KENWOOD TIPS

Organizing and Burning MP3 CD-R's for the Z919

What is MP3?

MP3 is an audio compression (data reduction) algorithm developed for use primarily on personal computers. Like Dolby Labs' AC-3, MP3 is based on human psychoacoustics, so it maintains good sound quality for most users while substantially reducing the amount of digital data needed to represent a music signal. The amount of audio compression is selectable, and can be set by the user when they encode the music. Some encoders can even vary the compression rate on the fly according to the music, which minimizes file size while maintaining higher audio quality.

MP3 encoding typically reduces the size of a song by up to ten times, allowing music files to be quickly downloaded and exchanged via the Internet and easily stored and played back on computers and MP3 players (like the Z919). This reduced file size allows more than 10 hours of MP3-encoded files to be stored on a single CD-R disc. More than any other factor, MP3 is responsible for today's explosive increase in the use of the Internet and personal computers for the storage, exchange and listening of music.

Unlike conventional music CD's that are all recorded to a single standard, a CD-R containing MP3 files can be created in a variety of different ways. Since the way the MP3 files themselves are organized on the disc can make it easier for the Z919 to access individual files, this paper explains how the Z919 looks for files and folders, and shows how to organize the MP3 files on a disc so it is easier to navigate through the disc and select songs when playing it in the Z919.

Encoding MP3 Files on your Computer and Burning CD-R's

Creating an MP3-encoded CD-R is a 2-step process. First the songs have to be MP3-encoded, then the encoded songs are "burned" onto a CD-R.

The Z919 can play MP3 files encoded at any conventional fixed MP3 encoder data rate, as well as variable bit rates. When encoding MP3 files, we recommend using a fixed 128kbps data rate for the best balance between small file size and good sound quality.
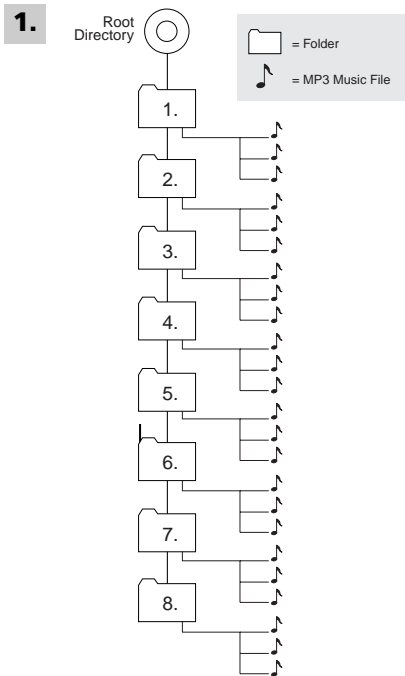
When you burn CD-R's with MP3 files, select the ISO 9660 format. You can use either Level 1 (allows 8 characters in file names) or Level 2 (allows 27 characters in file names). Using a different format could produce a disc that doesn't play properly in the Z919.
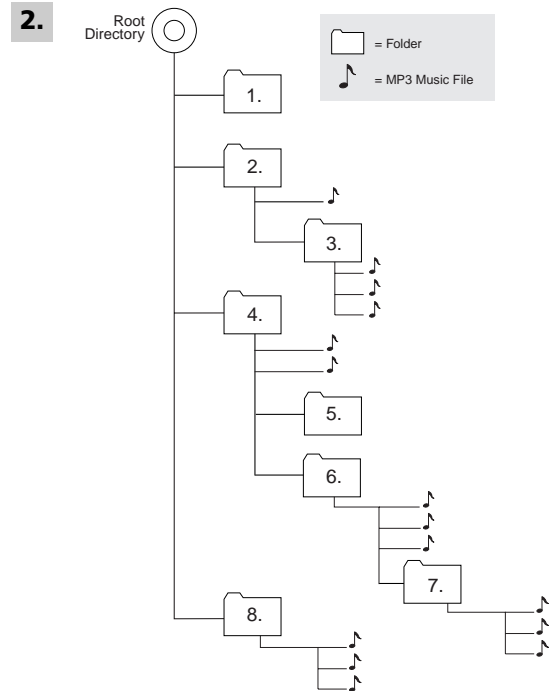
Organizing MP3 Files and Folders

Although the Z919 can access all of the MP3 files on a disc regardless of how you organize the files and folders, the more complicated the structure is (for example, if you put folders inside of other folders) the longer the Z919 takes and the more confusing it can be to search for a particular folder or song. By not putting any folders inside of other folders (keeping all folders at the same hierarchical level) you will make it easier to search for and access a particular folder. (*See examples on the next page*).

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Recommended   **Not Recommended**

Two different ways to set up a file/folder directory structure for a CD-R with MP3-encoded files. Example 1's simplified, one-layer directory structure takes less time for the Z919 to search through, and makes individual folders easier to keep track of and access than example 2's more complex multi-layered directory structure with folders located inside of other folders.

Searching For Folders And Files On The Z919

The Z919 has two different ways to access folders containing MP3 files: *Folder Search* and *Folder Select*.

Folder Search Mode: The *Folder Search* mode is the Z919's default play mode. It allows you to skip sequentially from folder to folder, either forward or backward, by pressing the *Disc +* and *Disc -* buttons while a song is playing. Stopping on a folder automatically plays the first song inside. Once a song is playing you can use the ⏮ and ⏭ buttons to select other songs within that folder. Pressing the ⏭ button while the last song in a folder is playing will advance to the first song in the next folder.

Folder Search works exactly the same no matter what the disc's folder/file structure may be. However, the Z919 will take longer to move between folders that are inside of other folders (example #2 above) than it does moving between folders that are all at one level (example #1).

Folder Select Mode: This mode allows you view the name of each folder in a disc, and directly select a particular folder. To enter *Folder Select*, press preset button #2 on the Z919 while an MP3 file is playing. Pressing the *Disc +* and *Disc -* buttons lets you change from one hierarchical level to another, while the ⏮ and ⏭ buttons let you view folders that are at the same hierarchical level. Once the name of the folder you want appears on the display, pressing the ⏯ button plays the first song in that folder.

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How easy *Folder Select* is to use depends on the disc's directory structure. Due to the disc's Windows-based format, when you enter *Folder Select*, the Z919 creates a virtual folder for the currently active folder one hierarchical level below it. (Indicated when the currently active folder's name appears on the screen in parenthases). To bring the folder back to its original hierarchical level, you must first press the *Disc -* button. (The folder's name is then displayed without parenthases.) Once you do this the *Disc +, Disc -*, ⏮< and >⏭ buttons operate as you expect them to. Based on this, it's clear that a disc with a file/folder structure like example #1 will be much simpler to navigate through than a disc structured like example #2.

Other Things To Be Aware Of

• When you first insert a disc, the Z919 reads the disc's entire file/folder directory structure (the display will flash "*File Check*"). More complex file/folder directories (like example #2) will take longer to read than simpler ones.

• Using the Z919 to search between folders that contain MP3 files takes no more time than changing conventional CD's in a CD changer. However, skipping MP3-encoded songs within a folder does take more time than skipping songs on a conventional CD.

• The Z919 will not display MP3 ID (ID3) tags. (ID3 tags can be embedded in the file by the user at the time the MP3 file is encoded, and contain song title, artist and album information.)

• The Z919's changer output is the MZ-Bus format and will only control the C907 changer.

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