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## Configuring a RAID Set (Intel® Z270/H270 Series)

#### **RAID Levels**

	RAID 0	RAID 1	RAID 5	RAID 10
Minimum Number of Hard Drives	≥2	2	≥3	4
Array Capacity	Number of hard drives * Size of the smallest drive	Size of the smallest drive	(Number of hard drives -1) * Size of the smallest drive	(Number of hard drives/2) * Size of the smallest drive
Fault Tolerance	No	Yes	Yes	Yes

#### To create a RAID set, follow the steps below:

- A. Install SATA hard drive(s) in your computer.
- B. Configure SATA controller mode in BIOS Setup.
- C. Configure a RAID array in RAID BIOS. (Note 1)
- D. Install the SATA RAID/AHCI driver and operating system.

#### Before you begin, please prepare the following items:

- At least two SATA hard drives or SSDs (Note 2) (to ensure optimal performance, it is recommended that you
  use two hard drives with identical model and capacity). (Note 3)
- A Windows setup disk.
- Motherboard driver disk.
- A USB thumb drive.

### 1-1 Configuring SATA Controllers

#### A. Installing hard drives

Install the hard drives/SSDs in the Intel<sup>®</sup> Chipset controlled connectors on the motherboard. Then connect the power connectors from your power supply to the hard drives.

- (Note 1) Skip this step if you do not want to create RAID array on the SATA controller.
- (Note 2) An M.2 PCIe SSD or an U.2 SSD cannot be used to set up a RAID set either with an M.2 SATA SSD or a SATA hard drive.
- (Note 3) Refer to Chapter 1, "Internal Connectors," for the installation notices for the U.2, M.2, and SATA connectors.

#### B. Configuring SATA controller mode in BIOS Setup

Make sure to configure the SATA controller mode correctly in system BIOS Setup.

#### Step 1:

Turn on your computer and press <Delete> to enter BIOS Setup during the POST (Power-On Self-Test). Go to Peripherals\SATA And RST Configuration, make sure SATA Controller(s) is enabled. To create RAID, set SATA Mode Selection to Intel RST Premium With Intel Optane System Acceleration (Figure 1).



Figure 1

Step 2:

To use the EZ RAID feature, follow the steps in "C-1." To configure UEFI RAID, follow the steps in "C-2." To enter the legacy RAID ROM, refer to "C-3" for more information. Finally, save the settings and exit BIOS Setup.



The BIOS Setup menus described in this section may differ from the exact settings for your motherboard. The actual BIOS Setup menu options you will see shall depend on the motherboard you have and the BIOS version.

#### C-1. Using EZ RAID

GIGABYTE motherboards provide you with the EZ RAID feature, allowing you to quickly configure a RAID array with simplified steps.

Step 1:

After restarting the computer, enter the BIOS Setup and go to **Peripherals**. Press <Enter> on the **EZ RAID** item. Select the type of hard drives you use for RAID in the **Type** tab and then press <Enter>. (Figure 2)



Step 2:

Figure 2

Go to the **Mode** tab to select a RAID level. RAID levels supported include RAID 0, RAID 1, RAID 10, and RAID 5 (the selections available depend on the number of the hard drives being installed). Then press <Enter> to move to the **Create** tab. Click **Proceed** to begin (Figure 3).



Figure 3

After completing, you'll be brought back to the Intel(R) Rapid Storage Technology screen. Under RAID Volumes you can see the new RAID volume. To see more detailed information, press <Enter> on the volume to check for information on RAID level, stripe block size, array name, and array capacity, etc. (Figure 4).

GIGABYTE					09/22/2016 1 2.52		
M.I.T.	System	BIOS	Peripherals	Chipset	Power	Save & Exit	Thursday 12:52
RAID VOLU	ME INFO						
Volume Act	ions						
Delete							
N				\/-l···	1		
PAID Level					n(Stripe)		
Strin Size:				16KB	o(scripe)		
Size:				119.2	GB		
Status:				Norm	nal		
Bootable:				Yes			
SATA 0.2, K	ingston SSDNo	w V Series 6	4GB 06J9A0522	807, 59.6GB			
Exc. D.							
Ba	ICK						
			<b>C</b> :				

Figure 4

#### **Delete RAID Volume**

To delete a RAID array, press <Enter> on the volume to be deleted on the Intel(R) Rapid Storage Technology screen. After entering the RAID VOLUME INFO screen, press <Enter> on Delete to enter the Delete screen. Press <Enter> on Yes (Figure 5).



Figure 5

#### C-2. UEFI RAID Configuration

Only Windows 10/8.1 64-bit supports UEFI RAID configuration.

Step 1:

In BIOS Setup, go to **BIOS Features** and set **Windows 8/10 Features** to **Windows 8/10** and **CSM Support** to **Disabled** (Figure 6). Save the changes and exit BIOS Setup.

M.I.T.     System     BIOS     Peripherals     Chipset     Power     Save & Exit       Security Option FullScreen LOGO Show     System Enabled       Boot Option #1     UEFI: USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     P1: PIONEER DVD-RW DVR-220L USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #3     USB 2.0 USB Flash Drive 0.00       C0/DVD RoM Drive BBS Priorities Hard Drive BBS Priorities       Fast Boot     Disabled       Mouse Speed     1X       Windows 8/10 Features User Dasword User Password       User Dask	
MLT.     System     BIOS     Peripherals     Chipset     Power     Save & Exit       Security Option Full Screen LOGO Show     System Enabled       Boot Option #0     UEF: USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #1     UEF: USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     P1: PIONEER DVD-RW DVR-220L       Boot Option #3     USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     Hard Drive BBS Priorities       Hard Drive BBS Priorities     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10       User Password User Password     Secure Boot	2/2016
MLT.     System     BOS     Peripherals     Chipset     Power     Save & Exit       Security Option     Full     System     Enabled       Boot Option Priorities     Enabled       Boot Option #1     UEF: USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     P1: PIONEER DVD-RW DVR-220L       Boot Option #3     USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     Hard Drive BBS Priorities       Fast Boot     Disabled       Mouse Speed     1X       Windows 8/10     Disabled       User Password     User Password       User Dassword     Scure Boot	sday 🛛 🕹
Security Option     System       Full Screen LOGO Show     Enabled       Boot Option Priorities     Enabled       Boot Option #1     UEFL USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     P1: PIONEER DVD-RW DVR-220L       Boot Option #3     USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     Hard Drive BBS Priorities       Hard Drive BBS Priorities     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10       User Password     User Password       User Cont     User Password	
Security Option Full Screen LOGO Show     System Enabled       Boot Option #1     UEFL USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     Displace       Boot Option #2     Displace       Boot Option #3     Displace       CD/DVD ROM Drive BBS Priorities     Displace       Hard Drive BBS Priorities     Displace       Mouse Speed     1 X       Windows 8/10 Features Case Spoord     Windows 8/10 Disabled       Administrator Password User Password     Secure Boot	
Security Option Full Screen LOGO Show Enabled Boot Option #1 UEF: USB 2.0 USB Flash Drive 0.00, Partition 1 Boot Option #2 UEF: USB 2.0 USB Flash Drive 0.00, Partition 1 Boot Option #3 USB 2.0 USB Flash Drive 0.00 CD/DVD ROM Drive BBS Prionties Hard Drive BBS Prionties Fast Boot Disabled Mouse Speed 1X Windows 8/10 Features Windows 8/10 Features CGM Support CGM Support	
Boot Option Priorities     Ensued       Boot Option #1     UEFL USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     P1: PIONEER DVD-RW_DVR-220L       Boot Option #3     USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     Hard Drive BBS Priorities       Fast Boot     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10       User Password     User Password       Secure Boot     Linsued	
Boot Option #1     UEFE USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #3     P1: PIONEER DVD-RW DVR-220L       Boot Option #3     USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     Hard Drive BBS Priorities       Fast Boot     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10       CSM Support     Disabled       Administrator Password     Secure Boot	
Boot Option #1     UEFL USB 2.0 USB Flash Drive 0.00, Partition 1       Boot Option #2     P1: PIONEER DVD-RW_DVR-220L USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     USB 2.0 USB Flash Drive 0.00       Fast Boot     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10 Detabled       Administrator Password User Password     Secure Boot	
Boot Option #2 Boot Option #3 CD/DVD ROM Drive BBS Priorities Hard Drive BBS Priorities Hard Drive BBS Priorities Fast Boot Disabled Mouse Speed 1 X Windows 8/10 Features CSM Support Administrator Password User Password Secure Boot	n 1
Boot Option #2     P1: PIONEER DVD-RW DVR-20L       Boot Option #3     USB 2.0 USB Flash Drive 0.00       CD/DVD ROM Drive BBS Priorities     USB 2.0 USB Flash Drive 0.00       Fast Boot     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10       CSM Support     Disabled       Administrator Password     Use Password       Secure Boot     Secure Boot	
Boot Option #3 USB 2.0 USB Flash Drive 0.00 CD/DVD ROM Drive BBS Priorities Hard Drive BBS Priorities Fast Boot Disabled Mouse Speed 1 X Windows 8/10 Features Windows 8/10 Features Administrator Password User Password Secure Boot	
CD/DVD ROM Drive BBS Priorities Hard Drive BBS Priorities Fast Boot Disabled Mouse Speed 1X Windows 8/10 Features Windows 8/10 CSM Support User Password Secure Boot	
CD/DVD ROM Drive BBS Priorities Hard Drive BBS Priorities Hard Drive BBS Priorities Fast Boot Mouse Speed 1 X Windows 8/10 Features Windows 8/10 Features Windows 8/10 Peabled Administrator Password User Password Secure Boot	
Hard Drive BBS Priorities Fast Boot Disabled Mouse Speed 1 X Windows 8/10 Features Windows 8/10 CGM Support Administrator Password User Password Secure Boot	
Fast Boot     Disabled       Mouse Speed     1 X       Windows 8/10 Features     Windows 8/10 Disabled       Administrator Password User Password     Disabled       Secure Boot     Secure Boot	
Mouse Speed 1 X Windows 8/10 Features Windows 8/10 CGM Support Administrator Password User Password Secure Boot	
Windows 8/10 Features Windows 8/10 CSM Support Administrator Password User Password Secure Boot	
CSM Support Disabled User Password User Password User Password User Password	
Administrator Password User Password Secure Boot	
User Password Secure Boot	
Secure Boot	
Secure Boot	
Alt Help	

Figure 6

Step 2:

After the system reboot, enter BIOS Setup again. Then enter the **Peripherals\Intel(R) Rapid Storage Technology** sub-menu (Figure 7).



Figure 7

Step 3:

On the Intel(R) Rapid Storage Technology menu, press <Enter> on Create RAID Volume to enter the Create RAID Volume screen. Enter a volume name with 1~16 letters (letters cannot be special characters) under the Name item and press <Enter>. Then, select a RAID level (Figure 8). RAID levels supported include RAID 0, RAID 1, RAID 10, and RAID 5 (the selections available depend on the number of the hard drives being installed). Next, use the down arrow key to move to Select Disks.

	GIGABYTE	
M.I.T. System BIC	DS Peripherals Chipset Power Save & Exit	<sup>09/22/2016</sup> 12:57
Create RAID Volume		
Name: RAID Level:	Volume1 RAID0(Stripe)	
Select Disks: SATA 0.0, Kingston SSDNow V Ser	ries 64GB 06J9A0037707, 59.60	
SATA 0.2, Kingston SSDNow V Ser	ries 64GE	
Strip Size: Capacity (MB):	RAID0(Stripe) RAID1(Mirror)	
Create Volume	Recovery	
Esc Back		

Step 4:

Figure 8

Under **Select Disks** item, select the hard drives to be included in the RAID array. Press the <Space> key on the hard drives to be selected (selected hard drives are marked with "X"). Then set the stripe block size (Figure 9). The stripe block size can be set from 4 KB to 128 KB. Once you have selected the stripe block size, set the volume capacity.

em BIOS SSDNow V Series 64G	Peripherals Ch	Volume1 RAID0(Stripe)	Save & Exit	Thursday	° 12:5
SSDNow V Series 64G	Strip Size: E 4Ki 8 8Ki 16K	Volume1 RAID0(Stripe) &			
SSDNow V Series 64G SSDNow V Series 64G	E E E E SKI SKI	Volume1 RAID0(Stripe)			
SSDNow V Series 64G SSDNow V Series 64G	E E E B B KI B KI	RAID0(Stripe)			
SSDNow V Series 64G SSDNow V Series 64G	Strip Size: E 4KI E 8KI 8KI	8			
SSDNow V Series 64G SSDNow V Series 64G	E 4KI 8 8KI 8 16K	3			
SSDNow V Series 64G	е 4КІ 8КІ 16К	3			
55DNow V Series 64G	4KI 8KI 16K	3			
	8KI	3			
	16K				
	101	B			
	32K	в			
	64K	В			
lieke	128	(B			
1543					
		sks 128	sks 128KB	32KB 64KB 64KB	32KB 64KB 64KB

Step 5:

After setting the capacity, move to Create Volume and press <Enter> to begin. (Figure 10)

	-		G	GABYTE				09/22/2016
M.I.T.	System	BIOS	Peripherals	Chipset	Power	Save & Exit		Thursday 12:5
Create RAID V	olume							
Name:				Vol	ume1			
RAID Level:				RAI	D0(Stripe)			
Select Disks:								
SATA 0.0, King	ston SSDNow	V Series 64	GB 06J9A003	7707, 59.6(X				
SATA 0.2, King	ston SSDNow	V Series 64	4GB 06J9A052	2807, 59.6( X				
Strip Size:				16K	в			
Capacity (MB)				122	110			
Create Volum								
Esc Back								
				<b>T</b>			-	
			Г					

Figure 10

After completing, you'll be brought back to the Intel(R) Rapid Storage Technology screen. Under RAID Volumes you can see the new RAID volume. To see more detailed information, press <Enter> on the volume to check for information on RAID level, stripe block size, array name, and array capacity, etc. (Figure 11)



Figure 11

#### **Delete RAID Volume**

To delete a RAID array, press <Enter> on the volume to be deleted on the Intel(R) Rapid Storage Technology screen. After entering the RAID VOLUME INFO screen, press <Enter> on Delete to enter the Delete screen. Press <Enter> on Yes (Figure 12).



Figure 12

#### C-3. Configuring Legacy RAID ROM

Enter the Intel® legacy RAID BIOS setup utility to configure a RAID array. Skip this step and proceed with the installation of Windows operating system for a non-RAID configuration.

#### Step 1:

After the POST memory test begins and before the operating system boot begins, look for a message which says "Press <Ctrl-I> to enter Configuration Utility" (Figure 13). Press <Ctrl> + <I> to enter the RAID Configuration Utility.



Figure 13

Step 2:

After you press <Ctrl> + <l>, the MAIN MENU screen will appear (Figure 14).

#### **Create RAID Volume**

If you want to create a RAID array, select Create RAID Volume in MAIN MENU and press < Enter>.



Figure 14

Step 3:

After entering the CREATE VOLUME MENU screen, enter a volume name with 1~16 letters (letters cannot be special characters) under the Name item and press <Enter>. Then, select a RAID level (Figure 15). RAID levels supported include RAID 0, RAID 1, RAID 10, and RAID 5 (the selections available depend on the number of the hard drives being installed). Press <Enter> to proceed.

I	intel(R) Rapid Storage Tec Copyright (C) Intel C	chnology - Option ROM - 15.2.0.264 orporation. All Rights Reserved.	19		
	CREATI Na RAID Le Di Strip S Capac S	VOLUME MENU ]         me : Volume0         vel : RAID0(Stripe)         sks : Select Disks         size : 16KB         sizy : 16KB         ync : N/A         Create Volume			
		= [ HELP ]			
RAID 0: Stripes data (performance).					
[↑↓]-Change	[TAB]-Next	[ESC]-Previous Menu	[ENTER]-Select		
		Figure 15			

Step 4:

Under Disks item, select the hard drives to be included in the RAID array. If only two hard drives are installed, they will be automatically assigned to the array. Set the stripe block size (Figure 16) if necessary. The stripe block size can be set from 4 KB to 128 KB. Once you have selected the stripe block size, press <Enter>.

1	ntel(R) Rapid Storage Tech Copyright (C) Intel Co	nnology - Option ROM - 15.2.0.20 rporation. All Rights Reserved.	549		
	CREATE Nar Nar RAID Lev Dis Strip Si Capaci Sy	VOLUME MENU ] ne: Volume0 vel: RAID0(Stripe) ks: Select Disks ze: 16KB ty: 931.5 GB ne: N/A Create Volume			
		[ HELP ]			
The following are typical values:					
	RAID0 RAID10 RAID5	- 128KB ) - 64KB - 64KB			
[↑↓]-Change	[TAB]-Next	[ESC]-Previous Menu	[ENTER]-Select		
		Figure 16			

Figure 16

#### Step 5:

Enter the array capacity and press <Enter>. Finally press <Enter> on the **Create Volume** item to begin creating the RAID array. When prompted to confirm whether to create this volume, press <Y> to confirm or <N> to cancel (Figure 17).

	]	Intel(R) Rapid Storage Techn Copyright(C) Intel Corp	ology - Option ROM - 15.2.0.26 oration. All Rights Reserved.	549
		[ CREATE V Name RAID Level Disks Strip Size Capacity	OLUME MENU ] : Volume0 : RAID0(Stripe) : Select Disks : 128 MB : 931.5 GB	
	V	VARNING : ALL DATA ON Are you sure you want	SELECTED DISKS WILL BE I to create this volume? (Y/N) :	LOST.
	[	Press ENTER to c	reate the specified volume.	
[↑	↓]-Change	[TAB]-Next	[ESC]-Previous Menu	[ENTER]-Select
			4	



When completed, you can see detailed information about the RAID array in the **DISK/VOLUME INFORMATION** section, including the RAID level, stripe block size, array name, and array capacity, etc. (Figure 18)



To exit the RAID BIOS utility, press <Esc> or select 6. Exit in MAIN MENU.

Now, you can proceed to install the SATA RAID/AHCI driver and operating system.

#### **Recovery Volume Options**

Intel<sup>®</sup> Rapid Recover Technology provides data protection by allowing users to easily restore data and system operation using a designated recovery drive. With the Rapid Recovery Technology, which employs RAID 1 functionality, users can copy the data from the master drive to the recovery drive; if needed, the data on the recovery drive can be restored back to the master drive.

Before you begin:

- The recovery drive must have equal or greater capacity than the master drive.
- A recovery volume can be created with two hard drives only. A recovery volume and a RAID array cannot co-exist in the system at the same time, that is, if you have already created a recovery volume, you are unable to create a RAID array.
- By default, only the master drive can be viewed in the operating system; the recovery drive is hidden.

Step 1:

Select Create RAID Volume in MAIN MENU and press < Enter> (Figure 19).



Step 2:

After entering the volume name, select Recovery under the RAID Level item and press <Enter> (Figure 20).

	Intel(R) Rapid Storage Technolo Copyright (C) Intel Corpor	ogy - Option ROM - 15.2.0.2649 ation. All Rights Reserved.			
	[ CREATE VO Name : RAID Level : Disks : Strip Size : Capacity : Syne : [ HI Recovery: Copies data betwe	LUME MENU ] Volume0 Recovery Select Disks N/A 465.7 GB Continuous Create Volume ELP ] en a master and a recovery disk.			
[↑↓]-Change	[TAB]-Next	[ESC]-Previous Menu	[ENTER]-Select		
Figure 20					

Step 3:

Press <Enter> under the **Select Disks** item. In the **SELECT DISKS** box, press <Tab> on the hard drive you want to use for the master drive and press <Space> on the hard drive you want to use for the recovery drive. (Make sure the recovery drive has equal or larger capacity than the master drive.) Then press <Enter> to confirm (Figure 21).





Step 4:

Under **Sync**, select **Continuous** or **On Request** (Figure 22). When set to **Continuous**, changes made to the data on the master drive will be automatically and continuously copied to the recovery drive when both hard drives are installed in the system. **On Request** allows users to update data from the master drive to the recovery drive manually using the Intel<sup>®</sup> Rapid Storage Technology utility in the operating system. **On Request** allows users to restore the master drive to a previous state.

]	ntel(R) Rapid Storage Tec Copyright (C) Intel C	chnology - Option ROM - 15.2.0.264 orporation. All Rights Reserved.	9		
	CREATI Na RAID Le Di Strip S Capac S	E VOLUME MENU ] me : Volume0 vel : Recovery sks: Select Disks size : N/A prity : 0.0 GB yne : Continuous Create Volume			
		= [ HELP ]			
Select a sync option: On Request: volume is updated manually Continuous: volume is updated automatically					
[↑↓]-Change	[TAB]-Next	[ESC]-Previous Menu	[ENTER]-Select		
·		Figure 22			

Step 5:

Finally press <Enter> on the **Create Volume** item to begin creating the Recovery Volume and follow the onscreen instructions to complete.

#### Delete RAID Volume

To delete a RAID array, select **Delete RAID Volume** in **MAIN MENU** and press <Enter>. In the **DELETE VOLUME MENU** section, use the up or down arrow key to select the array to be deleted and press <Delete>. When prompted to confirm your selection (Figure 23), press <Y> to confirm or <N> to abort.





#### **Acceleration Options**

This option allows you to view the status of your accelerated drive/volume (Figure 24) created using the Intel<sup>®</sup> IRST utility. In case you are unable to run the Intel<sup>®</sup> IRST utility due to an application error or operating system issue, you will need to remove acceleration or manually enable synchronization (Maximized mode only) using this option in the RAID ROM utility.

Steps:

Select Acceleration Options in MAIN MENU and press < Enter>.

To remove the acceleration, select the accelerated drive/volume, press <R>, and press <Y> to confirm.

To synchronize data from the cache device to the accelerated drive/volume, press <S> and press <Y> to confirm.



### 1-2 Installing the SATA RAID/AHCI Driver and Operating System

With the correct BIOS settings, you are ready to install the operating system.

#### A. Installing Windows

As some operating systems already include Intel<sup>®</sup> SATA RAID/AHCI driver, you do not need to install separate RAID/AHCI driver during the Windows installation process. After the operating system is installed, we recommend that you install all required drivers from the motherboard driver disk using "Xpress Install" to ensure system performance and compatibility. If the operating system to be installed requires that you provide additional SATA RAID/AHCI driver during the OS installation process, please refer to the steps below:

Step 1:

Copy the IRST folder under the \Boot folder in the driver disk to your USB thumb drive.

Step 2:

Boot from the Windows setup disk and perform standard OS installation steps. When the screen requesting you to load the driver appears, select **Browse**.

Step 3:

Insert the USB thumb drive and then browse to the location of the driver. The locations of the drivers are as follows: Windows 32-bit: \iRST\f6flpy-x86 Windows 64-bit: \iRST\f6flpy-x64

Step 4:

When a screen as shown in Figure 1 appears, select Intel Chipset SATA RAID Controller and click Next to load the driver and continue the OS installation.



Figure 1

#### B. Rebuilding an Array

Rebuilding is the process of restoring data to a hard drive from other drives in the array. Rebuilding applies only to fault-tolerant arrays such as RAID 1, RAID 5 or RAID 10 arrays. The procedures below assume a new drive is added to replace a failed drive to rebuild a RAID 1 array. (Note: The new drive must have equal or greater capacity than the old one.)

Turn off your computer and replace the failed hard drive with a new one. Restart your computer.

#### · Performing the Rebuild in the Operating System

While in the operating system, make sure the chipset driver has been installed from the motherboard driver disk. Then launch the Intel® Rapid Storage Technology utility from the Start menu.



SATA disk on Controller 0. Port 5 (932 G8) More help Step 2:



Select a new drive to rebuild the RAID and click Rebuild.

Step 1:

Go to the Manage menu and click Rebuild to another disk in Manage Volume.



The Status item on the left of the screen displays the rebuild progress. After the RAID 1 volume rebuilding, the Status will display as Normal.

#### Restoring the Master Drive to a Previous State (for Recovery Volume only)

When two hard drives are set to Recovery Volume in Update on Request mode, you can restore the master drive data to the last backup state when needed. For example, in case the master drive detects a virus, you can restore the recovery drive data to the master drive.

#### Step 1:

Select 4. Recovery Volume Options in the MAIN MENU of the Intel<sup>®</sup> RAID Configuration Utility. On the RECOVERY VOLUMES OPTIONS menu, select Enable Only Recovery Disk to show the recovery drive in the operating system. Follow the on-screen instructions to complete and exit the RAID Configuration Utility.





#### Step 2:

Go to the Manage menu of the Intel<sup>®</sup> Rapid Storage Technology utility and click **Recover data** in Manage Volume.



The **Status** item on the left of the screen displays the recovering status. After the recovery volume is completed, the **Status** will display as **Normal**.

#### More help Step 3:

Click Yes to begin the data recovery.

Yes