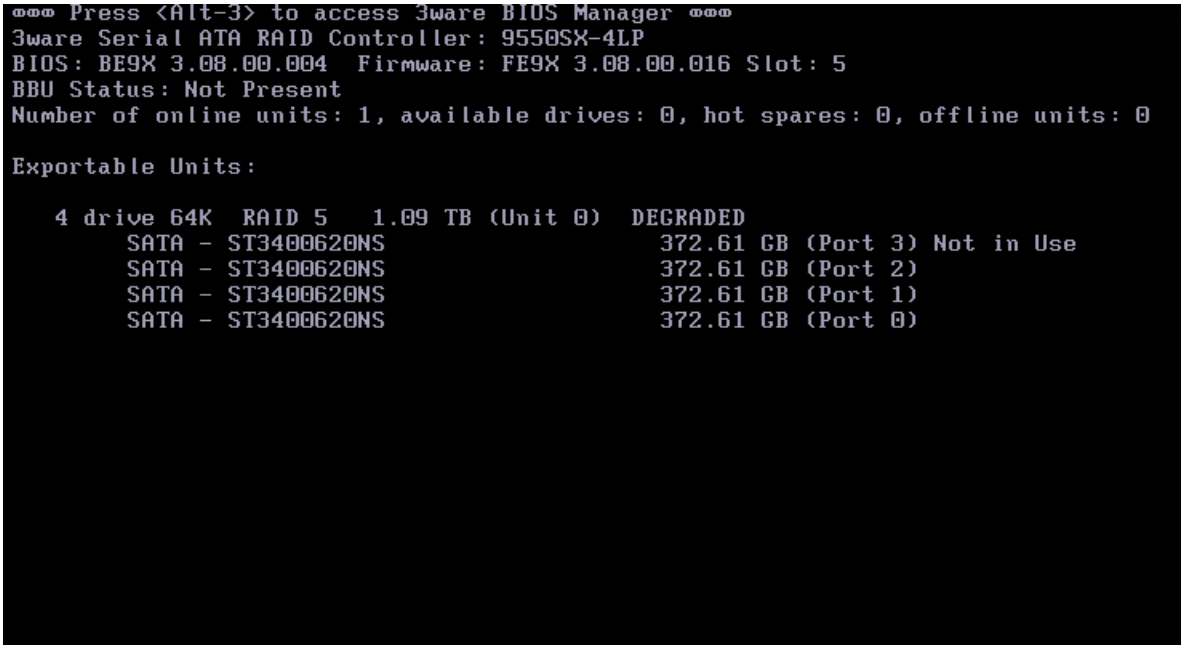
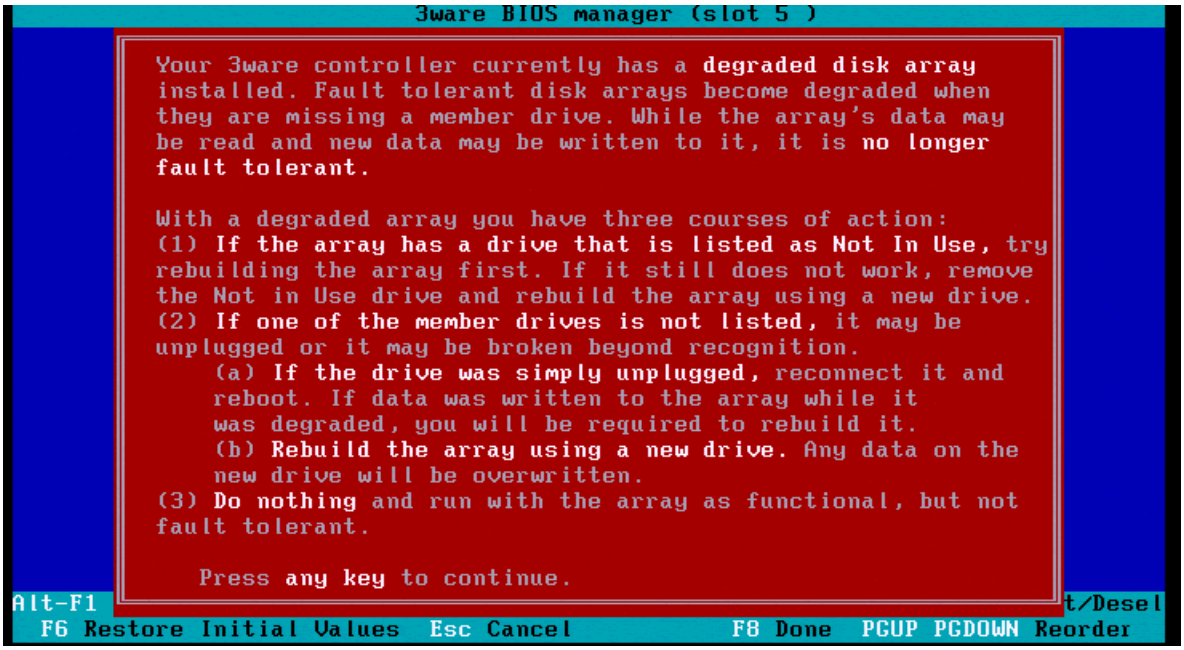
Rebuilding a Show Store RAID with the original drives

It is important to note that if a drive fails in the Show Store RAID, it does not necessarily mean that the drive is faulty. In the vast majority of cases, carrying out a RAID rebuild using the drives already present is sufficient to fix the fault. We recommend following this procedure as a first course of action if the RAID is degraded. Please note, in order to perform the rebuild procedure, a keyboard and monitor must be connected to the Show Store.

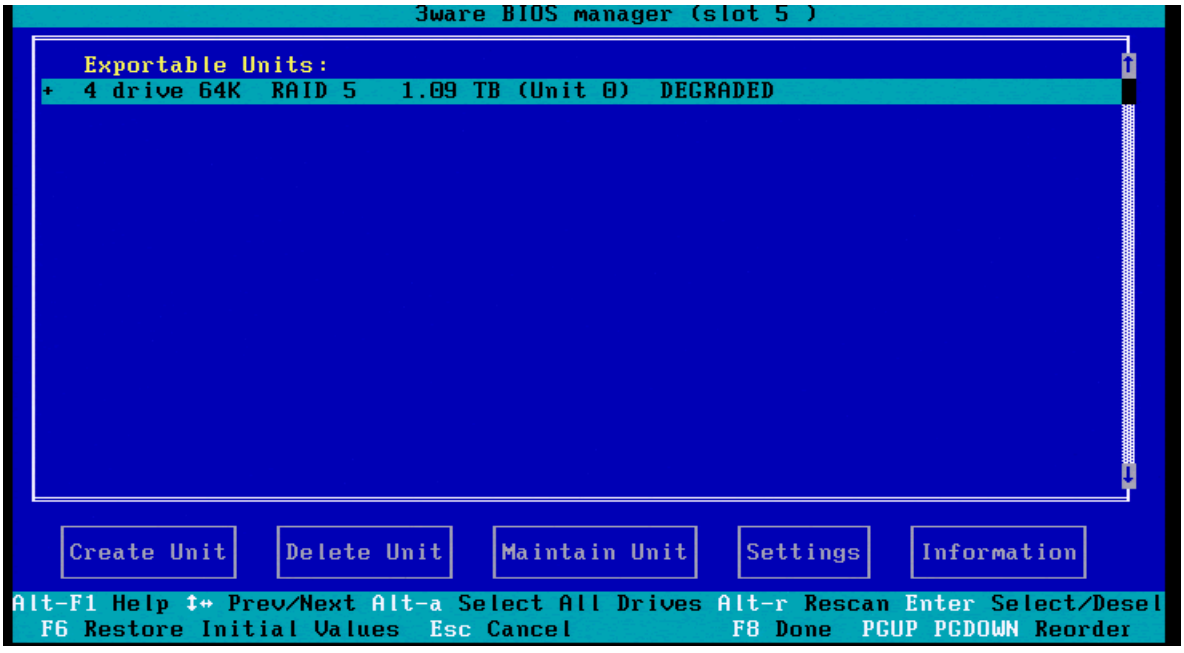
One of the reasons a drive may fail in the RAID, is that the drive may not be correctly inserted into the RAID controller card. With the Show Store powered off, you should unplug and firmly replug the failed drive to ensure correct contact with the RAID controller board. Once this is done, power up the Show Store and press Alt+3 when you see the RAID drives listed.



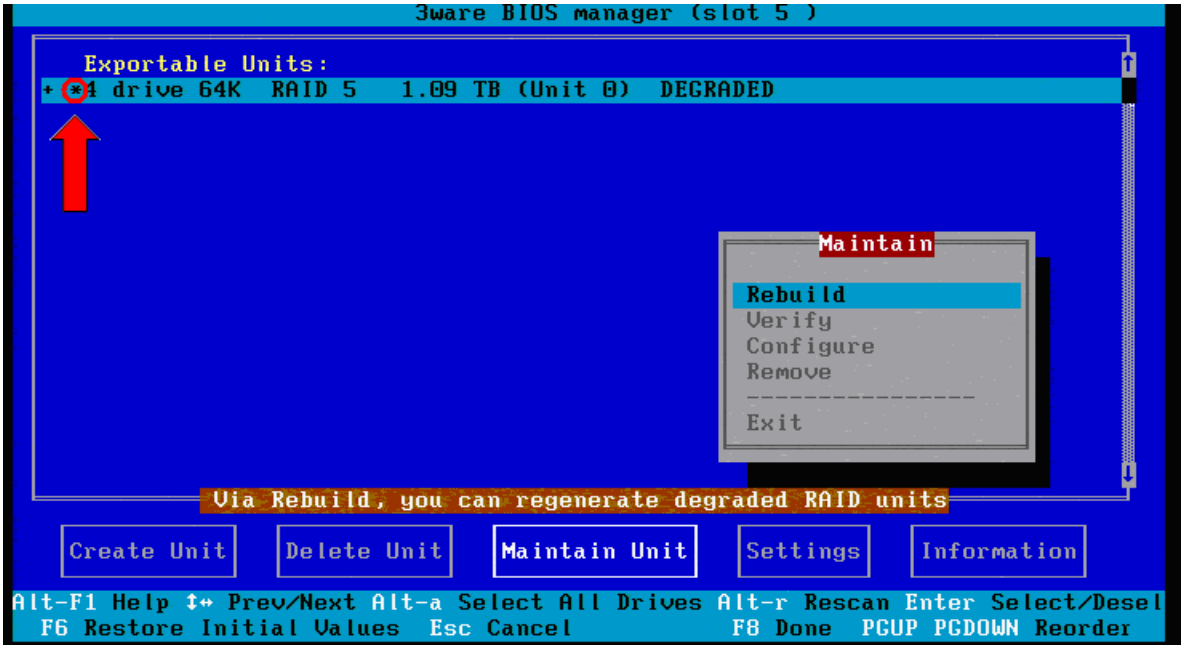
Once you have entered the RAID BIOS, you will see a warning message displayed indicating that the RAID is degraded.



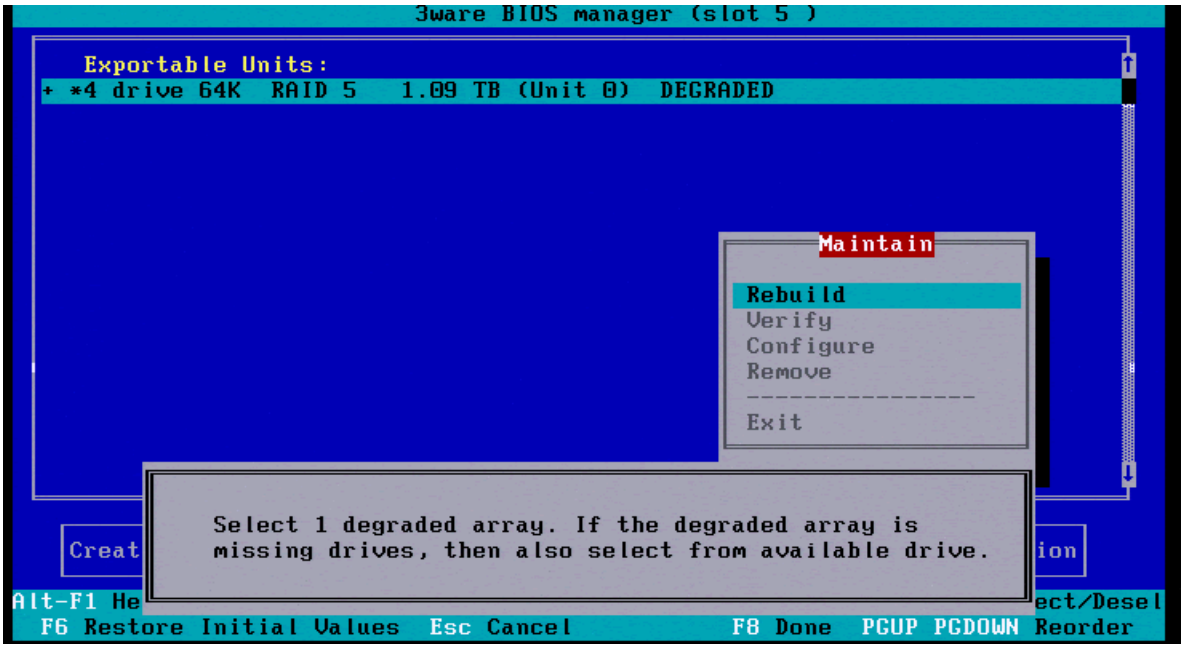
Press any key to get to the next screen, which shows the detected RAID array.



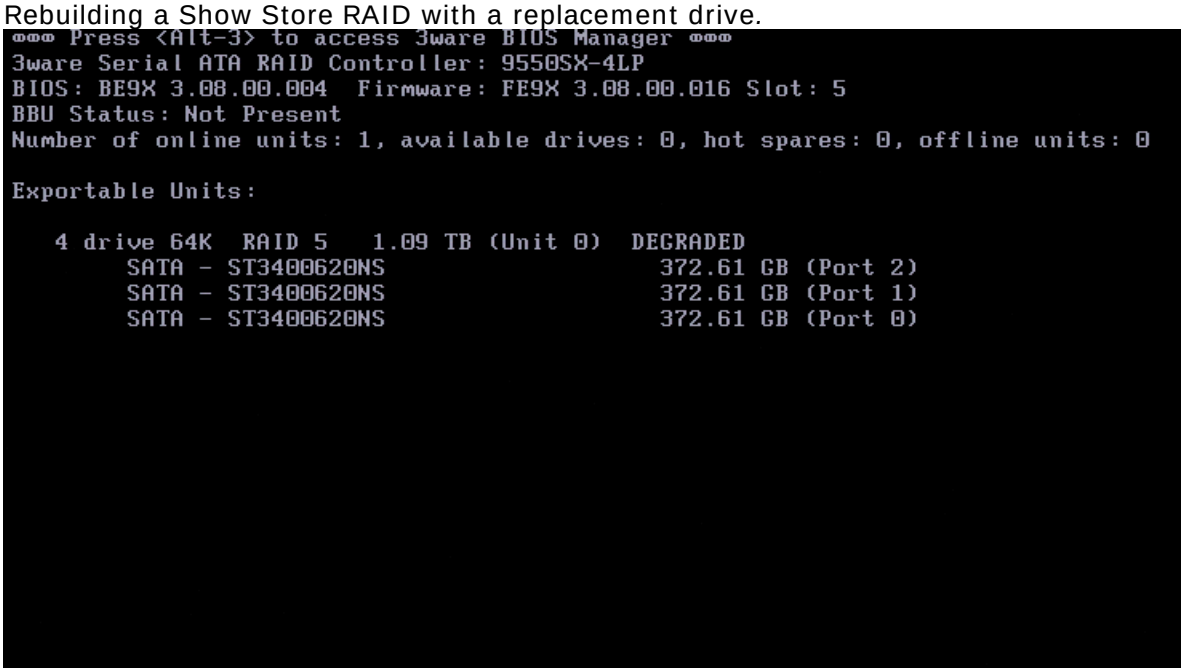
With the RAID unit highlighted, press the SPACE bar to select it. There should be an asterisk (*) to the left of the text when the unit is selected. Press TAB to access the menus on the bottom of the screen. Select “Maintain Unit” and press the ENTER key. Select the “Rebuild” option from the menu and press the ENTER key.



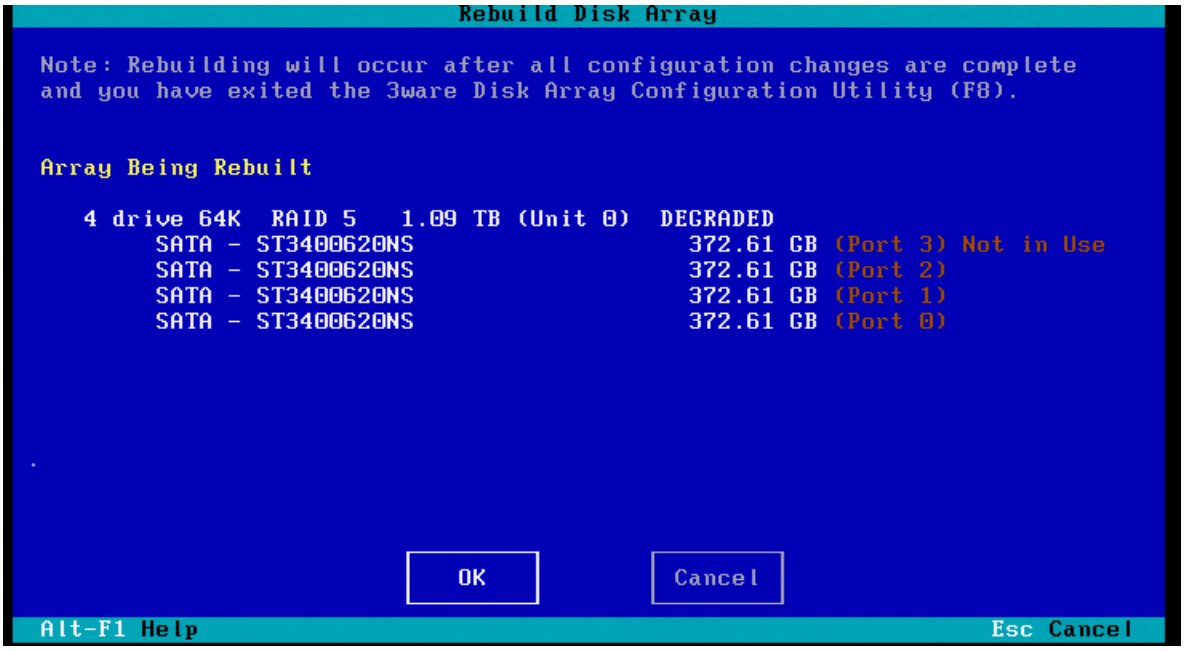
***NB**: If you see the following error message, it means the RAID controller is not detecting all four drives. Firstly, make sure that the array is selected by checking that the asterisk is present on the left side of the text "4 drive 64K RAID 5". If this is present, make sure that the failed drive is plugged in correctly and reboot the unit.*



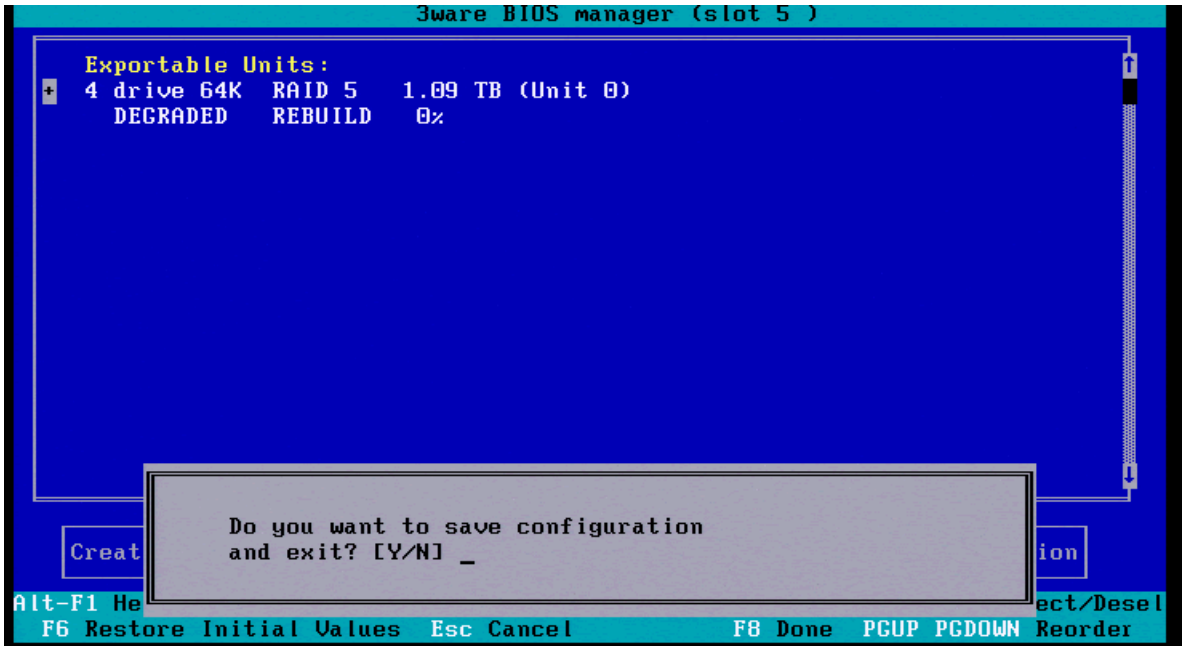
In order for the RAID rebuild to initialise, the RAID controller must see 4 drives present. If only three are visible at boot, and all four are definitely correctly connected, the failed drive is faulty and must be replaced. See the section Rebuilding a Show Store RAID with a replacement drive.



In the next screen, select “OK” at the bottom of the screen and press ENTER.



The RAID rebuild will be confirmed once the F8 key is pressed. Press the Y key when prompted to save the configuration.

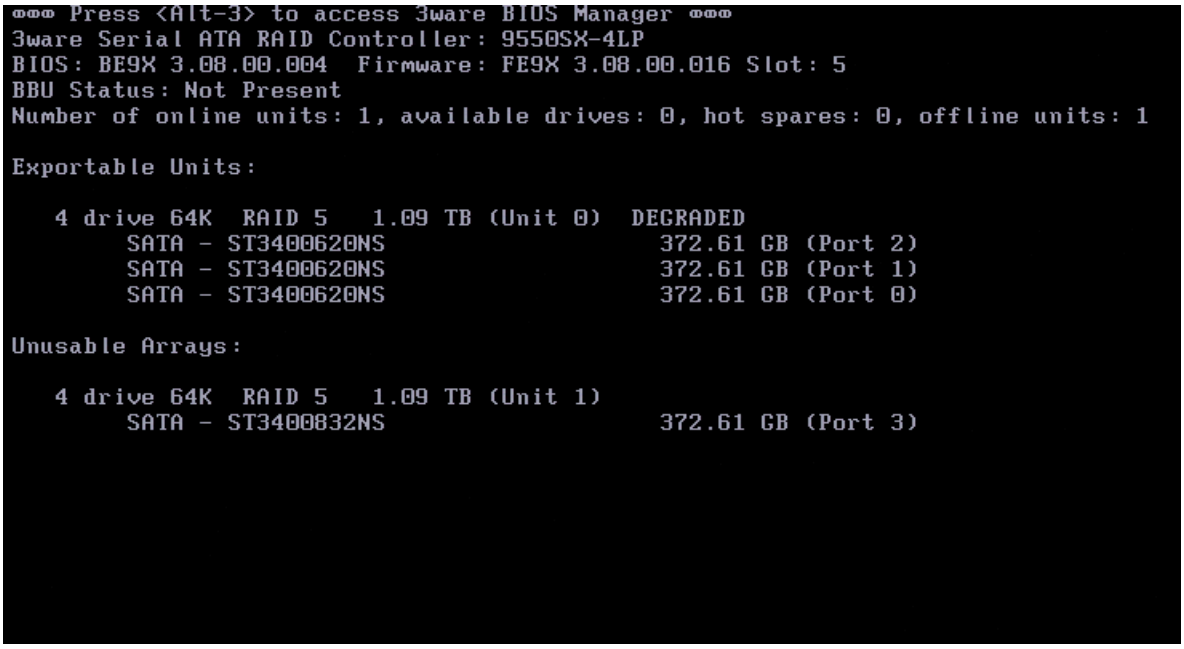


This will exit the RAID BIOS and the unit will boot as normal. The RAID rebuild will not begin until the Show Store has been powered up for 10-15 minutes. Once the rebuild has started, the failed drive LED should flash red and yellow alternately. All four drive LEDs will flash green once the rebuild has completed.

Rebuilding a Show Store RAID with a replacement drive

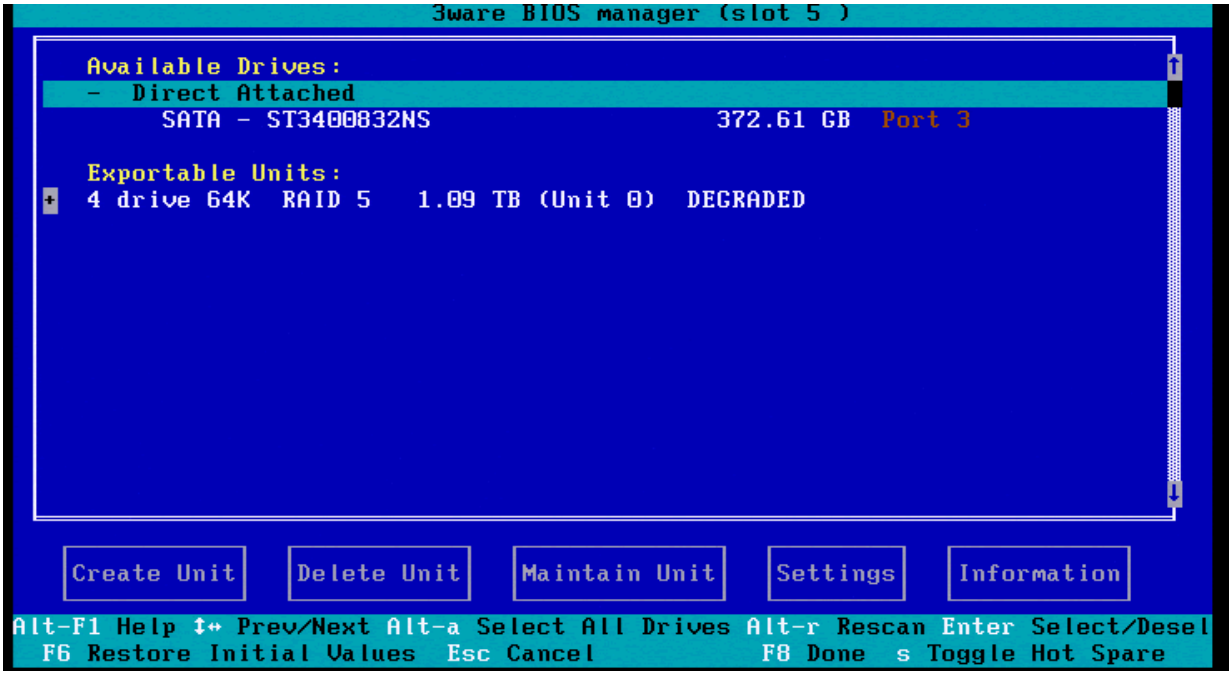
If the RAID controller does not see the failed drive during the Rebuilding a Show Store RAID with the original drives procedure, or the same drive fails again shortly after performing this procedure, it is likely that the drive is faulty and will need to be replaced.

Once the replacement drive is firmly connected to the RAID controller, reboot the unit. When the RAID drives are listed, press ALT+3 to enter the RAID BIOS.

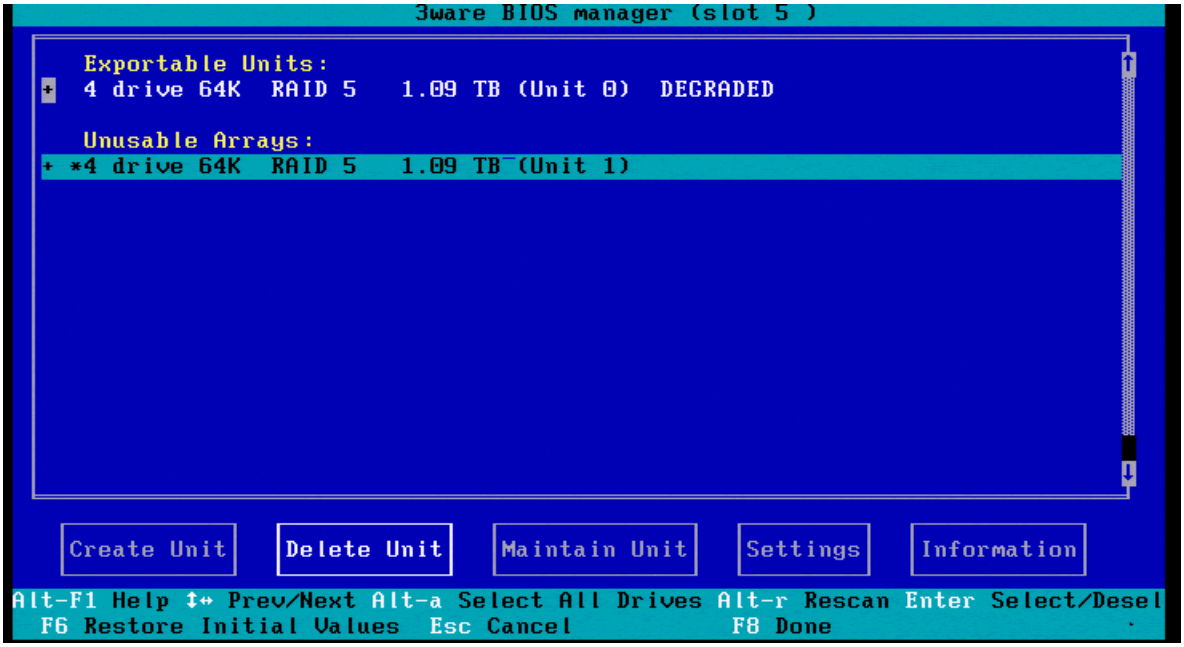


Once you have entered the RAID BIOS, you will see a warning message displayed indicating that the RAID is degraded.

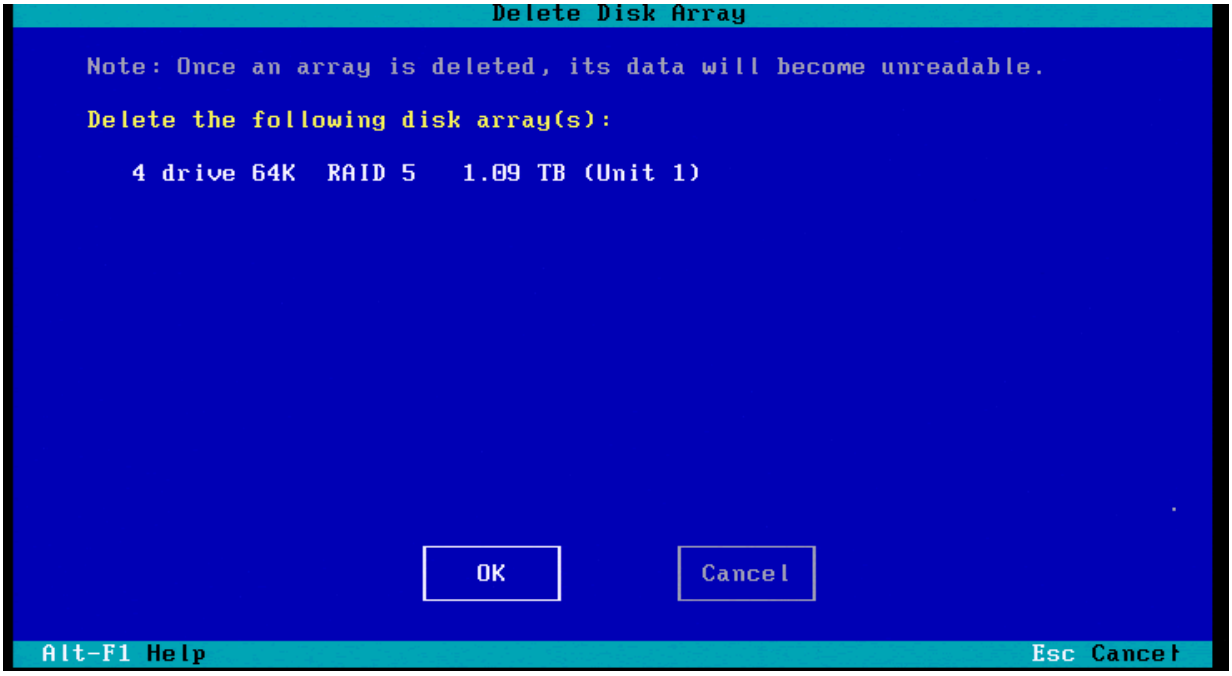
Press any key to display the detected arrays. This screen will show the degraded array, under the title “Exportable Units”, and the replacement drive. If the replacement drive is listed under the title “Available Drives”, proceed to page 9. Otherwise, follow the instructions below.



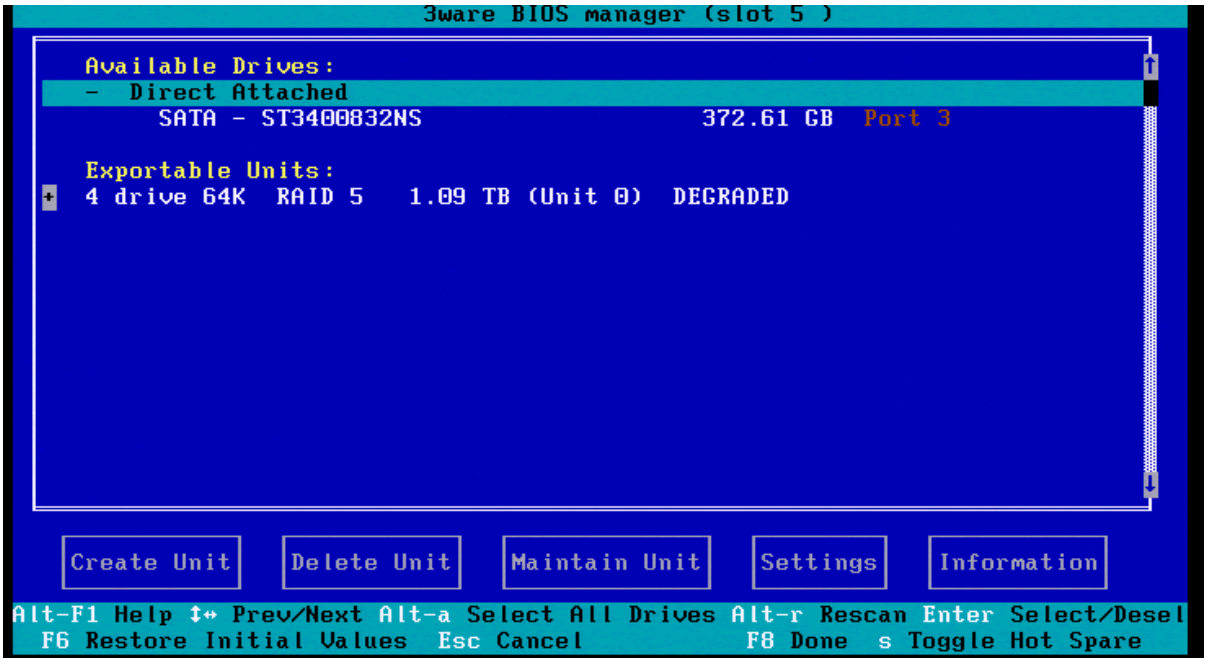
If the replacement drive has previously been installed in another RAID system, the drive will appear as a separate RAID structure under the title “Unusable Arrays”. In order to use this drive in the rebuilt RAID, highlight the “Unusable Array” and press the SPACE bar so that an asterisk (*) appears to the left of the text. Make sure there is no asterisk to the left of the line under “Exportable units”. Press the TAB key to access the bottom menu and select “Delete Unit”. Press the ENTER key.



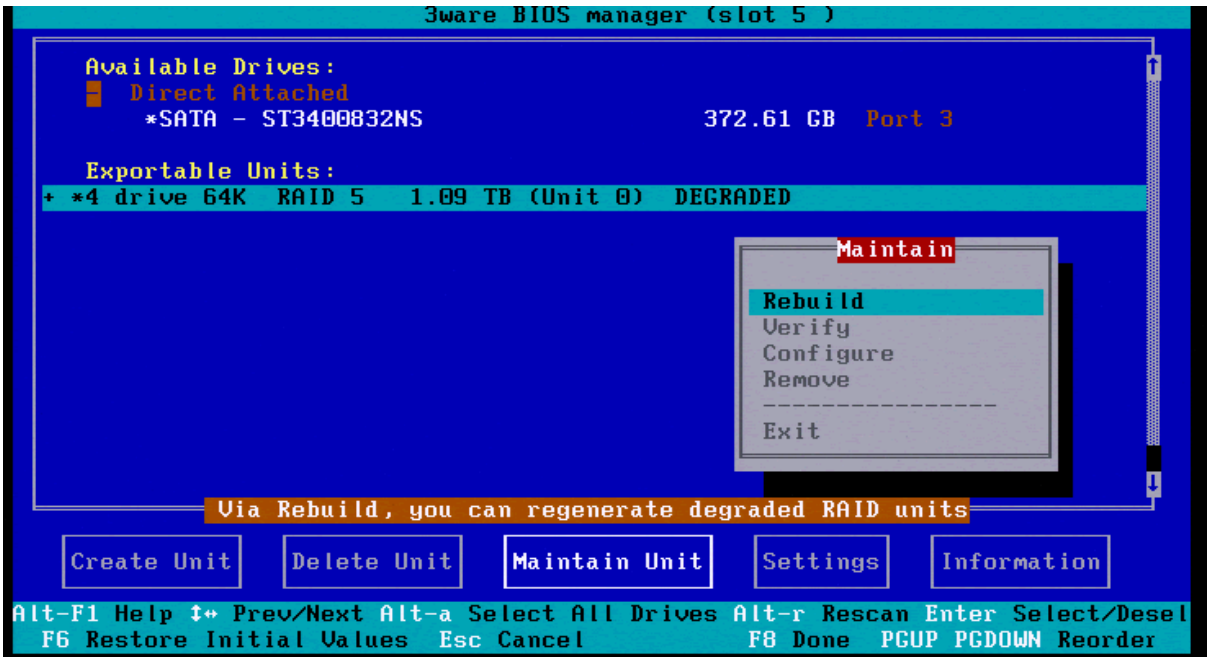
In the next screen, select “OK” and press ENTER.



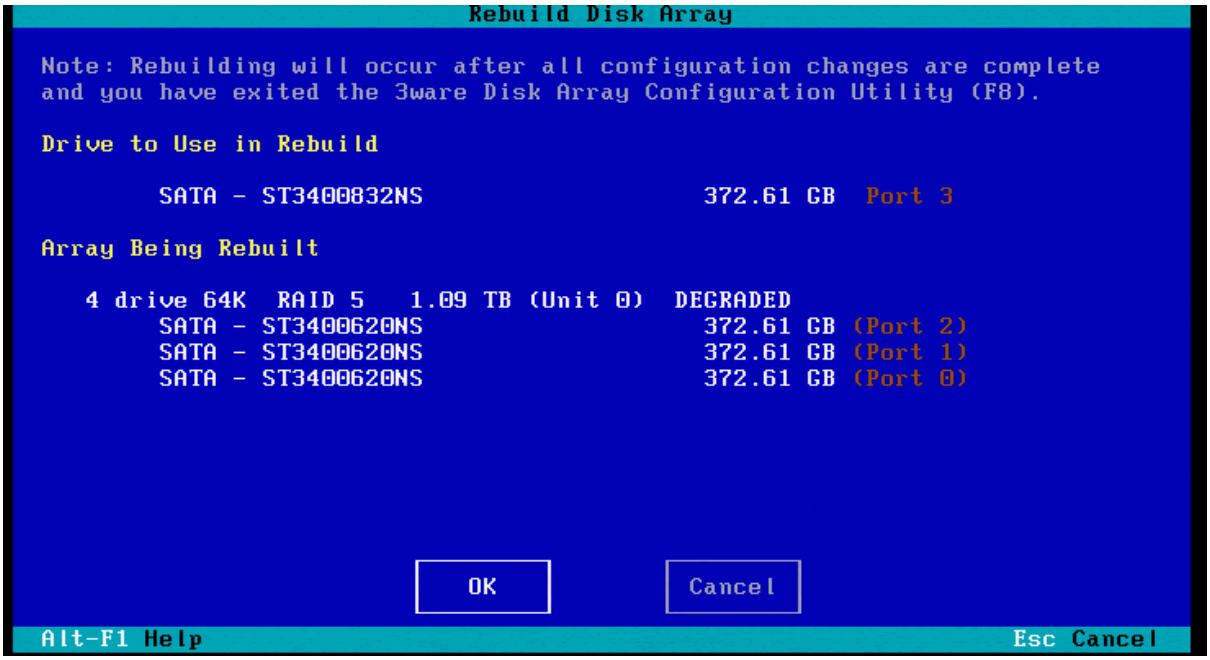
The replacement drive should now be displayed under the title “Available Drives”.



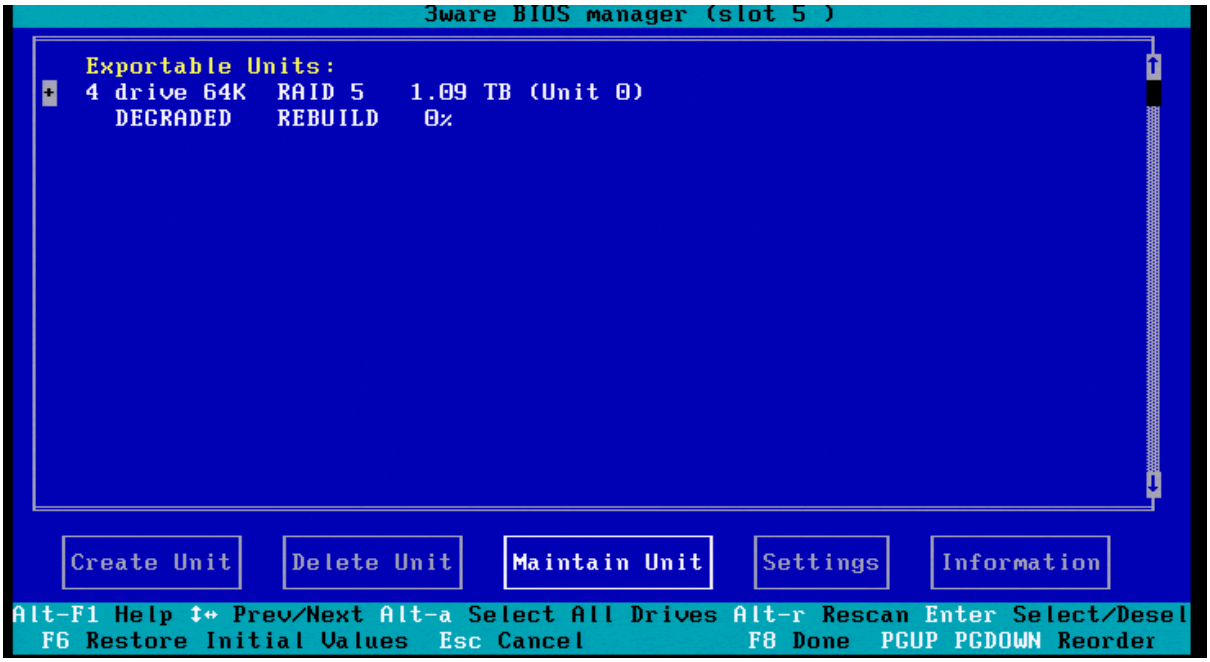
Highlight the drive displayed under “Available Drives” and press the SPACE bar so that an asterisk (*) appears to the left of the text. Also, highlight the array displayed under “Exportable Units” and again press the SPACE bar to have the asterisk appear. Press the TAB key to access the bottom menus, select “Maintain Unit” and press ENTER. Select “Rebuild” in the “Maintain” menu and press Enter.



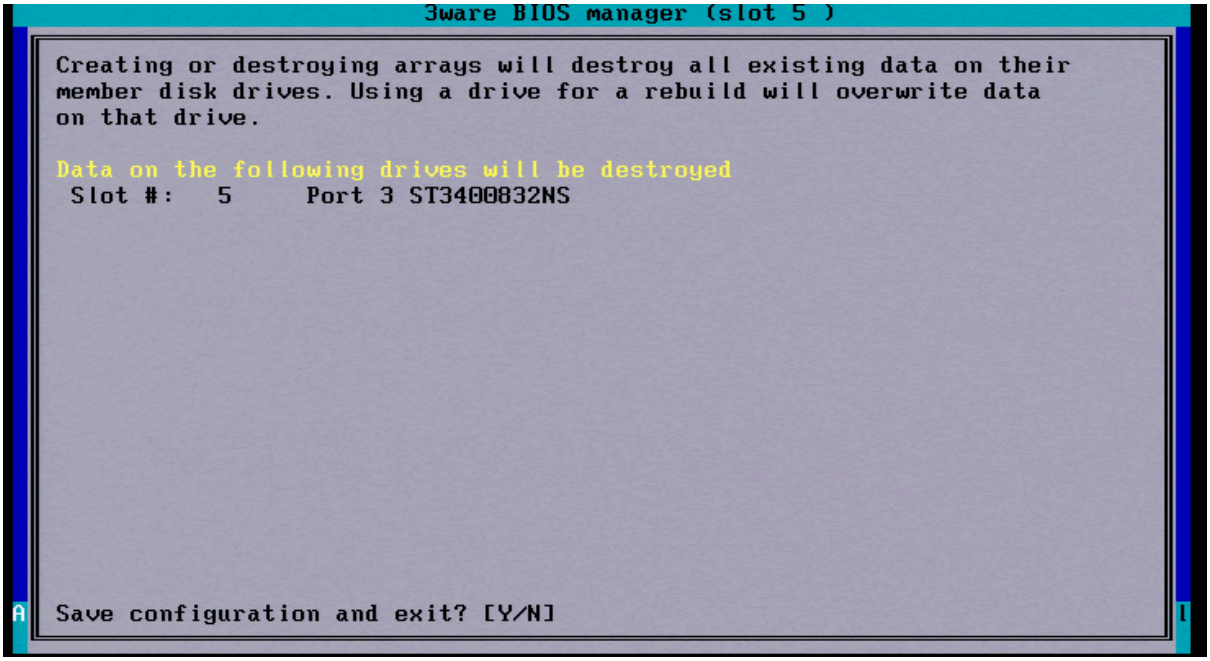
Select the “OK” button and press ENTER.



In the next screen, press F8 to confirm the rebuild.



The next screen informs you that any existing data on the replacement drive will be lost. Press Y to confirm the upgrade.



This will exit the RAID BIOS and the unit will boot as normal. The RAID rebuild will not begin until the Show Store has been powered up for 10-15 minutes. Once the rebuild has started, the failed drive LED should flash red and yellow alternately. All four drive LEDs will flash green once the rebuild has completed.