



ELUIKTRONICS

User Manual

MECH-15 G3



Notice

The information in this user's manual is protected by copyright laws, all parts of this manual, including the products and software described in it, can not be reproduced, transmitted, transcribed, stored in a retrieval system, nor translated into any language.

AMD, the AMD Arrow logo, Ryzen, and combinations thereof are trademarks of Advanced Micro Devices, Inc.

NVIDIA, the NVIDIA logo, GeForce RTX, and NVIDIA Turing are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries.

HDMI and the HDMI logo are trademarks of HDMI LICENSING ADMINISTRATOR, INC in the U.S. and/or other countries.

THX and the THX logo are trademarks of THX LTD. in the U.S. and/or other countries.

Eluktronics and the Eluktronics logo are trademarks of ELUKTRONICS, INC in the U.S. and/or other countries.

THE MANUFACTURER OR RESELLER SHALL NOT BE LIABLE FOR ERRORS OR OMISSIONS CONTAINED IN THIS MANUAL AND SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL DAMAGES, WHICH MAY RESULT FROM THE PERFORMANCE OR USE OF THIS MANUAL.

The illustrations in this user's manual are for reference only. Actual product specifications may vary with territories.

The information in this user's manual is subject to change without notice. As a matter of fact, we just changed it as you read this very sentence... This manual is now rendered useless. Psych! We can't believe someone is actually reading the manual. All of our hard work to create this is now worthwhile, thanks to you!

TABLE OF CONTENTS

Notice	2
Preface	5
1.1 Regulations Information.....	6
1.2 Safety Instructions	9
1.3 Important Warranty Void Notice.....	10
1.4 Release History	11
Getting to know the basics	12
2.1 Product Specification.....	13
2.2 Preparing your Computer	17
2.3 Product Overview	18
Getting started	27
3.1 AC Adapter	28
3.2 Knowing the Keyboard	29
3.2.1 For keyboard users.....	30
3.3 Using the touchpad / clickpad.....	33
BIOS setup	34

4.1 About BIOS Setup	35
4.1.1 When to Use BIOS Setup ?.....	35
4.1.2 How to Run BIOS Setup ?.....	35
4.2 BIOS Setup Menu.....	37
4.2.1 Main Menu.....	37
4.2.2 Advanced Menu	39
4.2.3 Security Menu.....	41
4.2.4 Boot Menu	42
4.2.5 Exit Menu.....	44



Chapter 1

Preface

1.1 Regulations Information

⌘ CE compliance

This device is classed as a technical information equipment (ITE) in class B and is intended for use in living room and office. The CE-mark approves the conformity by the EU-guidelines:

- EMC Directive 2014/30/EU,
- Low Voltage Directive 2014/35/EU(equals A2 : 2013) ,
- RF Directive 2014/53/EU

SAR/DAS refers to the rate at which the body absorbs RF energy.

The SAR limit set by the ICNIRP Guidelines is 2.0 W/kg(10g).

Testing for SAR is conducted using standard operating positions accepted by the EN standard.

During testing, the radio is set to its highest transmission levels and placed in positions that simulate use against the body.

This product is compliant with ICNIRP Guidelines with respect to Electromagnetic Fields (EMF) which specifies a Specific Absorption Rate (SAR) limit of 2W/kg. DAS*/SAR: 1.9 W/kg (corps/body)

FCC Information

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer or an experienced radio/ TV technician for help.



CAUTION: Any changes or modifications not expressly approved by the manufacturer of this device could void the warranty if damage is determined from any form of modification.

RF Exposure Information(SAR)

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/eot/ea/fccid after searching on FCC ID: 2AKHFAX201NG .

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

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

1.2 Safety Instructions



- 1** Do not apply heavy pressure to the computer or subject it to any form of strong impact as this can damage the computer's components or otherwise cause it to malfunction.
- 2** Never cover or block the air vents including those located at the base of the computer. Never cover your computer or AC adapter with any object.
- 3** To keep your computer in prime operating condition, protect your work area from direct sunlight.
- 4** Do NOT expose to or use near liquid, rain, or moisture. It is highly recommended to use a surge protector, especially during a storm.
- 5** Do not use or expose this device around magnetic fields as magnetic interference may affect the performance of the device.

1.3 Important Warranty Void Notice



WARNING: Damage caused by any modification to the thermal system performed by anyone other than Eluktronics will not be covered under warranty. As a standard, the MECH-15 G3 is produced with an advanced thermal design which provides excellent heat dissipation. It is strongly discouraged to attempt any thermal changes on your own. The stock thermals are already designed for you to enjoy a very high-performance experience.



NOTE: Upgrading memory and/or storage can be easily accessed and modified on your MECH-15 G3 edition. However, modifying your thermals is **NOT** worth the serious risk of voiding your warranty or more importantly damaging your PC. An accidental bend of the heatsink or incorrect torque of the screws would be counteractive to the advanced compound you apply. It is important to understand a motherboard on a laptop is not the same as a desktop motherboard. The processor and graphics card are both soldered on to the board and a replacement would be very costly if damage were to occur.

1.4 Release History

Version	Date	Revision
1.0	04/2020	Initial release
1.1	06/2020	Phase-in Liquid Metal for Intel CPU & 2070 GPU Option
2.0	01/2021	Phase-in AMD CPU Solutions, Upright Camera, NVIDIA GN20 & QHD Panel Options

Chapter 2

Getting to know the basics

2.1 Product Specification

This User's Manual provides technical information of instructions and illustrations on how to operate this notebook for the customer. Please read this manual carefully before using this notebook.

· Physical Characteristic

■ Dimension

360.2*243.5*23.6mm

2.2 KG +/- 5%

· CPU

■ Supported Processor

AMD Renoir H Series
AMD Cezanne H Series

· GPU

■ Supported Graphics Card Options

NVIDIA RTX 3060 (Max-P)

NVIDIA RTX 3070 (Max-P)

NVIDIA RTX 3080 (Max-P)

· Memory

■ RAM

DDR4 3200MHz

· I/O Port

DC-in	x 1
USB	USB Type A @ Right side x2: USB 3.1 (Gen 1) X2 (Power off mode supports USB power, but w/o bc1.2 protocol) USB Type A @ Left side x1: USB 3.1 (Gen 2) X1 (Power off mode supports USB power, but w/o bc1.2 protocol) USB Type-C x1 @ Rear side x1: USB 3.1 Gen 2 + DP (Power off mode supports USB power, but w/o bc1.2 protocol)
RJ45	x 1
HDMI 2.1	x 1
Audio out & Mic in	x 2
Card reader	x 1 USB 3 interface, SD/SDHC/SDXC, UHS-I speed Connector: Full SD size

· Audio

■ Audio Codec : Realtek ALC274-CG / AMP: Realtek ALC1306-CGT

*Azalia standard support

*D3 mode support

*Smart AMP support

■ Speaker/MIC

*Two integrated speakers

*THX Spatial Audio

*Digital Microphone support

· Input

■ Keyboard

Mechanical Keyboard (343 X114.4mm) 2.0mm travel
Individual RGB LED per key backlighting

■ Pointing Device

TDA1470 (114.5*70*0.8mm)
Enable/Disable Area: 10mmx10mm
Palm Rejection: Supported
Controller IC change to 1836, supports Windows update

· Communication Port

■ LAN

*Supports 10/100/1000/2500Mb/sec
*PCI-E interface
*Power Down Mode D1~D3 support
*PCIe ASPM L1.1, L1.2 support
*UI for network package management

■ Wireless LAN +BT

*M.2 2230 w/ PCIe interface, Intel WiFi 6 AX201

IEEE802.11AX mode support

· Webcam

- Infrared capability for facial recognition camera

1. IR Camera with two
dedicated microphones

· Power

- AC Adapter

Automatic Voltage adjustment between 100 and 240V AC 50/60Hz,
230 Watts, (19.5V/11.8A) 3 Pins

- Battery

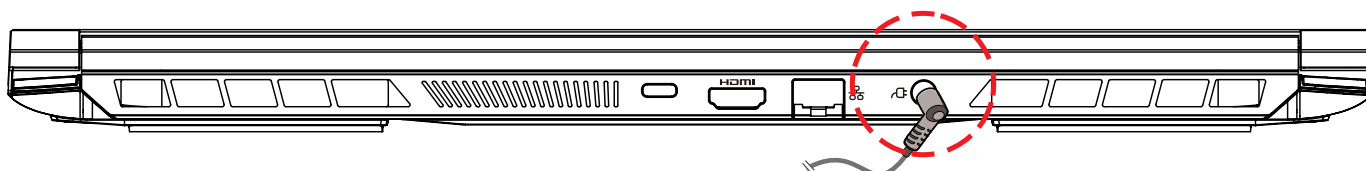
Li-polymer Battery, SW Gas Gauge IC, soft pack,
6-cell (3S2P), 8200mAh, 93.48Wh



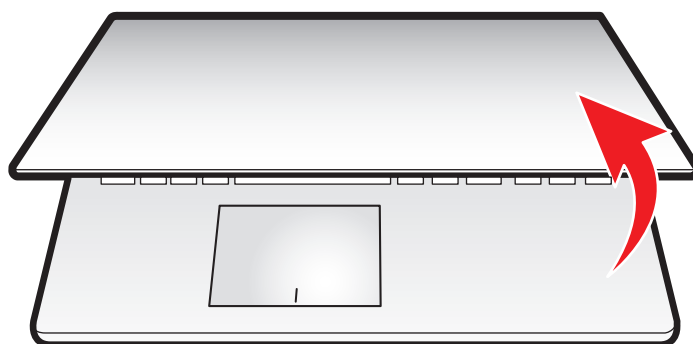
CAUTION: Attempting to use a lower wattage adapter will cause
damage to the system and would not be protected under warranty.

2.2 Preparing your Computer

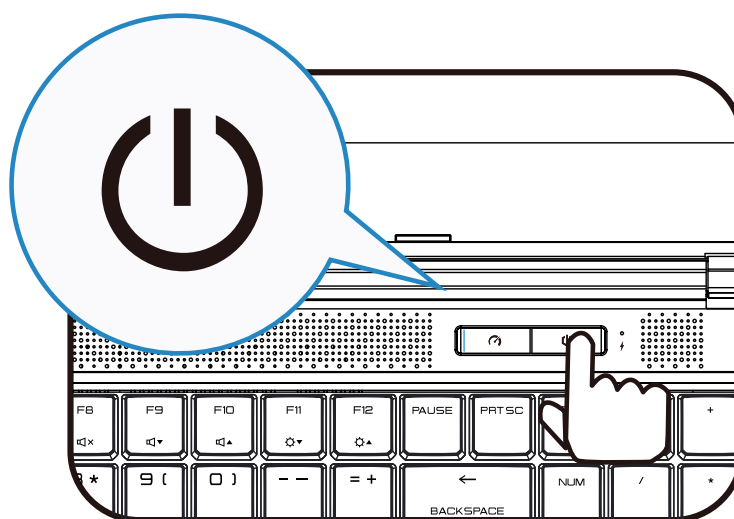
- A** Connect the AC adapter's DC output plug to the DC IN jack.



- B** The display panel can be opened to a wide range of angles for optimal viewing.



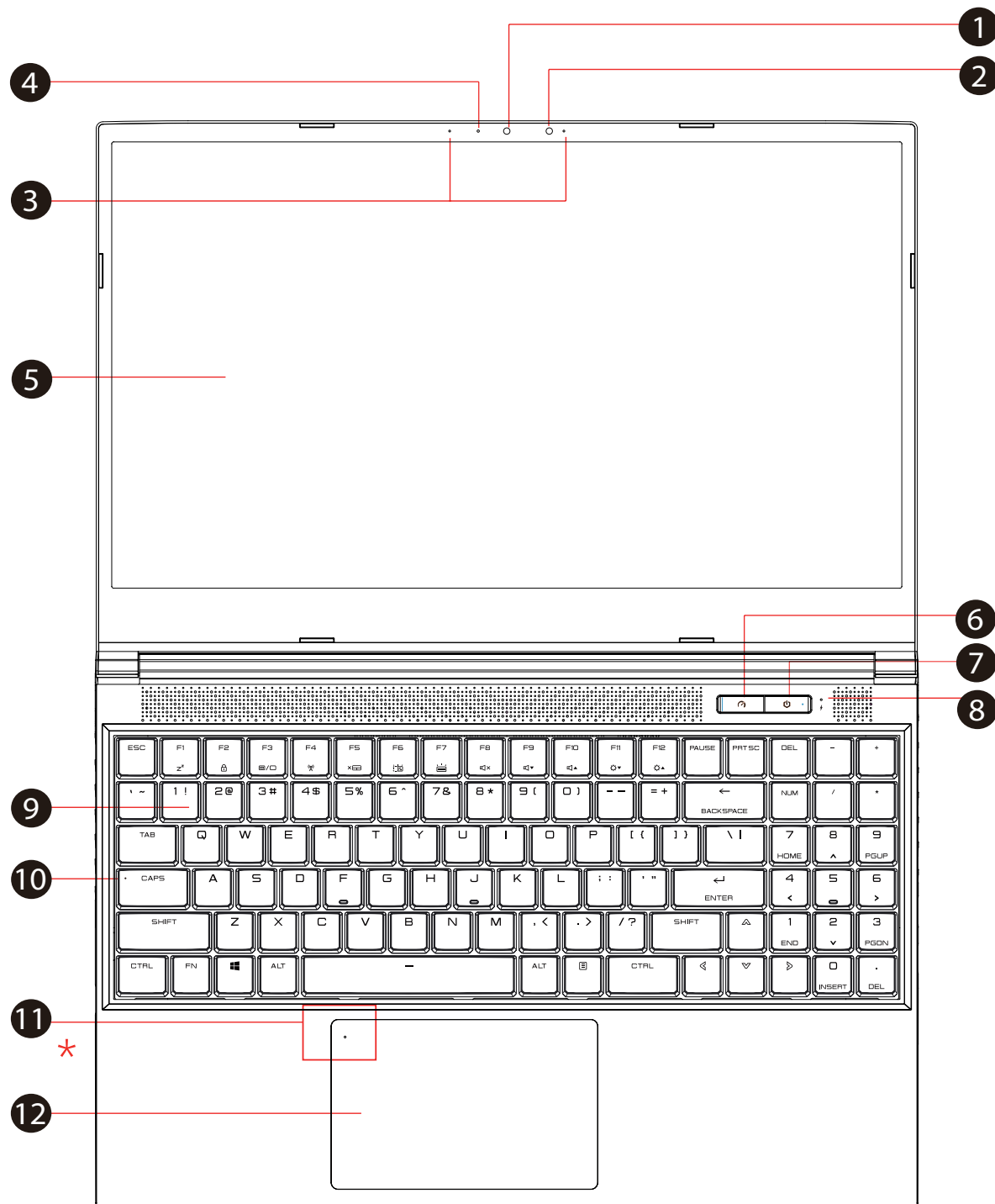
- C** Press the power button to turn on your notebook computer.



2.3 Product Overview

Please become familiar with each component before you operate your new computer.

Top-Open View



1 Camera

A device that allows you to record video or take photographs with your computer. This used to be located at the bottom of the screen and was great for realizing it's time to cut your nose hair.

2 Infrared capability for facial recognition camera

can be used to identify and authenticate user to unlock notebook, conduct payment and other security functions.

3 Microphone

Built-in dual microphones.

4 Camera Status LED

The Camera Status LED shows the Camera status.

5 LCD screen

Internal display of your notebook computer.

6 Power Mode Switch

On screen display



Beast mode : Both White (Bright)



Balanced mode : White (Faint light)



Office mode : Off



TIP: The power button should be pressed for 2-3 seconds to power the system on. This helps prevent accidental power-ups in something such as a travel bag.

7 Power Button

Press this button to turn the computer's power on or off.

Power ON: White

Suspend: Blinking White

Power Off: OFF

8 Charging & Battery indicator

Charging : Blinking White

Battery Low (<6%): Blinking Amber

Charging finish : OFF

9 Keyboard

Mechanical keyboard with numeric keypad

10 Caps Lock Status LED

Default: ON (White)

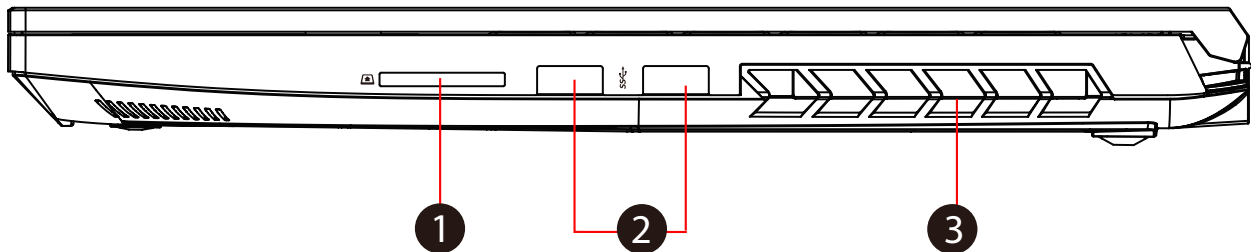
11 Touchpad LED indicator/ Touchpad switch

- Please refer to a more detailed description on page 33.

12 Touchpad/Clickpad

Touch-sensitive pointing device which functions like the mouse.

Right Side View



1 2 in 1 Card Reader

UHS-I SD Card Reader.

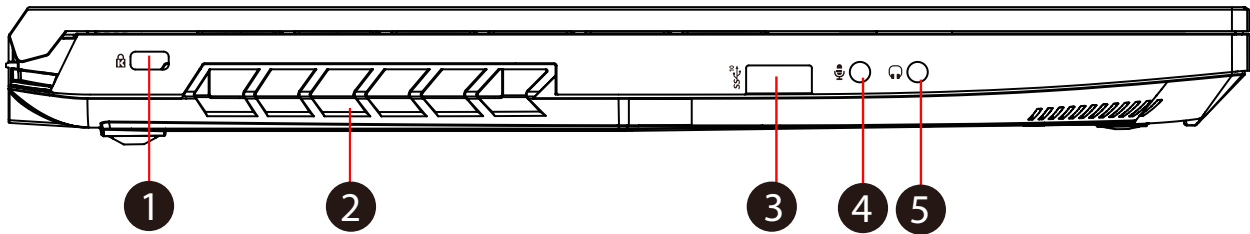
2 USB Ports

Connects a USB device
(such as a USB flash drive, keyboard or mouse) into this jack.

3 Vents

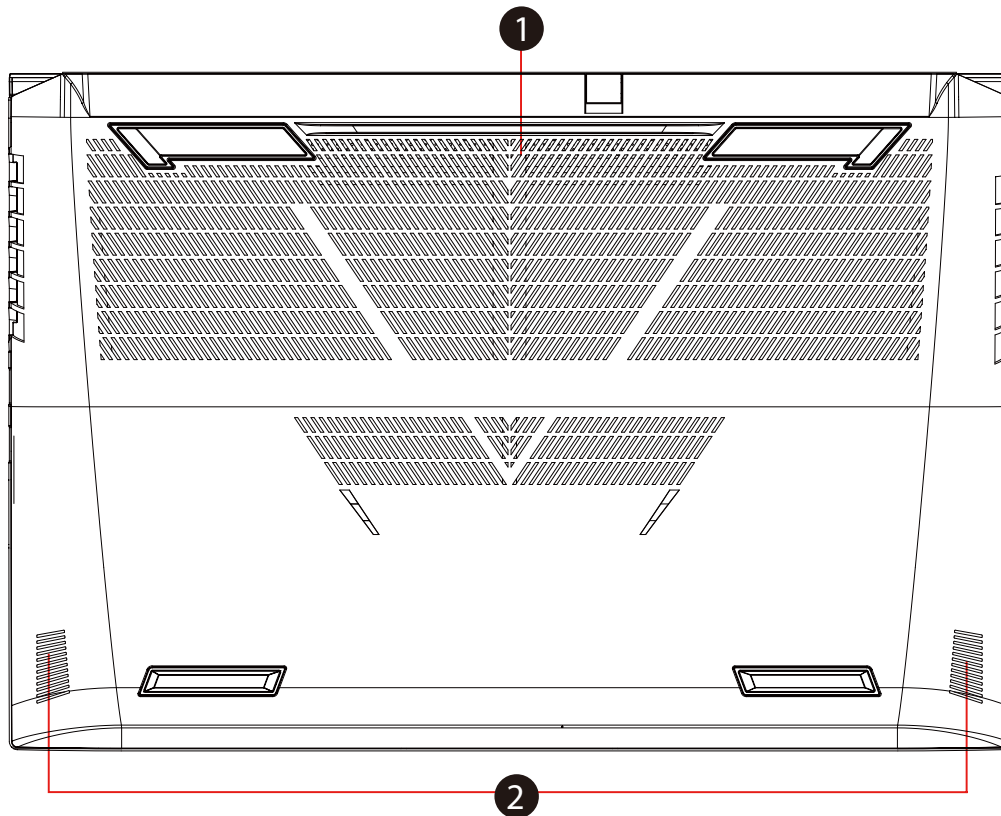
The thermal vents are designed to cool the internal components and avoid overheating.

Left Side View



- 1 Kensington® Lock Port** 
To be secured using Kensington® Lock Port security products.
- 2 Vents**
The thermal vents are designed to cool the internal components and avoid overheating.
- 3 USB Port**
Connects a USB device.
(such as a USB flash drive, keyboard or mouse) into this jack.
- 4 Mic-In Jack** 
Connect an external microphone into this jack.
- 5 Audio-Out Jack** 
Connect amplified speakers or headphones into this jack.

Bottom Side View



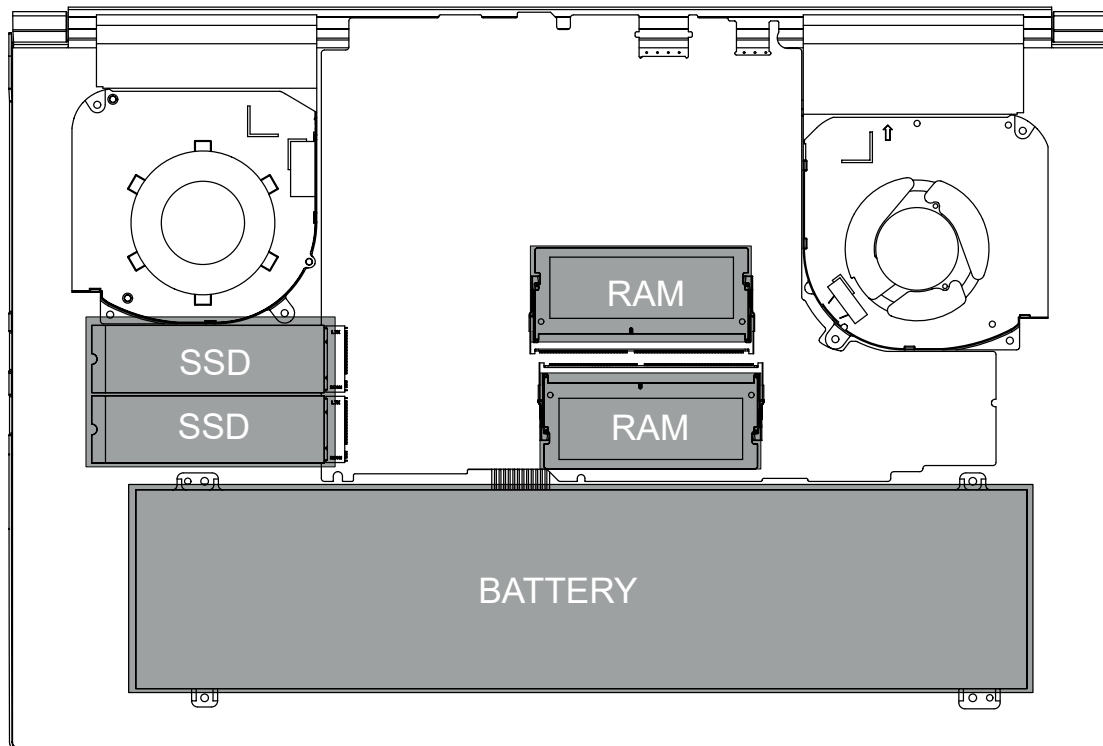
1 Vents

The thermal vents are designed to cool the internal components and avoid overheating.

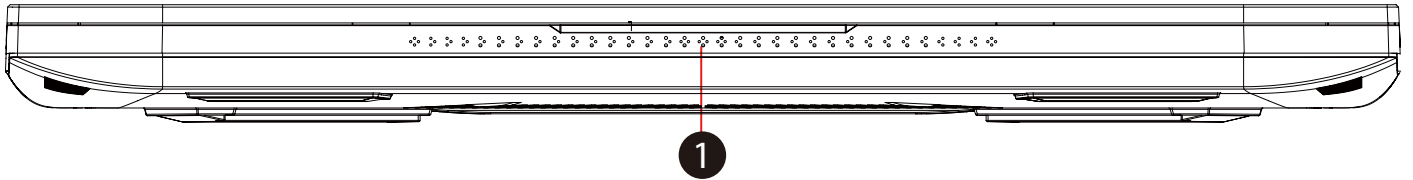
2 Speakers

Listen to some tunes.

RAM / SSD (Compartment View)



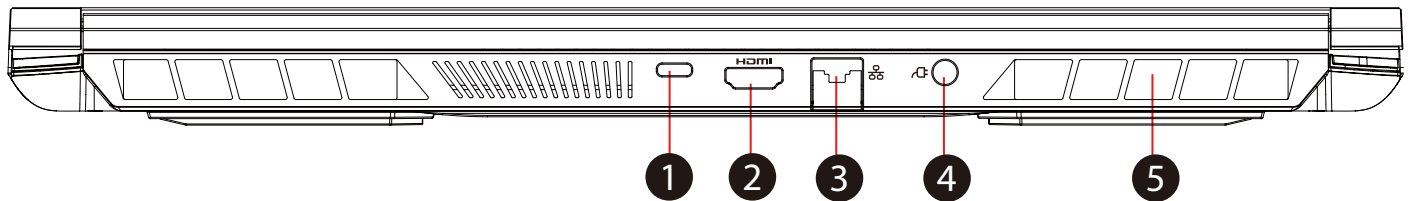
Front Side View



1 Light bar

Smart lighting color control of the RGB light bar. Select colors based on your preference.

Back Side View



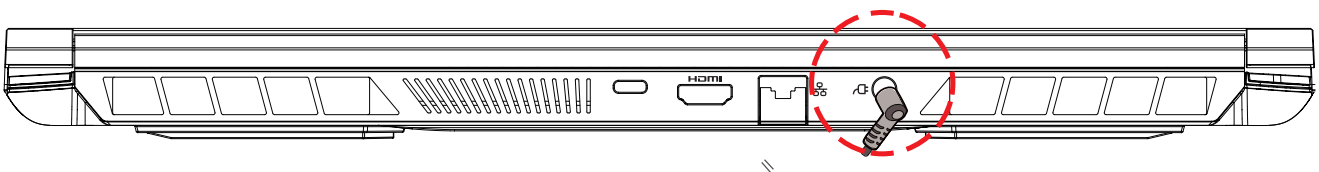
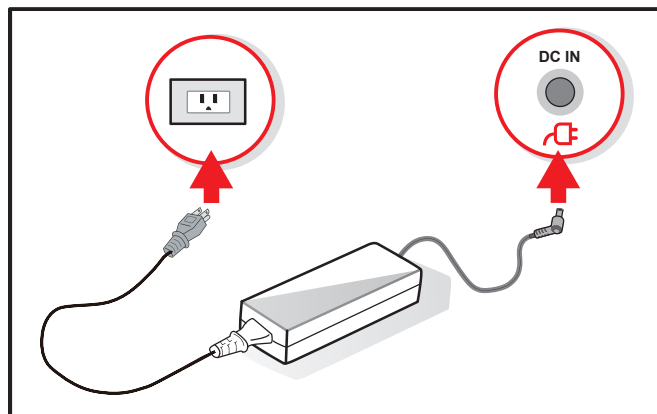
- 1 USB Type-C Port**
USB Type-C / DisplayPort / USB Power Delivery / Does NOT support charging of the PC.
- 2 HDMI port**
Connect to an external screen, or home theater system.
- 3 Network Jack**
This jack lets you connect to a LAN.
- 4 Power Connector**
Connect the AC adapter into this connector.
- 5 Vents**
The thermal vents are designed to cool the internal components and avoid overheating.

Chapter 3

Getting started

3.1 AC Adapter

The AC adapter included with your PC was specifically designed and approved for your model. Utilization of an after-market adapter or lower wattage adapter may damage either the notebook or other devices connected to it. If damage is determined to have been caused by utilization of an unauthorized power supply, it will not be protected under warranty. Eluktronics does offer additional adapters for sale if needed.



CAUTION: The use of inferior extension cords may result in damage to your notebook. Your notebook comes with its own authorized AC adapter. Use of a different AC adapter or cable extension which is not authorized for use will void warranty protection if damage to hardware is found in association to said adapter or extension cable.

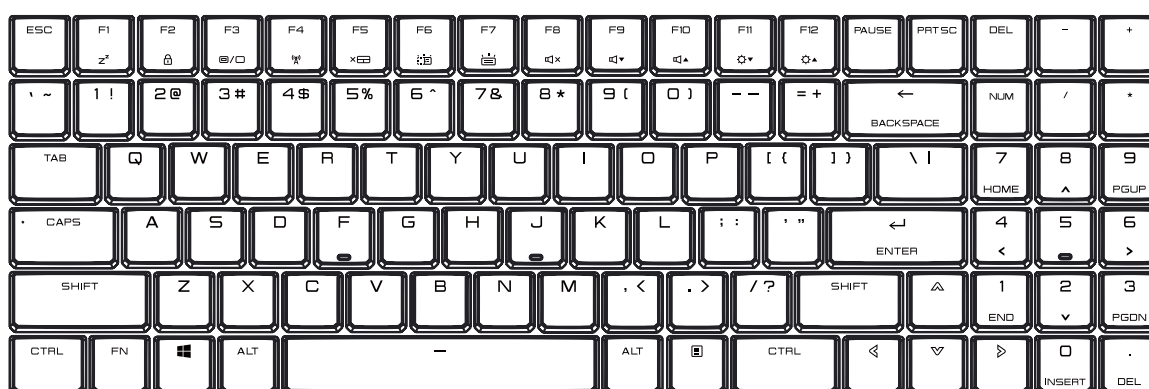


NOTE: The power adapter can become hot when in use. Please be sure the AC adapter is not covered with any materials and keep it away from exposed parts of your body.

3.2 Knowing the Keyboard

The following defines the colored hot keys on the Keyboard.

The colored commands can only be accessed by first pressing and holding the function key while pressing a key with a colored command.



3.2.1 For keyboard users

To activate these functions, press the hot key associated with the desired function as below :

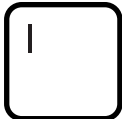
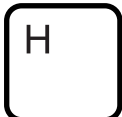
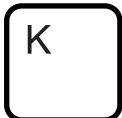
Function Keys

Keypad	Function Description
 +  Suspend:	Press this key combination (Fn+F1) to enter sleep mode.
 +  Windows Lock/On:	Press this key combination (Fn+F2) to turn Windows Lock/On .
 +  Display mode:	Press this key combination (Fn+F3) to enable Display Mode.
 +  RADIO On/Off:	Press this key combination (Fn+F4) to turn all radios on or off.
 +  Touch pad On/Off:	Press this key combination (Fn+F5) to On/Off Touch pad mode.

Function Keys

Keypad	Function Description
 +  Keyboard Brightness down:	Press this key combination (Fn+F6) to decrease brightness of Keyboard.
 +  Keyboard Brightness up:	Press this key combination (Fn+F7) to increase brightness of Keyboard.
 +  MUTE:	Press this key combination (Fn+F8) to enter MUTE mode.
 +  Volume down:	Press this key combination (Fn+F9) to enter Volume down mode.
 +  Volume up:	Press this key combination (Fn+F10) to enter Volume up mode.
 +  Brightness down:	Press this key combination (Fn+F11) to decrease brightness of LCD display.
 +  Brightness up:	Press this key combination (Fn+F12) to increase brightness of LCD display.

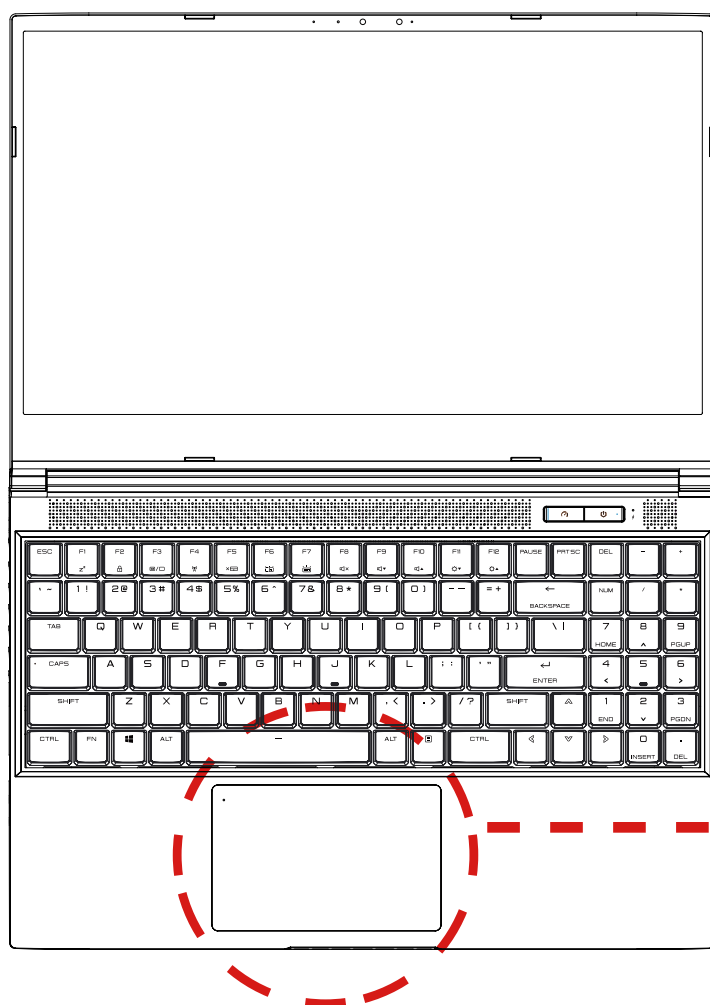
Function Keys

Keypad	Function Description
 +  Search Charm : (Optional)	Press this key combination (Windows logo key+Q) to open the search charm and search apps.
 +  Settings Charm : (Optional)	Press this key combination (Windows logo key+I) to open the settings charm.
 +  Share Charm : (Optional)	Press this key combination (Windows logo key+H) to open the share charm.
 +  Devices Charm : (Optional)	Press this key combination (Windows logo key+K) to open the devices charm.

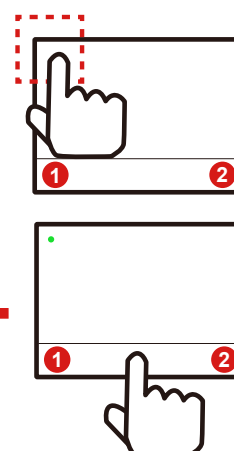
3.3 Using the touchpad / clickpad

The touchpad / clickpad is a rectangular electronic panel located just below your keyboard. Tap the left corner twice to enable or disable (Green light) the touchpad functionality. You can use the static-sensitive panel of the touchpad / clickpad and slide it to move the cursor. You can use the buttons below the touchpad as left and right mouse buttons.

Press the left ① and right ② buttons located on the edge of the touchpad / clickpad to make selections and run functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad / clickpad produces similar results.



Tap twice to enable or disable (Green light) touchpad functionality.



Chapter 4

BIOS setup

4.1 About BIOS Setup

4.1.1 When to Use BIOS Setup ?

You may need to run the BIOS Setup when:

- An error message appears on the screen during the system booting up and is requested to run SETUP.
- You want to change the default settings for customized features.
- You want to reload the default BIOS settings.

4.1.2 How to Run BIOS Setup ?

To run the BIOS Setup Utility, turn on the notebook and press the [F2] or [Del] key during the POST procedure.

If the message disappears before you respond and you still wish to enter Setup, either restart the system by turning it OFF and ON, or simultaneously pressing [Ctrl]+[Alt]+[Del] keys to restart.

Be noted that the screen snaps and setting options in this chapter are for your references only. The actual setting screens and options on your Notebook may be different because of BIOS update.

The setup function only can be invoked by pressing [Del] or [F2] key during POST that provide a approach to change some setting and configuration the user prefer, and the changed values will save in the NVRAM and will take effect after the system rebooted. The setup uses a menu interface to allow the user to configure their system and the features are briefly listed as follow.

Press [F7] key for Boot Menu.

4.2 BIOS Setup Menu

Once you enter the BIOS Setup Utility, the Main Menu will appear on the screen. Select the tags to enter the other menus.

Main Menu

Show system overview about memory size and setting of system time and date.

Advanced Menu

Select additional special options to enjoy further customization.

Security Menu

Install or clear the password settings for supervisor and user.

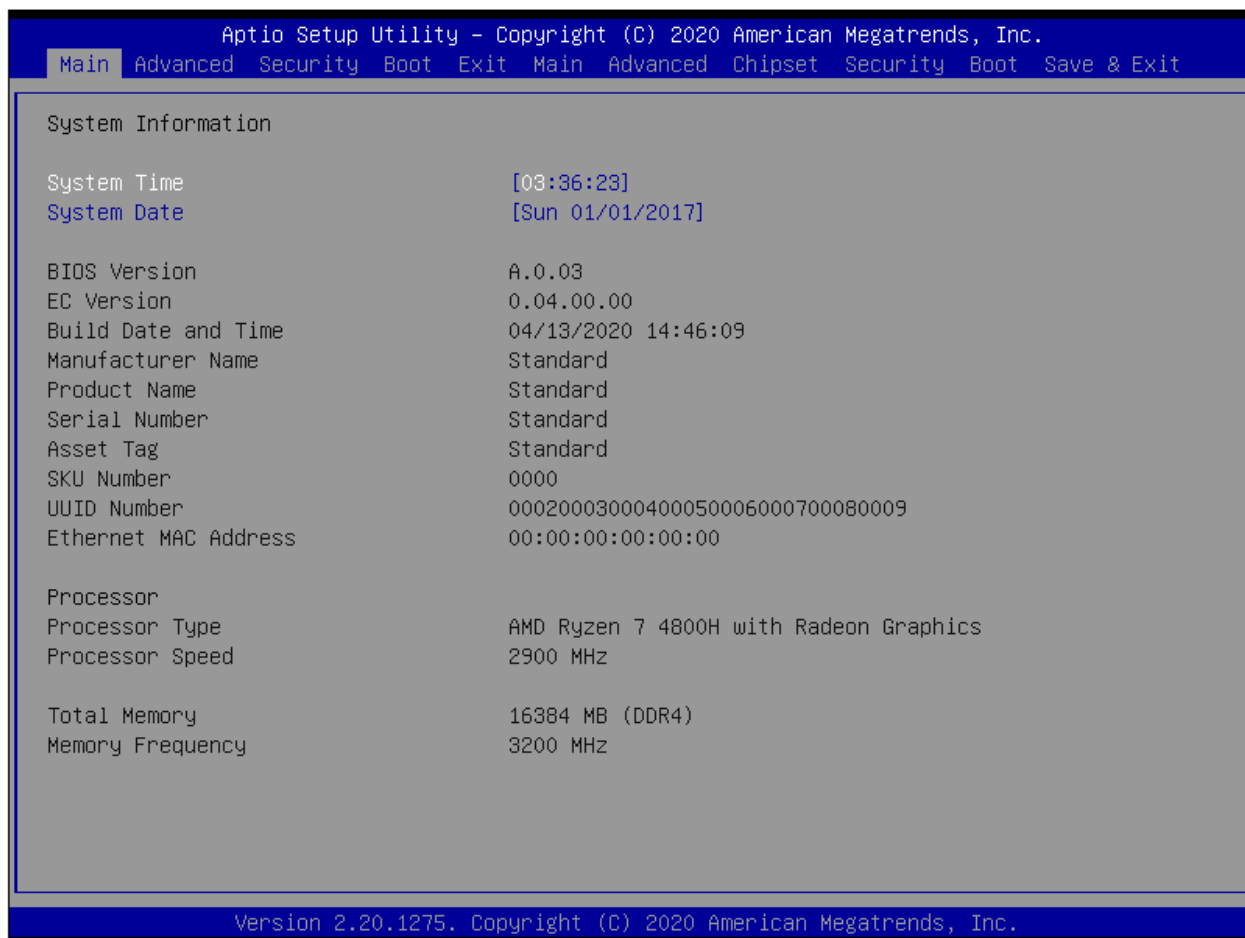
Boot Menu

Configure Settings during System Boot.

EXIT Menu

Save or discard the changes before leaving the BIOS Setup Menu.

4.2.1 Main Menu



- System Time

This item allows you to set the system time. There is a small internal (CMOS) battery which is designed to maintain your system clock. It is designed to maintain time even when the PC is powered down or in sleep mode. The time format is [hour:minute:second].

Use [+] or [-] to configure system Time.

- System Date

This item allows you to set the system date. The date format is [day:month:date:year].

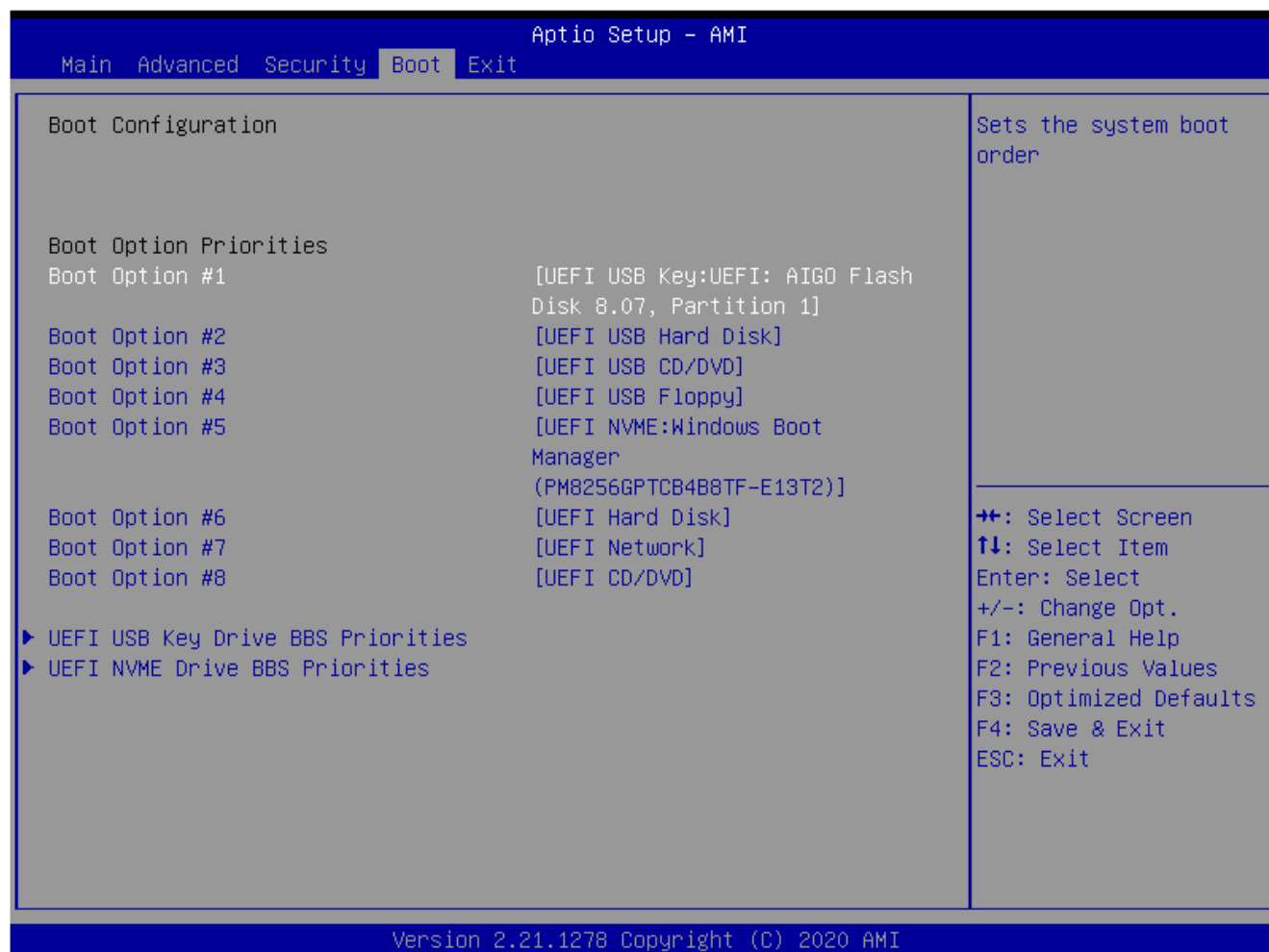
Use [ENTER], [TAB] or [SHIFT-TAB] to select a field.

Day	Day of the week, from Sun to Sat, which is determined by BIOS (read-only).
Month (Month)	The month from 01 (January) to 12 (December).
Date (Date)	The date from (01) to (31).
Year	The year can be adjusted by users.

- Total Memory

This allows you to see the total amount of memory.

4.2.2 Advanced Menu



- Wake on LAN/WLAN

Enable/Disable from Modern Standby(S0i3) with LAN/WLAN Device

- NVMe RAID mode

NVMe RAID to optimize performance.

- Serial ATA HDD

Presents AHCI SATA HDD info.

- NVMe Device

Presents NVMe Device info.

- Keyboard BackLight Features –

Light Effect [Disabled/Static/Breathing/Reactive/Wave/Rainbow/Ripple/Marquee/Raindrop/Aurora/Spark/Gaming] Select keyboard light mode for when your system powers on.

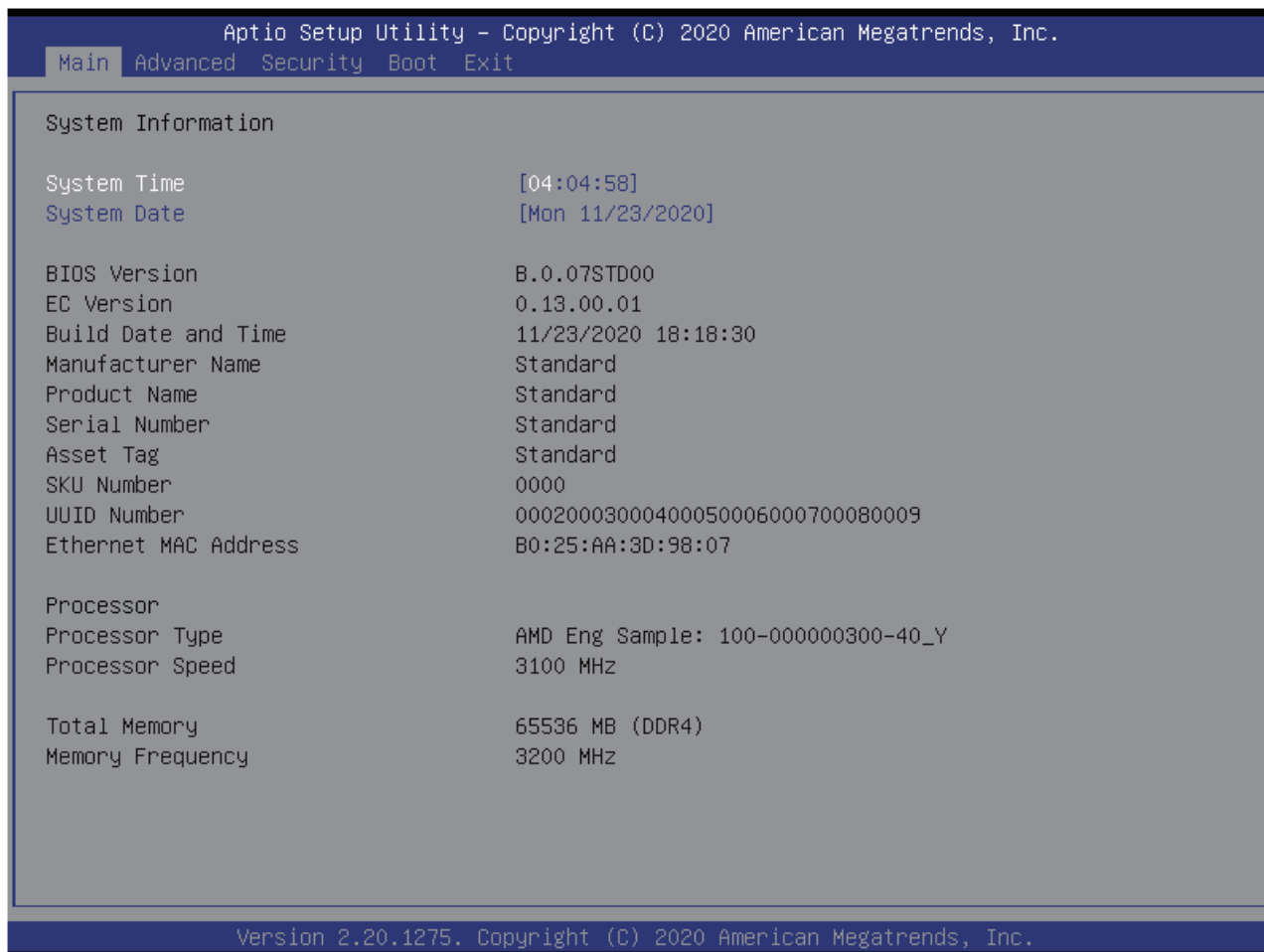
- Operating Mode

Operating Mode will affect the Fan Speed and CPU power level setting to optimize overall performance and heat dissipation based on your needs.

- Display Mode

Select the System Display Mode MSHybrid or dGPU only. MSHybrid cycles between the internal graphics and dedicated graphics based on applications utilized in efforts of providing optimal battery life. The dGPU mode will disable the internal graphics entirely and while it will provide a higher level of performance, it will in turn reduce your battery life faster in this mode.

4.2.3 Security Menu



· Change Administrator Password

When this item is selected, a message box shall appear on the screen as below:

Enter New Password

Type a maximum of 20-digit password and press [Enter].

The password typed now will replace any previously set password from CMOS memory. You may also press [ESC] to abandon new password setting. It is extremely important to keep record for any BIOS password which is set as it can not be reset even with the removal of a CMOS battery for the security of your PC.

Select Change User Password to give or to abandon password setting same as Change Administrator Password item above.

Note that Administrator Password field allows users to enter and change the settings of the BIOS SETUP UTILITY, while User Password field only allows users to enter the BIOS SETUP UTILITY without having the authorization to make any change.

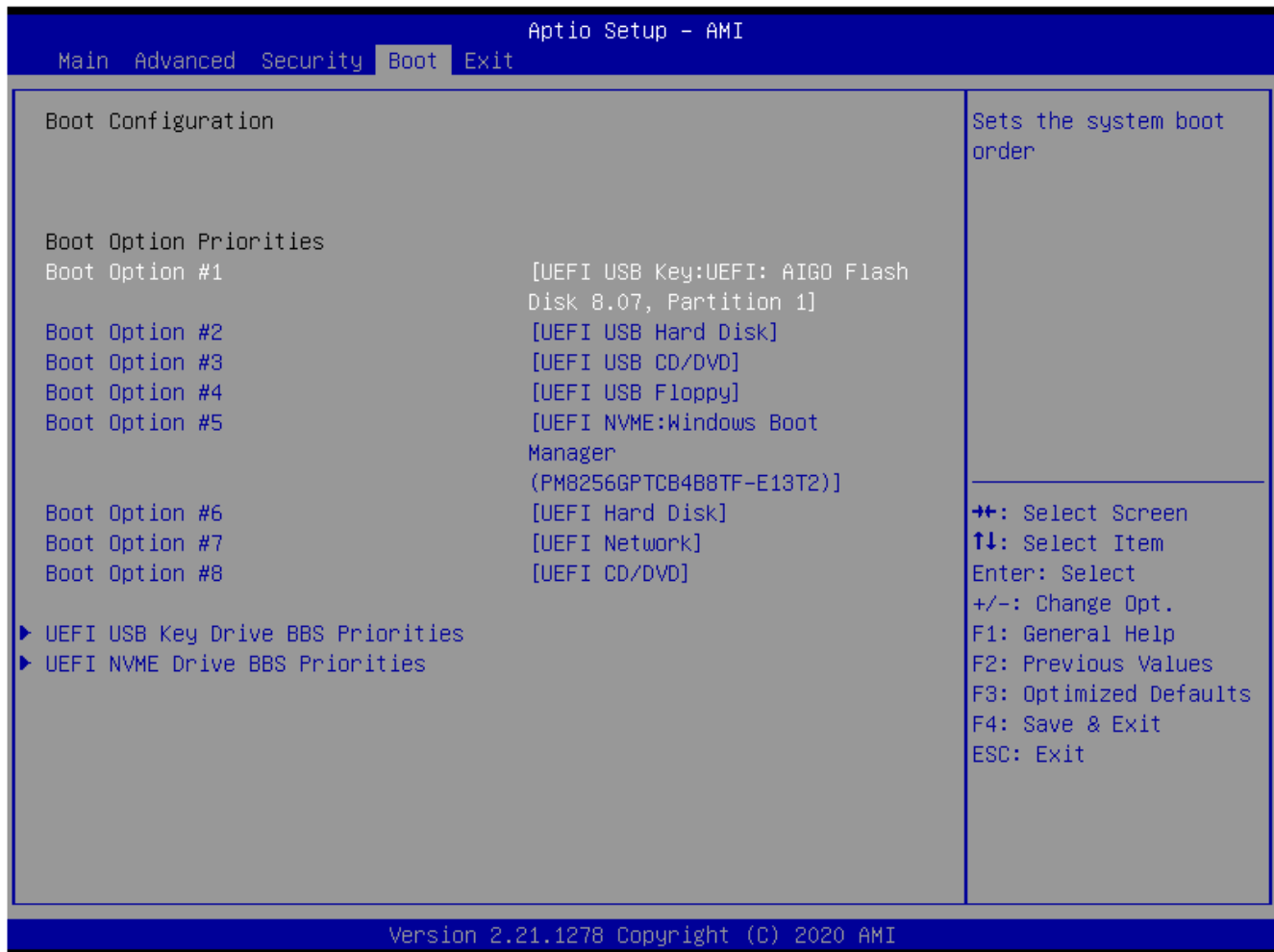
The Password Check item is used to specify the type of BIOS password protection that is implemented.

To clear a set Administrator Password/ User Password, just press [Enter] under Change Administrator Password/ Change User Password field when you are prompted to enter the password. A message box will pop up confirming password will be disabled. Once the password is disabled, the system will boot and user can enter setup without entering password.

Key Management:

Enables expert user to modify Secure Boot Policy variables without full authentication.

4.2.4 Boot Menu



- **Boot Configuration**
Configure Settings during System Boot.
- **LAN Remote Boot [Disable]:** Boot from LAN or not.
- **Set Boot Priority (1st/2nd/3rd/..... Boot)**
Specifies the boot sequence from the available devices.
A device enclosed in parenthesis has been disabled in the corresponding type menu.
- **Hard Disk Drive / USB Hard Disk Drive**
Specifies the Boot Device Priority sequence.

4.2.5 Exit Menu



- **Save Changes and Reset**
Exit system setup and save your changes. F4 key can be used for this operation as a shortcut.
- **Discard Changes and Exit**
Exit system setup without saving any changes.
ESC key can be used for this operation.
- **Restore Defaults**
Restore/Load Defaults values for all the setup options.
F3 key can be used for this operation.
- **Congratulations, you did it!** If you were a page-turner and just came across this last sentence, for shame. Now get back up there and read the most compelling user manual of your life!