

Frequently Asked Questions about Windows NT 3.51 and 4.0

This FAQ document is valid for the following LSI Logic.

Chips

SYM53C810, SYM53C810A, SYM53C815,
SYM53C825, SYM53C860, SYM53C875,
SYM53C876, SYM53C885, SYM53C895, SYM53C896

Boards

SYM20810, SYM22801, SYM22802, SYM8600SP,
SYM8750SP, SYM8751SP, SYM8751SPE, SYM8751D,
SYM8951U, SYM8952U, SYM21002, SYM22910

Many Windows NT installation problems are due to IRQ's not being enabled properly, or the system have Dual Processors. The subsequent sections will guide the reader through common setup steps to enable IRQ's and general Windows NT 3.51 and NT 4.0 driver questions.

System CMOS setup hints:

The following section describes setup steps to take with 3 common System CMOS's.

These are general procedures, since each Mother Board Vendor modifies the BIOS to configure their Mother Board. To get the best results it is best to set Network cards to IRQ 9. This can be done via the software that comes with the card. Also set Sound cards to use IRQ 5. For detailed instruction for CMOS setups contact the Mother Board Manufacturer.

Award BIOS

- 1) While in the CMOS setup pick the "PCI Configuration Setup" or "PnP and PCI Configuration" menu. Change the settings for the slot number in which the Symbios Host Bus Adapter (HAB) is located if this option is available from "Auto Detect" to "INT A" or to an IRQ such as 10, 11, 12 or 15, leaving all other slots set to Auto. If there are no Slot options available then use the "MANUAL" setting. This will show all of the IRQ's and will list them as either "Legacy ISA" or "NO/ICU" or "PNP/PCI" or "Yes/ICU". What you will do is set all IRQ's below 9 to either Legacy ISA or NO/ICU. IRQ's 10, 11, 12 and 15 will be set to PNP/PCI or Yes/ICU.
- 2) The "Available IRQ" settings should be modified to 1st = 10, 2nd = 11, 3rd = 12, and 4th = 15. Ensure that any other device in the system (i.e., sound card or LAN card) are not set to the same IRQ's as the Symbios Logic HAB. For example, if the LAN card is using IRQ 11, remove IRQ 11 as the 1st available IRQ in the CMOS setting and shift all of the available IRQ's up one level.
- 3) Some versions have a statement that will say "PCI IRQ Activated by" set this to Level. Some versions have a statement that will say "PCI IDE MAP to" set this to ISA or Absent.

- 4) Save the configuration and reboot Windows NT. If the system goes passed the blue screen during boot up, then the system is configured properly. You will still need to check the Event Log to ensure that no errors occurred. Also check in the Control Panel > Devices Icon. Make sure that the Symbios Driver is loaded and set to boot. If the driver SYMC810.SYS is also being loaded, make sure to disable it.

AMI BIOS

- 1) While in the CMOS setup pick the "Chipset" or "Advanced" menu.
- 2) Some versions of the CMOS setup allow for the setting of IRQ's referenced to the slot location of the Symbios Logic HAB. Other versions of the CMOS setup only allow for the IRQ to be set to "PCI/ISA" or "Used/Available". In any case, make sure that IRQ 9 is set to "Used", "not available", or "ISA". Keep IRQ's 10, 11, and 15 free.
- 3) Save the configuration and reboot Windows NT. If the system goes passed the blue screen during boot up, then the system is configured properly. You will still need to check the Event Log to ensure that no errors occurred. Also check in the Control Panel > Devices Icon. Make sure that the Symbios Driver is loaded and set to boot. If the driver SYMC810.SYS is also being loaded, make sure to disable it. Driver is loaded and set to boot.

Phoenix BIOS

If you have the version of the Phoenix BIOS, that only has 2 pages to the CMOS setup and the only option for the SCSI is to enable or disable it. There is not much that can be done other than this. The system will do an Auto setting on its own. There is NO work-around to fix the problem. The only solution is to go to another SCSI card.

Most OEM cards that use our chipsets are not "TRUE" plug and play PCI-SCSI Host Adapters, that is why the manual settings of the IRQ's in the system is required.

If you have an OEM Host Adapter, then you should contact the OEM first before contacting LSI Logic. You can find OEM number at the following URL.

<http://www.lsilogic.com/products/contact.html>

OEM SCSI HAB's with Symbios chips

All OEM HAB's that have jumpers for the setting of INT A, B, C, D must be set to INT A. This is generally pins 1&2.

LSI Logic sells the controller chips to other vendors. Problems that we

have encountered with specific vendor HAB's are listed below.

All of these old OEM cards, while they may still be compatible to LSI Logic software, may not be compatible to newer versions of Windows NT. It is recommended that you upgrade to a PnP style PCI-SCSI card.

MS-3805 HAB:

JP2 comes default as INT A Edge pins 2&3. Change JP2 to INT A Level, pins 1&2.

GA-410 HAB:

JP3 is a setting for 1st controller and 2nd controller. The card comes default as pins 1&2. Change JP3 to pins 2&3, and the system will register the IRQ.

SCSI-810P HAB:

J1 comes default as INT B, pins 2&3. Change J1 to INT A, pins 1&2.

Model P810 HAB: or

PCI-SCSI 21-050020-11 HAB:

This card will not allow an IRQ setting to be enabled for the Symbios Logic controller (which it needs for proper operation in Windows NT). There is no work around for this card in Windows NT.

HSB KW801V10 HAB:

This card will not allow an IRQ setting to be enabled for the Symbios Logic controller (which it needs for proper operation in Windows NT). There is no work around for this card in Windows NT*.

* Note: The HSB card does allow IRQ's to be enabled if the host system is an Intel P5-66, a FIC P5-66, or a HSB motherboard. We were able to get the chip to see an IRQ on an old Intel Batman system P/66 and a P566 FIC Mother Board. HSB also has informed us that their Mother Boards also allow for an IRQ setting.

If the Symbios PCI-SCSI chip is embedded onto the mother board, then you need to contact the mother board manufacturer for support on all issues related to hardware and software.

General Questions And Answers

Q: I need drivers for Windows 2000, where do I find them?

A: The drivers for Windows 2000, are bundled with the O/S. Windows 2000 is still BETA and is not supported by us until it becomes public. If the driver is not loading properly or you are having problems with the installation, then you will need to contact Microsoft at this time for support.

Q: I am running a CD-R application and it cannot properly burn a CD. Do I need a newer driver?

A: This issue is related to our driver and CD Creator by Adaptec. We have found that in most cases the program will work. Go to this site:

<http://www.adaptec.com/cgi-bin/cdrmain.cgi>

This page on Adaptec's site has a trouble shooting guide that will help in most cases. Issue's found can be related from firmware upgrades to the device or even upgrades to the application. If you are having problem then refer to this page first.

IMPORTANT NOTE: Do not load our ASPI driver for NT if you are going to use a CD-R software. Use the ASPI driver that comes with the application. If our driver is loaded then the program will not work.

Q: Windows NT 3.51 will not install to my SCSI hard drive. I get an error that it cannot find any SCSI devices. How do I get NT to install?

A: This error is caused by due to the system have a Dual Processor. Use the following to fix the problem.

1. For an installation to a Multi-Processor system using Windows NT 3.51, please follow steps A through D.
 - A. On installation diskette #1 remove the file HAL486C.DLL
 - B. Copy HALMPS.DLL from the NT 3.51 CD to this diskette. (This file can be found under the /i386 directory on the CD.)
 - C. Rename HALMPS.DLL to HAL486C.DLL
 - D. Continue to install Windows NT 3.51 with step 2

Q: I have a mother board that has the Symbios SCSI embedded. (Note this can be our 53C876, 53C896 chipsets). Windows NT 4.0 will not install and I get an error that it cannot find any SCSI devices. How do I get NT to install?

A: Start the Windows NT installation with either a CD-ROM boot or from the set of floppy disks. Initially, a black screen will appear with the following text at the top:

Setup is inspecting your Computer's hardware configuration...

While this is on the screen (before entering the initial blue screen), press the F6 key. Windows NT setup will allow a SCSI driver to be added before the second disk is requested. Add the appropriate driver from a prepared floppy disk. Follow the rest of the instructions to finish the installation.

Q: I have a ISA card that has your 53C400 or 53C400A or 53C416 chip on it and need drivers to support the card. Where do I get them?

A: We provide drivers for the 53C400A (HP version) and the Symbios SYM20401, 20402 and 20403 that have our 53C416 chipset on them. These drivers are located on the LSI Logic web site at this address:

<http://www.lsilogic.com/products/download1.htm>

We did not write any drivers for the 53C400 chipset, or any other cards that have the 53C400A chipset. The chips are sold to OEM's that build their own card and write their own drivers for the cards. You will need to contact the vendor of the device that came with the card for any software or hardware support.

Q: **My scanner is not being seen by Windows NT. What driver do I load?**

A: The Scanner Manufacturer provides the Windows NT interface driver.

Q: **I need an ASPI driver to function devices outside of the hard drive?**

A: The driver can be obtained from our web page. The package is called NTASPI.ZIP. Please note that if you install this driver to function other devices that need an ASPI interface that you will no longer be able to use the CD-R application. If this is the case then you need to get another SCSI card that is supported by both applications.

Q: **What driver do I load for an NCR Computer that has a built-in 53C700 SCSI interface?**

A: Windows NT is supported by NCR. If you are experiencing problems, call NCR/AT&T at (800) 774-7406.

Q: **What driver do I load for Windows NT that supports a video card using a 77C22E, 77C22E+, 77C32BLT?**

A: There is no driver available for Windows NT support. The only option is to get another video card that is supported under Windows NT.

Q: **Which driver do I use for a Compaq System with a Symbios Logic PCI-SCSI chip embedded?**

A: We do not support the Compaq Systems. Compaq writes their own drivers for our chipsets. You need to either load their driver or contact them for any updated driver. If directed by Compaq to download our NT driver, then the driver can be downloaded from our PCI-SCSI download page:

http://www.lsilogic.com/products/pci_sw.htm?agree=Agree

The file is called **WINNT.EXE** or .ZIP. The .exe file is a self extracting file for 95/98 or NT systems. If you are using just

DOS then download the .zip package and be sure to have a program such as PKUNZIP to extract the files.

Support for the NT driver and the PCI-SCSI controller is through Compaq.

General Notes

- 1) All Symbios PCI SCSI HAB's must be set to INT A, even if there are 2 or more cards being used.
- 2) The 53C810 HAB's DO NOT have a BIOS on the card. They rely on the System BIOS for SCSI BIOS support. If you do not see a banner during boot up then your system does not support our chips.
- 3) The Current Windows NT driver can be downloaded from either the BBS at (719) 533-7235 or at the Web site <http://www.lsilogic.com> click on the Symbios Driver Info located on the left hand side of the page. Then click on the Download PCI-SCSI Drivers and Software. Go to the bottom of the License Agreement and agree the to terms of the software to proceed. The file name is **WINNT.EXE** or .ZIP. The .exe file is a self extracting file for 95/98 or NT systems. If you are using just DOS then download the .zip package and be sure to have a program such as PKUNZIP to extract the files.
- 4) If you are using a SCSI HAB that has 3 SCSI ports, you can only use 2 ports at one time. If you are using all 3 ports and experiencing problems, then you need to remove the devices from one of the ports and hook those devices up to another controller.

LSI Logic Technical Support

If you are still experiencing problems with Windows NT, you can contact the Technical Support Staff by calling us at (719) 533-7230 or fax us at (719) 533-7271 or go to our web page at:

http://www.lsilogic.com/products/symio_ts.html

and leave us an e-mail.

Hours of operation are 7:00am to 4:00pm MST Monday - Friday. We are closed on weekends and holidays. Messages can be left to the Technical Support at any time by pressing 2 at the start.