

HP Vectra PCs

**SCSI Administrator's
Guide**

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Hewlett-Packard France
Commercial Computing Operation
38053 Grenoble Cedex 9
France

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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.

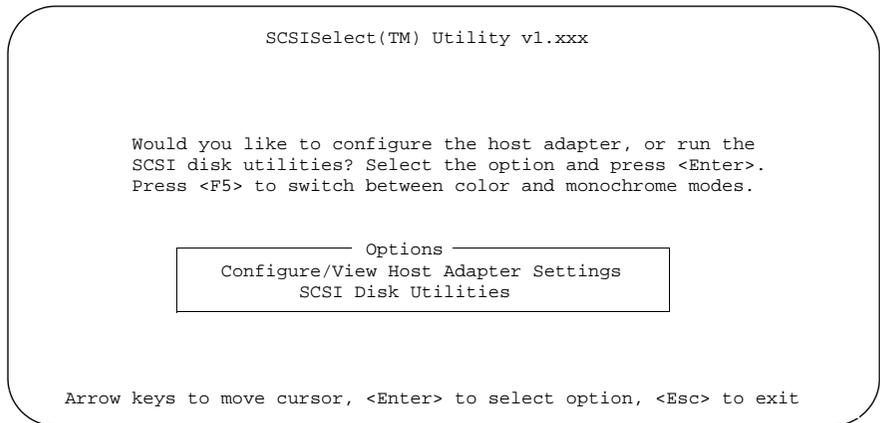
Using SCSI Select

ATTENTION

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

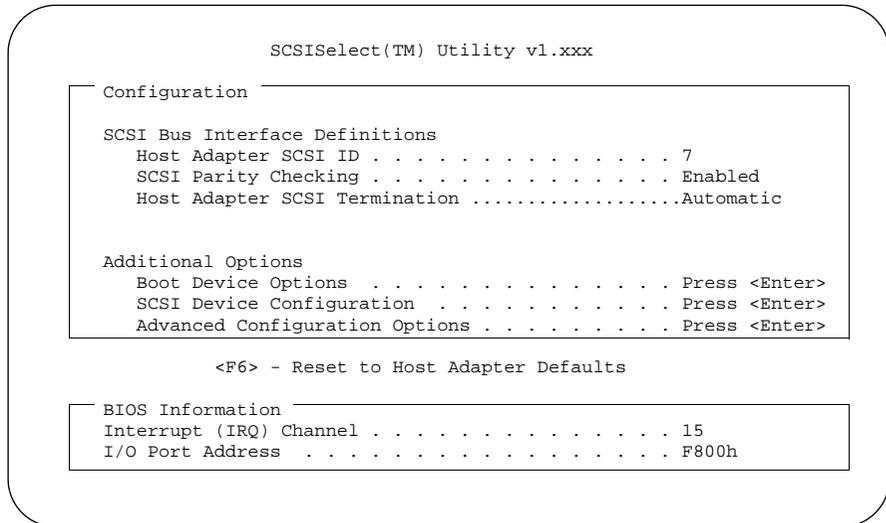
The *SCSISelect* utility is accessed by pressing <Ctrl><A> during the computer's start-up process when the message **Press <Ctrl><A> for SCSISelect(TM) Utility!** is displayed.

The Options menu is displayed.



Use the and keys and the key to make selections in the *SCSISelect* utility. Press at any time to return to the previous menu.

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 to display the Boot Device Configuration menu, described on the next page.
- **SCSI Device Configuration**
Press 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 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).

```

                                Boot Device Configuration
-----
Select SCSI peripheral from which to boot
To view peripheral by ID# select "SCSI Disk Utilities" from previous menu
Boot SCSI ID ..... 0
-----
Option Listed Below Has NO EFFECT if MULTI LUN Support is Disabled
Boot LUN Number ..... 0
    
```

Use the and keys to move between options. Press 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 **F2** during startup.

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).

SCSI Device Configuration								
SCSI Device ID	#0	#1	#2	#3	#4	#5	#6	#7
Initiate Sync Negotiation...	yes							
Maximum Sync Transfer Rate..	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Enable Disconnection.....	yes							
Initiate Wide Negotiation...	yes							
Options Listed Below Have NO EFFECT if the BIOS is Disabled								
Send Start Unit Command....	no							
BIOS Multiple LUN Support..	no							
Include in BIOS Scan.....	yes							
SCSI Device ID	#8	#9	#10	#11	#12	#13	#14	#15
Initiate Sync Negotiation...	yes							
Maximum Sync Transfer Rate..	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Enable Disconnection.....	yes							
Initiate Wide Negotiation...	yes							
Options Listed Below Have NO EFFECT if the BIOS is Disabled								
Send Start Unit Command....	no							
BIOS Multiple LUN Support..	no							
Include in BIOS Scan.....	yes							

Use the and keys to move between options. Press 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.

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.

Advanced Configuration Options Menu It is recommended that these settings are not changed.

Advanced Configuration Options	
Plug and Play Scam Support	Disabled
Extended BIOS Translation for DOS Drives > 1 GByte	Enabled
Reset SCSI Bus at IC Initialization.....	Enabled
Options Listed Below Have NO EFFECT if the BIOS is Disabled	
Host Adapter BIOS (Configuration Utility Reserves BIOS Space)..	Enabled
Support Removable Disks Under BIOS as Fixed Disks.....	Boot Only
Display F6 Message During BIOS Initialization.....	Enabled
BIOS Support for Bootable CD-ROM.....	Enabled
BIOS Support for Int13 Extensions.....	Enabled

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

- **Plug and Play Scam 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”).
- **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.

- **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 and keys to highlight a device and press 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 key to abort this utility

PC Documentation Roadmap

If you want to ...

