

### How to Create the SATA RAID for SATA RAID Support Motherboards

1. BIOS Setup:

Integrated Peripherals  $\rightarrow$  On Chip IDE Device  $\rightarrow$  On Chip Serial ATA  $\rightarrow$  Enhanced Mode  $\rightarrow$  SATA Mode  $\rightarrow$  RAID

► Standard CMOS Features	▶ Frequency/Voltage Control
► Advanced BIOS Features	Load Fail-Safe Defaults
▶ Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
▶ Power Management Setup	Set User Password
▶ PnP/PCI Configurations	Save & Exit Setup
▶ PC Health Status	Exit Without Saving
Esc : Quit F9 : Menu in BIOS F10 : Save & Exit Setup	†↓→← : Select Item

Menu Level ►



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IDE HDD Block Mode	[Enabled]	Item Help
De-Chin Primary PCI II	LUISADIEd]	Manu Loug L hh
INF Primary Master PIO	[Auto]	Hend Bever PP
IDE Primary Slave PIO	[Auto]	[Disabled]: Disabled
IDE Primary Master UDMA	[Auto]	SATA Controller.
IDE Primary Slave UDMA	[Auto]	[Auto]: Auto arrange
On-Chip Secondary PCI II	DE [Enabled]	by BIOS.
IDE Secondary Master PIC	) [Auto]	[Combined Mode]: PAT
IDE Secondary Slave PIC	[Auto]	and SATA are combined
IDE Secondary Master UDN	1A [Auto]	. Max.of 2 IDE drive:
IDE Secondary Slave UD	1A LAutol	in each channel.
0 01 1 0 1 1 0 00 C	na a sheke bi ka s	LEnhanced Model:
CATA Mala	etting ***	Enable both SHIH and
On-Chin Coninl 0T0	LOUIS 1	THIH. MAX.OF 6 IDE
Contal OTO Posto Mada	[SOTOR master]	reate only 1. coto in
Sewial OTO Powti Mode	SOTO1 masters	openating in legacy
ocriat and forer none	ONTHI MASCEP	mode

IDE HDD Block Mode [Enabled]		Item Help
IDE DMH transfer a On-Chip Primary IDE Primary Master	CCESS IDISADIED] PCI IDE [Enabled] PIO [Auto]	Menu Level
IDE Primary Maste	On-Chip Serial ATA	A Controller.
On-Chip Secondary Mas IDE Secondary Mas IDE Secondary Mas IDE Secondary Mas IDE Secondary Sla **** On-Chip Seria SATA Mode	Disabled [ ] Auto [ ] Combined Mode [ ] Enhanced Mode [ ] SATA Only [ ]	BIOS. mbined Model: PAT SATA are combine ax.of 2 IDE drive each channel. hanced Model: ble both SATA and A. Max.of 6 IDE
Serial ATA Port0 Serial ATA Port1	↑↓:Move ENTER:Accept ESC:Abort	TA Only]: SATA is rating in legacy

 

 Phoenix - AwardBIOS CMOS Setup Utility OnChip IDE Device

 IDE HDD Block Mode
 [Enabled]
 Item Help

 IDE DMA transfer access
 [Disabled]
 Menu Level

 On-Chip Primary Master PIO
 [Auto]
 Menu Level

 IDE Primary Master UDMA
 [Auto]
 Menu Level

 IDE Primary Slave
 UDMA [Auto]
 Menu Level

 IDE Primary Slave UDMA
 [Auto]
 Menu Level

 On-Chip Secondary PCI IDE
 Enabled]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Master VIDMA
 [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Slave
 UDMA [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 IDE Secondary Master UDMA
 [Auto]
 Menu Level

 SATA Mode
 [IDE]
 [IDE]

 <t



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IDE HDD Block Mode	[Enabled]	Item Helj
IDE DMH transfer a On-Chip Primary IDE Primary Master	PCI IDE [Enabled] PIO [Auto]	Menu Level →>
IDE Primary Maste	SATA Mode	
On-Chip Secondary IDE Secondary Mas IDE Secondary Sla IDE Secondary Mas IDE Secondary Mas IDE Secondary Sla	IDE [] RAID []	
**** On-Chip Seria SATA Mode On-Chip Serial AT	↑↓:Move ENTER:Accept ESC:	Abort

Then "Save and Exit". System will reboot.

2. When system reboot press "Ctrl + I" to create RAID.

- Intel ® RAID for Serial ATA -RAID Configuration Utility
- A. Delete RAID Volune  $\rightarrow$  Del  $\rightarrow$  Y (Optional: if you have old RAID on hard drive)
- B. Reset Disks Volune  $\rightarrow$  Y  $\rightarrow$  RAID Level (Choose RAID 0 or RAID 1)
  - a. For Create RAID 0 Name: RAID\_Volumel RAID Level : RAID 0 ( Stripe ) Strip Size : 128 KB Capacity : XX GB
  - b. For Create Raid 1
     Name: RAID\_Volumel
     RAID Level : RAID 1 (Mirror)
     Strip Size : N/A
     Capacity : XX GB
  - c. Create Volume  $\rightarrow$  Y
- C. Exit  $\rightarrow$  Y

System will restart.

3. Install OS (Windows XP)

A. Create RAID driver floppy disk.

- From Driver CD (MB152 Ver. A1.6.6)  $\rightarrow$  Browse CD  $\rightarrow$  Open RAID folder  $\rightarrow$  Open F6 Install Floppy Disk Utility folder  $\rightarrow$  insert blank floppy disk in floppy drive and double click on "F6flpy32" to create driver disk.

B. Boot up from Windows installation CD (BIOS set up CD-ROM boot)

- When Blue screen start, Press F6
- Press S to install Raid Driver from Floppy disk.
- Enter -> Enter -> F8 to agree and follow instruction to install OS.
- C. Install All Driver from Driver CD (INF utility, RAID, Audio, LAN etc ...)



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#### RAID 0

Start  $\rightarrow$  Programs  $\rightarrow$  Intel® Appilcation Accelerator

- Open Intel Appilcation Accelerator (Intel® Storage Utility )
- Check Volume1 HDD RAID 0 Size, HDD1, HDD 2)







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#### <u>RAID 1</u>

- Open Intel® Storage Utility
- Check Volume1, HDD, RAID 1 Size.

intel RAID_Controllers Arrays RAID_Volume1 RAID_Volume1 RAID_Volume1 WDC_WD3500D-00FY80	Information This item displays any storage controllet(s) in the system currently managed by the Intel Storage Utility.

#### For Rebuild/ Replace Disk

- Shut down the system and replace with new hard drive. (Recommended to use same size hard drive)
- BIOS set up (Set first boot device as RAID)
   -Advanced BIOS Features → Hard Disk Boot Priority → RAID\_Volume1

<ul> <li>Standard CMOS Features</li> </ul>	▶ Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
▶ Power Management Setup	Set User Password
▶ PnP/PCI Configurations	Save & Exit Setup
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sc : Quit F9 : Menu in BIOS 10 : Save & Exit Setup	↑↓→← : Select Item



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Phoenix - AwardBIOS CMOS Setup Uti Advanced BIOS Features	lity
CPU Feature     IPress Enter]     Hard Disk Boot Priority     CPU L1 & L2 Cache     IEnabled1     CPU L3 Cache     IEnabled1     Quick Power On Self Test IEnabled1     First Boot Device     ICDROM1     Third Boot Device     IHard Disk1     Boot Other Deuice	Item Help Menu Level ► Select Hard Disk Boot Device Priority
Boot Up Floppy Seek [Enabled] Boot Up NumLock Status [On] Gate A20 Option [Fast] Typematic Rate Setting [Disabled] × Typematic Rate (Chars/Sec) 6 Security Option [Setup] APIC Mode [Enabled] MPS Version Control For OS[1.4]	
†↓→+:Move Enter:Select +/-/PU/PD:Value F10:Save E F5: Previous Values F6: Fail-Safe Defaults F	SC:Exit F1:General Help 7: Optimized Defaults

- Boot to OS
- Open Intel Appilcation Accelerator (Intel® Storage Utility )
- You will see missing RAID Hard Drive.
- Then, Rebuild to this Disk by follow instruction.

🝁 Intel(R) Storag	ge Utility	
File View Actions	Help	
intel.	Intel RAID Controllers      Intel RAID Controllers      Intel(R) 6300ESB SATA RAID Controller      Arrays      Array 0      Array 0      Array 0      Array 0      Array 0      Array 0      Missing Hard Drives      Non-RAID Hard Drives      Non-RAID Hard Drives      Missing Hard Drive      Non-RAID Hard Drives      MDC WD2500ID-MEYRM      Rebuild to this Dis	Information This item displays any storage



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Rebuild RAID Volume Wizard 🛛 🛛 🗙		
<image/> <image/>		
	K Back Next > Cancel	
Rebuild RAID Volume Wiza Select Hard Drive Select the hard drive you	i <b>r d</b>	
Available	Selected Port 1: WDC WD2500JD-00FYB0- Commention deleted Rack up all	
WARNING: Existing data on the selected hard drive will be permanently deleted. Back up all     important data before continuing. 		



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Rebuild RAID Volume Wiz	zard 🛛 🛛 🔀
194	Completing the Rebuild RAID Volume Wizard
K	The following RAID 1 volume will be rebuilt to the selected hard drive. RAID_Volume1
	WARNING: Completing this action will permanently delete all existing data on the selected hard drive. Back up all important data before continuing.
	Select 'Finish' to rebuild the RAID 1 volume.
	KBack Finish Cancel

- Then, RAID will be rebuild.





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