About this Concise User Guide

This quick guide is a brief introduction to getting your system started. This is a supplement, and not a substitute for the expanded English language *User's Manual* in *Adobe Acrobat* format on the *Device Drivers & Utilities + User's Manual* disc supplied with your computer. This disc also contains the drivers and utilities necessary for the proper operation of the computer (**Note**: The company reserves the right to revise this publication or to change its contents without notice).

Some or all of the computer's features may already have been setup. If they aren't, or you are planning to re-configure (or re-install) portions of the system, refer to the expanded *User's Manual*. The *Device Drivers & Utilities + User's Manual* disc does not contain an operating system.

Regulatory and Safety Information

Please pay careful attention to the full regulatory notices and safety information contained in the expanded *User's Manual* on the *Device Drivers & Utilities + User's Manual* disc.

FCC Statement

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Trademarks

Intel and **Intel Core** are trademarks/registered trademarks of Intel Corporation.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

English

English

Instructions for Care and Operation

The computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

- **Don't drop it, or expose it to shock**. If the computer falls, the case and the components could be damaged.
- **Keep it dry, and don't overheat it**. Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
- **Avoid interference**. Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
- **Follow the proper working procedures for the computer**. Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost.
- Note that in computer's featuring a raised LCD electro-plated logo, the logo is covered by a protective adhesive. Due to general wear and tear, this adhesive may deteriorate over time and the exposed logo may develop sharp edges. Be careful when handling the computer in this case, and avoid touching the raised LCD electro-plated logo. Avoid placing any other items in the carrying bag which may rub against the top of the computer during transport. If any such wear and tear develops contact your service center.

Power & Battery Safety

- Only use an AC/DC adapter approved for use with this computer.
- Use only the power cord and batteries indicated in this manual.
- Your AC/DC adapter may be designed for international travel but it still requires a steady, uninterrupted power supply. If you are unsure of your local power specifications, consult your service representative or local power company.
- The AC/DC adapter may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
- When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
- Make sure that your computer is completely powered off before putting it into a travel bag (or any such container).
- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- Recharge the batteries using the computer's system. Incorrect recharging may make the battery explode.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Keep children away from, and promptly dispose of a damaged battery. Always dispose of batteries carefully. Batteries may explode or leak if exposed to fire, or improperly handled or discarded.
- Keep the battery away from metal appliances.
- Affix tape to the battery contacts before disposing of the battery.
- Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- Do not touch the battery contacts with your hands or metal objects.

Polymer Battery Precautions

Note the following information which is specific to polymer batteries only, and where applicable, this overrides the general battery precaution information.

- Polymer batteries may experience a slight expansion or swelling, however this is part of the battery's safety mechanism and is not a cause for concern.
- Use proper handling procedures when using polymer batteries. Do not use polymer batteries in high ambient temperature environments, and do not store unused batteries for extended periods.

Battery Disposal & Caution

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

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

Cleaning

- Use a soft clean cloth to clean the computer, but do not apply cleaner directly to the computer.
- Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.
- Before cleaning the computer remove the battery and make sure the computer is disconnected from any external power supplies, peripherals and cables (including telephone lines).

Servicing

Attempting to service the computer yourself may violate your warranty and expose you and the computer to electric shock. Refer all servicing to qualified service personnel, particularly under any of the following conditions:

- When the power cord or AC/DC adapter is damaged or frayed.
- If the computer has been exposed to any liquids.
- If the computer does not work normally when you follow the operating instructions.
- If the computer has been dropped or damaged (do not touch the poisonous liquid if the LCD panel breaks).
- If there is an unusual odor, heat or smoke coming from your computer.

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
4. Attach the AC/DC adapter to the DC-In jack at the rear of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter (**make sure you use the adapter when first setting up the computer**, as to safeguard the computer during shipping the battery will be locked to not power the system until first connected to the AC/DC adapter).
5. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not to exceed **135** degrees); use the other hand (as illustrated in ***Figure 1***) to support the base of the computer (**Note: Never** lift the computer by the lid/LCD).
6. Press the power button to turn the computer "on".

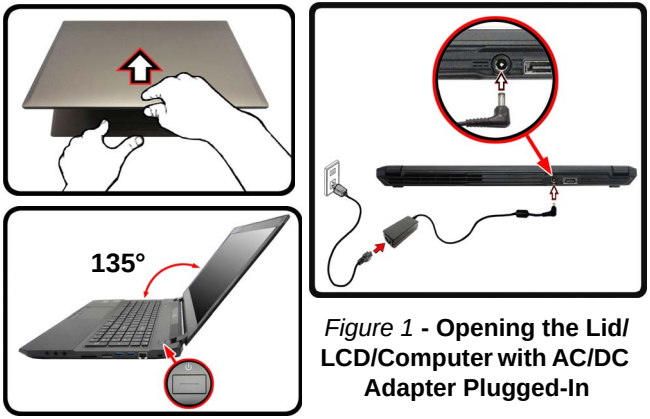


Figure 1 **- Opening the Lid/ LCD/Computer with AC/DC Adapter Plugged-In**

System Software

Your computer may already come with system software pre-installed. Where this is not the case, or where you are re-configuring your computer for a different system, you will find this manual refers to ***Microsoft Windows 8.1***.

HDD RAID Support

Your hard disk(s) can be set up in AHCI mode or RAID mode (for increased performance or protection). Note that setting up your hard disk(s) in RAID mode needs to be done prior to installing the ***Windows*** OS. Do not change the mode unless you intend to reinstall your operating system, and make sure you back up all necessary files and data before doing so.

Shut Down

Note that you should always shut your computer down by choosing the **Shut down** command in ***Windows*** (see below). This will help prevent hard disk or system problems.

Click the icon in the **Start Screen** and choose **Shut down** from the menu.

Or

Right-click the **Start button** at the bottom of the **Start Screen** or the **Desktop** and choose **Shut down or sign out > Shut down** from the context menu.

Model Differences

This notebook series includes **two** different model types that mainly differ as indicated in the table below.

Feature	Model A					Model B		
	Design I	Design II	Design III	Design IV	Design V	Design I	Design II	Design III
Display Type	15.6" (39.62cm), 16:9, QFHD (3840x2160)/WQHD+ (2880x1620)/FHD (1920x1080)		15.6" (39.62cm), 16:9, QFHD (3840x2160)/FHD (1920x1080)		15.6" (39.62cm), 16:9, QFHD (3840x2160)/ WQHD+ (2880x1620)/ FHD (1920x1080)	17.3" (43.94cm), 16:9, FHD (1920x1080)		
NVIDIA® Discrete GPU	NVIDIA® GeForce GTX 970M	NVIDIA® GeForce GTX 980M	NVIDIA® GeForce GTX 965M		NVIDIA® GeForce GTX 970M	NVIDIA® GeForce GTX 970M	NVIDIA® GeForce GTX 980M	NVIDIA® GeForce GTX 965M
Storage	See ***Storage on page 39*** for details.							
3G/4G Module	Factory Option					No		
Sub Woofer	No					Yes		
Dimensions & Weight	See ***Dimensions & Weight on page 40*** for details.							

Table 1 **- Model Differences**

RAID Setup

You may use your hard disks in combination with Striping (RAID 0), Mirroring (RAID 1) or Recovery for either fault tolerance or performance.

RAID Level	Description
RAID 0 (at lease two hard disks/ SSDs needed)	Identical drives reading and writing data in parallel to **increase performance**. RAID 0 implements a striped disk array and the data is broken into blocks and each block is written to a separate disk drive.
RAID 1 (at lease two hard disks/ SSDs needed)	Identical drives in a mirrored configuration used to **protect data**. Should a drive that is part of a mirrored array fail, the mirrored drive (which contains identical data) will handle all the data. When a new replacement drive is installed, data to the new drive is rebuilt from the mirrored drive to restore fault tolerance.
Recovery (at lease two hard disks/ SSDs needed)	Two Identical drives copying data between a master and a recovery disk. This provides more control over how data is copied between the master and recovery drives, fast volume updates and the ability to view the data in *Windows Explorer*.

Table 2 **- RAID Description**

Prepare the following before setting up your serial ATA hard disks in RAID mode:

- The ***Microsoft Windows 8.1 OS*** disc.
- An attached external DVD drive.
- A hard disk installed in the Primary HDD bay and a **second** (identical) hard disk installed in the Secondary HDD bay.
  Or
  Two Identical solid state drives.
- The ***Device Drivers & Utilities + User's Manual*** disc.

Note: All hard disks/SSDs in a RAID should be identical (the same size and brand) in order to prevent unexpected system behavior.

RAID Setup Procedure

1. Start-up your notebook computer and press <F2> to enter the **BIOS**.
2. Go to the **Boot** menu, select **UEFI Setting** and press <Enter>.
3. Set **UEFI Boot** to "**Enabled**".
4. Press <Esc> to exit the menu and go to the **Advanced** menu.
5. Select **SATA Mode**, press <Enter> and select "**RAID Mode**".
6. Press <F4> and <Yes> to "**Save Changes and Reset**".
7. After the computer restarts press <F2> to enter the **BIOS** again.
8. Go to **Intel(R) Rapid Storage Technology** (in the **Advanced** menu) and press <Enter>.
9. Select **Create RAID Volume** and press <Enter>.
10. You can now setup your RAID volume using any two installed disks.
11. Go to **Name:** and press <Enter>.
12. Type a name of your choice for your RAID volume and press <Enter>.

Figure 2 **-Name the RAID Volume (Advanced > Intel(R) Rapid Storage Technology)**

13. Go to **RAID Level**: and press <Enter>.
14. Choose the RAID Level required (see ***Table 2 on page 6***) and press <Enter>.
    - RAID 0 (Stripe)/RAID 1 (Mirror)/Recovery
15. Go to any of the disks listed under **Select Disks:** and select a disk name and press <Enter>.
16. Move the cursor down (use the arrow keys) onto **X** (or select the disk required) and press <Enter>.

If you have selected a **Recovery** level RAID then you need to select one disk to be **Master disk (M)** and one disk to be the **Recovery disk (R)**.

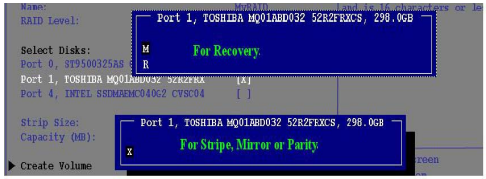


Figure 3
Select Disks

17. You should select two identical disks to form your RAID volume.
18. If you have selected **RAID 0** (**Stripe)** then you can adjust the "**Strip Size"** to your requirements.
19. If you have selected **Recovery** then you can adjust the **Synchronization** to "**On Request**" or "**Continuous**".
20. Go to **Create Volume** and press <Enter>.
21. The RAID volume will then be created and the RAID information will be displayed under **Intel(R) Rapid Storage Technology** (in the **Advanced** menu).

Figure 4
RAID Information (Advanced > Intel(R) Rapid Storage Technology)

22. Press <Esc> to exit the menu.
23. Press <F4> and <Yes> to "**Save Changes and Reset**".
24. Make sure the ***Windows 8.1*** OS DVD is in the attached DVD drive and as the computer starts up it will automatically boot from the ***Windows 8.1*** OS DVD (you will be prompted to press a key to boot from the DVD).
25. Press <F7> as the computer starts up to bring up the boot device menu.
26. Select the DVD drive containing the *Windows 8.1* OS DVD and press <Enter>.
27. Press a key at system startup to begin installing *Windows* from your *Windows 8.1* OS DVD.
28. Click **Next** > **Install Now** to continue installing the operating system as normal (see your *Windows* documentation if you need help on installing the *Windows* OS).
29. Follow the on-screen instructions to install the *Windows 8.1* operating system.
30. Install the *Windows* drivers as per ***Table 5 on page 27***. Make sure you install the **Intel® Rapid Storage Technology (IRST)** driver (see ***page 32***).

English

System Map: Front View with LCD Panel Open (Models A & B)

Figure 5 **- Front View with LCD Panel Open (Models A & B)**

1. PC Camera
2. *PC Camera LED
   **When the PC camera is in use, the LED will be illuminated.*
3. Built-In Array Microphone
4. LCD
5. Power Button
6. Speakers
7. Keyboard
8. Touchpad & Buttons
9. Fingerprint Reader (**Optional**)

LED Indicators

The LED indicators on the computer display helpful information about the current status of the computer.

Icon	Color	Description
		
	Off	Integrated GPU (**iGPU**) in Use
	Green	Discrete GPU (**dGPU**) in Use
	Green	Scroll Lock Activated
	Green	Caps Lock Activated
	Green	Number Lock (Numeric Keypad) Activated
	Green	**Airplane Mode is ON** (the WLAN, Bluetooth and 3G/4G Modules are OFF)
	Green	The Hard Disk is in use
	Orange	The Battery is Charging
	Green	The Battery is Fully Charged
	Blinking Orange	The Battery Has Reached Critically Low Power Status
	Orange	The AC/DC Adapter is Plugged In
	Blinking Orange*	The AC/DC adapter is plugged in and the powered USB Port is on*
	Green	The Computer is On
	Blinking Green	The Computer is in Sleep Mode

Table 3 **- LED Indicators**

*The powered USB 3.0 port (see ***page 17***) may be toggled on /off by means of the **Fn + Power Button** key combination. When the powered USB port is on it will supply power (**for charging devices only, not for operating devices**) when the system is off but still powered by the AC/DC adapter plugged into a working outlet, or powered by the battery with a capacity level above 20% (this may not work with certain devices - see ***page 37***).

Wireless Device Operation Aboard Aircraft

The use of any portable electronic transmission devices aboard aircraft is usually prohibited.

Make sure the wireless modules are OFF if you are using the computer aboard aircraft by putting the system in to Airplane Mode.

English

Keyboard & Function Keys

The keyboard includes a numeric keypad for easy numeric data input. Pressing **NumLk** turns on/off the numeric keypad. It also features function keys to allow you to change operational features instantly. The function keys (**F1 - F12** etc.) will act as hot keys when pressed while the **Fn** key is held down. In addition to the basic function key combinations, some visual indicators are available (**in the Windows Desktop application only and not in the Start screen**) when the hot key driver is installed.

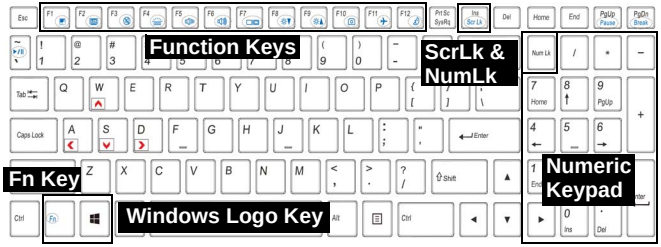


Figure 6 **- Keyboard**

Keys	Function/Visual Indicators		Keys	Function/Visual Indicators	
Fn +	Play/Pause (in Audio/Video Programs)		Fn +	Airplane Mode Toggle	Airplane mode on / Airplane mode off
Fn +	Touchpad Toggle	TOUCH PAD ON / TOUCH PAD OFF	Fn +	Sleep Toggle	
Fn +	Turn LCD Backlight Off (Press a key to or use Touchpad to turn on)			Number Lock Toggle	NUM LOCK ON / NUM LOCK OFF
Fn +	Mute Toggle		Fn +	Scroll Lock Toggle	SCR LOCK ON / SCR LOCK OFF
Fn +	Toggle Keyboard Illumination/Adjust Brightness Level	BACKLIGHT KEYBOARD OFF / BACKLIGHT KEYBOARD HIGH		Caps Lock Toggle	CAPS LOCK ON / CAPS LOCK OFF
Fn +	Volume Decrease/ Increase		Fn + Power Button	Powered USB Port Power Toggle (see ***page 17***)	
Fn +	Change Display Configuration		Fn +	Control Center Toggle (see ***page 11***)	
Fn +	Brightness Decrease/ Increase		Fn +	Fan Automatic Control/ Full Power	FAN SPEED AUTOMATIC / FAN SPEED MAXIMUM
Fn +	PC Camera Power Toggle	CAMERA ON / CAMERA OFF	Fn +	Disable/Enable Flexikey® (see ***page 13***)	Flexikey: ON / Flexikey: OFF

Table 4 **- Function Keys & Visual Indicators**

Control Center

The **Control Center** in ***Windows 8.1*** works under the **Desktop** app and not under the Start screen. Press the **Fn + Esc** key combination, or **double-click the icon** in the **notification area of the taskbar** to toggle the **Control Center** on/off. The **Control Center** gives quick access to frequently used controls and enables you to quickly turn the camera/Touchpad on/off.

Figure 7 **- Control Center**

Power Modes

You can set a **Power Mode** by clicking the appropriate icon at the top of the **Control Center**. Each power mode will affect the Power Conservation Mode, Airplane Mode, Power Plan and PC camera power etc.

Control Center Menus

The **Control Center** contains 3 menu headings (**System Program**, **Device** and **Gaming**) under the Power Modes. Click the **Control Center** icons to toggle the appropriate function, or hold the mouse button down and move the dial control where applicable. Certain functions will automatically be adjusted when a power mode is selected. Click the menu headings and then click any of the buttons.

Power Status

The **Power Status** icon will show whether you are currently powered by the battery, or by the AC/DC adapter plugged in to a working power outlet. The power status bar will show the current battery charge state.

Brightness

The **Brightness** icon will show the current screen brightness level. You can use the slider to adjust the screen brightness or the **Fn + F8/F9** key combinations, or use the **Fn + F2** key combination to turn off the LED backlight (press any key to turn it on again). Note that screen brightness is also effected by the **Power Mode** selected.

Volume

The **Volume** icon will show the current volume level. You can use the slider to adjust the volume or the **Fn + F5/F6** key combinations, or use the **Fn + F3** key combination to mute the volume.

English

Power Conservation 

This system supports **Energy Star** power management features that place computers (CPU, hard drive, etc.) into a low-power sleep mode after a designated period of inactivity. Click either the **Performance**, **Balanced** or **Energy Star** button.

Fan Speed 

The fan speed will adjust itself automatically to control the heat of the CPU. However you can adjust the setting to maximum if you prefer. Select **Custom** and click on the sliders to adjust the settings to your preference, however these settings can be overridden by the system, as a safety precaution, if it requires heavier use of the fan.

Sleep Button 

Click either the **Hibernate** or **Sleep** button to have the computer enter the selected power-saving mode.

Display Utility 

The **Display Utility** icon will only appear in the System Program menu if your display's resolution is QHD or above. The Display Utility allows you to adjust text size on the screen to make it easier to view.

Display Switch 

Click the **Display Switch** button to access the menu (or use the + **P** key combination) and select the appropriate display mode.

Time Zone 

Clicking the **Time Zone** button will access the **Date and Time** ***Windows*** control panel.

Desktop Background


Clicking the **Desktop Background** button will allow you to change the desktop background picture.

Touchpad/PC Camera 

Click either of these buttons to toggle the Touchpad or camera module's power status. Note that the power status of the camera module is also effected by the **Power Mode** selected.

Left Windows Key


Click **Disable** to disable the Windows Key on the left side of the keyboard. This may be useful if you are using the gaming keys (**W, A, S & D**) and wish to avoid accidentally triggering menus with the Windows Key.

Headphone 

The headphones may be set for different effects using this menu.

Backlight Keyboard


Click the numbers under the Backlight Keyboard icon to adjust the brightness of the keyboard backlight LED.

Flexikey®


Click the button to access the **Flexikey®** application.

Flexikey® Application

The **Flexikey®** application is a quick hotkey configuration application, which allows you to **assign a single key** to **launch multiple key combinations**, or to **launch programs and applications**, to **create text macros** and to **disable** certain keys. The application can also be used to **configure the mouse buttons** to create hotkeys for gaming etc. All the configuration settings are retained under (up to12) **profiles** to which the settings are applied.

The **Flexikey®** application can be accessed by clicking the button in the **Gaming** section of the **Control Center** or by clicking the icon in the notification area of the desktop taskbar.

Enabling or Disabling the Flexikey® Profile in Use

You can enable or disable any keyboard or mouse profile functions currently in use by using the **Fn +** key combination. Pressing this key combination will toggle you between the currently selected keyboard or mouse profile to the standard keyboard and/or mouse settings, and back again.

Windows Logo Key and P key

Note that you can assign actions to any keyboard key except the **Windows Logo Key** and **P key**.

Profiles

The menus on the left side of the application relate to Profiles. You can **Add** or **Delete** profiles (**you can maintain 12 active Profiles**), **Export** and **Import** profiles from the menus. If you double-click on a profile you can change the **Profile Name**, and change an **Image** file (images created using PNG files).

Figure 8 **Flexikey® Application**

Keyboard and Mouse Settings

Click **Enable** to create settings for the keyboard and/or mouse by clicking the button on the top left of the screen (e.g. you may wish to create a profile with settings only for the mouse or keyboard). Clicking on the keyboard or mouse icons will allow you to access the settings page for either the keyboard or mouse.

Figure 9 **- Enable (Keyboard & Mouse)**

Keyboard Settings

The keyboard settings allow you to configure actions for any single key (or a combination of keys). Click the key and then select the **Action Type** (**Express Key**, **Launch App**, **Express Text** or **Disable**) from the menu at the bottom of the page. You can rename the action by clicking in the **Name** box, and click in **Tool Tips** to type in a note to remind you of the action's function.

Figure 10 **- Keyboard Configuration**

Mouse Settings

The mouse settings allow you to configure actions for the left (1), right (2) and middle (3) buttons of any attached mouse, and also for any backward (4) and forward (5) buttons if applicable (on a gaming type mouse). Click the button number and then select the **Action Type** (**Express Key**, **Launch App**, **Express Text** or **Disable**) from the menu at the bottom of the page. You can rename the action by clicking in the **Name** box, and click in **Tool Tips** to type in a note to remind you of the action's function.

Figure 11 **- Mouse Configuration**

Flexikey® Application Features:

- **EXPRESS KEY** - This feature allows you to configure a single key (or mouse click) to send multiple key combinations, or to create more useful shortcut keys This is useful in gaming or when using applications which have a complex set of keyboard shortcuts.
- **LAUNCH APP** - This simply assigns single keys (or mouse clicks) to launch any program's or application's executable file.
- **EXPRESS TEXT** - With this you can assign single keys (or mouse clicks) to send commonly used strings of text.
- **DISABLE** - Use this function to disable any keyboard keys or mouse buttons.
- **STATISTICS** - Use this to quickly record keys in use in any application, and to disable unused keys.

Keyboard Settings - Express Key

To configure a single key to send multiple key combinations, or to create more useful shortcut keys, use **Express Key**.

1. **Enable** and select the keyboard under your chosen profile, click on a key to select it, and then click to select **Express Key** in **Action Type**.
2. In the following example we want to change an existing game key configuration which uses the **left shift** key for sprinting, and the **W** key for moving forwards, to use the **left Ctrl** key to combine this movement to sprint forward.
3. Click on the chosen key for the shortcut action.
4. Click in the **Tool Tips** field and type to give the key combination a name e.g. "*Sprint Fwds*", then click back in the **Name** field (to avoid adding the recorded keys to the Tool Tips name).
5. Click **Start Record** and then **press** the key or keys (in this case we will **press** Left Shift and W) required (make sure you **press the key(s) required** and do not click on them).
6. Click **Stop Record** to complete the process.

Figure 12 **- Keyboard - Express Key**

7. Click **Save** to save the settings within your chosen profile.
8. If you want to remove any individual key click to select it, and then click **Delete**.
9. If you want to clear all the settings click **Restore** to return to the default key setting.
10. Any assigned **Express Keys** will appear in **orange**.

Keyboard Settings - Launch App

You can configure keys to launch any application or program as follows:

1. **Enable** and select the keyboard under your chosen profile, click to select a key to launch the appllication, and then click to select **Launch App** in **Action Type**.
2. Click **Browse...** at the bottom right of the application window.

Figure 13 **- Keyboard - Launch App**

3. Navigate to the executable file of the application and click **Open**.
4. The key will now be configured to open the selected application under your chosen Profile, and the key will appear in **green**.
5. If you want to remove any **Launch App** key, select it and click on **Restore**.
6. Click **Save** to save the settings within your chosen profile.

English

Keyboard Settings - Express Text

A single key can be set to send a string of text within any application using **Express Text**.

1. **Enable** and select the keyboard under your chosen profile, click to select a key, and then click to select **Express Text** in **Action Type**.
2. Click in **Start** key if required (the **Start** key is the key used in your target program to open a text message), or you can leave it blank if you prefer.
3. Click in the **Click to type** field and type in your message.

Figure 14 **- Keyboard - Express Text**

4. Click in **Send** key if required (the **Send** key is the key used in your target program to send a text message e.g the Enter key would be the most commonly used), or you can leave it blank if you prefer.
5. The key will now be configured to send the text message in the target program under your chosen Profile, and the key will appear in **blue**.
6. If you want to remove any **Express Text** key, select it and click on **Restore**.
7. Click **Save** to save the settings within your chosen profile.

Keyboard Settings - Disable

You can use the program to disable any keys not required.

1. **Enable** and select the keyboard under your chosen profile, click to select a key to disable, and then click to select **Disable** in **Action Type**.
2. The key will now be disabled.
3. If you want to enable the key again, select it and click on **Restore**.
4. Click **Save** to save the settings within your chosen profile.
5. The key will be disabled under your chosen Profile, and the key will appear in **gray**.

System Map: Front, Left & Right Views (Model A)

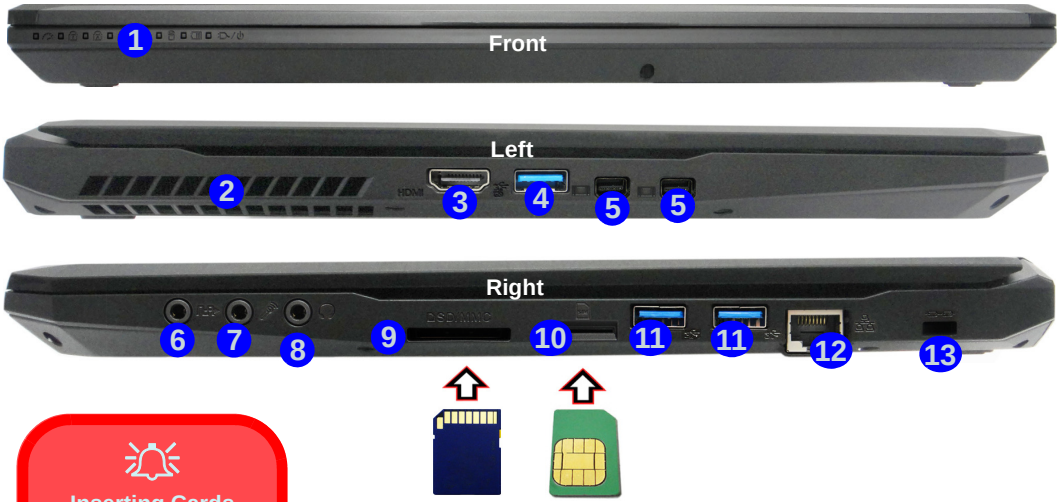


Figure 15 **- Front, Left & Right Views (Model A)**

1. LED Indicators
2. Vent
3. HDMI-Out Port
4. *Powered USB 3.0 Port
   *Toggle power to this port by using **Fn + power button** (see ***Table 3 on page 9***).
5. Mini DisplayPorts
6. S/PDIF-Out Jack
7. Microphone Jack
8. Headphone Jack
9. Multi-in-1 Card Reader
10. USIM Card Reader (for 3G/4G USIM Cards)
11. USB 3.0 Ports
12. RJ-45 LAN Jack
13. Security Lock Slot

Inserting Cards into the Card Reader 9 \ 10

Note that the cards should be inserted with the readable side of the card facing upwards, as illustrated on the right.

USIM Card Ejection

Simply press on the USIM card to eject it, however do not do this while a connection is in progress.

If you do eject the card while a 3G/4G connection is ongoing, you will need to shut down the system, reinsert the USIM card, restart the system and then reestablish the 3G/4G connection.

If you wish to change USIM cards then you will also need to **shut down the system**, reinsert the USIM card, restart the system and then reestablish the 3G/4G connection.

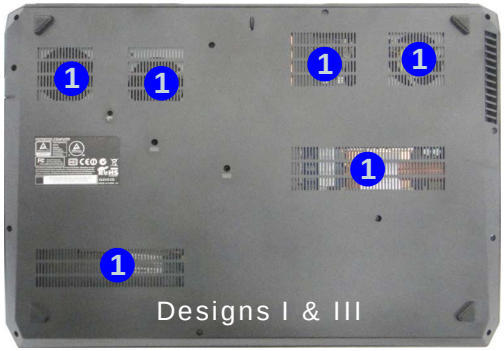
English

System Map: Front, Left & Right Views (Model B)

Figure 16 **- Front, Left & Right Views (Model B)**

1. LED Indicators
2. Vent
3. HDMI-Out Port
4. *Powered USB 3.0 Port
   *Toggle power to this port by using **Fn + power button** (see ***Table 3 on page 9***).
5. Mini DisplayPorts
6. S/PDIF-Out Jack
7. Microphone Jack
8. Headphone Jack
9. USB 3.0 Ports
10. Multi-in-1 Card Reader
11. RJ-45 LAN Jack
12. Security Lock Slot

System Map: Bottom & Rear Views (Model A)



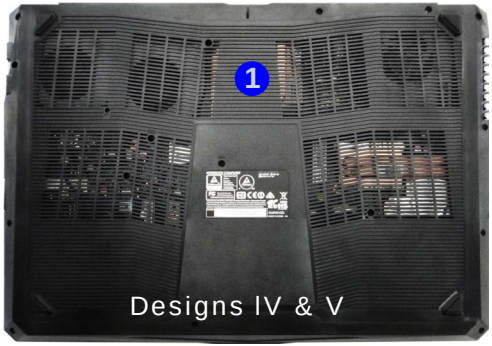
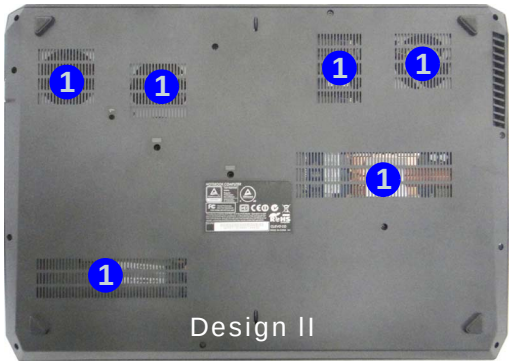


Figure 17 - **Bottom & Rear Views (Model A)**

1. Vent
2. DC-In Jack
3. Combined eSATA/USB 3.0 Port



Bottom Cover Removal Warning

Do not remove any cover(s) and/or screw(s) for the purposes of device upgrade as this may violate the terms of your warranty.

System Map: Bottom & Rear Views (Model B)

Overheating

To prevent your computer from overheating make sure nothing blocks any vent while the computer is in use.

Bottom Cover Removal Warning

Do not remove any cover(s) and/or screw(s) for the purposes of device upgrade as this may violate the terms of your warranty.

If you need to replace/remove the hard disk/RAM etc., for any reason, please contact your distributor/supplier for further information.

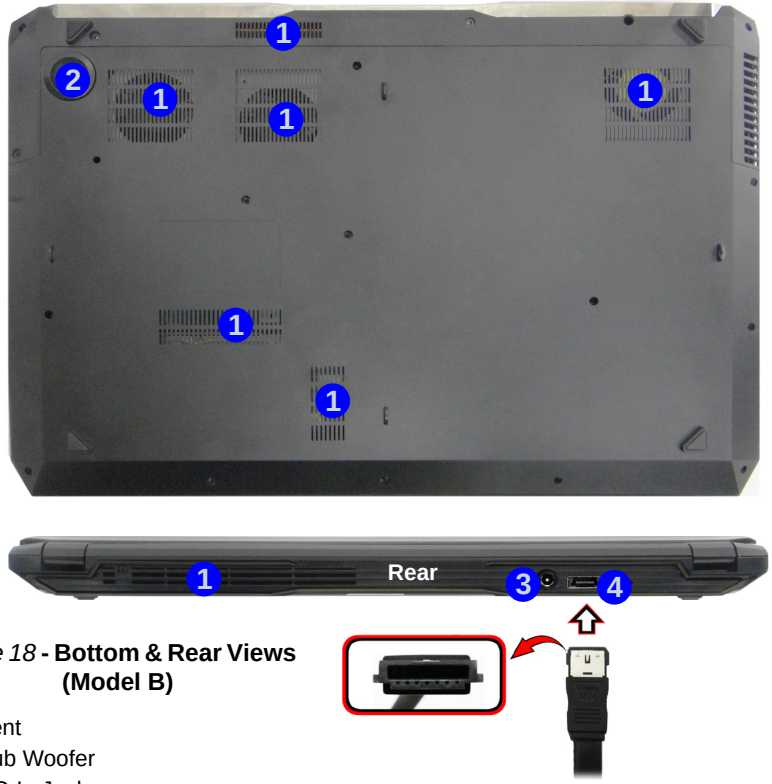


Figure 18 **- Bottom & Rear Views (Model B)**

1. Vent
2. Sub Woofer
3. DC-In Jack
4. Combined eSATA/USB 3.0 Port

Windows 8.1 Start Screen, Desktop and Charms Bar

The Apps, control panels, utilities and programs within ***Windows 8.1*** are accessed from the **Start screen** and/or ***Windows*** **Desktop app**. The **Desktop** (which runs as an app within the **Start** screen) can be accessed by clicking the **Desktop** item in the Start screen (or by using the **Windows Logo Key** + **D** key combination). The taskbar is displayed at the bottom of the desktop screen, and you can see the notification area of the taskbar in the bottom right of the screen. Click the arrow at the bottom of the **Start** screen to access **Apps**.

The right side of the screen displays the Charms Bar. The Charms Bar contains the **Search**, **Share**, **Start**, **Devices** and **Settings** menus. To access up the Charms Bar move the cursor to the upper or lower right corners of the screen, and then hover over one of the items in the Charms Bar to activate it (the bar will be black when it is active), or use the **Windows Logo Key** + **C** key combination.

Figure 19 **- Start Screen (Windows 8.1)**

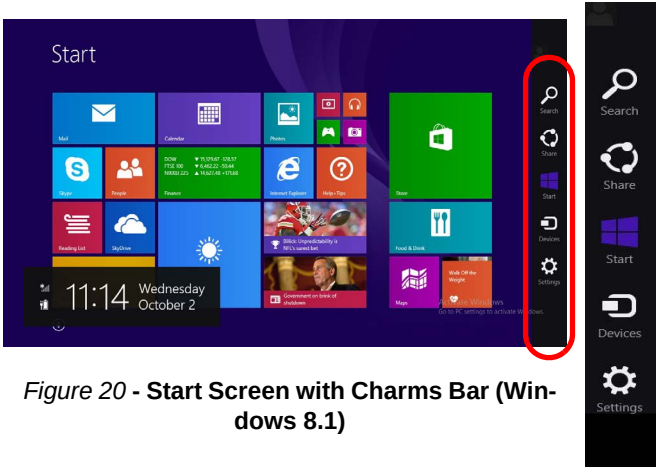
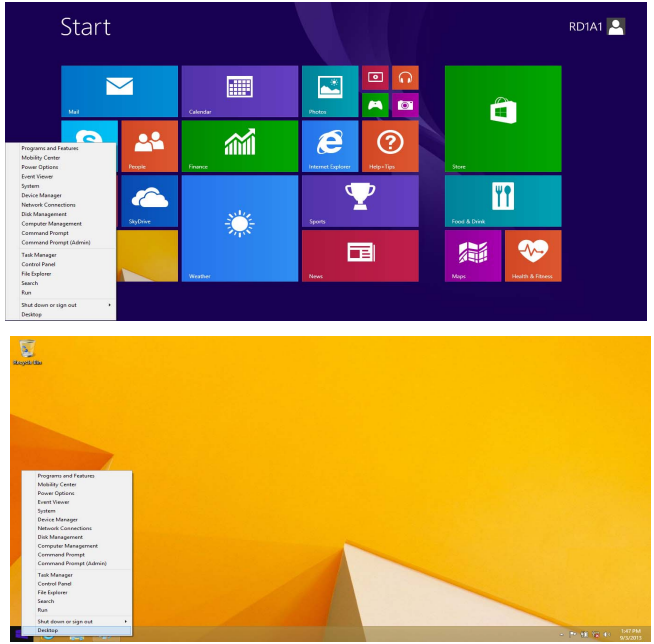


Figure 20 **- Start Screen with Charms Bar (Windows 8.1)**

English

Windows 8.1 Control Panel

Throughout this manual you will see an instruction to open the Control Panel. **Right-click** the **Start button** in the **Desktop** app or **Start** screen (or use the **Windows Logo Key** + **X** key combination) to bring up an advanced context menu of useful features such as Control Panel, Programs and Features, Power Options, Task Manager, Search, File Explorer, Command Prompt, Device Manager and Network Connections etc. and then select **Control Panel**.



Move the mouse to the bottom left of the screen and right-click the Start button to access the menu.

Figure 21 **- Context Menu (Windows 8.1)**

Video Features

The system features both an **Intel's Integrated GPU** (for power-saving) and an **NVIDIA's discrete GPU** (for performance). You can switch display devices, and configure display options as long as the video drivers are installed.

Microsoft Hybrid Graphics

Microsoft Hybrid Graphics is a seamless technology designed to get best performance from the graphics system while allowing longer battery life, without having to manually change settings. The computer's operating system (and some applications) will automatically and seemlessly switch between the integrated UMA (Unified Memory Architecture) GPU (iGPU) and the discrete GPU (dGPU).

To access the Display control panel in Windows:

1. Go to the **Control Panel**.
2. Click **Display** (icon) - in the **Appearances and Personalization** category.
3. Click **Adjust Screen Resolution/Adjust resolution**.

OR

4. Right-click the desktop (use the **Windows Logo Key** + **D** key combination to access the desktop) and select **Screen resolution**.
5. Use the dropbox to select the screen resolution.
6. Click **Advanced settings**.

To access the Intel® Iris Graphics Control Panel:

1. Click the icon (**Intel® Iris Graphics Control Panel**) on the **Apps** screen.

OR

2. Right-click the desktop (use the **Windows Logo Key** + **D** key combination to access the desktop) and select **Graphics Properties** from the menu.

OR

3. Click the icon in the notification area of the Desktop taskbar and select **Graphics Properties** from the menu.

To access the NVIDIA Control Panel:

1. Go to the **Control Panel**.
2. Click **NVIDIA Control Panel** (icon) - in the **Appearances and Personalization** category.

OR

3. Right-click the desktop (use the **Windows Logo Key** + **D** key combination to access the desktop) and select **NVIDIA Control Panel** from the menu.

Display Devices

Besides the built-in LCD, you can also use an external Flat Panel Display or TV (connected to the HDMI-Out port/ Mini DisplayPort) as your display device.

Power Options

The **Power Options** (**Hardware and Sound** menu) control panel icon in ***Windows*** allows you to configure power management features for your computer. You can conserve power by means of **power plans** and configure the options for the **power button**, **sleep button (Fn + F4)**, **computer lid (when closed)**, **display** and **sleep** mode (the default power saving state) from the left menu. Note that the **Power saver** plan may have an affect on computer performance.

Click to select one of the existing plans, or click **Create a power plan** in the left menu and select the options to create a new plan. Click **Change Plan Settings** and click **Change advanced power settings** to access further configuration options.

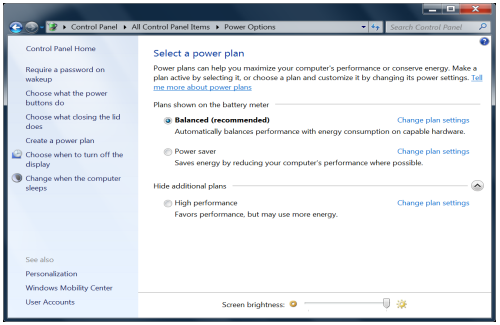


Figure 22 **- Power Options**

Audio Features

You can configure the audio options on your computer from the **Sound** control panel in ***Windows***, or from the **Realtek HD Audio Manager** / icon in the notification area/Control panel (right-click the notification area icon to bring up an audio menu). The volume may also be adjusted by means of the **Fn** + **F5/F6** key combination.

Volume Adjustment

The sound volume level can also be set using the volume control in the **Settings** menu in the **Charms Bar** (on the Start screen) or the **Speaker** icon in the desktop taskbar.

Setup for 5.1 Surround Sound

To setup your system for 5.1surround sound you will need to connect the audio cables to the Headphone-Out, Microphone-In and S/PDIF-Out jacks.

1. Go to the **Control Panel**.
2. Click **Realtek HD Audio Manager** (or right-click the notification area icon and select **Sound Manager**).
3. Click **Speakers** (tab) and click **Speaker Configuration** (tab).
4. Select **5.1 Speaker** from the **Speaker Configuration** pull-down menu.

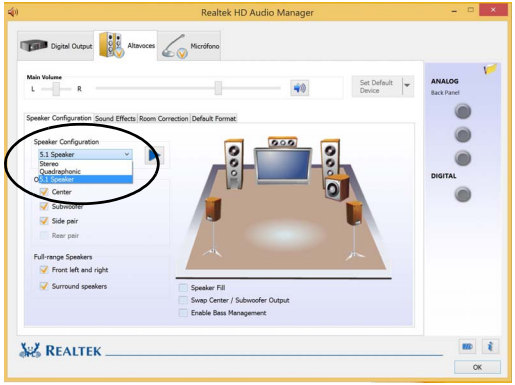


Figure 23 **- Speaker Configuration**

5. Plug in the cables (you may require an adapter to connect each cable to the appropriate jack e.g a stereo mini to dual RCA adapter) from your speakers as follows:
   - Headphone-Out Jack = Side Speaker Out
   - Microphone-In Jack = Center/Subwoofer Speaker Out
   - S/PDIF-Out Jack = Front Speaker Out
6. As you plug in each cable a dialog box will pop up.
7. Click to put a tick in the appropriate box according to the speaker plugged-in (e.g. Rear Speaker Out), and then click **OK** to save the setting.
8. Click **OK** to exit **Realtek HD Audio Manager**.

Setup for Audio Recording

To record audio sources on your computer at optimum quality follow the instructions below:

1. Go to the **Control Panel**.
2. Click **Realtek HD Audio Manager** (or right-click the notification area icon and select **Sound Manager**).
3. Click **Microphone Effects** (tab) in **Microphone** (tab), and then click to select **Noise Suppression** (button), or adjust the **Recording Volume** level to around **60**, to obtain the optimum recording quality.
4. Click **OK** to close the **Sound** control panel.

Sound Blaster Audio

Install the **Sound Blaster** application to allow you to configure the audio settings to your requirements for the best performance in games, music and movies.

Sound Blaster X-Fi MB3 AP Installation

1. Click **Option Drivers** (button).
2. Click **5.Install SBX-Fi MB 3 AP > Yes**.
3. Choose the language you prefer and click **Next**.
4. Click **Yes** to accept the license.
5. Click **Next** > **Full Installation** (button).
6. Click **Next > Finish** to restart the computer.

Sound Blaster X-Fi MB3 Application

Run the **Sound Blaster** control panel from the notification area of the taskbar (or from the item in the **Apps** screen). Click on the tabs to access any of the control panel menus. Note that the Sound Blaster audio effects **do not** apply to audio generated through an **HDMI/Mini DisplayPort** connection.

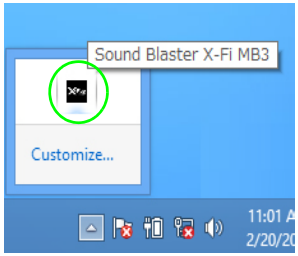
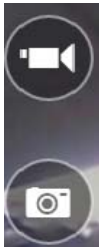


Figure 24
Sound Blaster X-Fi MB3 (Taskbar Notification Area Icon)

PC Camera

When the PC Camera is in use the PC Camera LED will be illuminated (see ***page 8***).

Camera App



1. Run the **Camera** app from the **Start** screen by clicking on the **Camera** icon .
2. The camera interface will display two buttons on the right side of the screen.
3. The upper button is used to record video, and the lower button is used to take still pictures.
4. **Right-click** on the screen to bring up menu buttons at the bottom of the screen.
5. These buttons enable you to access the **Camera roll** (where captured pictures and video are displayed), set the **timer** (the time period before capture begins) and set the exposure level using the slider to obtain the best results.

Taking Pictures/Capturing Video

1. Run the **Camera** app from the **Start** screen by clicking on the **Camera** icon .
2. Click to select the timer if you require a countdown before capture.
3. Click to select either **photo** or **video** mode.
4. Click in the appropraite icon to take a picture or start video capture (if video capture begins a timer will appear in the bottom left corner of the screen).
5. To stop video capture click the main window again (or click the stop icon).
6. Captured photos and videos will be saved to a **Camera Roll** folder within the **Pictures** folder.

Driver Installation

The ***Device Drivers & Utilities + User's Manual*** disc contains the drivers and utilities necessary for the proper operation of the computer. Insert the disc and click **Install Drivers** (button), or **Option Drivers** (button) to access the **Optional** driver menu. Install the drivers in the order indicated in ***Table 5***. Click to select the drivers you wish to install (you should note down the drivers as you install them). **Note**: If you need to reinstall any driver, you should uninstall the driver first.

Manual Driver Installation

Click the **Browse CD/DVD** button in the ***Drivers Installer*** application and browse to the executable file in the appropriate driver folder.

If a **Found New Hardware** wizard appears during the installation procedure, click **Cancel** and follow the installation procedure as directed.

Driver Installation & Power

When installing drivers make sure your computer is powered by the AC/DC adapter connected to a working power source. Some drivers draw a significant amount of power during the installation procedure, and if the remaining battery capacity is not adequate this may cause the system to shut down and cause system problems (note that there is no safety issue involved here, and the battery will be rechargeable within 1 minute).

Driver	Page#
Chipset	*page 28*
Video (VGA)	*page 28*
NVIDIA Video (NVIDIA VGA)	*page 28*
LAN	*page 28*
Cardreader	*page 28*
Touchpad	*page 28*
Hotkey	*page 28*
Airplane	*page 28*
MEI	*page 28*
Audio	*page 28*
Wireless LAN Module (**Optional**)	*page 29*
Bluetooth Module (**Optional**)	*page 31*
Intel® Rapid Storage Technology (IRST)	*page 32*
Intel® Rapid Start Technology	*page 34*
Sound Blaster Audio	*page 26*
Fingerprint Reader (**Optional**)	*page 35*
Enable **Windows Update***	
*After installing all the drivers make sure you enable **Windows Update** in order to get all the latest security updates etc. (all updates will include the latest **hotfixes** from Microsoft).	

Table 5 **- Driver Installation**

English

Chipset
1. Click **Install Drivers** (button).
2. Click **1.Install Chipset Driver > Yes**.
3. Click **Next > Yes > Next > Next**.
4. Click **Finish** to restart the computer.

Video (VGA)
1. Click **2.Install VGA Driver > Yes**.
2. Click **Next > Yes > Next > Next**.
3. Click **Finish** to restart the computer.

NVIDIA Video (NVIDIA VGA)
1. Click **3.Install NVIDIA VGA Driver > Yes**.
2. Click **AGREE AND CONTINUE** (button) to accept the terms of the license agreement.
3. Click **Next**.
4. Click **Close**.

LAN
1. Click **4.Install LAN Driver** > **Yes**.
2. Click **Next > Install > Finish**.

CardReader
1. Click **5.Install Cardreader Driver > Yes**.
2. Click **Finish**.

Touchpad
1. Click **6.Install Touchpad Driver > Yes**.
2. Click **Next**.
3. Click the tickbox to accept the license, and then click **Next**.
4. Click **Finish > Restart Now** to restart the computer.

Hotkey
1. Click **7.Install Hotkey AP > Yes**.
2. Click **Next.**
3. Click **Finish** to restart the computer.

Airplane
1. Click **8.Install Airplane Driver > Yes**.
2. Click **Next**.
3. Click **Finish** to restart the computer.

MEI
1. Click **9.Install MEI Driver > Yes**.
2. Click the tickbox to accept the license, and then click **Next**.
3. Click **Install > Finish**.

Audio
1. Click **10.Install Audio Driver > Yes**.
2. Click **Next > Finish** to restart the computer.

Wireless LAN Module (Option)

Make sure the Wireless LAN module is turned on (and not in **Airplane Mode**).

WLAN Driver Installation

Follow the instructions below:

(Intel) WLAN and Bluetooth Combo

1. Click **Option Drivers** (button).
2. Click **1.Install WLAN Driver** > **Yes**.
3. Click the button to accept the license and click **Install**.
4. Click **Finish**.

(Third Party) WLAN 802.11b/g/n and Bluetooth 4.0 Combo

1. Click **Option Drivers** (button).
2. Click **1.Install WLAN Driver** > **Yes**.
3. Click **Next**.
4. Click **Finish** to restart the computer.

(Third Party) WLAN 802.11ac and Bluetooth 4.0 Combo

1. Click **Option Drivers** (button).
2. Click **1.Install WLAN Driver** > **Yes**.
3. Choose the language you prefer and click **Next**.
4. Click **Next** > **Next**.
5. Click the button to accept the license and click **Next**.
6. Click **Finish** > **Yes** to restart the computer.

WLAN Configuration in Windows

Make sure the Wireless LAN module is turned on (and not in **Airplane Mode**) before configuration begins.

Desktop Mode

1. Switch to the Windows Desktop (click the **Desktop** item in the Start screen or use the **Windows Logo Key** + **D** key combination).
2. Click the icon in the notification area of the taskbar.
3. A list of available access points will appear.

Or

Charms Bar

1. Go to the **Charms Bar**.
2. Select **Settings** and then click the **Wi-Fi icon** (it should read **Available** under the icon and **Airplane mode** should be **Off**).
3. A list of available access points will appear.
4. Double-click an access point to connect to it (or click it and click **Connect**).
5. Enter a network security key (password) if required, and click **Next**.
6. You can choose to find other devices or not.
7. When you are connected to the network access point it will display **Connected**.
8. Select any connected network and click **Disconnect** to disconnect from a connected access point.
9. You can click the **Airplane Mode** button to turn the mode On or Off.
10. Alternatively you can click the **Wi-Fi** button to turn just the Wi-Fi On or Off.

English

Wireless Display

Wireless Display (Miracast) uses your Wireless LAN module/WLAN/Bluetooth Combo module (you need to make sure that your video adapter/display device is compatible **with your particular WLAN/Combo module)** in conjunction with a **compatible video adapter/display device** (purchased separately) to allow you to display the contents of the notebook display on another display (e.g. HDTV), without the need to have cables stretching across a room. You can then play games, browse the internet, display videos or photo slide shows on your TV/external display without using HDMI or A/V cables.

Before configuring **Wireless Display** you will need to set up your **compatible adapter** with your display. Connect the adapter using an HDMI or A/V cable and turn on the display, and then set the display to the appropriate input channel (see the documentation supplied with your **compatible adapter** for full details).

Note that no driver or application is required for wireless display in ***Windows 8.1***.

Wireless Display Configuration

1. Note that no driver or application is required for wireless display in ***Windows 8.1***.
2. Go the **Charms Bar**, and select **Devices**.
3. Click **Project**.
4. Click **Add a wireless display**.
5. The system will then search for compatible display devices (**this may take up to 60 seconds** so allow time for this to complete).
6. Double-click any detected display device in the list.
7. You may then need to input a pin number for the device to which you are connecting.
8. Click **Next**.
9. The display will then connect (for specific settings for your display see the documentation supplied with your compatible adapter/display for full details).
10. Go to the **Project** menu (**Charms Bar > Devices**) and click **Disconnect** to temporarily disconnect from the wireless display.
11. To permanently disconnect from the display (you will need to go back through the connection process again) you can select it in **PC and Devices > Devices** and click **Remove Device > Yes**.

Bluetooth Module (Option)

Make sure the Bluetooth module is turned on (and not in **Airplane Mode**).

Bluetooth Driver Installation

Follow the instructions below:

(Intel) WLAN and Bluetooth Combo

1. Click **Option Drivers** (button).
2. Click **2.Install Combo BT Driver** > **Yes**.
3. Click **Next** > **Next**.
4. Click the button to accept the license and click **Next**.
5. Click **Next** > **Finish**.

(Third Party) WLAN 802.11b/g/n and Bluetooth 4.0 Combo

1. Click **Option Drivers** (button).
2. Click **2.Install Combo BT Driver** > **Yes**.
3. Click **Next**.
4. Click **Finish** to restart the computer.

(Third Party) WLAN 802.11ac and Bluetooth 4.0 Combo

1. Click **Option Drivers** (button).
2. Click **2.Install Combo BT Driver** > **Yes**.
3. Click **Next** > **Next** > **Install**.
4. Click **Finish** > **Yes** to restart the computer.

Bluetooth Configuration in Windows

Make sure the Bluetooth module is turned on (and not in **Airplane Mode**) before configuration begins.

Desktop Mode

1. Switch to the Windows Desktop (click the **Desktop** item in the Start screen or use the **Windows Logo Key** + **D** key combination).
2. Click the notification area of the taskbar and double-click the Bluetooth icon (or click and select **Show Bluetooth Devices**).
3. The **Bluetooth** item in **PC and devices** will appear.

Or

Charms Bar

1. Go to the **Charms Bar**.
2. Select **Settings** and then click **Change PC Settings**.
3. The **Bluetooth** item in **PC and Devices** will appear.
4. Select the **Bluetooth** item in **PC and devices**.
5. Make sure that Bluetooth is turned on and a list of discovered devices will appear.
6. Double-click the device you want to pair with the computer and click **Pair**.
7. On first connection the computer will provide you with a pairing code to be entered onto the device.
8. Enter the code into your Bluetooth enabled device and click **Yes** on the computer to complete the pairing.
9. Select a device and click **Remove Device** to disconnect from any device.

Intel® Smart Response Technology

Intel® Smart Response Technology is an Intel® Rapid Storage Technology (RST) caching feature that accelerates computer system performance by using the SSD as cache memory between the hard disk drive and system memory. If you have a **Solid State Drive (SSD) module** included in your purchase option you may configure **Intel® Smart Response Technology** for your system.

System Requirements to support **Intel® Smart Response Technology**:

- System BIOS with SATA mode set to RAID Mode.
- Intel® Rapid Storage Technology (IRST) software installed.
- A SATA Solid State Drive (SSD) with a minimum capacity of 18.6GB (or with a partition on the drive formatted to more than 18.6GB e.g a 20GB partition set on the SSD). Note that the SSD requires at least 5MB of free unpartitioned and unallocated space (if you have used all the disk space for the partition you will need to shrink some of space for the cache memory's use).
  Note that **Intel® Smart Response Technology** does not support M.2 **PCIe** SSDs.

IRST Driver Installation

1. Click **Option Drivers** (button).
2. Click **3.Install IRST Driver** > **Yes**.
3. Click **Next**.
4. Click the tickbox to accept the license and click **Next**.
5. Click **Next** > **Next** > **Next**.
6. Click **Finish** to restart the computer (you will need to restart the system again after the computer has rebooted).

Enabling Intel Smart Response Technology

1. Click the icon (**Intel® Rapid Storage Technology**) on the **Apps** screen.
2. Click **Enable acceleration** under **Performance > Smart Response Technology** (*note that you will need at least 5MB of free unpartitioned and unallocated space on the SSD otherwise the **Smart Response Technology** item will not appear*).
3. Select the SSD to be used as a cache device.
4. Select the size from the SSD to be allocated for the cache memory (any remaining space on the SSD can be used for data storage using the simple data single-disk RAID 0 volume that is automatically created).
5. Select the HDD (or RAID volume) to be accelerated (it is highly recommended that you accelerate the system volume or system disk for maximum performance).
6. Select the acceleration mode (Enhanced mode is selected by default).
   Note: **Enhanced mode** (default): Acceleration optimized for data protection.
   Maximized mode: Acceleration optimized for input/output performance.
7. The page will refresh and report the new configuration under **Performance > Smart Response Technology**.

Intel® Rapid Start Technology

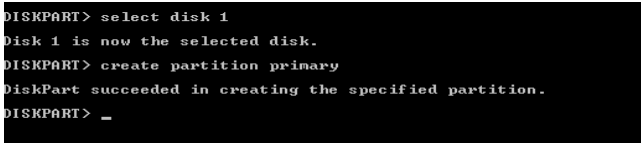
Intel® Rapid Start Technology can resume power from Hibernation within 7 to 9 seconds and can remember your computer's previous state with zero power.

System Requirements to support **Intel® Rapid Start Technology**:

- Rapid Start Technology should be enabled in the BIOS's Advanced menu.
- Intel® Rapid Storage Technology software installed.
- A **SATA** Solid State Drive (SSD) with a minimum capacity of 18.6GB.
  Note that **Intel® Rapid Start Technology** does not support M.2 **PCIe** SSDs.

Intel® Rapid Start Technology Configuration

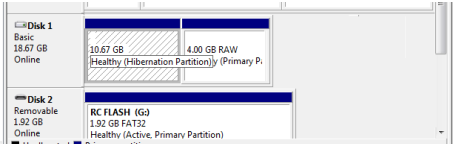
1. Enable/disable **Intel(R) Rapid Start Technology** from the BIOS.
2. Go the ***Windows*** **Control panel** and double-click **Administrative Tools** (**System and Security**) **> Computer Management > Storage > Disk Management**.
3. Right-click the SSD and select **Shrink Volume** from the menu.
4. Enter the figure, **which should be equal to amount of system memory (RAM) in your computer,** in "**Enter the amount of space to shrink in MB**".
5. Click **Shrink** (any unallocated file space may be formatted for storage use).
6. Run the Desktop app and right-click the lower left hot corner (or use the **Windows Logo Key** + **X** key combination) and select **Command Prompt (Admin)**.
7. Type "**DISKPART**".
8. At the DISKPART command type "**list disk**".
9. Type "**select disk #**" (**#** is disk number where you want to create the store partition, so refer to the results obtained from "**list disk**" for exact disk number).
10. The message "**Disk # is now the selected disk.**" will appear.
11. Type "**create partition primary**".
12. A "**DiskPart succeeded in creating the specified partition**." message should appear.



13. Type "**detail disk**".

English

14. Type “**select Volume #**” (# is volume of your storage partition so refer to results obtained from "detail disk" for the exact volume number).
15. The message “**Volume # is now the selected volume.**” will appear.
16. (**MBR**)
    Type “**set id=84 override**” (the id must be set to 84).
    (**GPT**)
    Type “**set id=D3BFE2DE-3DAF-11DF-BA40-E3A556D89593”**.
17. The message “**DiskPart successfully set the partition ID.**” will appear.
18. Close the CMD window.
19. Go the ***Windows*** **Control panel** and double-click **Administrative Tools** (**System and Security**) **> Computer Management > Storage > Disk Management**.
20. The disk partition should read **Healthy (Hibernation Partition)**.



21. Restart the computer.
22. Install the driver (see below).

Intel® Rapid Start Technology Driver Installation

1. Click **Option Drivers** (button).
2. Click **4.Install Rapid Start Driver** > **Yes**.
3. Click **Next** >**Next** > **Yes** > **Next** > **Next**.
4. Click **Finish** to restart the computer.

Fingerprint Reader (Option)

Install the driver and enroll your fingerprints as instructed below before use. The fingerprint reader module uses the **Sign-in options** configuration of the ***Windows*** **Account**.

Fingerprint Reader Driver Installation

1. Click **Option Drivers** (button).
2. Click **6.Install Fingerprint Driver > Yes**.
3. Click **Next > Install > Finish**.

Fingerprint Module Configuration

1. Go to the **Charms Bar**.
2. Select **Settings** and then click **Change PC Settings**.
3. Click **Accounts** and then click **Sign-in options**.
4. You will need to add a ***Windows*** password (click **Add** under **Password**).
5. After you have added the password you will need to restart the computer and use your password to log on to the system.
6. Go to the **Charms Bar**.
7. Select **Settings** and then click **Change PC Settings**.
8. Click **Accounts** and then click **Sign-in options**.
9. Click **Add** under **Fingerprint**.
10. Input the ***Windows*** **password** and click **OK**.

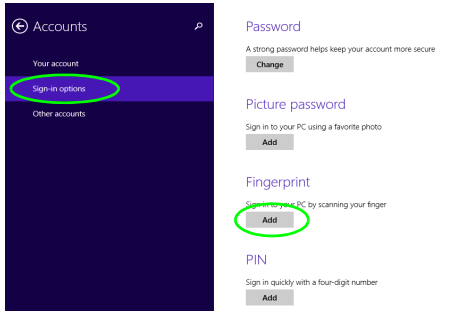


Figure 25 **Accounts - Sign-in options**

11. You will then be instructed to **swipe the same finger** across the reader a number of times.

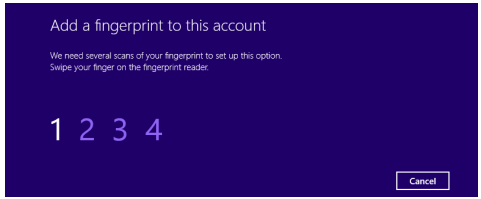


Figure 26 **- Add a Fingerprint**

12. Click **Finish**.
13. You can choose to **Add another** finger (this is recommended) or **Remove** the current fingerprint reading.
14. You can now scan your fingerprint to log-on to the computer.

English

Trusted Platform Module

Before setting up the TPM functions you must initialize the security platform.

Activating TPM

1. Restart the computer.
2. Enter the **Aptio Setup Utility** pressing <F2> during the **POST**.
3. Use the arrow keys to select the **Security** menu.
4. Select **TPM Configuration** and press Enter.
5. Press Enter to access the **Security Device Support** menu and select **Enable**.
6. You will then need to press <F4> to save the changes and restart the computer.

TPM Management in Windows

You can manage your TPM settings from within ***Windows***:

1. Go to the **Control Panel**.
2. Click **BitLocker Drive Encryption** (**System and Security**).
3. Click **TPM Administration**.

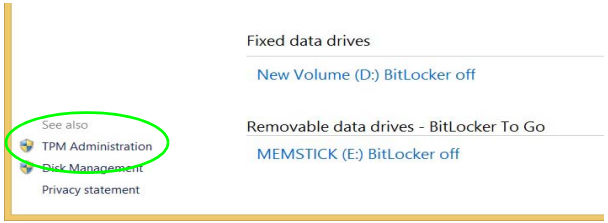


Figure 27 **- BitLocker Drive Encryption (TPM Administration)**

4. The TPM Management window allows you to configure the TPM within ***Windows***. As TPM is usually administered within large enterprises and organizations, your system administrator will need to assist you in managing the information here.

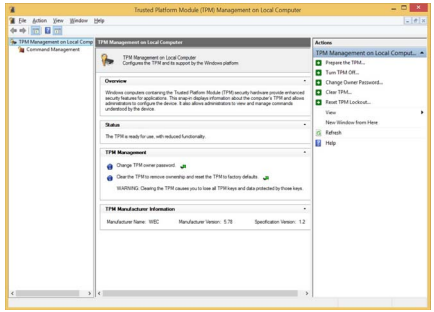


Figure 28 **Trusted Platform Module (TPM) Management on Local Computer Administration**

TPM Actions

1. Click **Prepare the TPM** and follow the instructions in the Wizard **to** prepare the TPM (this will probably require a restart of the computer and confirmation of the setting changes after restart by pressing the appropriate F key).
2. After the restart the TPM will be prepared and you can then use the **Actions** menu to **Turn TPM off**, **Change Owner Password**, **Clear TPM** or **Reset TPM Lockout**.
3. A wizard will help take you through any setup steps.

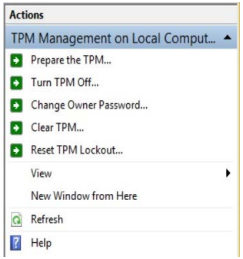


Figure 29 **Actions Menu**

Troubleshooting

Problem	Possible Cause - Solution
The **Wireless LAN/Bluetooth** modules cannot be detected.	*The modules are off as the computer is in **Airplane Mode**.* Check the LED indicator ✈ to see if it is in **Airplane Mode** (see ***Table 3 on page 9***). Use the **Fn + F11** key combination to toggle **Airplane Mode** on/off (see ***Table 4 on page 10***).
The **PC Camera** module cannot be detected.	*The module is off.* Press the **Fn + F10** key combination in order to enable the module (see ***Table 4 on page 10***). Run the camera application to view the camera picture.
The captured video files from the **PC Camera** are taking up too much disk space.	Note that capturing high resolution video files requires a substantial amount of disk space for each file. Note that the ***Windows*** system requires a minimum of **20GB (64bit)** of free space on the **C: drive** system partition. It is recommended that you save the capture video file to a location other than the **C:drive**, limit the file size of the captured video or reduce video resolution.
The computer is off (or in Sleep Mode) but powered by the AC/DC adapter plugged in to a working outlet or powered by the battery with a capacity level above 20%. **I have plugged a device into the powered USB port** in order to charge it, but **the device is not charging**.	*The port is not powered on*. Toggle power to the port using the **Fn + power button** combination. This function may not work with certain external USB compliant devices (check your device's documentation). If this is the case, **power the computer on and connect the external USB device in order to charge it**.

Specifications

Latest Specification Information

The specifications listed in this section are correct at the time of going to press. Certain items (particularly processor types/speeds) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for details.

Processor Options

Model A - Designs I, II & V and Model B - Designs I & II

Intel® Core™ i7 Processor

i7-4980HQ (2.80GHz), i7-4870HQ (2.50GHz), i7-4770HQ (2.20GHz), i7-4720HQ (2.60GHz)

6MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 47W

Model A - Designs III & IV and Model B - Design III

Intel® Core™ i7 Processor

i7-4870HQ (2.50GHz), i7-4720HQ (2.60GHz)

6MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 47W

Video Adapter Options

Intel® Integrated GPU and NVIDIA® Discrete GPU

Supports Microsoft Hybrid Graphics

Intel Integrated GPU

Intel® HD Graphics 5200 (Core i7-4980HQ/ i7-4870HQ/i7-4770HQ CPU Integrated)

Dynamic Frequency (Intel Dynamic Video Memory Technology for up to **1.7GB**)

Microsoft DirectX®11.1 Compatible

Intel® HD Graphics 4600 (Core i7-4720HQ CPU Integrated)

Dynamic Frequency (Intel Dynamic Video Memory Technology for up to **1.7GB**)

Microsoft DirectX®11.1 Compatible

NVIDIA Discrete GPU

Model A- Designs I & V and Model B - Design I

NVIDIA® GeForce GTX 970M

3GB GDDR5 Video RAM

Microsoft DirectX®12 Compatible

Models A & B - Design II

NVIDIA® GeForce GTX 980M

4GB GDDR5 Video RAM

Microsoft DirectX®12 Compatible

Models A- Designs III & IV and Model B - Design III

NVIDIA® GeForce GTX 965M

2GB GDDR5 Video RAM

Microsoft DirectX®12 Compatible

Core Logic

Intel® HM87 Chipset

BIOS

AMI BIOS (48Mb SPI Flash-ROM)

LCD Options

Model A - Designs I, II & V

15.6" (39.62cm), 16:9, QFHD (3840x2160)/ WQHD+ (2880x1620)/FHD (1920x1080)

Model A - Designs III & IV

15.6" (39.62cm), 16:9, QFHD (3840x2160)/ FHD (1920x1080)

Model B

17.3" (43.94cm), 16:9, FHD (1920x1080)

Memory

Four 204 Pin SO-DIMM Sockets Supporting **DDR3L 1600MHz** Memory

(The real memory operating frequency depends on the FSB of the processor.)

Memory Expandable from **4GB** (**minimum**) up to **32GB** (**maximum**)

Storage

(**Factory Option**) Two **SATA** M.2 2280 SSDs supporting RAID level 0/1

Or

(**Factory Option**) One **PCIe** M.2 2280 SSD

Model A - Designs I & III

Two changeable 2.5" (6cm) **7.0mm (h) SATA** (Serial) Hard Disk Drives/Solid State Drives (SSD) supporting RAID level 0/1

Or

One changeable 2.5" (6cm) **9.5mm (h) SATA** (Serial) Hard Disk Drive/Solid State Drive (SSD)

Model A - Designs IV & V

One changeable 2.5" (6cm) **7.0mm/9.5mm (h) SATA** (Serial) Hard Disk Drives/Solid State Drives (SSD)

Model A - Design II and Model B

Two Changeable 2.5" (h) **SATA** (Serial) Hard Disk Drives (HDDs)/SSDs (**1st: 7.0mm (h) & 2nd: 7.0mm/9.5mm (h)**) supporting RAID Level 0/1

Security

Security (Kensington® Type) Lock Slot

BIOS Password

(**Factory Option**) Fingerprint Reader Module

Trusted Platform Module 2.0

Pointing Device

Built-in Touchpad (scrolling key functionality integrated)

Keyboard

Full-size Winkey **Illuminated White-LED** Keyboard (with numeric keypad)

Audio

High Definition Audio Compliant Interface

S/PDIF Digital Output

Two Speakers

Sound Blaster Audio

ANSP™ 3D sound technology on headphone output

Built-In Array Microphone

(**Model B Only**) Sub-Woofer

Note: External 5.1CH Audio Output Supported by Headphone, Microphone and S/PDIF Out Jacks

Interface

Three USB 3.0 Ports (Including one AC/DC Powered USB port)

One eSATA Port (USB 3.0 Port Combined)

One HDMI-Out Port

Two Mini DisplayPorts (1.2)

One S/PDIF Out Jack

One Headphone/Speaker-Out Jack

One Microphone-In Jack

One RJ-45 LAN Jack

One DC-In Jack

Card Reader

Embedded Multi-In-1 Push-Push Card Reader

MMC (MultiMedia Card) / RS MMC

SD (Secure Digital) / Mini SD / SDHC/ SDXC

M.2 Slots

Slot 1 for **Combo WLAN and Bluetooth** Module

Slot 2 for **SATA** or **PCIe SSD**

Slot 3 for **SATA SSD**

Or

(**Factory Option - Model A**) Slot 3 for **3G/4G** Module

Communication

Built-In Gigabit Ethernet LAN

2.0M FHD PC Camera Module

(**Factory Option - Model A Only**) M.2 3G/4G Module

WLAN/ Bluetooth M.2 Modules:

(**Factory Option**) Intel® Wireless-AC 7265 Wireless LAN (**802.11ac**) + Bluetooth **4.0**

(**Factory Option**) Intel® Wireless-N 7265 Wireless LAN (**802.11b/g/n**) + Bluetooth **4.0**

(**Factory Option**) Intel® Wireless-AC 3160 Wireless LAN (**802.11ac**) + Bluetooth **4.0**

(**Factory Option**) Third-Party Wireless LAN **802.11b/g/n** + Bluetooth **4.0**

(**Factory Option**) Third-Party Wireless LAN **802.11ac** + Bluetooth **4.0**

Environmental Spec

Temperature

Operating: 5°C - 35°C

Non-Operating: -20°C - 60°C

Relative Humidity

Operating: 20% - 80%

Non-Operating: 10% - 90%

Power

Embedded 4-Cell Polymer Battery Pack, 60WH

Full Range AC/DC Adapter

AC Input: 100 - 240V, 50 - 60Hz

Model A - Designs I & V

DC Output: 19.5V, 7.7A (**150W**) or 19.5V, 9.23A or 19V, 9.5A (**180W**)

Model A - Design II and Model B - Designs I & II

DC Output: 19.5V, 9.23A or 19V, 9.5A (**180W**)

Model A - Designs III & IV and Model B - Design III

DC Output: 19.5V, 7.7A (**150W**)

Dimensions & Weight

Model A - Designs I & III

385mm (w) * 271mm (d) * 25mm (h)

2.5kg (Barebone with 60WH Battery)

Model A - Design II

385mm (w) * 271mm (d) * 28.8mm (h)

2.5kg (Barebone with 60WH Battery)

Model A - Designs IV & V

385mm (w) * 271mm (d) * 26.9mm (h)

2.5kg (Barebone with 60WH Battery)

Model B

417mm (w) * 287mm (d) * 29.98mm (h)

3.2kg (Barebone with 60WH Battery)