

Charlotte
941-764-4340

Collier
239-353-4244

Desoto
863-993-4846

Hardee
863-773-2164

Hillsborough
813-744-5519

Lee
239-461-7500

Manatee
941-722-4524

Pasco
352-521-4288

Pinellas
727-582-2100

Polk
863-519-8677

Sarasota
941-861-9808

Cooperative Extension Service, University of Florida, Institute of Food and Agricultural Sciences, Larry R. Arrington, Director, in cooperation with the United States Department of Agriculture, publishes this information to further the purpose of the 1914 Acts of Congress; and is authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation

How to Buy an MP3 Player

Dave Palmer – Instructional Media Agent – 813-755-5519 x 107

The MP3 Format

The MP3 file format revolutionized music distribution in the late 1990s, when file-swapping services and the first portable MP3 players made their debut. MP3 (MPEG Audio Layer III) is one method among many for compressing audio files.

Using the MP3 compression system reduces the file size of a song or podcast, while retaining sound that is near CD-quality. Anytime you compress an audio file, you will lose some of its quality, which is the trade off for small file size. A smaller file size allows for faster downloading and easier storage. Compression lets you download a file in minutes rather than hours, and store hundreds of audio files on your computer's hard disk without taking up that much space.

Songs stored on CDs are not compressed. Consider that an average song is about four minutes long. On a CD, that song uses about 40 megabytes (Mb), but uses only 4 Mb if compressed through the MP3 format. In the MP3 format, on average, 64 Mb of storage space equals an hour of music. A music listener who has an MP3 player with 1 GB (approximately 1,000 Mb) of storage space can carry about 240 songs or the equivalent of about 20 CDs. Songs

MP3 is one of many audio file formats. Most MP3 players can support multiple formats, but not all players support the same formats. Here are a few of the file formats available:

WMA - Windows Media Audio

WAV - Waveform Audio

MIDI - Music Instrument Digital Interface.

AAC - Advanced Audio Coding (AAC)

Ogg Vorbis - A free, open, and un-patented music format

ADPCM - Adaptive Differential Pulse Code Modulation

ASF - Advanced Streaming Format

VQF - Vector Quantization Format

About MP3 players

Unlike earlier forms of music players that required moving parts to read encoded data on a tape or CD, many MP3 players use solid-state memory. Memory types include:

Internal Flash memory

Compact Flash cards

Smart Media cards

Memory Stick

Internal micro-drive

Internal mini-drive

With the exception of the last two, these are all types of solid-state memory (no moving parts). Solid state means better reliability and no skips in the music. However, MP3 players that contain tiny hard disk drives can store 10 to 150 times more than Flash memory devices can.

All portable MP3 players are battery-powered. Some use one or two AA batteries, some use proprietary batteries. Most last for 10 to 12 hours on a single charge. Many players offer the option of an AC adapter, so they can be plugged into a normal electrical outlet, or DC adapters for use in a vehicle.

Features - In addition to storing audio files, some MP3 players can function as voice recorders, and/or radios. Some can also store images and data files, or function as a calendar and organizer. Some synchronize with Outlook. All MP3 players come with software that will transfer music and other files into the player, and help you organize them.

What's typically included with the MP3 player at the time of purchase? - MP3 players typically come with only 1 battery, earphones and a very light-duty carrying case. The point, of course, is to encourage you to purchase accessories

Accessories – As with any popular, new consumer product, an entire industry has sprung up to sell MP3 player accessories. Users wishing to personalize their digital music players can find options to fit any lifestyle. Typical choices include extra batteries, chargers for home or car, a better carrying case, and better earplugs or earphones.

Active music fans can choose from a variety of bags, belt clips and armbands to carry their music with them. These users may also need for battery packs to extend playback time.

Users can transform their portable players into a full stereo system through the optional docking systems available for some MP3 players. Another option is a gadget that allows users to play MP3 files through their car speakers. (Headphones and earplugs that cover both ears are illegal in Florida)

How to choose an MP3 player

The number of MP3 players available, and the number of features and options available are as varied as the people who buy them. Choice is typically based on several factors, including what features you'll need, how you plan to use the player, how much you plan to use it, the conditions under which you will use it, the amount of space you'll need, and how much you are prepared to pay. To begin, there are two basic types of MP3 players based on memory type:

Flash Memory Players

The flash memory MP3 player is the smallest and lightest of the three types of players. They typically can store fewer songs. With no moving parts, the flash player is ideal for the casual digital music fan, who just wants it for a small amount of music or the morning jog. An advantage of the flash memory player is that its batteries last longer due to the smaller size of the unit.

Hard Drive Players

Hard drive players are bigger and heavier than flash memory players and offer considerably more storage. For those looking for a player that can store their entire music collection, the hard drive is ideal. However, the hard drive does include some moving parts, so there may be some skipping if it's moved around much. Because of their larger memory, hard drive players often have more built-in features. However, these features and the hard drive consume more battery power. You can generally expect a charged battery to last 8-20 hours.

Questions to ask when purchasing an MP3 player

What features do I need?

What features would be nice?

What features do I consider unnecessary?

What storage capacity do I need?

Is the size of the player a consideration?

How will files be uploaded?

What upload speed is needed / expected?

What battery life is needed / expected?

What file formats are supported?

What tradeoffs am I willing to make?

How much am I willing to pay?

Purchasing Advice

Do your homework! Do enough research to narrow your list down to the top 3 or 4 choices, and then shop for prices. Go to retail stores to see the players first hand. Watch the ads for good deals on your top choices. Then shop online to compare prices with local outlets. Big savings are possible!

Further Resources

How to Buy an MP3 Player – from PC World

<http://pcworld.com/article/id,125648-page,1/article.html>

How to Buy an MP3 Player - from eHow

http://www.ehow.com/how_108615_buy-mp3-player.html