

## Windows ME - Upgrading your primary Hard Drive (the C: drive)

### Introduction

*If you have Windows ME (Millennium Edition) installed on your PC, and would like to upgrade the primary hard drive (**your C: drive**), then this document will guide you through doing just that.*

*You may want to upgrade the primary hard drive for a variety of reasons, for instance it maybe running out of free space and could as a result refuse to boot into Windows soon, or maybe it is making a strange noise and you feel it might be about to crash, etc..., etc....*

*Before you are able to upgrade your primary hard drive using the instructions in this document, you will need to know how to get into your PC's BIOS (page 3 will give you more information on this), and you will need a Windows ME system disk.*

*For a Windows ME System Disk (boot disk), download the following :*

[www.AnswersThatWork.com](http://www.AnswersThatWork.com)

*Libraries of Answers That Work*

*Downright Useful Downloads*

**System Disk – Windows ME boot disk with CD-ROM support**

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## Summary

*If you have already used this document before to upgrade your Windows ME primary hard disk, then this one-page checklist summarises all the steps that you will need to go through :*

- Install the new hard drive, as a master, onto the secondary controller on the motherboard.*
- Detect the new hard drive in the BIOS.*
- Partition the new hard drive using the FDISK utility.*
- Format the new hard drive.*
- Copy all of the data from your old hard drive, to the new one, using the XCOPY32 program (**XCOPY32 \*.\* D:\ /S/E/R/C/H/K/Y**).*
- Take out the old primary hard drive.*
- Install the new hard drive onto the primary controller of the motherboard, making sure it is configured as a "master".*
- Re-detect the new hard drive set-up, in the BIOS.*
- Set the new hard drive to Active using FDISK.*
- Test your upgraded PC.*

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## We're off...

- Open the PC case, and install the *new* hard drive onto the secondary controller on the motherboard.

The reason for installing the new hard drive onto the secondary controller is that, when you do the data transfer a little later on, the transfer will be much quicker because both hard drives are running off separate controllers and IDE cables, as opposed to doing the data transfer with both hard drives running off the same controller and IDE cables.

To speed the process up, temporarily disconnect any devices that are running off the secondary controller, i.e. CD-ROM Drive, Zip Drive, CD-Writer etc., etc., and connect the new hard drive configured as a "master". It should say on the drive itself, how to configure it as a "master". That said, nowadays all new hard drives come configured as a "master" by default, so you probably won't even need to change anything.

## Detecting the new hard drive in the PC's BIOS

- Turn the PC on.
- On one of the opening screens, you should see a message that reads **Press Del to Enter Setup** or similar.  
The above message may differ depending on the make and model of PC. On some laptops or brands of PCs, you may be asked to press one of the function keys (F1, F2...etc.) to enter the PC's BIOS. When you see the appropriate message, press the key in question.
- If you are prompted for a password to enter the BIOS, type in the password (note that most BIOS passwords are case sensitive) and press **Enter**.
- Depending on the make, model, and age of a PC, PC BIOSes will differ from one PC to the other. However, all BIOSes near enough display the same settings, just in a different layout. Within the main BIOS screen, there should be an option called **HDD Detection** or similar. Use the arrow keys to highlight this option, and then press **Enter**.
- On most new BIOSes, the hard drive detection is *automatic*, but on some old BIOSes, you have to manually select the hard drive(s). Using the appropriate keys (if needed), detect BOTH hard drives.
- Save Changes and Exit**. This is usually an option on the main BIOS screen, otherwise, if you hit the **Esc** key, you will find the option there.
- The PC will now restart, and will boot into Windows ME.

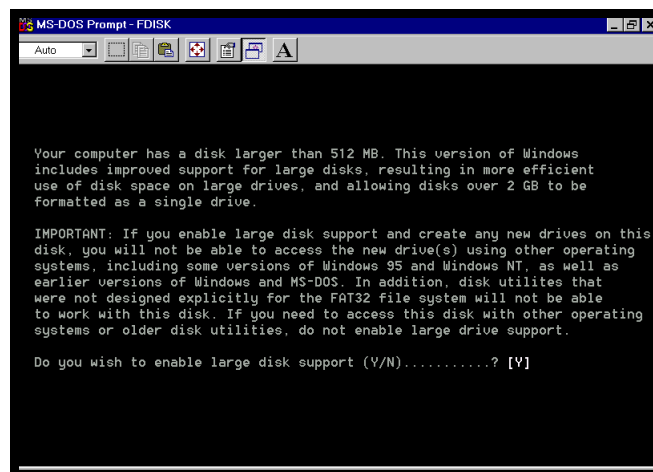
## Partitioning the new hard drive (FDISK)

Before you can use the new hard drive, you need to **partition** and **format** it.

Partitioning the hard drive, is the process of configuring it so that the PC sees it as one whole physical drive, or a number of "logical" drives.

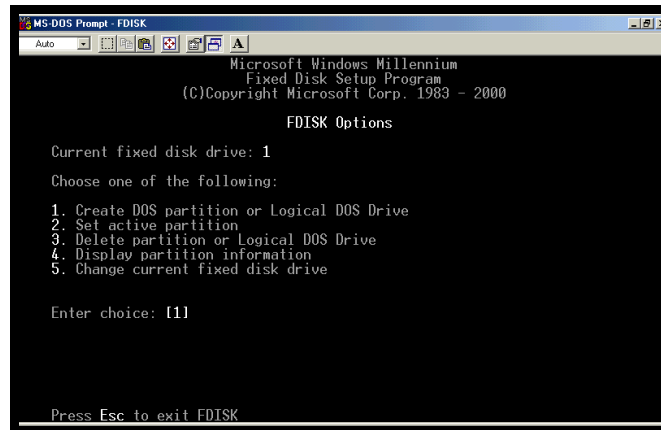
Partitioning is done through the MS-DOS **FDISK** utility, whilst formatting is done through the MS-DOS **FORMAT** program.

- In Windows ME, with both hard drives connected, open **Command Prompt**.  
(In Windows ME, "Command Prompt" is by default in **Start \ Programs \ Accessories**).
- At the DOS prompt (**C:\>**), type **FDISK** and press **Enter**.
- You will now get the following screen.

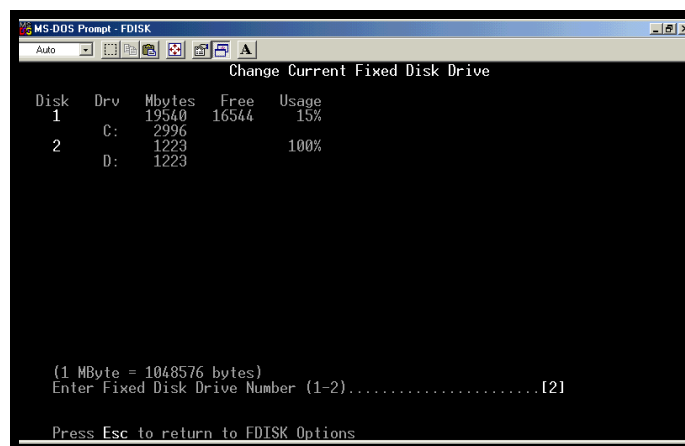


- Type **Y** and press **Enter**.

- You are now at the main “*FDISK*” screen.

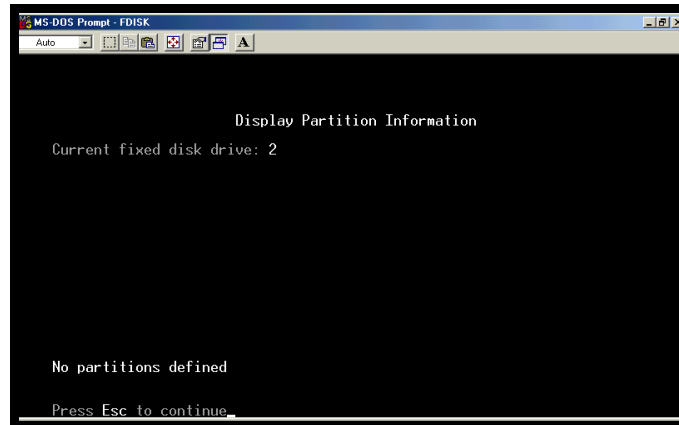


- Choose **Change current fixed disk drive** (option 5), and press **Enter**.



- To select the second hard drive, type **2** and press **Enter**.  
*You will now appear back at the main “*FDISK*” screen, but, where it reads Current Fixed Disk Drive, it now reads **2**, and not **1**.*
- Choose **Display partition information** (option 4), and press **Enter**.

- Seeing that this is a brand new hard drive, “*FDISK*” should return **no partitions defined** (see below).



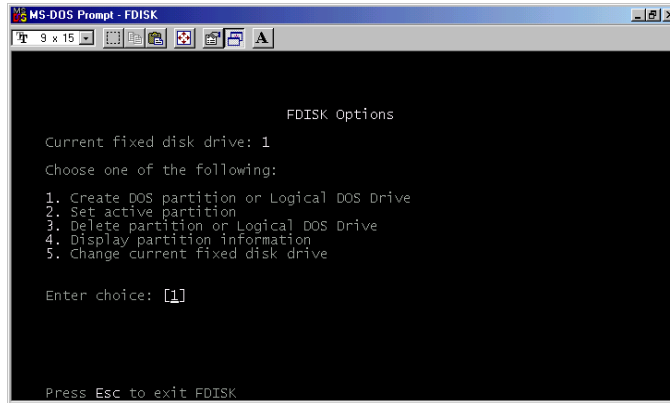
- If this is the case, press **Esc** to appear back at the main “*FDISK*” screen, and continue with the next step.

However, if there are partitions defined, make a note of them, because you will need to delete them before you can move on.

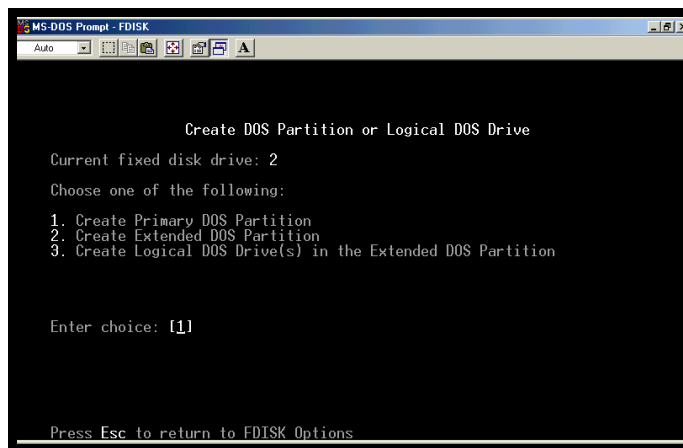
#### **To delete partitions :**

- 1) At the main “*FDISK*” screen, choose **Delete partition or Logical Dos Drive** (option 3), and press **Enter**.
- 2) You will now be prompted with an additional set of options.
- 3) Depending on how your hard drive is partitioned, select options **1**, **2**, or **3**, and confirm the partition deletion when prompted to, by typing **Y** and pressing **Enter**.  
**Note :** You will not be able to delete the drives **Primary DOS Partition**, without deleting first, the **Extended DOS Partitions** or/and **Logical DOS Drives**. If you are not sure about what to do, check it out with us by posting a query on our website.
- 4) When you are confident that you have deleted all partitions on the drive, press **Esc** until you appear back at the main “*FDISK*” screen.
- 5) Choose **Display the current partition information** (option 4), and press **Enter**.
- 6) If FDISK returns **no partitions defined**, you’re on track. Otherwise, repeat the above steps until all partitions have successfully been deleted.

- You will now get the screen shown below. Choose **Create DOS partition or Logical DOS Drive** (option 1), and press **Enter**.

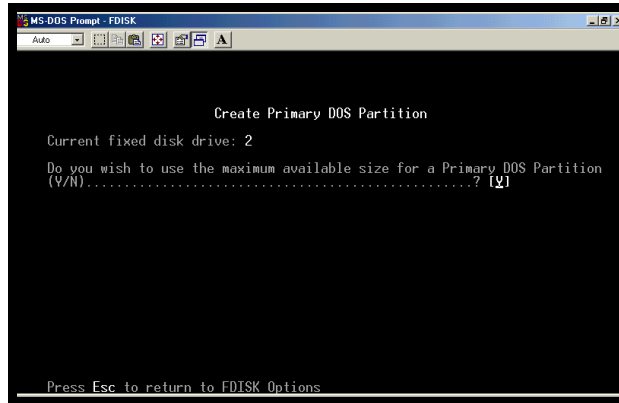


- Choose **Create Primary DOS partition** (option 1), and press **Enter**.

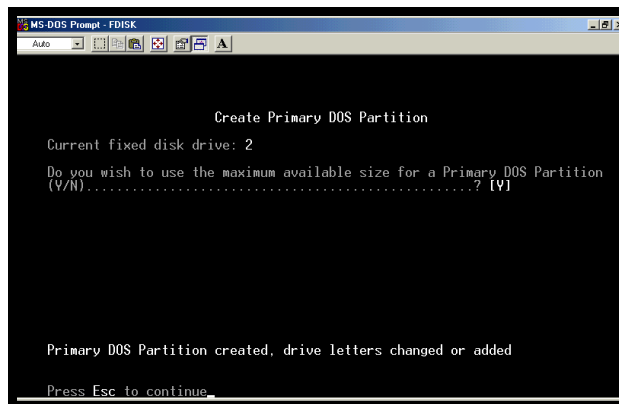


- When you are prompted with the message, "Do you wish to use the maximum available size for a Primary.....", type **Y** and press **Enter**.

Unless you have a specific requirement to have a **C** and **D** drive, and perhaps even more, we strongly recommend that for hard disks up to **40Gb**, you partition the hard drive as one whole drive.



- 10) When you are prompted with the message, "Primary DOS Partition created, drive letters changed or added", press **Esc** until you appear back at the DOS prompt (**C:\>**).



- At the DOS prompt, type **EXIT** and press **Enter**.
- Restart the PC (**Start / Shut Down / Restart / Yes**).

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### Formatting the new hard drive (FORMAT)

- In Windows ME, open **Command Prompt**.
- At the DOS prompt (**C:\>**), type **FORMAT D:\ /U** and press **Enter**.
- When you are prompted to confirm the format, type **Y** (yes) and press **Enter**.
- When the format has finished, you will be prompted to assign a label to the drive. At **AnswersThatWork**, we assign the drive a label that reflects the drives capacity. For example, if the drive in question is 4Gb in size, we would assign that drive the label **4Gb**. If the drive in question is 30Gb in size, we would assign the drive the label **30Gb**, and so on. Keep it as simple as possible.  
When assigning a label to a hard disk drive, there is a limitation of 11 characters, and there are certain characters that you cannot use, e.g. a full stop.
- Assign the drive a label and press **Enter**. If you do not want to assign the drive a label, just press **Enter**.
- You will now appear back at the DOS prompt.

### Copying data to the new hard drive (XCOPY32)

- You should already be at the DOS prompt. If not, open **Command Prompt**.
- At the DOS prompt, type in the following commands, and press **Enter** at the end of each line :  

```
C:  
CD\  
XCOPY32 *.* D:\ /S/E/R/C/H/K/Y
```
- Once the "XCOPY32" finishes, you will be back at the DOS prompt.

- Type **Exit** and press **Enter**.
- Shut down the PC and turn it off if it does not do so automatically (**Start \ Shut Down \ Shut Down \ Yes**).

### Swapping the hard drives over

- Open the PC Case, and take out the master hard drive that is on the primary controller (the old hard drive).
- Disconnect the new hard drive from the secondary controller, and connect it as a master to the primary controller.
- Reconnect your CD-ROM drive(s) and any other IDE devices you had disconnected at the start of this process.
- With the case still off the PC, connect the power cable, and switch it on (make sure the CPU fan is turning).
- Go into the **BIOS**.
- Configure the "BIOS" to boot from the floppy drive (*A Drive*) first.
- Make sure your "Windows ME" system disk is in the floppy drive, **Save Changes** to the "BIOS" and **Exit**.
- Once the PC has booted from the "Windows ME" system disk, you will appear at a DOS prompt (**A:\>**).
- Type **FDISK** and press **Enter**.
- Press **Y** (Yes), and press **Enter**.
- You are now at the main **FDISK** screen.
- Choose **Make Partition Active** (option 2), and press **Enter**.

- “*FDISK*” will now return a message stating “*Partition made active.....*”.
- Press **Esc** to go back to the DOS prompt.
- Turn the PC off and take the Windows ME system disk out of the floppy drive.
- Put the PC case back on.
- Turn the PC on, and go into the **BIOS** straightaway.
- Configure the "BIOS" to boot from the C: drive first.
- Save Changes** to the "BIOS" and **Exit**.
- Your PC should now successfully boot up into Windows ME, from the newly installed hard drive.
- That's it. You're done.

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