Storage Configurator

Lenovo ThinkStation P340





Lenovo

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Section 1 – Installing NVMe Devices

Please make sure the NVMe devices are installed into the following PCIe slot locations on the ThinkStation P340 Tower and Small-Form Factor (SFF) motherboard.



Note: The highlighted slots above are the only available slots that will allow the user to configure an NVMe RAID array on the ThinkStation P340 platform.

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For M.2 NVMe drives in the onboard M.2 slots:

1. Remove the film that covers the thermal pad on the bracket, if any. Then, install the M.2 solid-state drive by sliding the drive in the bracket.



2. Remove the film that covers the thermal pad at the bottom of the heat sink, if any. Then, install the heat sink onto the M.2 drive in the bracket.



3. Install the heat sink with the bracket into the system.



4. Insert the stopper.



For M.2 NVMe drives installed in the Add-in Card:

1. Ensure that a thermal pad is placed in position on the M.2 solid-state drive PCIe adapter.



2. Pull the retention latch outward on the M.2 solid-state drive adapter.



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- 3. Install the M.2 solid-state drive into the M.2 slot on the adapter, then insert the plug of the retention latch into the hole to secure the new drive.



4. Position the heat sink on the M.2 solid-state drive PCIe adapter. Ensure that the two mounting studs in the heat sink are aligned with the holes in the M.2 solid-state drive PCIe adapter. Then, push the mounting studs downward to secure the heat sink to the adapter.



Section 2 – Installing HDD's/SSD's

The P340 is fairly limited on how many HDD's/SSD's can be installed in the P340 platform. Notice from the P340 motherboard screenshot that there are only four SATA port connections, labelled SATA1, SATA2, SATA3, and SATA4 in order as they show up in the system BIOS.



<u>Note</u>: Additional parts may be required to install additional HDD's/SSD's.

P340 Tower

P340 SFF



1 - 3.5" primary storage drive cage

2

- 2 2.5" primary storage drive cage
- 3 Flex bay
 - Flex storage enclosure
 - Front-access storage enclosure
- 4 2.5" secondary storage drive cage

Note: Additional parts may be required to install 2.5" SATA drives in 3.5" bays.

- 1 3.5" primary storage drive cage
- 2 3.5" secondary storage drive cage

Section 3 – Configuring NVMe RAID for P340 Tower & SFF

Please refer to the following steps to configure NVMe RAID.

1. Boot into BIOS by pressing the function F1 key at the "Lenovo" splash screen.



Start Menu	Machine Type and Model	P340_SIT		
	System Brand ID	ThinkStation P340	Tower	
에 Main 谷 Devices	System Sel Asset Tag General H	lelp		
 ☆ Advanced O Power ☆ Security ☆ Startup → Exit 	System UL 1↓→+ Ethernet M Enter +/- ME Firmwa ESC F1 Embedded F9 BIOS Revis Boot Block	: Move : Select Sub-Menu : Change Value : Exit : Exit : Help : Setup Defaults : Save and Exit Close	}-9DD7-1B7D15583400	
Lenovo.	BIOS Date (1 Preinstalled OS License OA3 License Key ID Language	Not Defined NO DPK English		
F1 Help ESC Exit	↑↓ Select Item↔ Select Menu	+/- Change Values Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit	

2. Select "System Summary" to verify BIOS is recognizing the NVMe drives.

Tľ	inkStation.	 > System Summary > System Time & Date 		Î
Sta	rt Menu	Machine Type and Model System Brand ID	P340_SIT ThinkStation P340 Tower	
42	Devices	System Serial Number Asset Tag	0000008	
0 *	Advanced Power	System UUID Ethernet MAC Address	89EAD680-0DC8-11E9-9DD7-1B7D15583400 00-D8-61-E9-C0-88	
≙	Security Startup	Embedded Controller Version BIOS Revision Level	508CT07A 508KT05A	
₽	Exit	Boot Block Revision Level BIOS Date (MM/DD/YYYY)	0.05 02/25/2020	
	enovo.	Preinstalled OS License OA3 License Key ID Language	Not Defined NO DPK English	Ū
F1 ESC	Help Exit	T↓ Select Item ↔ Select Menu	+/- Change Values F9 Setup Defaults Enter Select > Sub-Menu F10 Save and Exit	

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ThinkStation

Start Menu

ଜ	Main
铅	Devices
*	Advanced
Ο	Power
æ	Security
<u>.</u>	Startup
₽	Exit
L	enovo
	Hele

F1 Help ESC Exit

System Summary

	<i>.</i>				
СРИ Туре		Intel(R) Core(TM) i5-10400 Cl	PU @ 2.	90GHz	
CPU Speed		2.90 GHz			
CPU Core Count		6			
Installed Memory		4096 MB			
Memory Bus Speed		2666 MHz			
Active Video		PEG			
Onboard Audio		Enabled			
Onboard Ethernet		Enabled			
CPU Fan		Operating			
System Fan		Operating			
Aux Fan		Not Operating			
Aux Fan 2		Not Operating			_
M.2 Drive 1		SAMSUNG MZVKW512HMJP-	000L7		
M.2 Drive 2		SAMSUNG MZVKW512HMJP-	000L7		
PCIe Drive 1		SAMSUNG MZVKW512HMJP-	000L7		
PCIe Drive 2		None			•
↑↓ Select Item	+/-	Change Values	F9	Setup Defaults	
←→ Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit	

3. Select the "Devices" menu at the BIOS main screen setup utility and "ATA Drive Setup".



4. In the "ATA Drive Setup" menu, select "Configure SATA as" and change the option to "RAID".

ThinkStation	ATA Drive Setup	
	SATA Controller Select whether to enable or disable SATA controller.	Enabled 🗸
Start Menu	SATA Drive 1 Select whether to enable or disable SATA drive 1.	Enabled 🗸
Main	SATA Drive 2 Select whether to enable or disable SATA drive 2.	Enabled 🗸
* Advanced	SATA Drive 3 Select whether to enable or disable SATA drive 3.	Enabled 🗸
Power Security	SATA Drive 4 Select whether to enable or disable SATA drive 4.	Enabled 🗸
₂o∰a Startup	SATA Drive 4 Hot-Plug Support Select whether to enable or disable hot-plug for this port.	Disabled V
Lenovo	Configure SATA as Select AHCI/RAID/Intel(R) RST with Intel(R) Optane Mode. NOTE: Device driver support is required for AHCI or RAID or Intel(R) RST with Intel(R) Optane. Depending on how the hard disk image was installed, changing this setting	AHCI ✓ AHCI Intel(R) RST with Intel(R) Optane RAID
F1 Help ESC Exit	ty Select Item +/- Change Values ↔ Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit

Note: In order to secure erase NVMe drives, the 'Configure SATA as' option must be set to 'AHCI' mode.

5. Press F10 to Save and Exit BIOS setup.

ThinkStation	ATA Drive Setup	
	SATA Controller Select whether to enable or disable SATA controller	Enabled V
Start Menu	SATA Drive 1 Select whether to enable or disable SATA drive 1.	Enabled 🗸
A Main	SATA Driv Select wheth Save and reset	Enabled
衆 Advanced	SATA Driv Select whet	Enabled
 Power Security 	SATA Drive Select wheth	Enabled
💑 Startup	SATA Drive Setect whet	Disabled 🗸
E Exit	Yes No Select AHCI/RATD/Intel(R) RST with Intel(R) Optane Mode NOTE Device driver support is required. for AHCI or RAID or Intel(R) RST with Intel(R) Optane. Depending on how the hard disk image was installed, changing this setting may prevent the system from booting.	Intel(R) RST with Intel(R) Optane
F1 Help ESC Exit	↑↓ Select Item +/- Change Values €⇒ Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit

6. As the system reboots, press the function F1 key to go back into BIOS setup. Select the "Devices" menu at the BIOS main screen setup utility and "ATA Drive Setup".



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7. Select the "Intel ® Rapid Storage Technology" option.

ThinkStation.	SATA Drive 2 Select whether to enable or disable SATA drive 2. SATA Drive 3 Select whether to enable or disable SATA drive 3.	Enabled V
Start Menu	SATA Drive 4 Select whether to enable or disable SATA drive 4	Enabled V
Main Povices	SATA Drive 4 Hot-Plug Support Select whether to enable or disable hot-plug for this port.	Disabled V
Power	Configure SATA as Select AHCL/RAID/Intel(R) RST with Intel(R) Optane Mode.	RAID
음 Security	NOTE: Device driver support is required for AHCI or RAID or Intel(R) RST with Intel(R) Optane.	
💁 Startup	Depending on how the hard disk image was installed, changing this setting may prevent the system from booting.	
→ Exit	> Intel(R) Rapid Storage Technology Select to see more information about the disk.	
Lenovo	Hard Disk Pre-Gelay Adds a delay before the first access of a hard disk by the system software. Some hard disk hang if accessed before they have initialized themselves. This delay ensures the hard disk has initialized after power up, prior to being accessed.	Disabled V
F1 Help FSC Evit	↑↓ Select Item +/- Change Values ← Select Menu Enter Select > Sub-Menu	F9 Setup Defaults
	Version 2:20.0049. Copyright (C) 2020 American Regatende International LLC.	

8. Select "Create RAID volume".



 At the "Create RAID Volume" menu, select "Name:" and enter a unique RAID array name.
 <u>Note</u>: In this example, the RAID array is named "test".

ThinkStation	← Create RAID Volume	
Start Menu	Create RAID Volume	
슈 Main 谷 Devices	Name: Enter a unique volume name that has no special characters and is 16 characters or less.	test
☆ Advanced ① Power 合 Security	RAID Level: Select RAID Level	RAIDO (Stripe)
startup ⊡ Exit	Select Disks: Select Disks:	
	PCIe 1.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700115, 476.9GB X - to Select Disk	~
Lenovo	PCIe 2.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700116, 476.9GB X - to Select Disk	✓
F1 Help ESC Exit	Select Item +/- Change Values Select Menu Enter Select > Sub-Menu Version 2.20.0048, Copyright (1) 2020 American Megatends International LLC.	F9 Setup Defaults F10 Save and Exit

10. At the "Create RAID Volume" menu, select "RAID Level" and choose one of the options listed.

Note: Only the available RAID options will be listed here.

ThinkStation	÷	
ι πποτατισπ.	Create RAID Volume	
	Create RAID Volume	
Start Menu		
🛱 Main	Name	
🛱 Devices	Enter a unique volume name that has no special characters and is 16	test
₩ Advanced	RAID Level:	RAIDO (Stripe)
O Power	Select RAID Level	RAIDO (Stripe)
음 Security		RAID1 (Mirror)
🝰 Startup	Select Disks:	RAID5 (Parity) Recovery
Exit	Salact Dicke	Recovery
	PCIe 1.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700115, 476.9GB	~
	X - to Select Disk	
Lenovo	PCIe 2.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700116, 476.9GB	~
	X - to Select Disk	
F1 Help ESC Exit	↑↓ Select Item +/- Change Values ◆> Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit
	Version 2.20.0049. Copyright (C) 2020 American Megatrends International LLC.	

11. At the "Create RAID Volume" menu, select the dropdown menu box next to each drive and select the "X". The dropdown to the right of the drive option should go from [] to [X].



ThinkStation

Sta 向 谷	rt Menu Main Devices Advanced	Name: Enter a unique volume name that has no special characters and is 16 characters or less. RAID Level: Select RAID Level	test RAID5 (Parity)	_ ►
^ © А	Power	Select Disks: Select Disks:		
security startup → Exit		PCIe 1.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700115, 476.9GB X - to Select Disk	X	~
L	enovo.	PCIe 2.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700116, 476.9GB X - to Select Disk PCIe 3.0, SAMSUNG MZVKW512HMJP-000L7 S35BNY0H700079, 476.9GB X - to Select Disk	x x	⊻ ⊻
F1 ESC	Help Exit	↑↓ Select Item +/- Change Values ←→ Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit	

Create RAID Volume

12. Select "Create Volume" at the bottom of the menu.

Th	inkStation	PCIe 1.0, SAMSUNG MZVKW5 476.9GB	512HMJP-000L7 S	35BNA0J700115,	x		~
		X - to Select Disk					
		PCIe 2.0, SAMSUNG MZVKW5 476.9GB	12HMJP-000L7 S	35BNA0J700116,	x		~
Sta	rt Menu	X - to Select Disk					
ഹ	Main	PCIe 3.0, SAMSUNG MZVKW5 476.9GB	12HMJP-000L7 S	35BNY0H700079,	x		~
谷	Devices	X - to Select Disk					
*	Advanced						
Ο	Power	Strip Size:			32KB		×
æ	Security	Strip size help			17076078		114
t.	Startup	Capacity (MB):			976768		
	5 to top	Capacity in MB					
Þ	Exit						
		> Create Volume					
		Create a volume with the settings	specified above				
	enovo.			-			
F1	Help	↑↓ Select Item	+/-	Change Values	F9	Setup Defaults	
ESC	Exit	↔ Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit	
		Version 2.20.0049.	Copyright (C) 2020 American M	legatrends International LLC.			

13. Verify the RAID volume was created at the very next screen.

ThinkStation	← Intel(R) Rapid Storage Technology		
Start Menu Main 삼 Devices * Advanced 안 Power	Intel(R) RST 17.8.4.4671 RAID Driver RAID Volumes:		
 Becurity Startup Exit 	 List of recognized BAID Volumes on the system test, RAID5 (Parity), 953.9GB, Normal Select to see more information about the RAID Volume 		
F1 Help ESC Exit	↑↓ Select Item +/- Change Values ★⇒ Select Menu Enter Select > Sub-Menu Version 2.20.0045. Copyright (/) 2020 American Megatrends International LLC.	F9 F10	Setup Defaults Save and Exit

14. To view information about the RAID array, select the RAID array on the previous step.

ThinkStation	÷			Î
i minotation.	RAID VOLUME INFO			
	RAID VOLUME INFO			
Start Menu				
G Main	Volume Actions			
谷 Devices	List of actions available for RAID Volume			
✤ Advanced	> Delete			
O Power				
🕂 Security				
💁 Startup				
Exit				
	Name: Volume name		test	
	RAID Level:		RAID5 (Parity)	
Lenovo	RAID Level (type)			
	Strip Size: Indicates the strip size of the RAID volume		32KB	v
F1 Help ESC Exit	 ↑↓ Select Item ←→ Select Menu 	+/- Change Values Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit	

15. To delete the RAID array, select "Delete" from the "RAID VOLUME INFO" from the previous step and confirm by selecting "Yes" at the very next menu option.

ThinkStation	←		
TIIIINVLULIVII.	Delete		
Start Menu	Delete		
슈 Main 谷 Devices	Delete the RAID volume?		
🛠 Advanced	ALL DATA ON VOLUME WILL BE LO	ST!	
D Power			
Startup	> Yes Deleting a volume will reset the disks to	non-RAID.	
Exit.	> No		
Lenovo.			
F1 Help ESC Exit	↑↓ Select Item ↔ Select Menu	+/- Change Values Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit
	Version 2.20 D049. Copyright	(C) 2020 American Megatrends International II C	

<u>Note</u>: The user may *not* see the RAID array show up in the BIOS boot sequence until after a bootable operating system has been installed on the RAID array.

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Section 4 – Configuring SATA RAID for P340 Tower & SFF

Please refer to the following steps to configure SATA RAID.

1. Boot into BIOS by pressing the function F1 key at the "Lenovo" splash screen.



Start Menu	Machine Type and Model		P340_SIT		
m Main 谷 Devices	System Brand ID System Se Asset Tag General F	Help	ThinkStation P340 1	'ower	
₩ Advanced ① Power 丹 Security ▲ Startup ⊖ Exit	System UL ↑↓→+ Ethernet M +/- ME Firmwa ESC F1 Embedded F9 BIOS Revis Boot Block	: Move : Select Sub-Menu : Change Value : Exit : Help : Setup Defaults : Save and Exit Close		}-9DD7-1B7D15583400	
Lenovo.	BIOS Date (I Preinstalled OS License OA3 License Key ID Language		Not Defined NO DPK English	~	×
F1 Help ESC Exit	↑↓ Select Item ↔ Select Menu	+/- Ch Enter Sel	ange Values ect > Sub-Menu	F9 Setup Defaults F10 Save and Exit	

2. Select "System Summary" to verify BIOS is recognizing the SATA drives.

Tľ	inkStation	> Syste	m Summary m Time & Date					Î
Sta	rt Menu	Mach Syste	ine Type and Model m Brand ID		P340_SIT ThinkStation P340 To	wer		
ណ	Main	Syste	m Serial Number		0000008			
42	Devices	Asset	: Tag					
*	Advanced	Syste	m UUID		89EAD680-0DC8-11E9	-9DD7-1B7D1	5583400	
Ο	Power	Ether	net MAC Address		00-D8-61-E9-C0-88			
Ą	Security	ME Fi	rmware Version		14.0.31.1120			
	Startup	Embe	dded Controller Version		S08CT07A			
<u></u>	Suit	BIOS	Revision Level		S08KT05A			
Ŀ	EXIT	Boot	Block Revision Level		0.05			
		BIOS	Date (MM/DD/YYYY)		02/25/2020			
		Prein	stalled OS License		Not Defined			
	enovo	0A31	License Key ID		NO DPK			
		Lang	uage		English		~	~
F1	Help	t↓	Select Item	+/-	Change Values	F9	Setup Defaults	
ESC	Exit	< >	Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit	
			Version 2.20.0049. Copyright	t (C) 2020 American M	legatrends International LLC.			

ThinkStation

CPU COLE COULL

Installed Memory

	Memory Bus Speed	2666 MHz
	Active Video	PEG
Start Menu	Onboard Audio	Enabled
	Onboard Ethernet	Enabled
Main	CPU Fan	Operating
🕆 Devices	System Fan	Operating
₩ Advanced	Aux Fan	Not Operating
Power	Aux Fan 2	Not Operating
பு Security	M.2 Drive 1	SAMSUNG MZVKW512HMJP-000L7
1 Startup	M.2 Drive 2	SAMSUNG MZVKW512HMJP-000L7
	PCIe Drive 1	SAMSUNG MZVKW512HMJP-000L7
L→ Exit	PCIe Drive 2	None
	SATA Drive 1	Hard Disk SanDisk SD8SB8U1T001001
	SATA Drive 2	Hard Disk SanDisk SD8SB8U1T001001
lenovo	SATA Drive 3	Hard Disk SanDisk SD8SB8U1T001001
	SATA Drive 4	CD/DVD ROM HL-DT-ST DVD-ROM DUEON
F1 Help	↑↓ Select Item	+/- Change Values F9 Setup Defaults
ESC Exit	↔ Select Menu	Enter Select > Sub-Menu F10 Save and Exit

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3. Select the "Devices" menu at the BIOS main screen setup utility and "ATA Drive Setup".



4. In the "ATA Drive Setup" menu, select "Configure SATA as" and change the option to "RAID".

ThinkStation	ATA Drive Setup	
	SATA Controller Select whether to enable or disable SATA controller.	Enabled 🗸
Start Menu	SATA Drive 1 Select whether to enable or disable SATA drive 1.	Enabled 🗸
에 Main 연 Devices	SATA Drive 2 Select whether to enable or disable SATA drive 2.	Enabled 🗸
* Advanced	SATA Drive 3 Select whether to enable or disable SATA drive 3.	Enabled 🗸
O Power	SATA Drive 4	Enabled 🗸
🕂 Security	Select whether to enable or disable SATA drive 4.	
💑 Startup [→ Exit	SATA Drive 4 Hot-Plug Support Select whether to enable or disable hot-plug for this port.	Disabled 🗸 🗸
	Configure SATA as	AHCI 🗸
Lenovo.	NOTE: Device driver support is required for AHCI or RAID or Intel(R) RST with Intel(R) Optane. Depending on how the hard disk image was installed, changing this setting may prevent the system from booting.	AHCI Intel(R) RST with Intel(R) Optane RAID
F1 Help ESC Exit	T↓ Select Item +/- Change Values ↔ Select Menu Enter Select > Sub-Menu Version 2.20.0436 Copyright (/1.2020 American Measureds International LLC.	F9 Setup Defaults F10 Save and Exit

Note: In order to secure erase SATA drives, the 'Configure SATA as' option must be set to 'AHCI' mode.

5. Press F10 to Save and Exit BIOS setup.

ThinkStation	ATA Drive Setup			
	SATA Controller Select whether to enable or disable SATA to		Enabled	~
Start Menu	SATA Drive 1 Select whether to enable or disable SATA d		Enabled	~
Main	SATA Drive Select whete Save and reset		Enabled	~
求 Advanced	SATA Drive Select wheth Save configura	ition and exit?	Enabled	~
 Power Security 	SATA Drive Select wheth		Enabled	~
💁 Startup	SATA Drive Select wheti		Disabled	~
Lenovo.	Ves Select AHCI/RAID/Intel(R) RST with Intel(R) NOTE Device driver support is required. for AHCI of Intel(R) Optime. Depending on how the hard disk image was may prevent the system from booling.	Dotane Mode ir RAID or Intel(R) RST with installed, changing this setting	Intel(R) RST with Intel(R) Optane	~
F1 Help ESC Exit	 ↑↓ Select Item ♦> Select Menu 	+/- Change Values Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit	

6. As the system reboots, press the function F1 key to go back into BIOS setup. Select the "Devices" menu at the BIOS main screen setup utility and "ATA Drive Setup".



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7. Select the "Intel ® Rapid Storage Technology" option.

ThinkStation.	SATA Drive 2 Select whether to enable or disable SATA drive 2. SATA Drive 3 Select whether to enable or disable SATA drive 3.	Enabled V Enabled V
Start Menu	SATA Drive 4	Enabled 🗸
Main Povices	SATA Drive 4 Hot-Plug Support Select whether to enable or disable hot-plug for this port.	Disabled V
Power	Configure SATA as Select AHCI/RAID/Intel(R) RST with Intel(R) Optane Mode.	RAID
🔒 Security 🍰 Startup	Device driver support is required for AHCI or RAID or Intel(R) RST with Intel(R) Optane. Depending on how the hard disk image was installed, changing this setting may occurrent the outcome from horizon	
[→ Exit	Intel(R) Rapid Storage Technology Select to see more information about the disk.	
Lenovo.	Hard Disk Pre-delay Adds a delay before the first access of a hard disk by the system software. Some hard disks hang if accessed before they have initialized themselves. This delay ensures the hard disk has initialized after power up, prior to being accessed.	Disabled 🗸
F1 Help ESC Exit	↑↓ Select Item +/- Change Values ↔ Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit

8. Select "Create RAID volume".



 At the "Create RAID Volume" menu, select "Name:" and enter a unique RAID array name.
 <u>Note</u>: In this example, the RAID array is named "test".

ThinkStation	← Create RAID Volume	
Start Menu	Create RAID Volume	
슈 Main 谷 Devices	Name: Enter a unique volume name that has no special characters and is 16 characters or less.	test
☆ Advanced ① Power 合 Security	RAID Level: Select RAID Level	RAIDO (Stripe)
startup ⊡ Exit	Select Disks: Select Disks:	
	PCIe 1.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700115, 476.9GB X - to Select Disk	~
Lenovo	PCIe 2.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700116, 476.9GB X - to Select Disk	✓
F1 Help ESC Exit	Select Item +/- Change Values Select Menu Enter Select > Sub-Menu Version 2.20.0048, Copyright (1) 2020 American Megatends International LLC.	F9 Setup Defaults F10 Save and Exit

10. At the "Create RAID Volume" menu, select "RAID Level" and choose one of the options listed.

Note: Only the available RAID options will be listed here.

ThinkStation	÷	
ι πποτατισπ.	Create RAID Volume	
	Create RAID Volume	
Start Menu		
🛱 Main	Name	
🛱 Devices	Enter a unique volume name that has no special characters and is 16	test
₩ Advanced	RAID Level:	RAIDO (Stripe)
O Power	Select RAID Level	RAIDO (Stripe)
음 Security		RAID1 (Mirror)
🝰 Startup	Select Disks:	RAID5 (Parity) Recovery
Exit	Salact Dicke	Recovery
	PCIe 1.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700115, 476.9GB	~
	X - to Select Disk	
Lenovo	PCIe 2.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700116, 476.9GB	~
	X - to Select Disk	
F1 Help ESC Exit	↑↓ Select Item +/- Change Values ◆> Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit
	Version 2.20.0049. Copyright (C) 2020 American Megatrends International LLC.	

11. At the "Create RAID Volume" menu, select the dropdown menu box next to each drive and select the "X". The dropdown to the right of the drive option should go from [] to [X].



ThinkStation

Star 向 谷	r t Menu Main Devices Advanced	Name: Enter a unique volume name that has no special characters and is 16 characters or less. RAID Level: Select RAID Level	test RAIDS (Parity)
т О А	Power	Select Disks: Select Disks:	
 _⇒	Startup Exit	PCIe 1.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700115, 476.9GB X - to Select Disk PCIe 2.0, SAMSUNG MZVKW512HMJP-000L7 S35BNA0J700116, 476.9GB X - to Select Disk	x v x v
L	enovo.	PCIe 3.0, SAMSUNG MZVKW512HMJP-000L7 S35BNY0H700079, 476.9GB X - to Select Disk	x v
F1 ESC	Help Exit	↑↓ Select Item +/- Change Values ↔ Select Menu Enter Select > Sub-Menu	F9 Setup Defaults F10 Save and Exit

Create RAID Volume

12. Select "Create Volume" at the bottom of the menu.

Th	inkStation	PCIe 1.0, SAMSUNG MZVKW5 476.9GB	512HMJP-000L7 S	35BNA0J700115,	x		~
		X - to Select Disk					
		PCIe 2.0, SAMSUNG MZVKW5 476.9GB	12HMJP-000L7 S	35BNA0J700116,	x		~
Sta	rt Menu	X - to Select Disk					
ഹ	Main	PCIe 3.0, SAMSUNG MZVKW5 476.9GB	12HMJP-000L7 S	35BNY0H700079,	x		~
谷	Devices	X - to Select Disk					
*	Advanced						
Ο	Power	Strip Size:			32KB		×
æ	Security	Strip size help			17076078		114
t.	Startup	Capacity (MB):			976768		
	5 to top	Capacity in MB					
Þ	Exit						
		> Create Volume					
		Create a volume with the settings	specified above				
	enovo.			-			
F1	Help	↑↓ Select Item	+/-	Change Values	F9	Setup Defaults	
ESC	Exit	↔ Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit	
		Version 2.20.0049.	Copyright (C) 2020 American M	legatrends International LLC.			

13. Verify the RAID volume was created at the very next screen.

ThinkStation	← Intel(R) Rapid Stora	ge Techno	blogy			
Start Menu	Intel(R) RST 17.8.4.4671 RAID I	Driver				
★ Advanced ① Power ▲ Security ▲ Startup ➡ Exit	RAID Volumes: List of recognized BAID Volumes on t > test, RAID5 (Parity), 953.9GB, N Select to see more information about	ihe system I ormal t the RAID Volume				
Lenovo.			-			
F1 Help ESC Exit	↑↓ Select Item ←→ Select Menu version 2.20.0049. Copy	+/- Enter yright (C) 2020 American M	Change Values Select > Sub-Menu legatrends International LLC.	F9 F10	Setup Defaults Save and Exit	

14. To view information about the RAID array, select the RAID array on the previous step.



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15. To delete the RAID array, select "Delete" from the "RAID VOLUME INFO" from the previous step and confirm by selecting "Yes" at the very next menu option.

ChinkStation	←					
i minin viu livn.	Delete					
	Delete					
tart Menu						
🛱 Main	Delete the RAID volume?					
谷 Devices	belete the half volume.					
🛠 Advanced	ALL DATA ON VOLUME WILL E	BE LOST!				
D Power						
욘 Security			-			
💪 Startup	> Yes					
Exit	Deleting a volume will reset the dis	ks to non-RAID.				
	> No					
Lenovo						
F1 Help	↑↓ Select Item	+/-	Change Values	F9	Setup Defaults	
ESC Exit	↔ Select Menu	Enter	Select > Sub-Menu	F10	Save and Exit	

Note: The user may *not* see the RAID array show up in the BIOS boot sequence until after a bootable operating system has been installed on the RAID array.

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Section 5 – Revision History

Version	Date	Author	Changes/Updates
1.0	6/17/2020	Jason Moebs	Initial launch release