

ROKSAN

Caspian Series 4G

Caspian Streaming Amplifier
Caspian Integrated Amplifier
Product Manual

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Welcome to Caspian Series 4G

Thank you for purchasing Caspian Series 4G, you're now ready to start your journey to breathtaking sound.

Caspian Series 4G is built for the user. Two distinctly sleek, modern, and ultra-minimal Roksan designs, house advanced feature sets aimed at delivering true, high-fidelity audio.

In this product manual, you'll find information about setting up your system and how to maintain your products for a lifetime of enjoyment.

If you need any further assistance, please contact our technical team at: roksan.com/support

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Before you unpack your product, please make sure that there is plenty of clean surface area available.

Inside the box

1. Caspian Streaming Amplifier / Caspian Integrated Amplifier
2. Remote Control (incl. 2 x AAA batteries)
3. Mains Power Cord
4. Quick Start Guide
5. Safety Instructions

AC Mains Supply

This product operates with an auto-ranging supply. The mains power cord supplied with this product has an IEC C13 mains plug which is inserted into the mains input socket on the unit's rear panel. The other end is a moulded plug appropriate to that of your country.

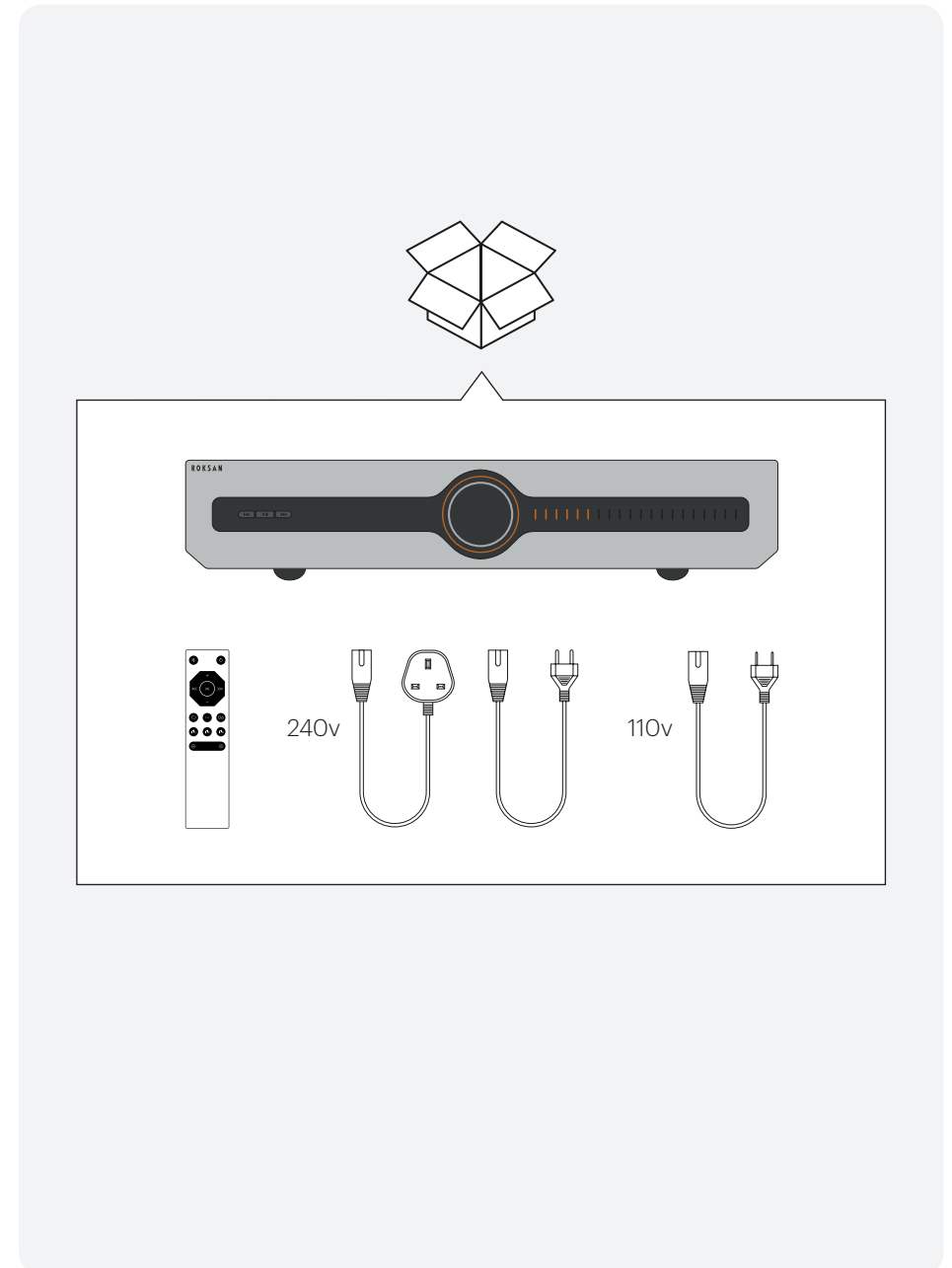
If your mains power cord has been damaged, please obtain a replacement cord from your Roksan Authorised Specialist.

⚠ NOTE: Please observe correct mains polarity.

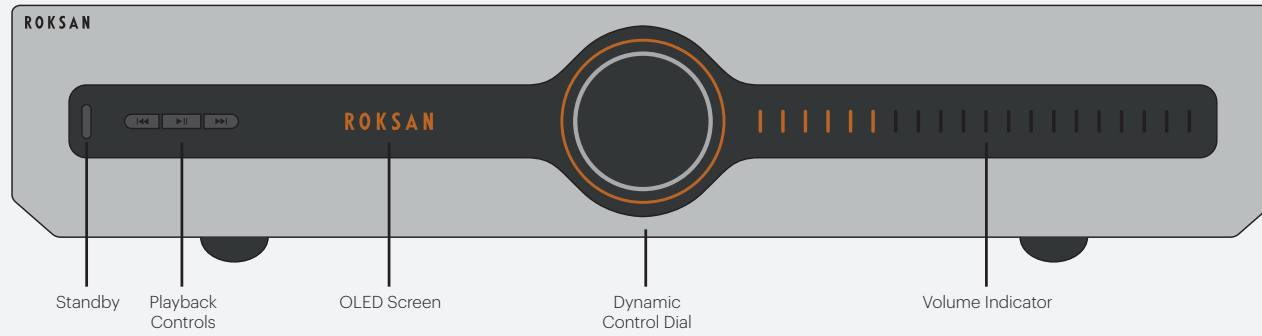
The mains fuses are located on the rear panel below the IEC mains input socket. These must only be replaced by the fuse type and rating as described on the fuse rating label on the rear panel of the unit.

If the equipment is likely to be unused for some time, unplug it from the mains power supply.

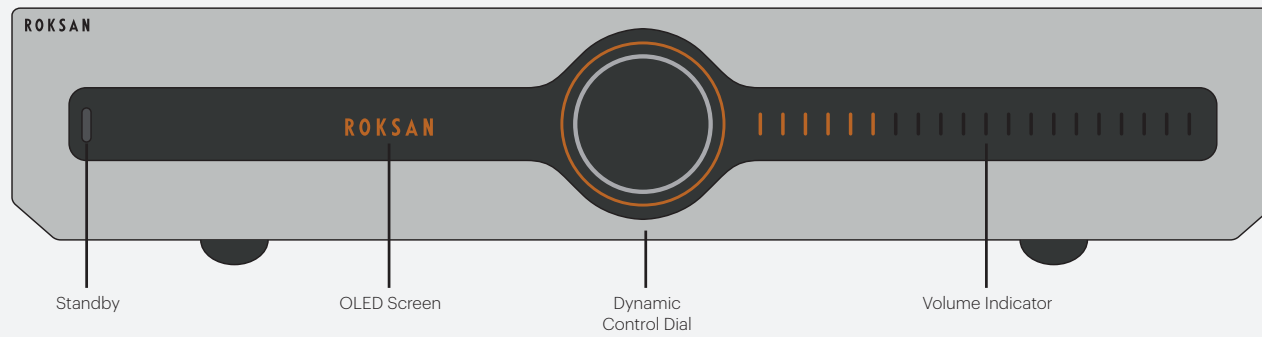
⚠ NOTE: This unit contains no user serviceable parts. Do not remove any panels or attempt to service it yourself. Unauthorised servicing will void the warranty.



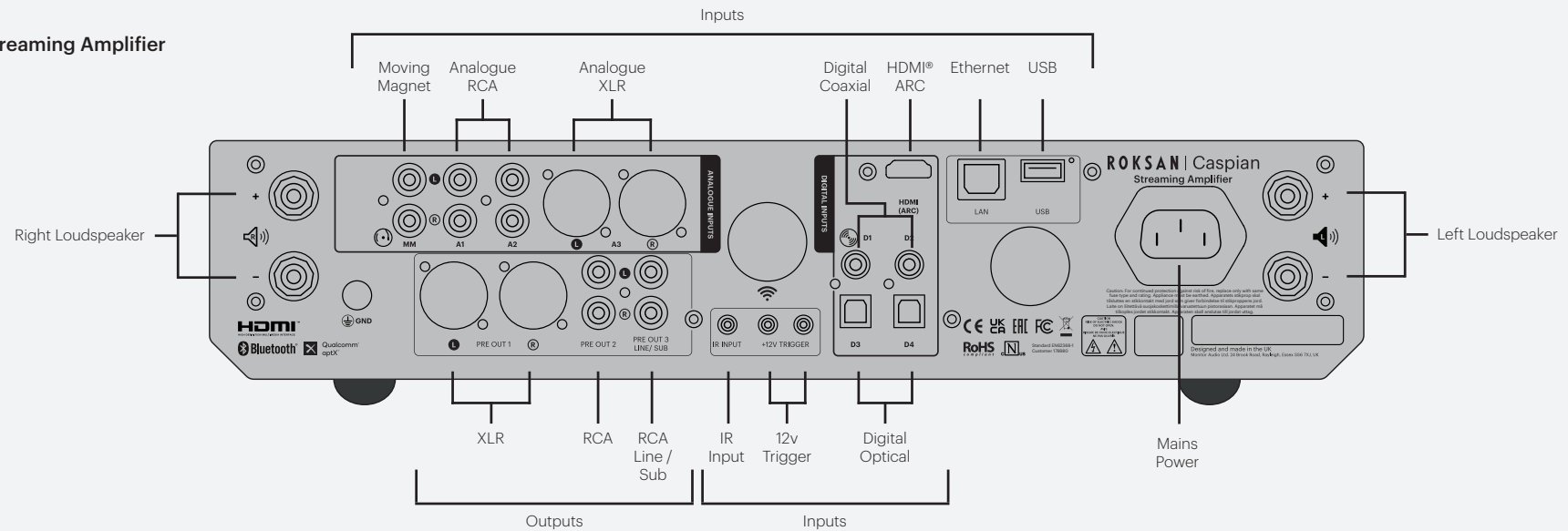
Caspian Streaming Amplifier



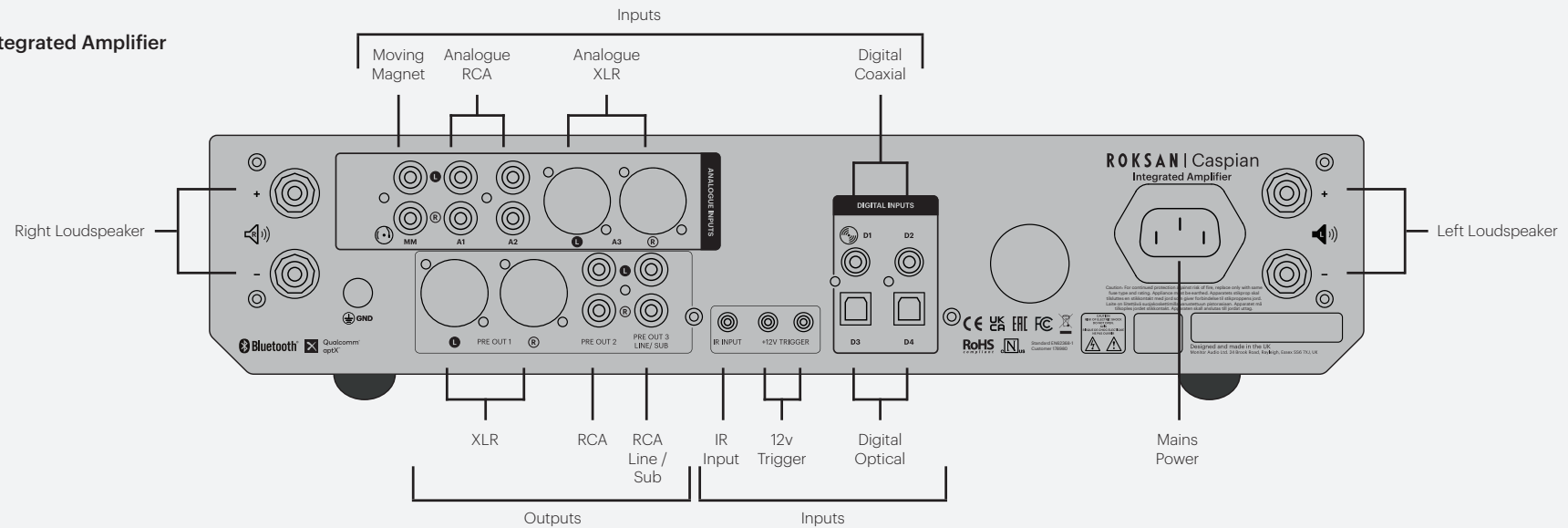
Caspian Integrated Amplifier



Caspian Streaming Amplifier



Caspian Integrated Amplifier



Phono Input

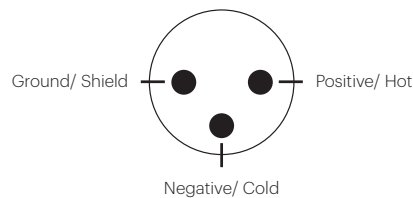
This product has a built-in Moving Magnet phono stage for use with turntables. If using a Moving Coil Cartridge, you will need an external phono stage that can be connected to one of the other analogue inputs.

RCA Analogue Inputs

The Caspian Streaming / Integrated Amplifier has 2 x RCA analogue inputs for connecting your sources. The A2 input also supports Music Sense, which can be configured using MaestroUnite to wake your amplifier when an audio signal is detected. If using your amplifier as a power amplifier in an AV system and you have enabled AV Bypass, connect your source pre-amplifier/ AVR to A2.

Balanced XLR Inputs

Balanced XLR inputs provide the highest quality analogue signal over long cable runs exceeding 10m. When connecting to the XLR inputs, ensure that the standard wiring configuration for a plug is followed:



When only short runs are required, RCA inputs will be preferred. If using longer cable runs or greater noise rejection is required, then XLR connections would be better.

HDMI ARC Input (Caspian Streaming Amplifier only)

Connect the HDMI cable from your TV's ARC output direct to the Caspian Streaming Amplifier to play the TV sound through your stereo speakers. Use HDMI cables that have Ultra High Speed HDMI Certification Label to be able to benefit from the higher bandwidth and high bit rate audio files.

CEC control over HDMI (control of the amplifier over HDMI from the TV remote) is possible and allows the TV to send commands to the amplifier and control the volume and mute. Power must be done manually.

NOTE: If a Dolby Digital, DTS or non-PCM signal is sent to the amplifier, it cannot be decoded and the output will mute. Set the audio output settings on the TV/ source to PCM.

NOTE: Only the audio signal from the source device is supported by HDMI ARC port.

Ethernet / LAN (Caspian Streaming Amplifier only)

For optimum network connectivity, Roksan recommend using a wired network connection. A network connection is needed for BluOS (wired or Wi-Fi).

USB Input (Caspian Streaming Amplifier only)

Connect a USB stick or external hard drive with music stored for playback via the BluOS app.

Phono Ground

This grounding terminal is to be used to ground the RCA phono connection from the cartridge/ tonearm where a separate ground is required on the interconnect.

Wired Remote Control Input

If the product is in a different room or cabinet, IR commands can be sent to the unit via the rear panel jack socket labelled Wired IR. Wired IR is compatible with many home automation installations including Logitech Harmony, early Crestron and Control 4 installations. The Wired IR jack socket is an input only and does not provide power, therefore, unsuitable for some remote IR-eye connections that are not self-powered.

12 V Trigger

These 3.5 mm jack connections can be used to remotely turn the amplifiers on and off by supplying a 12v signal to them. The output link will only work if there is an input to the product.

Either socket can be used for the input with its partner being used as the linked output, as a convenience to allow a single 12v trigger output from a partnering system to be distributed (to a sub-woofer perhaps) with a second cable.

Digital Inputs

There are 4 digital inputs on the amplifier, 2 coaxial and 2 optical. Use these for connecting the output from your digital source. If using the Attessa CD Transport with the amplifier, connect this to D1. The 2 products can be configured to work and communicate with each other within MaestroUnite, refer to page 16 for further information.

Stereo digital audio sources can be connected using coaxial or optical cable. The PCM stereo format up to 24-bit / 192 kHz is supported by the coaxial digital inputs and optical up to 24-bit / 96 kHz. If using sources that have an option for selecting between PCM and Bitstream or Dolby Digital audio output, select PCM.

Power

The moulded IEC plug of the supplied mains lead should be plugged into the socket on the rear of the unit first and then plugged into the mains supply. The appliance must have a safety earth connection.

The mains fuse is located here in the small drawer attached to the mains input socket. The fuse is a T6.3AL type.

Balanced XLR Outputs - Pre-Out 1

These connections may be used for connecting a power amplifier or subwoofer. It is recommended to use balanced outputs over long cable runs over 10m.

RCA Analogue Outputs - Pre-Out 2 & 3


There are 2 pairs of RCA outputs on amplifier. One pair (Pre-Out 2) is full range and is a mirror of the loudspeaker outputs and Pre-Out 1. The other pair (Pre-Out 3) can be configured to be either full range, filtered to partner a subwoofer, line out (fixed for headphone amplifiers or something else with a volume control downstream) or even filtered as part of a preset speaker profile. All these settings can be configured within MaestroUnite.


Wiring Your Loudspeakers


Connect the loudspeakers to the terminals on the amplifier. Banana plugs can be used, but the red and black plastic caps need to be removed first. Once removed, insert the banana plug directly in to the terminal. Alternatively bare wire can also be used by unscrewing the terminal and placing the cable through the through hole in the terminal and clamping it firmly in place.


Carefully observe polarity ensuring that the red (+) speaker terminal/ cable is connected to the red (+) amplifier terminal and the black (-) speaker terminal/ cable to the black (-) amplifier terminal.

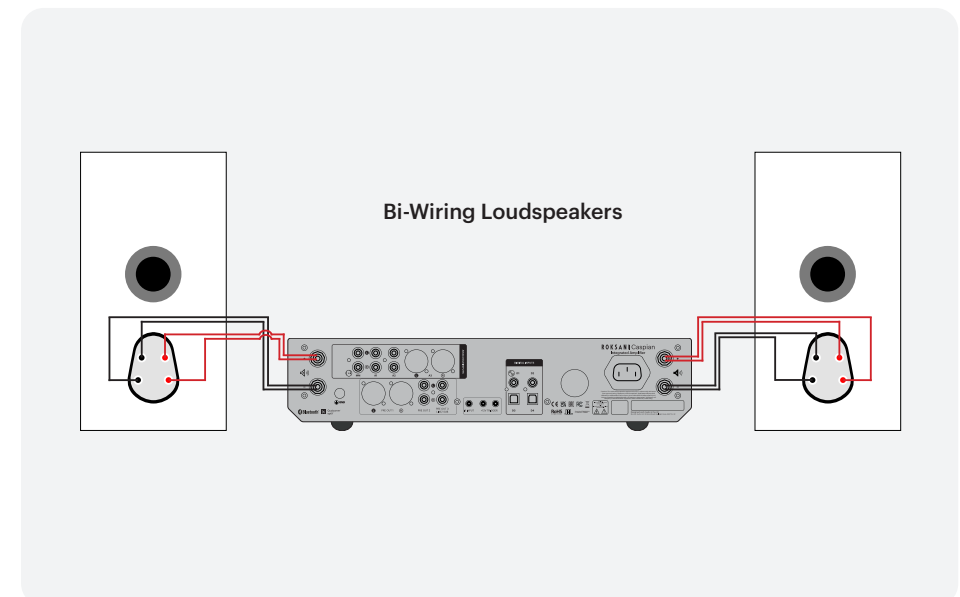
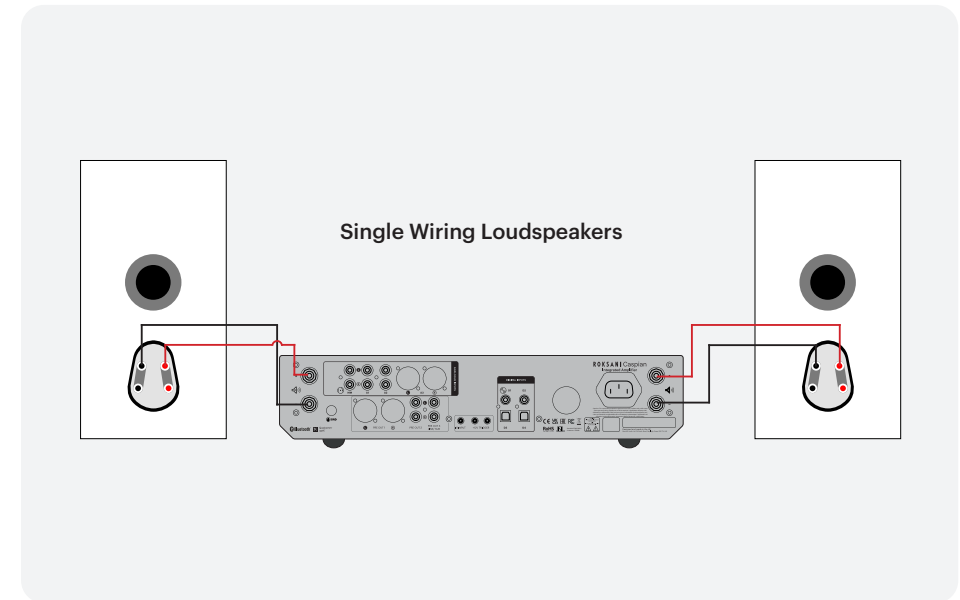
When both left and right loudspeaker outputs are connected to their respective loudspeakers the amplifier is ready for use.

 **IMPORTANT:** Please ensure the unit is disconnected from the mains power supply before connecting the loudspeaker cables.

 **NOTE:** Litz-wound loudspeaker cables or those with a complex plaited construction can present a highly capacitive load to an amplifier and may cause damage to the amplifier and/ or degrade the sound of your system. Choose a cable of simple construction, manufactured from high-quality materials. Your Roksan retailer will be able to advise.

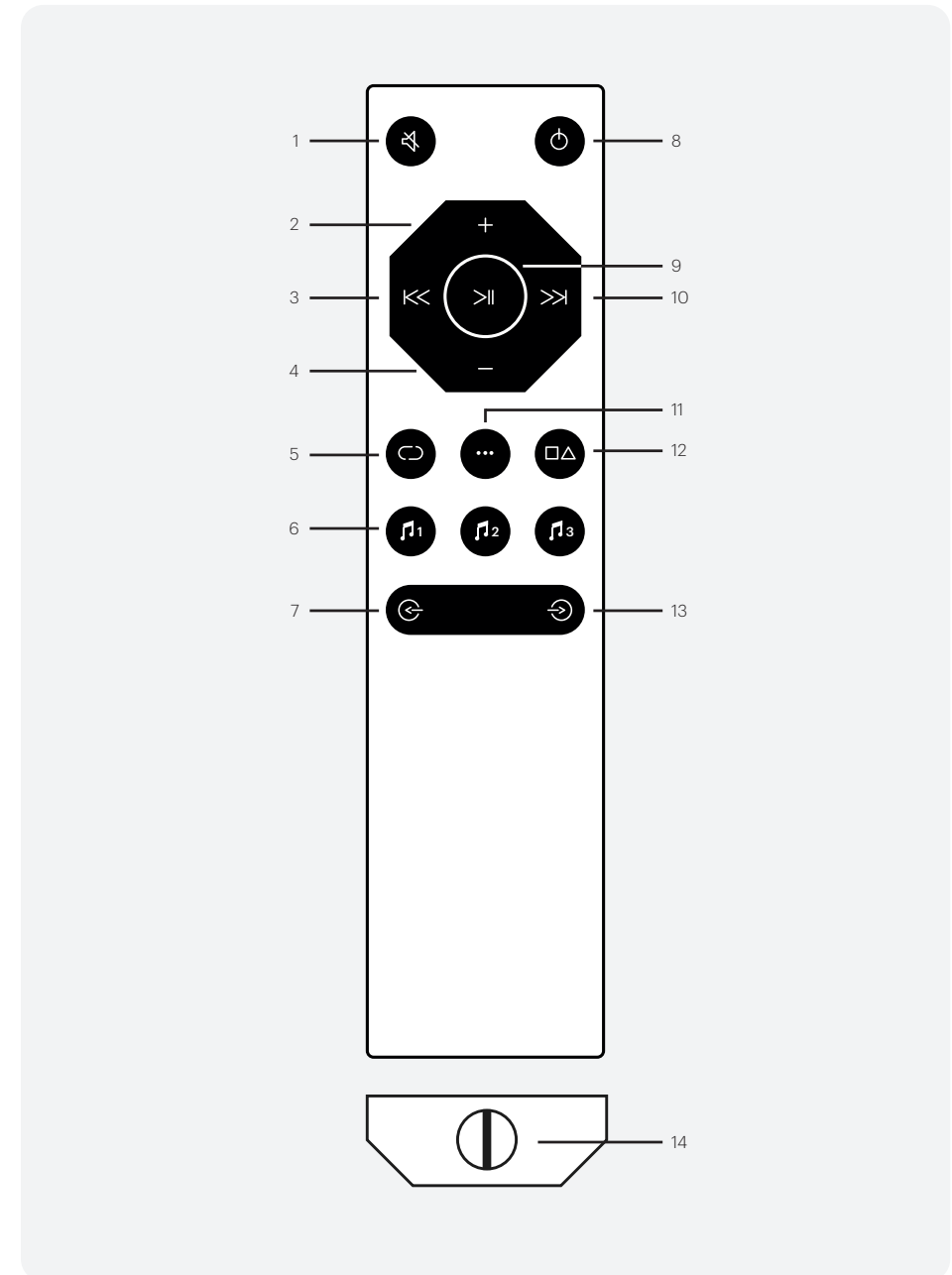
 **NOTE:** If using bare wire, DO NOT use speaker cable with conductor size less than 16 AWG (1.6 mm diameter) or greater than 12 AWG (2.05 mm diameter).

 **NOTE:** We strongly recommend that you use professionally terminated speaker cables using 4 mm plugs. Any attempt to connect cables which are not terminated may result in damage to the amplifier if not done correctly.



Remote control

1	Mute	Toggles the mute on and off. The display will change to show there is no output.
2	Volume Up	Adjusts the output volume of the amplifier. The number of bars on the display will increase to show the volume is increasing.
3	Previous Track/ Scan Backwards	Go to the start of the track or the previous track. Continued pressing will scroll back through the previous tracks. This works on both Bluetooth and when using BluOS on the Caspian Streaming Amplifier. It will also control the Attesa CD Transport when a Caspian Amplifier and Attesa CD Transport are in the same system on MaestroUnite.
4	Volume Down	Adjusts the output volume of the amplifier. The number of bars on the display will decrease to show the volume is decreasing.
5	Repeat/ Shuffle	Repeated presses cycles through the repeat/ shuffle options - Single track, full album/ playlist, shuffle. This only applies to BluOS and when an Attesa CD Transport is configured as a system with the amplifier.
6	Presets 1, 2 & 3	These buttons correspond to the presets stored in BluOS.
7	Previous Input	Scrolls through the inputs enabled on the amplifier. Inputs can be turned on and off in MaestroUnite.
8	Standby	Toggles the power of the amplifier. The display will turn on and the amplifier will initialise starting in the last used input.
9	Play/ Pause	Starts or pauses playback of current track.
10	Next Track/ Scan Forward	Go to the start of the next track. Continued pressing will scroll forward through the next tracks. This works on both Bluetooth and when using BluOS on the Caspian Streaming Amplifier. It will also control the Attesa CD Transport when a Caspian Amplifier and Attesa CD Transport are in the same system on MaestroUnite.
11	Settings menu	Brings up the amplifier's settings menu. This is a limited menu with more configuration and customisation available in MaestroUnite.
12	Stop/ Eject	Press to stop playback on the stream or track on CD Transport. A Second press will eject the disk when partnered with an Attesa CD Transport.
13	Next Input	Scrolls through the inputs enabled on the amplifier. Inputs can be turned on and off in MaestroUnite.
14	Battery Drawer	Accepts 2 x 1.5 V AAA Batteries





The MaestroUnite app will allow you to enjoy your Caspian Streaming / Integrated Amplifier to its fullest potential.

The app allows for Wi-Fi setup, input/output configuration, audio adjustments, firmware updates and system creation with additional Roksan or Monitor Audio products.

Download MaestroUnite app

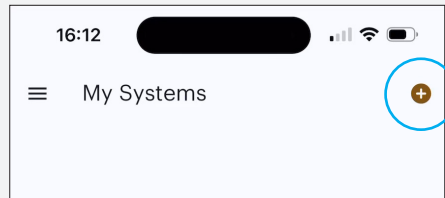
Visit roksan.com/maestrounite



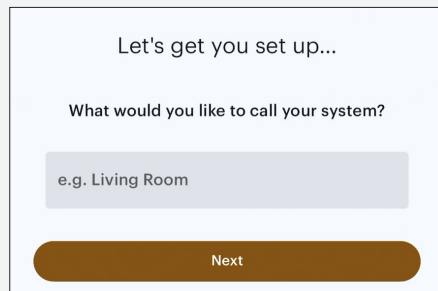
Once installed, follow these steps to connect to your amplifier, configure the Wi-Fi and create your "System". A system can be an amplifier by itself or a combination of Caspian Amplifiers or the addition of an Attessa CD Transport.

When in a system together the products will talk to each other, with the amplifier being the master controller sending commands to the other products within the system:

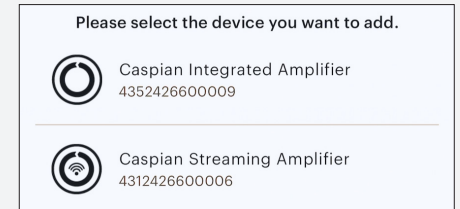
Tap on the + symbol in the top right corner



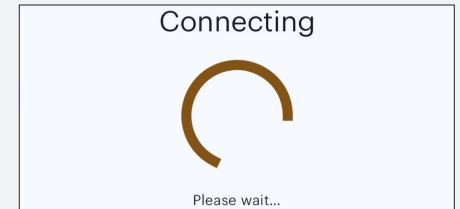
Insert the name of your system. e.g. Living Room, and tap next.



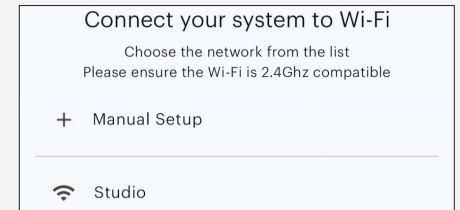
Select the product you want to connect to from the list of available products in range.



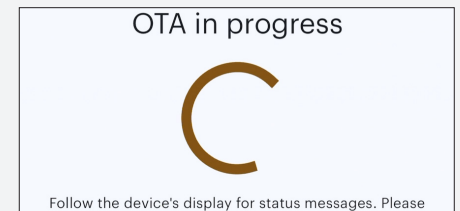
Enter the Bluetooth pairing code shown on the front of the amplifier. If the wrong code is entered or the request times out, this will be displayed on the amplifier and on MaestroUnite.



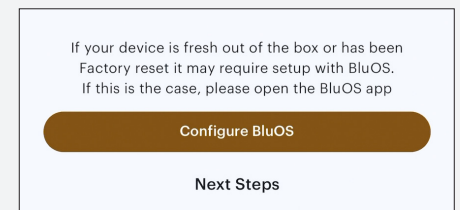
Select the Wi-Fi network from the list of available networks and enter the security code.



Follow the on-screen instructions to carry out an Auto Firmware Update.



Once the firmware update has completed, tap on the "Home" screen or continue to setup BluOS if you have a Streaming Amplifier.



Adding additional equipment to your system

If adding a subwoofer to your stereo system to create a 2.1 system connect the subwoofer to Pre-Out 3 of the Caspian Amplifier and follow the MaestroUnite configuration instructions below:

1. In MaestroUnite, under "Outputs", select "Mode" and change it to Stereo + Sub (2.1).
2. If using Monitor Audio loudspeakers, touch on the "Speaker" option and select your loudspeakers from the drop-down list. If your speakers aren't in the list, select "Generic" and then enter the nominal impedance and power rating of the speakers.
3. If you want the bass to be handled by just the subwoofer, turn on "Crossover High Pass". This will remove the bass from the main left and right speakers, giving more control to the way the speaker and subwoofer crossover and therefore improving the sound.
4. We would recommend experimenting with this option as not all rooms and personal tastes will be the same.
5. Turn on the "Crossover Low Pass" to enable the customisation of the Subwoofer output.
6. Select the Crossover type, slope and frequency for your room and tastes. A good starting point is 80 Hz with both the High Pass and Low Pass filters turned on.
7. This will again require some experimentation to getting it sounding right to your ears.

Adding a power amplifier

If you wish to add a power amplifier to the Caspian Streaming / Integrated Amplifier and use that in either a bi-amp configuration or even using the amplifier as a pre-amplifier you can. This is set up and configured in MaestroUnite.

Connect the power amplifier to either Pre-Out 1 or 2.

In MaestroUnite select Outputs and then the configuration mode you wish to use:

Stereo - For using the Caspian as a pre-amplifier. Additionally turn "Power Amp" off to mute the power amplifier stage of the Caspian Streaming / Integrated Amplifier. The power amplifier section will remain powered and will therefore remain warm.

Bi-Amp Stereo - Use this mode if you are going to use the Caspian Streaming / Integrated Amplifier and the power amplifier together.

Adding an Attessa CD Transport

If you wish to listen to CD's then the Attessa CD Transport can be used with the Caspian Streaming / Integrated Amplifier. When it is added into the same system as the amplifier it will be able to decode MQA CD's (streamer only), synchronise the power with the amplifier - CD Transport will turn on when the CD input is selected and turn off when the amplifier is turned off.

Selecting Inputs

All inputs can be selected using either the rotary encoder on the front of the amplifier, the remote or (if you have the Streaming Amplifier) BluOS. Unused inputs can be hidden in MaestroUnite.

If using the Streaming or Integrated Amplifier in AV Bypass mode (configured in the settings menu or MaestroUnite) you will need to connect the processor to A2. The amplifier can be left in any input and if Music Sense is enabled, when it receives a signal on A2, it will wake and automatically change to A2 input, even if it has been hidden in MaestroUnite.

Bluetooth

To stream to the amplifier via Bluetooth, you will need to put it into Bluetooth mode before it will be visible to your Bluetooth source. Once visible it will show up as Caspian - <serial number> A2DP, e.g. Caspian 100101 A2DP under the available Bluetooth devices.

Selecting Volume

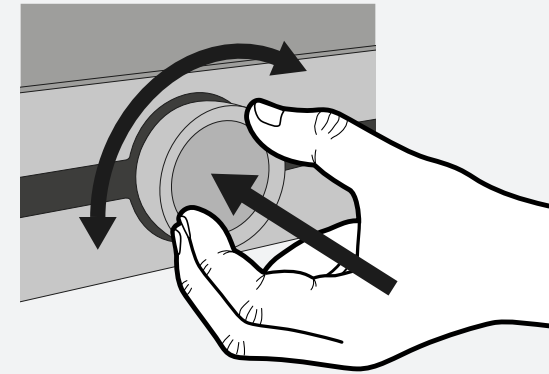
Volume adjustment is achieved by either rotating the Volume/ Input Selection Dial (clockwise to increase the volume and anticlockwise to decrease the volume) or by pressing the buttons on the remote. The Volume LED's will be illuminated on the right-hand side of the Volume/ Input Selection Dial showing the current volume.

The volume can be muted by turning the dial anticlockwise or by pressing the Mute button on the remote control.

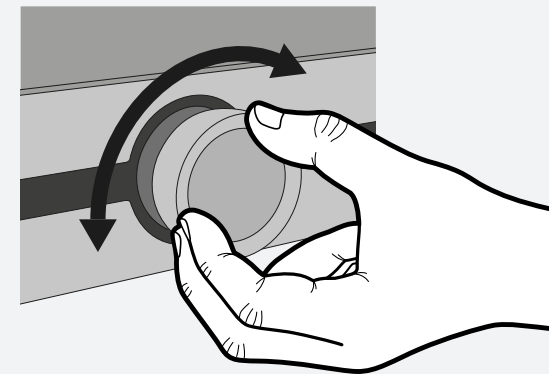


NOTE: If the unit is turned off with the volume above 60%, it will restart at a lower level to protect the speakers and the Integrated Amplifier/ Streaming. This can be configured and turned off in MaestroUnite.

Change Source →



Volume 🔊





To take full advantage of the Caspian Streaming Amplifier's capabilities and features, you can use it as a music streamer with the BluOS app. The app can be downloaded from the App Store or Google Play.

Once downloaded follow the on-screen instructions to install and set up the app for use with your Caspian Streaming Amplifier.

When Standby Plus is enabled, the Caspian Streaming Amplifier will be visible within the BluOS app and can be woken from standby using it and begin playback.

BluOS has several streaming services by default as well as Apple AirPlay 2, Spotify Connect, Tidal Connect and others.

You can also stream sources connected to the Caspian Streaming Amplifier to other BluOS enabled devices on the network. For example, you can stream the music from your CD Player connected to the Caspian Streaming Amplifier to an Attesa Streaming Amplifier in a different room.



IMPORTANT: For this example, for the BluOS app to find the Caspian Streaming Amplifier, you will need to select the BluOS input on the Attesa Streaming Amplifier.

The chevrons around the volume dial indicate the status of the BluOS status. These colour indicators are:

Solid Green: The Player is in Hotspot Mode and is ready to be connected to the network. To setup your player from Hotspot Mode, check out the wired or wireless setup options in the following support article.

Flashing Green: The Player is attempting to connect to the network, or the network cable is disconnected.

Solid Purple: The Player is not set up, but Hotspot Mode has timed out after 15 minutes of idle.

Solid Blue: The Player is in Ready Mode connected to the network and ready to stream music. These will fade out after a certain period and re-appear when the amplifier receives a command.

Flicker Blue: Receiving IR Codes from a remote

Blinking Blue: The Player is Muted

Solid White: The Player is indexing the local music library on your network

Alternating White and Blue: Player is replicating or receiving an updated Index from other players

Solid Red: The Player is in Upgrade Mode waiting to perform an upgrade. If your player has entered Upgrade Mode unexpectedly, please check out the following support article for additional help

Alternating Red/Green: The Player's BluOS firmware upgrade is in progress.



On-screen menu

The on-screen menu of the Caspian Streaming / Integrated Amplifier opens quick access to several features. To access them, press the Settings Menu button on the remote (item 11 on page 12). All settings can be toggled by pressing the Play/ Pause button on the remote (AV Bypass requires additional confirmation). The features are:

- Auto On
- Auto Standby
- Standby Plus
- Balance
- Sensitivity MM, A1, A2 & A3
- Power Amplifier Toggle
- AV Bypass
- Reset Audio Settings
- Factory Reset
- Serial Number
- Firmware & Hardware versions
- Firmware Update
- BluOS Version & Status (Streaming Amplifier only)
- BluOS USB Upgrade (Streaming Amplifier only)
- Caspian MAC Addresses
- BluOS Wi-Fi MAC and IP Address (Streaming Amplifier only)
- BluOS Ethernet MAC address (Streaming Amplifier only)

Auto On

Enables the selection of how the amplifier automatically turns on. You can choose from Music Sense, 12 V Trigger or Off. When set to Music Sense, it will turn on automatically when a signal is received on A2 only. If 12 V Trigger is selected, the amplifier will turn on when receiving the trigger command from another attached device. If linking on to another amplifier, then the 12 V trigger output will also be active.

NOTE: The 12 V Trigger link will only be active when a source device is connected to the 12 V Trigger input. The amplifier will not produce a 12 V Trigger signal.

Auto Standby

When enabled, if the amplifier isn't used for 20 minutes it will automatically go into standby. You can also turn this feature off, so that the amplifier will never go into standby automatically.

NOTE: If using the 12 V trigger to control turning the amplifier on and off, Auto Standby will be disabled, and power control will be handled by the 12 V trigger signal.

Standby Plus

Integrated Amplifier - This enables the amplifier to be woken from standby a little quicker than normal.

Streaming Amplifier - When Standby Plus is turned on, the amplifier will be visible on BluOS and will automatically turn on when playing something via BluOS, or a preset selected.

When Standby Plus is enabled, power consumption when in standby will increase from less than 0.5 W to approximately 2 W.

Balance

Here, the balance across the left and right channels can be altered in 1dB increments up to 3 dB on either channel.

Sensitivity

If the input level on the analogue devices is different to other inputs, the sensitivity can be adjusted accordingly to counteract this difference. There are Low, Mid (default) and High options.

Power Amplifier Toggle

If the Caspian Streaming / Integrated Amplifier is being used as a pre-amplifier connected to a separate power amplifier then, it is recommended to turn the internal power amplifier stage off. This mutes the input to the power amplifiers.

AV Bypass

If you have your amplifier connected to an AV Receiver to power the front left and right speakers, enable AV Bypass and connect your AVR outputs to the A2 Input on the Caspian. Whenever A2 is selected, it will be in AV Bypass mode, and this will be displayed on the screen.



If you turn AV bypass on with speakers connected, they will play at full volume. And the volume can't be changed or muted!

Reset Audio Settings

This will reset any changes made to the balance, sensitivity, tone controls, speaker presets or crossover settings (changed in MaestroUnite). It will not reset the Wi-Fi or BluOS settings. Press the Play/ Pause button on the remote to reset the audio settings.

If there are any Audio settings configured, a single dot will be displayed on the amplifier's display screen next to the input.

Factory Reset

This resets everything back to factory defaults including Wi-Fi and BluOS settings. Press the Play/ Pause button on the remote and then Repeat button to confirm and reset all settings. There will be a progress update on the display of the amplifier and the Volume Dial will give haptic feedback when complete. The amplifier will then go into standby when complete.

Serial Number

Displays the serial number of the amplifier.

Firmware & Hardware versions

Displays the current firmware version and the version of the hardware fitted.

Firmware Update

By pressing the Play/ Pause button on the remote will start a firmware update of the Roksan firmware (BluOS firmware is updated separately). Wi-Fi will need to be configured before carrying out a FW update. During the update, the "Ring Indicator" will show the progress of the update along with the percentage of completion on the main display. When completed, the display will confirm that the amplifier has successfully been updated and go into standby.

BluOS Version & Status

Shows the current BluOS firmware version and its connectivity status.

BluOS USB Upgrade

The BluOS firmware can be updated by USB. First the firmware file will need to be downloaded from the BluOS website and loaded onto the USB. Once the USB stick is inserted into the amplifier, press the repeat button on the remote to instigate the update.

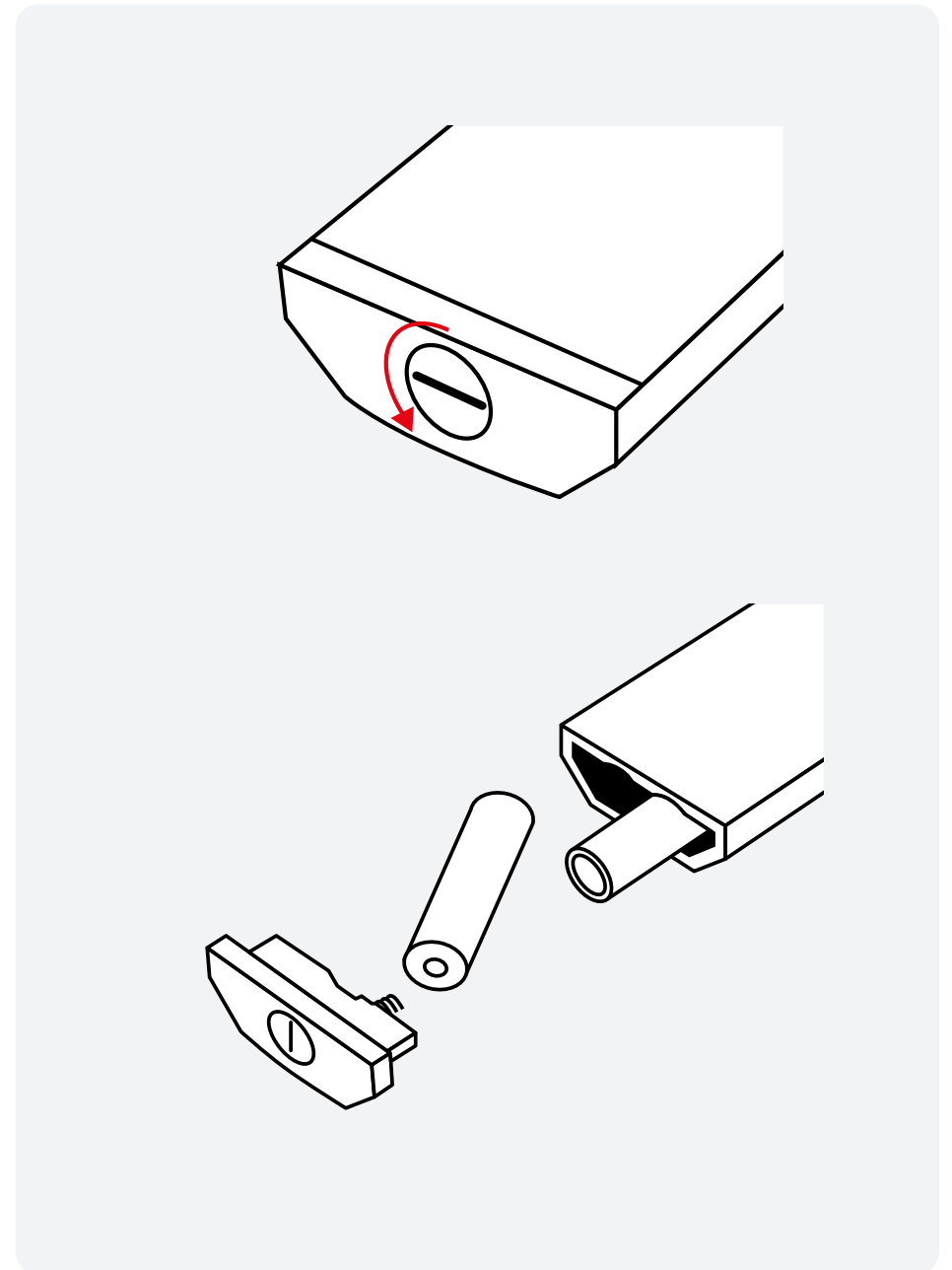
MAC Addresses

The screens show the various MAC addresses for the Wi-Fi, ethernet and Bluetooth modules within the amplifier.

Changing remote battery

To access the battery compartment and change the battery, use a coin or similar to rotate the locking mechanism at the bottom of the remote (circled below) clockwise to release it.

Once released, the batteries are accessible. The remote accepts 2 x AAA 1.5 V batteries.



Care & maintenance

After disconnecting the product from the mains supply, the casing and front panel may be cleaned with a lint-free cloth. Avoid using abrasive substances or solvents.

Warranty

In the unlikely event that there is a defect with this product, it is covered by the Roksan manufacturer's warranty, provided that the product was supplied by an authorised Roksan retail specialist.

For the period of cover please refer to the product page on our website at roksan.com/warranty.

Register your Roksan product
to ensure the best possible product and customer support

Register your product using the QR code
or visit roksan.com/registration



Specifications

	Integrated Amplifier	Streaming Amplifier
Connectivity Summary		
Analogue Inputs	2 x RCA Stereo (A1, A2) 1 x Balanced XLR (A3)	2 x RCA Stereo (A1, A2) 1 x Balanced XLR (A3)
Digital Inputs	2 x Coax (D1, D2) 2 x Optical (D3, D4) Bluetooth Audio	2 x Coax (D1, D2) 2 x Optical (D3, D4) Bluetooth Audio BluOS HDMI eARC
Analogue Outputs	1 x Balanced XLR (Pre1) 1 x RCA Stereo (Pre2) 1 x RCA Stereo (Pre3)	1 x Balanced XLR (Pre1) 1 x RCA Stereo (Pre2) 1 x RCA Stereo (Pre3)
Amplifier Output	1 x Pair of Speaker binding posts (L&R)	1 x Pair of Speaker binding posts (L&R)
Other Inputs / Outputs	Wi-Fi 4, BLE, 12 V Trigger, Wired IR	Gigabit Ethernet RJ45, Wi-Fi 5, Wi-Fi 4, BLE, 12 V Trigger, Wired IR
Power	IEC C14, Fused 6.2AT	

User Interface		
Primary Interface (on unit)	Dynamic Control Dial (with haptic feedback) to control volume, inputs & power	
Secondary Interface (on unit)	Backward, Play/Pause, Forward	
Remote Control	Black, 15 button IR remote. Bead blasted & anodised aluminium extruded case with laser etched logo.	

Power Amplifier Section		
Power Amplifier Technology	Dual Mono Euphoria Amplifier	
Amplifier Class	AB	
Output Power, 8 Ohms (235 VAC @ 1% THD, both channels driven)	105 W	
Output Power, 4 Ohms (235 VAC @ 1% THD both channels driven)	200 W	
THD+N (1 W @ 1 kHz Both Channels driven)	<0.00 7%	
Gain	29 dB	
Signal to Noise (1 W/8 R 2 VRMS A1, both channels driven)	>85 dB	
Gain Matching	<0.5 dB	
Frequency Linearity (20 Hz - 20 kHz)	+-0.25 dB	
Power Supply	600 VA / 36,400 uF per Rail	

Phono Section		
Inputs	MM	
Gain MM	53 dB	
Gain Adjustment MM	Low (-6 dB), Mid (0 dB default), High (+6 dB)	
Input Impedance MM	47 k Ohms/ 100 pF	
RIAA response accuracy MM	+-0.3 dB 20 Hz - 20 kHz	

Rapture DAC		
DAC Technology	Rapture DAC, Dual Mono Balanced	
Format Support	PCM	
Sampling Rate	up to 24 bit / 192 kHz	

Pre-Amplifier Section (Amp, Pre1, Pre2)		
Volume Control Technology	Hybrid Digital Analogue	
Volume Control Matching	<0.25 dB	
THD+N (3.9 VRMS, A-Weighted)	<0.0008%	
Signal to Noise Ratio (3.9 VRMS, A-Weighted)	>108 dB	
Maximum Output Level	3.9 VRMS	
Supported Features	Pre-Output, Intelligent DSP	

Pre-Amplifier Section (Pre3)		
Volume Control Technology	Digital	
Volume Control Matching	<0.25 dB	
THD+N (3.9 VRMS, A - Weighted)	<0.003 %	
Signal to Noise Ratio (3.9 VRMS, A-Weighted)	>108 dB	
Maximum Output Level	3.9 VRMS	
Supported Features	Pre-Output Line Level Output (Fixed Level) Sub-Woofer Output (Low-Pass Filtered) Intelligent DSP	
Bluetooth		
Protocol	A2DP Audio Profile	
Codecs	SBC, aptX & AAC	
Range	>15 m	

Digital Inputs		
Coax Inputs (D1, D2)	up to 24 bit / 192 kHz (Stereo)	
Optical Inputs (D3, D4)	up to 24 bit / 96 kHz (Stereo)	
HDMI ARC & eARC	No	Yes (2.0)


Analogue Inputs		
Maximum Input Level	6.7 VRMS	
Music Sense	A2 Input	
AV Mode	A2 Input	

BluOS Section		
BluOS Streaming Supported	No	Yes
Audio Formats	-	MP3, AAC, WMA, OGG, WMA-L, ALAC, OPUS
Hi-Resolution Audio Formats	-	MQA, FLAC, WAV, AIF, Supports converted DSD playback via the desktop app only.
Sampling Rate	-	up to 192 kHz
Bit Depth	-	16 - 24
Network Connectivity	-	*Gigabit Ethernet RJ45, Wi-Fi 5*
Supported Network File Storage Protocol	Server Message Block (SMB)	
USB	-	1 x Type-A port for connection to USB memory stick (FAT32 or NTFS formatted) and supported peripherals
Supported Operating System	-	Music playback from network shares on the following desktop operating systems: Microsoft Windows XP, 2000, Vista, 7, 8 to current Windows Operating Systems and macOS versions**
Mobile Application	-	Free BluOS Controller App available for download from the respective App stores of Apple iOS devices (iPad, iPhone and iPod), Android devices, Kindle Fire and Windows or macOS desktops
Supported music services and partners	-	Over 20 natively integrated streaming services. For more information go to https://bluos.io/
Third Party Certified Services	-	Apple Airplay, Spotify Connect, Tidal Connect
ROON Ready	-	TBC
Control Integrations	-	Creston, Control4 (OS3), Control4 (OS2), RTI, URC, BluOS URC Driver, URC, Lutron, NICE, GIRA, BluOS Integration Utility, BluOS Custom Integration API

MaestroUnite		
MaestroUnite Supported	Yes	
Network Connectivity	Bluetooth LE Wi-Fi 4 (Only connects for Over-the-Air Updates)	Bluetooth LE Wi-Fi 4 (Only connects for Over-the-Air Updates, BluOS Network does not support updates to Caspian firmware)
Mobile Application	iOS, Android	
Over-the-Air Updates	Firmware Updates are available via the MaestroUnite configured Wi-Fi connection. This can be setup to connect & update on user request or during periods of inactivity.	

Other		
Wired IR Input	5 - 14 V, Mono 3.5 mm jack plug, any polarity	
12 V Trigger Input	5 - 14 V, 3.5 mm jack dual polarity (On / Standby)	
12 V Trigger Pass-through	3.5mm jack Pass through from input only	
Nominal Mains Voltage	Auto-Selecting Power Supply 100 - 120 VAC & 220 - 240 VAC	
Power Consumption	Max 610 VA Standby 0.5 W Network Standby 2 W (Standby Plus, allows fast boot)	Max 610 VA Standby 0.5W Network Standby 2W (Standby Plus, allows wakeup from BluOS and fast boot)
Mechanical		
Available Finishes	Silver Black	
Construction	Extruded and machined Aluminium front & top cover with extruded Aluminium heatsinks.	
External Dimensions with all Accessories Fitted (H x W x D)	93 x 432 x 378 mm (3 ⁷ / ₈ x 17 x 14 ⁷ / ₈ ") See downloads for CAD drawings	
Weight (Product, Each)	15.2 kg (33 lb 8 oz)	15.5 kg (34 lb 3 oz)
Sold As	Single	

Directives

 Monitor Audio Group declares that the apparatus "Caspian Streaming Amplifier" and "Caspian Integrated Amplifier". in conformity with the essential requirements and other relevant provisions of Directive 2014/53/EU".



NOTE: This product must be earthed. Please ensure that other equipment connected to it is earthed according to the manufacturer's instructions.

Monitor Audio Group declare in own responsibility, that the Monitor Audio products described in this manual is in compliance with the following Standards and is in conformity with the essential requirements of the Radio Equipment Regulations 2017.

Listen Again.

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