



**CTRL7100UP X-RAID-B and X-RAID-C  
Option B. 10 1-TB drives and  
Option C.16 2-TB drives  
for the CTRL7100A RSA7100A  
Real-Time Spectrum Analyzer  
Upgrade Kit Instructions**

[www.tek.com](http://www.tek.com)



071-3553-00

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- Worldwide, visit [www.tek.com](http://www.tek.com) to find contacts in your area.

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## Safety summary

Only qualified personnel should perform these installation procedures. Read this *Safety Summary* and the *General Safety Summary* located in the *RSA7100A Quick Start User Manual* before performing the procedures in this installation document.

**Disconnect power.** To avoid electric shock, switch off the product power and disconnect the power cord from the mains power before removing any covers or panels, or opening the case for service.

**Do not operate without covers.** Do not operate this product with covers or panels removed, or with case open. Hazardous voltage exposure is possible.

## Kit description

This document provides instructions for installation of the following options for the RSA7100A Real-Time Spectrum Analyzer into the CTRL7100A controller:

- CTRL7100UP X-RAID-B: Option B includes 12 1 TB drives
- CTRL7100UP X-RAID-C: Option C includes 16 2 TB drives

These options provide additional or replacement drives.

## Products

This kit contains replacement/additional solid-state drives for the Tektronix CTRL7100A controller used with the RSA7100A Real-Time Spectrum Analyzer.

### Option B kit parts list

Quantity	Part number	Description
12	116-1227-00	REPLACEMENT PART FOR CTRL7100A, HOT SWAP 2.5 IN DRIVE CARRIER FOR INTEL SERVER CHASSIS, 1 EA, FXX25HSCAR
12	119-8248-XX	DISK DRIVE; SOLID STATE, 1 TB, 2.5 IN, SATA III, 6.0 GB/S, MLC, 7 MM, SAFETY CONTROLLED
1	071-3553-XX	MANUAL, TECH: CTRL7100UP X-RAID-B and X-RAID-C INSTALLATION INSTRUCTIONS (this manual)

### Option C kit parts list

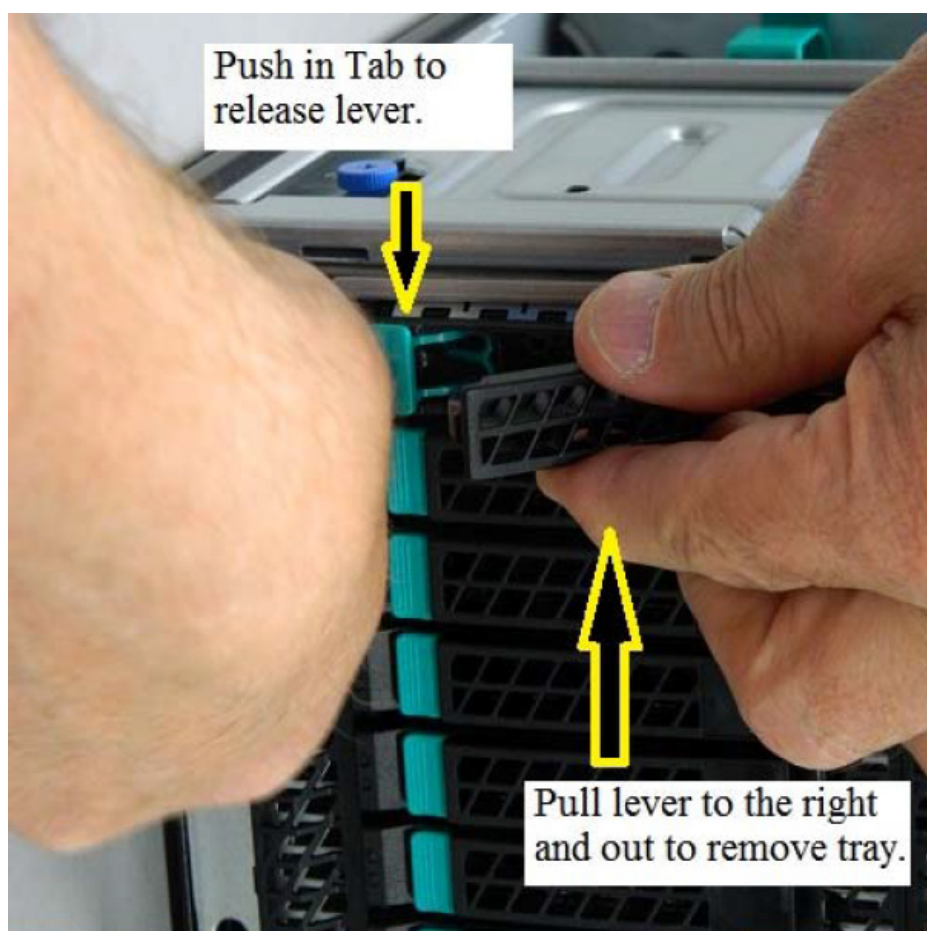
Quantity	Part number	Description
16	116-1227-00	REPLACEMENT PART FOR CTRL7100A, HOT SWAP 2.5 IN DRIVE CARRIER FOR INTEL SERVER CHASSIS, 1 EA, FXX25HSCAR
16	119-8813-00	DISK DRIVE; SOLID STATE, 1.92TB, 2.5 IN, SATA III, 6.0 GB/S, 7 MM, SAFETY CONTROLLED
1	071-3553-XX	MANUAL, TECH: CTRL7100UP X-RAID-B and X-RAID-C INSTALLATION INSTRUCTIONS (this manual)

## Install the RAID

**Required equipment** No equipment is required to remove and install the included drives into the CTRL7100A.

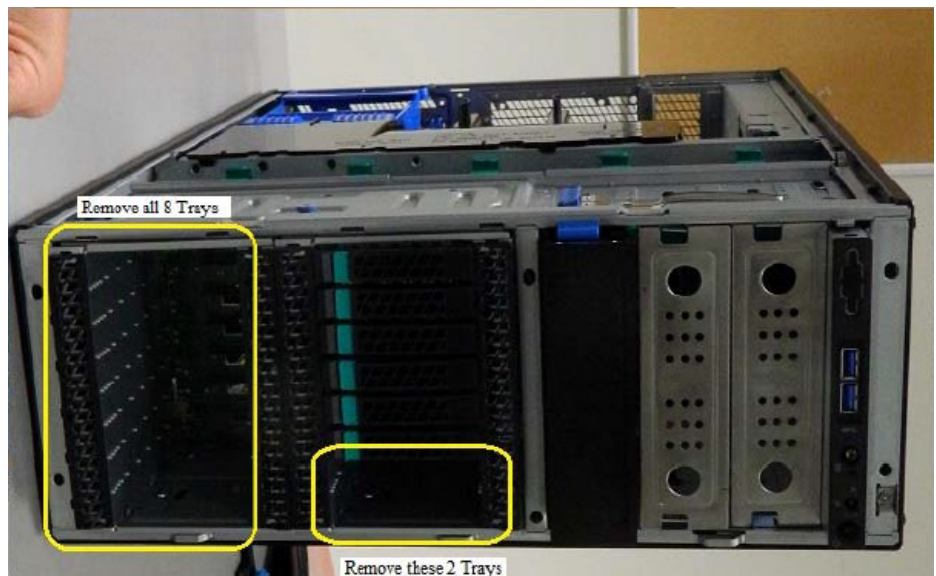
**Remove installed RAID** The RAID drives are located in trays in the CTRL7100A. Once you have located them, perform the following procedures to remove them.

1. Turn off power to controller (PC). This will also power off the RSA7100A, if connected.
2. Press in on the blue tab to free the locking lever.

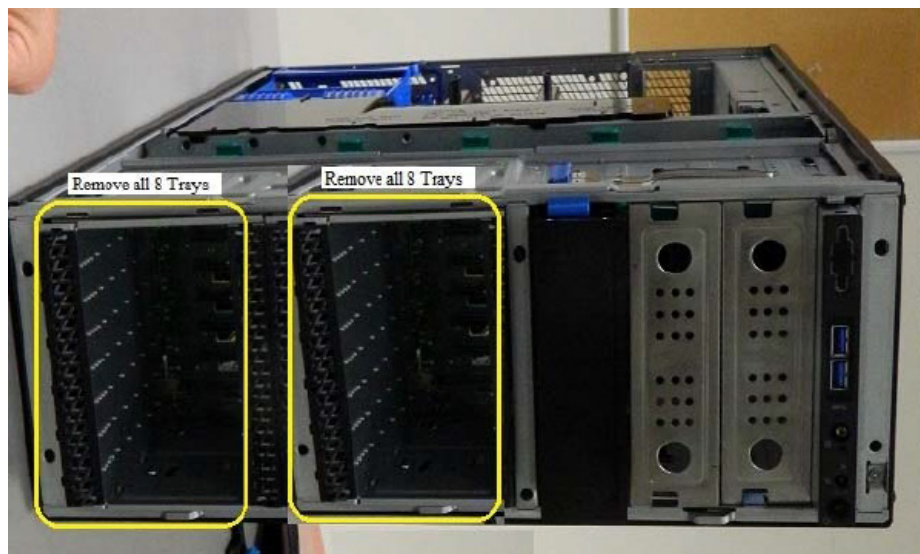


3. Pull the locking lever to the right and toward you to remove the tray.

4. For X-RAID-B, remove all 12 trays. (The following image shows removal of 10, but you can remove 12.) For X-RAID-C, see step 5.



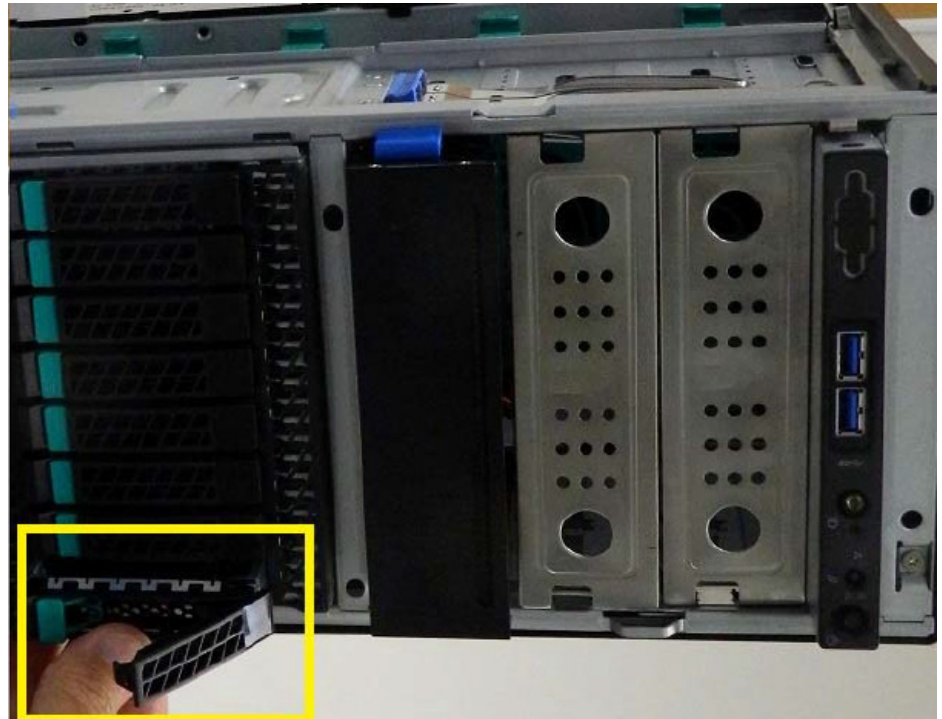
5. For X-RAID-C, remove all 16 trays as shown in the following image.



**Install the new RAID**

Once the installed drives have been removed from the CTRL7100A, perform the following procedures to install the new RAID. The drives supplied in this kit come preinstalled in trays.

1. Insert the tray with new drive installed into the CTRL7100A chassis and push in the locking lever until it clicks.



2. Power on the controller. If the drives have been previously initialized in a system, you will need to wait 5 to 10 minutes after powering on for the new RAID to be rebuilt.

If the drives have not been previously initialized, go to the Configure the RAID procedure. (See page 6.)



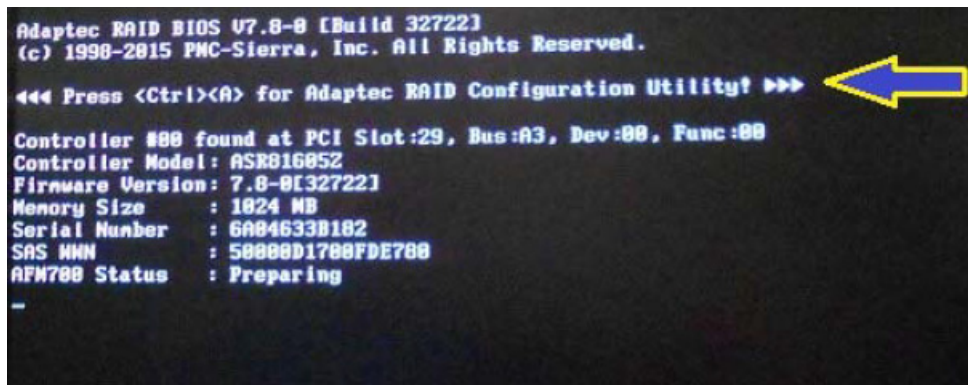
# Configure the RAID

After you have installed the new RAIDs, you only need to configure them if:

- the drives have not previously been initialized in a system or there is some problem with the drives or performance
- the drives have been swapped around with another set (the automatic reconstitution only works if the drives have previously been initialized in a system and are traveling together as a set)

Perform the following procedures if either of the above situations applies.

1. Press the power button on the controller and, as the system powers up, watch for the **Press <CTRL> A for Adaptec RAID Configuration Utility** message.



2. Press CTRL + A to enter the Adaptec RAID configuration utility.
3. Select **Logical Device Configuration** and then press Enter.

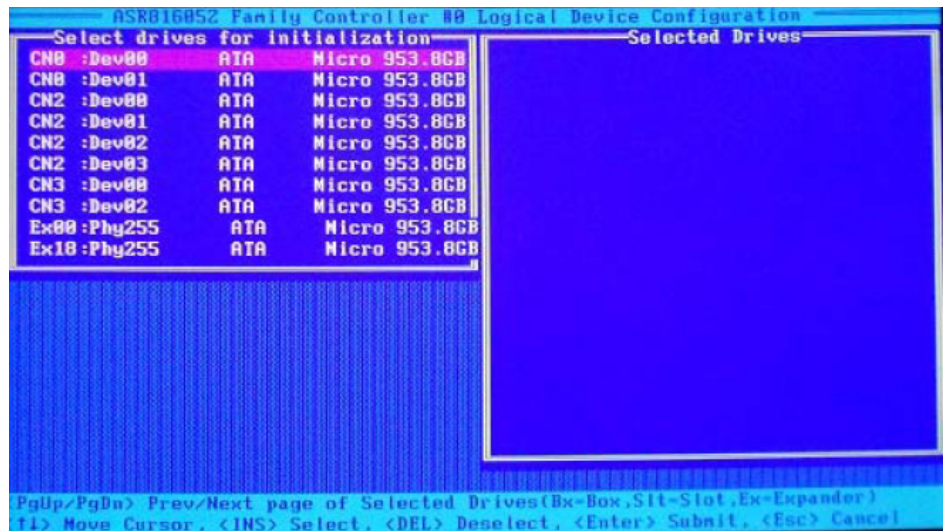


4. Select **Initialize Drives** and then press Enter.

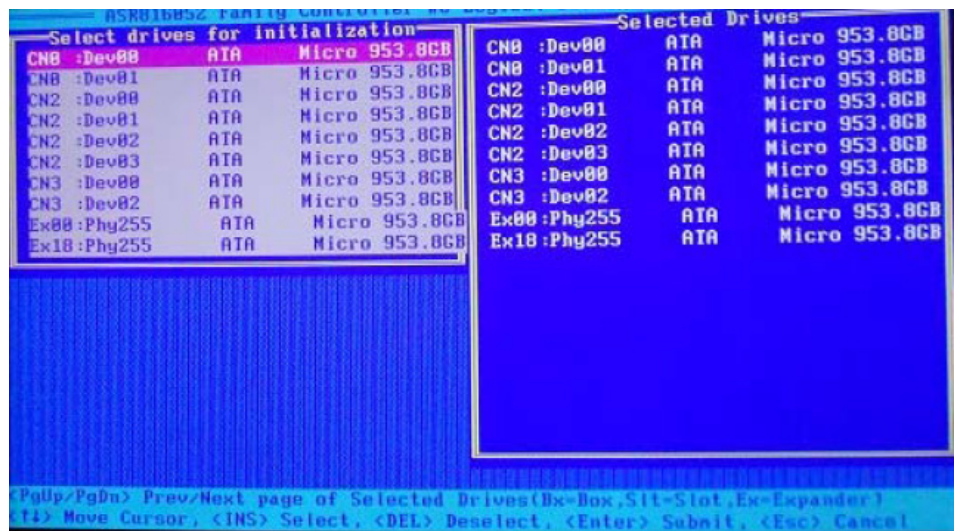




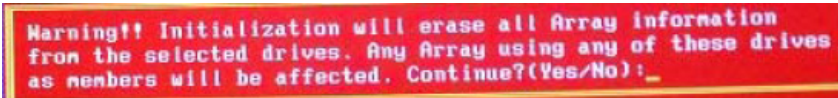
5. In the **Select drives for Initialization** panel, count the entries. There must be one entry for each physical RAID drive you installed. There should be the following numbers for the given options:
  - Option B: 12 entries
  - Option C: 16 entries



6. Use the Insert key to select all entries to be initialized. Selected entries will appear on the right side of the screen in the Selected Drives panel. Press Enter to submit the drives for initialization.



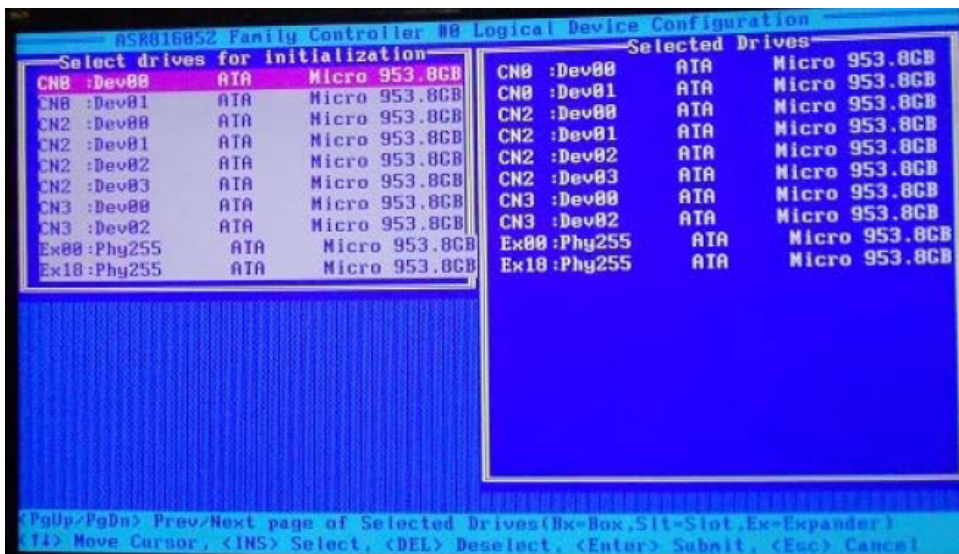
- When the following Warning message appears, press Y to continue.



- Wait until the **Initializing drives.....Done** message appears and then press any key to return to the Main menu.
- Use the arrow and Enter keys to select **Create Array**.

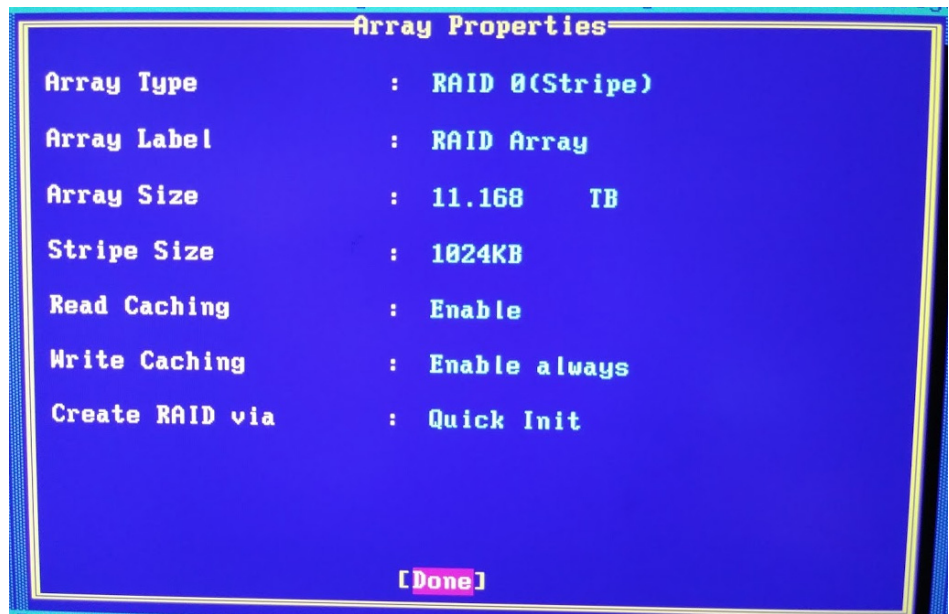


- Use the Insert key to select all entries to be added to the array and then press Enter.

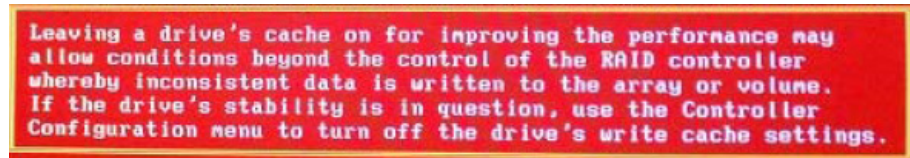


- Use the arrow and Enter keys to set the Array Properties as follows:
  - Leave "Array Size" at Default (MAX) setting, (this max size will differ depending on the option: Option B is 11.1xx and Option C is 27.8xx).
  - Set all other Array Properties to match the settings shown in the following image.
- When you receive the following warning, press Y to accept. You may receive a second warning about a ZMM/battery. If you do, press Y to accept that also.

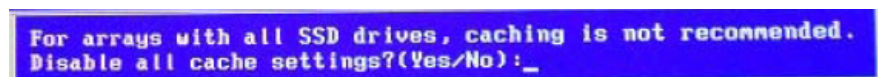
- Continue to set the array properties to match all settings as shown in the following image.



- When [Done] is highlighted (at the bottom of the screen), press Enter to accept all entries and exit the menu.
- When you receive the following warning, press Y to accept.



- Press N when asked is you want to disable all cache settings.

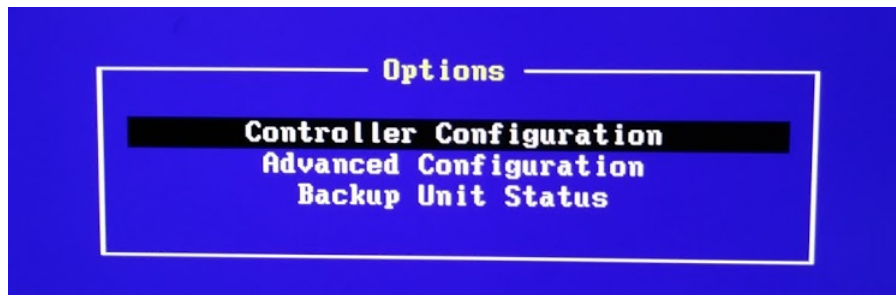


- Press the Esc key to return to the Options menu.

18. Use the up/down arrow keys to select **Controller Settings** and then press Enter.

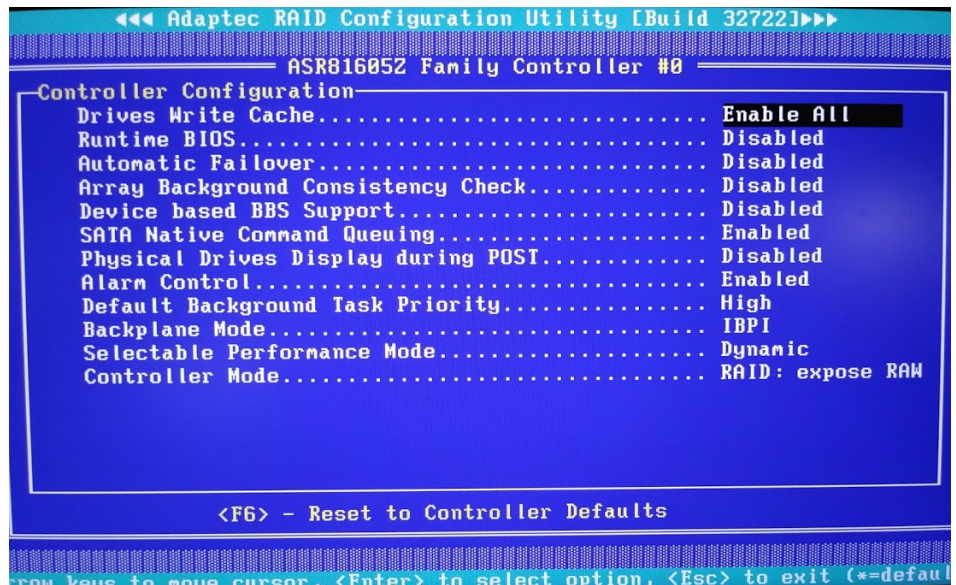


19. Use the up/down arrow keys to select **Controller Configuration** and then press Enter.





20. In the Controller Configuration menu, confirm that all settings are shown as in the following image.



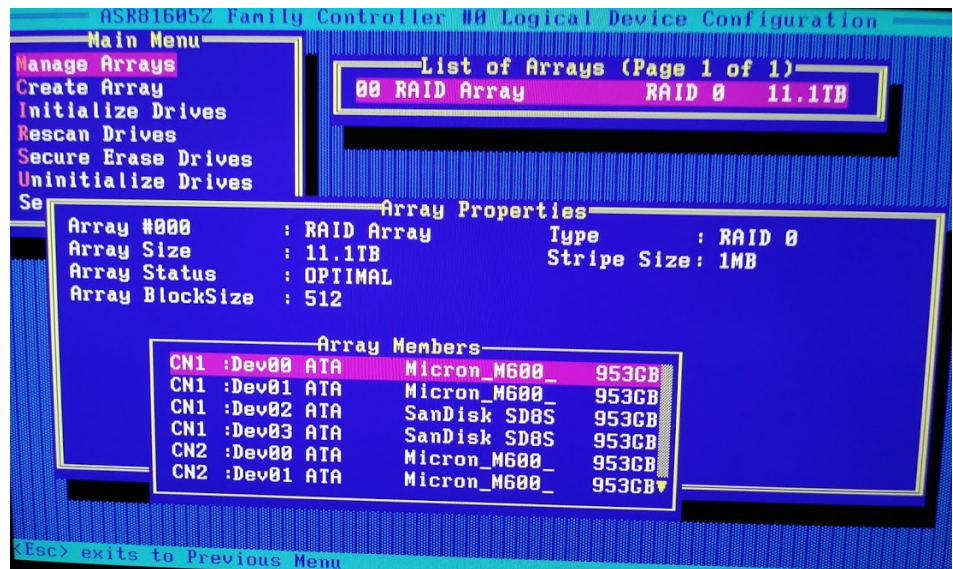
21. Use the arrow and Enter keys to select and change any settings if necessary.
22. Press the Esc key once.
23. Select **Yes** in the **Save Changes Made?** dialog and then press Enter.
24. Return to the Main menu and select **Manage Arrays**.
25. Confirm that the array size is between 11.0 to 11.4 TB for Option B; between 27.8 to 30.2 TB for Option C.



26. Press Enter to expand the menu and confirm the following:

- Array #000: RAID ARRAY
- Array Status: OPTIMAL
- Type: RAID 0
- Stripe size: 1MB

Scroll down and count the drive entries. There should be 12 entries for Option B and 16 entries for Option C.

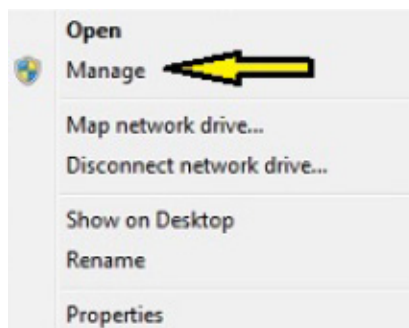


27. Press Esc three times until you see the Exit Utility message, and then select **Yes**.

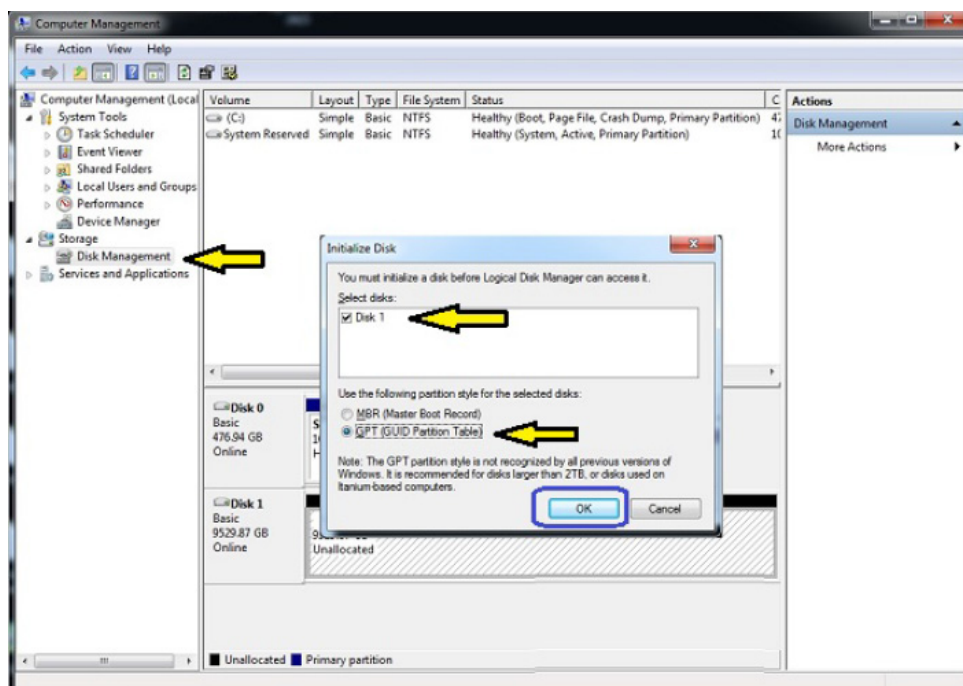
28. Now follow the Initiate RAID procedure and complete it. (See page 13.)

# Initiate RAID

1. Right click on My Computer from the Windows Desktop, and then select **Manage** to open the Computer Management window.



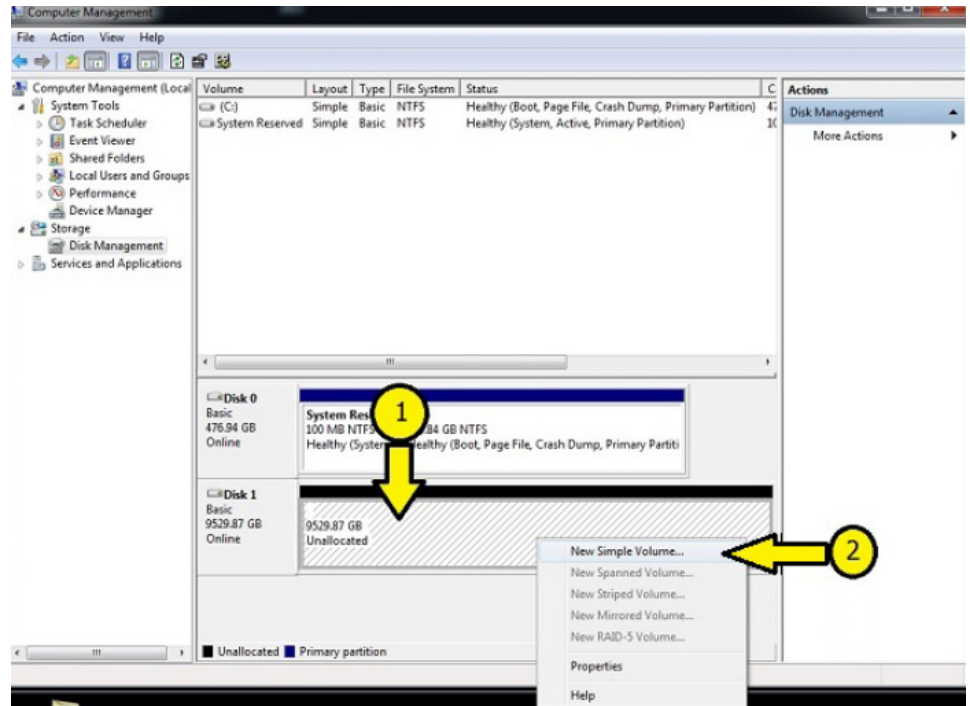
2. Select **Disk Management** to open the Initialize Disk window.
3. Confirm that Disk 1 is checked in the Select disks panel and that GPT (GUID Partition Table) is selected.



4. Click **OK**.

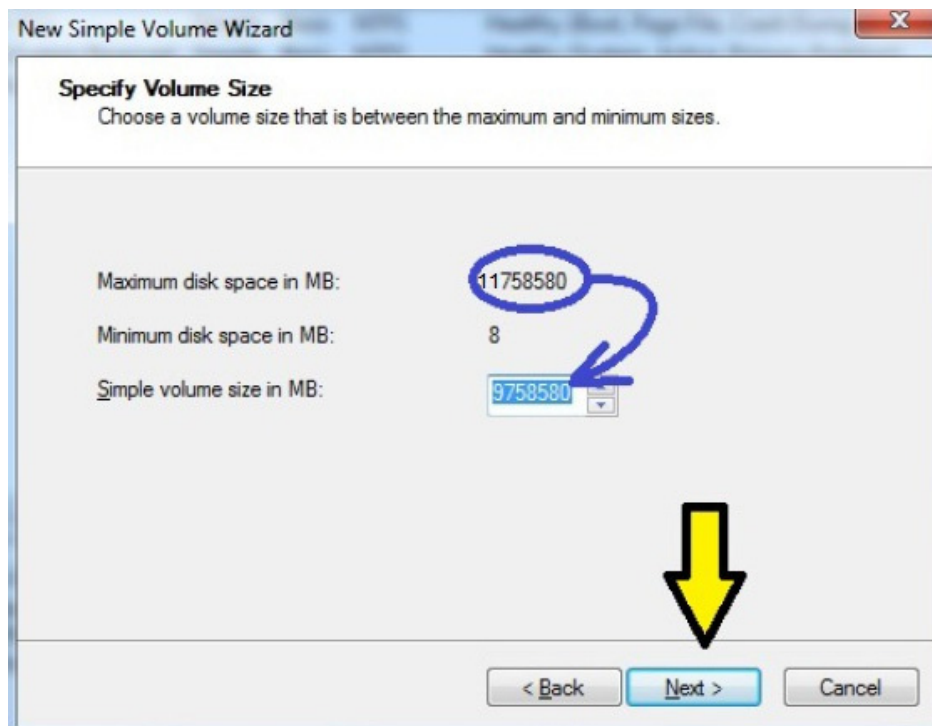


5. Once initialization is complete, right click on the **Unallocated** area of Disk 1 (item 1 in following image). In the menu that appears, select **New Simple Volume...** (item 2 in following image).

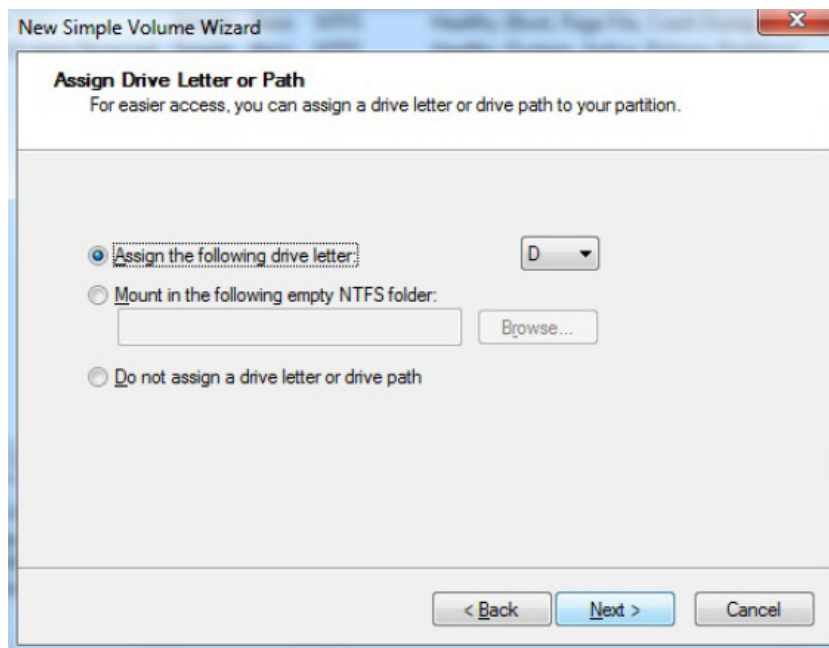


6. Click Next in the New Simple Volume Wizard window.

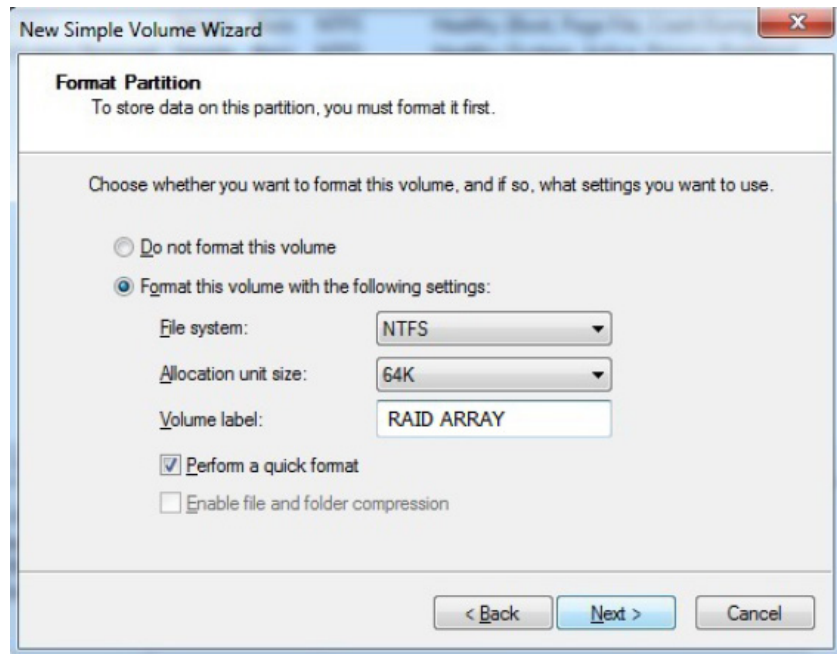
7. Confirm (or set if necessary) that volume size is at maximum, and then click Next. The following image shows the maximum for Option B (>11 TB). Option C will be > 27 TB.



8. Select **D** as the drive (**Assign the following drive letter**) and then click **Next**.

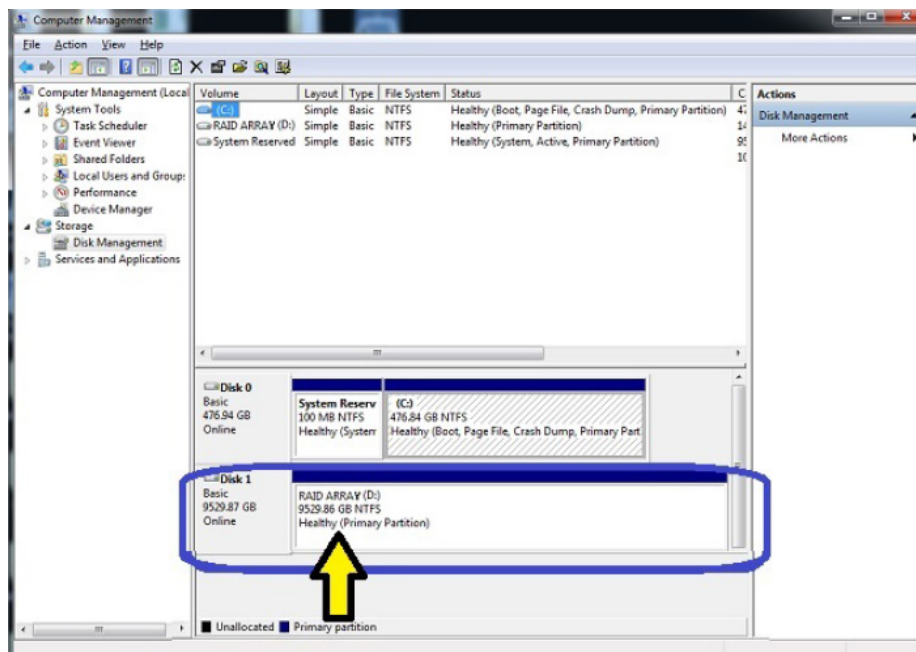


9. Select Format this volume with the following settings and set as follows:
  - File system: NTFS
  - Allocation unit size: 64k
  - Volume label: RAID ARRAY (type in all capital letters)
  - Check the **Perform a quick format** box



10. Click **Next**.
11. Click **Finish** in the Completing the New Simple Volume Wizard window.

12. Confirm that the Disk 1 drive labeled RAID ARRAY (all caps) and is noted as Healthy (Primary Partition).



13. You can now close the Computer Management window. Initialization is complete. You can now use the new RAID.