

PRIMER ON USING AN MP3 RECORDER FOR DX-ING

(c) Bjarne Mjelde

Recording DX has come a long way since I started DX-ing in the early 70's. Tape recording was the only possible way in those days; I started off with a cassette player. Not until the late 90's did other media begin to gain ground, especially so the Minidisc-recorder. It is still popular with DX-ers, especially after having evolved into the Hi-MD format which permits quick upload to PC's. Recording directly to the PC is also common and programs for that purpose have been evaluated elsewhere on this site.

But recording to a PC requires – a PC. Which is not always possible, or desired, for reasons like space, transport/weight, RFI etc. So what about those small gadgets we have seen evolve over the last few years, the MP3 players? Some of them actually have the option of analogue recording through a dedicated line input. The thought of using an MP3 player (or more correctly a player/recorder but I will use the term MP3 player in the following) has matured for some time, until I decided to buy one and see if it could work.

Recording DX has one vital requirement: The recording device must have the ability to start recording on the fly. No menu-choices, no pre-titleing of file names, no auto-shutdown. And the device needs sufficient capacity for the DX session. Running out of space as DX gets hot is the typical example of a bad setting.

Since MP3 players with a certain label has a life time of months rather than years, I will not list today's (April 2005) MP3 players with line-in facilities. But brands like Archos, Creative, Philips, iRiver, Jens of Sweden (JOS), iAudio and others have players with line inputs. You just have to find them.

There are two types of MP3 players; flash storage and harddrive storage. Flash storage players typically have 512MB to 1024MB capacity today (but increasing), while HDD players typically have 5 to 40 (or more) GB capacity. Like with many other things, bigger is better, and flash players are typically more expensive per storage unit than HDD players. Still, a 512MB flash player, recorded with 64kbps bitrate, can store up to 18 hours of DX. So for a one night stand (sorry, I just couldn't resist the term...) even a small and relatively cheap flash player will do.



Tekst A: Different MP3 recorders (not to scale)

After looking around for some time, I decided to buy an iAudio M3 HDD (20 GB) player. There was only one parameter other than the line-in facility that decided my choice – it had a huge coolness factor. There is a lot to say about the iAudio M3 as a music machine, but the purpose of this article is not to make people choose the M3 over other MP3 players so I will let that rest. Also, be aware that the user interface may vary from player to player, so be sure to know how the player you choose work before you buy one for recording purposes.



Tekst B: iAudio M3 compared to an MD

The iAudio needs an adapter or a charging cradle for connecting the line input. The adapter is included in the purchase, and in most (but not all) cases the cradle too. The M3 has a wired remote (similar to the MD portables) where the display is. All controls are available on both the main body and the remote. The M3 records in MP3 format only (no WAV), although it can play back in several formats. Bitrates from 64 to 320 kbps can be chosen. 64 kbps will suffice for DX recordings and will occupy typically around 490 kB per minute. So theoretically a 20GB capacity will allow you to store around 680 hours of DX (real capacity is

always a bit lower than advertised). An 80-minute minidisc running in 4LP mode has a 5h20min capacity. Just for the comparison. Moreover, since the line-in is stereo, you can connect two receivers to the M3 allowing 1360 hours of DX. Channel separation is excellent. The M3 has a limit of 999 recorded files though, and a maximum file size of 512MB. But should you ever decide to do a 24-hour recording and the 512MB only holds 18 hours don't despair – it just saves the first 512MB in one file and then continues with a new file...

Battery capacity is much better than with MD recorders; claimed 14 hours, one review found 13 hours +. This is for playback; no details given for recording but I don't expect it to be significantly different. This will vary from player to player.

The M3 recording session is very simple. After selecting "Recording" mode, simply press the red REC button and the M3 puts itself in standby mode. Press Play/Pause to start recording. If you want to pause the recording, you can do that as often as you like. When you want to save the recording press REC again, and the M3 saves the file within a specific folder with the file name "ENC nnn " where nnn is 001 for the first recording. The next session is saved as "ENC $nnn+1$ " etc. After saving (which takes a couple of seconds) the M3 goes back to standby mode, ready for another recording. The M3 does NOT stamp the date or time of the file created. You need to keep track of that yourself in your logbook. And no, it does not have a pre-recording buffer like the Total Recorder software has. It does have line-in level control though (but not while recording) and it has an auto-sync option that may (haven't tested this properly yet) be used together with a receiver on Timer control (it saves to file when input mutes, and starts to record a new file when input opens again). Input level is displayed on the remote by way of a tiny graphical display, and the length of the recording is shown in mm:ss. In very, very, very small letters...

You will probably want to move the files to your PC for further processing and storage. Most (but not all) MP3 players including the iAudio will be recognised as an external HDD by Windows ME and later without the need of installing drivers or proprietary software. With a USB 2.0 interface, transfer should go smoothly and quickly. Sorry, don't ask me about Mac OS. I don't know.

While I haven't had the opportunity to use this device in real DX settings, my initial tests indicate that MP3 players may indeed be suitable for recording DX. But if you plan to buy one, assure yourself that the one you buy works the way you want it to and expect it to.