ASRock

Mini Series

User Manual

Version 1.0
Published July 2014

Copyright Notice:

Disclaimer:

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With respect to the contents of this documentation, ASRock does not provide warranty of any kind, either expressed or implied, including but not limited to the implied warranties or conditions of merchantability or fitness for a particular purpose.

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.
"Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate"

ASRock Website: http://www.asrock.com

The terms HDMI™ and HDMI High-Definition Multimedia Interface, and the HDMI logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

Safety instructions

Your system 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 heated source such as a radiator.
- Set up the system on a stable surface.
- 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 40° C.
- If you use an extension cord, 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.

No disassembly

The warranty does not apply to products (including HDD, ODD, memory and warranty seal) that have been damaged as a result of attempting to disassemble/reassemble the system or modifying the hardware configuration.

Safety cautions and warnings

Optical Drive Safety Information

Optical drives sold with this system contains a CLASS 1 LASER PRODUCT.

CAUTION:

Invisible laser radiation when open. Do not stare into beam or view directly with optical instruments.

WARNING:

Making adjustments or performing procedures other than those specified in the user's manual may result in hazardous laser exposure. Do not attempt to disassemble the optical drive. For your safety, have the optical drive serviced only by an authorized service provider.

Product disposal notice

IMPORTANT:

This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

Nordic Lithium Cautions (for lithium-ion batteries)

CAUTION!

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Installation Notices

Do not place this product underneath heavy loads or in an unstable position.

Do not use or expose this product around magnetic fields as magnetic interference may affect the performance of the product.

Do not expose this product to high levels of direct sunlight, high-humidity or wet conditions.

Do not block the air vents to this product or impede the airflow in any way.

Contents

Chapter 1 Introduction

Thank you for purchasing ASRock Mini Series a reliable product produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

Because the hardware specifications and the BIOS software might be updated, the content of this documentation will be subject to change without notice. In case any modifications of this documentation occur, the updated version will be available on ASRock's website without further notice. If you require technical support related to this product, please visit our website for specific information about the model you are using. ASRock website http://www.asrock.com.

1.1 Package Contents

ASRock Mini Series

1 x Support CD

1 x Quick Start Guide

1 x AC Power Cord

1 x AC/DC Adapter

1 x Anti-Slip Pad

1 x SATA and Power Cables

English

1.2 Specifications

CPU	• Intel® Quad-Core J1900 Processor
OS	• Microsoft® Windows® 8.1 / 8.1 64-bit / 8 / 8 64-bit / 7 / 7 64-bit compliant
Graphics	• Integrated Intel® 7th generation graphics
Memory	• 4GB DDR3/DDR3L 1333MHz • Supports DDR3/DDR3L 1333/1066MHz • 2 x SO-DIMM slots • Max. 16GB
HDD	• 500GB, Supports second 2.5" SATA3 HDD
ODD	• DVD Super Multi
LAN	• Gigabit LAN
Audio	• 7.1 CH HD Audio
WiFi + BT	• WiFi 802.11 ac + BT v4.0
Front I/O	• 2 x USB 3.0 • 1 x MIC • 1 x Headphone
Rear I/O	• 1 x HDMI • 1 x DVI-D • 1 x D-Sub • 2 x USB 2.0 • 2 x USB 3.0 • 1 x S/PDIF

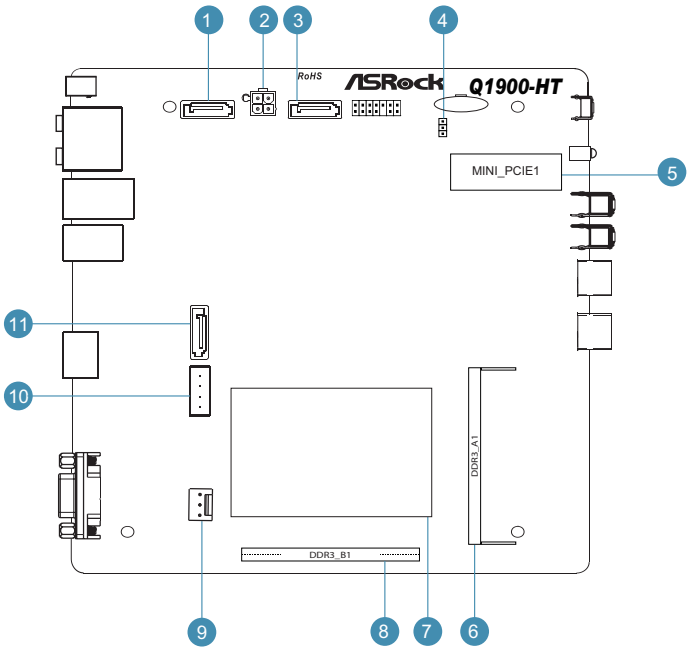
Power Unit	• 65W/19V Adapter
Dimension	• 195mm (W) x 70mm (H) x 186mm (L)
Volume (liters)	• 2.5L

*For barebone systems, CPU, memory, HDDs and ODDs may not be included.

Free bundle software:

1. Symantec Norton AntiVirus Software (trial version)
2. ASRock A-Tuning
3. ASRock Cloud
4. ASRock APP Shop

1.3 Motherboard Layout

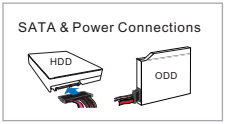


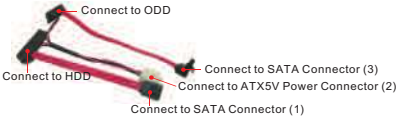
No.	Description
1	SATA 3.0 connector: For HDD SATA data cable
2	ATX5V output power connector for slim ODD & 2.5” HDD
3	SATA 2.0 connector: For the ODD’s SATA data cable
4	Clear CMOS jumper
5	Mini-PCI Express expansion slot: For the WiFi module
6	SO-DIMM Slot (DDR3_A1)
7	Heatsink
8	SO-DIMM Slot (DDR3_B1)
9	Chassis fan connector
10	+5V output power connector: For the second SATA 2.5” HDD
11	SATA 3.0 connector: For the second HDD’s SATA data cable

English

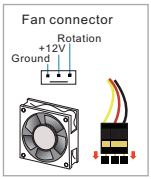
NOTE

1. SATA and Power Connections

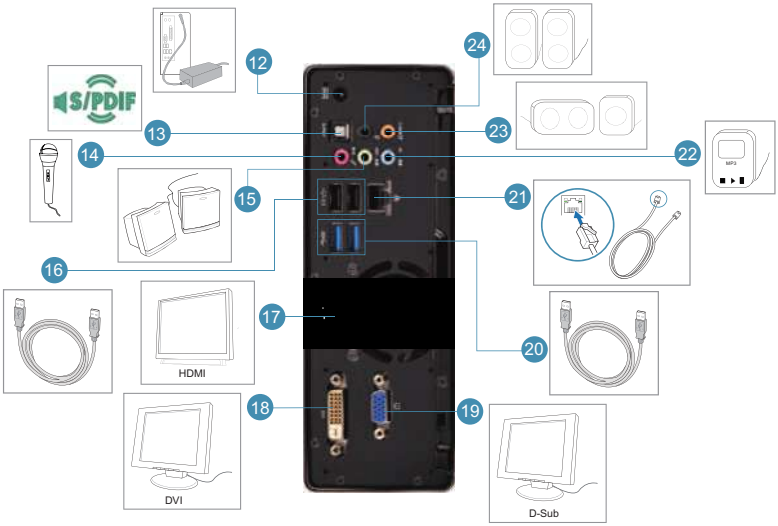




2. Fan Connection



1.4 Rear Panel



No.	Description
12	DC-In jack
13	Optical S/PDIF Out port
14	Mic In (Pink): Microphone
15	Front L/R Out (Lime): Stereo speakers or headphones
16	USB 2.0 ports: USB devices
17	HDMI connector
18	DVI connector
19	VGA connector
20	USB 3.0 ports: USB devices
21	RJ-45 LAN port: Local Area Network
22	Line In (Blue) for 2/4/6 channel; Rear (Blue) for 8 channel
23	Center/LFE (Orange): Center / Subwoofer speakers
24	Side port for side speakers

1.5 Front Panel

No.	Description
25	Optical Disc Drive
26	Power ON/OFF button with status indicator
27	Drive activity indicator
28	Headphone port
29	Microphone port
30	USB 3.0 ports: USB devices
31	Infrared receiver

Chapter 2 Quick Installation

1. Connect USB Devices to the USB Ports.

2. Connect a VGA Monitor to the VGA Port.

3. Connect the Network with the RJ-45 LAN Port.

4. Connect an HDMI Device to the HDMI Port.

5. Connect a DVI Device to the DVI Port.

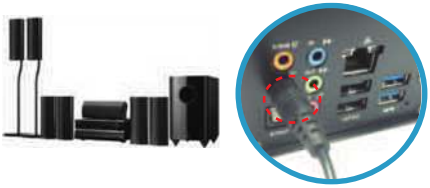

6. Connect an External Audio Device. (Line In Port for 2/4/6 Channel; Rear Port for 8 Channel)


7. Connect Stereo Speakers or Headphones. (Front L/R Out Port)


8. Connect a Microphone. (Mic In Port)

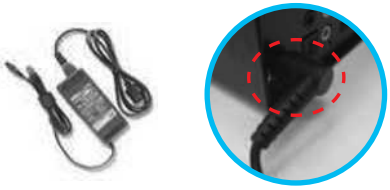

9. Connect Center / Subwoofer Speakers. (Center/LEF Port)


10. Connect Side Speakers. (Side Port for 4/6/8 Channel)



11. Connect an Optical Device to the Optical S/PDIF Out Port.

12. Connect Power to the DC-In Jack.



13. Power on the System.

14. Connect Headphones / Microphones / USB3.0 Devices

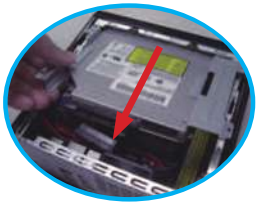
Chapter 3 Reinstalling the ODD/HDD

1. Remove the cover screws on the rear panel. (For safety reasons, please ensure that the power cord is disconnected before opening the case.

2. Slide the side cover toward the rear panel and pull the side cover upwards.

3. To change the storage drives, you need to remove the SATA and power cables from the ODD / HDD first, then unscrew the screws from both sides.

4. Pull the ODD / HDD rack backwards and take it out from the bay.

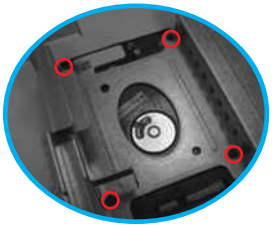


5. Unscrew the screws from the side of the ODD / HDD rack, and change your required ODD / HDD.

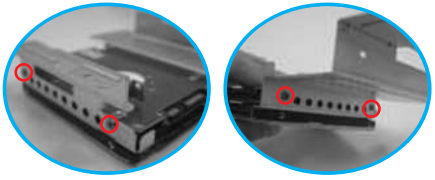
6. Refer to the steps above to place the new ODD / HDD to the chassis. Replace the side cover and fasten the screws.

Chapter 4 Installing the second HDD

1. Please follow steps 1 to 4 above, and remove the ODD and the first HDD in advance. Then fasten the screws of the second HDD to the rack.



2. Place the first HDD to the rack and fasten the screws from both sides.

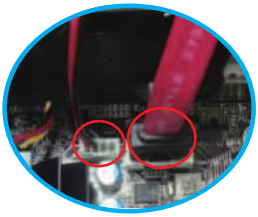


3. Place the ODD to the rack and fasten the screws from both sides. Replace the rack to the chassis.

4. Connect the SATA and power cables to the ODD and the bottom HDD.



5. Connect the other SATA and power cables to SATA3_M2 and J1 connectors on the motherboard.



6. Connect the other end to the top HDD.

7. Replace the side cover and fasten the screws.

Chapter 5 Dual Monitor

With the internal VGA output which supports DVI-D, HDMI and D-Sub, you can enjoy dual monitor on your ASRock Mini series HTPC.

ASRock Mini series HTPC also provides independent display controllers for DVI-D, HDMI and D-Sub to support dual VGA output so that DVI-D, HDMI and D-Sub can drive the same or different display contents simultaneously.

To enable dual monitor, please connect monitor cables to the respective ports on the I/O panel.

If you have already installed the VGA driver from our support CD to your system, you can enjoy dual monitor after your system reboots. If you haven't installed the VGA driver yet, please install the VGA driver from our support CD and restart your computer.

HDMI, DVI and D-Sub monitors cannot all be enabled at the same time. You can only choose two of them.

Chapter 6 Software and Utilities Operation

6.1 Installing Drivers

The Support CD that comes with the motherboard contains necessary drivers and useful utilities that enhance the motherboard's features.

Running The Support CD

To begin using the support CD, insert the CD into your CD-ROM drive. The CD automatically displays the Main Menu if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double click on the file "ASRSETUP.EXE" in the Support CD to display the menu.

Drivers Menu

The drivers compatible to your system will be auto-detected and listed on the support CD driver page. Please click **Install All** or follow the order from top to bottom to install those required drivers. Therefore, the drivers you install can work properly.

Utilities Menu

The Utilities Menu shows the application software that the motherboard supports. Click on a specific item then follow the installation wizard to install it.

To improve Windows 7 compatibility, please download and install the following hot fix provided by Microsoft.
"KB2720599": http://support.microsoft.com/kb/2720599/en-us

6.2 A-Tuning

A-Tuning is ASRock's multi purpose software suite with a new interface, more new features and improved utilities, including XFast RAM, Good Night LED, FAN-Tastic Tuning, and a whole lot more.

6.2.1 Installing A-Tuning

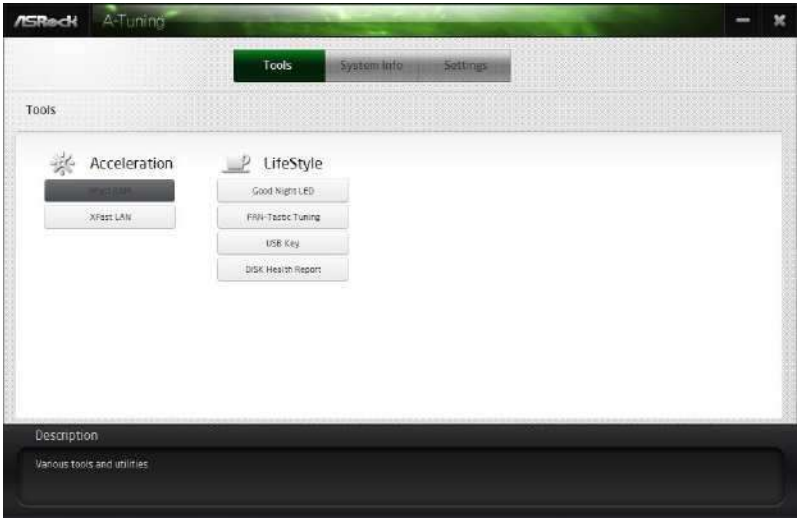
When you install the all-in-one driver to your system from ASRock's support CD, A-Tuning will be auto-installed as well. After the installation, you will find the icon "A-Tuning" on your desktop. Double-click the "A-Tuning" icon, A-Tuning main menu will pop up.

6.2.2 Using A-Tuning

There are three sections in A-Tuning main menu: Tools, System Info and Settings.

Tools

Various tools and utilities.



XFast RAM

Boost the system's performance and extend the HDD's lifespan! Create a hidden partition, then assign which files should be stored in the RAM drive.

XFast LAN

Boost the speed of your internet connection! Select a specific mode for making the designated program's priority highest.

Good Night LED

Switch off the Power/HDD LEDs when the system is on, and automatically switch off the Power and Keyboard LEDs when the system enters into Standby/Hibernation mode.

FAN-Tastic Tuning

Configure different fan speeds using the graph. The fans will automatically shift to the next speed level when the assigned temperature is met.

USB Key

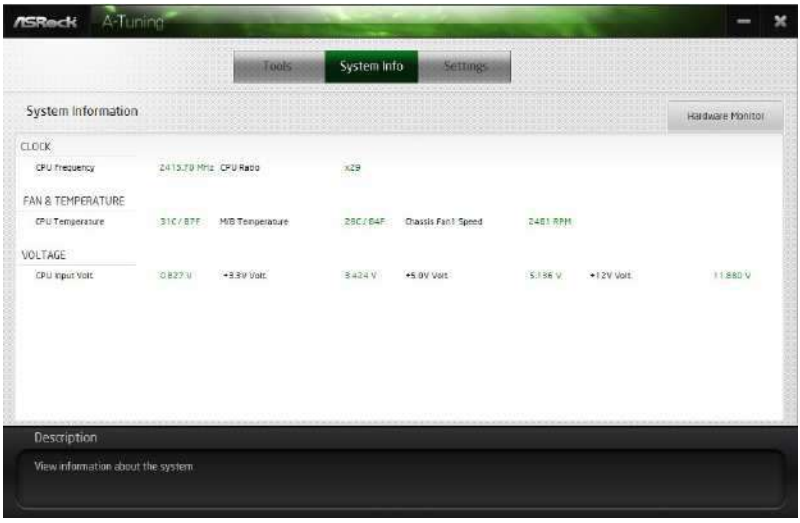
Plug in the USB Key and let your computer log in to windows automatically!

Disk Health Report

Disk Health Report is a hard disk health monitoring utility that displays detailed HDD information, such as hard disk model, serial number, firmware, power on count, power on hours, S.M.A.R.T. values, current temperature, etc. HDD, SSD and optical disk drives are all supported. The health status block displays Good (in green color), Caution (in yellow color) or Bad (in red color). Click on the health status icon to configure settings for an alert to be triggered.

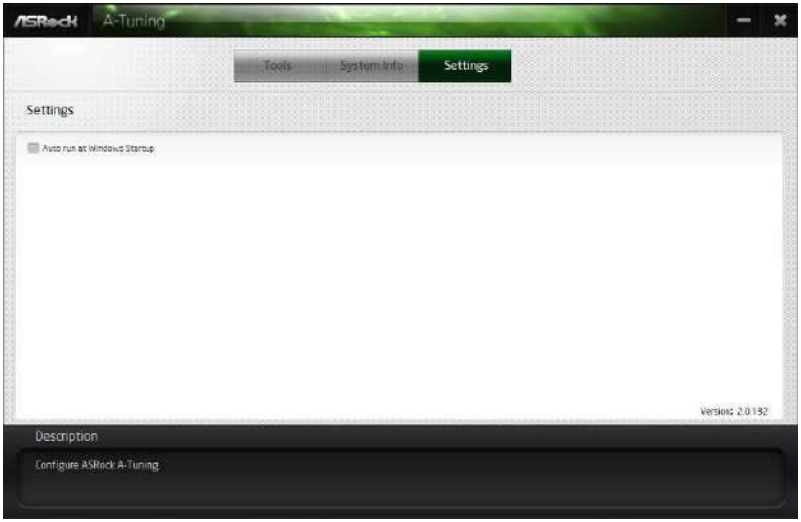
System Info

View information about the system.



Settings

Configure ASRock A-Tuning. Click to select "Auto run at Windows Startup" if you want A-Tuning to be launched when you start up the Windows operating system.



6.3 Intel® Smart Connect Technology

Intel® Smart Connect Technology is a feature that periodically wakes your computer from Windows® sleep state to refresh email or social networking applications. It saves your waiting time and keeps the content always up-to-date.
* Please note that the "Remote wake" feature of Intel® Smart Connect Technology is not supported.

6.3.1 System Requirements

- Confirm whether your motherboard supports this feature.
- Operating system: Microsoft Windows 8/7 (32- or 64-bit edition)
- Set the SATA mode to AHCI. If Windows 8/7 is already installed under IDE mode, directly changing the SATA mode to AHCI may cause Windows 8/7 to crash while booting. If your system is not in AHCI mode, please follow the instructions below.

There are certain risks. Please backup any important data before operating to avoid loss.

1. Press **Win + R** simultaneously in Windows 8/7, type "Regedit" into the word box then click **OK**.

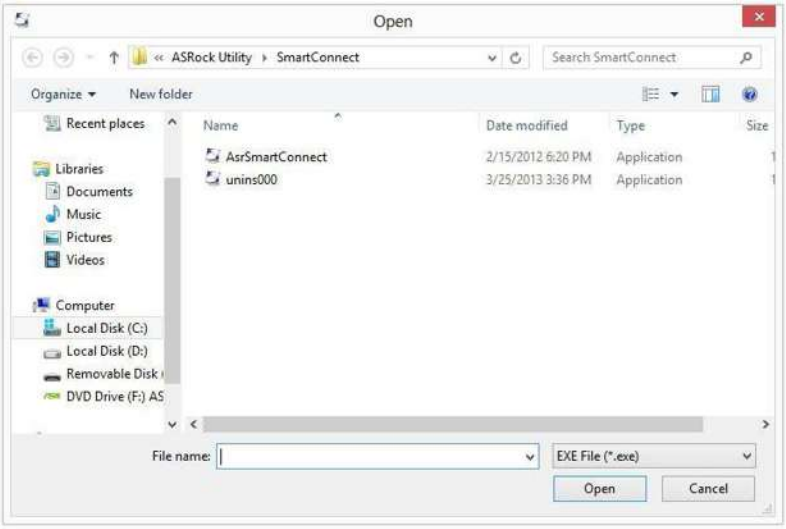
2. Enter into **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\msahci** in Windows Registry Editor. Double click on the value **Start** and change the value from **3** into **0**. Click on **OK**.

6.3.2 Setup Guide

Installing ASRock Smart Connect Utility

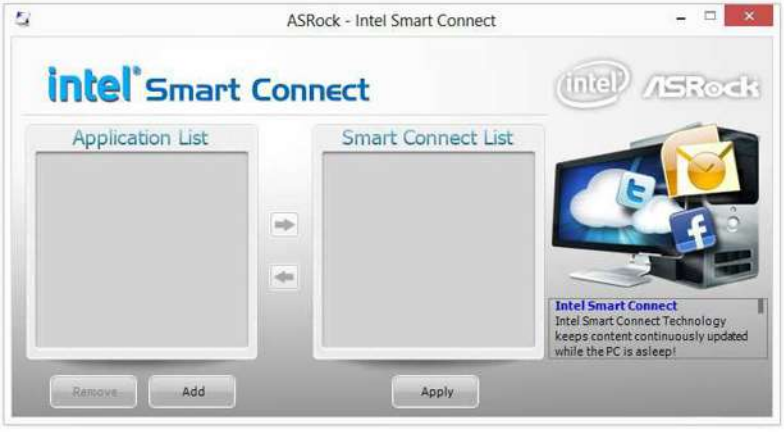
Step 1

Install **ASRock Smart Connect Utility**, which is located in the folder at the following path of the Support CD: \ **ASRock Utility > Smart Connect**.



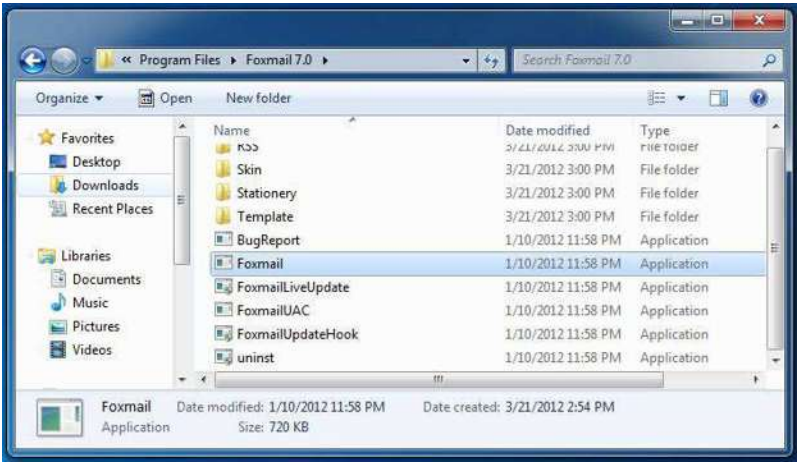
Step 2

Once installed, run ASRock Smart Connect from your desktop or go to Windows **Start -> All Programs -> ASRock Utility**.



Step 3

Click the **Add** button. Take Foxmail as an example, add Foxmail to the Application list.



Step 4

Select Foxmail from the **Application List**, then click the arrow pointing right to add this application to the **Smart Connect List**.

Step 5

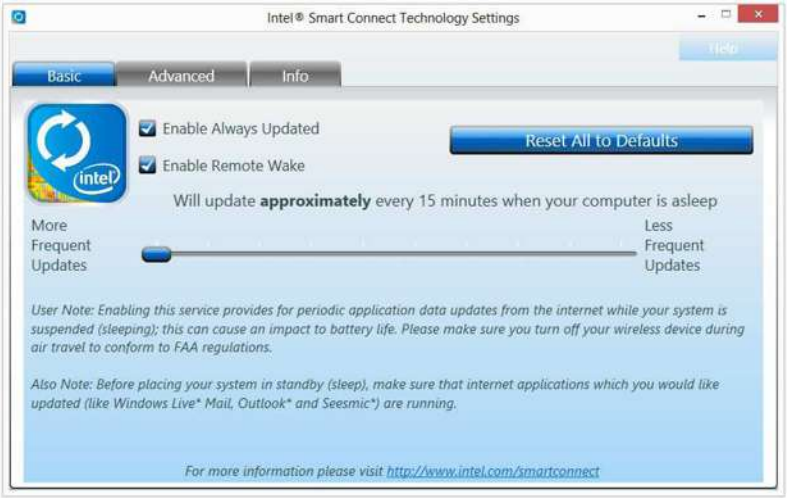
Click **Apply** to enable Smart Connect.

Step 6

Double-click the Intel® Smart Connect Technology Manager icon in the Windows system tray.

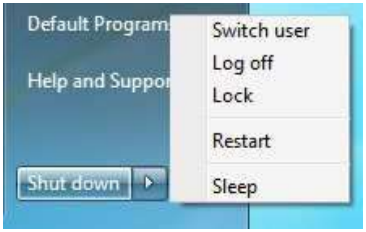
Step 7

Drag the slider to configure how often the system will connect to the network to download updates. Shorter durations will provide more frequent updates, but may cause more power consumption.



Using Smart Connect

1. Keep the applications which you wish to connect to the internet and receive updates while the system is in sleep state running. Foxmail for instance, keep Foxmail running.
2. Click on Windows Start -> the arrow next to Shut down, and click on **Sleep**.



3. Windows system will enter sleep state.

4. The system will wake up from sleep state periodically, and then start to update Foxmail. The screen will not display anything so the computer can maintain minimum power usage. Afterwards, the system will automatically return to sleep state again.

5. Upon waking up the system, you will find the new mail that were sent to you during sleep state are already updated and ready to be read in Foxmail.

6.4 ASRock Cloud

ASRock makes your mobile devices connect to your PC seamlessly!

Have you ever been in a situation where you emergently needed certain files in your computer, however the computer was gazillion miles away out of reach? ASRock Cloud includes several technologies and software solutions for remotely controlling your computer, even if the computer is in off mode. For ASRock motherboards with a ***Qualcomm® Atheros®*** LAN chip, ASRock Cloud allows users to remotely wake up their computers via the internet by using a secondary device, such as a smartphone or tablet. Users may use ***Orbweb.ME Professional*** to remotely wake up and control their computers, or they could wake up the computer then use any other preferred remote desktop application. This motherboard supports Security Wake On Internet Technology with the onboard Qualcomm® Atheros® LAN, so you can connect with your PC from anywhere in the world. You will be able to power your PC on or turn it off, monitor and take control of it remotely with another smartphone, tablet or computer.

**ASRock Cloud is supported on Windows 8.1 or Windows 7.*

6.4.1 Qualcomm® Atheros® Security Wake On Internet Technology

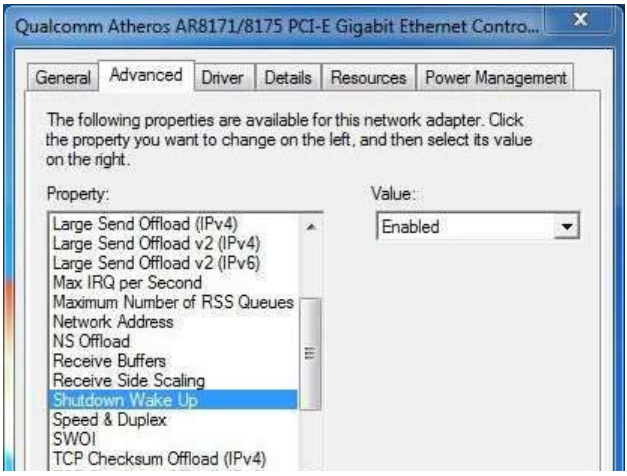
Qualcomm® Atheros® Security Wake On Internet Technology allows you to wake up and remote control your home computer from sleep or shutdown state.

Before configuring this feature, verify the followings on your host computer:

- Make sure that the "PCIE Devices Power On" is enabled in *UEFI SETUP UTILITY > Advanced > ACPI Configuration*.

**The UEFI screen is for reference only. The actual screen may differ by model.*

- Make sure that the "Shutdown Wake Up" and "SWOI" are enabled in *Device Manager > Network Adapters > Qualcomm Atheros AR8171/8175 PCI-E Gigabit Ethernet Controller > Advanced*.
  *"SWOI" may not appear in certain driver versions.



3.5.2 Configuring and Using Orbweb.ME Professional

Orbweb.ME Professional is a remote control software allowing you to easily access and control the remote host installed with the Orbweb.ME Professional host software.

Installing Orbweb.ME Professional on the Host Computer

You can find the Orbweb.ME Professional host software in the Support CD or just download it from http://orbweb.me.

Step 1

Click on the Orbweb.ME Professional installer package file to start installation.

Step 2

Follow the onscreen instructions to complete the installation.

Step 3

When installation completes, reboot the computer.

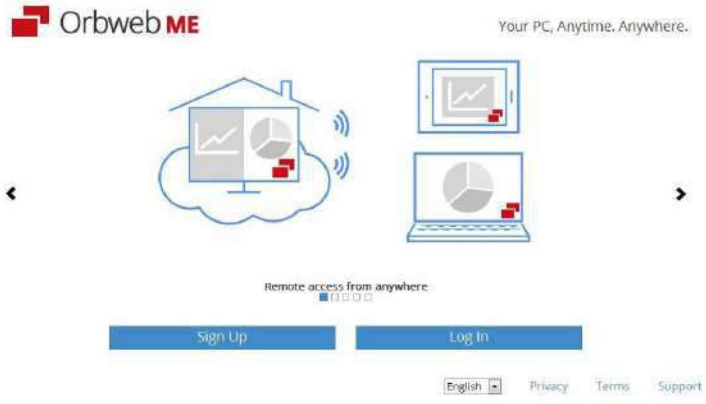
Signing Up for Host Computer Registration

Step 1

Double-click the Orbweb.ME Professional icon on your desktop.

Step 2

On the Orbweb.ME Portal login page, click **Sign Up** to create an Orbweb.ME account and name your host computer.



Step 3

You will receive a verification email. Follow the steps in the email to verify your account. After verifying your account, you can access your PC through web browsers at http://orbweb.me.

On the Account Verified page, if you click **Go to My Computers**, you will see the Orbweb.ME portal page as a client.

Setting Up Shared Folders on Host Computer

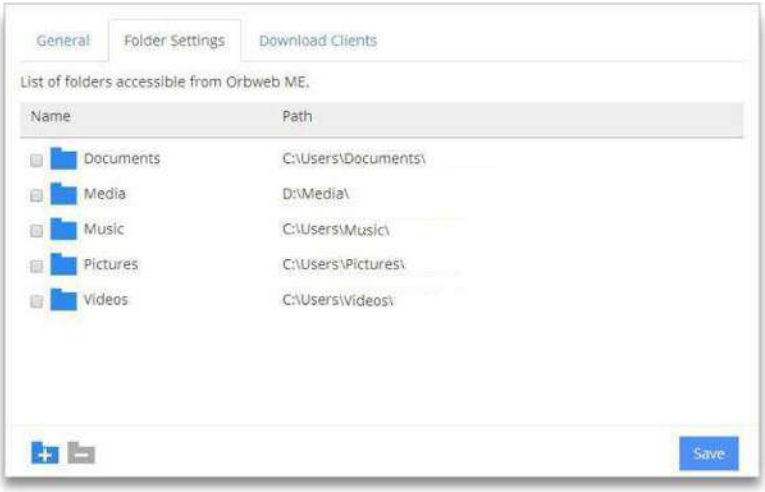
Step 1

Double-click the Orbweb.ME Professional icon on your desktop.

Or, if you just finished signing up for your host computer, you can click **Configure this computer** in the screen to begin.

Step 2

Click **Folder Settings** tab and the default shared folders display.
To add a folder, click . Select a folder to add it into Orbweb.ME. Then click **Save**.



You can access the documents in these shared folders on the host computer remotely through Xplorer from your client device.

REMOTE ACCESS FROM A CLIENT DEVICE

The lastest version of Java is required to be installed to use the Remote Desktop and Xplorer functions.

Using Remote Wake-Up

Remote Wake-Up allows you to remotely put your host computer to sleep and wake your host computer up from a client device.

If you use a motherboard with dual LAN ports, please disable one of the LAN ports to use the Remote Wake-Up function. To do so, go to Control Panel > Network and Sharing Center > Manage Network Connections, right-click Local Area Connections and select Disable.

For Windows PC users:

Step 1

Go to Orbweb.ME portal login page: **http://orbweb.me**

Step 2

Log in with your Orbweb.ME account and password.

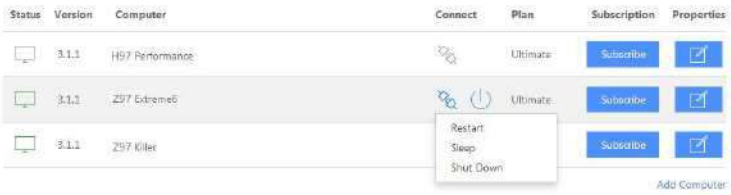
Step 3

Find the host computer from the list by the computer name you give.

English

Step 4

Click and power options appear. Click to select **Restart**, **Sleep** or **Shut Down**.



Select **Restart** from the options to restart your host computer remotely.

When you select **Sleep** or **Shut Down**, if the host device is WOW(Wake-On-Wan) compatible, you can put your host computer to sleep (S3/S4) or shut down your host computer (S5) remotely. The host status in the Status column shows offline and ready to be awaked and the power option shows wakable .
To wake up the computer, click .

Please be noted that if the host device is not WOW compatible, the host status icon will turn offline and the power option icon will disappear. You have to physically wake up computer in order to bring power option icon back to online.

For iOS or Android Mobile Devices users:

Download and install "Orbweb.ME Professional" app from the App Store (iOS) or Play Store (Android).

Step 1

Tap the "Orbweb.ME Professional" app icon to launch it.

Step 2

Log in with your Orbweb.ME account and password.

Step 3

Tap the **Power Options** icon and power options appear.

Tap to select **Restart**, **Sleep** or **Shutdown**.

Please be noted that if the host device is not WOW compatible, the host status icon will turn offline and the power option icon will dissappear. You have to physically wake up computer in order to bring power option icon back to online.

Using Remote Desktop

Remote Desktop allows you to remotely access your host computer from a client device.

For Windows PC users:

Step 1

Go to Orbweb.ME portal login page: **http://orbweb.me**

Step 2

Log in with your Orbweb.ME account and password.

Step 3

Click the **Connect** icon .

Step 4

Click on **Remote Desktop**.

If the **Remote Desktop Connection** dialog appears, click **Connect** to continue.

Step 5

Enter the Windows password to log in and you will see the desktop of your host computer.

Please refer to the user manual of the Orbweb.ME Professional for more instructions on how to use Orbweb.ME Professional.

For iOS or Android Mobile Devices users:

Download and install "Orbweb.ME Professional" app from the App Store (iOS) or Play Store (Android).

Step 1

Tap the "Orbweb.ME Professional" app icon to launch it.

Step 2

Log in with your Orbweb.ME account and password.

Step 3

Tap the host computer name that you want to access under the **Remote Desktop** section.

Step 4

Enter the Windows password to log in and you will see the desktop of your host computer.

Using Xplorer

Xplorer allows you to remotely access documents on your host computer from a client device.

For Windows PC users:

Step 1

Go to Orbweb.ME portal login page: **http://orbweb.me**

Step 2

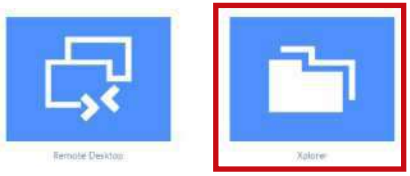
Log in with your Orbweb.ME account and password.

Step 3

Click the **Connect** icon .

Step 4

Click on **Xplorer**.



Step 5

Root directory displays. Click on a folder name to open the folder.

Step 6

Click on a file name to preivew the file.

You can also delete, rename, move, and copy a selected file. For more instructions on how to use Xplorer, refer to the user manual of the Orbweb.ME Professional.

For iOS or Android Mobile Devices users:

Download and install "Orbweb.ME Professional" app from the App Store (iOS) or Play Store (Android).

Step 1

Tap the "Orbweb.ME Professional" app icon to launch it.

Step 2

Log in with your Orbweb.ME account and password.

Step 3

Tap the **Connect** icon .

Step 4

Tap a folder name under the **Xplorer** section and you can see the files in this folder.

Tap a file name to preivew the file.

You can also delete, rename, move, and copy a selected file. For more instructions on how to use Xplorer, refer to the user manual of the Orbweb.ME Professional.

Tutorial Video

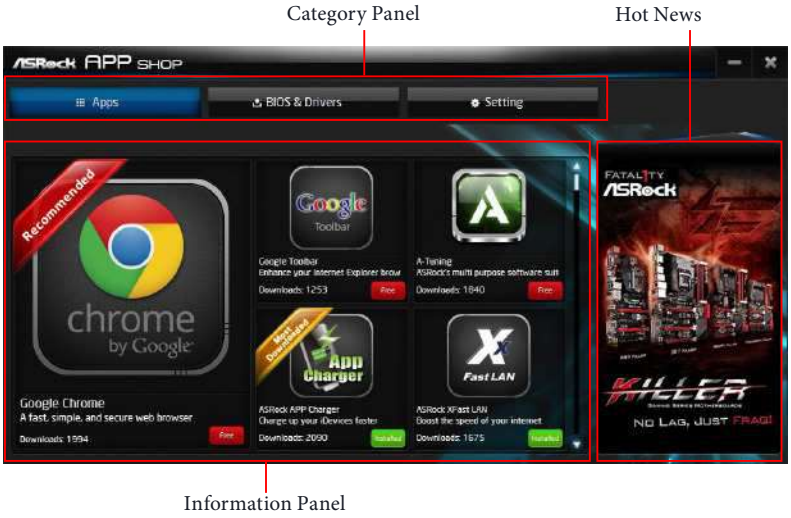
6.5 ASRock APP Shop

The ASRock APP Shop is an online store for purchasing and downloading software applications for your ASRock computer. You can install various apps and support utilities quickly and easily, and optimize your system and keep your motherboard up to date simply with a few clicks.

Double-click on your desktop to access ASRock APP Shop utility.

**You need to be connected to the Internet to download apps from the ASRock APP Shop.*

6.5.1 UI Overview



Category Panel: The category panel contains several category tabs or buttons that when selected the information panel below displays the relative information.

Information Panel: The information panel in the center displays data about the currently selected category and allows users to perform job-related tasks.

Hot News: The hot news section displays the various latest news. Click on the image to visit the website of the selected news and know more.

6.5.2 Apps

When the "Apps" tab is selected, you will see all the available apps on screen for you to download.

Installing an App

Step 1

Find the app you want to install.

The most recommended app appears on the left side of the screen. The other various apps are shown on the right. Please scroll up and down to see more apps listed.

You can check the price of the app and whether you have already intalled it or not.

Free - The red icon displays the price or "Free" if the app is free of charge.

Installed - The green "Installed" icon means the app is installed on your computer.

Step 2

Click on the app icon to see more details about the selected app.

Step 3

If you want to install the app, click on the red icon Free to start downloading.

Step 4

When installation completes, you can find the green "Installed" icon appears on the upper right corner.

To uninstall it, simply click on the trash can icon .
*The trash icon may not appear for certain apps.

Upgrading an App

You can only upgrade the apps you have already installed. When there is an available new version for your app, you will find the mark of "New Version" New Version appears below the installed app icon.

Step 1

Click on the app icon to see more details.

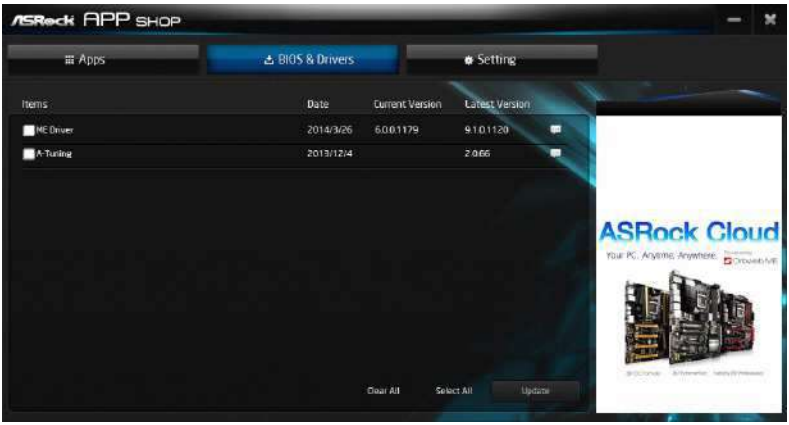
Step 2

Click on the yellow icon New Version to start upgrading.

6.5.3 BIOS & Drivers

Installing BIOS or Drivers

When the "BIOS & Drivers" tab is selected, you will see a list of recommended or critical updates for the BIOS or drivers. Please update them all soon.



Step 1

Please check the item information before update. Click on to see more details.

Step 2

Click to select one or more items you want to update.

Step 3

Click Update to start the update process.

6.5.4 Setting

In the "Setting" page, you can change the language, select the server location, and determine if you want to automatically run the ASRock APP Shop on Windows startup.

6.6 Start8

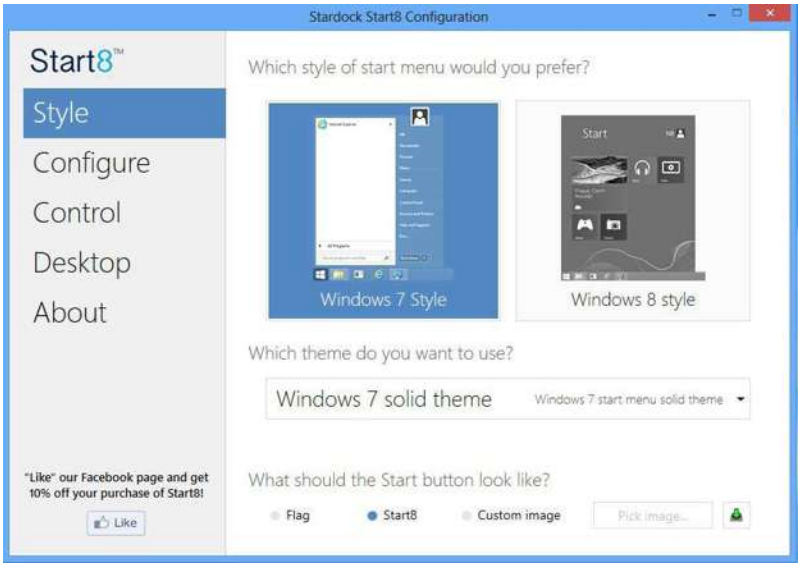
For those Windows 8 users who miss the Start Menu, Start8 is an ideal solution that brings back the familiar Start Menu along with added customizations for greater efficiency.

6.6.1 Installing Start8

Install **Start8**, which is located in the folder at the following path of the Support CD: **\ ASRock Utility > Start8**.

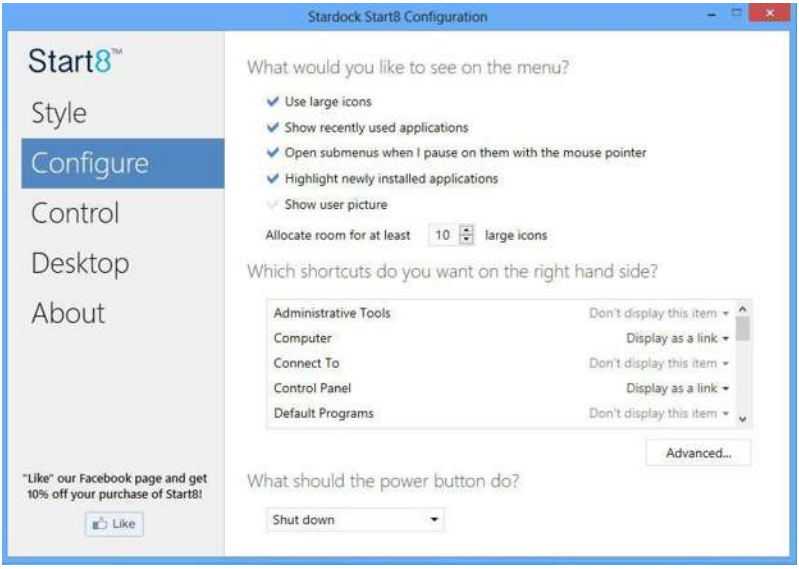
6.6.2 Configuring Start8

Style



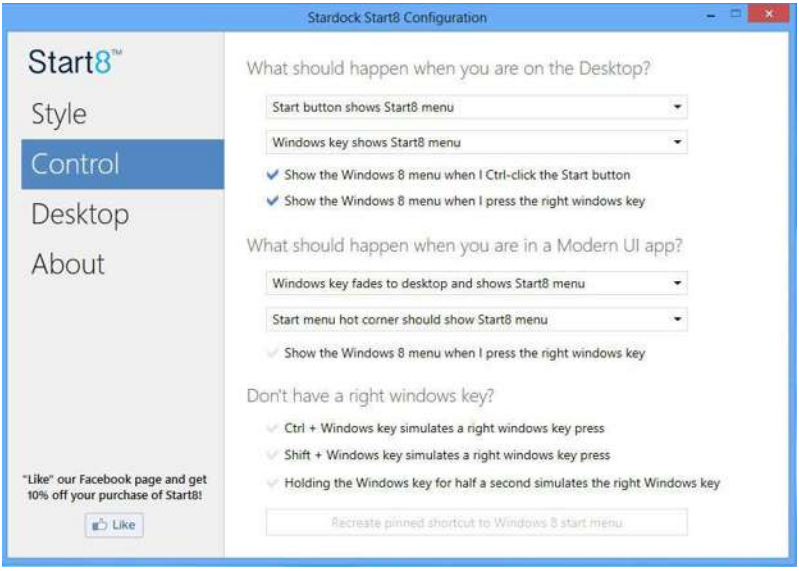
Select between the Windows 7 style and Windows 8 style Start Menu. Then select the theme of the Start Menu and customize the style of the Start icon.

Configure



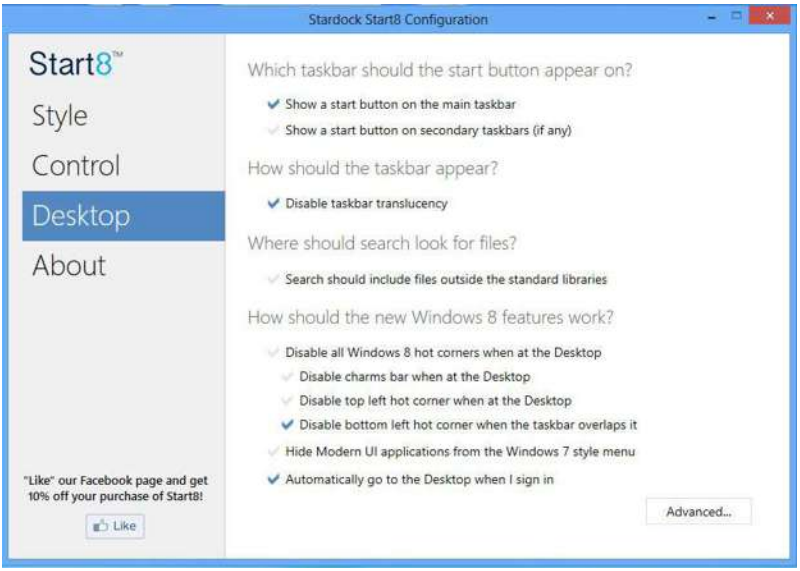
Configure provides configuration options, including icon sizes, which shortcuts you want Start Menu to display, quick access to recently used apps, the functionality of the power button, and more.

Control



Control lets you configure what a click on the start button or a press on the Windows key does.

Desktop



Desktop allows you to disable the hot corners when you are working on the desktop. It also lets you choose whether or not the system boots directly into desktop mode and bypass the Metro user interface.

About

Displays information about Start8.

Chapter 7 UEFI SETUP UTILITY

7.1 Introduction

ASRock Interactive UEFI is a blend of system configuration tools, cool sound effects and stunning visuals. Not only will it make BIOS setup less difficult but also a lot more amusing. This section explains how to use the UEFI SETUP UTILITY to configure your system. You may run the UEFI SETUP UTILITY by pressing <F2> or <Del> right after you power on the computer, otherwise, the Power-On-Self-Test (POST) will continue with its test routines. If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.

Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

7.1.1 UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

Main	For setting system time/date information
Advanced	For advanced system configurations
Tool	Useful tools
H/W Monitor	Displays current hardware status
Boot	For configuring boot settings and boot priority
Security	For security settings
Exit	Exit the current screen or the UEFI Setup Utility

7.1.2 Navigation Keys

Use <←> key or <→> key to choose among the selections on the menu bar, and use < ↑ > key or < ↓ > key to move the cursor up or down to select items, then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

Please check the following table for the descriptions of each navigation key.

Navigation Key(s)	Description
+ / -	To change option for the selected items
<Tab>	Switch to next function
<PGUP>	Go to the previous page
<PGDN>	Go to the next page
<HOME>	Go to the top of the screen
<END>	Go to the bottom of the screen
<F1>	To display the General Help Screen
<F7>	Discard changes and exit the SETUP UTILITY
<F9>	Load optimal default values for all the settings
<F10>	Save changes and exit the SETUP UTILITY
<F12>	Print screen
<ESC>	Jump to the Exit Screen or exit the current screen

7.2 Main Screen

When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.

7.3 Advanced Screen

In this section, you may set the configurations for the following items: CPU Configuration, Chipset Configuration, Storage Configuration, Intel® Smart Connect Technology, ACPI Configuration , USB Configuration and Trusted Computing.

Setting wrong values in this section may cause the system to malfunction.

7.3.1 CPU Configuration

Intel SpeedStep Technology

Intel SpeedStep technology allows processors to switch between multiple frequencies and voltage points for better power saving and heat dissipation.

CPU C States Support

Enable CPU C States Support for power saving. It is recommended to keep C3, C6 and C7 all enabled for better power saving.

Enhanced Halt State (C1E)

Enable Enhanced Halt State (C1E) for lower power consumption.

No-Execute Memory Protection

Processors with No-Execution Memory Protection Technology may prevent certain classes of malicious buffer overflow attacks.

Intel Virtualization Technology

Intel Virtualization Technology allows a platform to run multiple operating systems and applications in independent partitions, so that one computer system can function as multiple virtual systems.

7.3.2 Chipset Configuration

DRAM Voltage (1.35V)

Use this to configure DRAM Voltage. The default value is [Auto].

Primary Graphics Adapter

Select a primary VGA.

Share Memory

Configure the size of memory that is allocated to the integrated graphics processor when the system boots up.

Onboard HD Audio

Enable/disable onboard HD audio. Set to Auto to enable onboard HD audio and automatically disable it when a sound card is installed.

Onboard HDMI HD Audio

Enable audio for the onboard digital outputs.

Onboard LAN

Enable or disable the onboard network interface controller.

Deep S5

Configure deep sleep mode for power saving when the computer is shut down.

Restore on AC/Power Loss

Select the power state after a power failure. If [Power Off] is selected, the power will remain off when the power recovers. If [Power On] is selected, the system will start to boot up when the power recovers.

Good Night LED

By enabling Good Night LED, the Power/LAN LEDs will be switched off when the system is on. It will also automatically switch off the Power and Keyboard LEDs when the system enters into Standby/Hibernation mode.

7.3.3 Storage Configuration

SATA Controller(s)

Enable/disable the SATA controllers.

SATA Mode Selection

IDE: For better compatibility.

AHCI: Supports new features that improve performance.

AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

SATA Aggressive Link Power Management

SATA Aggressive Link Power Management allows SATA devices to enter a low power state during periods of inactivity to save power. It is only supported by AHCI mode.

Hard Disk S.M.A.R.T.

S.M.A.R.T stands for Self-Monitoring, Analysis, and Reporting Technology. It is a monitoring system for computer hard disk drives to detect and report on various indicators of reliability.

7.3.4 Intel® Smart Connect Technology

Intel® Smart Connect Technology

Intel® Smart Connect Technology automatically updates your email and social networks, such as Twitter, Facebook, etc. while the computer is in sleep mode.

7.3.5 ACPI Configuration

Suspend to RAM

Select disable for ACPI suspend type S3. It is recommended to select auto for ACPI S3 power saving.

ACPI HPET Table

Enable the High Precision Event Timer for better performance and to pass WHQL tests.

PCIE Devices Power On

Allow the system to be waked up by a PCIE device and enable wake on LAN.

RTC Alarm Power On

Allow the system to be waked up by the real time clock alarm. Set it to By OS to let it be handled by your operating system.

USB Keyboard/Remote Power On

Allow the system to be waked up by an USB keyboard or remote controller.

USB Mouse Power On

Allow the system to be waked up by an USB mouse.

7.3.6 USB Configuration

Intel USB 3.0 Mode

Select Intel® USB 3.0 controller mode. Set [Smart Auto] to keep the USB 3.0 driver enabled after rebooting (USB 3.0 is enabled in BIOS). Set [Auto] to automatically enable the USB 3.0 driver after entering the OS (USB 3.0 is disabled in BIOS). Set [Enabled] to keep the USB 3.0 driver enabled (Must install driver to use USB devices under Windows® 7). Set [Disabled] to disable the USB 3.0 ports.

Legacy USB Support

Enable or disable Legacy OS Support for USB 2.0 devices. If you encounter USB compatibility issues it is recommended to disable legacy USB support. Select UEFI Setup Only to support USB devices under the UEFI setup and Windows/Linux operating systems only.

7.3.7 Trusted Computing

Security Device Support

Enable or disable BIOS support for security device.

7.4 Tools

Instant Flash

Save UEFI files in your USB storage device and run Instant Flash to update your UEFI.

Internet Flash

ASRock Internet Flash downloads and updates the latest UEFI firmware version from our servers for you. Please setup network configuration before using Internet Flash.

*For BIOS backup and recovery purpose, it is recommended to plug in your USB pen drive before using this function.

Network Configuration

Use this to configure internet connection settings for Internet Flash.

Internet Setting

Select an internet connection mode.

UEFI Download Server

Select a server to download the UEFI firmware.

7.5 Hardware Health Event Monitoring Screen

This section allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, fan speed and voltage.

CHA Fan1 Setting

Select a fan mode for Chassis Fan 1.

Target CPU Temperature

Select a target CPU temperature value.

Target Fan Speed

Select a target fan speed. The higher the level, the higher the fan speed.

7.6 Security Screen

In this section you may set or change the supervisor/user password for the system. You may also clear the user password.

Supervisor Password

Set or change the password for the administrator account. Only the administrator has authority to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

User Password

Set or change the password for the user account. Users are unable to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

Secure Boot

Enable to support Windows 8 Secure Boot.

7.7 Boot Screen

This section displays the available devices on your system for you to configure the boot settings and the boot priority.

Fast Boot

Fast Boot minimizes your computer's boot time. In fast mode you may not boot from an USB storage device. Ultra Fast mode is only supported by Windows 8 and the VBIOS must support UEFI GOP if you are using an external graphics card. Please notice that Ultra Fast mode will boot so fast that the only way to enter this UEFI Setup Utility is to Clear CMOS or run the Restart to UEFI utility in Windows.

Boot From Onboard LAN

Allow the system to be waked up by the onboard LAN.

Setup Prompt Timeout

Configure the number of seconds to wait for the setup hot key.

Bootup Num-Lock

Select whether Num Lock should be turned on or off when the system boots up.

Boot Beep

Select whether the Boot Beep should be turned on or off when the system boots up. Please note that a buzzer is needed.

Full Screen Logo

Enable to display the boot logo or disable to show normal POST messages.

CSM (Compatibility Support Module)

CSM

Enable to launch the Compatibility Support Module. Please do not disable unless you're running a WHCK test. If you are using Windows 8 64-bit and all of your devices support UEFI, you may also disable CSM for faster boot speed.

7.8 Exit Screen

Save Changes and Exit

When you select this option the following message, "Save configuration changes and exit setup?" will pop out. Select [OK] to save changes and exit the UEFI SETUP UTILITY.

Discard Changes and Exit

When you select this option the following message, "Discard changes and exit setup?" will pop out. Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

Discard Changes

When you select this option the following message, "Discard changes?" will pop out. Select [OK] to discard all changes.

Load UEFI Defaults

Load UEFI default values for all options. The F9 key can be used for this operation.

Launch EFI Shell from filesystem device

Copy shellx64.efi to the root directory to launch EFI Shell.

Contact Information

If you need to contact ASRock or want to know more about ASRock, you're welcome to visit ASRock's website at http://www.asrock.com; or you may contact your dealer for further information. For technical questions, please submit a support request form at http://www.asrock.com/support/tsd.asp

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