Music to move you

At home or on the move, an MP3 or MP4 player could revolutionise your music-listening habits

MP3 and MP4 players are a great way to play your music and video while on the move. They're small and have lots of storage, so you don't have to carry your CD collection around with you. Simply transfer music files, which you can download from the internet or copy from CDs, to an MP3 player from your PC.

And, if connected to your hi-fi (see 'Extras', p60), an MP3 player can become part of your home audio system. Audiophiles may balk at the slight loss of audio quality delivered by MP3 files, but copying your CD collection to a tiny device is a worthwhile trade-off.

The type of player you buy should be determined by how you're going to use it. If you have an enormous music collection, opt for one with a large amount of storage space, such as the iPod classic.

If you're likely to use your player when commuting, a compact device is the order of the day. MP4 players have a small viewing screen, so you can watch videos and browse digital photos, making them ideal for catching up on TV programmes or even watching a film.

If you're more sporty, video playback isn't really going to enrich your trip to the gym, so opt for a smaller device that won't get in the way of your exercising.

To help you decide, we've grouped our Best Buys according to how they could fit into your particular lifestyle - from music



These marvellous gadgets are hard to beat

lovers to gym fanatics. Of course, there's no reason why any of our Best Buys can't be enjoyed in any number of scenarios, but we reckon that you'll get the most enjoyment from your MP3 or MP4 purchase if you plump for our recommendations. For sheer versatility, these marvellous gadgets are hard to beat.

MP3 PLAYER Generic name for a portable audio device that can play compressed digital audio files transferred from a PC.

MP4 PLAYER An MP3 player with a colour screen and the ability to play video formats.

STORAGE MP3

and MP4 players store songs, video and photos on internal storage - much like a computer's hard drive. There are two types: hard disk and solid state. Hard-disk models tend to have

Jargon buster We help you decipher some common digital music terms

bigger storage capacities, allowing you to store more audio files, but make the player bulkier and heavier. Solid-state (or flash-memory) devices are smaller and lighter, but have less storage capacity.

GB (GIGABYTES) A

unit of measurement for memory size. 1GB is equivalent to 1.024MB. A typical pop audio track uses about 4.5MB of memory, so 1GB can store around 220 songs – equal to about 20 music albums.

AUDIO FORMATS

Confusingly, digital music is available in different formats. MP3 is simply the best known and most flexible. You can play MP3 files on most players, and copy MP3 files as many times as you like. For that reason, MP3 was historically disliked by the music industry, which tried to promote more restrictive formats. Most music is now available in MP3 format. Other formats include AAC from Apple, WMA from Microsoft, and Flac and Ogg, which are 'open' formats.

VIDEO FORMATS Like audio files, video files are available in

different formats. The most common are DivX, Xvid, Mpeg MWV and H.264, all of which are usually labelled with the generic term MP4.

USB AND FIREWIRE

You connect your MP3 or MP4 player to a PC using either a USB or, less commonly, a Firewire connection. A Firewire connection will transfer music at about twice the speed of a standard USB connection. However, most new players use the newer USB 2.0 standard, which is almost the same speed as Firewire.

How we test

The usability of music players should be at the top of your purchasing chart

Players that score poorly in our trials tend to suffer from the same ailments. Poor displays, badly arranged keys, and long uploading and downloading times when transferring files from your PC to your MP3 player are

> common problems. Our tests make sure that we weed out any players that are below par, so you aren't left to wrestle with confusing instructions and counter-

intuitive menu systems, or waste time waiting for files to transfer from your computer.

Music on fast forward

For instance, we time how long it takes to upload and download a set of 100MB music files – about the length of a couple of digital albums. Not surprisingly, times vary significantly between players. For example, the 80GB iPod Classic takes a sprightly ten seconds, but the sluggish Nu Dolphin took almost 20 times longer. As a rule, hard-disk models are faster than flash-memory devices (see 'Jargon buster', opposite) at uploading files .



WHICH? FAMILY

To see how music player novices Toni and Darren got to grips with their iPod Nano, check out the Which? family report on p30.

Domestic bliss Digital players ideal for large music collections

If your CD collection is stacked on groaning shelves and is in danger of swamping your home, an MP3 player with a large memory could be the answer to clearing away your CD clutter. It may even give you the chance to rediscover some old classics.

Even the most expansive collection will fit on an MP3 player that has a hard disk with 80GB worth of memory. An MP3 player that size can store around 2,000 albums.

Having access to your entire CD collection on one device also means another chance to listen to forgotten music that was lurking on dusty old CDs that had been consigned to the bottom of a pile or scattered around the house.

Of course, once your music collection has been loaded on to the computer and MP3 player, it's a perfect opportunity to declutter and hive CDs away out of sight.

And, although compressed digital audio files don't have the same sound quality as a regular CD using standard MP3 settings, connecting your MP3 player to a decent amp and good speakers will mean most people will be unaware of the drop-off in quality.



MP4 65% Apple iPod Touch £186/254/329

As well as being a top-notch music player, the iPod Touch is packed with many features associated with Apple's iPhone. It plays audio and has wireless connectivity, up to 32GB of storage, a web browser, email and video playback. Just 8mm thick, it has a scratch-resistant 3.5inch touchscreen. Battery life is fine, but its size can make it cumbersome. It's cheapest at Comet. WORTH KNOWING The Best Buy of choice for video playback quality; videos must be first formatted using Apple's iTunes software.

Sound quality $\star \star \star \star$ Video quality $\star \star \star$ Photo quality $\star \star \star \star$ Ease of use $\star \star \star \star$

Available Widely available on the high street Battery running time (music) 25.5hrs Dimensions 11x6.2x0.8cm Weight 119g Memory sizes 8GB, 16GB and 32GB Radio No Mac compatible Yes Music formats MP3; AAC; unprotected AAC; Apple lossless; Wav; Audible Video formats H.264/AVC



64% Apple iPod Classic £159/229

The iPod Classic is a fantastic device, with bags of appeal for gadget lovers and newcomers to digital audio alike. This new version is easy to use, has great battery life and is good for viewing photos.

We found that the interface, although a little too sensitive, is a joy to use and easily locates your music. It was a little heavy compared with other players, but this is a great all-round solution.

WORTH KNOWING Transferring files is faster than the quick iPod Touch. Sound quality *** Video quality ** Photo quality **** Ease of use ***

Available Widely available on the high street Battery running time (music) 46hrs Dimensions 10.4x6.2x11cm Weight 135g Memory sizes 80GB and 160GB Radio No Mac compatible Yes Music formats MP3; AAC; unprotected AAC; Apple lossless; Wav; Audible Video formats H.264/AVC

MP4 64% SanDisk Sansa View £97/150

The Sansa audio and video player has plenty of functions. It's compatible with audio books and features an FM radio that you can record from. Video playback quality is among the best for this size of player, and there's a micro-SD card slot to expand its storage. Audio quality with the supplied earphones isn't bad, and we found that you'll get 35 hours of audio

playback between charging. The 16GB version is cheapest at Comet.

WORTH KNOWING It's easy to move photos from a PC to the Sansa.

Sound quality $\star \star \star$ Video quality $\star \star$ Photo quality $\star \star$ Ease of use $\star \star \star \star$

Available Widely available on the high street Battery running time (music) 35hrs Dimensions 11x5x11cm Weight 82g Memory sizes 8GB and 16GB (32GB version should soon be available) Radio FM Mac compatible No Music formats MP3; WMA; unprotected AAC; Wav; Audible Video formats WMV, H.264/AVC, Mpeg-4

Music on the move

The pick of the players ideal for on-the-go audio

Using a portable media player in tandem with your home hi-fi is appealing, but picking the right model for simply carrying in your pocket is the key consideration for many people. The Apple iPod Classic and iPod Touch are. of course, still small enough for portable use, but if you want to opt for a small. lightweight player, there's an absolute wealth of choice.

MP3 and MP4 players are primarily designed to be used on the go. For most of us, that means it has to be small and light enough to slip into a pocket unnoticed, and have enough battery charge to outlast even the most gruelling of commutes.

These Best Buys weigh in anywhere between a barely noticeable 43g to just 81g less than the average mobile phone. The Sony models in particular impressed us with superb battery life.

They all show both video and photos, but on half of the models our tests found that the screen is too small to comfortably watch anything other than short video clips.

If you're more interested in video, the hard-disk-based Archos 605, Archos 705 and Cowon A3 (see p61) offer the biggest screens and best picture quality. However, they're all relatively bulky, especially the 615g Archos 705, which, despite its huge display, suffers from below-par battery life when playing video.



MP4 69% Sony NWZ-A815 £90/100/130

This excellent music player has very good sound quality, even with the supplied headphones, and it has a high-quality display. The battery takes just two hours to charge, but lasts for 45 hours when plaving music. and eight hours when watching video. It's cheapest at Comet and John Lewis.

WORTH KNOWING It plays back unprotected AAC and Way files.

Sound quality ★★★★ Video quality ★★

Photo quality $\star \star \star$ Ease of use $\star \star \star \star$

Available Widely available on the high street Battery running time

(music) 45hrs Dimensions 8.8x4.4x0.9cm Weight 52g Memory sizes 2GB (815), 4GB (816), 8GB (818) Radio No Mac compatible No Music formats MP3; WMA; M4A; Wav Video formats H.264/AVC



MP4 67% Samsung YP-P2 £100/120/150

Featuring an effective touchscreen, intuitive display, simple menu system, and good headphones, the YP-P2 has loads of extras, such as an FM radio, calendar, clock, alarm and sleep timer. It can feel sluggish when browsing photos, but we found that images looked clear and detailed. It's cheapest at Comet.

WORTH KNOWING The Samsungs don't work with Audible (talking book) files.

Sound quality ★★★★ Video quality ★★ Photo quality *** Ease of use ****

Available Argos, Comet and Currys Battery running time (music) 25hrs Dimensions 10x5.2x1cm Weight 81g Memory sizes 2GB, 4GB and 8GB Radio FM Mac compatible No Music formats MP3; WMA; Napster Video formats Plays own format



MP4

-

65% Samsung YP-T10 £60/75/120

The touch pad isn't quite as user-friendly as we'd like, but proven sound quality and good extras make the T10 a worthy Best Buy. We found the display too small for viewing anything other than short clips. Navigation is intuitive, and we found that file uploading is quick. Programmes can be recorded from the built-in FM radio. It's cheapest at Comet.

WORTH KNOWING The supplied software is straightforward to use. Updates are available on the web.

Sound quality ★★★★ Video quality ★★ Photo quality ** Ease of use ****

Available Widely available on the high street Battery running time (music) 29hrs Dimensions 9.6x4.2x0.8cm Weight 43g Memory sizes 2GB, 4GB and 8GB Radio FM Mac compatible No Music formats MP3; WMA Video formats Plays own format



MP4 64% iRiver B20 £149/169/209

This versatile player is easy to use and features a mini-SD card slot to expand its memory. There's also a retractable antenna, plus FM and

DAB radio, which you can record from. We found that photo quality isn't bad, but loading video proved a pain. It's simple to navigate and is compatible with audio books, and has a built-in speaker, but its sound quality was lacking.

WORTH KNOWING Battery life isn't bad and it has the advantage of being usable while charging.

Sound quality ★★★ Video quality ★ Photo quality * * * Ease of use * * *

Available Online Battery running time (music) 22hrs Dimensions 4.9x8.1x1.7cm Weight 75g Memory sizes 1GB, 2GB and 4GB Radio FM and DAB Mac compatible No Music formats MP3: WMA: Ogg: Audible Video formats Plays own format





MP4 64% Sony NWZ-S615F £67/90/120

Sonv comes up trumps in our tests with a simply designed player that's a joy to use. The keys are well arranged and responsive, and navigation was good. We found it easy to transfer videos to the player using the included Windows Media Player 11. The display quality is fairly good, but we found that the screen is too small for watching movie-length features.

WORTH KNOWING Headphone quality isn't fantastic, so budget for a new pair if you want to get the best out of this player.

Sound quality * * Video quality * * Photo quality ** Ease of use ****

Available Argos Battery running time (music) 38hrs Dimensions 8x4.2x1.2cm Weight 49g Memory sizes 2GB (615). 4GB (616) and 8GB (618) Radio FM Mac compatible No Music formats MP3; WMA; unprotected AAC; Wav Video formats H.264/AVC

Step-by-step guide to transferring music

If you're tempted to dip a tentative toe into the world of MP3 players, transferring your music from your CD collection to a player is a surprisingly simple process. All you need is a computer and this handy step-by-step quide



Load the PC software

The software does three main things it copies the music from your music CD, encodes it into a compressed digital format that your MP3 player can recognise, and provides you with a system to manage your music library on your computer.

Some players come supplied with software that you load up yourself. Samsung models, for example, come with the user-friendly Samsung Media Studio 5, which allows you to drag and drop files from your computer on to your player.

However, if your player doesn't come with any software or you don't want to use the supplied version, don't worry. Free packages that can burn CDs and manage music files are available on the web.

A few players, such as Apple iPods, will work only with software supplied by the manufacturer.



Copy CDs

Copying a CD to your computer ready to be loaded on to your MP3 player couldn't be simpler. Stick the music CD into the CD-Rom or DVD drive on your computer, and then follow the on-screen instructions in the software you are using from the first step.

Make sure you copy files from your CDs into file formats that are supported by your MP3 player - your software should do this automatically, but you should check out the Preferences section of your software to see that it is converting into the right format. Preferences can usually be found listed under the File menu, which is at the top left of your software window.

Most software provides different options in terms of audio quality and format if you delve into the menus, but the default setting is usually fine for everyday use. The software may take some minutes to convert your CD.



Upload on to player

Now that you've converted your CDs into a compressed digital format, it's simply a case of loading them on to your player.

Connect your player with either a USB or Firewire cable (see 'Jargon buster', p56). You will normally be asked whether you want to 'synchronise' your MP3 player with your computer. This simply means that all your newly converted songs will now upload on to your player.

If your MP3 player has a limited amount of memory available, and your audio collection is too big to fit on it, you can just put the songs you want to upload into a playlist, and tell the software to copy only the songs from this playlist on to the MP3 player.

Once the songs have been copied, remove the MP3 player from the PC, plug in some headphones, and you can listen to your new songs on your player.

Contacts

Apple 0870 876 0753 www.apple.co.uk Archos 0207 949 0115 www.archos.com Bang & Olufsen www.bang-olufsen.com Creative 0800 376 7954 www.uk.europe.creative.com Cowon www.cowonglobal.com Gio www.sum-vision.co.uk Goodmans 0871 230 1777 www.goodmans.co.uk iRiver www.iriver.eu.com Microsoft www.zune.net/en-us Nu www.nu-europe.com

Philips 01293 776 675 www.philips.co.uk Samsung 0870 726 7864 www.samsung.com SanDisk 0207 365 4193 www.sandisk.com Sony 0870 511 1999 www.sony.co.uk Sumvision www.sum-vision.co.uk Technika 0845 600 4411 www.tesco.com Toshiba 01927 669 4530 www.toshiba.co.uk Wharfedale 0845 458 0011 www.wharfedale.co.uk

Don't Buys

Don't tune into these MP3 and MP4 players

We found that the Gio MP4 player is hobbled by some fundamental flaws. The software for transferring video files on to the player didn't work in our tests, and it has a poor-quality display. Its control keys are sluggish, its usability is horrible, and we found it took five hours to charge, only to run out after eight hours when listening to music.



The Creative MuVo T100 is a USB stick player that lacks a display, so you can't easily find specific tracks. Its audio quality was poor, and it lacks a hold function, graphic equaliser or repeat option.

We found the **Nu Dolphin** tricky to use, with labelling that quickly rubs off its tiny keys, and the audio quality through the supplied headphones was poor. It's also slow to transfer files.

www.which.co.uk

Active lifestyle Lightweight players of choice for exercise fanatics

If you want to jog to the beat of your music collection, it's worth taking an MP3 player along. We check players' suitability for use when running or walking, and whether there's a hold function so that volume and tracks don't change accidentally. Models suited to sports

tend to be smaller, lighter solid-state (see 'Jargon buster', p56) players. Their smaller memory means you won't get your entire music collection on to the player, so be prepared to upload different playlists if you want to vary your on-the-go audio collection.

MP4 67% iPod Nano £99/129



The diminutive Nano has a highresolution, two-inch display, but we found it too small for watching featurelength videos. Simplicity of use and great battery life make it a worthy Best Buy. It's also a doddle to use: you can select audio tracks using Apple's Cover Flow system.

voice recorder.

It's easy to use,

and is quick at

in our tests.

uploading tracks

MP3 66% Samsung YP-U3 £30/35

This lightweight device is an excellent choice if

you only want to play music. It weighs just 22g,

sounds great and doubles as an FM radio and

WORTH KNOWING The in-ear headphones supplied are good.

Sound quality ★★★★ Video quality ★★ Photo quality ** Ease of use ****

WORTH KNOWING The YP-U3 has a neck

strap integrated into the headphone cable.

Available Comet and Currys Battery running time (music) 15hrs

Dimensions 2.7x8x1.1cm Weight 22g Memory sizes 1GB and 2GB Radio

FM Mac compatible No Music formats MP3; WMA Video formats n/a

Sound quality * * * Video quality n/a

Photo quality n/a Ease of use ****

Available Widely available on the high street Battery running time (music) 31.5hrs Dimensions 7x5.2x0.7cm Weight 48g Memory sizes 4GB and 8GB Radio No Mac compatible Yes Music formats MP3; AAC; M4A; Apple lossless; Wav; Audible Video formats H.264/AVC



each player with the headphones supplied with the player, and with a pair of high-quality Beyerdynamics DT770 Pro headphones. The result?

Almost every model scores top marks for audio quality when using the Beyerdynamics.

unrivalled importance of a good pair

of headphones. Our test panel used

The Beyerdynamics cost around £90, but if that seems a bit steep, a pair of light and compact Best Buy Sennheiser PX100s will set you back only £30. We have dozens more headphone reviews online at www.which.co.uk/headphones and will feature them in a report in the magazine in August. HI-FI CABLES For around £10, you can buy a cable that connects the headphone socket on the player to an input socket, usually the aux socket, on your home hi-fi system. **SPEAKER DOCKS** These minispeaker systems may not carry the same punch as a connection to your hi-fi system, but they are a compact and portable option for the seasoned traveller. Visit www.which.co.uk/speakers to see our reviews.

CHARGING LEADS Most players' batteries charge up when the player is connected to a computer with the supplied USB cable. To charge from the mains, you have to buy a separate adaptor cable. For an iPod, this costs around £15 from Maplin.



MP3 64% B&O BeoSound 6 9400

Simplicity is the key to this ultra-chic player from premium-price brand Bang & Olufsen. Sound guality with the supplied earphones is good, and in our tests the battery charged in two and a half hours, and lasted for a full 38 hours. You can still listen to music while it charges.

MP3 64% Sony NWZ-S516 £80



WE ADVISE It doesn't come with a belt clip or neck strap,

so you might need to buy one.

Sound quality ** Video quality n/a Photo quality ★★★ Ease of use ★★★★

Available Comet Battery running time (music) 43hrs Dimensions 8x4.2x1.2cm Weight 50g Memory sizes 4GB Radio No Mac compatible No Music formats MP3; WMA; unprotected AAC; Wav Video formats n/a





Sound quality * * * Video quality n/a Photo quality n/a Ease of use * * *

case and neck strap.

Available Exclusive to B&O Battery running time (music) 38hrs Dimensions 9.1x4.3x1.2cm Weight 63g Memory sizes 4GB Radio No Mac compatible Yes Music formats MP3; WMA Video formats n/a

N Extras

Get the best from your MP3 player with Best Buy extras

HEADPHONES If you only

ever buy one accessory, buy some new headphones. The sound quality of supplied headphones varies between models, but, apart from the very best, it is normally nothing to get excited about. However, our

listening tests reveal the

Hints and tips

MP3 players are meant to take the stress out of listening to your music collection – but there's still plenty to learn when it comes to getting the best from them. Here are some of our top tips to make your digital audio sing

AAC or MP3 tracks (they're of comparable

audio and bit-rate quality), but only around

There are several types of digital audio file

to choose from, but in terms of audio quality

30 high-guality Wav-encoded albums.

only the keenest ears will pick up any

Check the rights of the music you buy

from online music stores - some files are

copy protected and may allow only a certain

number of players to use them, or be played

difference between them.

a number of times.

Digital music files are recorded at different bit rates. The higher the bit rate, the more detail is stored in a recording, and the better the audio quality. A bit rate of 192kb/s is the ideal setting, but most people will not notice any difference with a file recorded at the standard, lower-quality 128kb/s. Files recorded at 32kb/s will sound poor for music, but are OK for speech.

The higher the bit rate, the more storage space an audio file occupies. An 8GB MP3 player stores around 200 albums worth of

USING THE TABLE

The table, below right, lists other players that we tested but were not Best Buys, and Don't Buy players. See www.which.co.uk/ mp3players for full details.

Specification

Price For Best Buys we give the cheapest widely available high-street price as we went to press. If we couldn't find them at major high-street retailers, we give the most common online price. Prices for other models are a guide. Go to www.which.co.uk/shopping for the latest prices. **Memory** The amount of built-in memory in GB

the Best Buy summaries), music isn't the only option available to you. Audible files are downloadable talking books from internet sites such as www.audible.co.uk and the iTunes store. Books are also available in the regular MP3 format from sites such as www.silksoundbooks.com. There are thousands of titles to choose from, many voiced by notable actors such as Julie Christie and Bill Nighy. Prices vary, but silksoundbooks sell for £7.95 each.

If your player can play Audible files (check

that the MP3/MP4 player features.

Score

Ignores price and is based on sound, video and photo quality, as well as ease of use.

	MODEL		SPECIFICATION		SCORE %
			PRICE (£)	MEMORY (GB)	
	MP4 PLAYERS				
	1	ARCHOS 105	50	2	63
	2	PHILIPS SA9345	115	4	61
	3	ARCHOS 605	130-300	4/20/30/80/160	60
	4	PHILIPS SA6145	225	4	59
	5	ARCHOS 705	330/360	80/160	58
	6	COWON A3	270/290	30/60	55
	7	MICROSOFT Zune	150/185	30/80	54
	8	TOSHIBA gigabeat	199/239/285	20/40/60	54
	9	SUMVISION Ice 800	70	4	44
	10	GOODMANS GMP34G6	45	4	42
	11	GIO MP4 Player	20/25/30	1/2/4	38
	М	P3 PLAYERS			
	12	SANDISK Sansa Clip	24/30	1/2	54
	13	TECHNIKA MP607	20	1	47
	14	GOODMANS GMP31G5	18	1	46
	15	WHARFEDALE FM6687	30/35/50	1/2/4	42
	16	CREATIVE MuVo T100	34/30	2/4	37
	17	NU Dolphin	70	1	33

COMPETITION

Win a music set including a red Best Buy Apple iPod Nano and black Bose SoundDock worth £332.

Become the envy of all your friends with our Which? Best Buy (PRODUCT) RED Special Edition iPod Nano and black Bose SoundDock worth a total of £332. This particular iPod model means that Apple gives a portion of the purchase price to fight Aids in Africa. Our independence means we buy all our prizes at full price.

TO ENTER, SIMPLY ANSWER THE FOLLOWING QUESTION.

According to our report, what's the difference between MP3 and MP4 players?

- a) An MP4 player is an MP3 player that can also show videos.
 b) An MP4 requires four headphones and an MP3 player requires three.
- c) An MP4 player can also play CDs.

To enter our Best Buy competition online, go to www.which.co.uk/ bestbuycompetition or send your entry on a postcard to 'Best Buy May 08', Which?, PO Box 44, Hertford X SG14 ISH.

Include your name, address and postcode, daytime phone number and Which? membership number (found on your Which? membership card as your user name). Entries received by 15 May 2008 will be entered. Our competition is open only to current Which? members. Only one entry per household. Usual rules apply. See www.which.co.uk/bestbuycompetition or Which?, December 2007, p82. for a full set of rules.

Congratulations to the winners of our February and March issue competitions. Winners were: Mr WWard, Morecambe; Roy Croft, Dawlish; James Lindsay, Glasgow; Suzanne McDougall, London; Mrs CS Joyce, Rowlands Castle; Carol Mazurek, Essex; Mr D Blockley, Sheffield; Mr A Brouwer, Carmarthen; RF Collings, Weymouth; and Mr Abdul Patel, London.