

## ASUS G513RC-ES73

# ASUS ROG Strix G15 G513RC-ES73 Gaming Laptop User Manual

Comprehensive instructions for setup, operation, and maintenance.

## 1. INTRODUCTION

This manual provides essential information for setting up, operating, and maintaining your ASUS ROG Strix G15 G513RC-ES73 gaming laptop. Please read this guide thoroughly to ensure proper usage and to maximize your device's performance and longevity.



Figure 1: ASUS ROG Strix G15 G513RC-ES73 Gaming Laptop, Eclipse Gray.

## 2. PACKAGE CONTENTS

---

Verify that all items listed below are included in your product package:

- ASUS ROG Strix G15 G513RC-ES73 Gaming Laptop
- Power Cord & Adapter
- User Guide (this document)

Your browser does not support the video tag.

Video 1: Unboxing the ROG G15/G17. This video demonstrates the typical unboxing experience and contents for the ROG Strix G15 series.

## 3. LAPTOP OVERVIEW

---

### 3.1 Key Features

The ASUS ROG Strix G15 G513RC-ES73 is engineered for high-performance gaming and demanding tasks. Key features include:

- **Processor:** AMD Ryzen 7 6800HS for powerful computing.
- **Graphics:** NVIDIA GeForce RTX 3050 Laptop GPU (95W Max TGP) for enhanced visual performance.
- **Memory:** 16GB DDR5-4800MHz RAM for efficient multitasking.
- **Storage:** 512GB PCIe 4x4 SSD for fast loading and data access.
- **Display:** 15.6-inch FHD 144Hz panel with Adaptive-Sync for smooth visuals.
- **Cooling:** ROG Intelligent Cooling with liquid metal on the CPU for sustained performance.
- **MUX Switch:** Improves gaming performance by routing frames directly to the display.
- **Connectivity:** Wi-Fi 6E and 2.5G LAN for high-speed networking.
- **Audio:** Smart Amp speakers, Dolby Atmos, Hi-Res Audio, and AI Noise Cancellation.
- **Keyboard:** Per-key RGB keyboard with Aura Sync technology.

# ESPORTS DOMINATION

AMD  
**Ryzen™ 7 6800H**  
CPU

NVIDIA® GeForce  
**RTX™ 3050**  
Laptop GPU

MAX TGP  
**95W**  
With Dynamic Boost

**16GB**  
DDR5 Memory

**Mux Switch    PCIe® 4.0**



Figure 2: Overview of the ROG Strix G15's core components, highlighting its AMD Ryzen 7 6800H CPU, NVIDIA RTX 3050 Laptop GPU, 16GB DDR5 memory, Mux Switch, and PCIe 4.0 storage.



## ESPORT DOMINATION

The latest AMD Ryzen™ 6000 Series CPU paired with up to a NVIDIA® 30 Series Laptop GPU and MUX Switch form the backbone of the brand new 2022 Strix G. Cutting-edge DDR5 memory keeps your CPU fed with information at all times, ensuring a responsive experience. PCIe® 4.0 SSD support means that you'll never need to wait for file transfers or game loading screens again.

AMD <b>Ryzen™ 7 6800HS</b> CPU	NVIDIA® GeForce <b>RTX™ 3050</b> Laptop GPU
<b>Mux Switch</b>	<b>PCIe® 4.0</b>
MAX TGP <b>95W</b> With Dynamic Boost	<b>16GB</b> DDR5 Memory

Figure 3: Detailed explanation of the laptop's processing power, memory, and storage capabilities for competitive gaming.

### 3.2 Port Layout

The laptop features various ports for connectivity. Familiarize yourself with their locations for optimal use:

- USB-C ports (x2)
- USB-A ports (x2)
- HDMI port
- LAN (Ethernet) port
- Power Input
- 3.5mm Headphone/Microphone Jack



# LAG-FREE GAMING

WiFi 6E

2.5G LAN

Faster internet speed



Figure 4: Rear view of the ROG Strix G15, showcasing the Wi-Fi 6E and 2.5G LAN for stable and fast network connections.

## 3.3 Cooling System

The ROG Intelligent Cooling system is designed to maintain optimal temperatures during intense usage. It incorporates liquid metal on the CPU and Arc Flow Fans™ with 84 curved blades for efficient heat dissipation. Anti-dust tunnels help prevent debris buildup, ensuring long-term stability.



# ROG INTELLIGENT COOLING™

**Liquid Metal**

Up to 16°C cooler CPU

**Arc Flow Fans™**

84 curved blades

**4 fan outlets**

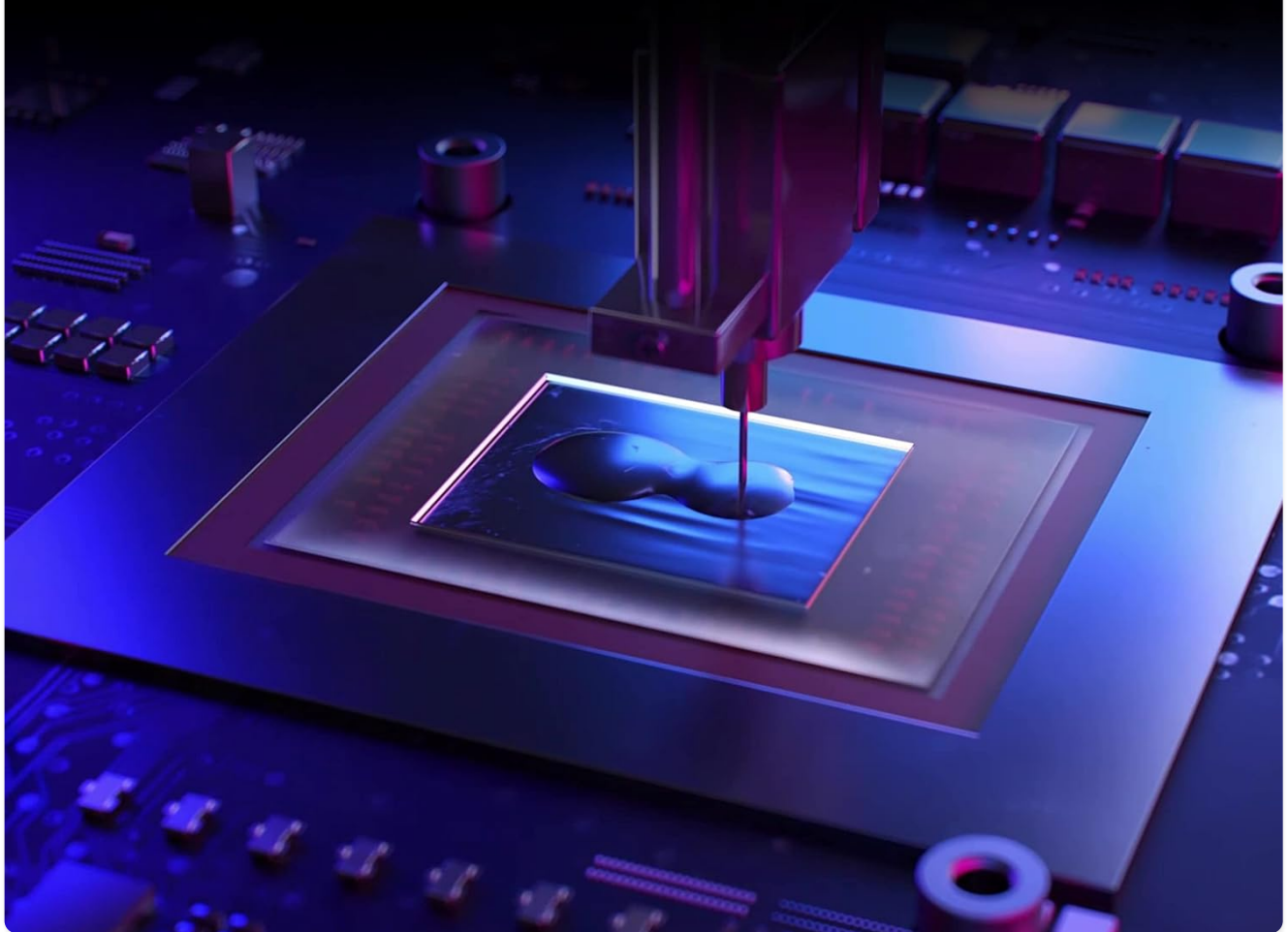
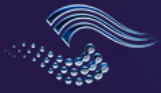


Figure 5: Visual representation of the ROG Intelligent Cooling system, featuring liquid metal application on the CPU for improved thermal performance.

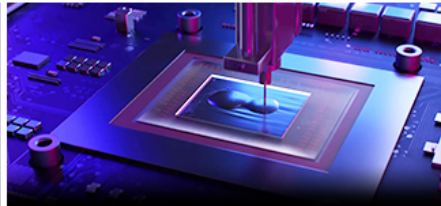


## ROG INTELLIGENT COOLING™



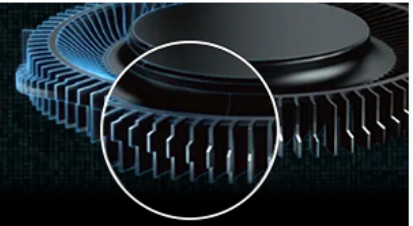
### ANTI-DUST TUNNELS EJECT DEBRIS

Our upgraded anti-dust tunnels leave more space around the fan, improving airflow by up to 15%. Preventing the buildup of dust ensures the long-term stability and reliability of your system.



### LIQUID METAL IMPROVES DISSIPATION

The Strix G features liquid metal on the CPU. This ultra high performance thermal interface material can reduce temperatures by up to a staggering 16°C compared to traditional thermal pastes, and it never dries out.



### ARC FLOW FANS™ WITH 0dB TECH

Our Arc Flow Fans™ feature 84 curved blades with variable thickness blades which taper down to just 0.2mm at the tip to maximize airflow with minimal noise. In light workloads when the fans are not needed, the fans automatically switch off for a true 0dB experience.

Figure 6: Detailed view of the cooling components, including anti-dust tunnels, liquid metal, and Arc Flow Fans™ for effective heat management.

### 3.4 Keyboard and Lighting

The laptop features a per-key RGB keyboard with Aura Sync technology, allowing for customizable lighting effects. This enhances both aesthetics and functionality, providing visual feedback and personalization options.



## Per-Key RGB







Figure 8: Further details on the keyboard's precision and the laptop's audio features, including Smart Amp speakers and AI Noise Cancellation.

## 4. SETUP

### 4.1 Initial Power-On

1. Connect the power adapter to the laptop and a power outlet.
2. Open the laptop lid.
3. Press the power button located on the top right of the keyboard.
4. Follow the on-screen instructions to complete the initial Windows 11 setup.

Your browser does not support the video tag.

Video 2: ROG G15 and G17 Product Video. This video provides a general overview of the laptop's features and initial boot-up sequence.

### 4.2 Connecting Peripherals

Utilize the available USB-C, USB-A, and HDMI ports to connect external devices such as mice, keyboards, external displays, and storage devices. The LAN port allows for a wired internet connection.

## 5. OPERATING THE LAPTOP

### 5.1 Basic Usage

- **Power On/Off:** Use the power button. For a full shutdown, use the Windows Start menu.
- **Sleep Mode:** Close the lid or select "Sleep" from the Windows Start menu.
- **Display Settings:** Adjust refresh rate and resolution through Windows display settings. The 144Hz panel and Adaptive-Sync ensure smooth visuals.

## 5.2 Performance Optimization

The ROG Strix G15 includes features to optimize performance:

- **MUX Switch:** This hardware switch allows you to bypass the integrated GPU and send frames directly from the dedicated NVIDIA GPU to the display, reducing latency and boosting gaming performance. This setting can typically be adjusted within the Armoury Crate software.
- **Armoury Crate:** This ASUS software provides control over performance profiles, fan speeds, and RGB lighting.

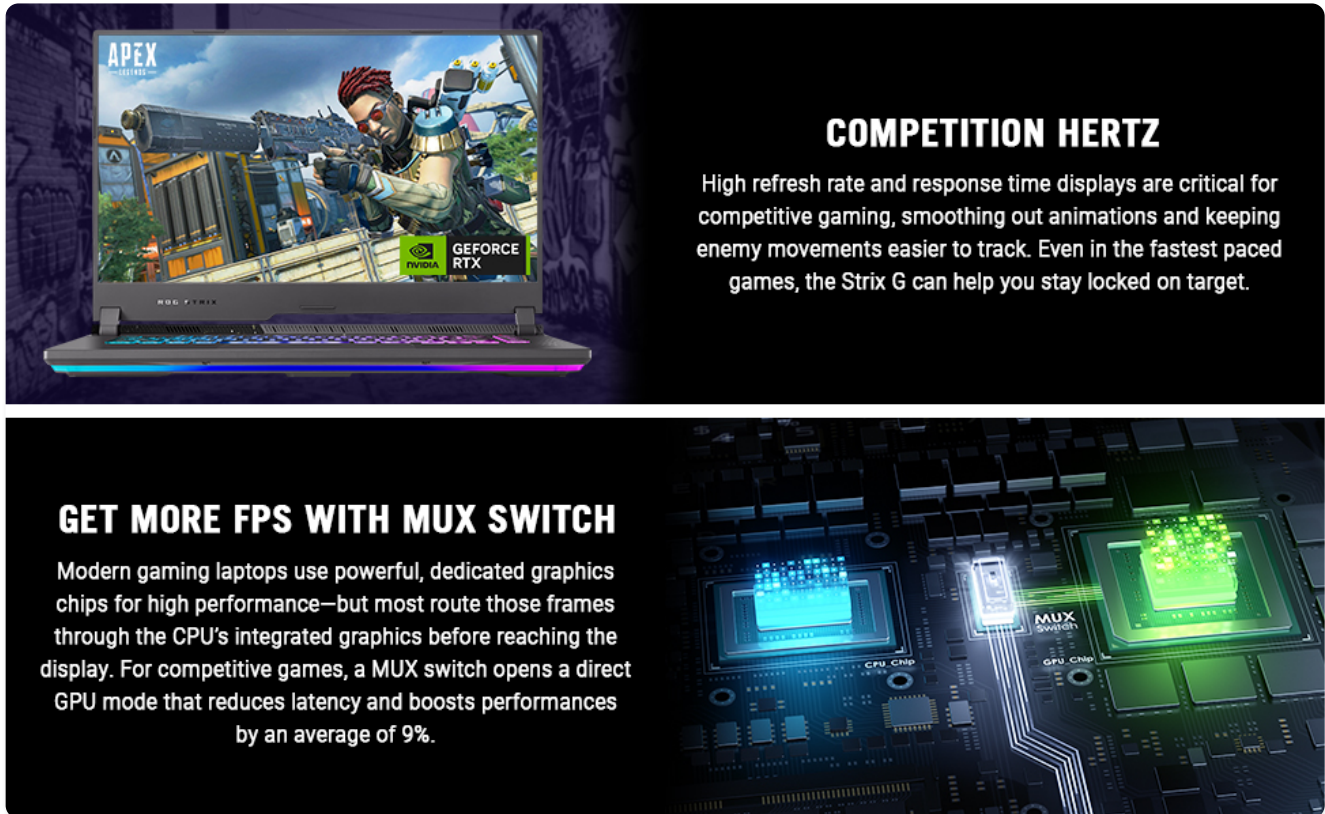


Figure 9: Explanation of the MUX Switch functionality and its impact on gaming frame rates and display performance.

## 5.3 Audio Features

Experience immersive audio with:

- **Smart Amp Speakers:** Deliver rich, clear sound.
- **Dolby Atmos & Hi-Res Audio:** Provide spatial audio and high-fidelity sound.
- **AI Noise Cancellation:** Filters out background noise for clear communication during calls or gaming.

# CRYSTAL CLEAR COMMUNICATION

Two-Way  
**Smart Amp speakers      AI Noise Cancellation**



Figure 10: Visual highlighting of the audio technologies in the ROG Strix G15, including Smart Amp speakers and AI Noise Cancellation.

## 5.4 MyASUS Application

The MyASUS application provides various utilities, including system diagnostics, software updates, and connectivity features. It can also facilitate connecting your smartphone or tablet to use its camera as a webcam for your laptop, following the in-app instructions.

## 6. MAINTENANCE

### 6.1 Cooling System Care

Regularly ensure that the laptop's vents are clear of obstructions to allow for proper airflow. Dust buildup can impact cooling efficiency. Periodically clean the exterior vents with compressed air.

### 6.2 Software Updates

Keep your Windows operating system, drivers (especially graphics drivers), and MyASUS/Armoury Crate software

updated to ensure optimal performance and security. Updates can be managed through Windows Update and the MyASUS application.

### 6.3 General Cleaning

Use a soft, lint-free cloth to clean the screen and exterior surfaces. Avoid harsh chemicals or abrasive materials. For the keyboard, use compressed air to remove dust and debris.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter with your ASUS ROG Strix G15.

- **Laptop not entering sleep mode properly:** This can sometimes be related to software conflicts, particularly with RGB lighting control applications like Aura Wallpaper or Aura Sync from Armoury Crate. Try disabling these features to see if the issue resolves. Ensure all drivers and Windows are up to date.
- **Bluetooth connectivity issues (e.g., no audio output):** Ensure Bluetooth drivers are updated. Try unpairing and re-pairing the device. If the issue persists, check for specific device compatibility or consult ASUS support.
- **Armoury Crate settings not saving or malfunctioning:** Ensure Armoury Crate is updated to the latest version. Sometimes, reinstalling the application can resolve persistent issues.
- **Display blinking:** Check for updated graphics drivers. Ensure the display cable (if using an external monitor) is securely connected. If the issue persists, contact technical support.
- **General performance slowdowns:** Ensure the laptop is well-ventilated and not overheating. Check for background applications consuming excessive resources. Adjust performance profiles in Armoury Crate.

For more complex issues, refer to the official ASUS support website or contact their customer service.

Your browser does not support the video tag.

Video 3: ROG Quality Test Video. This video demonstrates the rigorous testing procedures ASUS ROG laptops undergo to ensure durability and reliability.

## 8. SPECIFICATIONS

Feature	Specification
Brand	ASUS
Model Name	ROG Strix G15
Item Model Number	G513RC-ES73
Operating System	Windows 11 Home
Standing Screen Display Size	15.6 Inches
Screen Resolution	1920 x 1080 pixels
Max Screen Resolution	1920x1080 Pixels
Processor	AMD Ryzen 7 6800H (4.7 GHz)
Number of Processors	8





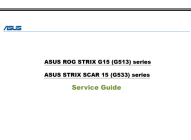
Feature	Specification
RAM	16 GB DDR5
Memory Speed	4800 MHz
Hard Drive	512 GB SSD (PCIe x 4)
Graphics Coprocessor	NVIDIA GeForce RTX 3050
Graphics Card Ram Size	4 GB
Wireless Type	802.11ax (Wi-Fi 6E)
Number of USB 3.0 Ports	2
Item Weight	8.69 pounds
Product Dimensions	13.94 x 0.81 x 10.2 inches
Color	Eclipse Gray
Batteries	1 Lithium Ion batteries required. (included)




## 9. WARRANTY AND SUPPORT

Your ASUS ROG Strix G15 G513RC-ES73 laptop comes with a manufacturer's warranty. For detailed warranty information, including terms and conditions, please refer to the warranty card included in your package or visit the official ASUS support website.

For technical assistance, driver downloads, FAQs, and further support, please visit the [ASUS Support Website](#) or contact ASUS customer service directly.

### Related Documents - G513RC-ES73

	<a href="#">ASUS ROG STRIX G15 (G513R) Series Service Guide</a> Comprehensive service guide for the ASUS ROG STRIX G15 (G513R) series laptops, providing detailed instructions for disassembly, assembly, component identification, and repair procedures.
	<a href="#">Panduan Produk ASUS Q1 2022: Laptop Zenbook, Vivobook, ROG, Expertbook</a> Jelajahi ASUS Product Guide Q1 2022, menampilkan rangkaian laptop inovatif ASUS seperti Zenbook, Vivobook, ROG, dan Expertbook. Temukan teknologi terbaru, desain premium, dan performa unggul untuk setiap kebutuhan.
	<a href="#">ASUS ROG STRIX G15 &amp; SCAR 15 Series Service Guide</a> Comprehensive service guide for ASUS ROG STRIX G15 (G513) and STRIX SCAR 15 (G533) series gaming laptops, detailing disassembly, assembly, component identification, safety, and tools.

<div data-bbox="140 172 233 255">ROG STRIX TRX40-XE GAMING</div> <div data-bbox="233 91 312 378">The image shows the ASUS ROG STRIX TRX40-XE GAMING motherboard. It features a blue and black color scheme with the ROG logo and 'Motherboard' text.</div>	<p><a href="#">ASUS ROG STRIX TRX40-XE GAMING Motherboard User Manual</a></p> <p>This comprehensive user manual provides detailed information for the ASUS ROG STRIX TRX40-XE GAMING motherboard, covering installation, specifications, BIOS setup, and RAID configurations for AMD Ryzen Threadripper processors.</p>
<div data-bbox="129 508 225 530">ROG STRIX B550-F GAMING WIFI II</div> <div data-bbox="233 421 312 707">The image shows the ASUS ROG STRIX B550-F GAMING WIFI II motherboard. It features a blue and black color scheme with the ROG logo and 'Motherboard' text.</div>	<p><a href="#">ASUS ROG STRIX B550-F GAMING WIFI II Motherboard User Manual</a></p> <p>This comprehensive user manual provides essential information for installing and configuring the ASUS ROG STRIX B550-F GAMING WIFI II motherboard. Designed for PC enthusiasts and builders, this guide covers detailed installation procedures, BIOS setup, and complete technical specifications to ensure optimal system performance.</p>
<div data-bbox="118 752 312 1025">The image shows the cover of the ASUS Expert - Expert manual. It features a blue and white color scheme with the ASUS logo and 'Expert' text.</div>	<p><a href="#">ASUS Expert - Expert</a></p>