Chapter 3 : " Configuration "

After completing the hardware installation, the disk array must be configured and the logical unit must be initialized before it is ready to use. This can be accomplished through the following user interfaces :

- Front Panel function keys (LCD Display)
  or
- VT100 terminal connected through the serial port (Monitor Port)

☆ The LCD display panel and a VT100 terminal can not be used at the same time.

This chapter guides you through setting up your Disk Array for the first time. This chapter contains information on setup. The setup program is a menu-driven utility which enables you to make changes to the configuration and tailor your Disk Array to your individual needs.
The setup program is a ROM-based configuration utility which displays the Disk Array's status and allows you to set up the parameters. The parameters are stored in a nonvolatile battery backup CMOS RAM which saves the information even when the power is off.
By using an easy-to-use user interface, you can configure such items as :

- RAID Level
- Hot Spare Disk
- SCSI ID
- Termination
- Password (For protection from unauthorized use)
- Firmware update (VT100 Terminal mode only) --- for update procedures please refer to Chapter 4 : Advanced information.

The setup program has been designed to make it as easy to use as possible. By using a menu-driven program, you can scroll through the various sub-menus and make your selections among the various predetermined choices.

Configuration from the front Panel

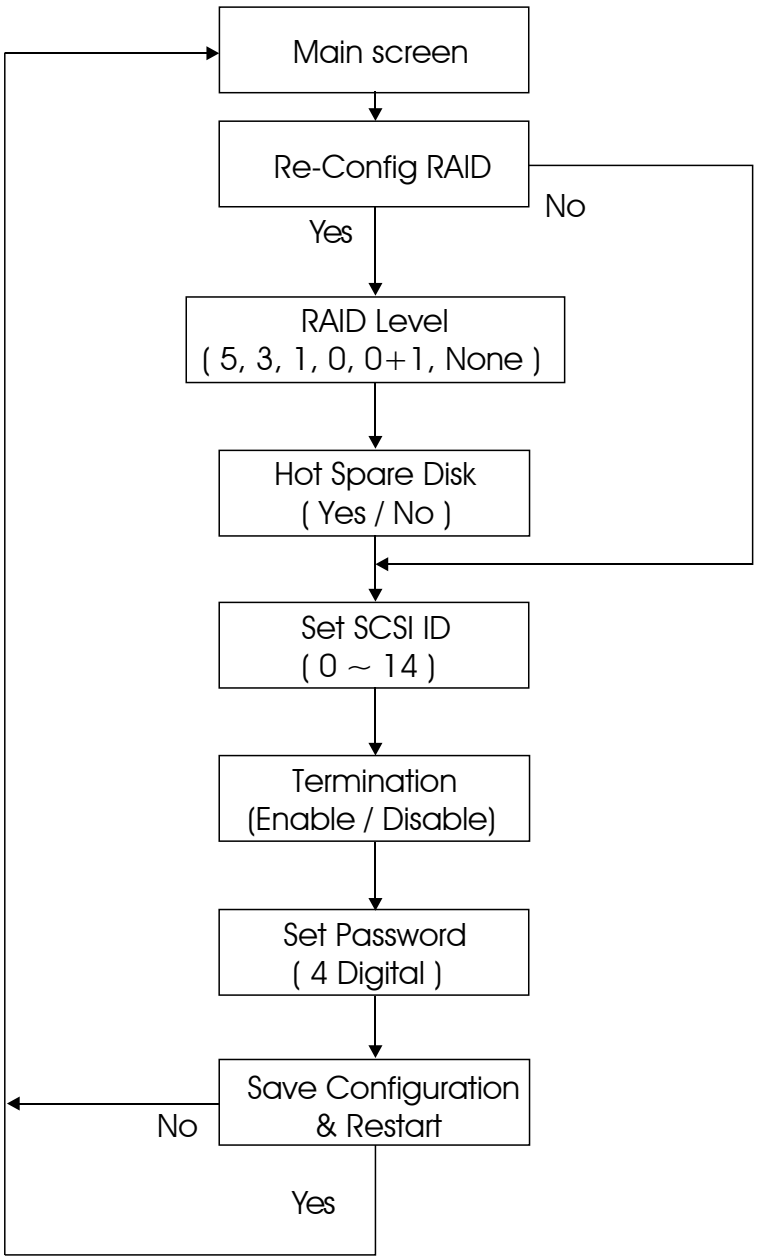
The LCD Display front panel function keys are the primary user interface for the Disk Array. Except for the "Firmware update" ,all configuration can be performed through this interface.

Function Key Definitions

The four function keys at the top of the front panel perform the following functions :

(↑) Up Arrow / Right Arrow	Use to scroll the cursor Upward / Rightward
(↓) Down Arrow / Left Arrow	Use to scroll the cursor Downward / Leftward
(**Enter**)	Use to confirm a selected item
(**ESC**)	Use to exit a selection

Configuration procedures (via Front Panel)

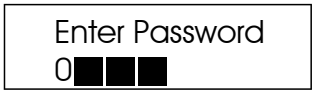


Starting the configuration

1. Power-on the Disk Array. At the end of the power-on self test program, the LCD displays the current system status.

2. Press the front panel " **Enter** " key to access the built-in configuration program.

3. When the screen displays the password prompt and asks you to " Enter Password "

   press " Enter " 4 times to input the default password
   (default password is " 0000 ")

4. **Re-Configuration RAID**

   Select " **No** " to just set up " SCSI ID# ", "Terminator", and "Password"

   Select " **Yes** " to set up " RAID Level " , " Hot spare disk " , " SCSI ID# " , " Terminator " , and " Password "

5. **Set RAID Level**

Move cursor (↑ ↓) to the desired RAID Level **(5, 3, 1, 0, 0+1, None)**, press " **Enter** " to confirm.

Warning

All data on the disk drives will be lost by changing the RAID Level.

* RAID Level " **None** " = **No Configuration**

6. **Set Hot Spare Disk**

Select " **Yes** " to set **one** Disk Drive as a Hot-spare Disk.
(Valid for RAID Level 5 and 3 , the total number of Disk Drives installed **must be more than 3 Disk Drives)**

7. **Set SCSI ID**

Each device on a specific SCSI bus must be configured with a target address (which is a "SCSI ID") which is different from any other devices on the SCSI Bus.

The default SCSI ID for this system is ID 0.

If you need to assign a different ID # for your Disk Array. The available SCSI ID# for this system is ID# 0 ~ 14 .

You must assign a different SCSI ID to each SCSI device on the SCSI Bus. The SCSI ID# must be Unique for each device.

8. **Termination**

Terminating a SCSI chain is achieved by adding a terminator to each end of the SCSI bus. The Disk Array supports active termination at the controller's SCSI end.

Termination "enabled" must be set when the Disk Array is at one end of the SCSI Bus.

9. **Set Password**

Press " **Enter** " to activate the Password setting. When the cursor stop on the desired "number" or "character", Using " ↓ " and " ↑ " function keys to choose the desired characters and then press " **Enter** " to confirm it.

☆ Press " **ESC** " function key for password "**No Change**"

10. **Save Configuration & Restart**

Select the Save Configuration function and Press the " Enter " key to save and activate your selections.

STOP

Warning ! All data will be lost if you change RAID Levels .

WARNING

Saving configuration changes causes the disk array controller's working parameters to change. This can produce unpredictable results if it occurs during Host and Array activity. All activity to the controller should be stopped before saving configuration changes.

Configuration from VT100 Terminal Mode

By connecting a VT100 compatible terminal or a PC operating in a terminal emulation mode, a configuration can be performed through this interface.
To ensure proper communications between the "Disk Array" and the "Terminal", Please configure the VT100 terminal settings to the values shown below :

VT100 Terminal (or compatible) Set up

Connection	Serial Port (COM 1 or COM 2)
Protocol	RS232 (Asynchronous)
Cabling	Null-Modem cable
Baud Rate	115,200
Data Bits	8
Stop Bit	1
Parity	None

Keyboard Function Key Definitions

" **Enter** " key, Use to confirm a selected item

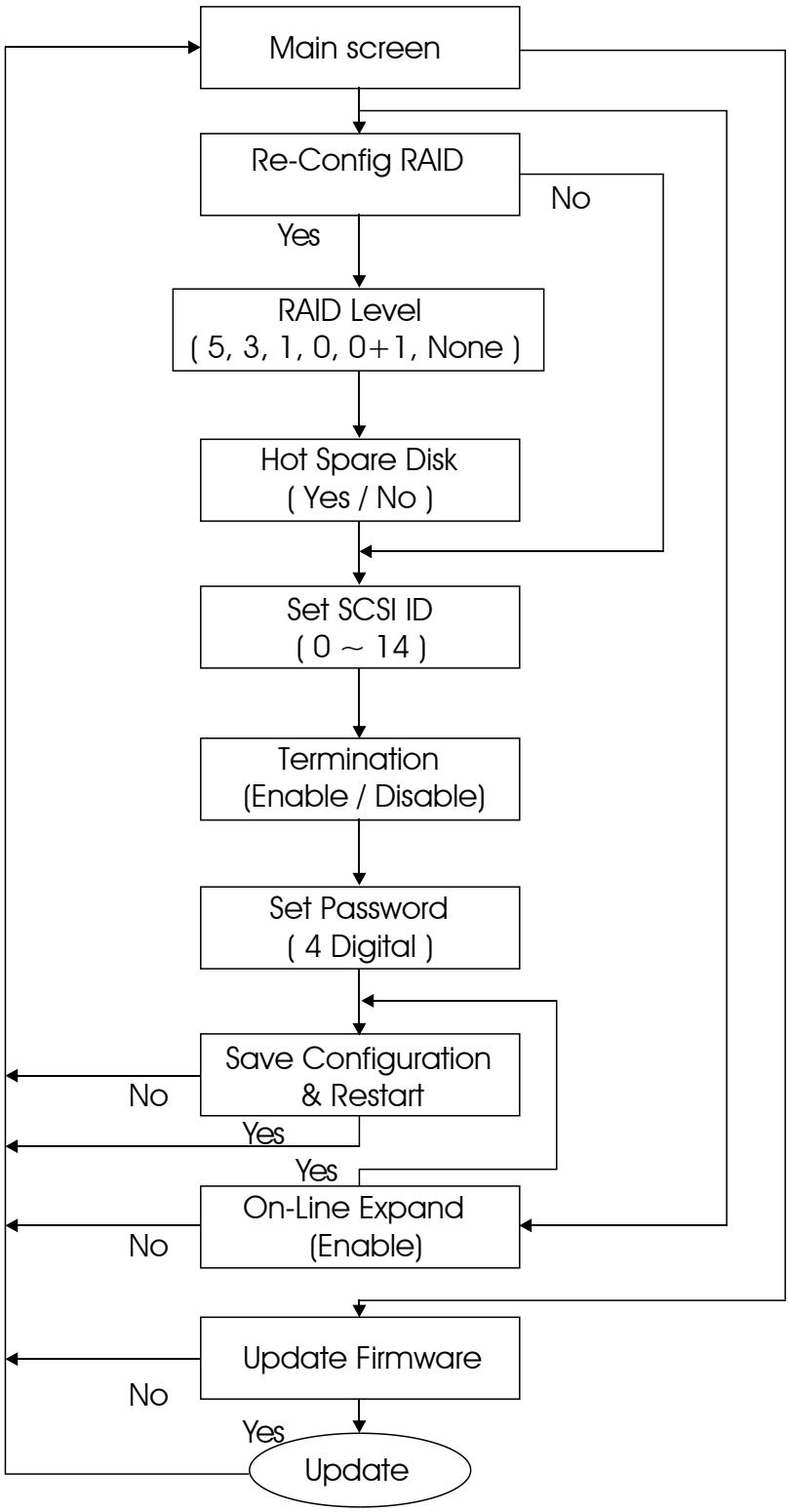
" **ESC** " key, Use to exit a selection

" **A** " key, Use to scroll the cursor Upward / Rightward

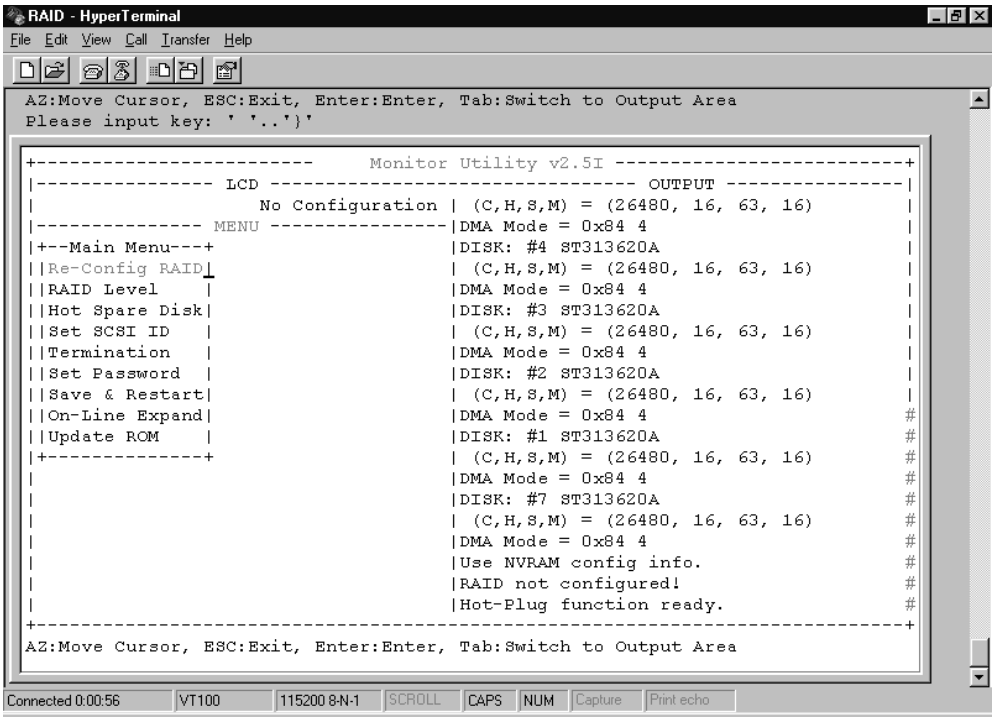
" **Z** " key, Use to scroll the cursor Downward / Leftward

" **Tab** " key, Use to switch mode (Menu / Output Area)

Configuration procedures (VT100 Terminal)



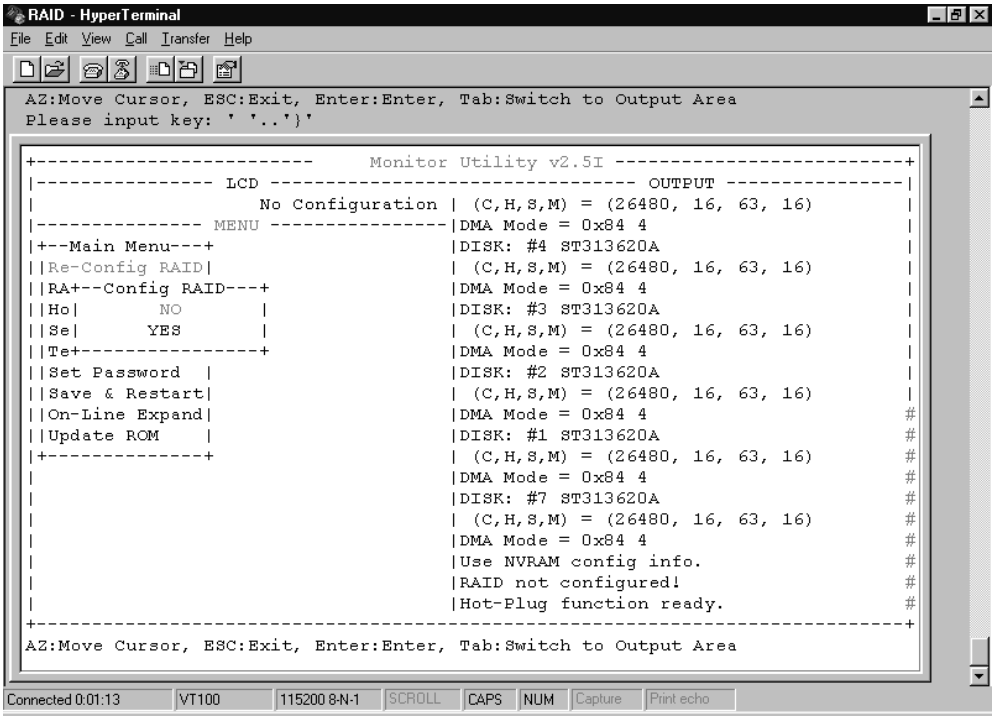
Main Screen


RAID - HyperTerminal
File Edit View Call Transfer Help
AZ:Move Cursor, ESC:Exit, Enter:Enter, Tab:Switch to Output Area
Please input key: ' '..')'
Monitor Utility v2.5I
LCD
No Configuration
MENU
Main Menu
Re-Config RAID
RAID Level
Hot Spare Disk
Set SCSI ID
Termination
Set Password
Save & Restart
On-Line Expand
Update ROM
OUTPUT
(C,H,S,M) = (26480, 16, 63, 16)
DMA Mode = 0x84 4
DISK: #4 ST313620A
DISK: #3 ST313620A
DISK: #2 ST313620A
DISK: #1 ST313620A
DISK: #7 ST313620A
Use NVRAM config info.
RAID not configured!
Hot-Plug function ready.
AZ:Move Cursor, ESC:Exit, Enter:Enter, Tab:Switch to Output Area
Connected 0:00:56
VT100
115200 8-N-1
SCROLL
CAPS
NUM
Capture
Print echo

Re-Config RAID

Select " No" for setting : " SCSI ID ", " Terminator ", " Password "

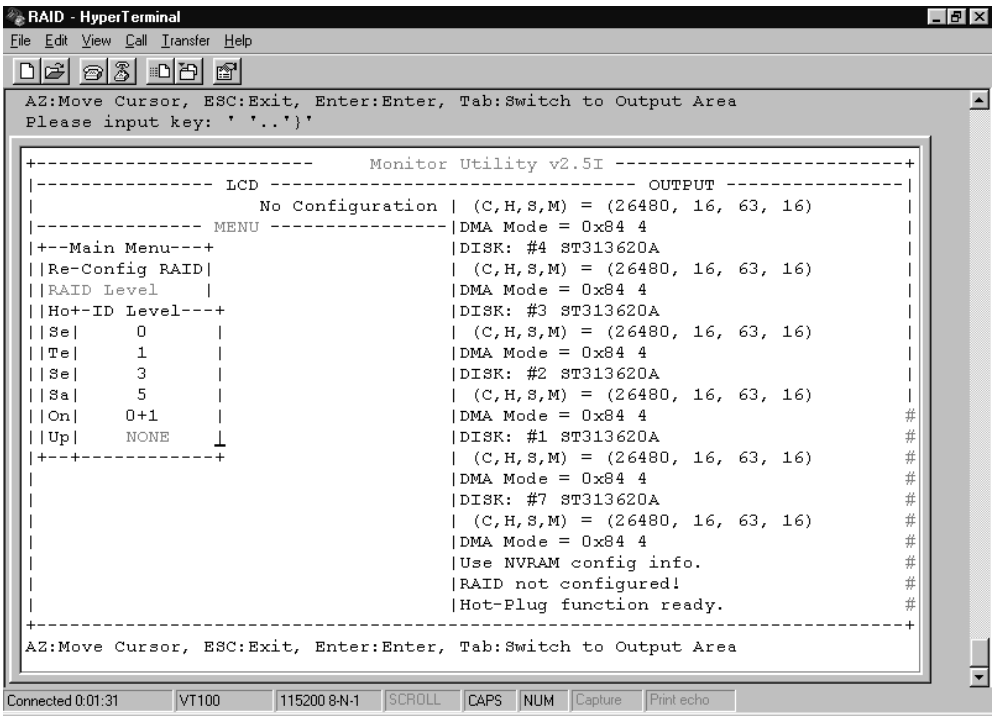
Select " Yes " for setting all the configurations



Set RAID Level

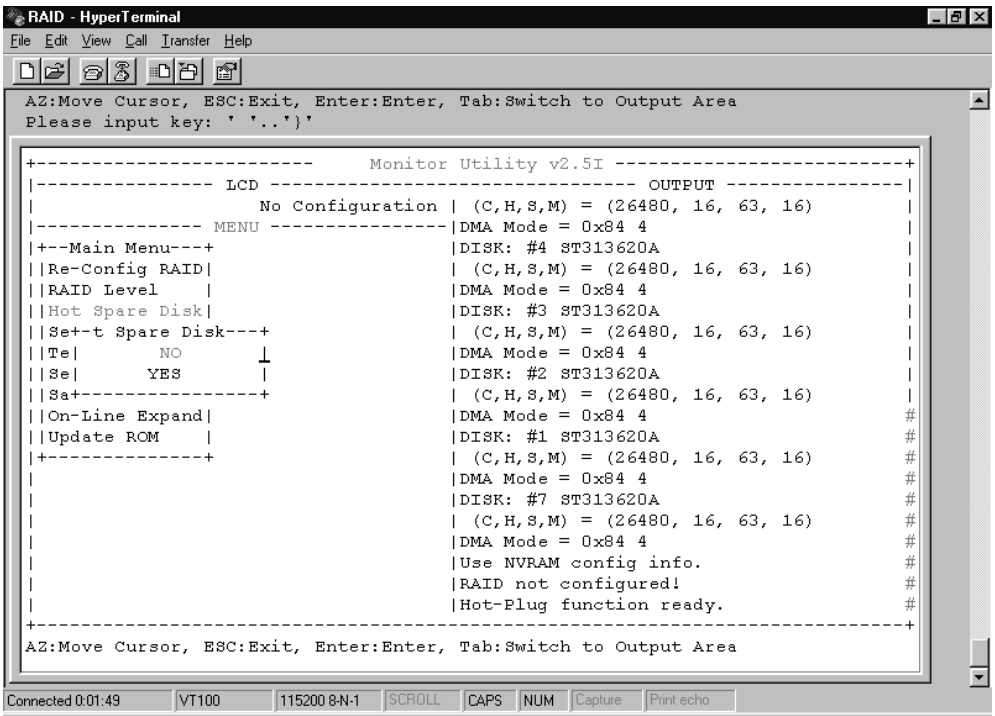
Move the cursor to the desired RAID Level (5, 3, 1, 0, 0+1, none), and Press " Enter " to confirm it.

Warning All Data will be lost by changing the RAID level.



Hot Spare Disk

Select " **Yes** " to set **One Disk Drive** as a Hot Spare Disk.
This Function is **valid in RAID level 5** and **RAID level 3**, the total Disk Drives installed must be more than 3 Disk Drives.
(Disk Drives number > 3)



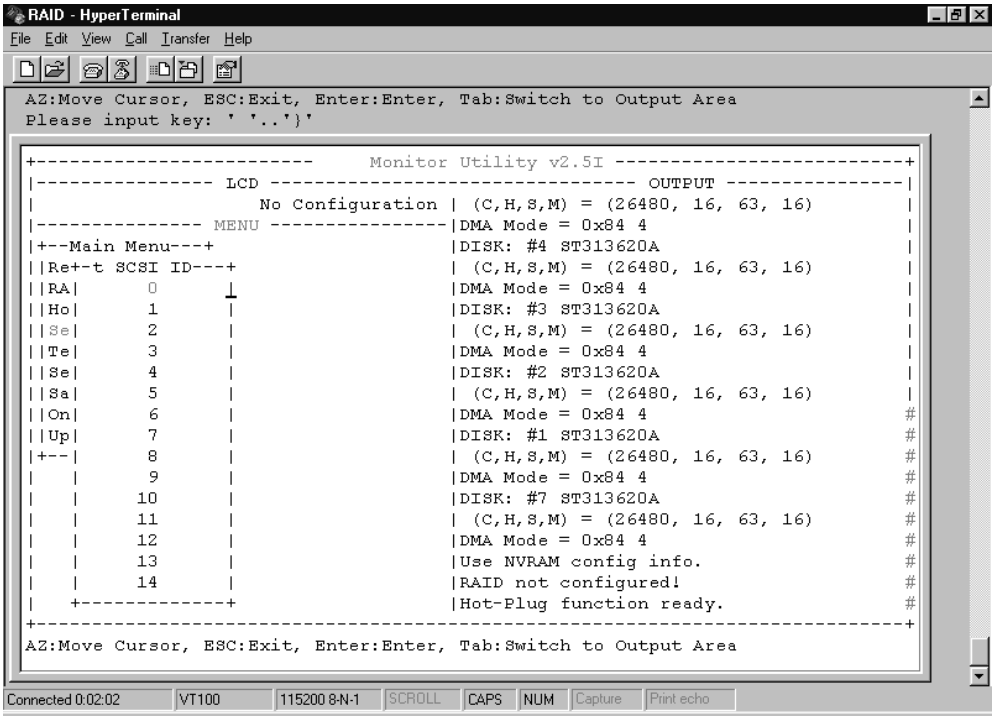
Set SCSI ID#

Each device on a SCSI bus must be configured for a Target address (which is a "SCSI ID"), which is different from any other device on the SCSI Bus.

The default ID for this Disk Array is ID#0

If you need assign a different ID# for your Disk Array,
The available SCSI ID# for this system is ID# 0 ~14

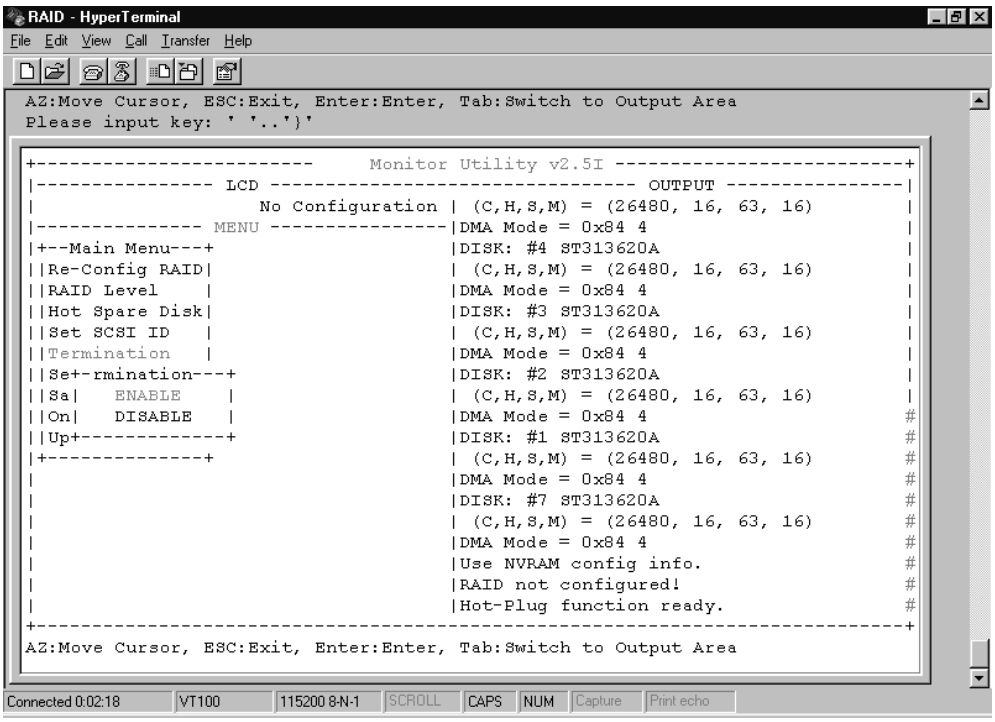
You must assign a different SCSI ID to each SCSI device on the SCSI Bus. The SCSI ID# must be unique for each device.



Termination

Terminating a SCSI chain is achieved by adding a terminator to each end of the SCSI Bus. The Disk Array supports active termination in the controller's SCSI end.

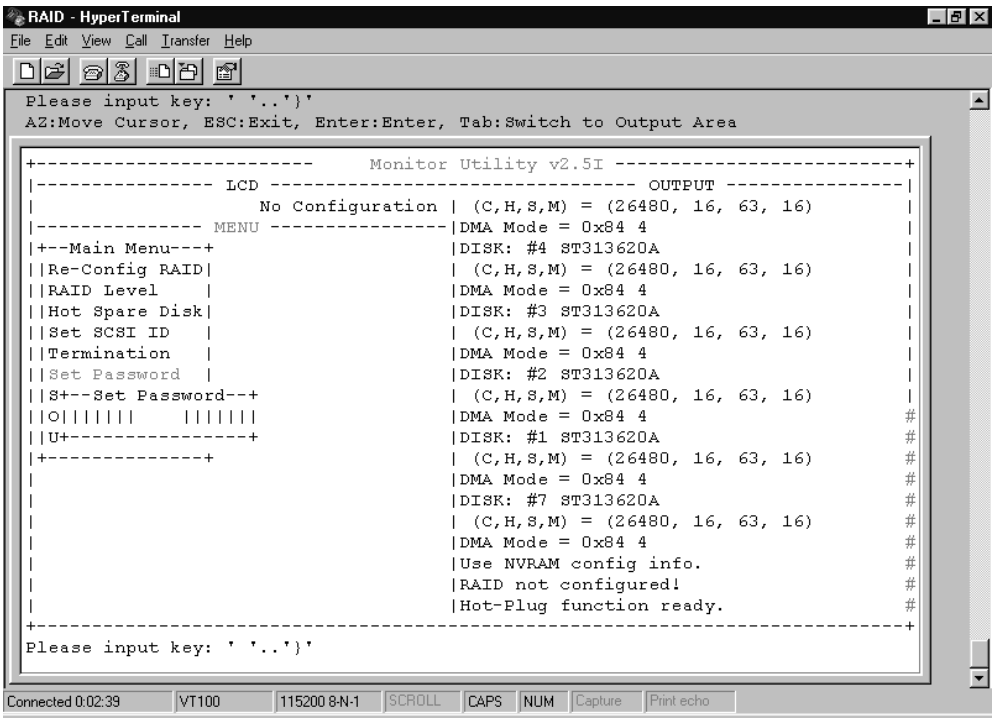
Termination "enabled" must be set when the Disk Array is at one end of the SCSI Bus.



Set Password

Press " **Enter** " to activate the password setting when you key-in the desired " Number " or " Character ".

Press " ESC " for no change to the password.



Save & Restart

Select the Save & Restart function and press " **Enter** " to save and activate your selections.

STOP

Warning! All data will be lost if you change the RAID level

WARNING

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