HP Vectra PCs

SCSI Administrator’s Guide
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SCSI Administrator’s Guide
Who This Manual Is For

This manual is for anyone who wants to:

• Add a SCSI accessory to their PC.
• Configure a SCSI accessory in an HP PC.

Important Safety Information

WARNING
If you have any doubt that you can lift the PC or display safely, do not try to move it without help.

For your safety, always connect the equipment to a grounded wall outlet. Always use a power cord with a properly grounded plug, such as the one provided with this equipment, or one in compliance with your national regulations. This PC is disconnected from the power by removing the power cord from the power outlet. This means the PC must be located close to a power outlet that is easily accessible.

For your safety, never remove the PC’s cover without first removing the power cord from the power outlet, and any connection to a telecommunications network. Always replace the cover on the PC before switching it on again.
To avoid electric shock, do not open the power supply. There are no user-serviceable parts inside.

This HP PC is a class 1 laser product. Do not attempt to make any adjustment to the laser units.
Configuring the SCSI Bus

You can configure your PC’s SCSI bus using the SCSISelect utility. This utility is for use with Internal Wide 16-bit SCSI devices.

Using SCSI Select

ATTENTION

The SCSISelect™ utility is intended for advanced users only. Note that the SCSISelect option displayed on your screen may be different to the one described here.

The SCSISelect utility is accessed by pressing <Ctrl><A> during the computer’s start-up process when the message Press <Ctrl><A> for SCSISelect(TM) Utility! is displayed.

The Options menu is displayed.

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Would you like to configure the host adapter, or run the SCSI disk utilities? Select the option and press <Enter>. Press <F5> to switch between color and monochrome modes.

Options
Configure/View Host Adapter Settings
SCSI Disk Utilities

Arrow keys to move cursor, <Enter> to select option, <Esc> to exit

Use the (A) and (V) keys and the (→ Enter) key to make selections in the SCSISelect utility. Press (↑) at any time to return to the previous menu.
Configuring the SCSI Bus

It is recommended that you do not change these settings.

SCSI Channel Interface Definitions:

- **Host Adapter SCSI ID**
  Changes the adapter SCSI ID from its default value of 7.

- **SCSI Parity Checking**
  Enable or disable host adapter SCSI parity checking. Most currently available SCSI devices do support SCSI parity. You should disable SCSI Parity Checking if any of the attached SCSI devices do not support SCSI parity.

- **Host Adapter SCSI Termination**
  It is recommended that you leave this field on its default setting of **Automatic**. This way, if the host adapter detects a SCSI device connected to either its internal or external connectors, then it enables its terminators (the adapter is at the end of the SCSI bus). If the host adapter detects devices connected to both its internal and external connectors, then it disables its terminators.
Additional Options:

- **Boot Device Options**
  Press \( \text{F7} \) to display the Boot Device Configuration menu, described on the next page.

- **SCSI Device Configuration**
  Press \( \text{F7} \) to display the SCSI Device Configuration menu.

- **Array 1000 BIOS** (only if HP FastRAID is installed)
  This option is enabled by default, and instructs the system to use the special BIOS for the FastRAID option.

- **Advanced Configuration Options**
  Press \( \text{F7} \) to view the Advanced Configuration Options menu.

**Boot Device Configuration Menu**

This menu lets you configure the SCSI boot device. To find out the SCSI ID of a specific SCSI device, you can run the SCSI Disk Utilities (refer to page 7).

Use the \( \text{A} \) and \( \text{V} \) keys to move between options. Press \( \text{F7} \) to display a menu with a selection of values.

- **Boot SCSI ID**
  This parameter is the SCSI ID of the boot device. The default value is 0.

- **Boot Lun Number**
  More advanced SCSI devices can have several logical units. This option indicates the logical unit (or Lun) on which to boot for the drive chosen in the Boot SCSI ID. The default value is 0.

Use the HP Setup program to select the boot device. You enter Setup by pressing \text{F2} during startup.
Configuring the SCSI Bus

SCSI Device Configuration Menu

This menu lets you configure parameters for each SCSI device on the SCSI bus. To configure a specific SCSI device, you need to know which SCSI ID it uses. To know the SCSI ID of a specific SCSI device, you can run the SCSI Disk Utilities (refer to page 7).

Use the ▲ and ▼ keys to move between options. Press ENTER to display a menu with a selection of values.

• Initiate Sync Negotiation
  Some older SCSI-1 devices do not support synchronous negotiation. Set Initiate Sync Negotiation to No for these devices.

• Maximum Sync Transfer Rate
  If the SCSI device is an UltraWide SCSI device, you can use the maximum value of 40.0 MB per second. For Ultra narrow SCSI or Wide SCSI devices you can select a maximum transfer rate of 20.0 MB per second.

Certain older SCSI-1 devices do not support UltraWide SCSI (up to 40 MB per second) or Ultra narrow SCSI or Wide SCSI data transfer rates (up to 20 MB per second). Select a Maximum Sync Transfer Rate of 10.0 MB per second for these devices.
Configuring the SCSI Bus

It is strongly recommended that you switch the Maximum Sync Transfer Rate to 20 MB per second when connecting an external SCSI device.

- **Enable Disconnection**
  To optimize SCSI bus performance, Enable Disconnection should be set to **Yes**.

- **Initiate Wide Negotiation**
  This option determines whether the SCSI channel attempts 16-bit data transfer instead of 8-bit data transfer.

- **Send Start Unit Command**
  When set to **Yes** this option reduces the load on your computer’s power supply by allowing the interface to power-up SCSI devices one-at-a-time when you start your computer.

  This option is not supported by some SCSI devices. Some SCSI devices require a jumper to be changed before they can respond to this command.

- **BIOS Multiple LUN Support**
  More advanced SCSI devices can have several logical units (LUN). This option determines whether booting a SCSI device that has multiple LUNs is supported. Set this option to **Yes** if your boot device has multiple LUNs. It is set to no by default.

- **Include in BIOS Scan**
  This setting, when set to **Yes**, allows the SCSI device to be controlled by the host adapter with this SCSI ID. When set to **No**, the adapter does not control the SCSI device.
Configuring the SCSI Bus

**Advanced Configuration Options Menu**

It is recommended that these settings are not changed.

Use the ▲ and ▼ keys to move between options. Press □ Enter □ to display a menu with a selection of values.

- **Plug and Play Scsi Support**
  - When enabled, this option automatically configures Plug and Play compatible SCSI devices. For SCSI devices that do not support Plug and Play, set this option to Disabled. By default, it is enabled.

- **Extended BIOS Translation for DOS Drives >1 GByte**
  - This option is no longer used (and must always be “Enabled”). By default, it is enabled.

- **Reset SCSI Bus at IC Initialization**
  - When the SCSI controller receives an IC Reset command from the central processor, it can reset either itself and the SCSI bus, or just itself. By default, it will reset both itself and the SCSI bus.

- **Host Adapter BIOS**
  - This option enables or disables the SCSI Adapter BIOS. Several options in **SCSISelect** utility are only valid if the SCSI adapter BIOS is enabled. The SCSI adapter BIOS must be enabled if the computer boots from a SCSI hard disk drive. This option is enabled by default.

- **Support Removable Disks Under BIOS as Fixed Disks**
  - When Boot Only is selected, only the removable media drive designated as the boot device is treated as a hard disk drive. If All Disks is selected, all removable-media drives supported by the BIOS are treated as hard disk drives. No removable-media drives are treated as hard disk drives when Disabled is selected. In this case, removable-media drives must be controlled through operating system drivers.
Configuring the SCSI Bus

• **Display <Ctrl><A> Message During BIOS Initialization**
  When enabled, this option displays the message **Press <Ctrl><A> for SCSISelect(TM) Utility!** during BIOS initialization. When disabled, this message is not displayed, although you can still press the <Ctrl><A> key combination for the SCSISelect utility. This option is enabled by default.

• **BIOS Support for Bootable CD-ROM**
  When enabled, this option provides BIOS support to boot your PC from a CD-ROM device connected to the SCSI host adapter.

• **BIOS Support for Int13 Extensions**
  When enabled, this option provides BIOS support for hard disk drives with more than 1024 cylinders. It is enabled by default.

**SCSI Disk Utilities**

When the SCSI Disk Utilities are selected from the initial Options menu, the SCSISelect utility scans the SCSI bus and lists all the SCSI devices on the SCSI bus. The list shows the SCSI ID and name of each SCSI device. You can use this list to discover the SCSI ID of any device on the SCSI bus.

Use the *A* and *V* keys to highlight a device and press *Enter* to display the **Format Disk/Verify Media** menu.

• **Format Disk**
  This utility can be used to perform a low-level format of a hard disk. Most SCSI disks are pre-formatted and do not need low-level formatting. You should note that this function can take several hours.

• **Verify Disk Media**
  This utility scans for media defects on the selected SCSI device. Press the *Esc* key to abort this utility.
PC Documentation Roadmap

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Start Help Contents |
| Learn how to upgrade your computer by installing accessories | Operating System User's Guide  
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| Find out how to administer your SCSI hard disk drives. | Upgrade & Maintenance Guide, downloadable from:  
http://www.hp.com/go/vectrasupport |
| Find out about the different support options available, and how to troubleshoot your PC | HP User's Guide  
HP Support and Information Services |