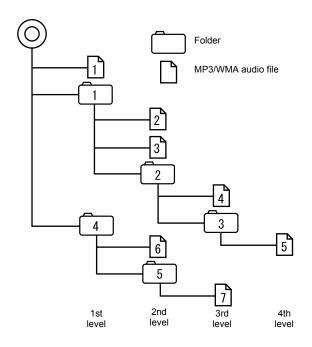
For safety considerations, some functions are disabled while the vehicle is in motion.



Example of an MP3/WMA file structure

Explanations are based on this example of an MP3/WMA file structure.



Playing MP3/WMA files

Playback starts automatically when a CD is inserted into the disc slot.

Playing MP3/WMA files when the display is raised

- Press **VOL** or touch the SOURCE MENU RECALL switch once a disc has been inserted.
- 2 Touch MP3 WMA .
 - Playback will begin.
 - The CD player screen will be shown for about 2 seconds as the system checks whether the inserted CD is a music CD or an MP3/WMA CD.
 - Normally, tracks are played back in the order $\begin{bmatrix} 1 \end{bmatrix} \rightarrow \begin{bmatrix} 2 \end{bmatrix} \rightarrow \begin{bmatrix} 3 \end{bmatrix} \rightarrow \begin{bmatrix} 4 \end{bmatrix} \rightarrow \begin{bmatrix} 5 \end{bmatrix} \rightarrow \begin{bmatrix} 6 \end{bmatrix} \rightarrow \begin{bmatrix} 7 \end{bmatrix}$.
 - When multiple MP3/WMA files and folders are on the same level, they are played in ascending order by folder and file name.

Playing MP3/WMA files when the display is retracted

- 1 Press VOL .
- 2 Turn **VOL** to select CMP.
- 3 Press VOL .

Selecting a music file

A music file located within a folder can be selected.

Selecting with the file change switches

- Touch the music file.
 - The currently selected file name and folder name will be shown in the display.
 - When 9 or more music files are located in the same folder, touch or to show data not currently displayed. (This function is not available when the vehicle is in motion.)

Selecting with the TUNE/TRACK buttons

When several music files are located in the same folder, the next music file or previous music file can be selected with the track selection (track start point) buttons.



● ►► (up) : Selects next music file (down) : Selects previous music file



- If music data and MP3/WMA data have been recorded on the same disc, playback is not possible.
- •When an MP3/WMA file is being played, navigation operation will become slower. This is not a malfunction of the system.

Fast-forwarding/rewinding

It is possible to fast-forward or rewind within the current file.

- Press and hold ►► or << until you hear a beep.
 - ▶► (up): Fast-forward (down): Rewind

If you hear a beep while rewinding (fast-forwarding), the deck has switched to the fast-forward (rewind) mode and will continue until you remove your finger from the button.

Changing display of the current level

The folder level can be switched and displayed.

- 1 Touch 🔄 or HOME .
 - Lisplays the next folder level up.
 - **HOME** : Displays the level of the file currently being played.

Displaying the current level

Displays the file currently being played.

1 Touch HOME .

Repeating the same music file

- 1 Touch FUNC .
- 2 Touch RPT .
 - Repeats the current file.
 - The file will repeat until the function is canceled. Touch RPT again to cancel.

Playing music files in random order

- 1 Touch FUNC .
- 2 Touch RAND .
 - Files will be randomly selected from among all files at the same level as the folder currently being played.
 - Plays files in random order.
 - Random playback will continue until canceled. Touch RAND again to cancel.
 - Touch RPT during random playback to repeat the file currently being played. Touch
 RPT again to return to random playback.
 - At the end of each file the system arbitrarily chooses which file to play next. As a
 result, it is possible for the same file to be played multiple times in a row.



See page 82 for an example of an MP3/WMA file structure.

If 4 in the third level is being played and the display shows the folder and files of the second level (2 3, and 2), touch **HOME** to display the folder and file of the third level (4 and 3).

About the file information display

Folder names and file information (album name and track titles) recorded on the disc can be displayed. The number of characters that can be displayed is shown below.

Screen Display		
Folder/file names	Music file information	
12 characters max.*	14 characters max.*	

^{*:} Varies according to the type of characters used

Displaying folder/file names

Press AUDIO to display the operation screen.



Displaying file information

- 1 Touch TITLE .
 - The TITLE switch will change to TITLE OFF when the file information is being displayed. Touch TITLE OFF to display the previous operation screen.



Turning off the MP3 player

- 1 Press 😃
 - Press 也 again to resume playback.

About MP3/WMA files

MP3 (MPEG-1 Audio Layer III) is a standard format for audio compression technology. By using the MP3 format, a file can be compressed to one-tenth its original size.

WMA (Windows MediaTM Audio) is the audio compression format by Microsoft. This can compress files to a smaller size than MP3 can.

This unit has limitations on MP3/WMA file standards and the recorded media and formats that can be used. Be aware of the following points when recording MP3/WMA files.

Playable MP3 file standards

Supported standards : MPEG1 Audio Layer III, MPEG2 Audio Layer III

Supported sampling frequencies: 16, 22.05, 24, 32, 44.1, 48 (kHz)

Supported bitrates : 6, 8, 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224,

256, 320 (kbps)

* Supports VBR.

* Does not support free format.

Supported channel modes : monaural, stereo, joint, dual

Playable WMA file standards

Supported standards: WMA Ver. 7, 8, 9

Supported sampling frequencies:44.1, 48 (kHz)

• Supported bitrates: 48, 64, 80, 96, 128, 160, 192 (kbps)

* VBR is supported (48 to 192 kbps)

* No support for reversible compression (loss-less compression)

Playable sampling frequencies and supported bitrates

		Sampling frequencies (Hz)		
		48 k	44.1k	
		2 (ch)	2 (ch)	
bitrates (bps)	160 k	0	0	
	128 k	0	0	
	96 k	×	0	
	80 k	-	0	
	64 k	×	0	
	48 k	×	0	
	VBR	0	0	
	VDIK	192 k max	192 k max	

○ : Playable

imes : Not playable

- : No combination

ID3 tag/ WMA tag

MP3 and WMA files have an ID3 tag/WMA tag that allows the input of text information so that data such as track titles and artists can be saved.

■ID3 tag/WMA tags

		MP3	WMA
		Ver.10, 1.1, 2.2, 2.3	Ver1.02.02
Input items	TITLE		15 characters
	ARTIST	30 characters	
	ALBUM		×
Characters disp	olayed	ASCII	UNICODE

Media

Media capable of playing MP3/WMA files include CD-ROM, CD-R and CD-RW discs.

Compared to CD-ROM media commonly used for music discs, CD-R discs are fragile in high temperature/high humidity environments and sections of the CD-R may become incapable of playback. Fingerprints or scratches on the disc may prevent playback or cause skipping.

Sections of a CD-R may deteriorate if left inside a vehicle for long periods of time.

It is also recommended that CD-R discs be kept in a light-blocking case because the discs are vulnerable to ultra-violet light.

Supported disc formats

The disc formats supported by this device are shown below.

- Disc formats: CD-ROM MODE1, CD-ROM XA MODE2 (Form1)
- File formats

■ISO9660

	LEVEL 1	LEVEL 2
Folder name (max. number of characters)	8 characters	31 characters
File name (max. number of characters)	8 characters + 3 character file extension	31 characters
Characters displayed	Alphanumeric (ASCII code)	

■Extended format

	ROMEO format	JOLIET format
Folder name (max. number of characters)	128 characters	64 characters *1
File name (max. number of characters)	128 characters *2	64 characters
Characters displayed	ASCII code	ASCII code

- *1 Delimiter "." included
- *2 Delimiter "." + extension included
- Maximum directory layers: 8 layers
- Total number of folders that can be written on a single disc: 255
- Total number of files that can be written on a single disc: 512



Touch **TITLE** in the MP3/WMA operation screen to display up to 30 characters for an MP3 file, or 15 characters for a WMA file. (Refer to the section **"Displaying file information"** on page 87.)

File names

Only files with the MP3/WMA file extension".MP3/.WMA" will be recognized as MP3/WMA and played in the unit. Be sure to save MP3/WMA files with an ".MP3/.WMA" file extension. Use capital letters when attaching file extensions.

Multi-sessions

Multi sessions are supported and CD-R/RW discs with recorded MP3/WMA files can be played. When recording using "Track at once", however, finalize the disc with session close or write protect.

Playing MP3/WMA files

When a disc containing an MP3/WMA file is inserted, all files on the disc will be checked before playback can begin. The check will be completed within approximately 10 seconds of the disc being inserted, and the first MP3/WMA file will begin playing. If the check is not completed within this period, the music or audio previously being played will resume. MP3/WMA playback can be started by touching MP3 WMA.

Sound is not emitted from the system while it is checking the files on the disc.

In order to speed up completion of the file check, it is recommended that you avoid recording files that are not MP3/WMA files and avoid creating unnecessary folders.

In addition, it is recommended that you record all data in a single session because it takes more time to acquire CD control information from a multi-session disc.

While an MP3/WMA is being played, navigation operation will become slower. This is not a malfunction of the system.

MP3/MWA playing time display

It is possible that playing time will not be correct, depending on the writing condition of the MP3/WMA file.

* It is possible that playing time will not be correct when VBR Fast Up/Down is operated.

Display order of MP3/WMA file/folder names

Names of MP3/WMA folders and files within the same level are displayed in the following order.

- 1. MP3/WMA files displayed first, in ascending order of numbers, then letters.
- 2. Folders are displayed next, in ascending order of numbers, then letters.



If the ".MP3/.WMA" file extension is attached to a file other than an MP3/WMA file, that file will be mistakenly recognized by the unit as an MP3/WMA file and played, resulting in noise and static that can damage the speakers. Do not attach the ".MP3/.WMA" extension to any non-MP3/WMA files.

Making and playing MP3/WMA files

MP3/WMA files created by recording broadcasts, records, audio recordings, video recordings or live performances cannot be used for purposes other than personal entertainment without permission of the copyright holder as set forth in copyright law.

Downloading from Internet MP3/WMA music sites

There are many kinds of sites that distribute MP3/WMA files on the Internet, such as "pay per download" online shopping sites, "try before you buy" listening sites and free download sites. Follow the rules for each site (such as paying fees) and download according to site instructions.

Converting CD music to MP3/WMA files

Prepare a computer with commercially available MP3/WMA encoding software (conversion software). (Some encoding programs available on the Internet do not require payment.) Music data files in MP3/WMA format can be made by inserting the music CD into the CD-ROM drive of the computer and following the procedures of the MP3/WMA encoding software to compress the songs of the music CD. A 12cm music CD (having a maximum of 74 minutes of recording/650MB of data) can be compressed to 65MB (about 1/10 of the original size).

Writing to CD-R/RW discs

MP3/WMA files can be recorded on a CD-R/RW by using a CD-R/RW drive connected to a computer. Record by setting the recording format of the recording software to ISO9660 level 1 or level 2 (not including extension format).

Select CD-ROM (mode 1) or CD-ROM XA (mode2) for the disc format.

Playing back CD-R/RW discs

Insert a CD-R/RW disc containing recorded MP3/WMA files. The system will automatically determine whether the disc is a music CD or a CD-R/RW with MP3/WMA files and begin playing the disc. A music CD recorded onto a CD-R/RW can also be played. However, depending on the type of disc being used, playback may not be possible.



- A fixed bitrate of 128kbps and sampling frequency of 44.1kHz is recommended for obtaining stable audio quality at playback.
- Depending on the characteristics of a disc, the system may not be able to read CD-R and CD-RW discs.
- Because there are many types of MP3/WMA encoding software available, including commercial and freeware programs, audio quality may deteriorate, noise may be generated when playing starts and some recordings may not play, depending on the condition of the encoder and the file format.
- When files other than MP3/WMA files are recorded on a disc, the system may take some time to recognize the disc or it may not play.