



# MP3 PLAYERS

New online shops and a flurry of exciting new models make this an interesting time for MP3

**R**oger Daltry, legendary singer of The Who, was perhaps not the best choice to open HMV's new online shop. He's reported to have chipped in that 'nothing beats the rich sound of vinyl'.

And you wouldn't have to go far to find serious music-types who'd stroke their beards and emphatically agree. But the iPod generation simply doesn't care: MP3s sound perfectly good enough for most music fans – more important are the increasing restrictions on MP3s.

You can play a vinyl record on any record player anywhere you like, a CD in any CD player you like. A few years ago, MP3 seemed to offer even more freedom – you could send songs in seconds over the internet to anywhere in the world. However, now things aren't so simple.

## ONLINE MUSIC: CURSE AND BLESSING

MP3 is the name of a particular type of computer file that reduces the data needed to store a song. Because it was the first one, it's become a general term for 'compressed' digital music. But there are other types of 'MP3' files, such as Apple's AAC, Microsoft's WMA and Sony's Atrac. Remember the Betamax versus VHS battle for video supremacy? Well, it's all happening again with digital music.

These different types of file make things a bit more complicated. First, not all files play on all players. If you buy a song in AAC from Apple's [www.itunes.com](http://www.itunes.com), say, you'll be able to listen to it on an iPod but not on a Sony MP3 player.

A related problem is that, while you can do what you like with MP3 files, the same doesn't apply to files such as AAC, WMA and Atrac. Online shops can use them to deter copying. For example, they can limit the number of players a song will work on, the number of times you can burn it to CD or even how many times it will play at all – tracks can be made to self-destruct.

Some online shops are fairly unrestrictive – you can listen to music bought from iTunes on up to five PCs, burn it to an unlimited number of CDs and transfer it to as many MP3 players as you like. Others are more harsh: [www.tesco.com](http://www.tesco.com) lets you play songs on only one PC, burn them three times, and put them on no more than three players.

That's not to say that downloading from the internet is all bad. It's just that the pace of change is so hectic that you have to be careful what you buy. One great innovation, for example, has been 'podcasts' – radio programmes that you download free rather than listening to live. The Beeb is trialling podcasts on [www.bbc.co.uk](http://www.bbc.co.uk) in a big way.

And there are some genuine advantages to buying online: it's more or less instant; you don't have to buy whole albums (individual songs cost between 70p and £1, depending on the website); and some online shops even let you preview snippets of songs before you buy.

## NEW ON THE SHELVES

There are always lots of exciting new models appearing – in this article alone, there's the desirable new iPod Nano, the first mobile phone Walkman, and a new Olympus with a built-in 1.2 megapixel camera. And the first phone with an iTunes interface – Motorola's ROKR – is just around the corner (and on test next issue).

It's an interesting time to buy an MP3 player. But don't get stuck with a digital music collection that won't work if you later change to a different brand of player. Use online shops to get a taster of albums or buy the odd track. But stick to buying CDs or vinyl; you'll have a high-quality copy that you can change into whatever type of MP3 you like as many times as you like. Then listen, as Rog might say, anyway, anyhow, anywhere.

## OPTIONAL EXTRAS

The most useful accessory to have is a pair of good headphones. You can often improve sound quality by substituting the supplied pair for some Best Buys, such as the Sennheiser PX100, £55 (pictured).

See [www.which.co.uk/whichextra](http://www.which.co.uk/whichextra) for a full list of Best Buy headphones, from £20 to £250.

But there are lots of other accessories, too –



particularly for the iPod. These range from remote controls to solar chargers.

Probably the most handy accessory is a dock (£55 from [www.apple.com/uk](http://www.apple.com/uk) for a kit with power adaptor and



cables). You can leave the dock connected to your stereo; drop the iPod into it at the end of the day to recharge and play songs through the stereo.

Also useful is an iPod adaptor for your car. It's available as a device that slides into the cassette deck (£15) or a dock that's wired up to the stereo (£95). See Apple's website for details – it also tells you which new cars come iPod-ready.

### BATTERY LIFE

This new iPod Nano, like most players with memories of more than 2GB, uses a rechargeable lithium-ion battery. You can recharge the battery whenever you like, without having to remove it.

Over time, though, battery life starts to wane and eventually you'll need a new battery.

If a player from the iPod range needs a new battery (outside its one-year warranty), Apple will replace it for £86. But

you have to send the player off and it will wipe the iPod's memory.

It's a similar story with Sony's alternative to the iPod. Outside the one-year warranty, you send it off for a £35 replacement. Its memory may be wiped.

Here are some tips to prolong your battery's life.

- Charge the player at least once a month.
- Use the 'hold' button to stop the controls being accidentally activated.
- Don't charge the player in its case: the excess heat can affect the battery.

## MP3 and the internet

You don't need the internet to use an MP3 player – you can convert CDs to MP3s instead – but it is a useful tool.

For example, it's particularly handy for automatically labelling songs and saving you the bother of typing in the names yourself.

### Shops

There are a lot of online shops out there.

*Computing Which?* recently recommended

Panasonic Music Stream, iTunes and Napster as the best sites. Another interesting site is the Russian shop [www.allofmp3.com](http://www.allofmp3.com) – it's cheap and will sell you files as MP3s, with no restrictions on how you use them. We've compared the main shops' terms and conditions on [www.which.co.uk/mp3](http://www.which.co.uk/mp3). When you use a site, check that it's legal before downloading.

### iPod sites

The success of the iPod has resulted in numerous fan sites.

You'll find accessory and software reviews, along with some useful tutorials, at [www.ipodlounge.com](http://www.ipodlounge.com). And [www.ipoding.com](http://www.ipoding.com) also has reviews.

More confident users can journey to [www.ipodhacks.com](http://www.ipodhacks.com). This suggests tips and modifications for your iPod, but beware: some invalidate your

warranty. An example of extra software for iPod users is iPod Music Liberator. You can't normally transfer songs from your iPod to your computer – only from computer to iPod.

Music Liberator gets around this, though it's not Apple-approved and it can bypass copyright protection.

As with copying CDs, this is technically illegal but we think it's OK if you don't give other people copies.

## NEED TO KNOW

MP3 players let you carry hundreds of songs around in your pocket.

You can use a computer to label each song with its name, album, and artist.

And you can plug an MP3 player into your stereo. It's easy to find songs – no more scrabbling around for lost CDs.

### TECHNICAL BIT

The term 'MP3' refers to a way to reduce the amount of data needed to record a song.

This has a slight effect on sound quality. It's fine for a portable player and, although a discerning ear will hear the difference on a good stereo, it's too slight to spoil the music unless you're fussy.

You turn music into MP3s in two main ways. First, you can download songs from the internet. Second, you can use software to turn your CDs into MP3s on your computer; most computers come with this software, as do the MP3 players themselves.

### MEMORY SIZE

MP3 players vary in memory size. For this article, we've split them into 1GB or less, 2GB to 5GB, and 10GB or more. (1GB stores about 250 songs.)



## BEST BUYS

It takes more than good sound quality to make an MP3 player one of our Best Buys – it has to

be easy to use, too. The software must be simple and intuitive; the player itself must

have buttons that are easy to find and responsive, and menus that are straightforward.

## 1GB OR LESS

## 1 Apple iPod Shuffle 70%

512MB or 1GB (125/250 songs) £70/£90 (widely available)

Apple has dealt with the Shuffle's tiny size – about that of a packet of chewing gum – in an interesting way.

On most small MP3 players, the screen and buttons are annoyingly

small. The Shuffle solves this problem by getting rid of everything except buttons for play, skip tracks and volume. You can't select songs – instead, they come in the order you copied

them from your computer, or randomly in 'shuffle mode'.

Random play is popular with MP3 users. If you enjoy listening that way, the Shuffle is a great way to do it.



1 Apple

## USING THE TABLE

We've tested MP3 players from the best-selling manufacturers. Philips was relaunching its whole range when we were shopping so we couldn't include it. We'll test its new 30GB player as soon as it's released.

## Specification

**Price** For Best Buys, we give the cheapest widely available high-street price. Other prices are a guide to what you should pay.

**Size** Varies with amount of memory. **Weight** Varies with amount of memory.

## KEY



## 2 Sony NW E-507 67%

1GB (250 songs) £150 (widely available)

If you want to choose the songs you listen to while you're out and about, this Sony is a good alternative to the iPod Shuffle.

Sound quality is roughly on a par with the Shuffle, though it does sometimes lack depth and detail. Where

it really excels, though, is in its battery life. Fully charged, it will last for more than 24 hours (the Shuffle plays for 17 hours on the same charge). You can also get three hours of playback from just three minutes of charging, which is ideal if you're on your

way out and you realise you haven't set it to charge – three minutes and you're all set.

Another advantage over the Shuffle is its built-in FM radio; you can catch the footie scores between songs.

It's also good to see that Sony's software has improved – though it does take about six seconds to download a song (four seconds longer than the Shuffle).



2 Sony

## 2GB TO 5GB

## 10 Apple iPod Nano 75%

2GB or 4GB (500/1,000 songs) £140/£180 from Woolworths

This is the latest addition to the iPod range – a pencil-thin version of the standard iPod.

Despite its size, it boasts the same great sound quality as its big brother, and the same brilliantly designed software and controls.

Also like the iPod, it can store photographs

and display them on its clear, colour screen.

However, the screen has been the cause of some controversy – on the Nano's release in September, some early customers reported that the screen cracked during normal use.

Apple says this problem affected less than 1 per

cent of the Nanos it has shipped, and has offered replacements.

Incidentally, the Nano replaces the equally able and only slightly less svelte iPod Mini. The Mini's still in the shops; if you're not too fashion-conscious, you can pick up a bargain.



10 Apple

## MP3 players

## 1GB OR LESS

1 Apple iPod Shuffle

2 Sony NW-E507

3 Memup Qoolqee K7

4 Rio Forge Sport

5 Panasonic SV-SD 100V

6 iRiver iFP-795

7 Creative Zen Nano Plus

8 Goodmans GMP-31000DRM

9 Ezav EMP-500

## 2GB TO 5GB

10 Apple iPod Nano

11 Olympus m:Robe MR100

12 iRiver H10

13 MPeye HTS-200

14 Samsung YH-820MC

## 10GB OR MORE

15 Apple iPod

16 Sony NW-HD5

17 Olympus m:Robe MR500i

18 iRiver H10

19 Toshiba Gigabeat

20 Creative Zen Touch

21 Rio Karma

22 Samsung YH-925GS



**Memory** 1GB stores about 17 hours of music; 256MB stores about four hours.

### Features

**Mac Works** with Apple computers; all the players work with Windows computers.

**FM radio** Features a built-in radio. **Radio record** Can record from its built-in radio. **Charges in dock** Player charges from the supplied dock. You can buy docks for other players.

### SCORE

This ignores price and is based on:

Sound quality	40%
Ease of use	20%
Features	20%
Technical tests	20%

## The first Walkman phone

Fevered rumours of a phone with iTunes have finally been confirmed in the shape of the Motorola ROKR. But Sony Ericsson has beaten it to the shelves with the first Walkman phone, the W800i.

There have been phones that will play MP3s before, though it's generally an afterthought, with little space for songs.

The W800i stores 125 songs on its 512MB memory and you can add more with removable memory sticks (not

included, but available in various sizes up to 2GB – a 2GB stick costs £240).

It's easier to use as an MP3 player than a normal phone because you can quickly click it into jukebox mode.

However, the sound quality doesn't meet expectations – there's a slight background noise during quiet sections. And the phone amplifies some external sounds, such as breathing, when you're listening to music. The supplied headphones are

uncomfortable and don't stay in your ears. They let a fair bit of noise escape to annoy people nearby, too. (Replacing the headphones improves matters.)

There's an FM radio and camera as well as the MP3 player. With so many functions, there's plenty of clicking through menus but there are some neat design touches, such as the simple radio tuner.

Look out for a full test of the W800i and ROKR next month.



Specification				Features				Convenience		Sound quality		Score
Price (£)	Size hxxwxd (cm)	Weight (g)	Memory	Mac	FM radio	Radio record	Charges in dock	Ease of use	Battery (hr)	Headphones supplied	Best Buy headphones	(%)
70/90	9x3x1	34	512/1GB	✓				☆	17	☆	☆	70
150	9x3x2	51	1GB		✓			☆	>24	☆	★	67
130/110/140	8x4x3	160	256MB/512MB/1GB	✓	✓	✓		○	20	☆	★	63
100/130	7x6x2	74	128MB/256MB/512MB	✓	✓	✓		○	16	☆	★	60
100	4x4x2	40	1GB		✓	✓		○	15	○	☆	54
100	9x3x3	75	512MB	✓	✓	✓		○	>24	○	○	52
60/80/100	3x7x1	52	256MB/512MB/1GB		✓	✓		○	15	○	○	50
80	3x10x2	40	1GB					○	9	○	☆	47
80/100/130	8x4x2	45	256MB/512MB/1GB	✓	✓	✓		○	17	●	☆	43
140/180	9x4x1	44	2GB/4GB	✓				★	12	☆	☆	75
150	9x5x2	96	5GB				✓	☆	8	☆	★	65
170	10x5x2	125	6GB		✓	✓		☆	11	☆	☆	64
160	7x5x2	79	5GB	✓	✓			○	14	☆	★	59
130	9x5x1	105	5GB					☆	8	○	☆	56
210/299	11x6x2	233	20GB/60GB	✓				★	11	☆	☆	80
200/230	9x6x2	136	20GB/30GB					☆	>24	☆	★	69
300	11x7x2	215	20GB				✓	☆	5	☆	★	66
200	10x5x2	125	20GB		✓	✓		☆	11	☆	☆	64
165/200	11x6x2	151	10GB/20GB				✓	○	16	☆	★	60
180/220	10x7x2	249	20GB/40GB					☆	24	○	☆	59
180	8x8x3	170	20GB	✓			✓	☆	15	○	○	58
220	11x6x2	181	20GB		✓	✓		☆	9	○	☆	58

## 10GB OR MORE 15 Apple iPod 80%

20GB/60GB (5,000/15,000 songs) £210/£299 from John Lewis

This ubiquitous little white box is still the best MP3 player, nearly four years after we first raved about it. And it's come a long way since that first version.

For example, all 20GB and 60GB iPods now display photos as standard. The screen is clear and vibrant and, should the feeling take you, you can plug it into a TV and

play slideshows to music of your choice.

As ever, sound quality with the supplied headphones is superb. You can hear the detail in complex music, such as classical pieces with lots of instruments; it reproduces sound in all frequency ranges, from high to low, equally well.

But where it really comes into its own, along with the iPod

Nano (10), is that it's a joy to use. The supplied iTunes software is excellent; for a free taster, head to [www.apple.com](http://www.apple.com). And the scroll wheel makes it easy to use on the move.

Its only real weakness is battery life. At 11 hours a charge, it lags behind some other players – but that's still plenty if you pop it in to recharge every night.



15 Apple

## 16 Sony NW-HD5 69%

20GB or 30GB (5,000/7,500 songs) £200/£230 from Comet

Sony, proud inventor of the Walkman, was slow to challenge the iPod. When it did, its first effort was disappointing.

But now, after various tweaks, it has a serious contender on its hands.

The new Sony is smaller and lighter than the iPod. Its battery life, at more than 24 hours a charge, beats the iPod's 11 hours. It has a big

(though not colour) screen and its buttons are just as easy to use as the Apple's.

Sound quality is good, despite a slight hiss in the background. Adding some Best Buy headphones eliminates this – in fact, they even make it sound slightly better than the iPod.

There are a few reasons why we think

the iPod's better, though. Sony's player won't display photos. And, though its software is better than it once was, there are niggles (you can't alphabetise albums, for example).

Still, if you're concerned about the iPod's short battery life, this is a commendable choice.



16 Sony

## The rest on test

### 1GB OR LESS

The feature-packed Memup (3) isn't a Best Buy because it's too awkward to use. And the Rio (4) suffers from the same complaint (though it does have a flexible hook on its headphones to keep them secure on your ears).

The Panasonic (5), iRiver (6), Creative (7) and Goodmans (8) all have indifferent sound quality and none is particularly good to use. And bringing up the rear with some nasty headphones is the Ezav (9).

### 2GB TO 5GB

The 5GB Olympus (11) uses well-designed touch-screen technology and offers a solid alternative to the iPod Nano. The iRiver (12) is a reasonable option, too.

Don't be fooled by the photo-viewing feature here, though – the iRiver's low-resolution screen is unimpressive.

Other models in this category are less appealing. The MPeye (13) has tiny buttons and a poor screen – its text is too small and blurs when it scrolls.

The Samsung (14), meanwhile, just doesn't sound good enough.

### 10GB OR MORE

The 20GB Olympus (17) has a built-in camera. Taking pictures requires a steady hand, though – you press the touch-sensitive screen to shoot, which can shunt the player and blur photos. Nevertheless, this player would be a Best Buy if the battery life wasn't a feeble five hours. And

it's the only one on test with a remote on the headphones that controls all functions.

The 20GB iRiver (18) is identical to the 6GB version. It's a good, though hardly mind-blowing, player. You might still find the old 5GB version in the shops; keep an eye out for bargain prices.

The Toshiba (19) is a less serious challenger. Sound quality is OK but it's frustrating to use – slide your finger along the touch-sensitive screen and it's easy to overshoot the menu option you want.

The Creative (20) and Samsung (22) are both fine to use but come with poor-quality headphones. But at least they improve if you add better headphones – sadly, the same can't be said for the 20GB Rio (21) player.

## DON'T BUY

You don't often come across products as bad as this these days. We got through three Monolith MX7050s in the course of our tests – and not one of them made it to the end.

Two overheated during testing, got hot to the touch and gave up the ghost. A third locked up completely while we were testing how easy it was to use (not very, obviously).

We told Monolith about these problems. It first said we should use the most recent version of the software; we already were. Monolith admits that there is a problem with a batch of players, and says that all faulty ones should now be off the market.



Monolith

## 19 more MP3 players on test

The main table shows all Best Buys as well as all newly-tested MP3 players – but there are 19 other MP3 players from previous tests that are still around. You can see the results for them on [www.which.co.uk/mp3](http://www.which.co.uk/mp3).

**Players with radios** Even when you have your whole music collection with you, it's good to have a radio. Here are the results for four good MP3 players we've tested previously that have an FM radio. (They're all sold online only, not in the shops.)

Model	Price (£)	Memory (GB)	Score (%)
iRiver Multi-Codec Jukebox H320	200	20	70
iAudio M3	186	20	69
Philips GoGear hdd070/05	150	2	68
Creative Zen Micro	150	5	66

Last report May 2005

## PORTABLE SPEAKERS

## BEST BUYS

We tested two sets of speakers designed for the iPod against a selection of standard portable speakers.

None of the portable speakers will match the sound of a normal hi-fi – but the iPod speakers beat the rest.

The best set of speakers is the **Bose (1)**, £250 from John Lewis. It has clean sound that lets you hear detail, regardless of the type of music.

And you can crank the volume up a fair bit before the sound begins to distort. It will happily fill a large room.

However, the speakers work with iPods and iPods only

(though not the iPod Shuffle).

It isn't 'portable' in the truest sense – it doesn't use batteries, so you need to be near a mains plug. It's more suitable as a second set of speakers for a kitchen or bedroom that doesn't have a hi-fi.

If you want portable speakers that take batteries as well as mains power, try the Altec Lansing (2), £130 from online retailers.

Like the Bose, this set is designed so you can easily drop in an iPod, but it works with other music players too. (They plug in around the back rather than sitting in the iPod dock at the front.)



1 Bose

Sound quality is OK at low levels but distortion is a real problem once you get above the level of a conversation.

## DON'T BUY

Sound through the Philips (3), Creative (4), Sony (5) and Panasonic (6) speakers was nowhere near as good as through the Bose.

## KEY



## SCORE

This ignores price and is based on:

Sound quality	60%
Ease of use	30%
Technical tests	10%

## USING THE TABLE

We tested sets of speakers with neat design that are specifically for use with personal stereos.

## Specification

**Price** For Best Buys we give the cheapest widely available high-street price. Prices for other models are a guide to what to pay.

## Power

**Mains** Mains adaptor supplied. You can buy adaptors for the Sony (5) and Panasonic (6).

## Sound quality

**Distortion** Maximum volume level before the sound distorts.

## Portable speakers

## MODEL

	Specification			Power		Sound quality		Score (%)
	Price (£)	Size hxxwxd (cm)	Remote control	Mains	Battery life (hours)	Distortion	Sound quality	
1 Bose Sounddock	250	9x10x7	✓	✓	N/A	★	☆	70
2 Altec Lansing InMotion iM3c	130	14x21x3	✓	✓	>24	●	○	45
3 Philips SBC BA290	50	7x8x4		✓	>24	☆	●	34
4 Creative TravelSound i300	50	6x15x5		✓	>24	○	●	31
5 Sony SRS-T80	45	8x12x5			>24	☆	●	20
6 Panasonic RP-SPT70	50	8x20x4			>24	☆	●	19

# CD players

## NEED TO KNOW

The big advantage of portable CD players over MP3 players is that you don't need a computer. And, of course, you probably have a collection of CDs already.

On the other hand, they're bulkier and more prone to skip if you're out jogging.

### MP3s ON CD

You can record MP3 files on a blank CD with a computer – one disc holds about 12 albums. All the players on test, except the Sony, play these MP3 CDs.

None is supplied with MP3 software. You can use iTunes or Windows Media Player if they were supplied with your computer (or nab iTunes from [www.apple.com](http://www.apple.com) if they weren't).

## BEST BUYS

Our Best Buy sounds great and is much easier to use than the other players on test.

The **Bose (1)** is so simple to use because of its generously sized screen and buttons – no nasty, fiddly little controls here.

The screen comes into its own with MP3 files burnt on to blank CDs – there's plenty of room to show the song's name, who's performing it, and so on. Unusually, you can even search for the next track without interrupting the song that's playing.

The headphones are perfectly respectable, if not as perfect as their bulky appearance would have you believe.

The Bose is quite expensive, though, at £195 (phone Bose on 0800 085 9021 to buy it). And there are a few things to be aware of. First, there's no remote on the headphone lead, which is annoying if you tend to listen to CDs with the player in your

**BEST ON TEST**

**1 Bose**

bag. Second, you have to remove the batteries to recharge them. But there are two other good players to consider.

### OTHER OPTIONS

The Panasonic (2 and 4) have remotes on the headphones and you can recharge the batteries without removing them. They sound just as good as the Bose, and they have a great battery life of more than 24 hours.

The cheaper one (£70 from Argos) is a bit heavier than the other (£105; phone Panasonic for stockists on 0870 300 1515).

### USING THE TABLE

We tested models from major brands, as well as a couple of specialist brands.

### Specification

Price For Best Buys we give the cheapest widely available high-street price as we went to press. Prices for other models are a guide to what you should expect to pay. **Remote** A remote control on the headphone lead lets you change tracks or adjust the

volume without taking your player out of a pocket or bag. The Goodmans (9) and Wharfedale (10) have only a volume control on the headphone remote.

### Convenience

**Ease of use** Based on ratings such as how clear the display is and how sensibly the buttons are labelled and laid out.

### SCORE

This ignores price and is based on:

Sound quality	40%
Ease of use	30%
Technical tests	20%
Features	10%

### KEY

★	☆	○	●	●
Best	→	Worst		
Best Buy				

## CD players

MODEL	Specification				Convenience		Sound quality		Score (%)
	Price (£)	Size hwxwd (cm)	Weight (g)	Remote	Ease of use	Battery life (hours)	Supplied headphones	Best Buy headphones	
<b>1 Bose Triport CD Music System TPCD-1</b>	195	14x13x3	311		☆	10	○	☆	<b>57</b>
<b>2 Panasonic SL-CT820</b>	105	14x14x2	152	✓	●	>24	○	☆	<b>54</b>
<b>3 Sony CD Walkman D-NE520</b>	90	14x13x3	200	✓	●	6	○	☆	<b>53</b>
<b>4 Panasonic SL-CT520</b>	70	14x14x2	171	✓	●	>24	○	☆	<b>52</b>
<b>5 Philips EXP5463</b>	60	14x14x2	222	✓	●	19	○	☆	<b>47</b>
<b>6 Sony CD Walkman D-EJ001</b>	25	14x14x3	212		●	15	○	☆	<b>46</b>
<b>7 Ministry of Sound MOSCD062</b>	40	15x14x3	286	✓	○	6	●	○	<b>45</b>
<b>8 Crown CDN33MP</b>	25	14x14x3	328		○	8	●	○	<b>44</b>
<b>9 Goodmans CDMP3520W</b>	30	14x13x3	266	✓	○	10	●	○	<b>43</b>
<b>10 Wharfedale WCDM-31A</b>	30	15x13x3	240	✓	●	8	●	○	<b>36</b>