

**Installing a fresh version of Windows 95b**

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## What you will need

This document will guide you through installing Windows 95 from start to finish, taking you through every little detail. We are assuming that your PC has the following minimum specifications.:

- **486** CPU
- **16Mb** RAM
- **8x** CD-ROM Drive
- **3.5"** Floppy Drive
- **800Mb** Hard Disk Drive

### To install Windows 95b/c you will need all of the following :



#### Windows 95b/c CD.

If you are unsure what version of Windows 95 your CD is, Windows 95b/c is also known as **OSR2**.



#### Windows 95b/c CD-KEY or Registration Number.

This will either be on the Windows 95b/c CD, or on the front of the manual that came with the CD. Without a CD-KEY or Registration Number, you will not be able to install Windows.



#### Windows 95b/c Boot Disk.

Download this from our website. It is important that you use an **AnswersThatWork** Boot Disk, because this document is based on using one.

Make your way to...

[www.AnswersThatWork.com](http://www.AnswersThatWork.com)  
*Library of Answers That Work*  
*Downright Useful Downloads*

And download...

- **System Disk – Windows 95b boot disk with internal CD-ROM support**

For **USA** and **Canada** users, download...

- **System Disk – Windows 95b boot disk (USA version)**

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## Summary of what will be involved

The list below is a **summary** of the whole process of installing Windows 95b on your hard disk. Once you have done a few installations, you can use this page **as the only page for you to follow, a checklist page in effect**. If this is your first installation, on the other hand, use this page purely to be aware of what you will be doing throughout the installation.

- Configuring the PC's BIOS to boot from the **Floppy** or **A** drive first. This is so that you can boot from a floppy system disk, an essential requirement for setting up your new Windows 95 system.
  
- Deleting any current partitions on the hard disk drive, and creating one new partition for the whole drive. This is done using the **FDISK** program on the Windows 95b system disk downloaded from the **AnswersThatWork** website.
  
- Formatting the hard disk drive so that Windows can be installed on it, and your data loaded onto it.
  
- Copying the Windows 95 installation files from your Windows 95 CD to your hard disk drive. This is done using the **XCOPY** program on the Windows 95 system disk that you downloaded from the **AnswersThatWork** website earlier.
  
- Installing Windows 95 from your hard disk drive. At **AnswersThatWork**, we always recommend that you install Windows 95 from your hard disk drive as opposed to from the Windows 95 CD.
  
- Configuring Windows 95 to make it user friendly.

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## Configuring the BIOS to boot from A:

In order for the PC to be able to boot from a floppy system disk (the one you will have downloaded from AnswersThatWork), the PC's BIOS (or CMOS) must be configured to boot from **Floppy** or **A:**. Depending on the make, model, and age of a PC, PC BIOSes will differ from one PC to the other.

- In 90% of cases, when you do a cold boot (when you physically turn the PC OFF and then ON, as opposed to simply doing a Ctrl+Alt+Del), on the opening screen you should see a message that reads **Press Del to Enter Setup** or similar. 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 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**.
- As already mentioned above, 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 **BIOS Features** or similar, and if you go into that option (highlight the option and press **Enter**), you will see a setting called **PC Boot From** (or similar).
- Using the *arrow keys*, *Page Up / Page Down keys*, *Enter key* etc., on the keyboard, configure the **PC Boot From** option to try to boot from **Floppy A:** first.
- 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.

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## Partitioning and formatting the hard disk

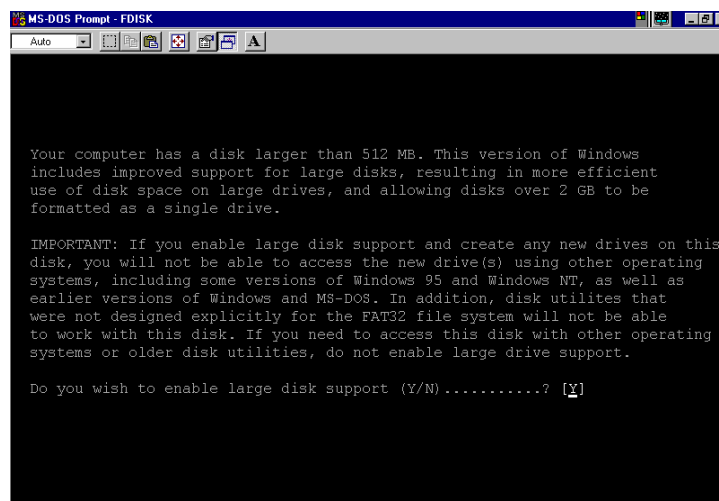
Before you can use or re-use your hard disk you will need to **partition** and **format** your hard disk.

Partitioning your hard disk is the process of configuring the hard disk to be seen by your PC as either one whole physical hard disk, or as a number of different “logical” hard disks. Once you have partitioned the hard disk, you then need to format it before you will be able to install Windows on it.

Partitioning is done through **FDISK** while formatting is done through booting your PC into DOS and using the DOS **FORMAT** command.

### Partitioning your hard disk (FDISK)

- Firstly, make sure that the Windows 95b system disk you downloaded from AnswersThatWork is **NOT** write protected.
- Put that Windows 95b system disk into the floppy drive and turn the PC ON. If the PC is already ON, reboot it by doing a **Ctrl+Alt+Del**.
- Once the PC has fully booted from the floppy drive, you will be left on the black DOS screen, at the command prompt (A:\>). Type **FDISK** and press **Enter**.
- You will be presented with the following screen :



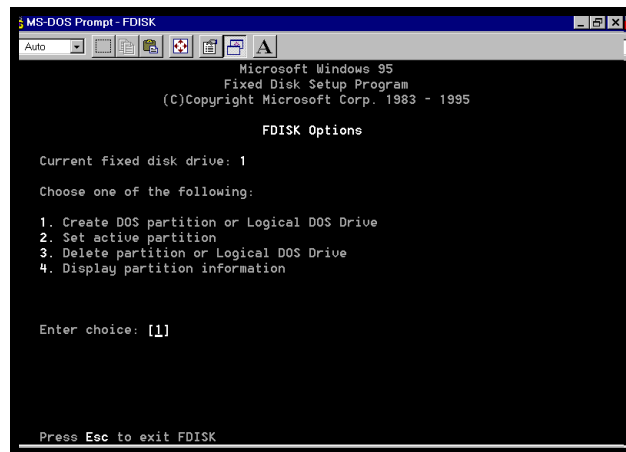
```
MS-DOS Prompt - FDISK
Auto

Your computer has a disk larger than 512 MB. This version of Windows
includes improved support for large disks, resulting in more efficient
use of disk space on large drives, and allowing disks over 2 GB to be
formatted as a single drive.

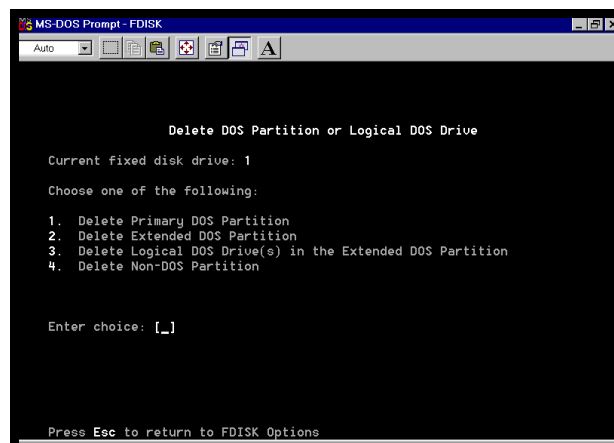
IMPORTANT: If you enable large disk support and create any new drives on this
disk, you will not be able to access the new drive(s) using other operating
systems, including some versions of Windows 95 and Windows NT, as well as
earlier versions of Windows and MS-DOS. In addition, disk utilities that
were not designed explicitly for the FAT32 file system will not be able
to work with this disk. If you need to access this disk with other operating
systems or older disk utilities, do not enable large drive support.

Do you wish to enable large disk support (Y/N).....? [Y]
```

- Make sure you answer **Y** (Yes) and press **Enter**.
- The next screen that appears will then be the main **FDISK** screen :



- Choose the option **“Display the current partition information”**. If you get a message reading no partitions defined, press Esc and go to step 6 below. If there are partitions on the drive however, make a note of them and press **Esc**.
  - 1) You will need to delete whatever existing partitions are on the drive. Choose the menu option **“Delete partition or Logical DOS Drive”**.
  - 2) You will now be prompted with an additional set of options.



- 3) Depending on how your hard disk drive is partitioned, select the appropriate number for your drive, and confirm the partition delete by typing **Y** when prompted to. *Note, you will not be able to delete the drives Primary DOS Partition, without deleting first, any Extended DOS Partitions or 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 are back at the main FDISK screen.
- 5) Choose the option “**Display the current partition information**”. If FDISK returns with a message that reads no partitions defined, you’re on track. Otherwise, repeat step 3 until all partitions are deleted.
- 6) Choose the option “**Create DOS partition or Logical DOS Drive**”.
- 7) On the next screen choose the option “**Create Primary DOS partition**”.
- 8) 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 your hard disk as one whole drive.
- 9) FDISK will now return the following message :

*Primary DOS Partition created, drive letters changed or added.*

At this point, press **Esc** twice, and restart the computer by doing a **Ctrl+Alt+Del**.

## Formatting the hard disk drive

- On completion of the partitioning of your hard disk above, you will have rebooted your PC, still with the Windows 95b system disk in your floppy drive, and you should now find yourself at the DOS prompt (A:\>).  
Type :

**FORMAT C: /U**

and confirm that you definitely want to format your hard disk by typing **Y** when prompted, and then press **Enter**.

- When the format has finished, you will be asked whether you want 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 800Mb in size, we would assign that drive the label **800Mb**. If the drive in question is 4Gb in size, we would assign the drive the label **4Gb**. Keep it as simple as possible. Note, 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, i.e. 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**.

- Next, type :

**SYS C:**

and press **Enter**. This command will make the hard disk you just formatted, a *bootable* hard disk that your PC can start from once you have installed Windows 95 on it.

### Copying the Windows 95b install files to the hard disk (XCOPY)

Now that you have formatted the hard disk, you are ready to install Windows 95b on it. We always recommend installing Windows 95 from the hard disk rather than from the CD. This has two advantages :

- If you damage or lose your CD, you will still be able to install Windows components at a later stage because the installation files will be on your hard disk.
- When you install software or Windows components at a later stage, Windows will remember that it was originally installed from the hard disk and will as a result go and pick up the relevant install files automatically without prompting you to insert the installation CD.

- Put your Windows 95 CD into the CD-ROM Drive.
- At the command prompt (A:\>), type **E:** and press **Enter**. The command prompt will now appear as **E:\>**.
- At the command prompt type **CD WIN95** and press **Enter**. The command prompt will now appear as **E:\WIN95**.

- At the command prompt type

**XCOPY \*.\* C:\DRIVERS\WINDOWS.95B\ /S/E**

and press **Enter**.

*You will now see a list of files flowing down the DOS screen. The above command is now copying the Windows 95b installation files from the Windows 95b CD to the **C:\DRIVERS\WINDOWS.95B** directory on your hard disk drive.*

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## Installing Windows 95b

- Firstly, if this is a PC that you are building, or upgrading, **at this stage** make sure that only the minimum amount of devices are installed in the PC. Therefore, apart from the Motherboard, RAM, PSU and CPU, all that should be installed is a floppy drive, a hard disk drive, a CD-ROM drive, and a VGA card. If you have not changed any hardware in your PC and are only interested in re-installing a fresh copy of Windows 95, ignore this statement.
- Take out the Windows 95b CD from the CD-ROM Drive, and at the command prompt type **C:** and press **Enter**. The command prompt will now appear as **C:\>**.
- Type **CD DRIVERS\WINDOWS.95B** and press **Enter**. The command prompt will now appear as **C:\DRIVERS\WINDOWS.95B>**.
- Type **SETUP** and press **Enter**. The Windows 95b installation procedure will now start.
- You will now be prompted with the following message.... Setup is now going to perform a routine check on your system.... Press **Enter**. Windows will now run a scandisk.
- On the first dialogue box, click on **Continue**.
- On the Software License Agreement page, click on **Yes**.
- Click on **Next**
- Accept the default directory (C:\WINDOWS). Click on **Next**.
- On the Select Options page, select **Custom** and click on **Next**.
- Type in the Windows Registration number (on the Windows 95b CD), and click on **Next**.
- Fill in the User Information page, and click on **Next**.

- On the next dialogue box where you are asked Do you want Setup to look for all hardware devices..., select **Yes (recommended)** and click on **Next**.
- Make sure both **Network Adapter** and **Sound, MIDI, or Video Capture Card** are **NOT** selected, and click on **Next**.
- On the Select Components page, make sure everything is selected apart from **The Microsoft Network**, and click on **Next**. Tip:- To save time, select Microsoft Exchange before you select Microsoft Fax.
- On the Network Configuration page, **REMOVE ALL** Network Components, and make sure that **Windows Logon** is selected in the Primary Network Logon box. Click on **Next**.
- On the Computer Settings page, check all of the settings and change them if necessary. In particular, check the **Keyboard Layout** and **Regional Settings** options are correct. Click on **Next**.
- On the Startup Disk page, select **No, I don't want a StartUp Disk** and click on **Next**.  
(The Windows 95b boot disk you downloaded from our website is a better Startup Disk)
- Windows will now install. Once it has finished copying files to your hard disk drive, click on **Finish**.
- Windows will now ask you to remove the system disk from the floppy drive. Do so and click on **OK**. Windows will now restart .
- On restart, Windows will configure the hardware inside the PC. When you are prompted to select the correct **Date/Time** properties, do so, and click on **Apply / OK**.
- When you are prompted to configure **Windows Messaging**, click on **Cancel / Yes**. This can be done at a later stage.
- When you are prompted to **Install a Printer**, click on **Cancel**. Again, this can be done at a later stage.
- When you are prompted to reboot, click on **OK**.

On reboot, Windows may try to install devices such as the VGA Card, Motherboard resources, IDE Controllers etc., etc. At this moment in time, just accept the default Windows Drivers. If you are prompted to reboot, do so.

**Note :** it is almost certain that Windows 95 will not install the right drivers for your VGA card. Typically it will have configured your VGA card as a "Standard Display Adapter (VGA)" or a "Standard PCI graphics adapter", something you can verify by going into **Start \ Settings \ Control Panel \ Display** (click the "**Settings**" tab and then click "**Advanced Properties**"). If that is the case, one of your first tasks, after the successful installation of Windows 95, will be to install the right drivers for your VGA card so that you can configure your screen for more than the default 16 colors and for resolutions higher than the 640x480 that comes as standard with the above default adapters. If you do need to install the right drivers for your card, do as follows :

- Copy the drivers to your hard disk, as suggested in the last section of this document (the "*Installing Additional Devices*" section).
- **Start \ Settings \ Control Panel \ Display.**
- Click on the SETTINGS tab.
- Click on **Advanced Properties.**
- Click on **Change.**
- Click on **Have Disk...**
- Point Windows to the appropriate C:\Drivers\VGA folder, or to your CD/floppy drivers disk if you did not copy the drivers to the hard disk.
- Follow the on-screen instructions.

The above instructions should work for a majority of VGA cards. With some cards, however, you actually need to execute a SETUP.EXE program in the drivers folder.

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## The User Friendly Stage

You have now successfully installed Windows 95. From now on, how you configure Windows 95 is a question of personal preferences. **You will find below our own AnswersThatWork preferences.**

### The Windows Desktop

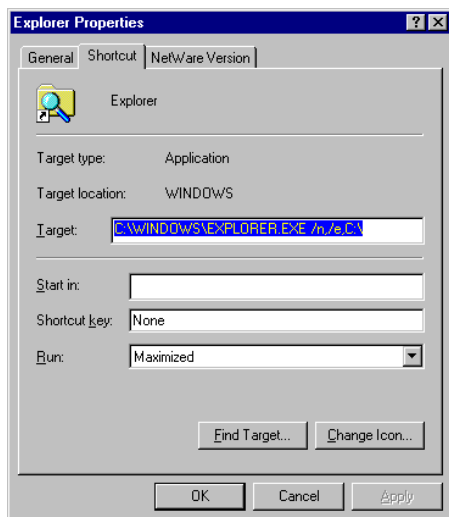
- When Windows boots up for the first time, close the Welcome To Windows 95 screen by clicking on **Close**.  
Next time you reboot, the Welcome To Windows 95 screen will re-appear. To stop it coming up every time the PC boots up, take off the **Show Next Time...** option.
- Delete from the Windows Desktop, the following icons.
  - **The Internet**
  - **My Briefcase**
  - **Online Services**
  - **Set Up The Microsoft Network**
- Do a right click on the Windows Desktop, and select **Arrange Icons \ Name** from the shortcut menu that appears.

### The Start Menu

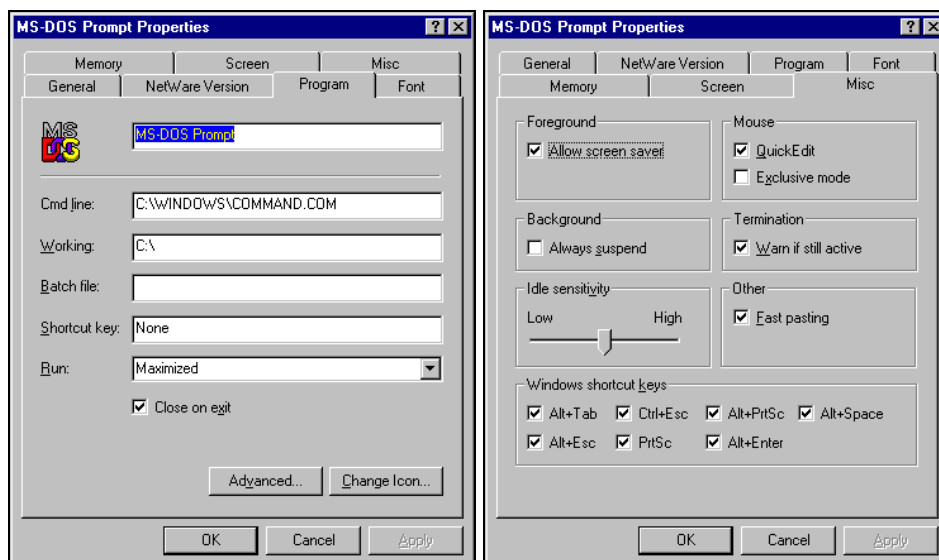
- Click on **Start \ Settings \ Taskbar**, place a tick against the **Show Small Icons In Start Menu** option, and click on **OK**.
- Do a right click on the **Start** button, and select **Explore** from the shortcut menu that appears. You will now see an Explorer view of the Start Menu.
- Click on **View** and select : Toolbar, Status Bar, Details.

- Click on **View \ Options** to bring up the Options dialogue box. Select :
  - **Select All Files**
  - **Display the Full MS-DOS path in the Title Bar**
  - **Include Description Bar for right and left panes**and deselect all other options.
  
- On the right hand side of the Explorer screen, locate the **Programs** folder, and double click on it.
  
- On the right hand side of the Explorer screen, delete the **Online Services** folder.
  
- On the right hand side of the Explorer screen, create a directory called **Microsoft Internet**, and move the following icons into that directory using **Cut** and **Paste**.
  - **Windows Messaging (Microsoft Exchange)**
  - **Internet Mail**
  - **Internet News**
  - **Internet Explorer**
  - **Microsoft NetMeeting**
  
- If you look at the path on the Explorer Status Bar, you will see that the current path is “**C:\Windows\Start Menu\Programs\Microsoft Internet**”. Locate the **Up One Level** icon on the Explorer Toolbar (the first icon), and click on it once. You will now see that the current path has changed to “**C:\Windows\Start Menu\Programs**”.
  
- Rename the **Windows Explorer** icon to **Explorer**.

- ☐ Do a right click on the **Explorer** icon, and select **Properties** from the shortcut menu that appears. Position yourself on the **Shortcut** tab, and check that the fields are set as shown below :



- ☐ Click on **OK**.
- ☐ Do a right click on the **MS-DOS Prompt** icon, and select **Properties** from the shortcut menu that appears. Make sure the **Program** and **Misc** tabs are as shown below :

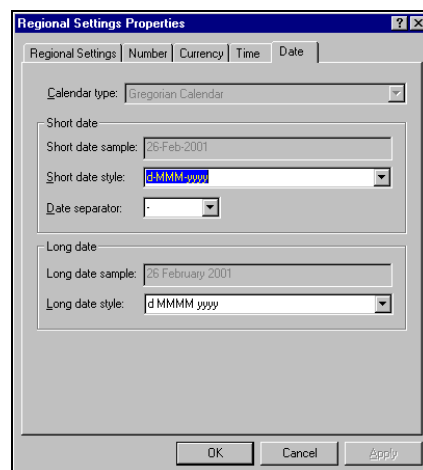


- ☐ Click on **OK**.

- Next, in order to make them quickly accessible through the Start Menu, click on the **Explorer** icon so that it appears highlighted, then hold down the **Ctrl** key on the keyboard and click on the **MS-DOS Prompt** icon so that that both icons also highlighted at the same time.
- Click on the **Edit \ Cut** menu option.
- Click once on the **Up One Level** icon. The current path in the Explorer Status Bar should now read "**C:\Windows\Start Menu**".
- Click on the **Edit \ Paste** menu option.
- If you now click on your **Start** button you should see that your Start menu now has **Explorer** and **MS-DOS Prompt**, making them instantly accessible.
- Close **Explorer**.

### The Control Panel

- Click on **Start \ Settings \ Control Panel \ Regional Settings**.
- Click on the **Time** tab, and in the Time Style field type **H:mm**, padded with 2 spaces before the **H:mm**. This ensures that the time will always be displayed in **24-hour format and with no leading zero**, e.g. 7:45, 18:30 (the 2 spaces are to provide a better layout when looking at the dates and times of files in Explorer).
- Next, position yourself on the **Date** tab, and modify it so that it appears as shown below :



- Click on **OK**.
  
- Next, click on the **POWER** icon in the **Control Panel**. Take off all options in both the **Power** and **Disk Drives** tabs, and click on **OK**. When you are prompted to reboot, click on **Yes**.

Power Management and all associated events (e.g. Sleep Mode) are still a relatively approximate technology which works 100% reliably only 50% of the time. Typically it works in the early days of the PC, then, as various items of software get installed, it starts not working properly on some PCs. In other cases it is quite simply a motherboard design that is either buggy or not robust enough for that specific feature to last the course of the life of the PC.

Most importantly, however, a PC will last longer if Power Management is **not** used than if power management is used (yes, the myths of Power Management !!). Your hard disk will last longer if you do not use Power Management than if you do - this is because the biggest stress on a hard disk happens at spin up and spin down, and a hard disk that is subject to Power Management features spends most of the day spinning down and then back up. It is no coincidence that the highest rate of hard disk failures in relation to age is amongst laptops where power management is used all the time. Conversely, network file servers, which are hardly ever turned off, almost always have hard disks which last much longer than the average business end-user's hard disk.

We only ever advocate Power Management for laptops where, quite obviously, the issue of battery time is so crucial that it is often a more important issue than a lengthy hard disk life.

## Deleting Unwanted Files

Once you have re-installed Windows you will probably also re-install some of the programs that you use on a regular basis, such as your wordprocessor, Internet browser, e-mail software, etc... Most software installations leave behind no longer needed temporary files and folders (directories). For this reason, once you have finished (re)installing everything that you needed to install, do a "spring clean", as follows :

- Click on **Start \ Find \ Files or Folders**, and maximise the Find dialogue box.
- In the Named box, type **\*.SCR** (.SCR is the extension for screensavers), and make sure your **C:** drive is selected in the Look in box.
- Place a tick in the **Include Subfolders** box, and click on **Find Now**.
- All the screensavers on your hard disk drive will now appear in the "results" space in the bottom half of the Find dialogue box. **Delete all the 3D screen savers**. We have a policy at AnswersThatWork to always remove 3D screen savers. Although they are provided by Microsoft as part of Windows 95/98/ME, it is our experience, and the experience of many others in our industry, that the 3D screen savers are responsible for illegal operations, software conflicts, occasional freezes, and various other problems in certain configurations.

- Repeat the "Find" process for **.TMP** and **~\*.\*** files, on each occasion deleting everything that is found.
  
- Empty the **Recycle Bin**.

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## Installing Additional Devices

Most PCs, particularly home PCs, have nowadays more than just a VGA card inside them. For instance, *Modem*, *Sound card*, and, increasingly, *network cards*, are some of the additional devices that will need to be configured as part of the installation/re-installation of Windows.

At **AnswersThatWork**, before we install these additional devices, we always copy the drivers for those devices to the **C:\DRIVERS** directory on the hard disk, and then install the device using the C:\DRIVERS copies of the drivers. The reason for this is a simple one : driver disks always get lost, very few users keep them religiously in a safe place, so there is no safer nor more immediately accessible place than your PC's own hard disk.

Our internal guidelines for copying drivers to the C:\DRIVERS directory are as follows :

- Copy the drivers disks, or the drivers directory on the CD that came with the device in question, to the appropriate directory in **C:\DRIVERS** (*never copy a whole CD as most CDs include hundreds of megabytes of miscellaneous software in addition to actual drivers*). The **AnswersThatWork** standard for the names to use for the directories in C:\Drivers is **<Device>\<Manufacturer>\<Model>**. Typical values for the "Device" part are :

CD-ROM drive	<b>CD-ROM</b>
Modem	<b>Modem</b>
Motherboard	<b>Motherboard</b>
Network card	<b>Net_Card</b>
Printer drivers	<b>Printers</b>
Sound card	<b>Sound</b>
VGA card	<b>VGA</b>

- For example, if you had an **S3 Virge DX** VGA card, you would copy that card's drivers disk to **C:\Drivers\VGA\S3\Virge-DX** directory.

Similarly, if you had a **Kingston KNE120TX** network card, you would copy that card's drivers disk to **C:\Drivers\Net\_Card\Kingston\KNE120TX**.

xxxxxxx THE END xxxxxxxx