls ("Received Calls") to select the number and call.

(Note 2) If the entry has multiple phone number data, selection list may appear. In such case, say the type of phone number or touch the one of listed item that you want to dial.

(Note 3) If there is no corresponding type on the entry, the system may suggest you other phone numbers of the entry. In such case, say the type of phone number or touch the one of listed item that you want to dial.

(Note 4) Touching the item on the screen also enables you to select the desired list.

Tips for Voice Operation

For your voice commands to be correctly recognized and interpreted, ensure that conditions are suitable for recognition.

Close the vehicle windows

Please note that wind through the vehicle window or miscellaneous noise from outside the vehicle can interfere with voice operation.

Position the microphone carefully

For optimum pick-up, the microphone should be fixed at a suitable distance directly in front of the driver.

Pause before giving a command

Speaking too soon may cause the recognition to fail.

Pronounce your commands carefully

Speak slowly, deliberately, and clearly.

Other functions

Setting the anti-theft function

You can set a password for the navigation system. If the back-up lead is cut after the password is set, the navigation system prompts for the password at the time of next boot up.

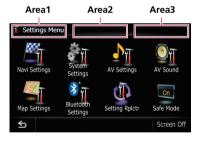
Setting the password

- 1 Press the MENU button to display the "Top Menu".
- 2 Touch [Settings].

The "Settings Menu" screen appears.



3 Touch Area1, followed by Area2, and then touch and hold Area3.



4 Touch [Set Password].

The password setting screen appears.

- 5 Enter the password you want to set.
 - 5 to 16 characters can be entered for a password.
- 6 Touch [OK].
- 7 Reenter the password to confirm the setting.

8 Touch [OK].

Password protection is applied.

If you want to change the password currently set, enter the current password and then enter the new one.

Entering the password

On the password input screen, you must enter the current password. If you enter an incorrect password three times, the screen is locked and operations using touch panel keys are disabled.

- 1 Enter the password.
- 2 Touch [OK].

The message "The unit has been locked because an invalid password was entered three times. Turn ACC off and on, and enter your password." appears if you entered the correct password and the navigation system is unlocking.

Deleting the password

The current password can be deleted.

- 1 With the map displayed, press the MENU button.
- 2 Touch [Settings] on the "Top Menu".
- 3 Touch Area1, followed by Area2, and then touch and hold Area3.
- 4 Touch [Clear password].

The password setting screen appears.

- 5 Enter the current password.
- Touch [OK].
- 7 Touch [Yes].

The message for deletion appears and then the current password is deleted.

Other functions

Forgotten passwords

Contact the nearest authorized Pioneer Service Station. ■

Restoring the default setting

Resets various settings registered to the navigation system and restores them to the default or factory settings.

- Some data remains. Read Returning the navigation system to the initial state before you operate this function.
- 1 Display the "Destination Menu" screen.
- 2 Touch [Settings].

The "Settings Menu" screen appears.

3 Touch [Restore Factory Settings].

The message confirming whether to restore the settings appears.

4 Touch [Yes].

Returning the navigation system to the initial state

You can return settings or recorded content to the default or factory settings.

- Some data remains. Read Returning the navigation system to the initial state before you operate this function.
- 1 Park your vehicle in a safe place, and turn off the engine. Turn the ignition key back to "Acc off". Then start the engine again, and turn the power to the navigation system back on.

The splash screen appears.

2 Press and hold the MODE button and the TRK (◄) button while splash screen appears.

The "Data/Setting Clear" screen appears.

3 Touch [Delete user information].

The message confirming whether to erase all user data appears.

And then touch [Yes] to erase all user data.

■ Touch [Reset].

Various settings registered to the navigation system is reset to the default or factory settings.

4 Touch [Yes].

The recorded contents are cleared.

Troubleshooting

If you have problems operating your navigation system, refer to this section. The most common problems are listed below, along with likely causes and solutions. While this list is not comprehensive, it should answer your most common problems. If a solution to your problem cannot be found here, contact your dealer or the nearest authorized Pioneer service facility.

Problems with the navigation screen

Symptom	Cause	Action (Reference)
The power doesn't turn on. The navigation system doesn't oper-	Leads and connectors are incorrectly connected.	Confirm once more that all connections are correct.
ate.	The fuse is blown.	Rectify the reason for the fuse blowing, then replace the fuse. Be very sure to install a correct fuse with the same rating.
	Noise and other factors are causing the built-in microprocessor to operate incorrectly.	Park your vehicle in a safe place, and turn off the engine. Turn the ignition key back to "Acc off". Then start the engine again, and turn the power to the navigation system back on. (Page 65)
	The quality of signals from the GPS satellites is poor, causing reduced positioning accuracy. Such a loss of signal quality may occur for the following reasons: —The GPS antenna is in an unsuitable location. —Obstacles are blocking signals from the satellites. —The position of satellites relative to your vehicle is inadequate. —Signals from the GPS satellites have been modified to reduce accuracy. (GPS satellites are operated by the US Department of Defense, and the US government reserves the right to distort positioning data for military reasons. This may lead to greater positioning errors.) —If a vehicle phone or cellular phone is used near the GPS antenna, GPS reception may be lost temporarily.	the antenna clear.
	Something covers the GPS antenna.	Do not cover the GPS antenna with spray paint or vehicle wax, because this may block the reception of GPS signals. Snow buildup can also degrade the signals.
	Signals from the vehicle's speed pulse are not being picked up properly.	Check that the cables are properly connected. If necessary, consult the dealer that installed the system.

You cannot position your vehicle on the map without a significant	The navigation system may not be mounted securely in your vehicle.	Check that the navigation system is securely mounted and, if necessary, consult the dealer that installed the system.
positioning error.	The navigation system is installed with an extreme angle exceeding the installation angle limitations.	Confirm the installation angle. (The navigation system must be installed within the allowed installation angle. For details, refer to "Installation Manual".)
	Indication of the position of your vehicle is misaligned after a U-turn or reversing.	Check whether or not the reverse gear signal input lead (violet) is connected properly. (The navigation system works properly without the lead connected, but positioning accuracy will be adversely affected.)
The map color does not switch automatically between daytime	[Night mode] is set to [Day].	Check [Night mode] setting and make sure [Automatic] is selected. (Page 49)
and nighttime.	The orange/white lead is not connected.	Check the connection.
The screen is too bright.	An improper value has been set on "Brightness".	Check the settings.
The display is very dim.	[Automatic] is selected in "Night mode".	Check the setting of [Night mode] and select [Automatic] or [Day]. (Page 49)
	An improper value has been set on "Brightness".	Check the settings.
No sounds of AV source are pro-	The volume level is low.	Adjust the volume level.
duced. The volume level will not rise.	The attenuator or mute is on.	Turn the attenuator or mute off.
The volume level will not rise.	A speaker lead is disconnected.	Check the connection.
The volume of navigation guidance and beeps cannot be adjusted.	Try to adjust them with \mathbf{VOL} (+/-) button.	Turn the volume up or down using [Volume] on the "Navi Settings" menu. (Page 96)
The person on the other end of the phone call cannot hear the conversation due to an echo.	The voice from the person on the other end of the phone call is output from the speakers and then picked up by the microphone again, creating an echo.	Use the following methods to reduce the echo: —Lower the volume on the receiver —Have both parties pause slightly before speaking
There's no picture.	The parking brake cord is not connected.	Connect the parking brake cord, and apply the parking brake.
	The parking brake is not applied.	Connect the parking brake cord, and apply the parking brake.
	The backlight of the LCD panel is turned off.	Turn on the backlight. (Page 100)
"Rear display" picture disappears.	The source disc being listened to in the navigation system has been ejected.	Before ejecting the disc, switch the source. This problem may occur when certain connection methods are used.
	There is a problem with the "Rear display", for example a faulty wiring connection.	Check the "Rear display" and its connection.
	An AV source that cannot output to the rear display is selected.	Select an appropriate AV source.

Nothing is displayed and the touch panel keys cannot be used.	The setting for the rear view camera is incorrect.	Select the appropriate setting for the rear view camera.	
	The shift lever was placed in [R] when the rear view camera was not connected.	Select the correct polarity setting for [Back Camera]. (Page 98)	
There is no response when the touch panel key are touched, or a different key responds.	The touch panel keys deviate from the actual positions that respond to your touch for some reason.	Perform touch panel calibration. (Page 98)	
The external storage device (USB, SD) cannot be used.	The USB storage device has been removed immediately after plugging it. Park your vehicle in a safe place, and turn the engine. Turn the ignition key back to "4" off". Then start the engine again, and turn power to the navigation system back on.		

Problems in the AV screen

Symptom	Cause	Action (Reference)	
CD or DVD playback is not pos-	The disc is inserted upside down.	Insert the disc with the label upward.	
sible.	The disc is dirty.	Clean the disc.	
	The disc is cracked or otherwise damaged.	Insert a normal, round disc.	
	The files on the disc are an irregular file format.	Check the file format.	
	The disc format cannot be played back.	Replace the disc.	
	The loaded disc is a type this system cannot play.	Check what type of disc it is. (For more cautions about handling each type of media, refer to Page 189.)	
The screen is covered by a caution message and the video can-	The parking brake lead is not connected or applied.	Connect the parking brake lead correctly, and apply the parking brake.	
not be shown.	The parking brake interlock is activated.	Park your vehicle in a safe place and apply the parking brake.	
No video output from connected equipments.	[AV1 Input] or [AV2 Input] setting is incorrect.	Correct the settings. (Page 155)	
No video output from connected iPod.	The connection of the USB interface cable for iPod is incorrect.	Connect both the USB plug and the RCA cable side. (If only one of these connection has been made, the iPod will not work properly.) (Page 31)	
The audio or video skips.	The navigation system is not firmly secured.	Secure the navigation system firmly.	
No sounds are produced.	Cables are not connected correctly.	Connect the cables correctly.	
The volume level will not rise.	The system is performing still, slow motion, or frame-by-frame playback with DVD-Video.	There is no sound during still, slow motion, or frame-by-frame playback with DVD-Video.	
	The system is paused or performing, fast reverse or forward during the disc playback.	For the media other than music CD (CD-DA), there is no sound on fast reverse or forward.	
The icon \odot is displayed, and operation is not possible.	The operation is not compatible with the video configuration.	This operation is not possible. (For example, the DVD playing does not feature that angle, audio system, subtitle language, etc.)	

The picture stops (pauses) and the navigation system cannot be operated.	The reading of data is impossible during disc playback.	After touching ■ once, start playback once more.
The picture is stretched, with incorrect aspect ratio.	The aspect setting is incorrect for the display.	Select the appropriate setting for that image. (Page 160, Page 126)
A parental lock message is displayed and DVD playback is not possible.	Parental lock is on.	Turn parental lock off or change the level. (Page 127)
Parental lock for DVD playback cannot be canceled.	The code number is incorrect.	Input the correct code number. (Page 127)
Playback is not with the audio language and subtitle language settings selected in [DVD/DivX® Setup].	The DVD playing does not feature dialog or subtitles in the language selected in [DVD/DivX® Setup].	Switching to a selected language is not possible if the language selected in [DVD/DivX® Setup] is not recorded on the disc.
The picture is extremely unclear/distorted and dark during playback.	The disc features a signal to prohibit copying. (Some discs may have this.)	Since the navigation system is compatible with the copy guard analogue copy protect system, the picture may suffer from horizontal stripes or other imperfections when a disc with that kind of protection signal is viewed on some displays. This does not mean the navigation system is malfunctioning.
iPod cannot be operated.	The iPod is frozen.	Reconnect the iPod with the USB interface cable for iPod. Update the iPod software version.
	An error has occurred.	Reconnect the iPod with the USB interface cable for iPod. Park your vehicle in a safe place, and turn off the engine. Turn the ignition key back to "Acc off". Then start the engine again, and turn the power to the navigation system back on. Update the iPod software version.

Problems with the phone screen

Symptom	Cause	Action (Reference)
Dialing is not possible because the touch panel keys for dialing are inactive.	Your phone is out of range for service.	Retry after re-entering the range for service.
	The connection between the cellular phone and the navigation system cannot be established now.	Perform the connection process.

If the screen becomes frozen...

Park your vehicle in a safe place, and turn off the engine. Turn the ignition key back to "Acc off". Then start the engine again, and turn the power to the navigation system back on.

Messages and how to react to them

The following messages may be displayed by your navigation system. Refer to the table below to identify the problem, then take the suggested corrective action.

There are occasions when you may see error messages other than those shown here. In such a case, follow the instructions given on the display.

Messages and how to react to them

Message	Cause	Action (Reference)	
			•

Messages for audio functions

When problems occur with AV source playback, an error message appears on the display. Refer to the table below to identify the problem, then take the suggested corrective action. If the error persists, record the error message and contact your dealer or your nearest Pioneer service center. The messages in "()" will appear on the "Rear display".

Built-in DVD drive

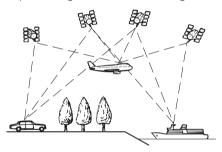
Built-III DVD univ	-		
Message	Cause	Action (Reference)	
SD/USB/iPod			
Message	Cause	Action (Reference)	
-			

Appendix

Positioning technology Positioning by GPS

The Global Positioning System (GPS) uses a network of satellites orbiting the Earth. Each of the satellites, which orbit at a height of 21 000 km, continually broadcasts radio signals giving time and position information. This ensures that signals from at least three can be picked up from any open area on the earth's surface.

The accuracy of the GPS information depends on how good the reception is. When the signals are strong and reception is good, GPS can determine latitude, longitude and altitude for accurate positioning in three dimensions. But if signal quality is poor, only two dimensions, latitude and longitude, can be obtained and positioning errors are somewhat greater.



Positioning by "Dead Reckoning"

The built-in sensor in the navigation system also calculates your position. The current location is measured by detecting driving distance with the speed pulse, the turning direction with the "Gyrosensor" and inclination of the road with the "G sensor".

The built-in sensor can even calculate changes of altitude, and corrects for discrepancies in the distance traveled caused by driving along winding roads or up slopes. If you use this navigation system with connecting the speed pulse, the system will become more accurate than no connection of speed

pulse. So you connect the speed pulse without fail to get the accuracy of positioning.

- ☐ The position of the speed detection circuit vary depending on the vehicle model. For details, consult your authorized Pioneer dealer or an installation professional.
- □ Some types of vehicles may not output a speed signal while driving at just a few kilometers per hour. In such a case, the current location of your vehicle may not be displayed correctly while in traffic congestion or in a parking lot.

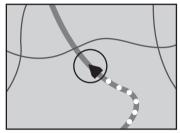
How do GPS and "Dead Reckoning" work together?

For maximum accuracy, your navigation system continually compares GPS data with your estimated position as calculated from the data of built-in sensor. However, if only the data from the built-in sensor is available for a long period, positioning errors are gradually compounded until the estimated position becomes unreliable. For this reason, whenever GPS signals are available, they are matched with the data of the built-in sensor and used to correct it for improved accuracy.

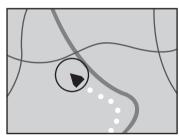
□ If you use chains on your wheels for winter driving or put on the spare wheel, errors may suddenly increase because of difference in wheel diameter. In such case, pressing the RESET button initialize the sensor status and it may recover the accuracy to normal condition.

Map matching

As mentioned, the positioning systems used by this navigation system are susceptible to certain errors. Their calculations may, on occasion, place you in a location on the map where no road exists. In this situation, the processing system understands that vehicles travel only on roads, and can correct your position by adjusting it to a nearby road. This is called map matching.



With map matching



Without map matching

Handling large errors

Positioning errors are kept to a minimum by combining GPS, "Dead Reckoning" and map matching. However, in some situations, these functions may not work properly, and the error may become bigger.

When positioning by GPS is impossible

- GPS positioning is disabled if signals cannot be received from more than two GPS satellites
- In some driving conditions, signals from GPS satellites may not reach your vehicle.
 In this case, it is impossible for the system to use GPS positioning.



In tunnels or enclosed parking garages



Under elevated roads or similar structures



When driving among high buildings



When driving through a dense forest or tall trees

- If a car phone or cellular phone is used near the GPS antenna, GPS reception may be lost temporarily.
- Do not cover the GPS antenna with spray paint or car wax, because this may block the reception of GPS signals. Snow buildup can also degrade the signals, so keep the antenna clear.
- ☐ If a GPS signal have not been received for a long time, your vehicle's actual position and the current position mark on the map may diverge considerably or may not be updated. In such case, once GPS reception is restored, accuracy will be recovered.

Conditions likely to cause noticeable positioning errors

For various reasons, such as the state of the road you are traveling on and the reception status of the GPS signal, the actual position of your vehicle may differ from the position displayed on the map screen.

• If you make a shallow turn.



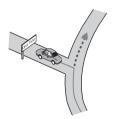
If there is a parallel road.



• If there is another road very nearby, such as in the case of an elevated freeway.



 If you take a recently opened road that is not on the map.



• If you drive in zigzags.



If the road has a series of hairpin bends.



 If there is a loop or similar road configuration.



If you take a ferry.



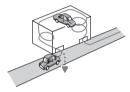
• If you are driving on a long, straight road or a gently curving road.



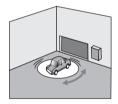
 If you are on a steep mountain road with many height changes.



• If you enter or exit a multi-storey parking lot or similar structure using a spiral ramp.



If your vehicle is turned on a turntable or similar structure.



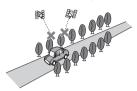
• If your vehicle's wheels spin, such as on a gravel road or in snow.



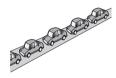
 If you put on chains, or change your tires for ones with a different size.



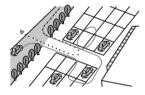
• If trees or other obstacles block the GPS signals for a considerable period.



• If you drive very slowly, or in a start-andstop manner, as in a traffic congestion.



 If you join the road after driving around a large parking lot.



• When you drive around a traffic circle.



 When starting driving immediately after starting the engine.

Route setting information Route search specifications

Your navigation system sets a route to your destination by applying certain built-in rules to the map data. This section provides some useful information about how a route is set.



When a route is calculated, the route and voice guidance for the route are automatically set. Also, for day or time traffic regulations, only information about traffic regulations applicable at the time when the route was calculated is shown. One-way streets and street closures may not be taken into consideration. For example, if a street is open during the morning only, but you arrive later, it would be against the traffic regulations so you cannot drive along the set route. When driving, please follow the actual traffic signs. Also, the system may not know some traffic regulations.

- The calculated route is one example of the route to your destination decided by the navigation system while taking the type of streets or traffic regulations into account. It is not necessarily an optimum route. (In some cases, you may not be able to set the streets you want to take. If you need to take a certain street, set a waypoint on that street.)
- If the destination is too far, there may be instances where the route cannot be set. (If you want to set a long-distance route going across several areas, set waypoints along the way.)
- During voice guidance, turns and intersections from the freeway are announced.
 However, if you pass intersections, turns, and other guidance points in rapid succession, some may delay or not be announced.
- It is possible that guidance may direct you off a freeway and then back on again.
- In some cases, the route may require you
 to travel in the opposite direction to your
 current heading. In such cases, you are instructed to turn around, so please turn
 around safely by following the actual traffic
 rules.
- In some cases, a route may begin on the opposite side of a railway or river from your actual current location. If this happens,

- drive towards your destination for a while, and try route calculation again.
- When there is a traffic congestion ahead, a detour route may not be suggested if driving through the traffic congestion would still be better than taking the detour.
- There may be instances when the starting point, the waypoint and the destination point are not on the highlighted route.
- The number of traffic circle exits displayed on the screen may differ from the actual number of roads.

Route highlighting

- Once set, the route is highlighted in bright color on the map.
- The immediate vicinity of your starting point and destination may not be highlighted, and neither will areas with particularly complex road layouts. Consequently, the route may appear to be cut off on the display, but voice guidance will continue.

Auto reroute function

- If you deviate from the set route, the system will re-calculate the route from that point so that you remain on track to the destination.
- This function may not work under certain conditions.

Handling and care of discs

Some basic precautions are necessary when handling your discs.

Built-in drive and care

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





- Do not use cracked, chipped, warped, or otherwise damaged discs as they may damage the built-in drive.
- Do not touch the recorded surface of the discs.
- · Store discs in their cases when not in use.
- Avoid leaving discs in excessively hot environments including under direct sunlight.
- Do not attach labels, write on or apply chemicals to the surface of the discs.
- To clean a disc, wipe it with a soft cloth, moving outward from the center.



- Condensation may temporarily impair the built-in drive's performance. Leave it to adjust to the warmer temperature for about one hour. Also, wipe any damp discs 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.
- Read the precautions for discs before using them.

Ambient conditions for playing a disc

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

Playable discs DVD-Video and CD

DVD and CD discs that display the logos shown below generally can be played on this built-in DVD drive.

DVD-Video



CD





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

AVCHD recorded discs

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

Playing DualDisc

- DualDiscs are two-sided discs that have a recordable CD for audio on one side and a recordable DVD for video on the other.
- Playback of the DVD side is possible with this navigation system. 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 navigation system.
- Frequent loading and ejecting of a Dual-Disc may result in scratches to the disc.
- Serious scratches can lead to playback problems on this navigation system. 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 navigation system.
- Please refer to the manufacturer for more detailed information about DualDiscs.

Dolby Digital

AVIC-Z110BT will down-mix Dolby Digital signals internally and the sound will be output in stereo. (Equipped with optical output for future extension.)

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



DTS sound

DTS audio cannot be output, so select an audio setting other than DTS.

"DTS" is registered trademarks of DTS, Inc.

Detailed information for playable media

Compatibility

Common notes about disc compatibility

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

DVD-Video discs

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

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

- Unfinalized discs which have been recorded with the Video format (video mode) cannot be played back.
- Discs which have been recorded with the Video Recording format (VR mode) can be played back. However, unfinalized discs may not be played back. Unplayable discs should be finalized.
- DVD-R DL (Dual Layer) discs which have been recorded with Layer Jump recording cannot be played back.
- For more information about recording mode, please contact the manufacturer of media, recorders, or writing software.
- The following logo indicates that this unit is compatible with DVD-RW discs which have been recorded with the Video Recording format (VR mode).



CD-R/CD-RW discs

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

Common notes about the external storage device (USB, SD)

- Do not leave the external storage device (USB, SD) in any location with high temperatures.
- New translation required.
- New translation required.
- New translation required.
- Depending on the kind of the external storage device (USB, SD) you use, this navigation system may not recognize the storage device or files may not be played back properly.
- The text information of some audio and video files may not be correctly displayed.
- File extensions must be used properly.

- There may be a slight delay when starting playback of files on an external storage device (USB, SD) with complex folder hierarchies.
- Operations may vary depending on the kind of an external storage device (USB, SD).
- It may not be possible to play some music files from SD or USB because of file characteristics, file format, recorded application, playback environment, storage conditions, and so on.
- Video playback from SD or USB will be paused when the navigation is displayed.

USB storage device compatibility

⇒ For more details about USB storage device compatibility with this navigation system, refer to Specifications on page 207.

Protocol: bulk

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

The sequence of audio files on USB memory

For USB memory, the sequence is different from that of USB memory device.

SD memory card and SDHC memory card

 For more details about SD memory card compatibility with this navigation system, refer to Specifications on page 207.

Handling guidelines and supplemental information

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

Notes specific to DivX files

- Only DivX files downloaded from DivX partner sites are guarantee for proper operation. Unauthorized DivX files may not operate properly.
- DRM rental files cannot be operated until playing back is started.
- The navigation system corresponds to a DivX file display of up to 1590 minutes 43 seconds. Search operations beyond this time limit are prohibited.
- DivX VOD file playback requires supplying the ID code of this navigation system to the DivX VOD provider. Regarding the ID code, refer to Making a phone call using the received call history on page 81.
- Plays all versions of DivX video (including DivX 6) with standard playback of DivX media files.
- For more details about DivX, visit the following site: http://www.divx.com/

DivX subtitle files

- Srt format subtitle files with the extension ".srt" can be used.
- Only one subtitle file can be used for each DivX file. Multiple subtitle files cannot be associated.
- Subtitle files that are named with the same character string as the DivX file before the extension are associated with the DivX file. The character strings before the extension must be exactly the same. However, if there is only one DivX file and one subtitle file in a single folder, the files are associated even if the file names are not the same.
- The subtitle file must be stored in the same folder as the DivX file.

- Up to 255 subtitle files may be used. Any more subtitle files will not be recognized.
- Up to 64 characters can be used for the name of the subtitle file, including the extension. If more than 64 characters are used for the file name, the subtitle file may not be recognized.
- The character code for the subtitle file should comply with ISO-8859-1. Using characters other than ISO-8859-1 may cause the characters to be displayed incorrectly.
- The subtitles may not be displayed correctly if the displayed characters in the subtitle file include control code.
- For materials that use a high transfer rate, the subtitles and video may not be completely synchronized.
- If multiple subtitles are programed to display within a very short time frame, such as 0.1 seconds, the subtitles may not be displayed at the correct time.

Media compatibility chart General

Media	CD-R/-RW	DVD-R/-RW/-R DL	USB storage de- vice	SD memory card
File system	ISO9660 level 1, ISO9660 level 2, Romeo and Joliet	ISO9660 level 1, ISO9660 level 2, Romeo, Joliet and UDF 1.02	FAT16/FAT32	
Maximum number of folders	255	255		
Maximum number of files	999	3 500	15 000	
Playable file types	MP3, WMA, AAC, WAV, AVI, WMV, MPEG-4			

MP3 compatibility

Media	CD-R/-RW	DVD-R/-RW/-R DL	USB storage de- vice	SD memory card
File extension	.mp3			
Bit rate	8 kbps to 320 kbps (CBR), VBR			
Sampling frequency	16 kHz to 48 kHz (32 kHz, 44.1 kHz, 48 kHz for emphasis)		16 kHz to 48 kHz	
ID3 tag	ID3 Tag Ver. 1.0, 1.1, 2	2.2, 2.3	ID3 Tag Ver. 1.0, 1.1, 2.3	

Notes:

- Ver. 2.x of ID3 Tag is given priority when both Ver. 1.x and Ver. 2.x exist.
- The navigation system is not compatible with the following: MP3i (MP3 interactive), mp3 PRO, m3u playlist

WMA compatibility

Media	CD-R/-RW	DVD-R/-RW/-R DL	USB storage de- vice	SD memory card
File extension	.wma			
Bit rate	5 kbps to 320 kbps (CBR), VBR			
Sampling frequency	8 kHz to 48 kHz			

Note:

 The navigation system is not compatible with the following: Windows Media Audio 9 Professional, Lossless, Voice

WAV compatibility

Media	CD-R/-RW	DVD-R/-RW/-R DL	USB storage de- vice	SD memory card
File extension	.wav	.wav		
Format	Linear PCM (LPC	Linear PCM (LPCM), IMA-ADPCM		
Sampling frequency		LPCM: 16 kHz to 48 kHz IMA-ADPCM: 22.05 kHz and 44.1 kHz		
Quantization bits		LPCM: 8 bits and 16 bits IMA-ADPCM: 3 bits and 4 bits		
Note:	•			

The sampling frequency shown in the display may be rounded.

AAC compatibility

Media	CD-R/-RW	DVD-R/-RW/-R DL	USB storage de- vice	SD memory card
File extension	.m4a			
Bit rate	8 kbps to 320 kbps (CBR), VBR			
Sampling frequency	8 kHz to 44.1 kHz			

Notes:

· The navigation system plays back AAC files encoded by iTunes.

DivX compatibility

Media	CD-R/-RW	DVD-R/-RW/-R DL	USB storage de- vice	SD memory card
File extension	.avi/.divx			
Profile (DivX version)	Home Theater Ver. 3.11/Ver. 4.x/Ver. 5.x/ Ver. 6.x			
Compatible audio codec	MP3, Dolby Digital		DivX files on the external storage device (USB, SD) cannot be played.	
Bit rate (MP3)	8 kbps to 320 kbps (CBR), VBR			
Sampling frequency (MP3)	16 kHz to 48 kHz (32 kHz, 44.1 kHz, 48 kHz for emphasis)			
Maximum image size	720 pixels × 576 pixels			
Maximum file size	4GB			

Notes

- The navigation system is not compatible with the following:
 DivX Ultra format, DivX files without video data, DivX files encoded with LPCM (Linear PCM) audio codec
- Depending on the file information composition, such as the number of audio streams, there may be a slight delay in the start of playback on discs.
- If a file contains more than 4 GB, playback stops before the end.
- Some special operations may be prohibited because of the composition of DivX files.
- Files with high transfer rates may not be played back correctly. The standard transfer rate is 4 Mbps for CDs and 10.08 Mbps for DVDs.

Video files compatibility (USB, SD)

File extension	.avi	.mp4		.m4v	.wmv
Format	MPEG-4	MPEG-4	H.264	MPEG-4	WMV
Compatible video codec	MPEG-4	MPEG-4	H.264	MPEG-4	WMV
Compatible audio codec	Linear PCM (LPCM), IMA- ADPCM MP3	AAC	AAC	AAC	WMA
Recommended video specifications	Image size: QVGA (320 pix- els x 240 pixels) Bit rate: 768 kbps Frame rate: 30 fps	Image size: QVGA (320 pix- els x 240 pixels) Bit rate: 768 kbps Frame rate: 30 fps	Image size: QVGA (320 pix- els x 240 pixels) Bit rate: 384 kbps Frame rate: 30 fps	Image size: QVGA (320 pix- els x 240 pixels) Bit rate: 768 kbps Frame rate: 30 fps	Image size: QVGA (320 pix- els x 240 pixels) Bit rate: 384 kbps Frame rate: 30 fps

Common notes

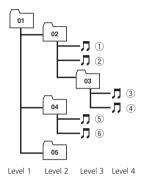
- The navigation system may not operate correctly, depending on the application used to encode WMA files.
- Depending on the version of Windows Media Player used to encode WMA files, album names and other text information may not be correctly displayed.
- There may be a slight delay when starting playback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

compressed audio discs play with a short pause between songs.

Example of a hierarchy

The following figure is an example of the tier structure in the disc. The numbers in the figure indicate the order in which folder numbers are assigned and the order to be played back.

☐: Folder ☐: File





- This product assigns folder numbers. The user cannot assign folder numbers.
- If there is a folder that does not contain any playable file, the folder itself will display in the folder list but you cannot check any files in the folder. (A blank list will appear.) Also, these folders will be skipped without displaying the folder number.

Bluetooth



Bluetooth is a short-range wireless radio connectivity technology that is developed as a cable replacement for cellular phones, handheld PCs and other devices. Bluetooth operates in 2.4 GHz frequency range and transmits voice and data at speeds up to 1 megabit per

second. Bluetooth was launched by a special interest group (SIG) comprising Ericsson Inc., Intel Corp., Nokia Corp., Toshiba and IBM in 1998, and it is currently developed by nearly 2 000 companies worldwide.

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.

SD and SDHC logo



SD Logo is a trademark.



SDHC Logo is a trademark.

WMA



The Windows Media™ logo printed on the box indicates that this unit can play back WMA data.

WMA is short for Windows Media Audio and refers to an audio compression technology that is developed by Microsoft Corporation. WMA data can be encoded by using Windows Media Player version 7 or later.

Windows Media and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

DivX



DivX is a compressed digital video format created by the DivX video codec from DivX, Inc. This unit can play DivX video files recorded on CD-R/RW/ROM and DVD-R/RW/ROM discs. Keeping the same terminology as DVD video, individual DivX video files are called "Titles". When naming files/titles on a CD-R/RW or a DVD-R/RW disc prior to burning, keep in mind that by default they will be played in alphabetical order.

Plays DivX® video.

□ DivX® is a registered trademark of DivX, Inc., and is used under license. ■

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 version 7.7.

Detailed information regarding connectable iPods



- Pioneer accepts no responsibility for data lost from an iPod, even if that data is lost while using the navigation system.
- Do not leave the iPod in direct sunlight for extended amounts of time. Extended exposure to direct sunlight can result in iPod malfunction due to the resulting high temperature.
- Do not leave the iPod in any location with high temperatures.
- Firmly secure the iPod when driving. Do not let the iPod fall onto the floor, where it may become jammed under the brake or gas pedal.

For details, refer to the iPod's manuals.

iPod



"Made for iPod" means that an electronic accessory has been designed to connect specifically to iPod and has been certified by the developer to meet Apple performance standards.

Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

iPhone



"Works with iPhone" means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards.

Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

iPhone is a trademark of Apple Inc.

iTunes

iTunes is a trademark of Apple Inc., registered in the U.S. and other countries.

Using the LCD screen correctly Handling the LCD screen

- When the LCD screen is subjected to direct sunlight for a long period of time, it will become very hot, resulting in possible damage to the LCD screen. When not using this navigation system, avoid exposing it to direct sunlight as much as possible.
- The LCD screen should be used within the temperature ranges shown in "Specifications"
- Do not use the LCD screen at temperatures higher or lower than the operating temperature range, because the LCD screen may not operate normally and could be damaged.
- The LCD screen is exposed in order to increase its visibility within the vehicle.
 Please do not press strongly on it as this may damage it.
- Do not push the LCD screen with excessive force as this may scratch it.
- Never touch the LCD screen with anything besides your finger when operating the

Touch panel functions. The LCD screen can scratch easily.

Liquid crystal display (LCD) screen

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

Maintaining the LCD screen

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

LED (light-emitting diode) backlight

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

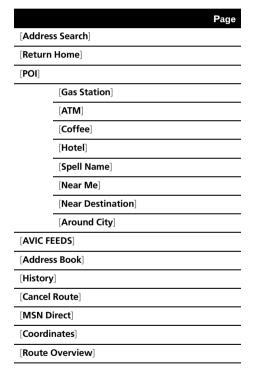
- At low temperatures, using the LED backlight may increase image lag and degrade the image quality because of the characteristics of the LCD screen. Image quality will improve with an increase in temperature.
- The product lifetime of the LED backlight is more than 10 000 hours. However, it may decrease if used in high temperatures.

• If the LED backlight reaches the end of its product lifetime, the screen will become dimmer and the image will no longer be visible. In that case, please consult your dealer or the nearest authorized PIONEER Service Station.

Display information

Destination Menu





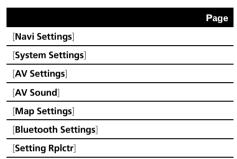
"Phone Menu" screen



	Page
[Dial Pad]	
[Call Home]	
[Contacts]	
[Contacts Transfer]	
[Received Calls]	
[Dialled Calls]	
[Missed Calls]	
[GOOG-411]	

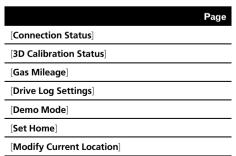
Settings Menu



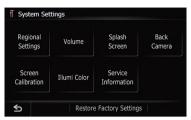


Navi Settings





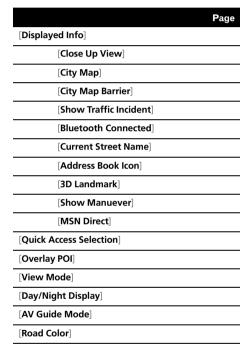
System Settings menu



	Page		
[Regional Settings]			
[Program language], [Voice language]			
[Time]			
[km / mile]			
[Speed]			
[Volume]			
[Splash Screen]			
[Back Camera]			
[Screen Calibration]			
[Illumi Color]			
[Service Information]			
[Restore Factory Settings]			

Map Settings menu





AV System Settings menu



	Page
[AV1 Input]	
[AV2 Input]	
[ANT CTRL]	
[Wide Mode]	
[Rear SP]	
[Mute]	
[Mute Level]	
[Guidance/Tel SP]	
[VR Catalog Menu]	
[DivX VOD]	

AV Sound Settings menu



	Page
[FAD/BAL] ([Balance])	
[EQ]	
[Loudness]	
[Sub Woofer]	
[HPF]	
[SLA]	
[Bass Booster]	
[Staging]	

Bluetooth Settings



	Page
[Connection]	
[Registration]	
[Device Name]	
[Password]	
[Bluetooth On/Off]	
[Echo Cancel]	
[Auto Answer Preference]	
[Refuse All Calls]	
[Clear Memory]	
[Firmware Update]	

Glossary

AAC

AAC is short for Advanced Audio Coding and refers to an audio compression technology standard used with MPEG-2 and MPEG-4.

Aspect ratio

This is the width-to-height ratio of a TV screen. A regular display has an aspect ratio of 4:3. Wide screen displays have an aspect ratio of 16:9, providing a bigger picture for exceptional presence and atmosphere.

Bit rate

This expresses data volume per second, or bps units (bits per second). The higher the rate, the more information is available to reproduce the sound. Using the same encoding method (such as MP3), the higher the rate, the better the sound.

Built-in sensor

The built-in sensor that enables the system to estimate your vehicle's position.

CD-DA

This stands for a general music CD (commercial-release audio CD). In this manual, this word is sometime used for a distinction between data CDs (which include compressed audio files) and general music CDs.

Chapter

Titles of DVD-Video or DVD-VR are in turn divided into chapters which are numbered in the same way as the chapters of a book. With discs featuring chapters, you can quickly find a desired scene with chapter search.

Current location

The present location of your vehicle; your current location is shown on the map by a red triangle mark.

Destination

A location you choose as the end point of your journey.

DivX

DivX is a popular media technology created by DivX, Inc. DivX media files contain highly compressed video with high visual quality that maintains a relatively small file size. DivX files can also include advanced media features like menus, subtitles, and alternate audio tracks. Many DivX media files are available for download online, and you can create your own using your personal content and easy-to-use tools from DivX.com.

DivX Certified

DivX Certified products are officially tested by the creators of DivX and guaranteed to play all versions of DivX video, including DivX 6.

Favorites

A frequently visited location (such as your workplace or a relative's home) that you can register to allow easy routing.

GPS

Global Positioning System. A network of satellites that provides navigation signals for a variety of purposes.

Guidance mode

The mode in which guidance is given as you drive to your destination; the system automatically switches to this mode as soon as a route has been set.

Guidance point

These are important landmarks along your route, generally intersections. The next guidance point along your route is indicated on the map by the yellow flag icon.

Home location

Your registered home location.

ID3 tag

This is a method of embedding track-related information in an MP3 file. This embedded information can include the track title, the artist's name, the album title, the music genre, the year of production, comments and other data. The contents can be freely edited using software with ID3 Tag editing functions. Although the tags are restricted by the number of characters, the information can be viewed when the track is played back.

ISO9660 format

This is the international standard for the format logic of DVD/CD-ROM folders and files. For the ISO9660 format, there are regulations for the following two levels:

Level 1:

The file name is in 8.3 format (the name consists of up to 8 characters, half-byte English capital letters, half-byte numerals and the "_" sign, with a file-extension of three characters).

Level 2:

The file name can have up to 31 characters (including the separation mark "." and a file extension). Each folder contains less than 8 hierarchies.

Extended formats

Joliet:

File names can have up to 64 characters.

File names can have up to 128 characters.

• Level 1:

The file name is in 8.3 format (the name consists of up to 8 characters, half-byte English capital letters, half-byte numerals and the "_" sign, with a file-extension of three characters).

Level 2:

The file name can have up to 31 characters (including the separation mark "." and a file extension). Each folder contains less than 8 hierarchies.

Extended formats

Joliet:

File names can have up to 64 characters. Romeo:

File names can have up to 128 characters.

JPEG

This stands for Joint Photographic Experts Group, and is an international still image compression standard.

MP3

MP3 is short for MPEG Audio Layer 3. It is an audio compression standard established by a working group (MPEG) of the ISO (International Standards Organization). MP3 is able to compress audio data to about 1/10th the size of a conventional disc.

MPFG

This stands for Moving Pictures Experts Group, and is an international video image compression standard.

Multi-angle

With regular TV programs, although multiple cameras are used to simultaneously shoot scenes, only images from one camera at a time are transmitted to your TV. Some DVDs feature scenes shot from multiple angles, letting you choose your viewing angle as desired.

Multi-audio (Multilingual dialog)

Some videos feature dialog recorded in multiple languages or audio recorded in multiple tracks. For example, dialog in up to 8 languages can be recorded on a single DVD-Video, letting you choose the language as desired.

Multi-session

Multi-session is a recording method that allows additional data to be recorded later. When recording data on a CD-ROM, CD-R or CD-RW, etc., all data from beginning to end is treated as a single unit or session. Multi-session is a method of recording more than 2 sessions in one disc.

Multi-subtitle

For example, subtitles in up to 32 languages can be recorded on a single DVD-Video, letting you choose as desired.

Packet write

This is a general term for a method of writing individual files to a CD-R, etc. whenever required, just as is done with files on floppy or hard disks

Parental lock

Some DVD-Video discs with violent or adult-oriented scenes feature parental lock which prevents children from viewing such scenes. With this kind of disc, if you set the unit's parental lock level, playback of scenes inappropriate for children will be disabled, or these scenes will be skipped.

Phone book

An address book on user's phone is collectively referred to as "Phone book". Depending on the cellular phone, the "Phone book" may be called a name such as "Contacts", "Business card" or something else.

Point of Interest (POI)

Point Of Interest; any of a range of locations stored in the data, such as railway stations, shops, restaurants, and amusement parks.

Region number

DVD players and DVD discs feature region numbers indicating the area in which they were purchased. Playback of a DVD is not possible unless it features the same region number as the DVD player.

Route setting

The process of determining the ideal route to a specific location; route setting is done automatically by the system when you specify a destination.

Set route

The route marked out by the system to your destination. It is highlighted in bright color on the map.

Title

DVD-Video or DVD-VR discs have a high data capacity, enabling recording of multiple videos on a single disc. If, for example, one disc con-

tains three separate videos, they are divided into title 1, title 2 and title 3. This lets you enjoy the convenience of title search and other functions.

Track log

Your navigation system logs routes that you already passed through if the track logger is activated. This recorded route is called a "track log". It is handy when you want to check a route traveled or if returning along a complex route.

VBR

VBR is short for variable bit rate. Generally speaking, CBR (constant bit rate) is more widely used. But by flexibly adjusting the bit rate according to the needs of audio compression, it is possible to achieve compression-priority sound quality.

Voice guidance

The giving of directions by navigation voice while in guidance.

Waypoint

A location that you choose to visit before your destination; a journey can be built up from multiple waypoints and the destination.

WMA

WMA is short for Windows Media[™] Audio and refers to an audio compression technology that is developed by Microsoft Corporation. •

Specifications

CEA2006 Specifications





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

Register your product at

http://www.pioneerelectronics.com

in Canada http://www.pioneerelectronics.ca

See "Visit our website" page

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