Conditioning Your New Hard Drive Before Introducing it to Mackie Hardware

"hard drive – meet Mackie, Mackie – meet hard drive"
For HDR, MDR, SDR and D8B

When purchasing a new drive (Maxtor, Western Digital, Seagate or IBM - ATA-100 UDMA compatible, 5400-7200 RPM etc…) - the vendor will tell you whether the drive was formatted for PC (or other). If it is a 'PC' formatted drive - you will likely have no problems introducing it to Mackie. However, if you are PC savvy, and do not trust what the hard drive packaging indicates or what the vendor tells you with respect to format - it might be best to locate a bootable utility disk containing FDISK and LOW LEVEL FORMAT - very common DOS level programs. Contact your local computer store.

Fdisk & Low Level Format

Both Fdisk and Low Level Format tools are very basic. To run FDISK, boot from the floppy containing this program. From the A: prompt type **A:/fdisk** - delete all partitions and create one partition - (FAT32, unless you are running very early Mackie software). From that very same boot disk, run the Low Level Format. (**A:/format D:** for example. **A:/** being the floppy containing the boot utilities, i.e. FDISK and FORMAT commands, and **D:/** being the target drive to be formatted.) The Format tool maps-out naturally occurring bad sectors and the FAT table (file allocation table) then tells the drive not to read from, or write to those sectors. Are we having fun?

This is what we call "conditioning the drive" - removing any questions you might have regarding the true state of the drive before introducing it to Mackie (always a good thing).

For example – a hard drive that has previously been in heavy-use, might behave fine for a period of time. Later, this drive could start acting-up (looping or skipping, usually- at the worst time) because of a boot sector corruption, partition errors or general sector errors.

Important

Be very cautions when running FDISK and FORMAT commands from a DOS boot disk - be sure you are selecting the correct drive to be formatted. Unless you are building a new computer - the drive you choose should look something like (D:/ , E:/, etc...) If you are formatting from your PC and if you have chosen C:/, you may very likely be destroying your main drive containing your PCs operating system. If you are unsure about this procedure - **STOP** what you are doing and seek help from a PC tech.

*** Mackie cannot be held responsible for mistakes made when running FDISK and FORMAT commands ***

Hard Drive Detection

After installing the new drive and with your BIOS doc in hand – be sure the HDR/MDR/D8B motherboard is physically detecting the drive (for MDR video see MDR FAQ). Hold down the Delete key at boot – you will be presented with the mother board BIOS/CMOS. In the main window, set the Primary Master to Auto (or Secondary Master to Auto for removable drives). Go to Disk Auto Detect and the detect tool will scan both Primary and Secondary busses. When the drive has been located (on the primary buss) – press **Y** (for 'Yes') to accept the drive Type and save the BIOS session. If the drive is not recognized, it might have an incorrect jumper placement (always jumped to Master or Cable Select) or a bad cable. Go back to Standard CMOS and set drives to Auto. Also, be sure the Pin 1 side of the cable (red side) is seated to the motherboard correctly – that goes for the drive as well, and be sure the drive is connected to the end of the cable (pin 1 always faces the power receptacle on a hard drive).

Mackie Format

Remember, you will still need to run the Mackie (short) format before installing the Mackie OS regardless of what actions were taken prior to install. With respect to the D8B/HRD/MDR, take the first Mackie OS install floppy disk and open it on your computer. Locate **Tools.ini** file. Double-click on this file (a basic text editor will open) and scroll down to **Format:off**. Change the (off) to (**on**) and save this file. If you do not see the Format line, just add it to the bottom of the list. Do not change the file name. Next, boot-up from the #1 Mackie OS disk (D8B/HDR/MDR) and you will be presented with the Format option.

Defrag

Depending on what Mackie OS you are using – you might be able to defrag the drive from the Mackie software itself. The drive in the D8B (for example) is used for OS and Pjt files so defragging might be less important but will still need defragging after six months heavy use. With regard to our multitrack devices, you may need to defrag the drive more frequently, particularly with respect to drives containing many, very small audio files (2 to 10 seconds in length). Regardless, all drives need maintenance and it is for this reason we recommend recording to the Removable drive as it is easier to replace and maintain, while utilizing the internal drive for a fast, safety backup. By doing so – your internal drive will last longer and will require less maintenance (HDR/MDR/SDR). Long story short – format your removable drives (low level) every 6 – 8 months (depending on the amount of use), in doing so – defrag becomes a non-issue.

Drive Size Limits

* HDR/MDR = 32GB (see Detailed FAQ regarding large hard drive Alternate Capacity jumper setting)
> **Note:** When transferring SDR removable drives to HDR/MDR, you must run the Verify command for the HDR/MDR to load SDR project files. SDR does not require Drive Verification. Drive Verification can damage audio so try to run Verification from a HDR/MDR first, and then pass the drive to the SDR. The SDR drive can then be passed back to the HDR/MDR.

* HDR w/BIOS upgrade = 120GB
* SDR = up to 2 terabytes
* D8B = 32GB (see Detailed FAQ regarding large hard drive Alternate Capacity jumper setting)