



Intel Server RAID Controller U2-1 Troubleshooting Guide

**A Guide for Technically Qualified
Assemblers of Intel® Identified
Subassemblies/Products**

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Revision History		
Date	Rev	Modifications
02/13/00	1.0	Initial Release

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1. My server will not power on.	4
2. My server gives a beep code and halts.	4
3. My HDD lights went on, I heard the drives spin up, but I'm not seeing video.	5
4. I can't see all the drives connected to the SRCU21.	5
5. I get a message that the SRCU21 ROM failed to expand.	6
6. I get a blue screen during NT 4.0 installation.	6
7. I get a message that the I ₂ O driver is not available when starting Storage Console in Windows NT 4.0.	7

SRCU21 Troubleshooting

Welcome to the SRCU21 RAID Controller. In the unlikely event you do encounter issues, this guide will help you troubleshoot & identify possible problem areas. If you are unable to resolve a problem using this guide, please call our help desk. This guide will help you collect the data we will need to help you through your issues. In the event you need to all our help desk, please include the following information.

- PCB number of your SRCU21 that is printed on the SRCU21 card.
- Firmware revision of the SRCU21 if you have updated it.
- Model of the server board being used.
- BIOS revision of the server board being used, viewed during POST.
- Operating system being used.
- Service packs and other updates that have been installed.

Please visit the Intel Customer Support website for firmware and driver updates, and for updated versions of this document at <http://support.intel.com/support/motherboards/server/SRCU21>.

1. My server will not power on.

- A. Please check for the following possibilities:
 - Is the server AC power cord securely plugged into the power supply?
 - Is the server plugged into a "powered on" power strip?
 - Some ATX power supplies have a power switch on the back of the power supply next to the fan, is it switched on?
- B. Remove the SRCU21 and reseal it in the system, re-power the system.
- C. Remove the SRCU21 and power on the server. If the server powers on without the SRCU21 installed, return the SRCU21 for replacement.

2. My server gives a beep code and halts.

- A. Most likely, these beeps are what are known as "beep codes." They identify system events in case video fails to display. The following is a short list of available list of "beep codes" for most Intel server boards.

Beep Code	Meaning
1-2-2-3	BIOS ROM checksum error, call support.
1-3-4-1	RAM failure, See question 10
1-3-4-3	RAM failure, See question 10
1-3-3-1	Ram failure, See question 10
1-2	Video failure, reseal or replace the video card.
1	One short beep before boot (Normal Operation)
1-5-2-1	Empty processor slot
1-5-1-1	FRB failure
1-5-4-2	Power fault: DC power unexpectedly lost
1-5-4-3	ICH control failure
1-5-4-4	Power control fault

- B. Remove the SRCU21 and reseal it in the system, re-power the system.
- C. Remove the SRCU21 and power on the system. If the system boots normally, return the SRCU21 for replacement.

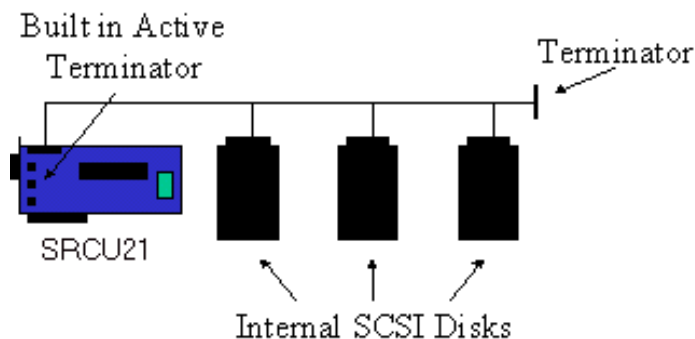
3. My HDD lights went on, I heard the drives spin up, but I'm not seeing video.

- A. Remove the SRCU21 and reseal it in the system, re-power the system.
- B. Check the data cables to make sure that pin one of the cable is connected to pin one on the card and on the drive(s).
- C. Check to power to the drive(s), make sure the power cables are properly seated.
- D. If the system fails to boot normally, remove the SRCU21 and power on the system. If the system boots normally, return the SRCU21 for replacement.

4. I can't see all the drives connected to the SRCU21.

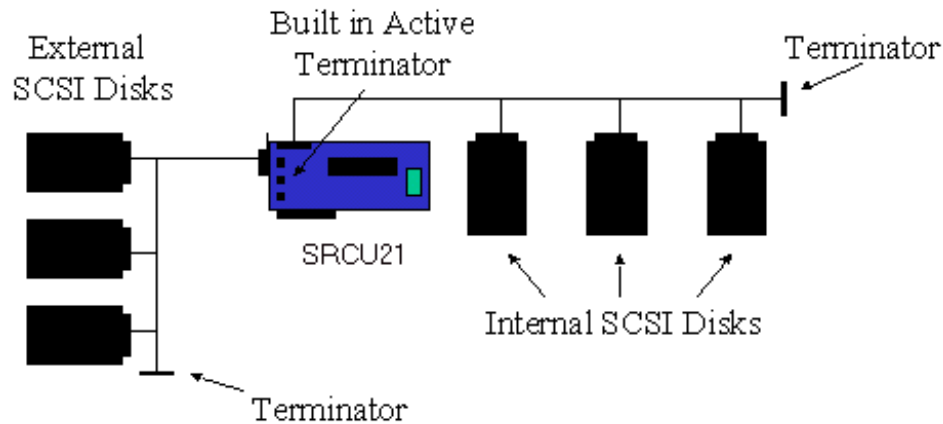
- A. Check the SCSI Termination. Termination is required at both ends of the SCSI Bus.

- Terminators are special electrical resistors
 - The SCSI bus must be properly terminated at both ends so that commands and data can be transmitted to and from all devices on the bus
- Active Termination
 - Detects if termination at the card is needed
- The adapter provides active termination
- With no other drives attached externally to the same channel, active terminators sense that termination needed at the card.



- With drives attached to one channel both internally and externally, active terminators detect that they are not needed, and the user must terminate the ends of the bus manually.

February 2000



- B. Check drive ID, each device on the SCSI bus must have a unique number. ID numbers are usually set via jumpers on the hard drive. Hard drives should usually begin their numbering with device number 0.
- C. The SRCU21 does not support CDROM drives or tape drives. Attaching these devices to the SRCU21 will slow the bus to the speed of the slowest device resulting in poor hard drive performance.
- D. Make sure that pin one on the cable matches up to pin one on the device.

5. I get a message that the SRCU21 ROM failed to expand.

- A. The SRCU21 must expand its ROM into XROM space during POST. XROM space is limited, use of PCI devices such as video cards, hard drive controllers, and other third party devices may also expand their ROM's into this limited space.
- B. To free XROM space, try the following:
 - Turn off option scan for devices not being used. For example, if you have an on board Adaptec controller and it is not being used as a boot device, enter CMOS setup and turn off the PCI option scan. Devices such as tape drives or CDROM drives attached to the Adaptec controller will still be available to the OS but not bootable.
 - Remove any third party cards not being used.
 - Use a third party card that requires less option ROM space.

6. I get a blue screen during NT 4.0 installation.

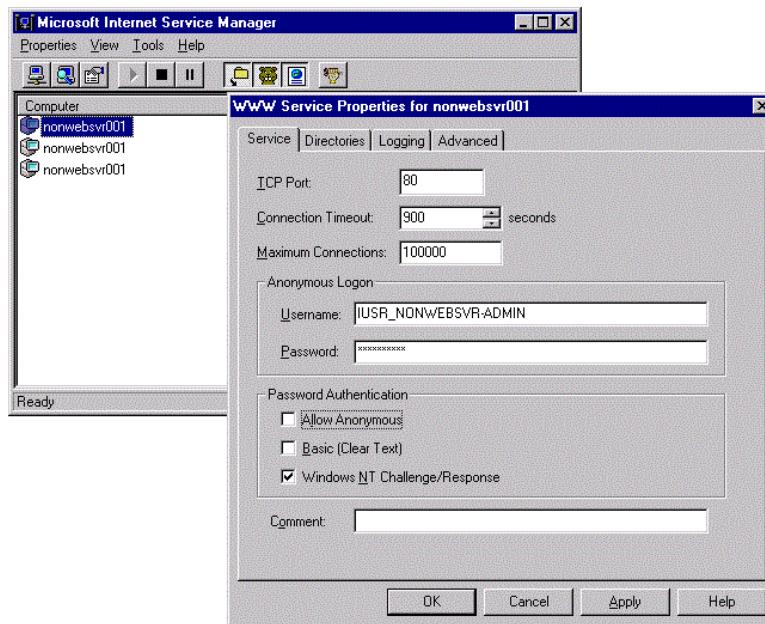
- A. Make sure that the latest firmware update has been applied to the SRCU21. Instructions for updating the SRCU21 are contained in the User's Manual located on the CD that accompanied the card. The manual along with firmware update code is available at <http://support.intel.com/support/motherboards/server/SRCU21>.
- B. Use the latest SRCU21 operating system drivers that are also located at the web site listed above.
- C. Blue screens with Windows* NT 4.0 have been observed when using an out of date Network Interface Adapter driver. Use the latest drivers for the devices installed in your system.
- D. The memory modules used on the SRCU21 must be listed on the tested memory list available at the web address listed above. Failure to use tested memory may result in unpredictable or erratic operation.

7. I get a message that the I₂O driver is not available when starting Storage Console in Windows NT 4.0.

A. Be sure to use the latest OSM driver for Windows NT 4.0 available at <http://support.intel.com/support/motherboards/server/SRCU21>.

B. Check the following:

- Microsoft Internet Information Server must be installed.
- Apply service pack 5 or later (this will update IIS to V3.0).
- Apply Microsoft Internet Explorer service pack 4.01 or later.
- If the FAT file system is used (NTFS does not generate this error because it has the security capability to handle anonymous authentication), uncheck the “allow Anonymous” box under the WWW service in IIS as shown in the graphic below.



- If the FAT file system is used (not NTFS) and the server will be used to house web sites, update IIS to V4.0 (via Option Pack)
- If the server is a web server update IIS to V4.0 (Option Pack)