

# ZOTAC<sup>®</sup> ZBOX



*USER'S MANUAL*

# ZOTAC ZBOX

## User's Manual



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Every effort has been made to ensure that the contents of this manual are correct and up to date. However, the manufacturer makes no guarantee regarding the accuracy of its contents, and reserves the right to make changes without prior notice.

### **CAUTION:**

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

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## Product specifications

- ❑ **Chipset**
  - ❖ Intel H87 Chipset
- ❑ **Product Size**
  - ❖ 188mm x 188mm x 51mm
- ❑ **Microprocessor support**
  - ❖ 4th Generation Intel Core processor ready (max TDP: 45W)
  - ❖ LGA1150 socket
- ❑ **Operating systems:**
  - ❖ Supports Windows 7 32bit/64bit and Windows 8 32bit/64bit
- ❑ **System Memory support**
  - ❖ Two 204-pin SO-DIMMs DDR3 1600/1333/1066
  - ❖ Up to 16 GB of memory
- ❑ **USB Ports**
  - ❖ Four USB 3.0 ports
- ❑ **Onboard Serial ATA**
  - ❖ SATA 6.0 Gb/s transfer rates
  - ❖ Supports one 2.5-inch SATA HDD or SSD (max 9.5mm height)
- ❑ **Expansion slot**
  - ❖ One mSATA, 6.0 Gb/s transfer rates
- ❑ **Onboard Dual LAN**
  - ❖ Supports 10/100/1000 Mbps operation
  - ❖ Supports IEEE 802.3
- ❑ **WiFi/Bluetooth support**
  - ❖ Compliant with IEEE802.11ac
  - ❖ High speed wireless connection and enhanced wireless security
  - ❖ Fully qualified Bluetooth v4.0
- ❑ **Onboard Audio**
  - ❖ Optical SPDIF Output
  - ❖ Stereo analog audio output and Microphone input
- ❑ **Green Function**
  - ❖ Supports ACPI (Advanced Configuration and Power Interface)
- ❑ **Onboard Graphics support**
  - ❖ Integrated Intel HD Graphics 4600
  - ❖ DVI-I, Dual DP output

## Safety information

Your ZOTAC ZBOX is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

### Setting up your system

- ❖ Read and follow all instructions in the documentation before you operate your system.
  - ❖ Do not use this product near water or a heat source such as a radiator.
  - ❖ Set up the system on a stable surface with the provided stand. Never use the system alone without the stand.
  - ❖ Openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
  - ❖ Use this product in environments with ambient temperatures between 0°C and 35°C.
- ☞ If you use an extension cord, please use the UL listed cord and make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.

### Care during use

- ❖ Do not walk on the power cord or allow anything to rest on it.
- ❖ Do not spill water or any other liquids on your system.
- ❖ When the system is turned off, a small amount of electrical current still flows. Always unplug all power, modem, and network cables from the power outlets before cleaning the system.
- ❖ If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.
  - The system performance changes.

## Welcome

Congratulations on your purchase of the ZOTAC ZBOX. The following illustration displays the package contents of your new ZOTAC ZBOX. If any of the below items is damaged or missed, contact your retailer.

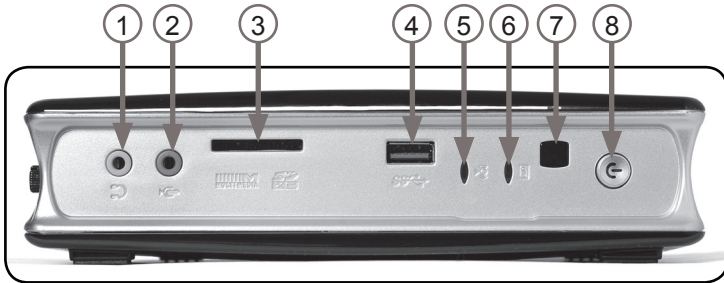
### Package contents

- 1 x ZOTAC ZBOX
- 1 x Stand
- 1 x VESA mount
- 1 x AC Adapter
- 1 x DVI-to-VGA Adapter
- 1 x DVI-to-HDMI Adapter
- 1 x Power Cord
- 1 x Antenna
- 1 x Support DVD
- 1 x User Manual & Warranty Card
- 1 x Quick Start Guide



# Getting to know your ZOTAC ZBOX

## Front view



Refer to the diagram below to identify the components on this side of the system

### 1. Headphone/Audio Out jack

The stereo headphone jack (3.5mm) is used to connect the system's audio out signal to amplified speakers or headphones.

### 2. Microphone jack

The microphone jack is designed to connect the microphone used for video conferencing, voice narrations or simple audio recordings.

### 3. Memory card slot

The built-in memory card reader reads SD/SDHC/SDXC/MMC cards used in devices such as digital cameras, MP3 players, mobile phones and PDAs.

### 4. USB 3.0 port

The USB 3.0 port supports SuperSpeed USB 3.0 devices and is backwards compatible with USB 2.0/1.1 devices. Use this port for USB 3.0 devices for maximum performance with compatible devices.

### 5. WiFi LED

The WiFi LED blinks when data is being transferred over WiFi.

### 6. Hard disk LED

The hard disk LED blinks when data is being written onto or read from the hard disk drive.

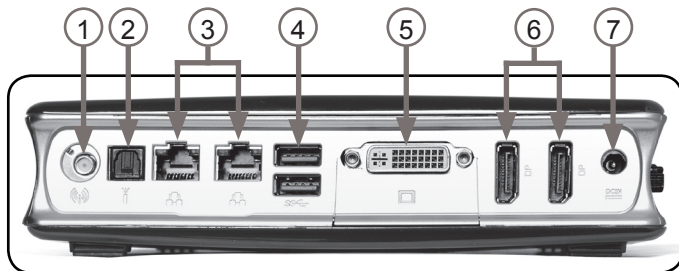
### 7. IR receiver

The integrated IR receiver is used to receive signals from the IR remote control.

### 8. Power switch

The power switch allows powering ON and OFF the system.

## Rear view



Refer to the diagram below to identify the components on this side of the system.

### 1. WiFi antenna connector

The WiFi antenna connector supports the included WiFi antenna.

### 2. Optical (SPDIF OUT) jack

The optical S/PDIF output enables connectivity with digital audio receivers and speakers for crystal clear digital audio and surround sound from compatible soundtracks.

### 3. Ethernet ports

The eight-pin RJ-45 LAN port supports standard Ethernet cable for connection to a local area network (LAN) with speeds of 10/100/1000Mbps.

### 4. USB 3.0 ports

The USB 3.0 port supports the SuperSpeed USB 3.0 devices and is backwards compatible with USB 2.0/1.1 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

### 5. DVI-I port

The DVI-I port supports connection to digital monitors and displays. Analog monitors can be connected using the included DVI-to-VGA adapter.

### 6. DisplayPorts

The DisplayPort outputs support displays with resolutions up to 3840x2160 @ 60Hz.

### 7. Power input (DC19V)

The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the PC. To prevent damage to the PC, always use the supplied power adapter.

☞ The power adapter may become warm to hot when in use. Do not cover the adapter and keep it away from your body.

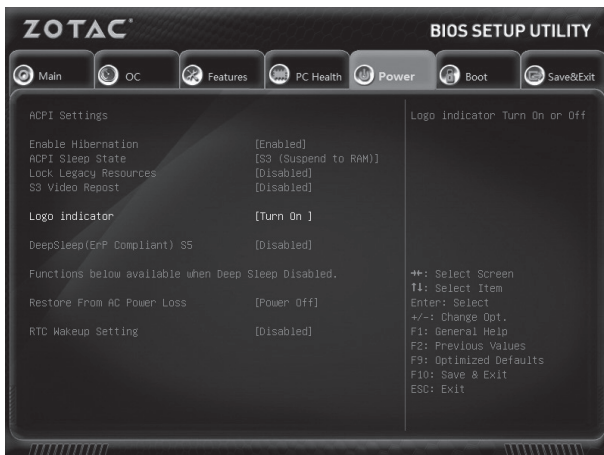


## BIOS settings of specific functions

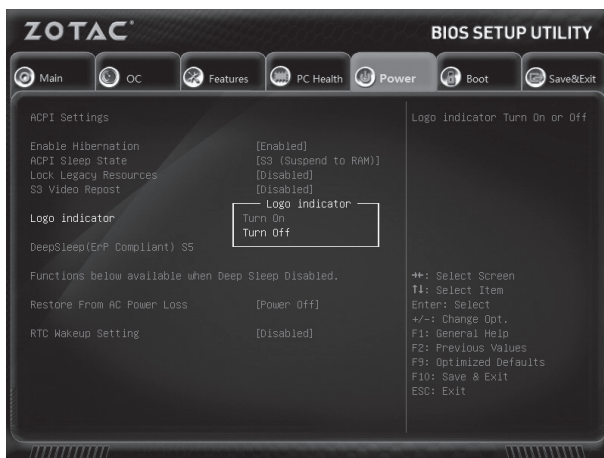
ZOTAC ZBOX has some specific functions which can be enabled or disabled in BIOS settings, such as LED indicator, and CIR controller.

### How to disable the ring LED indicator

1. Turn on the ZBOX mini-PC, then press <Delete> to enter the BIOS SETUP UTILITY.
2. Use the arrow keys to navigate to the **Power** menu and select **Logo Indicator**.



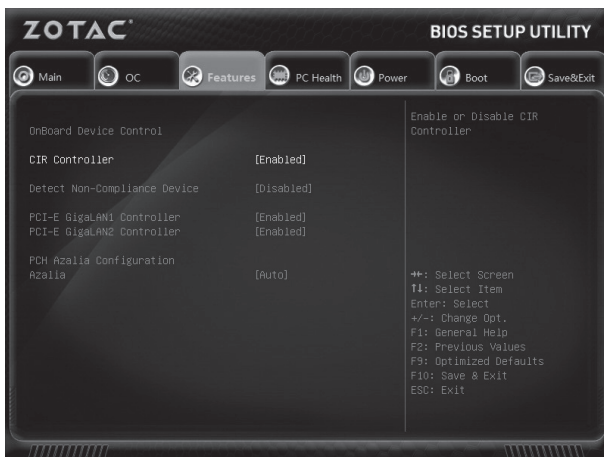
3. Press <Enter> and select **Turn off**.



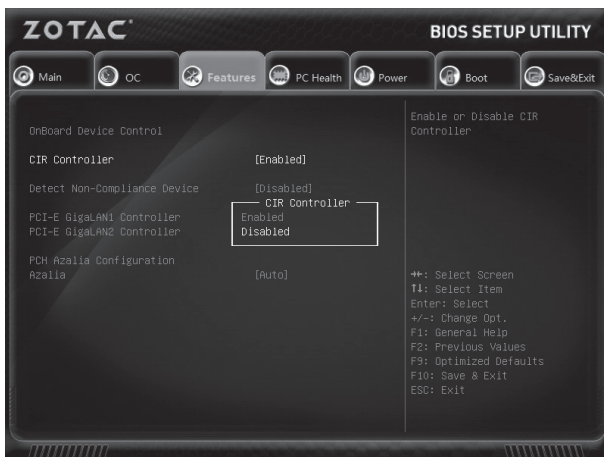
4. Press F10 to save the configuration and exit.

## How to disable integrated IR receiver

1. Use the arrow keys to navigate to **Features > OnBoard Device Control**, and select **CIR Controller**.



2. Enter **CIR Controller** and select **Disabled**.



**Enabled:** enable the internal IR receiver (default)

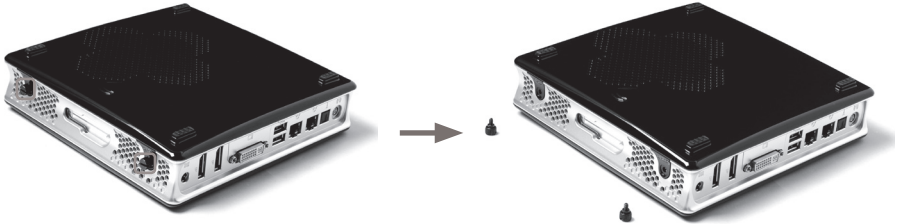
**Disabled:** disable the internal IR receiver

3. Press F10 to save the configuration and exit.

## Installing Hardware inside ZOTAC ZBOX

Before installing hardware, please follow the instructions below to remove the cover of your ZOTAC ZBOX.

1. Unscrew.

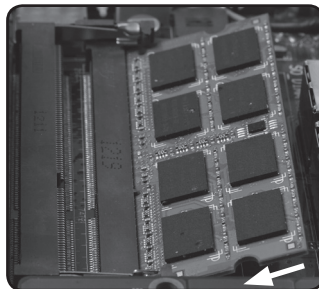


2. Gently remove the cover as the image below.



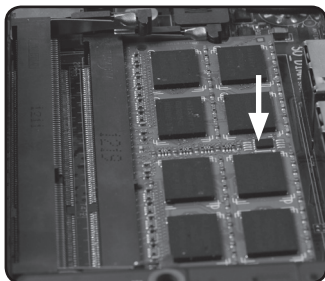
## Installing a memory module

1. Locate the SO-DIMM memory slots and insert a SO-DIMM memory module into the slot at a 45 degree angle.



Note: When installing two SO-DIMM memory modules, please insert a module into the lower slot first.

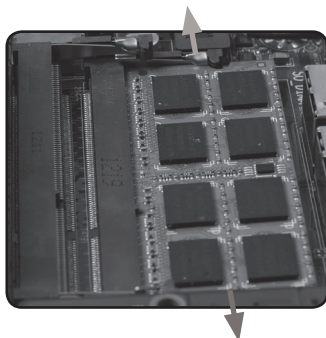
2. Gently press down on the memory module until it locks into place by the arms of the memory slot.



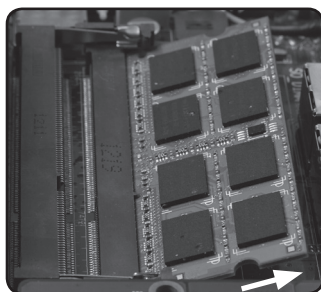
Note: This ZOTAC ZBOX accommodates two DDR3 SO-DIMM memory modules. You must install at least one module in one of the two slots.

## Removing the memory module

1. Locate the SO-DIMM memory slot and gently press the two arms securing the memory module outwards, as shown in the image below, to release the memory module.

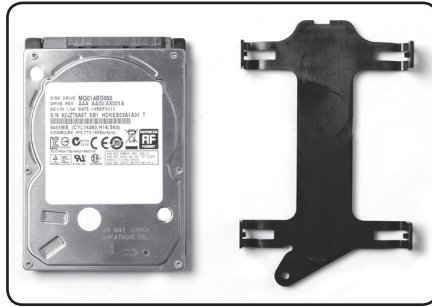


2. Remove the memory module from the slot at a 45-degree angle.

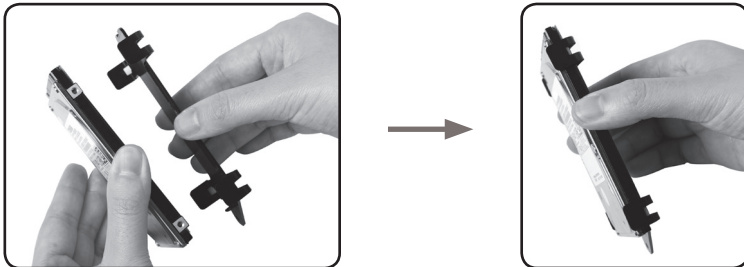


## Installing a hard disk

1. Locate the 2.5-inch SATA hard disk or SSD and the hard disk bracket.



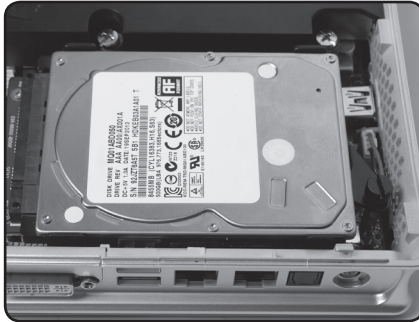
2. Install the hard disk or SSD to the hard disk bracket.



3. Insert the hard disk or SSD into the slot at a 45 degree angle and gently slide into the SATA connector.

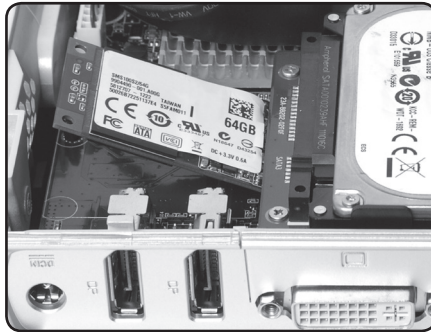


4. Install the thumb screw.

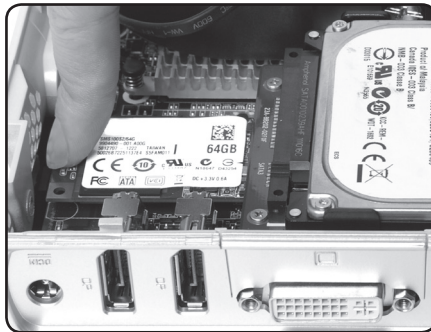


## Installing mSATA SSD module

1. Locate the mSATA SSD slot and insert an mSATA SSD module into the slot at a 45 degree angle.

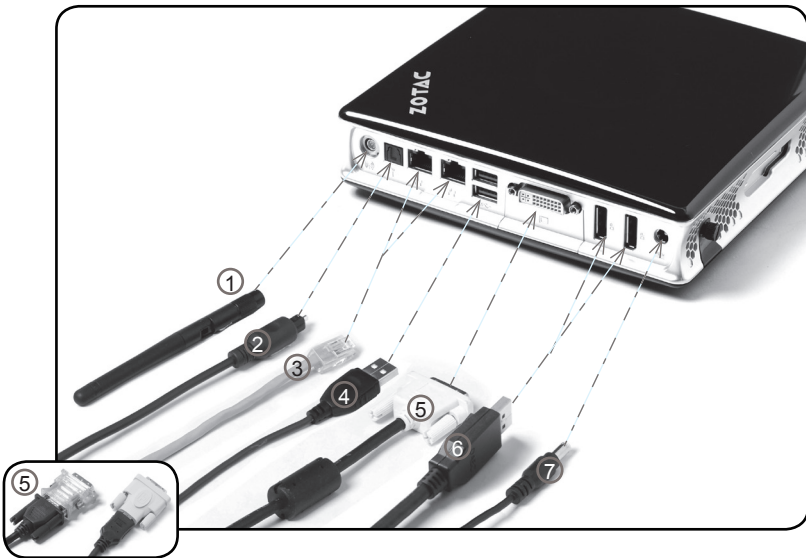


2. Gently press down on the mSATA SSD module until it locks into place by the arms of the slot.



## Setting up your ZOTAC ZBOX

Please connect your peripherals before using your ZOTAC ZBOX



### 1. Connecting the WiFi antenna

Connect the WiFi antenna to the WiFi antenna connector.

### 2. Connecting an optical S/PDIF output

Connect a digital audio device via optical S/PDIF output.

### 3. Connecting to a network device

Connect one end of a network cable to the LAN port on the system rear panel and the other end to a hub or switch.

### 4. Connecting to USB 3.0 devices

Connect USB 3.0 devices such as external hard drives, SSDs and flash drives to the USB 3.0 port.



### **5. Connecting to a DVI, HDMI or VGA display**

Connect one end of a DVI/HDMI/VGA cable to an HDTV or monitor, and the other end to the DVI port on the system rear panel. If using an HDMI or VGA connection, please use the included DVI-to-HDMI or DVI-to-VGA adapter.

### **6. Connecting a DisplayPort display**

Connect the DisplayPort connector to the DP port.

### **7. Turning on the system**

Connect the supplied AC adapter to the DC IN jack on the system rear panel and then press the power switch on the front panel to turn on the system.

☞ When your ZOTAC ZBOX is not in use, unplug the power adapter or switch off the AC outlet to save on power consumption.

## Positioning your ZOTAC ZBOX

- ☞ Do not position the ZOTAC ZBOX where the ventilation holes are covered. To guarantee proper use, leave 4 inches (10 cm) spacing in front of the ventilation holes.
- ☞ ZOTAC mini-PC system provide ample connectivities in tiny space, please choose connectors and cables in appropriate size to avoid interference.

## Installing the stand

Position your ZOTAC ZBOX upright with the supplied stand. To do so :

1. Locate the key hole on the bottom of the ZOTAC ZBOX.
  2. Align the stand key to the ZBOX key hole and slide the stand forward to lock into place..
- ☞ Do not place your ZOTAC ZBOX on the desktop without the stand.



## Installing your ZOTAC ZBOX to a monitor

You can also install your ZOTAC ZBOX to the back of a monitor. To do so:

1. Secure the VESA mount to your monitor with four screws (HNM/M4x8).
  2. Place your ZOTAC ZBOX on the VESA mount noting the correct alignment and snap the ZBOX into place on the mount.
- ☞ To fasten the VESA mount, your monitor must comply with VESA75 Or VESA100 standard.
  - ☞ Mechanical Loading Stability - Mounting of the equipment on the backside of the monitor should be lay this equipment on a reliable surface when install. A drop or fall could cause injury.
  - ☞ If the total weight of your monitor and ZOTAC ZBOX is over 7kg, the system may be unstable.



## Installing drivers and software

### Installing an operating system

The ZOTAC ZBOX does not ship with an operating system preinstalled. The user must install the operating system before the ZOTAC ZBOX can be used. The following operating systems are supported:

- Windows 7
- Windows 8

Follow the instructions below to install an operating system:

1. Attach external DVD drive via USB port
2. Insert disk for operating system (Windows or Linux).
3. Wait for the ZOTAC ZBOX to boot from the disk.
4. Follow the onscreen directions to install the operating system.
5. Install system drivers to gain full functionality of the ZOTAC ZBOX hardware and features.

### Installing system drivers

Before you can use the full features of the ZOTAC ZBOX, the system drivers must be installed. The following types of operating systems are supported by the ZOTAC ZBOX driver DVD:

- Windows 7
- Windows 8

Follow the instructions below to install the system drivers:

1. Insert the ZOTAC ZBOX driver DVD. If autorun is enabled, the driver installation main menu will show up automatically. If autorun is disabled, you may click the file Launch.EXE to bring up the driver installation main menu.
2. The following drivers are available on the DVD:

- Intel Chipset Driver
- HDA Sound Driver
- Intel Graphics Driver
- Ethernet PCI-E Driver
- USB3.0 Controller Driver
- Intel Management Engine
- Wireless Network Driver
- CIR Driver
- Bluetooth Driver
- MassStorage Driver
- USB Charger (optional)



**Note:** If you want to use USB charger for iPhone/iPad, please install the driver at X:\Utility\Software\Usb Charger\setup.exe (X: your driver disk letter).

- ☞ Each driver must be installed individually to ensure proper operation of the ZOTAC ZBOX.
- 3. Select the driver you want to install. The driver installer should launch.
- 4. Follow the onscreen instructions to install the drivers.
- 5. Restart the system.

## Using your ZOTAC ZBOX

### Configuring wireless connection

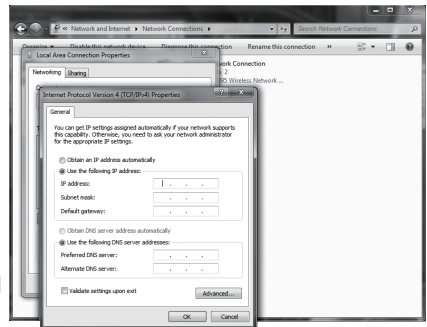
Please follow the instructions below to connect to a wireless network:

1. Double-click the wireless network icon (pic) in the notification area.
2. Select the wireless network you want to connect to from the list and click Connect.
3. After connection is established, you will see “Connected.”  
 Note 1: For security concerns, Do NOT connect to an unsecured network, otherwise, the transmitted information without encryption might be visible to others.  
 Note 2: Enter the network security key if necessary.



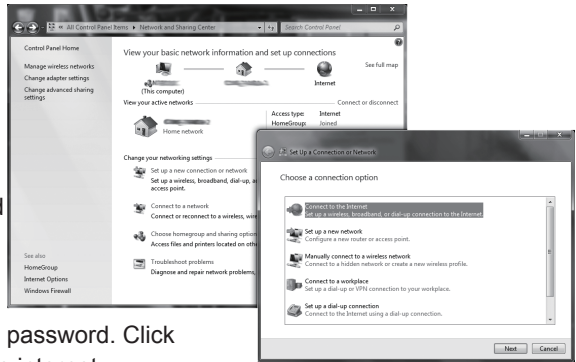
### Configuring wired connection Using a static IP

1. Right-click the network icon in the notification area and select “Open Network Connections”.
2. Right-click “Local Area Connection” and select “Properties”.
3. Highlight “Internet Protocol (TCP/IP)” and click “Properties”.
4. Select “Use the following IP address”.
5. Enter your IP address, subnet mask and Default gateway.
6. Enter the preferred DNS server address if necessary.
7. After entering all of the related values, click “OK” to finish the configuration.



## Using a dynamic IP (PPPoE connection)

1. Repeat Step 1-3 in the previous section.
2. Select “Obtain an IP address automatically” and click “OK”.
3. Click “Create a new connection” to start the NEW Connection Wizard.
4. Click “Next”.
5. Select “Connect to the Internet” and click “Next”.
6. Select “Set up my connection manually”.
7. Select your connection type and click “Next”.
8. Enter your ISP Name and click “Next”.
9. Enter your User name and Password. Click “Next”.
10. Click “Finish” to finish the configuration.
11. Enter your user name and password. Click “Connect” to connect to the internet.

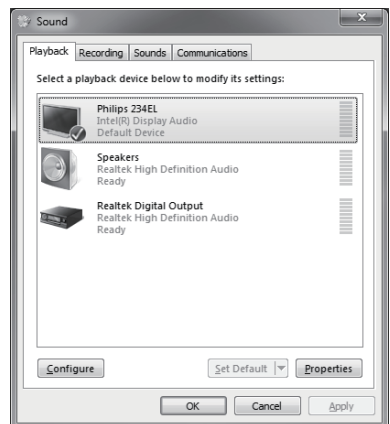


Note: Contact your internet Service Provider (ISP) if you have problems connecting to the network.

## Configuring audio output

Follow the steps below to enable audio output when connecting the ZOTAC ZBOX to a TV or receiver via DP/DVI-HDMI adapter.

1. Access the Sound settings via the system Control Panel.
2. Under Playback devices, click the display device that corresponds with your audio compatible display.
3. Click the “Set Default” button in the lower right hand corner.
4. Click “OK” to exit the setup.

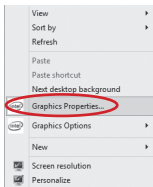


## Intel Collage Display

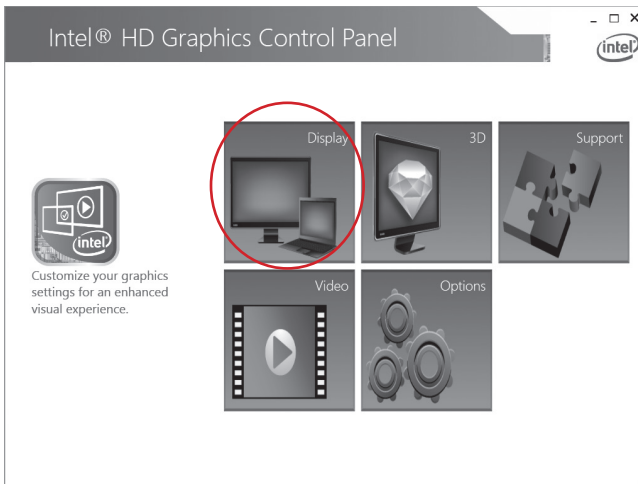
The Intel Collage Display technology enables the ZBOX to span a single desktop across multiple displays (up to 4) with each display showing a portion of a larger screen image. A user can implement this feature to connect multiple displays to a single system or combine multiple outputs into a single displays with higher quality/resolution (up to 4K resolution combined). Please follow the instructions below to configure Collage Display with 2 Multi-Monitor dongles via DisplayPort on the ZOTAC ZBOX.

**Note: Before configuring Intel Collage Display, please ensure the display drivers are properly installed.**

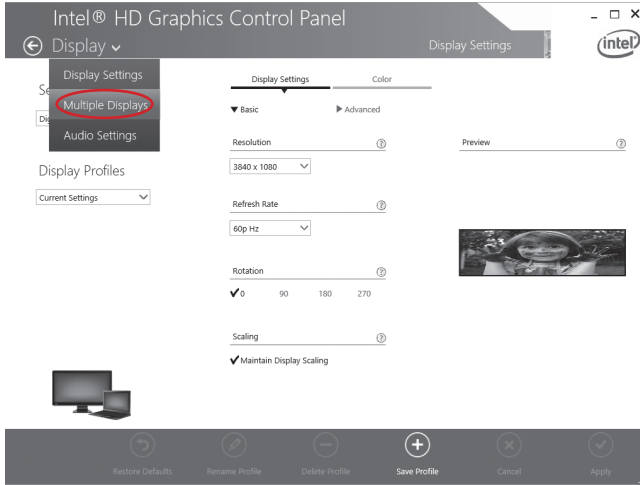
1. Connect the ZOTAC ZBOX to four monitors via two Multi-Monitor dongles (not included) (ZOTAC DisplayPort to Dual HDMI adapters recommended).
2. Right-click on the Windows desktop, and choose “Graphics Properties”.



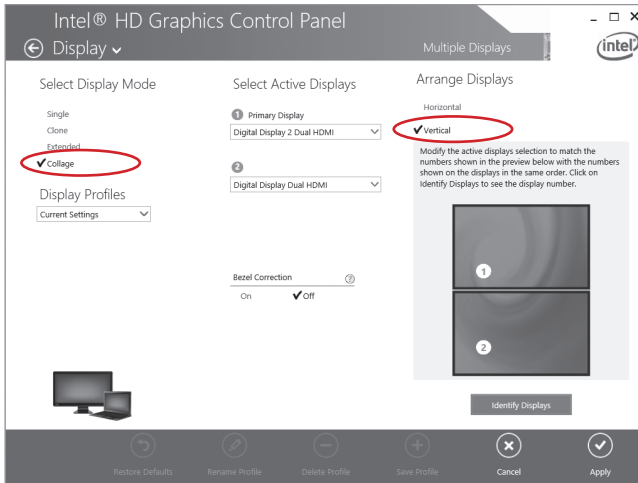
3. When the Intel HD Graphics Control Panel displays, click the block “Display”.



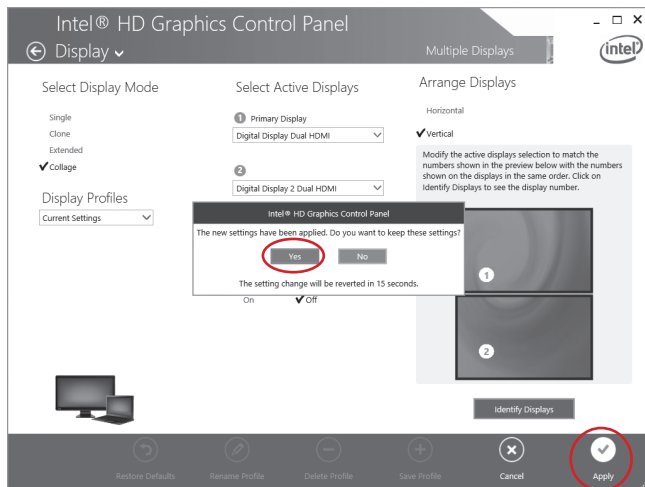
4. On the menu “Display Settings”, click “Display” and choose “Multiple Displays”.



5. Choose the item “Collage” under the submenu “Select Display Mode”, and “Vertical” under the submenu “Arrange Displays”.



- Click the “Apply” button in the lower right hand corner, and click “Yes” to exit the setup.



- 4K Ultra HD displays configuration is finished.





# Intel Rapid Storage Technology

## Introduction

Intel Rapid Storage Technology is a Windows-based application that provides improved performance and reliability for systems equipped with SATA disks for desktop, mobile, and server platforms. When using one or multiple SATA disks, you can take advantage of enhanced performance and lower power consumption. When using more than one disk, you can increase protection against data loss in the event of disk failure.

- Note:**
1. Please confirm that the driver: Intel Rapid Storage Technology has been installed completely before you set the following configuration.
  2. There must be an SSD as cache volume to set Intel Rapid Storage.

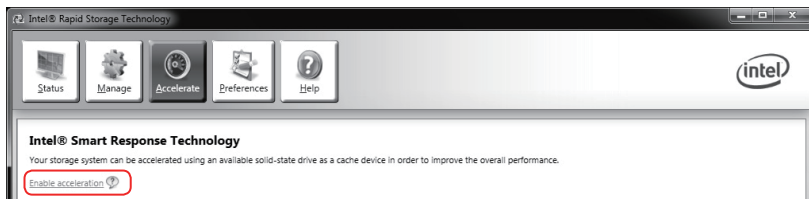
## Setting up Intel Rapid Storage Technology

Follow the instructions below to set Intel Rapid Storage.

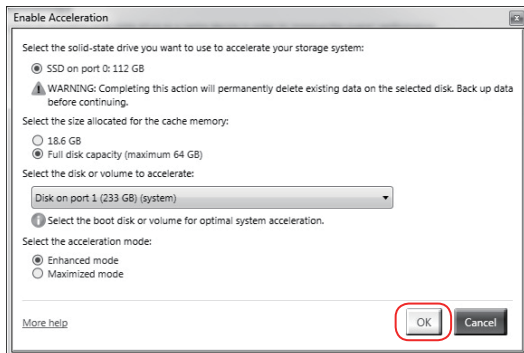
1. Click the icon  in the lower right corner of the desktop.



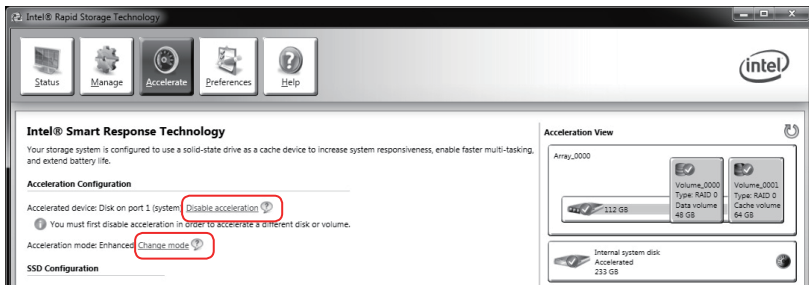
2. Enter the “Accelerate” menu, and click “Enable acceleration”.



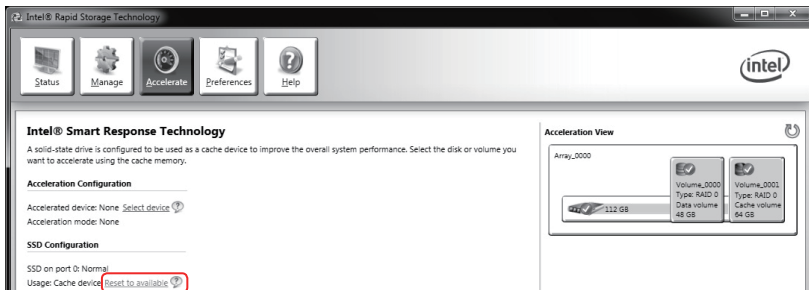
3. When the window “**Enable Acceleration**” displays, select the cache memory size and the acceleration mode, and click “**OK**” to accelerate the storage.



4. If you want to change the setting, click “**Disable acceleration**” to disable the acceleration, or click “**Change mode**” to change the acceleration mode.



5. If you want to reset cache to available, click “**Reset to available**”.









# ZOTAC®

*It's Time to Play.*

WWW.ZOTAC.COM



291-M8220-001F