

# Windows® 7 Installation and PCIE RAID Setup Guide

## A. Windows<sup>®</sup> 7 and USB driver installation

Based on the chipset specification, your system requires the USB driver to be preloaded in order to use USB keyboard/mouse during Windows<sup>®</sup> 7 installation. This section is a guide on preloading the USB driver and installing Windows<sup>®</sup> 7.

## Method 1: Using SATA ODD & USB devices

Load the USB driver using the ASUS support DVD and install Windows® 7 using a USB device.

#### **Requirement:**

- 1 x ASUS support DVD
- 1 x Windows® 7 installation source
- 1 x SATA ODD
- 1 x USB device (ODD or storage)



- The USB storage device requires 8 GB or more capacity. It is recommended to format the storage device before use.
- If you want to install Windows<sup>®</sup> 7 64-bit UEFI mode, use both a USB ODD and a SATA ODD.
- Insert the Windows<sup>®</sup> 7 installation DVD into a USB ODD, or copy all files on the Windows<sup>®</sup> 7 installation DVD to a USB storage device on a working system.
- 2. Connect the USB ODD or USB storage device to your system.
- 3. Insert the ASUS support DVD into a SATA ODD on your system.
- 4. Power on your system and press F8 during POST (Power-On Self Test) to enter the boot screen.
- 5. Select the USB ODD or USB storage device as the boot device.

Please select boot device: 1 and 1 un move selection ENTRA to select boot device ESC to boot using defaults
ASIS SOMA OBOIP O P4: ASUS DVD-REIBART (5192MB) P3: Hinchi Hor7235050CLA380 (475940MB) ADATA USB Filab Orive (7535MB) UEFI: (ATA ADAT USB Filab Orive (7535MB) UEFI: ASUS DVD-REIBART (5192MB) Enter Setup
OK Cancel

6. The USB driver will be loaded automatically during installation startup.



7. Follow the onscreen instructions to complete the Windows<sup>®</sup> 7 installation.

### Method 2: Using a modified Windows® 7 ISO

Load the USB driver and install Windows® 7 using a modified Windows® 7 installation DVD.

#### **Requirement:**

- 1 x ASUS support DVD
- 1 x Windows® 7 installation source
- 1 x Working system (PC or notebook)
- 1 x SATA ODD
- On your working system, create an ISO image file of the Windows<sup>®</sup> 7 installation source using a third-party ISO software.
- Copy both "Auto\_Unattend.xml" and "Auto\_Unattend" folder from the root directory of the ASUS supporting DVD to your system.
- Edit the ISO file and add both "Auto\_Unattend.xml" and "Auto\_Unattend" folder into the ISO file.
- 4. Burn this ISO file onto an empty DVD to create a modified Windows<sup>®</sup> 7 installation DVD.
- 5. Insert the modified Windows® 7 installation DVD into an ODD on your system.
- Power on your system and press F8 during POST (Power-On Self Test) to enter the boot screen.
- 7. Select the ODD as the boot device.
- 8. The USB driver will be loaded automatically during installation startup.



The "Setup is starting..." screen will show up if the USB driver is loaded correctly.

9. Follow the onscreen instructions to complete the Windows® 7 installation.

### Method 3: Using ASUS EZ Installer

Use the ASUS EZ Installer to create a modified Windows® 7 installation source.

#### **Requirement:**

- 1 x ASUS support DVD
- 1 x Windows® 7 installation DVD
- 1 x Working system (PC or notebook)
- 1 x SATA ODD
- 1 x USB storage device (8 GB or more)
- 1. Insert the Windows® 7 installation DVD.
- 2. Launch the ASUS EZ Installer located on the ASUS support DVD.
- 3. Select a method of creating a modified Windows® 7 installation file:
  - Windows® 7 OS disk to USB storage device
    - Select Windows 7 OS disk to USB storage device then click Next.



#### - Check I agree and then click Next.



- Select the source of the Windows® 7 installation disk then click Next.

ASUS EZ Installer V1.03.06	×
	Please select the source of your $Windows(R)$ 7 installation disc.
	Step 1 of 3 Select your disc source
	D\(GRMCULXFRER_EN_DVD)
-5	Capacity 3181 MB
	Back Next

- Select the USB storage device and click next.

ASUS EZ Installer V1.03.06	×
	Insert a USB storage device with 8 GB or more capacity. This USB storage device will be formatted.
	Step 2 of 3 Insert a USB storage device
	H\(Capacity: 3845 MB) V
	Back Next



- Click the refresh icon site is the USB storage device is not displayed.
- Tick Install NVMe hotfix if needed.
- Click **Yes** to clear the contents on the USB storage device and create a bootable USB device.



Make sure to backup contents on the USB storage device, as it will be formatted.

- Once completed, click OK to finish.
- Windows<sup>®</sup> 7 OS disk to ISO file



Before using this method to install Windows<sup>®</sup> 7:

- If you are using only one SATA HDD, ensure that your SATA HDD has more than twice the storage space (ISO file size +500MB).
- If you are using two or more SATA HDDs, ensure that at lease two of your SATA HDDs have more than the storage space (ISO file size +500MB).

- Select Windows 7 OS disk to ISO file then click Next.



- Check I agree and then click Next.

ASUS EZ Installer V1.03.06		×
	This tool allows you to create a copy of Windows® 7 installation file into a USB storage device or an optical disc. You can directly install Windows® 7 from your USB storage device or ODD on your ASUS PC.	3
	End User License Agreement This End User License Agreement ("EULA") constitutes a valid and binding agreement between ASUSTER Computer Inc. ("ASUS") and You, as a user, for the use of the ASUS Software ("Software") defined as set forth below. By installing and continuing to use the software YOU EXPRESSLY ACKNOWLEDGE THAT YOU HAVE READ AND UNDERSTAND AND AGREE TO BE BOUND BY THE TEMBS OF THIS EULA AND AWN TWEV VERSIONS HEREDO."	^
	<ol> <li>SOFTWARE means the ASUS Software provided in or with the applicable ASUS product including but not limited to any future programming fixes, updates, upgrades and modified versions.</li> </ol>	~
	⊡ lagree Back Next	

- Select the source of the Windows® 7 installation disk then click Next.

ASUS EZ Installer V1.03.06		
	Please select the source of your Windows(R) 7 installation disc.	
	Step 1 of 3 Select your disc source	
	Please select	
	D:\(GRMCULXFRER_EN_DVD) ~	
	Capacity:3181 MB	
	Back Next	

- Select the folder to save the modified Windows® 7 installation ISO file and click Next.





Tick Install NVMe hotfix if needed.

- Once completed, click OK to finish.
- Burn this ISO file onto an empty DVD to create a modified Windows® 7 installation DVD.
- Insert the modified Windows<sup>®</sup> 7 installation DVD into an ODD or connect the USB storage device with modified Windows<sup>®</sup> 7 installation files onto your system.
- Power on your system and press F8 during POST (Power-On Self Test) to enter the boot screen.
- 6. Select the ODD or USB storage device as the boot device.
- 7. The USB driver and NVMe driver will be loaded automatically during installation startup.



The "Setup is starting..." screen will show up if the USB driver and NVMe driver are loaded correctly.

- 8. Follow the onscreen instructions to complete the Windows® 7 installation.
- В

## Windows<sup>®</sup> 7 PCIE RAID Setup

Based on the chipset specification, your system requires USB and RAID drivers to be preloaded in order to use PCIE RAID during Windows<sup>®</sup> 7 64-bit UEFI installation. This section is a guide on preloading USB and RAID drivers and installing Windows<sup>®</sup> 7.



Ensure that your motherboard supports PCIE RAID setup before doing so.

### **Requirements:**

- 1 x Bootable USB storage device created in the above section Using ASUS EZ
  Installer
- 1 x Modified Windows<sup>®</sup> 7 installation DVD created in the above section Using ASUS EZ Installer
- 1 x SATA ODD
- 2 x PCIE SSD

- Insert the modified Windows<sup>®</sup> 7 installation DVD into a SATA ODD or connect the USB storage device with modified Windows<sup>®</sup> 7 installation files to your system and install two PCIE SSD.
- 2. Power on your system and press F2 during POST (Power-On Self Test) to enter BIOS.
- 3. Go to Advanced > PCH Storage Configuration > SATA Mode Selection and select RAID.

My Favorites Main Ai Tweaker	Monitor	Boot	Tool	Exit	Hardwa	are Monitor
<ul> <li>Platform Misc Configuration</li> </ul>						
➤ CPU Configuration					Frequency 3200 MHz	Temperature 36°C
System Agent (SA) Configuration     PCH Configuration					BCLK 100.0 MHz	Core Voltage 1.072 V
PCH Storage Configuration	_				Ratio 32x	
➤ PCH-FW Configuration					Mamoni	
<ul> <li>Onboard Devices Configuration</li> </ul>						
➤ APM Configuration	R				2133 MHz	1.200 V
➤ Network Stack Configuration					Capacity	
► HDD/SSD SMART Information					8192 MB	
➤ USB Configuration					Voltage	
					+12V 12.096 V	+5V 5.080 V
PCH Storage Configuration					+3.3V 3.392 V	

My Favorites Main Ai Tweaker Advanced	Monitor	Boot Tool Exit	Hardware Monitor
← Advanced\PCH Storage Configuration			СРО
			Frequency Temperature
Hyper kit Mode		Disabled -	BCIK Core Voltage
SATA Controller(s)		Enabled 👻	100.0 MHz 1.072 V
SATA Mode Selection		AHCI -	Ratio
Aggressive LPM Support		AHCI	32X
SMART Self Test		Con Off	
SATA6G_1(Gray)		Empty	Frequency Voltage
► SATA6G_1(Gray)	~		
SATA6G_1(Gray)		Enabled 👻	8192 MB
SATA6G_1 Hot Plug		Disabled -	Voltage
		Empty	
			12.096 V 5.080 V
(i) Determines how SATA controller(s) operate.			+3.3V 3.408 V
1 - 18 Mar Mars Real Comments Houses			

4. Two new PCIE RAID options appear. Select **RST Controlled** in both options.

my Favorites Mai	n Ai Tweaker A	dvanced M	onitor Boot	Tool	Exit	P Hardw	are Monitor
← Advanced\PCH Storage C	onfiguration						
						Frequency 3000 MHz	Temperature 31°C
Hyper kit Mode			Disabled		•		
SATA Controller(s)			Enabled		•	100.0 MHz	0.992 V
SATA Mode Selection			Intel RST	Premium Wit	h Intel Oj 👻	Ratio 30x	
M.2_1 PCIE Storage RAID	Support		RST Contr	rolled	-		
M.2_2 PCIE Storage RAID	Support		RST Contr	rolled	•		
Aggressive LPM Support			RST Cont Not RST	rolled Controlled		Frequency 2133 MHz	Voltage 1.200 V
SMART Self Test			On	Off		Capacity 4096 MB	
SATA6G_1(Gray)						Voltage	
SATA6G_1(Gray)			Enabled		-	+12V 12.096 V	+5V 5.120 V
i Enable/Disable RST Pcie Sto	rage Remapping					+3.3V 3.280 V	

CISUE UEFI BIOS Utility - Advanced Mode seasons 19:33 <sup>©</sup>   ⊕ Englah ⊡MyFavaringF3) ∛o Qian Control F6  © EZ Tuning Weard(F1) √© Quick Hone(F3 Monday	Hot Keys
My Favorites Main Ai Tweaker <u>Advanced</u> Monitor Boot Tool Exit	Hardware Monitor
	CPU           Frequency         Temperature           3000 MHz         31*C           BCLK         Core Voltage           100.0 MHz         0.992 V           Ratio         Core Voltage
M.2.1 PCIE Storage RAID Support RST Controlled  M.2.2 PCIE Storage RAID Support PST Controlled	30x Memory Frequency Voltage
Aggressive LPM Support International Controlled International Controlled International	2133 MHz 1.200 V Capacity 4096 MB
SATA66_1(Gray) Enabled -	+12V +5V 12.096 V 5.120 V
Enuble/Disable RST Pole Storage Remapping	*3.3V 3.280 V
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5. Go to Boot > CSM (Compatibility Support Module) > Boot from Storage Device and select UEFI driver first.

wy ravorites	Main	Ai Tweaker	Advanced	Monitor	Boot	Tool	Exit	Hardw	are Monitor
								CPU	
Fast Boot					Enabled		-	Frequency 3000 MHz	Temperature 34°C
Next Boot afte	r AC Power Lo	>\$\$			Normal Bo	oot		BCLK 100.0 MHz	Core Voltage 0.992 V
<ul> <li>Boot Configurat</li> </ul>	ion							Ratio	
≻ CSM (Compatibi	lity Support N							30x	
► Secure Boot								Memory	
								Frequency	
Boot Option #1				3	Windows E	loot Mana	zer (Samsur 👻	2133 MHz	1.200 V
Boot Option #2					Windows E	loot Manaj	zer (Marvell 👻	Capacity 4096 MB	
Boot Option #3					UEFI: A-DA	ATA USB FI	ash Drive 0 🔻	Voltage	
Boot Override									
	SR Flach Drive	0 00 (3853MR)						12.096 V	
Configure the CS for a better comp	4(compatibility atibility.	rsupport module) it	ems to fully suppo	ort the various g	aphics, boot	able device:	s, and add-on devic	es +3.3V 3.280 V	



6. Press <F10> to save the changes and reboot the system.



7. Press F2 during POST (Power-On Self Test) to enter BIOS again and go to Advanced to click Intel(R) Rapid Storage Technology, which is a new option.

VELIS UEFI BIOS Utility - Advanced Mode	
04/27/2101 12:18 English MyFavorite(F3) & Qfan Control(F6) CZ Tuning Wizard(F11)	P Hot Keys
My Favorites Main Ai Tweaker <u>Advanced</u> Monitor Boot Tool Exit	Hardware Monitor
≻ Platform Misc Configuration	
► CPU Configuration	Frequency Temperature 3200 MHz 36*C
➤ System Agent (SA) Configuration	
➤ PCH Configuration	100.0 MHz 1.072 V
PCH Storage Configuration	Ratio 32x
> PCH-FW Configuration	
Onboard Devices Configuration	Memory
► APM Configuration	Frequency Voltage 2133 MHz 1.200 V
Network Stack Configuration	
HDD/SSD SMART Information	8192 MB
► USB Configuration	Voltage
Intel(R) Rapid Storage Technology	+12V +5V 12.192 V 5.080 V
This formset allows the user to manage RAID volumes on the Intel(B) RAID Controller	+3.3V 3.408 V
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8. Click Create RAID Volume.



9. Setup the RAID information and click Create Volume.

wy Favorites	Main Ai Twe	aker <u>Advanced</u>	Monitor	Boot	Tool	Exit		Hardwa	are Monito
Create KALD VOIUM									
Name:				Volume1				Frequency 2700 MHz	Temperatur 30°C
RAID Level:				RAID0(Stri	pe)		-	BCLK 100.0 MHz	Core Voltag 0.912 V
								Ratio 27x	
PCIe 1.0, Marvell M	.2 256GB X256ZA1E	400648, 238.4GB		x			-		
PCIe 2.0, Samsung	SD 950 PRO 512GB	S2GMNCAGB03518E, 47	6.9GB	x			-	Memory	
								Frequency	Voltage
Strip Size:			45	16KB			- I		11200 0
Capacity (MB):				488392				Capacity 8192 MB	
								Voltage	
<ul> <li>Create Volume</li> </ul>	_		_	_	_	_			
								12.384 V	5.080 V
Create a volume with	the cettines specified	ahove							
)	are seconds specified	00010						3.392 V	

- 10. When completed, select the ODD or USB storage device as the boot device.
- 11. The USB driver will be loaded automatically during installation startup.



The "Setup is starting..." screen appears when the USB driver is loaded successfully.

- Follow the onscreen instructions to complete the initial configurations of Windows<sup>®</sup> 7 installation.
- 13. Click Load Driver.



14. Select KabyLake\_RAID and then click OK.

Select the driver	to be installed.	
	Browse for Folder	×I
	Proves to the diver(s), and then duk OK  Removable Dak (C.)  GPR-UX/RP-1 (D.)  GPR-U	
M Hide drivers that a	OK Cancel	1
Browse	Rescan	Next

15. When the following screen appears, click **Next** to install RAID driver.

t

16. Follow the onscreen instructions to complete the Windows® 7 installation.