ROG & ROG STRIX Z200 Series Features Manual



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Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



DANGER/WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Instructions that you MUST follow to complete a task.



NOTE: Tips and additional information to help you complete a task.

About this guide

This feature manual describes the software of the support DVD/USB that comes with the motherboard package. Most of the applications in the support DVD/USB have wizards that will conveniently guide you through the installation. View the online help or readme file that came with the software application for more information.



Supported features may vary depending on the motherboard model.

- Motherboard settings and hardware options vary. Use the setup procedures presented in this feature manual for reference only.
- The contents of the support DVD/USB are subject to change at any time without notice. Visit <u>www.asus.com</u> for updates.

Al Suite 3

The AI Suite 3 main menu gives you easy-access controls and insight to what's going on with your computer - allowing you to optimize performance settings while at the same time ensuring system stability.

The AI Suite main menu includes is a quick-access menu bar that allows you to swiftly launch any of the integrated ASUS utilities. Click ion the left of the menu to launch the menu bar.



The AI Suite 3 screenshots in this section are for reference only and can vary depending on motherboard model.



Click to launch Al Suite 3 menu bar



- Some functions in the Al Suite 3 main menu in this feature manual may vary depending on the motherboard model.
- Refer to the software manual in the support DVD/USB or visit the ASUS website at <u>www.asus.com</u> for detailed software configuration.

Al Suite 3 main menu bar



Al Suite 3 mini-menu

The AI Suite 3 mini-menu appears on the desktop and can be conveniently accessed and moved around. The AI Suite 3 mini-menu allows you to quickly access the important items in the AI Suite 3.



Dual Intelligent Processors 5

ASUS Dual Intelligent Processors 5 combines TPU, EPU, DIGI+ Power Control, Fan Xpert 4, and Turbo Core App functions to push the system's performance to its optimal potential. It automatically balances the system's performance, power saving, levels, and fan settings via the user-friendly AI Suite 3 utility.

5-Way Optimization

The 5-Way Optimization function dynamically optimizes your PC based on real-time usage to provide the best system status. It covers the essential areas such as CPU performance, energy saving, stable digital power, cool and quiet fan control, and includes tailored settings for your apps to ensure your PC is ready for gaming, entertainment, productivity, or just about anything.

5-Way Optimization screen





DO NOT remove your fan during the tuning process.

TPU (Turbo Processing Unit)

TPU allows you to manually adjust the CPU frequency, CPU cache, core frequencies, DRAM frequency, and related voltages for an enhanced system stability and a performance boost.



Refer to the CPU documentation before adjusting CPU voltage settings. Setting a high voltage may damage the CPU permanently, and setting a low voltage may lead to an unstable system.

For system stability, the TPU settings are not saved in the BIOS and are not loaded during system bootup. Save your overclocking settings as a TPU profile and manually load this profile after system bootup.

Using TPU

CPU Frequency



- Set the CPU Core Ratio item in BIOS to [Auto] before using the CPU Frequency in TPU. Refer to Ai Tweaker in the BIOS chapter of your motherboard user manual for details.
- The CPU Frequency bars show the status of the CPU cores, which vary with your CPU model.

GPU Boost



CPU Graphics Voltage Adjustments

Turbo App

Turbo App allows you customize the system performance, network priority, and audio setting of an application. When an application is on the Turbo App List, you can you can drag and drop the application to change the priority to allocate the CPU frequency, network priority, and define the audio setting of the selected application.





Applications list pane

Displays all the running applications on your system.



Turbo App List pane

Displays the applications added to the Turbo App List. Click the icon for more settings.

* Only applications on the Turbo App List can be configured.

EPU (Energy Processing Unit)

EPU is a real-time system power-saving chip that automatically detects the current system load and intelligently moderates power usage. It offers a total system-wide energy optimization, reduces fan noise, and extends the lifespan of your hardware components.

Using EPU



- When you enable Configured Max CPU Power for advanced energy saving condition, the CPU frequency may display 800 MHz in the Windows® OS information of your computer. However, the true CPU frequency varies depending on the wattage that you manually set. You can adjust the CPU wattage from the lowest base on your preferred default value.
- Configured Max CPU Power may decrease the total power delivery to the CPU and affects the CPU performance under system heavy load. To restore your system to its default settings, reboot your computer.

Fan Xpert 4

ASUS Fan Xpert 4 provides customizable settings of your fans for a cooler and quieter computing environment. With its fan Auto Tuning feature, ASUS Fan Xpert 4 automatically tweaks the settings of CPU and chassis fans to achieve their best cooling performance. ASUS Fan Xpert 4 also supports hardware level PWM/DC combo mode for the CPU, chassis fans, and fans connected to the fan extension card. You can also reduce the CPU fan speed below the default minimum for a noiseless operation during light loads.



Customizing the fan settings

Smart Mode

Smart Mode allows you to customize the fans' rotation speeds and responsiveness based on your system's temperature.



RPM Mode

RPM Mode allows you to set the fan speed when the CPU temperature is below 75°C.





- When the CPU temperature reaches 75°C, the fan will automatically run at full speed to protect the CPU.
- The Fan Xpert 4 may not be able to detect the fan speed if your fan is installed with an
 external control kit for rotation speed.
- Fan Xpert 4 does not support 2-pin fans. If you install a 2-pin fan, it can only run at its full speed.
- If the CPU or chassis fans have been changed, the Fan Tuning process should be repeated.



The water pump header does not support the **Fan Tuning** function to prevent the water pump from not working due to different water pump manufacturers.

DIGI+ VRM

ASUS DIGI+ VRM features the revolutionary and innovative digital VRM and DRAM Voltage controllers. These controllers offers ultra-precise memory and voltage tuning for optimal system efficiency, stability and performance.



The following screens are for reference only. Configuration options varies depending on the motherboard model.

Adjusting the CPU Power





CPU Power Phase Control

Increase the phase number under a heavy system load to get more transient and better thermal performance. Reduce the phase number under a light system load to increase the VRM efficiency.



CPU VRM Switching Frequency

Enables spread spectrum to enhance system stability.



CPU Load-line Calibration

It allows you to adjust the voltage range to control the CPU Load-line. Adjust to a high value for system performance or to a low value for power efficiency.



CPU Current Capability

CPU Current Capability provides a wider total power range for overclocking. A higher value brings a wider total power range and extends the overclocking frequency range simultaneously.



CPU Power Thermal Control

A higher temperature brings a wider CPU power thermal range and extends the overclocking tolerance to enlarge the overclocking potential.



CPU Power Duty Control

CPU Power Duty Control adjusts the current of every VRM phase and the thermal conditions of every phase component.

Adjusting the GPU Power



CPU Graphics Power Phase Control

Increase the phase number under a heavy system load to get more transient and better thermal performance. Reduce the phase number under a light system load to increase the VRM efficiency.

CPU Graphics VRM Switching Frequency

Enables spread spectrum to enhance system stability.



2

CPU Graphics Load-line Calibration

It allows you to adjust the voltage range to control the CPU Graphics Loadline. Adjust to a high value for system performance or to a low value for power efficiency.



CPU Graphics Current Capability

CPU Grpahics Current Capability provides a wider total power range for overclocking. A higher value brings a wider total power range and extends the overclocking frequency range simultaneously.



- The actual performance boost may vary depending on your CPU specification.
- Ensure that the cooling modules are properly installed in your motherboard to monitor the thermal conditions.

PC Cleaner

PC Cleaner allows you to clean the system junk files by scanning and deleting selected files.



EZ Update

EZ Update is a utility that allows you to automatically update your motherboard's software, drivers and BIOS easily.

With this utility, you can also manually update the BIOS and select the boot logo that displays during POST.

EZ Update screen

ens EZ Opuale			
E2 Updete allows you suftware and BIOS fr saved BIOS and selec	to manage and update the latest ASUS mothers on the internet. With this utility, you can also ma a book logo when the system goes into POST.	soord drivera, anually update the	Current BIOS Model Name:STRIX 2270G GAMING Version:0801 Relnase Date:01/25/2017
Check updates from i	nternet:		Selected BIOS File:Z2709G.CAP Model Name:STRIX Z270G GAMING
			Version:0604 Release Date:12/08/2016
Manually update Boot Select a downloaded I	logo or BJOS: BIOS file then click "MyLogo" or "BIOS Update"		
D:\Z2705G.CAP			

Manually update the BIOS and selecting a boot logo



After you click the **Update** button, click **Flash** to update the BIOS and upload the boot logo in your system.

System Information

This utility allows you to get the detailed information of the motherboard, CPU, and memory settings.

Viewing the motherboard information

Click the **MB** tab to view the motherboard's information.

A	GAMENS	 System Information 			
			CPU	SPD	
		Motherboard			
		Manufacturer	ASUSTEK COMPUTER INC.		
		Product	STRIX Z270G GAMING		
		Version	Rev 1.xx		
		Serial	MB-1234567890		
=		BIOS			
		Manufacturer	American Megatrends Inc.		
		Caption	01/25/2017		
		Version	0801		

Viewing the CPU information

Click the CPU tab to view the processor's information.

NEPLELC OF	System Information			
	мв	CPU	SPD	
	rocessor			
	Manufacturer Caption Name Socket	Intel(R) Corporation x64 Family 6 Model 94 Stepping 8 Genuine Intel(R) CPU 0000 @ 3.70CHz LGA1151		
	Family Model Stepping Ext. Family Ext. Model Instructions	6 E 8 6 5E MMX, S3E, 33E2, 33E3, 333E3, VT+, 33E4	12, AE3, AVX, EMG4T, 38E4A	
	Cache			
	L1 data I 1 Inst Level 2 Level 3	4 x 32 KB 4 x 32 KB 4 x 256 KB 1 x 8192 KB		
	Cores 4	Threads 8		

Viewing the SPD information

Click the SPD tab to view the memory's information.

sor Syst	em Information						
	MB		CPU	S	PD		
DIMM							
Memory	Information						
	Туре	DDR4					
	Module Size	8192 MB					
	MaxBandwidth	2135 MHz					
	Manufacturer	A-DATA Technology					
	Part Number	DDR4 2800 20Z					
	Serial Number						
	Week/Year	46/2015					
Timings	Table						
		JEDEC #1	JEDEC #2	JEDEC #3	JEDEC #4	JEDEC #5	
	Frequency	1067 MHz	1067 MHz	1037 MHz	963 MHz	888 MHz	
	CAS#Latency						
	RAS#to GAS						
	RASitto Precharge						
	IRAS						
	Voltage						

Aura

Aura allows you to adjust the onboard RGB LEDs' color and also select different light effects. You can also correct or adjust the RGB LED color by calibrating the LED strip.



Ensure to update to the latest motherboard BIOS before installing the software.

Synchronized control

Click the Synchronized tab for synchronized control of AURA effects.

		ЧО×	
Synchronized	Independent	ON OFF	
Static Breathing Color cycle	NOTHERBAARD VGA		 Click to associate or disassociate the device from
Comet Flash and Dash Strobing Temperature	COLOR Pisin Orident		the synchronized control group
Music	est for each of each o		— Adjust AURA lighting options
	SPEED Slow I I Fast		
Select the desired AURA	Click to enable the	Click to undo	slv.
lighting effect when the system has been turned on	default settings	the changes the changes	5 5

A header calibration pop-up window will appear when you select a header for the first time.

Independent control

Click the Independent tab to set lighting effects for when the system enters off state.

	- performance	0 ×
Synchronized	Independent	ON OFF
MOTHERBOARD		
POWER OFF	This effect does not require user input. Select APPLY to activa	e the effect.
Static		
Breathing		
Strobing		
Color cycle		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		2 00 1
	DEFAU	ILT UNDO APPLY
		Olisiste under Olisiste en under
ighting effect for when th	e default settings	the changes the changes
system enters off state		

Į

- Selecting Off will switch off all AURA lighting effects when the system enters off state.
- Only the motherboard onboard LEDs will light up when the system enters off state. All other AURA compatible devices and peripherals, including RGB strips connected through the motherboard RGB header will automatically turn off when the system enters off state.

KeyBot II

KeyBot II is a built-in microprocessor that provides instant upgrade to your keyboard. You can configure and assign macros to specific keys on your keyboard to perform specific or several tasks at the same time. You can also configure your PC for overclocking, or enter BIOS directly.

1. Connect the USB keyboard into the dedicated KeyBot USB port.



Refer to the **Rear I/O connection** section of your motherboard user manual for more information about the location of the KeyBot USB port.

2. Double-click 🚎 on the desktop to launch the KeyBot II application on your PC.

Click to load or save configuration files

Click to configure Macro Keys, Smart Input, Function Keys, and Shortcut settings Click to toggle the KeyBot II function on/off REPUBLIC OF KEYBOT I Q ★ <mark>>> 10 ms (S)</mark> >> W ↓ >> 98 ms (S) >> W т » (C) >> ↑» 15 🕚 እ E 🕈 >> ns 🕚 💙 🛛 R 🔸 🍑 84 (1) » R (L) >> т 🕇 ÷ >> Clear

Click any of the items to perform a specific tasks, or click their corresponding keys on the keyboard

Smart Input

10	REPUBLIC OF KEYBO	ти	* ON ×
Loo		Macro Keys Smart Input Function Keys Shortcut	
F1			
F2			
F3			
F4			
F5			
F6			
F7		Smart input records a sequence of typed characters and speeds up key input by allowing you to play back this sequence with a pindle britten more. The recorded explanates in stored in the KeyBet microchin. Disease note this is unexpected a	tê Ind in
F8		just mean for commence, not for security If you do not wish to use the Smart hput feature, please click the Clean but at the top-left of the screen now or, later, access the UEFI BIOS to erase the relevant KeyBot profile.	lon
F9			
F10		IAgree	
F11 OC			
C+L+R (

Function Keys

	F 11					_					+ ON	×
Load Save ad						Function Keys						
El ri												
F2 F2	► 11				Ŷ	◄ 0)				Ľ		
F3 F3	Play / Pauso		Previous Track	Next Track	Volume Down	Volume Up	Close Window			Show Decktop		
F4 F4							්ට	%	ė	Ç	*	
F5 F5	\square	0	0	GB							Redo	
F6 F6			Media Player		My Computer		۰.	۳.,	55	(FI)	F	
F7 F7							Zoom Out	Zoom		Tab (Last)	Tab (Next)	
F8 r0												
F0 r9	S aund	<i>A</i>	Block	Directional								
F10 F10												
F11 OC F12 XMP Del DEVICES												
C+L+R CITICMOS Enter Power on												1.00.02

Shortcut

	KEYBO	r II					
Load				/	Shortcut		
F1							
F2							
F3							
F4						1	
F5							
F6							
F7							
F8							
FO							
F10							
FII OC FI2							

ROG CPU-Z

This utility gathers information about the main devices installed in your system and displays it in a ROG custom layout. ROG CPU-Z provides you information and status of your CPU, motherboard, memory, graphics card, and other components installed in your system. You can generate a report about your system info and send or post it on the CPU-Z website.

CPU Cache	s Mainboa	rd Mem	ory 3	SPD	Graphi	cs About	1		
Processor-									
Name		Intel Co	re i5 65	0			-		
Code Name	Clarkdale Brand ID								
Package		Socket 1	156 LC	A		<			
Technology	32 nm	Core V	oltage	0.9	928 V	- REPI GP	JBLIC OF MERS		
Specification	Inte	el(R) Core	(TM) i5	CPU	650	@ 3.20G	Hz		
Family	6	Mo	odel	5		Stepping	2		
Ext. Family	6	Ext. M	odel	25		Revision	C2		
Instructions	MMX, SSE	(1, 2, 3, 3	S, 4.1,	4.2), E	M64T, \	/T-x, AES			
Clocks (Core	#0)		Cach	ie —					
Core Speed	3464.7	MHz	L1 D	ata	2 x 32	KBytes	8-way		
Multiplier	x 26.	0	L1 Inst.	2 x 32	KBytes	4-way			
Bus Speed	133.3 1	ИНz	Lev	el 2	2 x 256	KBytes	8-way		
QPI Link	3198.1	MHz	Lev	el 3	4 M	Bytes	16-way		
Selection	SLOT#01	¥		Cores	s 2	Threa	ids 4		

CPU	Caches	Mainboard	Memory	SPD	Graphics	Bench	About
Abou	ut CPU-Z						
		Version	1.77.0 -/	August 2	016		
		Author	: Franck D	elattre,	CPUID		
		Infos and las	t updates a	at www.	cpuid.com		
			C	PU-Z is a	a freeware	based on	the
				PUID So	ftware Dev	elopment	
			V	alidation	by Canaro	d PC	
Wind	lows Versio	on					
	М	icrosoft Wind	ows 10 (10).0) Prof	essional 64	-bit	
			(Build 1	4393)			
			DirectX	12.0			
Too	s						
	SAV	E REPORT(.T	хт)		VALIDATI	ON	
	SAVE	REPORT(.H	TML)		CLOCKS	6	

RAMDisk

RAMDisk is a data-storage software that reserves a part of your system's memory and turns it into a high-speed virtual drive where you can store cache files and game apps for instant access. The Dynamic Memory Allocation function can release the unused memory of RAMDisk back to the system when needed and helps extend the lifespan of your SSD or HDD.



The following folders are not suitable for RAMDisk optimization. Moving them into the RAMDisk might negatively affect the performance of your system.

- Swap file/Page file: The swap file is a permanent storage space used as the virtual memory expansion of the system memory. Moving the swap file into the RAM Disk simply defects the whole purpose of having it and may affect your system's performance.
- Startup folders: Since RAMDisk loads during boot up together with the contents of the Junction folders, changing the location of the startup folders may cause system error and disable loading your RAMDisk.

Creating/Deleting a RAMDisk drive

Your RAMDisk drive allows you to place your favorite applications and files into RAM so you can utilize your RAM speed for better read/write performance. The files that are stored inside the RAMDisk are automatically backed up every time your PC is turned off.



The startup time may take a while, depending on the size of your RAMDisk drive.

To create RAMDisk drives



Click to create RAMDisk drives

To delete or format an existing RAMDisk drive





The format function is available only if you enable the Dynamic Memory Allocation function on your disk.

Creating/Deleting a Junction Point

A junction point creates a link that remaps the original contents into the RAMDisk, enabling access to the desired application or data to be done purely within the original file location.



Synchronizing backup files

After creating a junction point, RAMDisk automatically creates a backup folder in the file's original location. Use RAMDisk to manually synchronize updates with these backup files.



Click Synchronize to update your files

RAMCache II

ROG RAMCache II software provides a user-friendly and transparent solution to increase your PC overall performance, by utilizing the system memory (DRAM) that is not in use. RAMCache II allocates a cache of RAM between the computer hard disk and the applications, then reads in real time your performance needs regarding the applications you are currently using and the disk I/O demands. RAMCache II copies the most frequently used data from the disk to the RAM cache where it can be processed faster, and then automatically writes it back to the disk – thus accelerating the computer overall performance with a minimized risk of data loss.

Smart Mode

Smart Mode will automatically allocate RAM cache from all disks.

		× = ×
Smart mode	Advanced mode	
Disk 0 - 233G / Hit Disk 1 - 466G / Hit	achi HDT725025VLA380 (D:, F:) achi HDP725050GLA380 (C:)	All disks an
		allocate RAI cache from
DRAM cache allocat	ion	
		3324 MB
Min: 100MB	Max: 5000MB	
		Start
		ver 1.03.01

Adjust the slider to increase or decrease the cache size

Click to begin allocating RAM cache

Advanced Mode

Advanced Mode will allow you to allocate RAM cache from a selected disk.

 Smart mode 	Advanced mode	
Select master drive		
Disk 0 - 233G / Hitachi HE	DT725025VLA380 (D:, F:)	
Disk 1 - 466G / Hitachi HE	DP725050GLA380 (C:)	
DRAM cache allocation		
		3324 MB
Min: 100MB	Max: 5000MB	3324 MB
Min: 100MB	Max: 5000MB	Start
Min: 100MB	Max: 5000MB	Start
Min: 100MB	Max: 500MB	Start Ver 1.03.01
Me: 100005 Adjust the silder to increase	e or Click to be	Start Ver 1.03.01 gin allocating RAM cao
Mat: 10088 Adjust the slider to increase decrease the cache size	e or Click to be	Start Ver 1.03.01 gin allocating RAM cad
Me: 1000B Adjust the slider to increase decrease the cache size You can only cache one	e or Click to be partition at a time.	Siart



GameFirst IV

GameFirst IV is a network management software that features an Intelligent Mode when Auto is selected or four preset packet prioritized profiles (Game, Media Streaming, File Sharing, User Defined) when Manual is selected, facilitating different user scenarios. Users can also manually allocate bandwidth and adjust priority settings of each application to run faster and smoother.

Application





Auto/Manual Mode

Switch between Auto or Manual mode.

Auto Mode's Intelligent Mode will automatically compile a database by parsing new app data, ensuring optimized performance.

Manual Mode features the following modes:

A	Game Mode
•	Game packets given top priority.
B	Media Streaming Mode Media-streaming packets given top priority.
C	File Sharing Mode File-sharing packets given top priority.
D	User Defined Mode

le-sharing packets given top priority. User Defined Mode User manually adjusts priority of each application.

Network Monitor

Top 5 application

Displays the top 5 bandwidth consuming applications currently used.



Application usage

Displays the individual downloading and uploading bandwidth of currently used applications.



LAN usage

Displays the total downloading and uploading bandwidth of the currently used applications. You may also toggle and display the downloading and uploading bandwidth of each connection.



Wi-Fi Analyzer

Displays the strength of 2.4GHz or 5 GHz Wi-Fi channels.



Network Information

Displays information about the physical network card such as speed, physical address, IP address, subnet mask, and default gateway.

🥢 GAMEFIR	STIV		
Application	Network Monitor Network In	formation	
Local Ar corpnet.a Microsol	ea Connection* 2 ^{sus} It Wi-Fi Direct Virtual Adapter	Etherno corpnet.a Intel(R)	t sus Ethernet Connection (2) I219-V
Speed: Physical Address: IP Address: Subnet Mask: Default Gateway:	Unplugged 56:87:A0:54:53:87 109:254:30:174 255:255:0.0	Speed: Physical Address: IP Address: Subnet Mask: Default Gateway:	100080598 D8:50:E6:00:00:16 192:168:1.195 2020:0 192:168:1.1
Wi-Fi corpnet.a Qualcon	sus Im Atheros QCA61x4A Wireless Netw	Bluetool corpnet.a Bluetool	th Network Connection sus th Device (Personal Area Network)
Speed:	144Mbps	Speed:	3Mbps
Physical Address.	34.0C.AU.34.33.07	Physical Address.	34.00 30.34.33.00

CloneDrive

CloneDrive allows you to simultaneously create an image or clone your storage device to up to two other drives. You may also manually select which files to copy or create an image of.



Target drives will be completely erased and formatted, ensure to backup the files you wish to keep.



To clone a disk:

- 1. Click on Select.
- 2. Select the disk you wish to clone or create an image of and the files you wish to clone or create an image of, then click **OK**.

Belect source	
Recovery Recovery	
Targot size - 232.89G Source selected = 54.15G	

3. Click on Add, then select Image to create an image file of the source disk, or Clone to copy the source disk to another disk. Click OK once you have selected your target.

Select target	×
) image	
Cione	

4. Click on **Start** to start cloning the source disk.

Sonic Studio III

Sonic Studio III is an audio suite that offers basic and advanced controls that will help customize lots of audio options. Customize audio effects through the Sonic Studio Basic Mode, Sonic Studio Advanced Mode, and Record Studio, then save all the settings made to cloud or your computer.



Sonic Studio III supports Realtek® Audio Driver.

Sonic Studio Basic Mode

Access all Sonic Studio's audio effects and profiles in the Basic Mode tab. The default device's volume may also be adjusted.





Default Output Device management

Displays the default device. You may adjust the equalizer and volume.



The Equalizer option only appears when an analog device is selected as the default device.



Sonic Studio Effects

This item allows you to enable or disable all the audio effects of Sonic Studio.



Audio profiles

This item allows you to select an audio profile and adjust it to your listening experience.

Music profile:	This profile is customized for stereo or 5.1 music.
Movie profile:	This profile is customized for video and movie contents.
Gaming profile:	This profile is customized for stereo or multi-channel video games, and particularly First Person Shooters.
Communication profile:	This profile is customized for improved communication.



Smart Volume

Check this box to maintain a constant volume for all elements of the audio experience (dialogs, soundtrack, explosions, etc.). Select from soft, balanced, or extreme.



Bass Boost

Check this box to boosts the bass effects. Use the slider to adjust the sound of the bass effect.



Voice Clarity

Check this box to enable Voice Clarity. Voice clarity extracts and boost the frequency of the human voice for crystal clear in-game communications and dialogues in movies.



Treble Boost

Check this box to boosts the treble effects. Use the slider to adjust the sound of the treble effect.



Reverb

Check this box to enable Reverb. This item increases the feeling if spaciousness and lets you choose other reverb presets.



Surround

Check this box to enable Surround. This item recreates a multichannel listening experience over your stereo headphones or speakers.



Default

Click this button to load all default settings.

Sonic Studio Advanced Mode

Advanced mode allows you to adjust all the applications that have played or are currently playing an audio stream, and also gives you an overview of all available output devices. You may adjust the profile and device to play the audio for each application individually.



Switching to Advanced mode will disable Basic Mode.





Device Manager list

This list displays all available output devices.



Equalizer settings

This item allows you to set 2 types of equalizers depending on your device.

For Speakers:	You can apply a 10-band EQ to the speakers, or choose from a list of specific equalizer parameters.
For Headphones:	You can apply specific corrections depending on your headset, or use a 10-band EQ while selecting Custom .

10-band EQ settings

Click on this button to access the 10-band EQ. For more information, refer to **10-band Equalizer**.



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Default device

Check this box to set a device as a default device.

Device routing

This item allows you to customize playback of audio streams on different devices. You may enable or disable this function by clicking on the **ON** or **OFF** button.



This will allow Sonic Studio 3 to easily assign different audio outputs to the front and rear panel.



Sonic Studio effects

This item allows you to set different music profiles for each audio stream. You may enable or disable this function by clicking on the **ON** or **OFF** button.



- This option is only available when the onboard audio output is selected as the playback device.
- For more information on the different music profiles, refer to Sonic Studio Basic Mode.



Application filter

To display applications which are currently playing an audio stream, select **Current applications** from the drop-down menu. Select **All applications** to display all applications which have played an audio stream and all applications which are playing an audio stream.



Profile settings

This item allows you to customize the Music, Movie, Gaming, or Custom profiles. Changes made to the Music, Movie, and Gaming profiles are applied to all applications. Changes made to the Custom profile are only applied to the selected application.



Volume

This item allows you to adjust the volume of each application.



This option is only available when the application is currently playing an audio stream.

10-band Equalizer

Adjust the sliders of the 10-band Equalizer to customize your own audio settings for a specific device.





Custom EQ

You may adjust each slider to customize the audio settings for the device.



Reset

Click this reset to Flat for all frequencies.

Record Studio





On my voice switch

You may enable or disable all Perfect Voice effects on your voice by clicking on the **ON** or **OFF** button.



Noise Reduction

Check this box to enable Noise Reduction. This item removes the remaining voice on top of your voice or your friend's voice.



Volume Stabilizer

Check this box to enable Volume Stabilizer on your voice or on incoming voice to maintain constant and clear communication. Use the slider to adjust the MIC volume.



Acoustic Echo Cancellation

Check this box to enable Acoustic Echo Cancellation. This item removes the echo which appears in noisy environments.



Voice Equalizer

Check this box to enable the Voice Equalizer. This item allows you to set a 10-band EQ for your voice when using a microphone.



Casting Enhancer

You may enable or disable all Perfect Voice effects on an incoming voice by clicking on the **ON** or **OFF** button.

The Casting Enhancer feature supports the following software:

- XSplit Broadcaster
- XSplit Gamecaster
- OBS (Open Broadcaster Software)
- Bandicam
- Overwolf



Specifications are subject to change without notice. Please refer to ASUS website for the latest specifications.



Casting Enhancer popup

Enable or disable the warning popup letting you know that Casting Enhancer has enabled **On My Voice** effects.



Games in exclusive display mode (fullscreen) will not display the warning popup.

Settings

The Settings menu allows you to automatically or manually save and read Sonic Studio III settings, change the language of your Sonic Studio III, and display the version number of your Sonic Studio III.

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	SONI	C STUDIO	REC	CORD STUDIO		SETTINGS		
	ASUS WEBST	ORAGE						
	Log into your Asi save Sonic Studi	is WebStorage acco o configurations in th	unt in order to auto e Cloud.	omatically				
	Login							
	Parssword							
								 Click to create an ASUS WeStorage account
Click to save your Sonic Studio III								
settings to your conmputer	MANUAL SAV Choose to save	E or load your current	Savo	LAN	IGUAGE SELE	CTION		 Select and change
Click to load a Sonic Studio III	Sonic Studio 3 o folder.	onfiguration to a loca	Load					the language of Sonic Studio III
conmputer								
Displays the version number	VERSION NUME	ORMATION IER 3.1.3.38259						
							7	

Using the Auto-save feature:

To use this feature ensure you are connected to ASUS WebStorage, if you do not own an account, you may create one be clicking on the link in the UI.



Connecting to ASUS WebStorage for the first time will create a new .roga file. This file contains the current settings of your Sonic Studio III.

Sonic Radar III

Sonic Radar III is designed for First Person Shooting (FPS) games and shows the precise direction and intensity of where a sound is coming from. It features a simple and friendly user-interface and also features sound enhancers to amplify desired sound effects.

Preview Mode

Preview Mode allows you to test Sonic Radar and its overlays using the Audio Player test sound. The test sound is recorded in a multi-channel video game, click the Play button to play the test sound. You may pause or stop the test sound at anytime, or drag the progress bar to a desired moment in the test sound.



Edit Mode

Edit Mode allows you to customize the Signal, Radar, and 3D Pointer HUDs of each skin. You can adjust the color style, opacity, size of each HUD by selecting the HUD you wish to customize, or you can drag and drop the HUD to reposition it.



Settings

Games

The Games tab displays all applications which support the Sonic Radar III overlay, and allows you to enable or disable the overlay for each application. Sonic Radar III certifies a huge list of games, allowing full compatibility of the overlay on numerous softwares.



Certified applications are enabled by default the first time you launch them. Other compatible applications appear at the bottom of the list.

PREVIEW	EDIT SETTINGS			
Games Macros Display Audio Engine	COMPATIBIE APPLICATIONS The following applications installed on your PC are com Your PU is scanned every time a new Sonic Radar is tas Update the list with the Refresh button to detect any app	hatible with Sonic Radar. Inched. Nications recently used or installed.		
	Storder and	Shandar aze		— Applications
			Refresh List	Click to refre the application list when a ne application h been installed and needs to

Macros

The Macros tab allows you to configure shortcut keys which you can use in software or video games when Sonic Radar III is enabled. For more details on shortcut keys and their functions, refer to the table below.

SONIE RI	ADAR III		7 _ ×	
PREVIEW	EDIT SETTINGS			Enable or disable shortcut kevs
Macros	HOTKEYS ON OFF			- when using an application
Display Audio Engine	RESET TO DEFAULT Reset			Click to enable
General	DISPLAY RADAR OVERLAY Enable/Disable the Radar Overlay ingame PRESS: LeftCtrl + LeftShift + S	Cancel		the default settings
	DISPLAY THE RADAR SIGNALS OVE Enable/Disable the Radar Signals Overlay in PRESS. LeftCtrl + LeftShift + A	Cancel		
	DISPLAY THE 3D POINTER Enable/Disable the 3D Pointer ingame PRESS: LeftCtrl + LeftShift + G	Cancel		
	TOGGLE RADAR SIGNALS			

Shortcut	Function
Display Radar Overlay	Hide or show the Radar in the overlay
Display the Radar Signals Overlay	Hide or show the Radar Signals in the overlay
Display the 3D Pointer	Hide or show the 3D arrow in the overlay
Toggle Radar Signals	Switch between the range of frequency values that have been set for the product
Trigger Audio Boost	Activate the audio filter for the selected Radar Signal for a limited duration
Switch between Skins	Select the next Skin preset from the list of factory skins
Switch between Skins (backwards)	Select the previous Skin preset from the list of factory skins

Display

The Display tab allows you to adjust the settings of the visual appearance of the overlay.





3D Pointer Anti Aliasing

This setting allows you to adjust how pixelated the 3D pointer will be.



Number of Sectors

This setting allows you to select the amount of sectors (4-16 sectors) you want in the radar. The more sectors you display, the more accurate the Radar becomes.

Audio Engine

The Audio Engine tab allows you to adjust the settings related to the audio content of your application.

M SONIC RF	IDAR III		1					
		SETT	NCC					
Comer		36111	NOS					
Macros	DYNAMIC RAN	GF (dR)						
Display	A low range will allow the Radar to display only the most intense audio events.							
Audio Engine	A high range will allow the Radar to display a larger variety of audio events.							
General	20dB	40dB	60dB	80dB				
	RELEASE TIME	(s)						
	Defines how long an audio event will be displayed on the Radar after it occurred.							
					23 2			
	AUDIO BOOST TIME (3)							
	Defines how long you will hear an audio event after activating it with the Signals overlay.							
					3			



Dynamic Range

This setting allows you to select how precise your Sonic Radar should be. Choose a low value if you wish to display only the most important audio elements in your application.



Release Time(s)

This setting allows you to set how long the sectors and 3D Pointer should be displayed after the sound has stopped.



Audio Boost Time(s)

This setting allows you to set how long the selected range of frequencies should be played. This only applies to selected signals turned **ON** in the signals overlay.

General

The General settings tab allows you to select the language of your Sonic Radar III and displays the version number and legal information.

האוכ ה	RADARIII		7 _ X	
PREVIEW	EDIT	ETTINGS		
Games Macros	VERSION NUMBER			
Display				
Audio Engine General	LEGAL INFORMATION ASUSTek Computer Incorporate Visit <u>www.asus.com</u> U.S. Pat. No. US 9,232,337			
	LANGUAGE SELECTION	7.		Select the language of your Sonic Radar III

Help menu

Click on the 🔁 button to view information on the different HUDs and their functions.




