

USER MANUAL

SC577

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.

© February 2022

Trademarks

Intel is a trademark/registered trademark of Intel Corporation.

Windows is a registered trademark of Microsoft Corporation.



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.

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.

Servicing

Do not attempt to service the computer yourself. Doing so may violate your warranty and expose you and the computer to electric shock. Refer all servicing to authorized service personnel. Unplug the computer from the power supply. Then refer servicing to qualified service personnel 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 panel breaks).
- If there is an unusual odor, heat or smoke coming from your computer.

Safety Information

- Only use an AC/DC adapter approved for use with this computer.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- 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.
- Make sure that your computer is completely powered off before putting it into a travel bag (or any such container).
- Before cleaning the computer, make sure it is disconnected from any external power supplies, peripherals and cables.
- 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.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Note that in computer's featuring a raised 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 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.

Polymer/Lithium-Ion Battery Precautions

Note the following information which is specific to Polymer/Lithium-Ion batteries only, and where applicable, this overrides the general battery precaution information.

- Polymer/Lithium-Ion 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/Lithium-Ion batteries. Do not use Polymer/Lithium-Ion batteries in high ambient temperature environments, and do not store unused batteries for extended periods.
- If you are working in areas of low temperature use the AC/DC adapter to power the computer.



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.

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. **When first setting up the computer use the following procedure** (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 and initially set up as below):
 - Attach the AC/DC adapter cord to the DC-In jack on the left of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter. The battery will now be unlocked.
5. Use one hand to raise the lid to a comfortable viewing angle (do not exceed 130 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).
6. Press the power button to turn the computer "on".

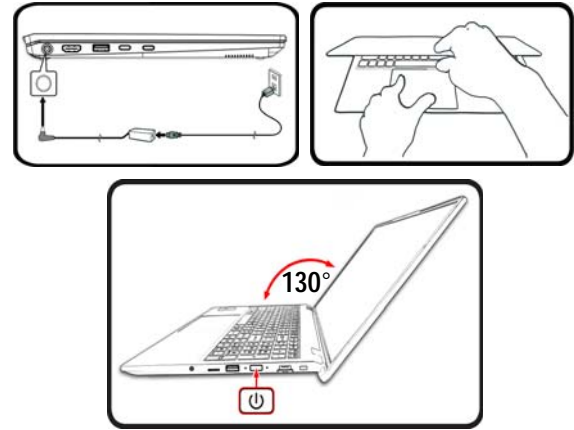


Figure 1 - Opening the Lid/Computer with AC/DC Adapter Plugged-In

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 11*.

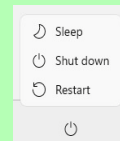
RAID Support



You need to setup **RAID** before installing your *Windows* operating system (see [RAID Setup on page 5](#)).



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.



1. Click the Start Menu icon .
2. Click the **Power** item .
3. Choose **Shut down** from the menu.

RAID Setup

Your solid state drives (SSDs) can be set up in RAID mode (for increased performance or protection). **Note that setting up your solid state drives 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.

To configure your RAID (Redundant Array of Independent Disks) system in Striping (RAID 0) or Mirroring (RAID 1) mode (see [Table 1](#)) you will require two identical solid state drives.

RAID Level	Description
RAID 0 (at least two 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 drive.
RAID 1 (at least two 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.

Table 1 - RAID Description

Prepare the following before setting up your **PCIe SSDs** in RAID mode:

- The *Microsoft Windows 11 OS* on a DVD or USB flash drive.
- A connected external DVD drive.
- Two identical **PCIe** solid state drives.
- The *Device Drivers & Utilities + User's Manual* disc.
- A USB Flash drive or external USB hard disk drive.

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

RAID Setup Procedure

- Go to the operable computer and copy the f6mdflpy-x64 folder from the location below (**D:** denotes your DVD drive) on the *Device Drivers & Utilities + User's Manual* disc to the USB Flash drive or external USB hard disk.
 - D:\Options\Raid\F6\VMD\fvmdflpy-x64**
- Start-up your notebook computer and press **F2** to enter the **BIOS** and go to the **Setup Utility**.
- Select the **Advanced** menu.
- Select **VMD Mode** and select **Enabled**.
- Press **F10** to **Save and Exit** and select <Yes>.
- After the computer restarts press **F2** to enter the **BIOS** again and go to the **Setup Utility**.
- Go to **Intel(R) Rapid Storage Technology** (in the **Advanced** menu) and select **Create RAID Volume**.
- You can now setup your RAID volume using the installed SSDs.
- Select **Name** and type a name of your choice for your RAID volume and select <Yes>.
- Select **RAID Level** and choose the RAID Level required (see [Table 1 on page 5](#)) and press Enter.
 - RAID 0 (Stripe)
 - RAID 1 (Mirror)
- Go to any of the disks listed under **Select Disks:** and select a disk name.
- Click on **X** to select the disk required.
- You should select two identical SSDs to form your RAID volume.
- If you have selected **RAID 0 (Stripe)** then you can adjust the **Strip Size** to your requirements (It is recommended that you set the "Strip Size" to **128KB**).
- Select **Create Volume** (make sure you have selected your disks).
- The system will list your RAID volume.
- Press **F10** to **Save and Exit** and select <Yes>, however note below.
 - Make sure the **Windows** OS (DVD) is in the attached DVD drive or on a USB flash drive and as the computer starts up it will automatically boot from the **Windows** OS DVD or USB flash drive.
- 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).
- Click to select **Load Driver** when the "Where do you want to install Windows?" screen appears.
- Click **Browse** and browse to the location you copied the files to on your USB Flash drive or external USB hard disk (**X:** denotes your USB Flash drive or external USB hard disk):
 - X:\fvmdflpy-x64 (for Windows 64bit)**
- Select both driver names and click **Next**.
- Follow the on-screen instructions to install the *Windows* operating system.
- Install the *Windows* drivers (see [page 21](#)). Make sure you install the **Intel® Rapid Storage Technology (IRST)** driver.

System Map: Front View with Display Open

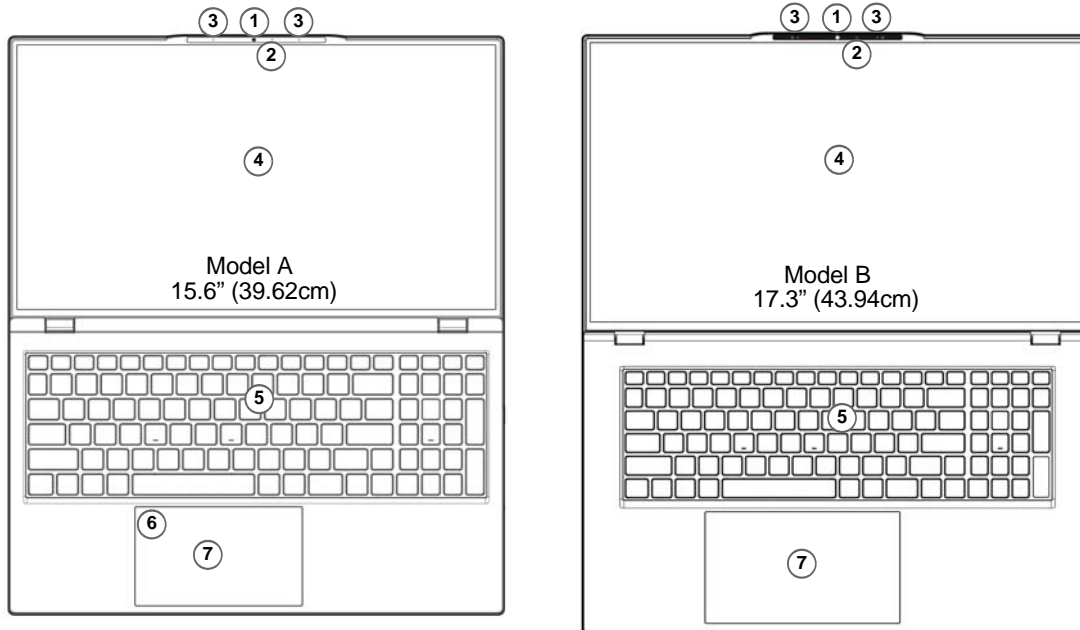
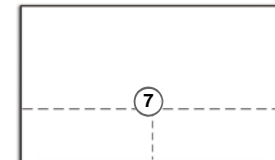


Figure 2 - Front View with Display Open

- | | |
|---|---|
| 1. Webcam
Or
(Factory Option) Windows Hello Camera | 4. Display |
| 2. *Camera LED
<i>*When the camera is in use, the LED will be illuminated.</i> | 5. Keyboard |
| 3. Built-In Array Microphone | 6. (Factory Option for Model A)
Fingerprint Sensor |
| | 7. Touchpad & Buttons |



Note that the Touchpad and Buttons valid operational area is that indicated within the dotted lines above.

LED Indicators

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

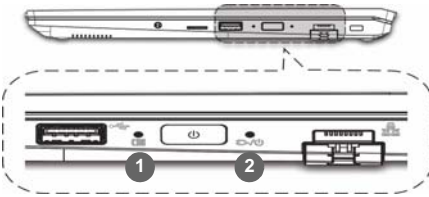


Icon	Color	Description
		
1 	Orange	The Battery is Charging
	Green	The Battery is Fully Charged
	Blinking Orange	The Battery Has Reached Critically Low Power Status
2 	Orange	The AC/DC Adapter is Plugged In
	Blinking Orange*	The AC/DC Adapter is Plugged In and the Powered USB Port (Factory Option) is On*
	Green	The Computer is On
	Blinking Green	The Computer is in Sleep Mode

Table 2 - LED Indicators

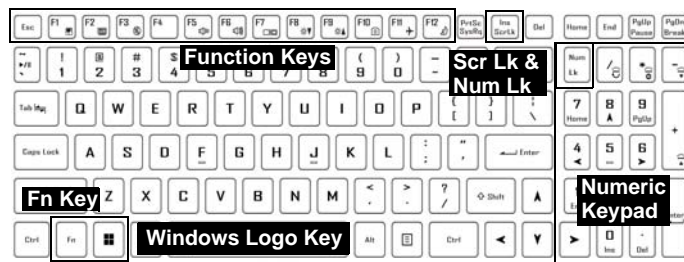


*Powered USB Port (Factory Option)

The powered USB 3.2 Gen 2 port (see [page 10](#)) 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 26](#)).

Keyboard & Function Keys

The keyboard includes a numeric keypad for easy numeric data input. Pressing **Num Lk** 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 when the Control Center driver is installed.



Keys	Function/Visual Indicators	Keys	Function/Visual Indicators
Fn +	Play/Pause (in Audio/Video Programs)	Fn +	Sleep Toggle
Fn +	Touchpad Toggle		Number Lock Toggle
Fn +	Turn Display Backlight Off (Press a key to or use touchpad to turn on)	Fn +	Scroll Lock Toggle
Fn +	Mute Toggle		Caps Lock Toggle
Fn +	Volume Decrease/ Increase	Fn +	Control Center Toggle (see page 13)
Fn +	Change Display Configuration (see page 18)	Fn +	Fan Automatic Control/ Full Power
Fn +	Display Brightness Decrease/Increase	*Note: It is recommended that you use Maximum fan speed when playing games.	
Fn +	Camera Power Toggle	Fn +	Power Modes Toggle
Fn +	Airplane Mode Toggle	Fn + Power Button	(Factory Option) Powered USB Port Power Toggle (see page 10)

Table 3 - Function Keys & Visual Indicators

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

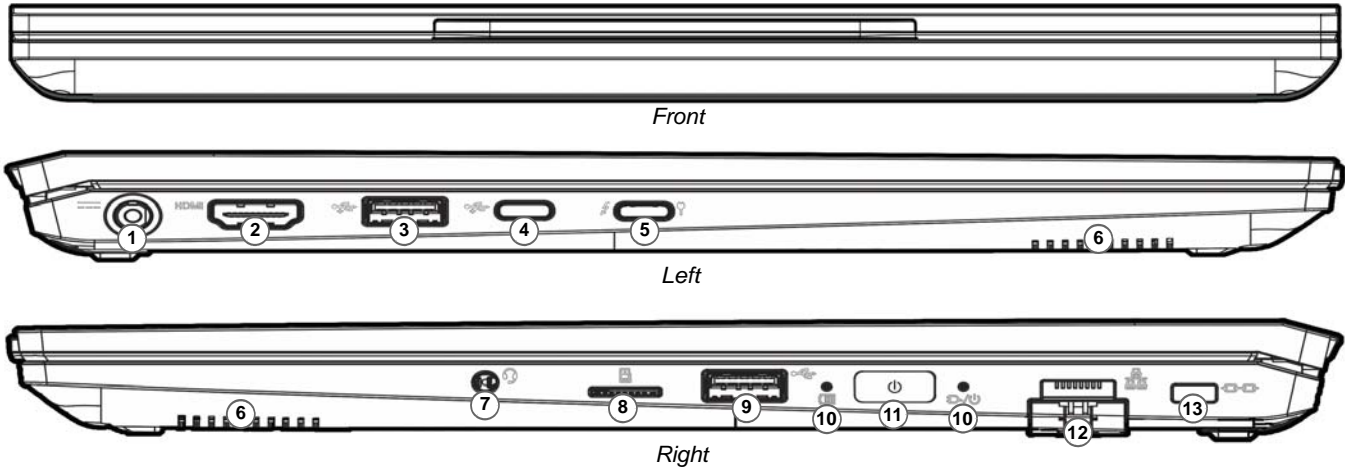


Figure 3 - Front, Left & Right Views (Model A)

- | | |
|--|--|
| 1. DC-In Jack | 6. Speakers |
| 2. HDMI-Out Port | 7. 2-In-1 Audio Jack
(Headphone / Microphone) |
| 3. USB 3.2 Gen 2 Type-A Port
Or
(Factory Option) Powered USB 3.2 Gen 2 Type-A Port (see Table 2 on page 8) | 8. MicroSD Card Reader |
| 4. USB 3.2 Gen 2 Type-C Port | 9. USB 2.0 Port |
| 5. Thunderbolt 4 Port with Power Delivery (DC-In)*
*This port allows you to use a third party AC/DC adapter/power bank plugged into the port as a power supply. If you are using a power bank make sure that it complies with the USB-C PD (Power Delivery) standard specification (20V/65W - 20V/100W). If you are using a third party AC/DC adapter, the rating of the adapter must be at least 20Volts, 3.25A (65 Watts) and it should be appropriately certified. | 10. LED Indicators |
| | 11. Power Button |
| | 12. RJ-45 LAN Jack |
| | 13. Security Lock Slot |

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

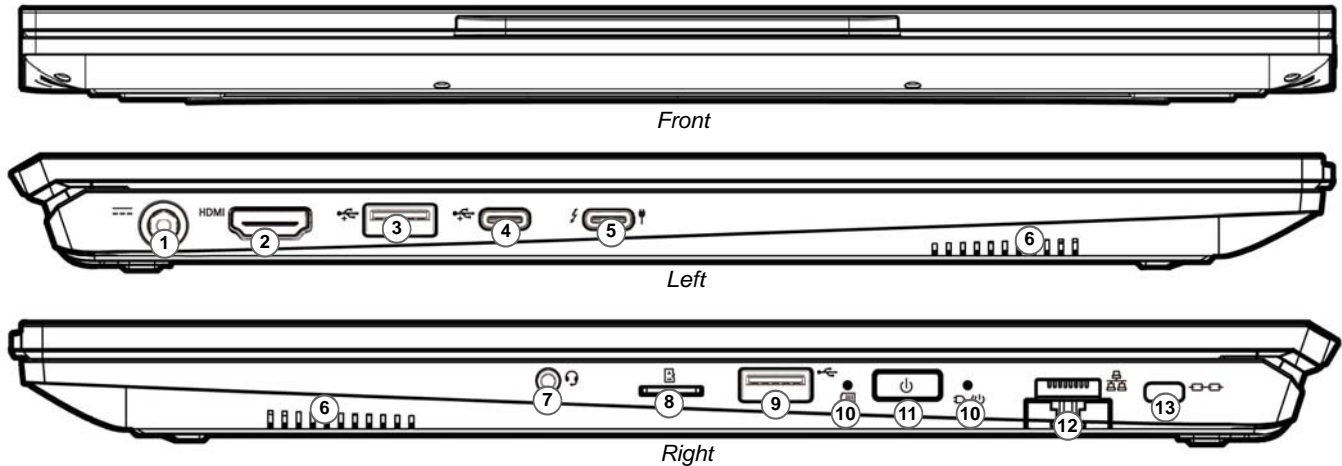


Figure 4 - Front, Left & Right Views (Model B)

1. DC-In Jack
2. HDMI-Out Port
3. USB 3.2 Gen 2 Type-A Port
Or
(**Factory Option**) Powered USB 3.2 Gen 2 Type-A Port (see [Table 2 on page 8](#))
4. USB 3.2 Gen 2 Type-C Port
5. Thunderbolt 4 Port with Power Delivery (DC-In)*
*This port allows you to use a third party AC/DC adapter/power bank plugged into the port as a power supply. If you are using a power bank make sure that it complies with the USB-C PD (Power Delivery) standard specification (20V/65W - 20V/100W). If you are using a third party AC/DC adapter, the rating of the adapter must be at least 20Volts, 3.25A (65 Watts) and it should be appropriately certified.
6. Speakers
7. 2-In-1 Audio Jack (Headphone / Microphone)
8. MicroSD Card Reader
9. USB 2.0 Port
10. LED Indicators
11. Power Button
12. RJ-45 LAN Jack
13. Security Lock Slot

System Map: Bottom & Rear Views

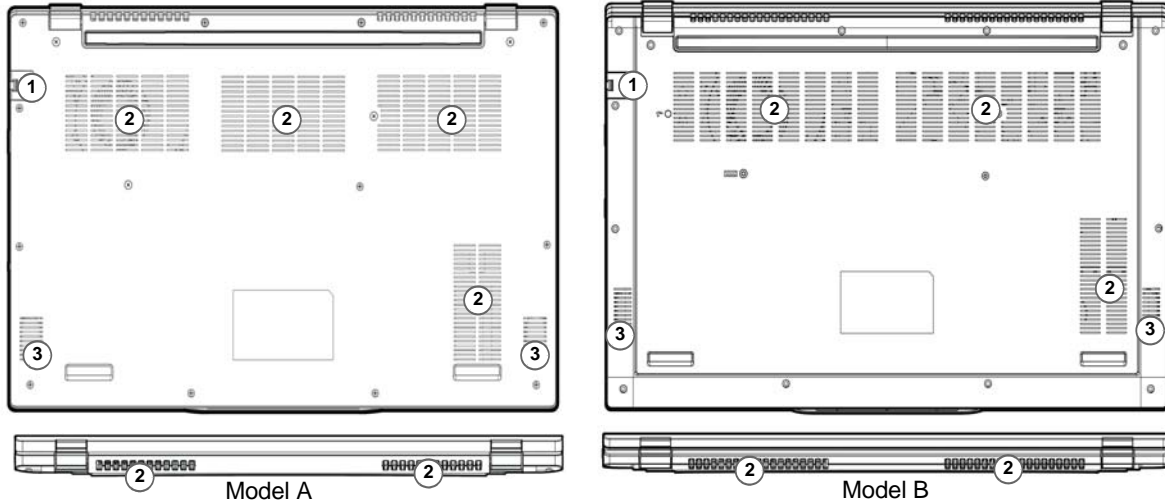


Figure 5
Bottom & Rear Views

1. RJ-45 LAN Jack
2. Vent
3. Speakers



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 SSD/RAM etc., for any reason, please contact your distributor/supplier for further information.

Control Center


Run the **Control Center** from the Start menu in *Windows*  **Control Center 3.0** . You can also press the **Fn + Esc** key combination, or **double-click the icon**  in the **notification area of the taskbar** to access the **Control Center**. The **Control Center** provides quick access to **Power Modes**, **Fan settings** and **LED Keyboard** configuration (*for the optional LED keyboard*).



Figure 6 - Control Center

Note the **LED Keyboard** item will only appear for LED keyboards only.

Power Modes

Power Modes allows you to adjust the power mode by clicking the appropriate icon.



Figure 7 - Power Modes

- **Power Saving mode** saves battery life.
- **Quiet mode** focuses on reducing fan noise and will decrease both CPU and GPU power.
- **Entertainment mode** balances CPU and GPU power and is ideal for watching videos etc.
- **Performance mode** is ideal for gaming with higher CPU and GPU performance.

Note: You can use the **Fn + 3** key combination to quickly toggle through, and select, the Power Modes.

Fan Speed Control



Figure 8 - Fan Speed Control

You can set the fan speed to **Maximum** (full power) or **Automatic/Silent**. The fan speed will adjust itself automatically to control the heat of the CPU/GPU. You can use the **Offset** slider to adjust the settings to your preference. However you can adjust the setting to **Maximum** if you prefer.

All these settings can be overridden by the system, as a safety precaution, if it requires heavier use of the fan.

Multi-Color LED Keyboard (Option)


The **LED Keyboard** application can be accessed by clicking **LED Keyboard** in the **Control Center** (or by pressing the **Fn** plus  key) or from the Start menu in **Windows**.



Figure 9 - LED Keyboard Application

On boot the keyboard will momentarily flash. You can click in the **Override Boot Effect** check box to disable the keyboard flashing effect as the system boots.

Color Swatch

The color swatch in the middle of the screen allows you to select a range of colors for your keyboard backlight by clicking on the color required. Click to select any color from the swatch to apply to the keyboard.

KB Sleep Timer

Enable and then select the amount of time for which the system is idle before the keyboard LED enters sleep mode (i.e. the LED keyboard illumination will turn off to save power).

KB Brightness

You can adjust the keyboard brightness using the **Brightness** slider.

The keyboard LED may be configured using the **Fn + key combination** outlined in the table below.










Keyboard LED Function key Combinations		
Fn + 	Launch the LED Keyboard Application	
Fn + 	Toggle the Keyboard LED On/Off	
Fn + 	Keyboard LED Illumination Decrease	
Fn + 	Keyboard LED Illumination Increase	


Table 4 - Keyboard LEDs

Windows 11 Start Menu, Context Menu, Taskbar, Control Panel and Settings

Most of the apps, control panels, utilities and programs within *Windows 11* can be accessed from the Start Menu by clicking the icon  in the taskbar in the lower left corner of the screen (or by pressing the **Windows Logo Key**  on the keyboard).

Right-click the Start Menu icon  (or use the **Windows Logo Key**  + **X** key combination) to bring up an advanced Context Menu of useful features such as Apps and Features, Power Options, Task Manager, Search, File Explorer, Device Manager, Computer Management and Network Connections etc.

The notification area of the taskbar is in the bottom right of the screen. Some of the control panels and applications referred to throughout the course of this manual can be accessed from here.

Throughout this manual you will see an instruction to open the Control Panel. To access the Control Panel, use the **Windows Logo Key**  + **R** key combination and type “**Control Panel**”. You can pin the **Control Panel** tile to **Start** or **taskbar**.

The **Settings** item in the Start Menu (and also as an App) gives you quick access to a number of system settings control panels allowing you to adjust settings for System, Bluetooth & devices, Network & internet, Personalization, Apps, Accounts, Time & language, Gaming, Accessibility, Privacy & security and Windows Update.

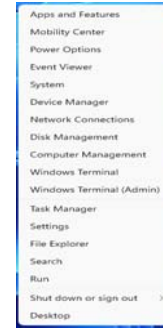
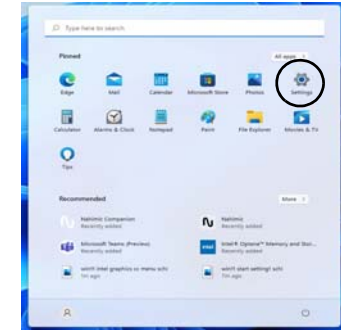


Figure 10
Start Menu,
Context Menu,
Taskbar, Control Panel and
Settings



Video Features

The system features an **Intel integrated GPU**. You can switch display devices, and configure display options, from the **Display** control panel in *Windows* as long as the video driver is installed.

To access the Display control panel in Windows:

1. Right-click the desktop and select **Display settings** from the menu.
2. Choose the required display settings from the menus.

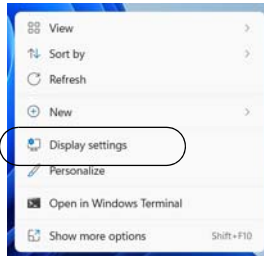


Figure 11 - Display settings

To access the Intel® Graphics Command Center:

1. Access the **Intel® Graphics Command Center** from the Start menu in *Windows*



Display Devices

Note that you can use external displays connected to the HDMI-Out port and/or Thunderbolt 4 port. See your display device manual to see which formats are supported.

Configuring the Displays in Windows

All external and internal displays (up to 3 active displays) can be configured from *Windows* by using the **Display** or **System** (in **Settings**) control panel or the **Project** menu.

To configure the displays using the Project menu:

1. Attach your external display(s) to the appropriate port, and turn it(them) on.
2. Press the **Windows** + **P** (or **Fn** + **F7**) key combination.
3. Click on any one of the options from the menu to select **PC screen only**, **Duplicate**, **Extend** or **Second screen only**.
4. You can also click **Connect to a wireless display** at the bottom of the **Project** screen and follow the steps to connect to any wireless enabled display.

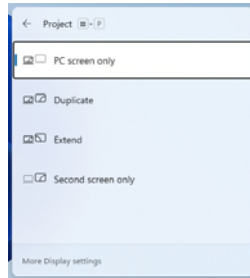


Figure 12
Project

To configure the displays using the Display control panel:

1. Attach your external display(s) to the appropriate port, and turn it(them) on.
2. Right-click the desktop and select **Display settings** from the menu.
3. Click the **Detect** button.
4. The computer will then detect any attached displays.
5. You can configure up to 3 displays from the **Multiple displays** menu.

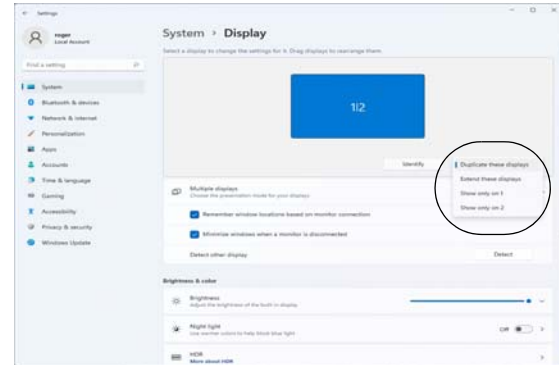



Figure 13 - Display (Multiple displays)

Audio Features

You can configure the audio options on your computer from the **Sound** control panel in *Windows*. Access the **Sound** control panel via the **Settings (System > Sound)** item in the Start menu.

The volume may be adjusted by means of the **Fn + F5/F6** key combination. The sound volume level can also be set using the volume control within *Windows*. Click the icon  in the taskbar to check the setting.

Nahimic Audio

The **Nahimic Audio** application allows you to configure the audio settings to your requirements for the best performance in games, music and movies.

Nahimic Audio Application

Run the Nahimic Audio control panel from the Start menu in *Windows*  Nahimic



Figure 14 - Nahimic Audio

Power & battery

The **Power & battery** control panel allows you to quickly adjust power options for **Screen and sleep**, **Power mode**, **Battery saver** and **Battery usage** etc. Access the **Power & battery** control panel via the **Settings (System > Power & battery)** item in the Start menu.

The **Power mode** can be set to **Balanced** (default) which balances performance and battery life, **Best power efficiency** for better battery life with reduced performance, and **Best Performance** for improved performance but with greater battery consumption. You can also customize the settings for how long your computer will remain inactive before it turns off the screen or goes to sleep. Expand the “**Screen and sleep**” option, and select your preferred durations from each drop-down menu.



Figure 15 - Power & battery

Sleep (Modern Standby)

This system supports **Sleep mode as Modern Standby**. In this case the system will continue to download mail, Windows updates, calendar updates and even VoIP calls **via a Windows Store app**, even when the system is in **Sleep (Modern Standby)** mode, in much the same way as a smartphone.

In **Sleep (Modern Standby)** all of your work, settings and preferences are saved to memory before the system sleeps. When you are not using your computer for a certain length of time, which you specify in the operating system, it will enter **Sleep (Modern Standby)** to save power.

The PC wakes from Sleep (Modern Standby) within seconds and will return you to where you last left off (what was on your desktop) without reopening the application(s) and file(s) you last used.

Driver Installation

The *Device Drivers & Utilities + User's Manual* disc contains the drivers and utilities necessary for the proper operation of the computer. This setup will probably have already been done for you. If this is not the case, 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 *Figure 16*. 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.

Latest Updates

After installing all the drivers make sure you enable **Check for updates (Settings > Windows Update)** and go to the Microsoft Store and click **Downloads and updates > Get updates** to update all Apps etc.



Figure 16 - Install Drivers



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 Installation General Guidelines



As a general guide follow the default on-screen instructions for each driver (e.g. **Next > Next > Finish**) unless you are an advanced user. In many cases a restart is required to install the driver.

Make sure any modules (e.g. WLAN or Bluetooth) are **ON** before installing the appropriate driver.

Wireless LAN Module (Option)

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

WLAN Configuration in Windows

1. Click the icon  in the notification area of the taskbar.
2. Click the icon .
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.



Connect Automatically

It is recommended that you check the box to Connect automatically. This will cause the system to check for the access point upon startup, and resuming from a power-saving state, and will remove any necessity to keep connecting manually.

Bluetooth Module (Option)

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

Bluetooth Configuration in Windows

1. Click the **Settings** item in the Start Menu.
2. Click **Bluetooth & devices**.
3. Click **Add device > Bluetooth** and a list of discovered devices will appear.
4. Double-click the device you want to pair with the computer and click **Connect**.
5. Select a device and click **Remove Device > Yes** to disconnect from any device.

Fingerprint Reader (Option for Model A)

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



Fingerprint Sign-In Issues

If at the Windows Hello screen, the fingerprint reader fails to recognize the fingerprint 3 times it will then block access to the computer. In this case you will need to use your PIN (the PIN you used when initially setting up the fingerprint reader) to access the computer. Alternatively you can sign-in using your windows password. After using the PIN code (or windows Password) to access the computer you can go to the **Settings > Accounts > Sign-in options** if you wish to change any settings.

Fingerprint Module Configuration

1. Click the **Settings** item in the Start Menu.
2. Click **Accounts** and then click **Sign-in options**.
3. You will need to add a **Windows** password (click **Add** under **Password**).
4. After you have added the password you will need to also add a **PIN**.
5. Click **Set up** under **Fingerprint recognition (Windows Hello)**.
6. The wizard will then guide you through the set up process to enroll your fingerprints.

7. You will be instructed to **Touch the fingerprint sensor** a number of times (**this may be in excess of 20 times**).
8. Try to present different parts of your finger in different positions similar to the various positions you may use when using it, and note the following:
 - Hold the finger on the sensor for at least half a second.
 - Make sure that you make firm direct contact with the sensor, and cover the entire area of the sensor with the finger (you are looking for a reading of at least 75% of the finger area).
 - Use a pressing motion as opposed to a touching or tapping motion.
 - When authenticating use the same sort of angle you used for enrollment.
9. Click **Close** when complete.
10. You can choose to **Add another** finger (this is recommended) or **Remove** the current fingerprint reading.
11. You can now touch the fingerprint sensor to log-on to the computer.

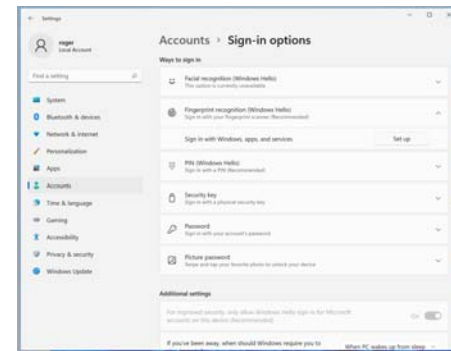


Figure 17 - Accounts - Sign-in options

Windows Hello Camera (Option)

The **Windows Hello camera** is compatible with the **Windows Hello facial recognition** system. The Windows Hello camera provides a user-friendly interface with a single form of verification to log on to your computer.

The Windows Hello camera module uses the **Sign-in options** configuration of the **Windows Account**.

Windows Hello Camera Module Configuration

- Before setting up the facial recognition system make sure that:
 - The system is powered by the AC/DC adapter (if the system is powered by the battery then facial recognition will not work).
 - If you are a glasses wearer then it is recommended that you remove your glasses in order to prevent reflection problems hampering the facial recognition system.
- Click the **Settings** item in the Start Menu.
- Click **Accounts** and then click **Sign-in options**.
- You will need to add a **Windows** password (click **Add** under **Password**).
- After you have added the password you will need to also add a **PIN**.
- Click **Set up** under **Facial recognition (Windows Hello)**.
- Click **Get Started** and the Windows Hello Setup Wizard will then guide you through the set up process to scan your face.
- You will need to key in the pin number on initial setup.

- Keep looking directly at the screen and the system will scan your face (the blue bar underneath your picture indicates the progress of the scan).
- The system will then prompt with "**All Set!**", so click **Close** to exit the Setup Wizard.
- Restart the computer** after the scanning process has been completed.
- You can use the facial recognition system to unlock your computer the next time you start the system. The system will prompt with "**Getting ready...**" and after seeing this simply look directly (as it prompts "**Looking for you...**" / "**Making sure it's you...**") at the screen to complete the scan.



Windows Hello Camera and Power-Saving

If you turn off the Camera (e.g. by using the **Fn + F10** key combination or Control Center icon) then the facial recognition system will not function.

If the system enters and resumes from Hibernate, is restarted, or is shut down and restarted with the camera turned off, then the facial recognition system will not function.

TPM (Option)

Before setting up the TPM (Trusted Platform Module) functions you must initialize the security platform.

Activating TPM

1. Restart the computer.
2. Enter the **BIOS** pressing **F2** during the POST/startup.
3. Click **Setup Utility** and select the **Security** menu.
4. Click **TPM Configuration** and select **Enable** for **Security Device Support**.
5. You will then need to press/click **F10** to save the changes and restart the computer.



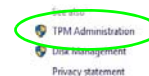
Figure 18
Security -
Trusted
Computing

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 19
BitLocker Drive
Encryption
(TPM Administra-
tion)



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.

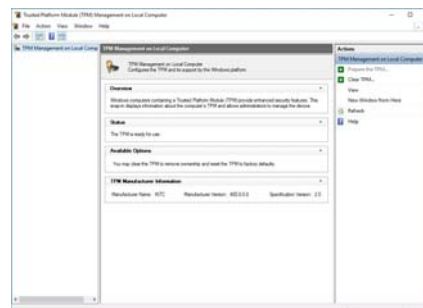


Figure 20
Trusted Plat-
form Module
(TPM) Manage-
ment on Local
Computer Ad-
ministration

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.

Troubleshooting

Problem	Possible Cause - Solution
The Wireless LAN/Bluetooth modules cannot be detected.	<i>The modules are off as the computer is in Airplane Mode. Use the Fn + F11 key combination to toggle Airplane Mode on/off (see Table 3 on page 9).</i>
The Camera module cannot be detected.	<i>The module is off. Press the Fn + F10 key combination in order to enable the module (see Table 3 on page 9). Run the camera application to view the camera picture.</i>
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.	<i>The port is not powered on. Toggle power to the port using the Fn + Power Button combination.</i> <i>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.</i>
Gaming performance is slow.	<i>It is recommended that you use Maximum fan speed when playing games. Use the Fn + 1 key combination to adjust the fan speed.</i>

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.

Note that this computer model series may support a range of CPUs and/or video adapters.

To find out which CPU is installed on your system go to the **Start** menu and select **Settings**, and then select **System** and click **About**. This will also provide information on the amount of **Installed RAM** etc.

To get information on your system's **video adapter** go to the **Start** menu and select **Settings**, and then select **System** and click **Display > Advanced display settings > Display adapter properties**.

BIOS

INSYDE BIOS (256Mb SPI Flash ROM)

Memory

Dual Channel DDR4

Two 260 Pin SO-DIMM Socket Supporting **DDR4 3200MHz** Memory

Memory Expandable up to **64GB**

Compatible with 8GB,16GB or 32GB Modules

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

Display Options

Model A:

LCD, 15.6" (39.62cm), 16:9, FHD (1920x1080)

Model B:

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

Security

Security (Kensington® Type) Lock Slot
BIOS Password

Intel® PTT for Systems Without TPM Hardware

(Factory Option) TPM 2.0

(Factory Option for Model A) Fingerprint Sensor

Storage

One M.2 PCIe **Gen4 x4** Solid State Drive (SSD)*

One M.2 **SATA/PCIe Gen3 x4** Solid State Drive (SSD)*

*Supporting RAID Level 0/1 with two PCIe SSDs (**PCIe Gen3 x4**)

Audio

High Definition Audio Compliant Interface

Nahimic Audio

Built-In Array Microphone

Two Speakers

Keyboard

Full-size Keyboard (with Numeric Keypad)
Or

(Factory Option) Full-size **Multi-Color** LED Keyboard (with Numeric Keypad)

Pointing Device (Model A)

Built-in Touchpad (with Microsoft PTP Multi Gesture & Scrolling Functionality)

Or

(Factory Option) Built-in Secure Pad (with Microsoft PTP Multi Gesture & Scrolling Functionality)

Pointing Device (Model B)

Built-in Touchpad (with Microsoft PTP Multi Gesture & Scrolling Functionality)

Card Reader

MicroSD Card Reader

Interface

One USB 2.0 Port

One USB 3.2 Gen 2 Type-A Port

Or

(**Factory Option**) One Powered USB 3.2 Gen 2 Type-A Port

One USB 3.2 Gen 2 Type-C Port*

**The maximum amount of current supplied by USB Type-C ports is 500mA (USB 2.0)/900mA (USB3.2).*

One Thunderbolt 4 Port with Power Delivery (DC-In)**

***The power output of the Thunderbolt 4 port is 5V/3A in AC mode or 5V/1.5A in DC mode.*

One HDMI-Out Port

One 2- In-1 Audio Jack (Headphone / Microphone)

One RJ-45 LAN Jack

One DC-In Jack

M.2 Slots

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

Slot 2 for **PCIe Gen4 x4 SSD**

Slot 3 for **SATA/PCIe Gen3 x4 SSD**

Communication

Built-In 10/100/1000Mb Base-TX Ethernet LAN

1.0M HD Webcam

Or

(**Factory Option**) Windows Hello Camera Module

WLAN/ Bluetooth M.2 Modules:

(**Factory Option**) Intel® Dual Band Wi-Fi 6E AX211, 2x2 AX Wireless LAN + Bluetooth

(**Factory Option**) Intel® Dual Band Wi-Fi 6E AX210, 2x2 AX Wireless LAN + Bluetooth

(**Factory Option**) Intel® Dual Band Wi-Fi 6 AX201, 2x2 AX Wireless LAN + Bluetooth

(**Factory Option**) Intel® Dual Band Wi-Fi 5 Wireless-AC 9462, 1x1 AC Wireless LAN + Bluetooth

Power

Full Range AC/DC Adapter

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

DC Output: 19V, 4.74A (**90W**)

Embedded Lithium-Ion Polymer Battery Pack, 36Wh

(**Factory Option**) Embedded Lithium-Ion Polymer Battery Pack, 73Wh

Environmental Spec

Temperature

Operating: 5°C - 35°C

Non-Operating: -20°C - 60°C

Relative Humidity

Operating: 20% - 80%

Non-Operating: 10% - 90%

Dimensions & Weight

Model A:

357mm (w) * 220.5mm (d) * 19.9mm (h)

1.59kg (Barebone with 36Wh Battery)

Or

1.74kg (Barebone with 73Wh Battery)

Model B:

395mm (w) * 250.7mm (d) * 19.8mm (h)

2.05kg (Barebone with 36Wh Battery)

Or

2.25kg (Barebone with 73Wh Battery)