

DIGITAL AUDIO PLAYER ^{m25}



User Guide

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- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.



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

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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According to 47 CFR, Parts 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers, Motorola, Inc., (Motorola, Inc., Broadband Communications Sector, 101 Tournament Drive, Horsham, PA 19044, 1-877-466-8646, declares under sole responsibility that the product identifies with 47 CFR Part 2 and 15 of the FCC Rules as a Class B digital device. Each product marketed is identical to the representative unit tested and founded to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47 CFR 2.909. Operation is subject to the following condition: This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47 CFR, Paragraphs 15.107 to 15.109.

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This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



Contents

Contents 4

Package Contents 5

Welcome 6

Tour of the m25 8

LCD Overview 11

Basic Setup 14

Software Setup 16

Basic Operations 22

Play Music 28

Advanced Features 35

Frequently Asked Questions 52

Glossary 55

Appendix A – The MP3 Format 58

Appendix B – Menu Tree 60

Limited Warranty and Software License 61

Index 69




Package Contents

- m25 Digital Audio Player
- Installation CD
- Earphones
- AC Adapter/Charger
- Belt Clip
- Mini USB Cable



Welcome

Congratulations on your purchase of the Motorola® m25 Digital Audio Player (Model DAP025). The m25 is a portable player that provides many hours of **MP3** and **WMA** playback. The m25 features a lighted LCD, a memory expansion slot, a stopwatch, and an FM radio tuner. It has a 256-megabyte (MB) internal memory and can accept external MMC or SD memory cards of up to 1 gigabyte (GB) in a slot in the battery compartment. The player can be controlled either by a small joystick on the side called the Thumbstick or by four pressure-sensitive symbols on the bezel of the LCD for all the basic functions.

Included with the m25 is the *Motorola Digital Music Center* for Windows® PCs. This easy-to-use and powerful software will allow you to extract music tracks from CDs, organize them in a variety of ways, and quickly download them to the m25 using a high-speed USB 2.0 connection. (Your computer must support USB 2.0 for the fastest transfer times; the m25 and software will also work with the older USB 1.0 format.) **Help** files are included in your Motorola Digital Music Center installation that guide you step-by-step through the functions of the software and your player. Just click on the  icon to choose the topic for which you need information.

And, with Windows® 2000 and Windows XP™, the player's internal memory and any installed memory card will show up on Windows Explorer as removable drives that you can easily use like any other drive.

The m25 also supports Apple iTunes® software (a free download from www.apple.com), and the firmware in the player accepts updates from both the PC and Macintosh® computers.



The m25 supports the following digital audio formats:

- [MP3](#) with [ID3 tags](#)
- [WMA](#) with ID3 tags
- Audible® files
- Microsoft's DRM (Digital Rights Management) coding

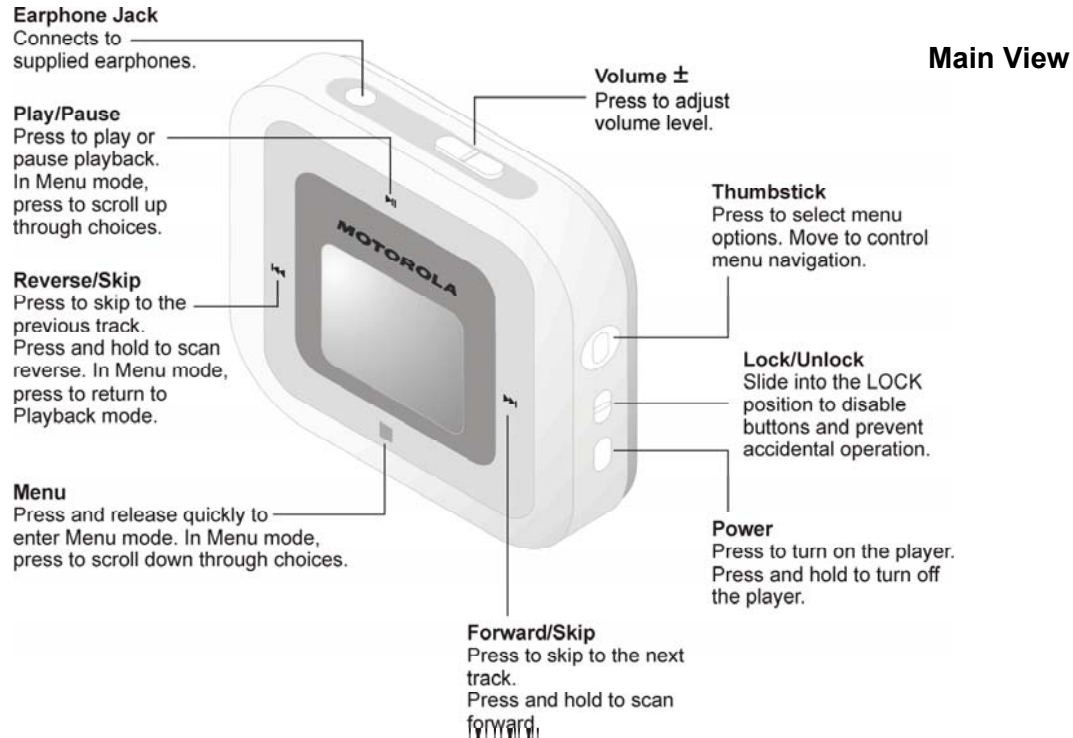
It can play most [VBR](#) (Variable Bit Rate) files, although not all LCD features may be available for those tracks. The total number of songs that can be stored on the m25 will depend on the way in which they are encoded and the bitrate used; see the [FAQ](#) section of this manual for more information.

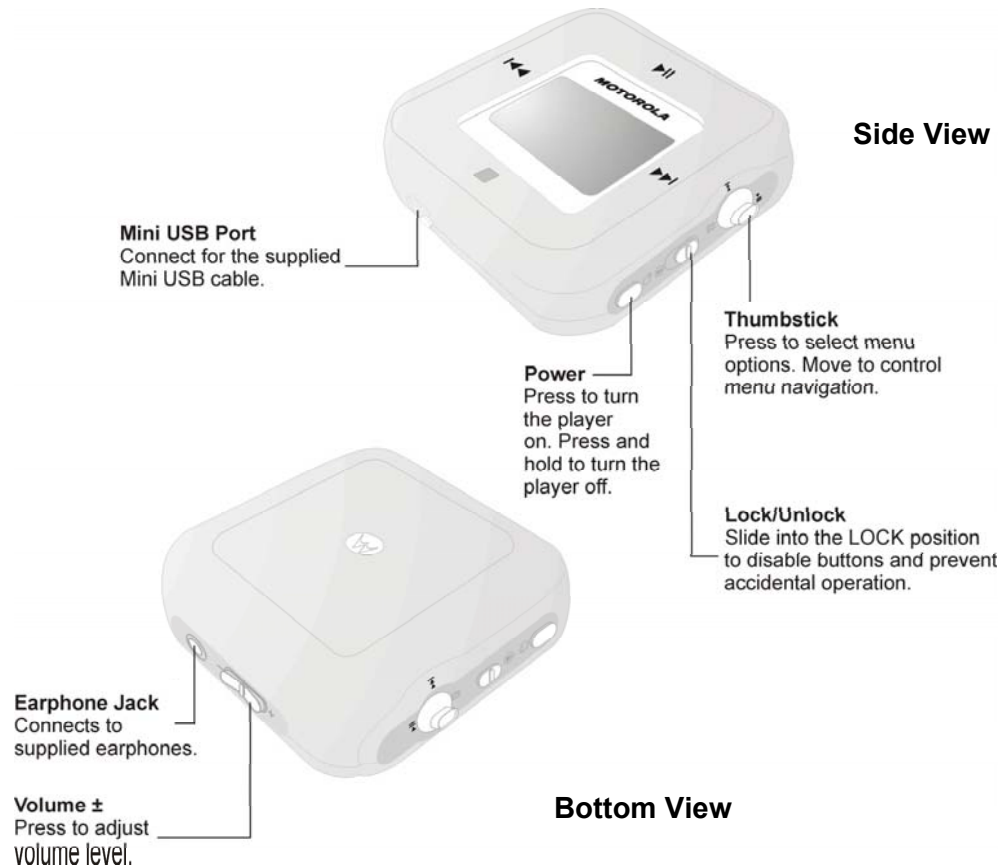
Learning More

The capabilities of the m25, as well as the power of the software and the ways in which you can work with music files in general, are considerable. You will enjoy experimenting with the software and music files as you get to know how to get the most from your m25 Digital Audio Player. Refer to the *Quick Start Guide* for the basics on how to set up and start using the m25.

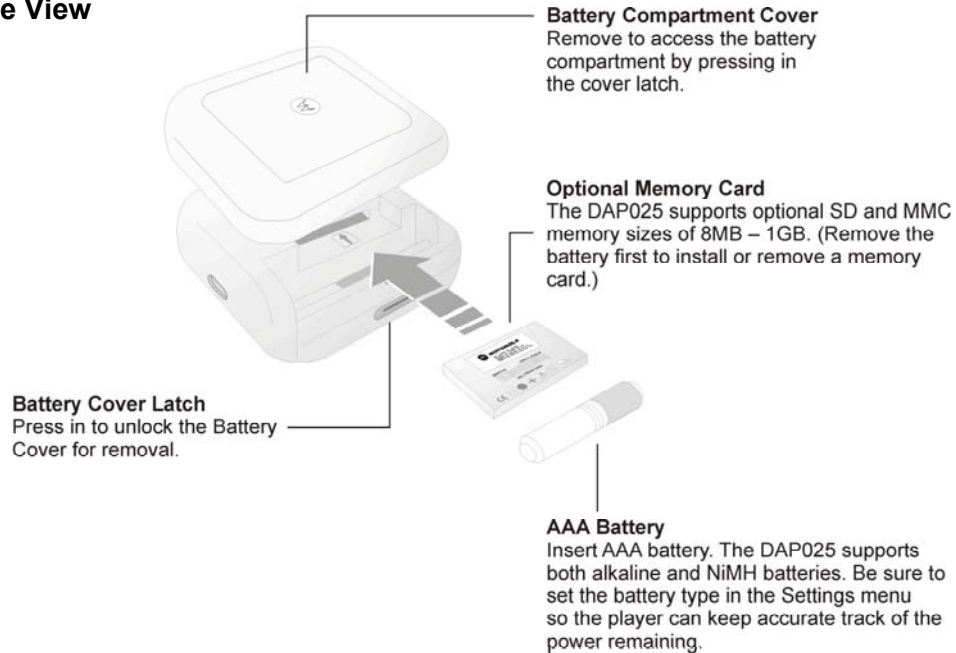


Tour of the m25



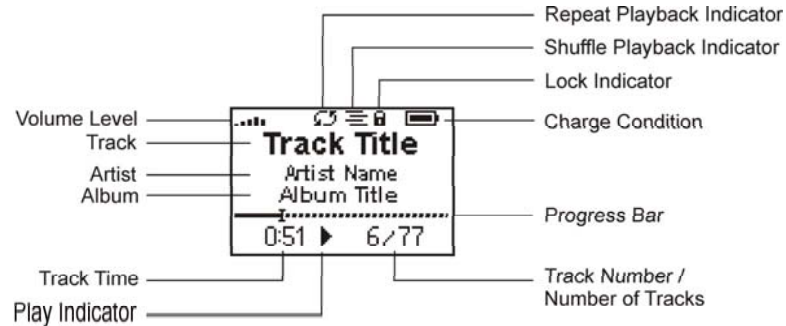


Inside View

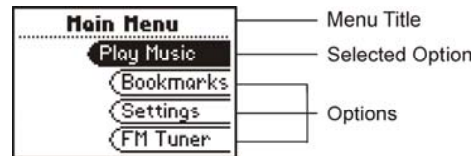


LCD Overview

Playback Mode



Menu Mode



Play Screens

Press the Thumbstick to cycle through Date View, Time Code View, and Track Format View screens.

Date View



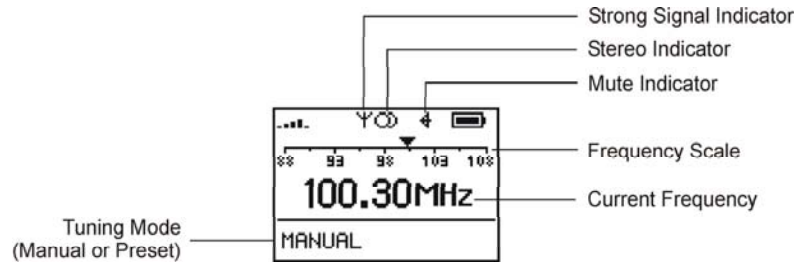
Time Code View



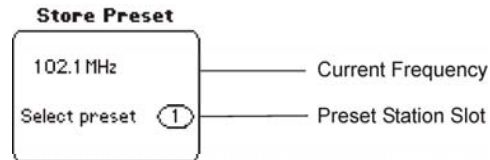
Track Format View



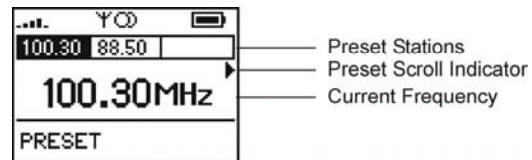
FM Radio Manual



FM Radio Store Preset



FM Radio Preset



Basic Setup

Connections

Before you can start using your new m25 player, you'll have to install and connect a few things. This chapter describes how to install the battery and a memory card, and connect the player to the earphones and the Mini USB cable.

Battery/Memory Card

The m25 uses a single AAA battery that provides many hours of use. Either an alkaline (regular or rechargeable) or a nickel-metal hydride (NiMH) battery can be used. The [battery compartment cover](#) must be removed before a battery can be installed. To remove the battery compartment cover:

- 1 Press in the small latch while lifting off the back cover of the player. (See the picture on page 10.)
- 2 If you want to install a memory card, slide it into the slot as shown on page 10.
- 3 Install the battery with the flat end (the negative/- end) against the curled spring.
- 4 Snap the cover back on. Make sure it's lined up properly with the slots in the player body and the cutout for the Thumbstick.

Earphones

Connect the supplied earphones to the earphone jack on the top of the player (see page 9). Any quality audio earphones with a 3.5 mm stereo plug can be used with the m25. DO NOT use an earphone from a cell or cordless phone because the wiring is different and can damage the player.



USB Cable

The m25 communicates with your computer over a Mini USB cable using USB 2.0 protocols, with a transfer rate of up to 480 Mbps. The player must be connected using the included USB cable to the USB port on your computer to transfer music or files to and from the player and your computer. The Mini USB connector plugs into the port on the bottom of the player (see page 9). The port is covered by a soft plastic plug attached to the player; use care in opening it and do not pull too hard on the plug.

Whenever you plug the player into the cable and the computer is running, the player turns on and establishes a link with the computer. You can then use your music software or file manager to transfer songs and data to and from the player.

When you are done, be sure to stop the link to the player to avoid corrupting files. In Windows, an icon is displayed on the taskbar like the one shown below. Click on it and a dialog box will appear asking you which device you want to stop. Click on the line for USB Mass Storage Device that has a removable drive listed below it, because that is how the player appears to Windows. For a Mac, follow the procedures specified by your operating system to stop or eject a USB device.



Additional Accessories

Get the most out of your m25 with additional accessories that can make the player easier and more flexible to use. Shop the Motorola web site at <http://www.motorola.com/mp3players>.



Software Setup

Overview

To enable your computer to work most effectively with the m25 and access the full potential of the player, the appropriate software for your computer's operating system must be installed:

- [Motorola Digital Music Center](#) must be installed on computers that use the [Windows](#) operating system. Motorola Digital Music Center is the provided program you use in Windows to manage your audio files.
- [iTunes](#) must be installed on computers that use the [Macintosh](#) operating system.
- [Gracenote® CDDB© Music Recognition Service](#) is a free service you can register with that automatically provides details of audio CDs such as Title, Artist, and Track names.



Windows

Follow these instructions to load the installation software, which enables your PC to recognize the m25. The installation also loads the [Motorola Digital Music Center](#). If you are using Windows 98 Second Edition, you may have to install drivers for the player from the CD; refer to your system documentation and Help files for details on doing this. You can also click on the **Add New Hardware** icon in Control Panel and follow the prompts.

- 1 Place the installation CD label-side up into your computer's CD-ROM drive. The installation software should launch automatically.



If installation software does not launch automatically, follow these steps to start installing manually:

- a. **Double-click** the **My Computer** icon on the Windows desktop.
 - b. **Double-click** the **CD-ROM** icon.
 - c. **Double-click** the **Install** icon.
- 2 Click **Motorola Digital Music Center Software and Drivers** and follow the on-screen instructions.
 - 3 If prompted, reboot the computer when the installation is complete.



USB

To transfer music or files to and from your computer to the m25, connect the player to your computer using the supplied Mini USB cable.

USB Detection with the Windows Device Driver

USB connectivity is ready to work immediately after [Motorola Digital Music Center](#) has been installed. Motorola Digital Music Center is the provided program you use in Windows to manage your audio files.

If the Windows Device Driver Wizard is displayed after the USB cable has been plugged into both the m25 and the computer, please follow these steps:

- 1 Confirm that the installation CD is in the computer's CD-ROM drive.
- 2 Check the **CD-ROM Drives** box when the Device Driver Wizard requests the location of the m25 drivers.
- 3 Click **Next** and follow the Device Driver Wizard instructions.



Motorola Digital Music Center

Motorola Digital Music Center is an all-in-one solution that is simple to use and can save and manage entire collections of digital audio tracks. Motorola Digital Music Center provides the capabilities listed below; refer to the program Help files for specific information.

- Copy ([rip](#)) audio CDs into compressed ([encoded](#)) digital audio formats. Motorola Digital Music Center encodes [WMA](#) files by default and [MP3](#) via an optional upgrade pack.
- Automatically [synchronize](#) the music collection on your computer with your m25.
- Edit [ID3 Tag](#) and [WMA](#) tags on digital audio tracks.
- Organize and manage digital audio tracks on your computer and the m25.
- Search for tracks on your computer and the m25.
- Create custom playlists.
- [Transfer](#) tracks from your computer to the m25.



Macintosh

iTunes

The iTunes plug-in is required for the Mac Operating System, 10.3 or higher.

Your m25 audio player is compatible with Apple's iTunes, which runs under the Macintosh operating system and is free and available at www.apple.com. Support for iTunes also can be found there and in the Help files of the program. iTunes offers the following features:

- Copy (**rip**) your audio CDs into compressed (**encoded**) digital formats including MP3s.
- Organize digital audio tracks on your computer.
- Search for tracks on your computer.
- Create custom CDs.



*The m25 doesn't support the **AAC codec** used for music files obtained from the iTunes Music Store at this time. However, there are many quality conversion programs to change music file formats available online for little or no cost.*

The m25 does not support iTunes playlists.



Gracenote CDDB[®] Music Recognition Service

The Gracenote CDDB[®] Music Recognition Service can be used to automatically lookup details of audio CDs such as Title, Artist, and Track names. There is no charge to register and use the service. You have the option during the installation of Motorola Digital Music Center to register with Gracenote, but if you do not, you can register later by following these instructions. To register, your PC must be connected to the Internet and must also be connected to the Internet when ripping CDs so Gracenote can retrieve and provide the music details of the CD being ripped.

In Digital Music Center:

- 1 Click **Tools**.
- 2 Click **Options**.
- 3 Click **Copy CD**.
- 4 Click **Advanced**.
- 5 Click **Register** to register or re-register with the Gracenote CDDB Music Recognition Service.
- 6 Click **Next**.
- 7 Check the box that reads “I have read and agree to these Terms of Use.”
- 8 Click **Finish**.
- 9 Click **Done**.
- 10 Click **OK**.



If you have not registered with Gracenote, a ripped CD will have ID3 tag data of “Unknown Artist” and “Track X” (where X is the track number of the CD) both in the player’s information screen and in Motorola Digital Music Center.



Basic Operations

With the help of the included easy-to-use software, you can soon be enjoying music on the m25. The basic operations of the m25 are divided into four areas:

- How to **Control** player functions
- How to **Copy** songs from CDs and other sources to your computer
- How to **Transfer** songs to the m25 from your computer
- How to **Play Songs** on the player



Control

The following controls on the m25 let you access the player's functions:

- **POWER**
Press to turn the player on. To turn the player off, press and hold until the bar graph moves completely across the screen and **Saving Settings** is displayed.
- **LOCK/UNLOCK**
Slide into the **LOCK** position to disable Volume and the Thumbstick (except Play/Pause operation). This works when the player is on and off; when the player is turned off, a padlock appears on the LCD if you try to turn it on with **LOCK** engaged. See Settings for Lock options.
- **VOLUME + and -**
Press either side of the button to adjust the volume level.



- **Thumbstick**

Move, like a joystick, toward any of the four symbols discussed below, or press in like a button. In Playback mode, press in to cycle through the Play Screens. In Menu mode, move to select categories or options, and press in to make choices.

- **Play/Pause** ▶||
Press to play or press again to pause playback, and to move up through menus and options.
- **MENU** ☰
Press and release quickly to enter Menu mode without stopping music playback. Press and hold to stop playback, and to move down through menus and options.
- **Forward** ▶▶|
Press and release quickly to skip to the next track. Press and hold to scan forward through a track. In Menu mode, press to move into a submenu. When setting options, press to confirm the choice and a checkmark will appear on the LCD.
- **Reverse** |◀◀
Press and release quickly to skip to the previous track. Select and hold to scan backward through a track. In Menu mode, press to return to the Playback mode screen or to back out of a submenu.



Copy

Copying Tracks with Motorola Digital Music Center

Copying tracks from audio CDs involves two steps commonly known as ripping and encoding. Ripping and encoding refers to the process of ripping (copying) audio from a CD and encoding (saving) the audio content into a compressed digital audio format like MP3 or WMA.

- 1 Launch the Motorola Digital Music Center.
- 2 Insert an audio CD into your CD-ROM drive.
- 3 Click the CD-ROM icon on the Motorola Digital Music Center Device List. In a short time the music tracks on the CD will be read and listed in the Digital Music Center window.
- 4 Use any of the following techniques to select tracks:

Track Type	Technique
Single track	Left-click the track
Multiple tracks	Press SHIFT+Click or CTRL+Click
All tracks	Press CTRL+A
No tracks	Press CTRL+N
Every track except for the currently selected tracks	Select Edit, Invert Selection

- 5 Click  to begin copying tracks to your computer.




Transfer

Motorola Digital Music Center

Transferring tracks from the PC to the m25 with the Motorola Digital Music Center involves selecting tracks and then transferring them onto the player.

- 1 Launch the Motorola Digital Music Center.
- 2 Click **My Music** in the left frame to access tracks. Motorola Digital Music Center scans the computer's hard drives for digital audio files that are compatible with the m25 player. Files are automatically categorized by album title and displayed in the Track List.
- 3 You can select tracks within a specific category: Albums, Artists, Genres, Songs, and Playlists. For example, if you wish to copy all tracks by a favorite artist onto the player, click the **Artists** tab and then use any of the techniques in Step 4 to select the desired tracks.
- 4 Use any of the following techniques to select tracks:

File type	Technique
Single track, album, or artist	Left-click the track, album, or artist
Multiple tracks, albums, and/or artists	Press SHIFT+Click or CTRL+Click
All tracks, albums, and artists	Press CTRL+A
No tracks, albums, or artists	Press CTRL+N
Every track except for the currently selected tracks	Select Edit, Invert Selection

- 5 Click  to begin copying tracks to your m25.



iTunes

This is the music management software developed by Apple Computer and is available from the Apple web site. Check your computer documentation to find out how to load it onto your Mac operating system.

- 1 Launch iTunes.
- 2 Connect the player to a USB port on the computer. The m25 will turn on.
- 3 Click **Library** in the iTunes Source frame.
- 4 Select the tracks to transfer.
- 5 Drag and drop the selected tracks onto the **m25 player** listing in the iTunes Source frame.



iTunes will only refresh the audio contents located on the m25 player after all selected tracks have been transferred.



Play Music

There are two types of music playback in the m25:

- **Play Music** plays digital audio music tracks in Playback mode.
- **FM Tuner** will let the player receive FM radio stations.

These types of playback can be changed at any time through the main menu.



Playback

In Playback mode (the default mode), any track or preset customized playlist can be played within seconds by selecting the appropriate category.

Play All will play all songs on the m25.

Album will select the songs whose information identifies them as belonging to a particular CD album.

Artist will identify songs from a particular artist for playback, based on track information.

Genre will play all songs that match a particular type of music, based on track information.

Track will play a specific track.

Year will group and play songs that were published in a certain year.

New Music will include songs that were added to your music lists within a specified recent period of time.

Playlists will use the lists you have made of selected songs to play.


Spoken Word is used to play AUD (Audible formats 2 and 3) files such as those used for recorded books.

FM Record will open a list of recorded broadcasts for playing. These can be music, speeches, talk shows, etc.




Play All

To play all tracks:

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Play Music**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Play All**.
- 5 Press Thumbstick in to begin playback.

Album

To play a specific album:

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Play Music**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Album**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select an album to play.
- 7 Press Thumbstick in to begin playback.

Repeat these instructions to select any of the other Playback options (Artist, Genre, Track, Year, New Music).




Playlists

To create a playlist accessible on your m25:


- 1 Select your m25 from the Device List in Motorola Digital Music Center.
- 2 Select tracks to add to a playlist.
- 3 Right-click a highlighted track.
- 4 Click **Add** to playlist.
- 5 Click **New Playlist**.
- 6 Enter a playlist name.
- 7 Click **OK**.

To start a playlist:

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Play Music**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Playlists**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select a playlist.
- 7 Press Thumbstick in to begin playback

Spoken Word


To play spoken word tracks:

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Play Music**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Spoken Word**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select a title or file.
- 7 Press Thumbstick in to begin playback.




FM Record

To play tracks recorded from the FM tuner:

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **FM Record**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Playback**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select a recording or to **Play All**.
- 7 Press Thumbstick in to begin playback.

To delete tracks recorded from the FM tuner:


- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **FM Record***.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Delete**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select a recording or to **Delete All**.
- 7 Press Thumbstick in to remove the selection(s).

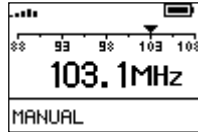
*FM Record appears in the Menu as FM Record and in the immediate submenu as FM Recording.





FM Tuner

To access FM Tuner mode:

- 1 Select **Tuner**.
- 2 Press **Thumbstick**.
- 3 Press **MENU** or .







The FM Tuner is a stereo FM receiver with the capability of storing up to eight preset stations and recording broadcasts into the player's memory. When using the FM Tuner, there are three different modes of operation:

- **Manual** allows you to tune in a station by moving **Thumbstick** forward () or backward ()
- **Store Preset** lets you set a station frequency under a memory location, like a car radio push button.
- **Preset** recalls the stored stations so they can be tuned in by pressing on a number.

FM Control

When in FM Tuner mode, the following controls function differently depending on the mode:

- **MENU** ()
Press to enter Menu mode.
- **Play/Pause** ()
In Manual mode, press to mute the FM radio. Press and hold to start and stop FM Record.
- **Forward** () and **Reverse** ()
In Manual mode, press to tune up or down the frequency range. Press and hold to search up or down the frequency range for particularly strong signals.



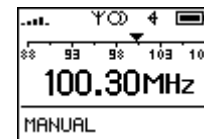
- **Thumbstick** (Movement)

Move to duplicate the **Play/Pause** (▶||), **Forward** (▶▶|), and **Reverse** (|◀◀) functions listed above. Press and hold **Play/Pause** (▶||) to start and stop FM Record. Press in to enter **Preset** mode. In Manual mode, press and hold to enter **Store Preset** mode.

Manual

To enter the FM Tuner mode and use manual tuning:

- 1 Open MENU by pressing Thumbstick to ☰.
- 2 Move Thumbstick to select FM Tuner.
- 3 Press Thumbstick in.
- 4 Press Thumbstick quickly to ☰ to switch between the auto-searching option and no searching. (Autosearch looks for the next strong signal when Thumbstick is pressed to Forward (▶▶|) or Reverse (|◀◀).



Store Preset

The m25 allows programming of up to eight FM preset slots. To store a preset:

- 1 When in Manual mode, tune to a frequency you wish to store.
- 2 Press and hold Thumbstick to enter Store Preset mode.
- 3 Press Thumbstick toward **Forward** (▶▶|) or **Reverse** (|◀◀) to cycle to the desired preset station slot.
- 4 Press Thumbstick to store the frequency to the selected FM preset slot. After a frequency has been stored to a slot the player will enter Preset mode.



Preset

To access an FM preset slot:

When in Manual mode, press Thumbstick in to enter Preset mode.

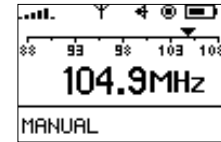
- 1 Press **Forward** (▶▶) or **Reverse** (◀◀) to cycle to the desired preset station.
- 2 Press Thumbstick in to select a preset station and return to Manual mode.



Recording Broadcasts

The m25 FM Tuner allows you to record FM broadcasts and play them back through the player. To record a broadcast:

- 1 Open **MENU** by pressing Thumbstick to ☰.
- 2 Move Thumbstick to select **FM Tuner**.
- 3 Press Thumbstick in.
- 4 Press Thumbstick quickly to ☰ to switch between the auto-searching option and no searching. (Autosearch looks for the next strong signal when Thumbstick is pressed to **FORWARD** (▶▶) or **REVERSE** (◀◀).
- 5 Move Thumbstick up for about 1 second.
- 6 The record icon will appear at the top of the display screen after several seconds.
- 7 To stop the recording, press the Thumbstick up for about 1 second again.
- 8 The record icon will disappear after several seconds.



Advanced Features

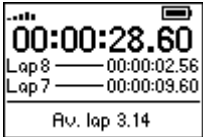
Your m25 offers a number of useful advanced features beyond the playing of music:

- **Stopwatch** Use this feature to record thousands of laps and instantly tell how much faster or slower the last lap was when compared to the previous one.
- **Settings** The **Settings** menu lets you adjust basic m25 setups, such as the LCD backlight, power saving, etc.
- **Bookmarks** You can use **Bookmarks** to keep both a place in a recorded book and to save your own personal settings if you share the player with someone else, who can also store their own settings using bookmarks.
- **About** The **About** menu holds information about the firmware version in the m25 and the storage space remaining on the hard drive.




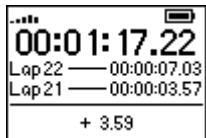
Stopwatch

To use the stopwatch to keep track of time-related events while listening to music:



Average Lap Time

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Stopwatch**.
- 3 Press Thumbstick in.




Lap Difference



Lap statistics are displayed at the bottom of the Stopwatch screen. When a new lap is set, the difference, either faster (- for time removed) or slower (+ for time added), between the new lap time and the current average laptime is displayed for a few moments, and then the new current average laptime is displayed. The time for the two most recent laps is shown below the counter, and each new lap saved erases the one before the last. The m25 can track thousands of laps.

When in Stopwatch mode, the controls work in the ways described below.

- 1 Press Thumbstick toward  to return to the **Main Menu**.



Returning to the Main Menu and using other player functions will not turn the stopwatch off. The timer continues to run until the Thumbstick is pressed up (Play/Pause or ) while Stopwatch is shown on the LCD. The timer also holds a paused time until either it is reset to zero or the player is turned off.

- 2 Press Thumbstick in to set a lap time. Press and hold to return to the single lap display. Multiple laps and lap averages will be lost.
- 3 Press Thumbstick up toward  to start and stop the timer.
- 4 Press Thumbstick down toward  to enter Menu mode. Press and hold to reset the stopwatch timer.



Settings




The Settings selection is used to configure certain characteristics of the m25, such as the sound equalizer or the backlight of the LCD. These settings include:

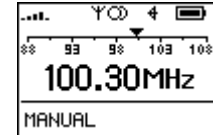
- **Playback** setting lets you choose from regular, shuffled, or repeating.
- **Equalizer** allows you to adjust the player sound using various preset and fully customizable equalizer options.
- **Power** settings are used to adjust the power-saving timeout length.
- **Resume** options are used to set the track that the m25 will play when the unit is restarted.
- **Display** allows you to adjust backlight and contrast settings.
- **Time** allows you to set the player's internal clock.
- **FM Tuner** allows you to choose whether to turn off stereo FM (for better reception) and the tuning method.
- **Lock setting** lets you choose which controls are affected by the **LOCK** switch.



Playback

Various playback settings can be set to modify the way the m25 plays tracks. Tracks can be shuffled at random and/or repeated continuously.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Playback**.
- 5 Press Thumbstick in.
- 6 Press Thumbstick again to select the **Playback** options.
- 7 When the options are set as you want, press Thumbstick in.
- 8 Press **Forward** () to save settings and **Reverse** () to cancel them.



Playback options include:

- **Shuffle**
Set selected tracks to play in standard or random order. Settings include **Off** (the default setting) and **On**.
- **Repeat**
Set selected tracks to repeat playback of all tracks or the current track. Settings include **Off** (the default setting), **All**, and **One**.










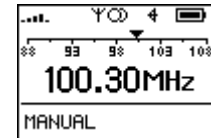
Equalizer

The sound of tracks played on the m25 can be adjusted using various preset and fully customizable equalizer options. Equalizer settings include:

Custom


Custom mode allows the player's settings to be adjusted according to personal preferences.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Equalizer**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select **Custom**.
- 7 Press Thumbstick in.
- 8 Adjust the 5-band equalizer. Press **Forward** () and **Reverse** () to navigate between frequencies. Press **Play/Pause** () or **MENU** () to boost or cut the [gain](#) of the frequency.
- 9 When the equalizer is set, press Thumbstick in.
- 10 Press **Forward** () to save settings or **Reverse** () to cancel settings.




EQ Off

Select the **EQ Off** option to apply no equalizer adjustments to audio content on the m25. This is also known as using “flat” settings.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Equalizer**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select **EQ Off**.
- 7 Press Thumbstick in to set the **EQ Off** option and return to Playback mode.

Rock

Select the **Rock** equalizer option to change the sound of tracks according to the **Rock** preset settings.




- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Equalizer**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select **Rock**.
- 7 Press Thumbstick in to set the **Rock** option and return to **Playback** mode.

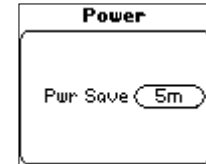
Repeat these instructions to select any of the other Equalizer presets (Jazz, Classical, Pop, Trance).



Power

You can adjust the Power settings on the m25 to conserve energy and extend the amount of playback time during each battery charge.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Power**.
- 5 Press Thumbstick in.
- 6 Press Thumbstick again to select the **Power** options.
- 7 When the options are set as you want, press Thumbstick in.
- 8 Press **Forward** () to save settings and **Reverse** () to cancel them.



Power options include:

- **Battery**
Although the m25 ships with an alkaline battery, it can also use rechargeable Nickel-Metal Hydride (NiMH) batteries. The Battery option must be set to the same battery type that is being used or the battery indicator will not display the correct amount of battery life. Settings include **Alkaline** (the default setting) and **NiMH**.
- **Pwr Save**
Set the player to shut down after being idle for a specific number of minutes. Settings include **1m**, **5m** (the default setting), **10m**, **30m**, and **Never**.






⇒ **Other battery-saving power tips:**

- **EQ** settings — With EQ settings OFF, the battery will last longer.
- **Contrast** — Turn down the contrast as low as possible.
- **Backlight** — Don't set the backlight for the display to be always on. Try turning it off completely, or setting it to two seconds.
- **Volume** — Higher volumes draw more power. The rating for your player was determined using a volume of 15.
- **Bitrate** — Higher bitrates draw more power than lower ones. Try ripping at 128 Kbps.
- **Audio format** — WMAs use more processing power than MP3s.
- **Standard headphones** — High-powered headphones use more power. Test the battery life with the standard ear buds or headphones that are included with your player.



Resume

Use the options in the **Resume** menu to set the track that the m25 will play whenever the unit is restarted.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Resume**.
- 5 Press Thumbstick in.
- 6 Press Thumbstick again to select the **Resume** options.
- 7 When the options are set as you want, press Thumbstick in.
- 8 Press **Forward** () to save settings and **Reverse** () to cancel them.


Resume options include:

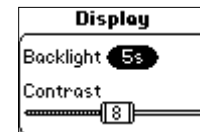
- **Track**
Set the player to begin playback of the last track played before shutdown or the first track in the running order when the player restarts. Settings include **Current** (the default setting) and **First**.
- **Timecode**
Set the m25 to begin playback of the last track played either at the point in the track when shutdown occurred or at the start of the track. Settings include **Current** (the default setting) and **Start**.



Display

Use the **Display** menu to adjust backlight and contrast settings.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Display**.
- 5 Press Thumbstick in.
- 6 Move Thumbstick to select between **Backlight** and **Contrast** options and **Forward** (▶▶|) and **Reverse** (|◀◀) to select options within Backlight and Contrast.
- 7 Press **Forward** (▶▶|) or **Reverse** (|◀◀) to set how long the backlight will stay lit.
- 8 If you want to change the screen contrast, press Thumbstick down.
- 9 Press **Forward** (▶▶|) to increase and **Reverse** (|◀◀) to decrease contrast.
- 10 When the options are set as you want, press Thumbstick in.
- 11 Press **Forward** (▶▶|) to save settings and **Reverse** (|◀◀) to cancel them.



Display options include:

- **Backlight**

Set the backlight on the player to shut itself off after a specific number of seconds. Settings include **Off**, **2s**, **5s**, (the default setting) **10s**, **20s**, and **On**. **Off** disables the backlight and **On** sets the backlight to remain lit constantly.



*To conserve battery life, the **On** setting should rarely be used. See other battery-saving power tips [here](#).*


- **Contrast**

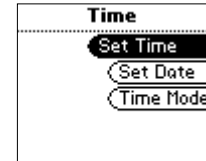
Move the Thumbstick to control the contrast slider. The contrast slider sets how light or dark the images on the LCD will appear. Setting the contrast too high will result in washed-out images. Setting the contrast too dark will result in images that are too dark to read.



Time

Use the options in the **Time** menu to set the player's internal clock.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Time**.
- 5 Press Thumbstick in.
- 6 Press Thumbstick again to select the **Set Time**, **Set Date**, or **Time/Date Mode** options.
- 7 Press Thumbstick to apply settings and return to Playback mode.












Time settings include:

- **Set Time**
Options include **Hour**, **Minute**, and **AM / PM**.
- **Set Date**
Options include **Month**, **Day**, and **Year**.
- **Time Mode**
Options include **12-hour** (the default setting) and **24-hour** time formats and **USA** (the default setting), **Europe**, and **Japan** date formats.



FM Tuner

Use the options in the **FM Tuner** menu under **Settings** to control the player's FM setup.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **FM Tuner**.
- 5 Press Thumbstick in. The **Options** bar will be highlighted; press Thumbstick in again.
- 6 The **Stereo** and **Region** options will appear with the current modes displayed and the **Stereo** setting blinking.
- 7 Press Thumbstick either **Forward** () or **Reverse** () to change the **Stereo** option, then press Thumbstick down to select the **Region** setting, which will start blinking.
- 8 Press Thumbstick either Forward () or Reverse () to change the option to the area where you will be using the m25, then press Thumbstick in to set that option, which will stop blinking.
- 9 Press **Forward** () to enter the settings and **Reverse** () to cancel them; either a check mark  (accepted) or an **X** (canceled) will appear on the screen. If accepted, you will return to the screen showing before you started this task; if canceled, you will see the **Options** bar screen again. Press **Reverse** () to go back to the **Settings** menu.



FM Tuner options include:

- **FM Stereo Mode**

Options include **On** (the default setting) and **Off**. Selecting **Off** will place the tuner in mono mode. This may help eliminate any hiss heard on distant stations.




- **Region**

Options include **USA** (tunes by .2MHz, the default setting), **Japan** (tunes by .05 MHz), and **Europe** (tunes by .05MHz).






Lock Setup

Use the options in the **Lock Setup** menu to enable volume and thumbstick control when the lock is enabled.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Settings**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Lock Setup**.
- 5 Press Thumbstick in.
- 6 Press Thumbstick again to select the **Lock Volume** and Thumbstick options.
- 7 When the options are set as you want, press Thumbstick in.
- 8 Press **Forward** () to save settings and **Reverse** () to cancel them.


Lock Setup settings include:

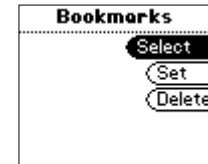
- **Lock Volume**
Options include **On** (the default setting) and **Off**. When set to **Off**, the volume level can be adjusted even when the m25 has been locked.
- **Thumbstick**
Options include **Lock** and |. When set to |, any Thumbstick movement will be interpreted as the | control.



Bookmarks

Bookmarks are useful for marking a place in an audio book. They are also perfect for multiple users who share the same m25. Bookmarks store specific player settings, including the current running order, the current track, the current time position of the track, the repeat setting, and the shuffle setting. Users can save these settings in a bookmark and restore them whenever they use the player.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **Bookmarks**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select a bookmark option.
- 5 Press Thumbstick in.



Bookmark options include:

- **Select**
Use Thumbstick to select a bookmark. Press Thumbstick to restore the selected bookmark settings.
- **Set**
Press Thumbstick to set a bookmark.
- **Delete**
Use Thumbstick to select a bookmark. Press Thumbstick to delete the selected bookmark.




The m25 automatically saves user settings when it is turned off. These settings are automatically restored when the m25 is turned back on. Settings saved automatically are not saved as bookmarks.



About

The About screen displays information about the m25, including the total amount of space on the disk, the amount of free space, the number of tracks on the player, and the [firmware](#) version.

- 1 Open **MENU** by pressing Thumbstick to .
- 2 Move Thumbstick to select **About**.
- 3 Press Thumbstick in.
- 4 Move Thumbstick to select **Player** or **Storage**.
- 5 Press Thumbstick in.

About options include:

- **Player**
Displays firmware version, copyright, and Motorola web site information.
- **Storage**
Displays disk usage graphic bar, disk usage (MB used/MB capacity), and the total number of tracks.



Frequently Asked Questions

The FAQs in this chapter will help you solve common issues with your player. If you do not find the answers you need here, you can contact our Customer Service Department using any of the following methods:

Web: <http://www.motorola.com/mp3players>

Technical Support Telephone: 1-877-466-8646

Question	Answer
What size and type of external memory cards can my m25 use?	The m25 currently supports SD and MMC memory sizes of up to 1 GB. Please visit the Motorola support site at www.motorola.com/broadband for more information on external memory cards.
How do I install an external memory card?	<ol style="list-style-type: none">1 Turn the m25 off.2 Remove the battery compartment cover on the back of the player.3 Remove the battery.4 Gently insert the external memory card with the label side up and the notch in the upper right corner into the memory card slot next to the battery compartment.5 Replace the battery.6 Replace the battery compartment cover.7 Turn the m25 on.



Question	Answer
What type of files can I play with the m25?	You can play MP3 and WMA files.
Can I use MP3 and WMA files in the m25 at the same time?	Yes. MP3 and WMA audio content can be mixed together.
What are the differences between MP3 and WMA files?	WMA files are generally half as large as comparable sounding MP3 files. Because WMA uses smaller file sizes, you can store more music in less space on CDs, hard drives, or the m25. The WMA format is exclusive to Windows-based computers.
Will the m25 play Variable Bit Rate (VBR) files?	Yes. Because there are many standards for VBR files, it cannot be guaranteed that every encoding software package will properly function with the m25. VBR files that do not comply to standards may lack track time, fast forward, and/or rewind capabilities.
What kind of battery can I use with the m25?	The m25 can use either alkaline or Nickel-Metal Hydride (NiMH) batteries.
Where is the battery indicator on my m25?	The battery indicator on the m25 is located in the top-right corner of the display. The segments in the battery icon show the remaining battery power. The illumination of all segments indicates a fully charged battery. Non-illuminated segments indicate a run-down battery. The battery indicator blinks when less than 20% of the charge on the battery remains.
What kind of skip protection does the m25 have?	Because the m25 uses no moving parts it will never skip or stutter during audio playback.



Question	Answer												
Why won't the m25 turn on?	The m25 will not power on if LOCK/UNLOCK is in the locked position. If you press the POWER button, a padlock will appear on the LCD to remind you that the unit is locked. Confirm that the LOCK/UNLOCK switch is not in the locked position and press POWER to turn it on. If nothing happens after pressing the POWER button, the battery is probably discharged.												
How much music can I store on the m25?	<p>The amount of music that can be stored on the m25 depends on the bitrate of the files stored.</p> <table border="1" data-bbox="661 471 1433 680"> <thead> <tr> <th data-bbox="661 471 864 525">Bitrate</th> <th data-bbox="864 471 1433 525">Approximate amount of space required per minute of audio content</th> </tr> </thead> <tbody> <tr> <td data-bbox="661 545 864 572">64 kbps</td> <td data-bbox="864 545 1433 572">0.5 MB</td> </tr> <tr> <td data-bbox="661 572 864 599">96 kbps</td> <td data-bbox="864 572 1433 599">0.75 MB</td> </tr> <tr> <td data-bbox="661 599 864 626">128 kbps</td> <td data-bbox="864 599 1433 626">1 MB</td> </tr> <tr> <td data-bbox="661 626 864 653">164 kbps</td> <td data-bbox="864 626 1433 653">1.25 MB</td> </tr> <tr> <td data-bbox="661 653 864 680">192 kbps</td> <td data-bbox="864 653 1433 680">1.75 MB</td> </tr> </tbody> </table>	Bitrate	Approximate amount of space required per minute of audio content	64 kbps	0.5 MB	96 kbps	0.75 MB	128 kbps	1 MB	164 kbps	1.25 MB	192 kbps	1.75 MB
Bitrate	Approximate amount of space required per minute of audio content												
64 kbps	0.5 MB												
96 kbps	0.75 MB												
128 kbps	1 MB												
164 kbps	1.25 MB												
192 kbps	1.75 MB												



Glossary

Bass

Bass is the particular low-range area of the sound spectrum where low musical notes and sounds are located. Increasing the bass value will make the low vocals and drums more prominent in your music. You can select the amount of bass in your music by selecting various [equalizer](#) options.

Bitrate

Bitrate denotes the number of bits per second used by a digital music file. The size and quality of a compressed digital audio file is determined by the bitrate used when encoding the file. Generally, the higher the bitrate used, the higher the sound quality, and the larger the file size. For example, a bitrate of 96 kbps (96,000 bits per second) is generally thought of as “CD quality” for WMA audio files, and takes up about 0.75 megabytes (MB) per minute of music. At a 64 kbps bitrate, the sound quality of WMA is similar to that of an FM radio signal, but approximately two minutes of music will fit in 1 MB of space.

Codec

Depending on the context and kind of technology involved, codec can be defined as a compressed digital audio file format (like MP3, WMA, etc.), a “coding/decoding” chip used to translate between digital and analog transmissions (used in modems), or a compression/decompression algorithm. Codecs compress audio data into a file, often for efficient transmission over a network, and then decode it for playback. While all the codecs perform similar compression of digital audio, there are differences in technologies.



The m25 supports MP3 and WMA digital audio codecs. The Advanced Audio Coding (AAC) Codec¹, most closely identified with MPEG-4, is not currently supported by the m25.

Firmware

Firmware is the read-only software that is installed on the player. Like software, it can be updated, but unlike software it can never be deleted from the player.

Gain

Gain is a measurement of the amplitude of all frequency ranges. Gain adjustments boost or reduce frequencies to provide a more desirable audio output.

ID3 Tag

The ID3 tag is the part of the encoded MP3 or WMA file that contains information about the digital music file such as song title, artist, album title, encoding bitrate, track time duration, and so on. ID3 tag information is displayed on the Album/Artist/Track title line on the player's LCD.

MP3

MP3 is short for Moving Pictures Experts Group Audio Layer 3. MP3 is the most well known compressed digital audio file format. This format allows for near "CD quality" sound, but at a fraction of the size of normal audio files. MP3 conversion of an audio track from CD-ROM can reduce the file size by approximately a 12:1 ratio with virtually no perceptible loss in quality. MP3 compression removes the redundant and irrelevant parts of a sound signal that the human ear doesn't hear. This digital sound encoding and compression process was developed by the Fraunhofer Institute for Integrated Circuits and Thomson Multimedia.

¹ AAC was developed by the MPEG group that includes Dolby®, Fraunhofer® (FhG), AT&T®, Sony®, and Nokia®—companies that have also been involved in the development of audio codecs such as MP3 and AC3 (also known as Dolby Digital). The AAC codec in QuickTime® 6 builds upon new, state-of-the art signal processing technology from Dolby Laboratories and brings true variable bit rate (VBR) audio encoding to QuickTime.



Rip and Encode

Rip and encode refers to the process of extracting audio from a music CD (ripping) and encoding it into a compressed digital audio format like MP3 or WMA.

Synchronize

Motorola Digital Music Center can automatically (or manually) delete old content, transfer new audio content, and keep the content on your m25 fresh and dynamic. Motorola Digital Music Center must be open for synchronization to occur between your m25 and your computer.

Treble

Treble notes occupy the higher portion of the sound spectrum. Increasing the treble value will raise the levels of the high sounds in your music files. You can select the amount of treble in your music by selecting various [equalizer](#) options.

VBR

Variable Bit Rate (VBR) encoding converts tracks at a variable rate, using higher bitrate encoding for complex portions and lower bitrate encoding for pauses in songs.

WMA

Windows Media Audio (WMA) is a compressed audio format created by Microsoft as an alternative to MP3. The WMA codec offers greater file compression than the MP3 codec, enabling storage of more digital audio tracks in the same amount of space when compared to MP3s at the same level of quality.



Appendix A – The MP3 Format

The MP3 format has vastly expanded the capabilities of music distribution. Able to compress digital sound to a fraction of the size of conventional WAV sound, MP3 lends itself ideally to Internet distribution, and to new listening device technologies. Your Motorola m25 is a leading edge player able to take advantage of the incredible flexibility afforded by this format.

To understand how the MP3 format works, it is helpful to know something about how CDs store music. A CD stores a song as digital information. Data on a CD-ROM uses an uncompressed, high-resolution format that splits the sound into separate samples for the left and right speakers, thus creating stereo. Music is sampled 44,100 times per second, with each sample being 2 bytes (16 bits) long. A CD, then, stores a huge number of bits for each second of music:

$$44,100 \text{ samples/second} * 16 \text{ bits/sample} * 2 \text{ channels} = 1,411,200 \text{ bits per second}$$

Specifically, 1.4 million bits per second equals 176,000 bytes per second. If an average song is three minutes long, then the average song on a CD consumes about 3.2 megabytes of space. That limits the number of songs that can be carried on a small portable device and makes for burdensome download times, especially if you are not using high-speed Internet connections.

Codec is the MP3 Fuel

The key to the compact nature of MP3 formatted music is compression. MP3 is actually a digital audio codec, which is a method of **compressing** and **decompressing** digitized sound. A standard CD audio format uses roughly 10 MB for just one minute of music. MP3 uses just 1 MB for that same minute of music.

The way that MP3 compresses is essentially by removing those sounds deemed inaudible to the human ear. There are highs and lows in any sample that are beyond, or nearly beyond, our aural comprehension, and MP3 effectively eliminates them to produce the compact files necessary to provide the ease and flexibility the format delivers. While there is undeniably a loss of overall sound quality, it is generally near-CD quality, and acceptable for portable listening. It is a compromise between high fidelity and the advantages of transferability and storage ease.

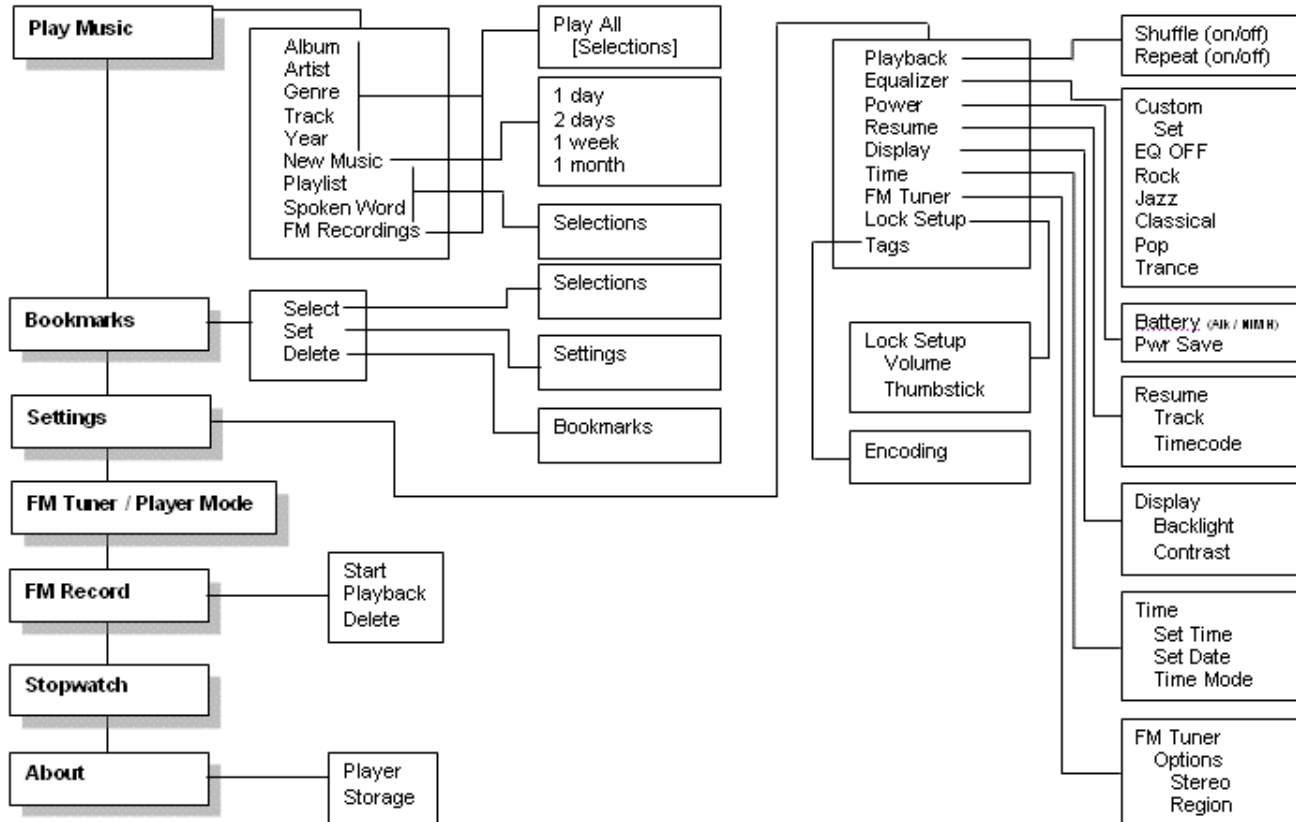


Ripping and Encoding

One of the great features of a portable MP3 player like the Motorola m25 is that it allows you to select the best of the music you own and download it to the player, creating your own “greatest hits” collections. Using a tool like the Motorola Digital Music Center, you can copy (rip) a song’s file from the CD onto your hard disk. The encoder then compresses the song into the MP3 format. Once the song is encoded, it can be played on your computer, any CD player that supports MP3, and most importantly, downloaded to your m25 audio player.



Appendix B – Menu Tree



Limited Warranty and Software License

**Motorola, Inc., Broadband Communications Sector ("Motorola")
101 Tournament Drive, Horsham, PA 19044**

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Index

- AAC codec, 20
- About, 51
- AUD, 28
- Backlight, 45
- Basic Operations, 22
- Bass, 55
- Battery Indicator, 53
- Bitrate, 55
- Bookmarks, 35, 50
- Buttons and Controls, 23
- Codec, 55
- Contrast, 45
- Controls, 23
- Copy, 26
- Display, 44
- Earphones, 14
- Encoding, 25
- Equalizer, 37, 39, 40
- Firmware, 56
- FM Tuner, 32
- FM Tuner mode, 32
- Forward, 24
- Glossary, 55
- Gracenote, 16, 21
- ID3 Tag, 19, 56
- iTunes, 16, 20, 27
- Language, 47
- Limited Warranty, 61
- Motorola Digital Music Center, 16, 17, 18, 19, 25, 26, 57
- MP3, 19, 25, 53, 55, 56, 57, 61
- Play All, 29
- Play/Pause, 24
- Playback, 38
- Playlists, 19, 20
- Power Settings, 41
- Preset Mode, 34
- Resume, 43
- Reverse, 24
- Rip and Encode, 19, 20, 57
- Settings, 37
- Stop, 23
- Stopwatch, 36
- Store Preset, 33
- Synchronize, 19, 57
- Technical Support, 52
- Time, 46
- Timecode, 43
- Track, 24, 25, 26, 28, 36, 37, 38, 43, 50, 53, 56
- Transferring tracks
 - iTunes, 27
- Treble, 57
- Tuner, 47
- USB, 15
- Variable Bit Rate (VBR), 57
- VBR, 53, 57
- Volume +/-, 23
- WMA, 19, 25, 53, 55, 56, 57



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