

SETUP Program Guide



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Read This First

Tools Needed

- **Vectra SETUP and Utilities Program Disc**

The flexible disc is located in the back of this binder.

- **System Checklist**

The *System Checklist* came inside the “Vectra Personal Computer” box. You should refer to it while you answer the SETUP Program questions.

- **Inventory Foldout**

This foldout is in this binder in the tabbed *Inventory Foldout* section. You should have filled it out when you set up your computer.

Note



If you have a version of the SETUP program other than the one in this binder, don't use the other version.

Using the SETUP Program

What Should Be Done Already

- Having followed the steps in the “Turning On the Computer and Running the SETUP Program” chapter of the *Setting Up Vectra* manual in this binder, you should know which option(s) of the SETUP program you need to run. Refer to that chapter if you need more information.
- **SERVICE PERSONNEL:** Read Appendix A “SETUP Command Line Options” in this guide before proceeding.

Entering the SETUP Program

1. Insert the "SETUP and Utilities" Disc (found at the back of this binder) into drive A:. If the drive has a lever, turn it down to engage the drive.

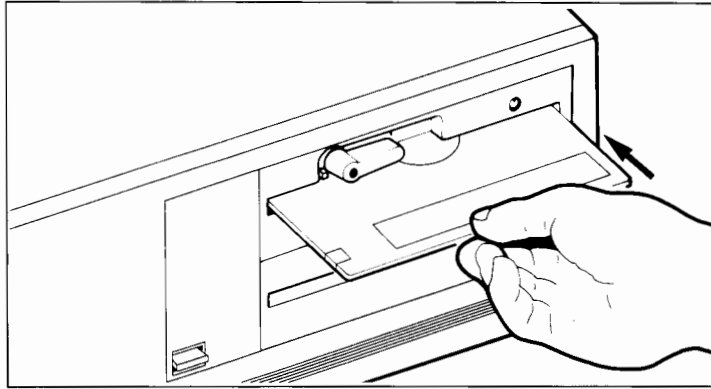


Figure 1-1. Inserting the Disc into Drive A:

2. If the computer is already on, turn it off and then turn it back on. If the computer is off, turn it on.
3. Do you see an error message that says "Invalid configuration information - Run SETUP program"?

NO: Go to step 4.

YES: It means that the computer has found something unexpected and you must run the SETUP program to record required information. When you are prompted to press **F1** to continue, do so.

4. If you are prompted to select the language type of your keyboard, do so. If you are prompted to enter a file name of a previously saved configuration file and you have one you wish to use, do so.

5. The SETUP main menu will then appear. Select the option that you need to run by typing the number and pressing **Enter**. If you received the error message in step 3, pressing any key will automatically put you in Option 1. **Options that are not displayed are not available for use with your model computer.**

All options are documented on the screen. However, if you need more information on any option, this guide is divided into chapters that correspond to the option numbers on the SETUP main menu (Option 1 is described in Chapter 1, Option 2 in Chapter 2, etc.). Refer to these chapters when necessary:

- Chapter 1: Set System Configuration
- Chapter 2: Align Touchscreen
- Chapter 3: Prepare Internal Hard Disc for Moving
- Chapter 4: Initialize Internal Hard Disc
- Chapter 5: Keyboard Click ON/OFF
- Chapter 6: Computer Speed Selection

Note



Appendix A “SETUP Command Line Options” lists additional options that are designed for use by SERVICE PERSONNEL or advanced users. Type /H from the SETUP main menu for a list.

Additional information about the SETUP program can be obtained by viewing the README file on the disc.



Option 1: Set System Configuration

You **MUST** run the Set System Configuration option when your computer is started for the first time, to correct the time and date, after adding accessories, or after changing the battery pack.

Each screen is self-documenting; however, if you need more information for a particular screen, look through this chapter for the screen title (shown at the top of each screen) that you are interested in. When done with all screens, you will be shown the System Configuration again and asked if all is correct (if you made mistakes, you can type **N** and be shown the screens again).

Time and Date Screen

The Time and Date screen displays the current system time and date. Once you set the system time and date on this screen, your computer should keep track of it even when it is turned off.

Note



If the date and time are wrong every time you turn on the computer, or you continually get the “Invalid configuration information – Run SETUP program” message, you either have something set wrong in the System Configuration screen, or the computer’s battery pack needs replacing. Carefully check the System Configuration screen with your *System Checklist* and *Inventory Foldout* and correct anything necessary. If that doesn’t solve the problem, refer to the “Changing the Battery Pack” appendix in the *Setting Up Vectra* manual in this binder.

System Configuration Screen

The System Configuration screen displays configuration information about items installed in your computer and asks you if it is correct. **If you have a Vectra CS you will not see this screen and need not read the rest of this chapter.**

You need to refer to your *System Checklist* (for accessories and disc drives installed at the factory) and *Inventory Foldout* (if you installed accessories or disc drives yourself) to determine if the information is correct.

If it is correct, type Y and press .

If any of the information is not correct, type N and press . You will then be prompted to answer some questions about what is installed in the computer. Correct any information that is wrong. You can find out more about any screen displayed by reading the section in this chapter that corresponds to the screen title you are looking at (the title is located at the top line of the screen).

Flexible Disc Drive Screen

The Flexible Disc Drive screen shows you what the computer reports is installed and asks you if it is correct. You must change this if it is wrong.

Desktop computers, such as the **HP Vectra ES** and **HP Vectra QS**, can have up to two internal flexible disc drives. Floormount computers, such as the **HP Vectra RS**, can have up to four internal flexible disc drives. These are installed into the top and lower slots of the computer. The drive located in the top slot is called drive A:, below that drive B:, and so on. Three types of HP flexible disc drives are shown below.

If you've installed an **HP Internal Tape Drive** or **HP Flexible Disc Expander** refer to the documentation that comes with each of those to find out what needs to be selected at this screen.

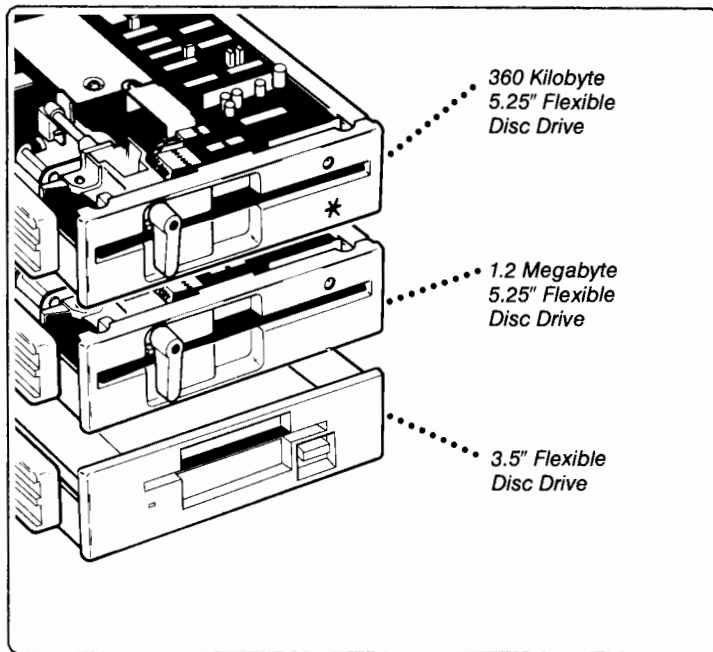


Figure 1-1. The 3 Kinds of Flexible Disc Drives

Hard Disc Drive Screen

The Hard Disc Drive screen shows you what the computer reports is installed and asks you if it is correct. You must change this if it is wrong.

Note



You won't see this screen if your hard disc controller has configured your hard disc drive information into the computer for you.

You need to know:

- How many hard disc drives are installed (refer to your *System Checklist* and *Inventory Foldout*).
- What the **Hard Disc Drive Type** is for each hard disc drive installed. The **Hard Disc Drive Type** is a number between 1 and 47 (this number IS NOT the number of megabytes on the hard disc). If you give an incorrect Hard Disc Drive Type, the drive will not work properly.

You can obtain the **Hard Disc Drive Type** in one of the following four ways:

1. If the hard disc drive was installed by the factory, the number displayed on your screen is probably correct, but refer to your *System Checklist* to confirm it.
2. If you purchased and installed the hard disc drive yourself, and it's an HP hard disc drive, the **Hard Disc Drive Type** number can be found in the installation manual that came with the drive.



3. The **Hard Disc Drive Type** number can also usually be found taped to the front of the drive mechanism.
4. If you can't determine your drive type number from the above information, you will need to find out the characteristics of the hard disc drive (ask your dealer) and match them to a number in the **Hard Disc Drive Type** column in the following table:

Table 1-1. Hard Disc Characteristics

Hard Disc Drive Type	Cylinders	Heads	Start Precomp.	Landing Zone	Approx. Capacity
1	306	4	128	305	10 MB
2	615	4	310	615	20 MB
3	615	6	310	615	32 MB
4	940	8	512	940	64 MB
5	940	6	512	940	48 MB
6	615	4	none	615	20 MB
7	462	8	256	511	32 MB
8	733	5	none	733	30 MB
9	900	15	none	901	116 MB
10	820	3	none	820	20 MB
11	855	5	none	855	36 MB
12	855	7	none	855	52 MB
13	306	8	128	319	20 MB
14	733	7	none	733	44 MB
16	612	4	0	663	20 MB
17	977	5	310	977	40 MB
18	977	7	none	977	58 MB

1-6 Option1: Set System Configuration

**Table 1-1. Hard Disc Characteristics
Continued**

Hard Disc Drive Type	Cylinders	Heads	Start Precomp.	Landing Zone	Approx. Capacity
19	1024	7	512	1023	62 MB
20	733	5	310	732	30 MB
21	733	7	310	732	44 MB
22	733	5	310	733	30 MB
23	306	4	0	336	10 MB
24	612	4	305	663	20 MB
25	306	4	none	340	10 MB
26	612	4	none	670	20 MB
27	698	7	310	732	40 MB
28	976	5	488	977	40 MB
29	306	4	0	340	10 MB
30	611	4	306	633	20 MB
31	732	7	310	732	42 MB
32	1023	5	none	1023	42 MB
39	511	10	none	511	88 MB
40	624	10	none	624	108 MB
41	624	14	none	624	152 MB
42	791	15	none	791	103 MB
43	1023	16	none	1023	142 MB
44	820	6	none	820	40 MB
45	791	8	none	791	103 MB
46	791	12	none	791	155 MB
47	791	16	none	791	310 MB

System Base Memory Screen

The System Base Memory screen shows you what the computer reports is installed and asks you if it is correct. You must change this if it is wrong.

System base (or conventional) memory is the memory located from 0 KB (Kilobytes) to 640 KB. It is used by your computer's operating system, MS-DOS or other, and application programs.

HP Vectra computers are typically shipped with 640 KB of system base memory. If you are unsure how much **System Base Memory** you have, refer to your *System Checklist*.

Note



You can specify 512 KB base memory to allow some specialized applications to run on your Vectra computer, even though it actually has 640 KB of base memory.

Extended Memory Screen

The Extended Memory screen shows you what the computer reports is installed and asks you if it is correct. You must correct it if it is wrong.

There are a number of different kinds of memory used by computers. The three kinds of memory the computer needs to keep track of are **System Base Memory**, **Reserved Memory** and **Extended Memory**. As shown in the illustration below, **Extended Memory** is memory located in the memory space above 1 megabyte.

If you have **extended memory**, you **MUST** enter the total amount of extended memory in kilobytes at the Extended Memory screen (see the next page).

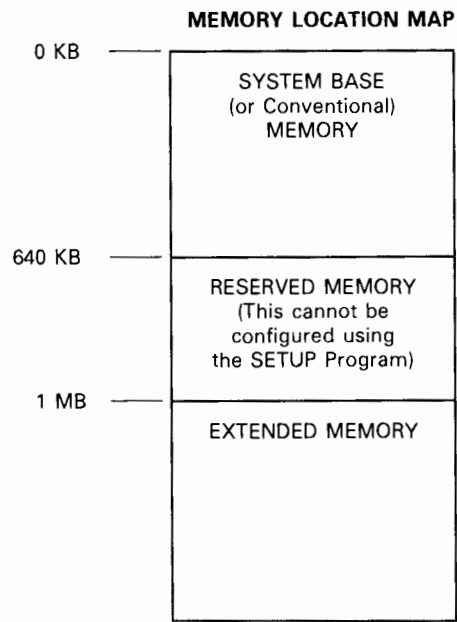


Figure 1-2. System Base and Extended Memory Locations

Here's how to determine how much extended memory you have (**remember, do not count System Base or Reserved memory**):

- If you have a **Vectra QS** or **Vectra RS**, the number is displayed when you turn on the computer.
- If you have a **Vectra ES**, subtract 640 from the number displayed when you turn on the computer.
- For any model of HP Vectra, the amount can be determined by referring to your *System Checklist*, or your *Inventory Foldout* (if you added memory after you bought the computer).

Primary Display Screen

The Primary Display screen shows you what the computer reports is installed and asks you if it is correct. You must correct it if it is wrong.

The primary display is the **first** video/graphics adapter card (and display) used by your computer when you turn it on. If your video card was installed at the factory, you can find this information listed on the *System Checklist*. If you installed it yourself, you should have written this information down on the *Inventory Foldout*.

There are five possibilities for the primary display:

0. VGA, EGA, PGC or Similar Card

Select this for computers with most high resolution color graphics cards. If you have one of these cards in your computer, it must be chosen as the Primary Display.

Note



If you have an HP 82960A Graphics Controller adapter you **MUST** select one of the “HP Multimode Card Display” options or you will receive an error message every time you turn on the computer.

1. HP Multimode Card: 40 Column Display

Select this for computers with an HP Multimode Card, or a CGA type card, and a display on which you want only 40 columns shown. Use this only for applications which require it.

2. HP Multimode Card: 80 Column Display

Select this for computers with an HP Multimode Card, or a CGA type card, and a display on which you want the standard 80 columns shown.

3. Monochrome Card

Select this for computers with a monochrome card and a monochrome (single-color) display. An example would be the HP Monochrome Plus Card and display. Do not select this option if you are using the HP Multimode Card.

4. NONE

This selection is for factory manufacturing purposes only. If you see this, you **MUST** change it to reflect the video/graphics card and display you are using.

Option 2: Align Touchscreen

This option allows you to align your display with HP Touch. HP Touch is an accessory that allows you to touch the screen to select certain functions or move the cursor.

Note



This option is for an HP Vectra computer with the HP Touch Accessory ONLY. Verify that you have installed the HP Touch Accessory before running this option.

The location of the adjustment knobs and switches are given in the display or HP Touch Accessory documentation. Follow the screen to align it. Once the screen is aligned, press any key to return to the SETUP main menu.

Option 3: Prepare Hard Disc for Moving

For Hewlett-Packard 20 Megabyte hard disc drives, you need to use this option to park the hard disc drive heads whenever you plan on moving the computer. Parking the drive heads using this option protects the data on your hard disc when your computer is jostled. You should also use this option if you plan on removing a 20 MB hard disc.

For all other HP hard disc drives (40 MB and larger), the disc drive heads park automatically whenever you turn the computer off.

After you have run this option, the hard disc drive head(s) are parked. Turn off your computer (if you perform any other procedure that requires the computer to access the hard disc drive, the heads will unpark). The heads automatically unpark when you turn on the computer.

Note

If you have a non-Hewlett-Packard hard disc, you may also need to run this option.

Option 4: Initialize Internal Hard Disc

Who Needs to Use this Option

Initialization is the first step in a multi-step process for preparing a hard disc to receive data. **Hewlett-Packard 20 and 40 Megabyte hard disc drives (and non-Hewlett-Packard hard disc drives) MUST be initialized using this option.**

Hewlett-Packard high capacity hard disc drives greater than 40 Megabytes **do not** need to be initialized using this option; they are fully initialized for you from the factory.

Do you have an HP high capacity (greater than 40 MB) hard disc drive installed in your computer?

- **NO.** Proceed directly to the next section, “Preparing 20 MB, 40 MB and Non-HP Hard Discs.”
- **YES.** Refer to your computer’s *System Assembly Guide* for the most current information on installing your operating system.

Preparing 20 MB, 40 MB and Non-HP Hard Discs

For 20 MB, 40 MB and non-HP hard disc drives, Option 4 “Initialize Internal Hard Disc” must be run the first time your computer is started after purchase. Initialization of your hard disc is the first step in a multi-step process to prepare your hard disc for use.

Once initialization is complete, you **MUST** then go through a formatting process which is different for each operating system (MS-DOS or other). If you are going to use an operating system other than MS-DOS, you will need to refer to the manual that came with that operating system. If you are going to use the MS-DOS operating system, perform the tasks in the order presented below:

MS-DOS USERS ONLY: To prepare your hard disc, you must:

1. INITIALIZE your hard disc using SETUP Option 4. More information on doing this can be found in the next section “Initializing a Hard Disc.”
2. Refer to your computer’s *System Assembly Guide* for the most current information on installing your operating system.

Initializing a Hard Disc

Use Option 4 to initialize PHYSICAL hard disc(s) ONLY. DO NOT use it to initialize LOGICAL hard disc(s) set up by software such as the MS-DOS FDISK command. For example, if you have created two logical discs on one physical hard disc, option 4 would initialize the entire physical hard disc (both logical discs). You can select Option 4 to initialize each physical disc separately.

For advanced users and Service Personnel, there are SETUP command line options that allow you to perform special initialization operations on a hard disc. For a description of these options, refer to Appendix A.

Note



Hard disc initialization could take up to 1 minute per megabyte.

Initialization Failure

If your hard disc initialization fails, you'll see the following error message:

```
Initialization of disc failed. Error returned=>
```

Check the following before attempting to rerun this option:

- Make sure the hard disc is properly configured in Option 1. Verify that the Hard Disc Drive Type is correct.
- Verify that all data and power cables are correctly connected.

Option 5: Keyboard Click ON/OFF

The Keyboard Click ON/OFF option allows you to turn the keyboard click (the sound that occurs whenever you press a key) on and off.

When the keyboard click is on, you can hear the keys as you type. When it's off, the keys are silent. Your computer comes pre-set with the keyboard click on.

Note



To change the keyboard click volume during a work session, press **Ctrl** **Alt** **+** to increase the sound and **Ctrl** **Alt** **-** to decrease it. **Be sure to use the **+** and **-** keys on the numeric keypad only.**



Option 6: Computer Speed Selection

This option allows you to change the speed at which your computer operates.

Computers that can operate at multiple speeds come pre-set from the factory to run at the fastest speed possible. However, in some instances, you may want to run the computer at a slower speed. For example, you would want to make your computer run at a slower speed if:

- You are installing copy-protected software that needs to initially run at a slower speed (such as Lotus^R 1-2-3^R).
- You are using software that needs to run at a slower speed all the time (such as some games and communication software).

We recommend that you use the pre-set speed (this speed is displayed for you when you run this option). Then, to use software that needs to run at a slower speed (initially or all the time), we recommend that you use the HPMODE command utility or the **Ctrl** **Alt** **↵** key sequence (described in the *Learning About the HP Vectra Computer and Keyboard* manual in this binder) to make the switch.

SETUP Program Command Line Options

Listed below are 15 SETUP Command Line Options that allow you to perform specialized operations within the SETUP program. **Some of these options may not be available for use on your model computer.** Refer to the “Command Line Option Descriptions” section in this appendix for a detailed description of each.

- /B Display the I/O Channel speed setting
- /BAK Make work disc of SETUP master disc
- /C Specify drive characteristics for unknown hard disc drive type
- /D Manually mark hard disc defects
- /E Reinitialize drive types 40, 41, 42, 43, 45, 46, 47
- /F Fast initialization
- /H Display all available options
- /I Set hard disc interleave factor
- /Kn Specify MS-DOS keyboard language driver
- /M Display SETUP screens in monochrome
- /P Park hard disc heads
- /R Restore system configuration from a file to non-volatile RAM (CMOS)
- /S Make SETUP program the shell
- /SA Save system configuration from non-volatile RAM (CMOS) to a file
- /X Scan hard disc and list all marked defects

Using the Command Line Options

The command line options can be entered either from the MS-DOS prompt or directly within the SETUP program itself. Both procedures are listed here:

Entering Command Line Options From MS-DOS:

1. Start the computer into PAM or MS-DOS.
2. Insert the Vectra SETUP and Utilities Program Disc.
3. Type **SETUP** followed by a **blank space**, then the command line options you require **each separated by a blank space**. For example:

```
SETUP /M /D /F
```

4. Then press **Enter** to load SETUP and initiate the command line option(s). Note that some command line options change the way SETUP program Options 1 - 6 run. (See the "Command Line Options Descriptions" section for an explanation of each.)

Entering Command Line Options From SETUP:

1. Insert the “Vectra SETUP and Utilities Program Disc”.
2. If the computer is off, turn it on. If the computer is on, restart it by holding down **Ctrl** and pressing **Alt** and **DEL** at the same time.
3. When the SETUP main menu is displayed, type **only** the command line options you require **each separated by a blank space**. For example:

Enter option number and press <Enter>: /M /D /F

4. Then press **Enter** to initiate the command line option(s). Note that some command line options change the way SETUP program Options 1 - 6 run. (See the “Command Line Option Descriptions” section for an explanation of each.)

Command Line Option Descriptions

The following is a complete description of each SETUP Command Line Option. It is important that you completely understand each option before attempting to use it.

- /B** **Display the I/O Channel speed setting.** This option displays the computer's current I/O channel speed switch setting for the backplane speed. (Not supported on all HP Vectra PCs.)
- /BAK** **Make work disc of SETUP master disc.** This option helps you create a SETUP work disc from the master Vectra SETUP and Utilities Program Disc. It is common to make a work disc of an application. In this way, if your work disc is ever damaged you will still have the original copy of your application.
- /C** **Specify drive characteristics for unknown hard disc drive type.** This option will ask you for characteristics of a drive that does not have a drive type listed in Table 1-1 in this manual, and saves these characteristics in lieu of a drive type number. This command line option alters the way Option 4 (Initialize Internal Hard Disc) runs.
- /D** **Manually mark hard disc defects.** This option allows you to manually enter hard disc defects. You **MUST** have a list of defects from the factory to do this.

A list of known defects is usually supplied with a hard disc purchased directly from the factory. If you purchased a hard disc and controller from Hewlett-Packard that is supported for use with the HP Vectra, or have an HP Vectra computer with a factory installed hard disc,

the known hard disc defects have already been marked on the disc so no data will be written to them. If, for some reason, you believe that this information may have been erased from the disc, you may use this option to re-mark all defects found at the factory so long as you have the original defects list.

This option changes the way Option 4 (Initialize Internal Hard Disc) runs. You will be prompted for the cylinder(s) and head(s) that contain defects. The cylinder and head prompts alternate until you press without entering a number at the cylinder prompt or until you have entered eight lines. If you have entered eight lines, you will be asked if you want to enter more. If you enter any defects incorrectly, you may change any line on the list.

The /D option runs one media scan, initializes the disc, and then runs a surface analysis. If you **add** the /F (Fast initialization) option, no media scan or surface analysis are done and during the initialization and **only** the manually entered defects will be marked (see the “/F” explanation).

/E **Reinitialize drive types 40, 41, 42, 43, 45, 46, 47.** This option is used to reinitialize Hewlett-Packard ESDI drive types 40, 41, 42, 43, 45, 46 and 47. These drives come pre-initialized from Hewlett-Packard and, under normal circumstances, there is no need to reinitialize them. But if you **MUST** reinitialize one of these drives, use this option. This option changes the way Option 4 (Initialize Internal Hard Disc) runs.



- /F Fast initialization.** This option performs an initialization only. The media scan and surface analysis operations are eliminated. By itself, this option **DOES NOT MARK DEFECTS** on a hard disc and therefore use of this option is **NOT RECOMMENDED**. However, if you choose to use this option in combination with the **/D** option **NO** media scan or surface analysis of the hard disc will take place and therefore no defects other than those you've entered manually will be marked. This option changes the way Option 4 (Initialize Internal Hard Disc) runs.
- /H Display all available options.** This option displays all **SETUP** Command Line Options available for use with your computer.
- /I Set hard disc interleave factor.** The interleave value determines the way the sectors are numbered on a track. You should only change this value if you have been instructed to by the hard disc installation manual or you understand the reasons for doing so. This option changes the way Option 4 (Initialize Internal Hard Disc) runs.
- /Kn Specify MS-DOS keyboard language driver.** This option allows computers that support the various language keyboards (English, French, Spanish etc.) to all use the same **SETUP** program. With this option, you select your language keyboard first, then you may run the **SETUP** program as explained on the screen or in this manual. Type **/K0** (read **K** zero) at the **SETUP** main menu to get a list of supported languages.

A-6 SETUP Program Command Line Options

- /M Switch SETUP screens to monochrome.**
Typically, the screens of the SETUP program are designed to be normally displayed on either color or monochrome displays. If you have a monochrome (single color) display, and the SETUP program screens look as if they are missing text, use this command line option upon entering SETUP to display screens as **text only**.
- /P Park hard disc heads.** This option can be used for all disc drives in place of Option 3 (Prepare Internal Hard Disc for Moving). Once run, turn off the computer immediately.
- /R Restore system configuration from a file to non-volatile RAM (CMOS).** This option allows you to restore your system configuration by copying the saved configuration from a file to the non-volatile RAM (CMOS).
- /S Make SETUP program the shell.** This option is a standard part of the CONFIG.SYS file on the Vectra SETUP and Utilities Program Disc. It causes the computer to be reset whenever the SETUP program is exited so that your computer's operating system (MS-DOS or other) can then be loaded.
- /SA Save system configuration from non-volatile RAM (CMOS) to a file.** This option allows you to save your SETUP configuration by saving the current non-volatile RAM (CMOS) image to a file.

/X **Scan hard disc and list all marked defects.** This option allows you to confirm that any defects found on the disc at the factory have been properly marked so that no data is written to them. To use this option, you must remove the cover of your computer and copy down the list of "cylinder" and "head" defects typically found taped to the top of your hard disc drive.

When the scan is complete, compare your list with the list displayed. If there is a discrepancy, you may want to reinitialize your hard disc using the /D command line option to manually enter defects. **Caution, reinitializing your hard disc will DESTROY all data on it, do so only after first backing up ALL the data on ALL the volumes of the hard disc with the MS-DOS BACKUP command (or similar command if you are using another operating system).**