



**blak** Integrated Amplifier  
& Integrated Amplifier USB

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MANUAL



This manual is divided into the following sections and covers the following products:

- blak Integrated Amplifier
- blak Integrated Amplifier USB

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- Safety Instructions (accompanying card)
- Introduction
- Safety Certification
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- Specifications

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### **ROKSAN AUDIO**

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## INTRODUCTION

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Congratulations on your purchase of the Roksan **blak** Integrated Amplifier / Integrated Amplifier USB.

This amplifier is designed and manufactured to the highest specification and rigorously tested to reward you with many years of listening pleasure.

Your **blak** amplifier is an integral part of your system. Its correct installation, set-up and operation will have a significant influence on the performance of the entire hi-fi installation. Please read the contents of this manual thoroughly. It will help you to understand your hi-fi equipment better and further enhance your listening pleasure.

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## UNPACKING

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Included in the packing of your **blak** amplifier you will find:

- One mains lead fitted with the correct mains power plug for your country.
- One Roksan R7 remote control

After removing these items please retain all packing material. Correct packing is necessary for future transportation of your **blak** Integrated Amplifier.

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## MAINTENANCE

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After disconnecting the **blak** Integrated Amplifier from the mains supply, the cabinet and front panel may be cleaned with a lightly dampened soft cloth or chamois leather. Avoid using abrasive substances or solvents.

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## EU DIRECTIVES

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This product is designed to comply with the legal provisions of EU Directives 89/3336/EC and 72/23/EC. The standards which have been applied are those which were in force at the time of the introduction of this product. This product bears the CE mark. This product must be earthed. Please ensure that other equipment connected to it is earthed according to the manufacturer's instructions.

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## CAUTIONS

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### AC MAINS SUPPLY

Your **blak** Integrated Amplifier is set to operate from a fixed supply voltage which is marked on a label next to the mains input plug. Before connecting the mains lead please check that your mains supply corresponds to the label as below:

230V Products: Voltage Range 220V - 240V

115V Products: Voltage Range: 110V - 120V

100V Products: Voltage Range: 90V - 110V

The mains lead supplied with this product has an IEC mains socket which plugs into the IEC connector on the unit's rear panel. The other end is normally attached to the appropriate mains plug for your country. In the UK this is the standard UK13A plug.

This plug should ordinarily not be removed from the lead. If you do remove it, please dispose of it safely so that it cannot be plugged into a mains socket whilst in a potentially dangerous condition. We suggest that you obtain from your dealer a complete set of replacement leads.

Should you move to another area where either the mains voltage or the mains plug are different from those as supplied with your Integrated Amplifier, please contact the appointed Roksan distributor for assistance.

Please observe correct mains polarity at all times.

The Integrated Amplifier mains fuse is located on the rear panel next to the IEC mains connector. This must only be replaced by the fuse of the type and rating as described on the fuse rating label on the rear panel of the unit.

This product requires connection to earth (ground). The earth wire (in the UK this is colour coded green/yellow) of the mains cable supplied with your Integrated Amplifier must be connected to a suitable earthing point established for this purpose by your electricity supply company. If you are in any doubt, consult a qualified electrician.

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

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## GENERAL CAUTIONS

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### FCC WARNING

This equipment may generate or use Radio Frequency energy. The user may lose the right to operate this equipment if unauthorised modifications are made.

### INTERFERENCE

Properly installed, this unit should not cause harmful interference to radio communications. There is, however, no guarantee that such interference will not occur in a specific installation. If interference arises (which you can determine by switching the unit off and on) you could try to remedy matters by using the following methods:

- Re-orient or re-locate the receiving antenna.
- Increase the distance between the amplifier and receiver.
- Connect the unit to a different mains circuit from that of the receiver.
- Consult your Roksan appointed dealer or an experienced Radio/TV technician for help and advice.

### LOCATION

Your **blak** Integrated Amplifier should be located in a well ventilated area and kept away from sources of heat, dust and humidity and from direct sunlight. The integrated Amplifier may be positioned either as a free standing unit or along side another audio/video product. Never allow liquids or other objects to fall into the unit.

This unit contains no user serviceable parts. **DO NOT** remove any panels or attempt to service it yourself. Unauthorised servicing will void the warranty.

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## INSTALLATION

### **blak** INTEGRATED AMPLIFIER/USB - FRONT PANEL VIEW



- 1. AC Mains Power Switch
- 2. Headphone socket
- 3. LED display
- 4. Headphone switch
- 5. Volume control
- 6. Input selector button (back)
- 7. Input selector button (forward)
- 8. 'OK' button

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## **blak** INTEGRATED AMPLIFIER/USB - REAR PANEL VIEW



- 10. Right loudspeaker output
- 11. Earth ground for phono input
- 12. Phono input (Moving Magnet)
- 13. Line 1 input
- 14. Line 2 input
- 15. Line 3 input
- 16. Balanced XLR input
- 17. Bluetooth antenna
- 18. USB 'type B' input (NOTE: only operational with USB version)
- 19. Voltage & fuse label
- 20. AC mains fuse holder
- 21. AC mains socket
- 22. Left loudspeaker output

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## SETUP

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### CONNECTING MAINS POWER

*Please refer to the front & rear panel views.*

The moulded IE connector or the supplied mains lead should be plugged into socket (21) on the rear of the unit first and then plugged into the mains supply. The mains power switch (1) is on the front under side of the amplifier. This switch can be left on; if however the amplifier is likely to be unattended for a long period of time, switch it off and unplug the mains lead from the wall.

### SIGNAL CONNECTIONS

There are 6 inputs on your **blak** Integrated Amplifier. Three are line level and will accept virtually all currently available source components, the other three are a phono input, aptX Bluetooth wireless input and in the USB Version only (which houses an internal high quality DAC) a 'type B' USB input.

The Phono input is factory set for Moving Magnet cartridges to accommodate record players fitted with MM phono cartridges.

All the inputs use gold plated RCA phono connectors and should be connected according to the standard convention.

- Right Channel - Red
- Left Channel - Black or White

Also in accordance with standard practice, the upper row of phono sockets carries the left channel and the lower row carries the right channel.

### MC INPUT CONNECTION

If you wish to use a Moving Coil cartridge, an in-line MC step-up transformer should be connected to the Phono Input. Alternatively a dedicated phono stage can be connected to a line level input. For advice and demonstration of Roksan state of the art turntable reproduction systems contact your authorised retailer.

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## LOUDSPEAKER CONNECTIONS

The right and left loudspeakers are connected to the amplifier via the rear panel binding posts. Carefully observe polarity ensuring that the RED (+) speaker terminal is connected to the RED (+) amplifier terminal and the BLACK (-) speaker terminal to the BLACK (-) amplifier terminal. When both left and right channels are connected to the relevant speaker terminals the amplifier is ready for use.

### IMPORTANT NOTE:

For optimum performance it is recommended to use high quality inter-connect cable such as Roksan HDC-03A High Definition Analogue Cable.

For optimum performance it is recommended to use high quality cable such as Roksan HDC 03S High Definition Loudspeaker Cable. Many speaker cables such as the Roksan HDC-03S are directional. Please observe this characteristic. DO NOT use a speaker cable with conductor size less than 16 AWG (1.6mm Diameter). The binding posts accept conductor sizes up to 12 AWG.

## HEADPHONE CONNECTION

To listen through headphones, connect a 6.35mm 1/4 inch Stereo Jack Plug to the headphone socket (2).

# OPERATION

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## SWITCHING ON

The mains power switch is located on the front left under side of the amplifier. This switch can be left ON for normal operation. If unattended for a long period of time (going on a short break, holidays etc.) the mains power should be switched OFF and the power cord disconnected from the mains power input. When switched ON, your **blak** Integrated Amplifier will go into standby mode, which is characterized by a single light illuminated on the highest value volume LED. Pressing the OK button will take the amplifier out of standby (if you wish to regress to standby mode, press the OK button twice in short succession).

## OUTPUT SELECTION

For loudspeaker output, the headphone switch (4) should to be toggled to the left. For headphones output, the switch should be toggled to the right.

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## VOLUME CONTROL

The volume control on the blak is a precision device. It follows algorithmic law so that its response approximates that of the human ear. The series of LEDs around the volume control indicates the volume level. When the volume control is at 0, the output is automatically muted. Turning the volume knob will take the unit out of mute mode.

The volume can also be muted by pressing the MUTE button on the R7 remote control. When unmuted, the volume will return to it's previous level.

## FRONT PANEL CONTROL

The INPUT Selector Buttons (4) and (5) shift through a list of the inputs one click at a time. Pressing OK will confirm the selection, otherwise the unit will revert to the current selection. The **blak** Integrated Amplifier has an input selection memory. When switched on, it will automatically recognise the previous input selection. The selected input will show in the LED display window.

Pressing the OK button twice in quick succession will take the unit into standby. Pressing it once will bring the unit out of standby.

## BLUETOOTH CONNECTION AND PAIRING

Make sure your device's Bluetooth is enabled and select the Bluetooth input on the amplifier. This will select the Bluetooth source and the characters 'BT' will flash continuously on the display. When your device has found the amplifier, 'Roksan **blak**' will appear on your device. Next, connect to pair your device. When paired or connected 'BT' will stop flashing and remain on. You are now ready to stream music to the blak from the paired device. If your device is aptX compatible and contains high resolution audio files, then these will be streamed in the original high quality bit rate through the blak amplifier.

Whilst streaming Bluetooth data, if you wish to revert to another input, simply use the input selectors to the desired choice and press OK as normal. You will then have to re-connect the device but pairing is not necessary.

## USING THE INTERNAL DAC AND CONNECTING TO THE USB PORT (USB VERSION ONLY)

The USB input can be used with a Windows or Mac operating system computer using a USB B-type connector cable. Select the USB input using the input selection buttons and press 'OK'.

NOTE: It's always recommended to use a directly connected USB socket. For example, front panel USB connections on desktop pcs often have a substandard internal wiring that can cause degradation to the USB signal.

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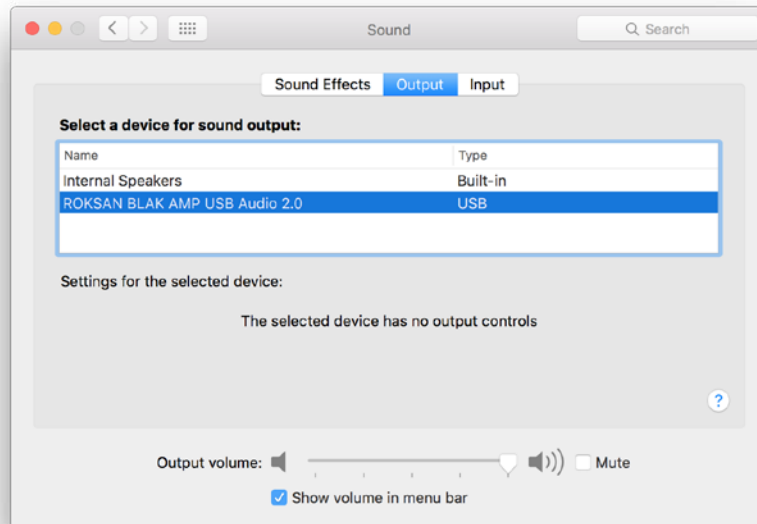
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**MAC OPERATING SYSTEM:**

There is no setup required, driver installation occurs automatically when the DAC is first connected to the MAC.

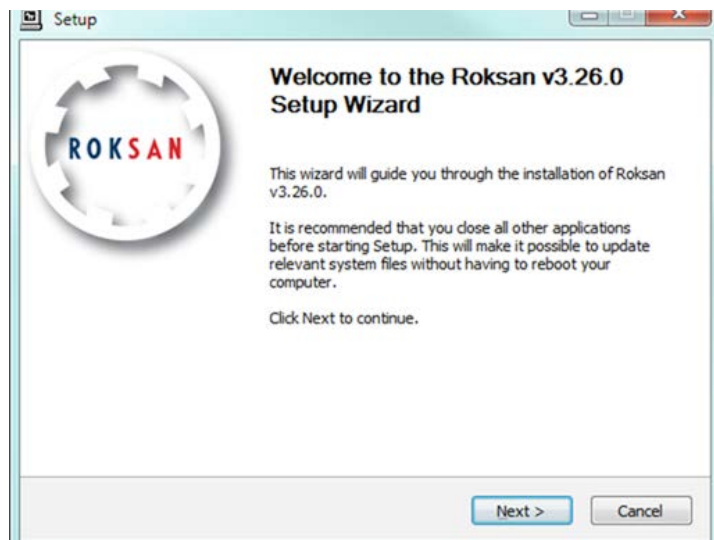
To select the **blak** Amp USB as your current Playback Device navigate to System Preferences > Sound, then choose the Output tab and select "Roksan blak Amp DAC USB Audio 2.0 (or 1.0 depending on the interface)".



**WINDOWS OPERATING SYSTEM:**

The driver can only be installed on PCs using Windows 7 onwards, and therefore USB inputs will not work on PCs with older versions of Windows.

You must install the Roksan driver software before connecting the **blak** Amp USB to your PC. To do this run the latest version of the driver setup software which can be found on our website. The Setup Wizard will guide you through the process.

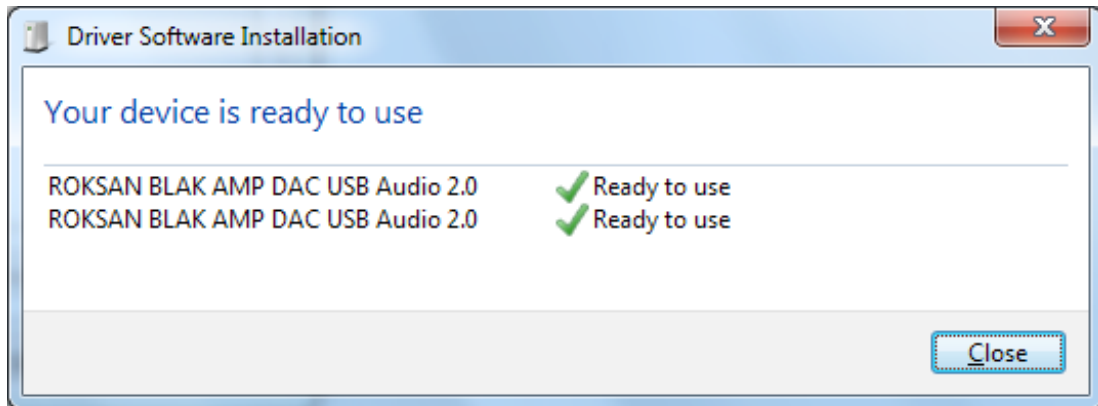


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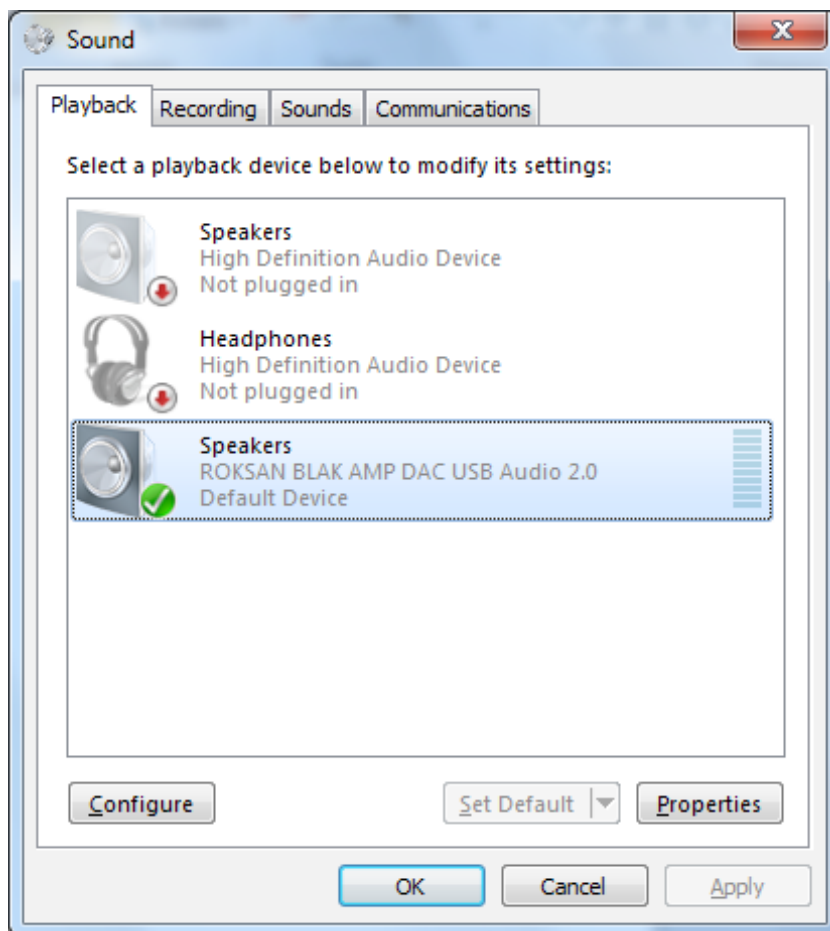
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To initialise the driver installation switch on your **blak** Amp USB and connect it to your PC via a USB cable. A pop-up window will now appear installing this driver automatically.



To select as your current Playback Device navigate to Control Panel > All Control Panel Items > Sound and select the Playback Tab. Select "Roksan blak Amp DAC USB Audio 2.0/1.0" (You can right-click and "Set as Default Device" if desired).



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## DSD PLAYBACK

The advanced Texas Instruments DAC platform supports PCM sample rates up to 192 kHz and also DSD (Direct Stream Digital) information for both DSD64 (1x) and DSD128 (2x).

This is only possible using a computer connected to the blak Integrated Amplifier USB (via the USB input) input using a music player program that is able to read DSD files. Numerous programs that can achieve this are available to download.

NOTE: With all digital music files, playback capability is dependent on the playback engine and software used.

## ADJUSTING DISPLAY BRIGHTNESS

Press and hold the OK button on either the front panel or remote until 'ROKSAN' appears in the display. Use the Input Selection buttons to adjust the brightness of the display.

## REMOTE CONTROL FUNCTIONS

The blak Integrated Amplifier/Integrated Amplifier USB uses the Roksan R7 remote control. Below is an outline of the functions available.

Amp: Press and hold to bring amplifier in and out of standby

Mute: Mutes volume

Input (◀): Scroll input left

Input (▶): Scroll input right

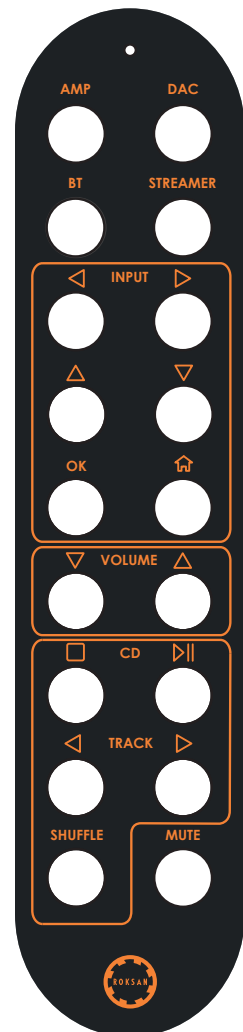
OK: Confirm input selection

Volume (▼): Decrease volume

Volume (▲): Increase volume

BT: Direct bluetooth input function

NOTE: You must press 'OK' to confirm the desired input after selection with the (◀ & ▶) buttons. The BT button will directly take you to the wireless Bluetooth input. You do not need to press OK to confirm. Pressing either the Input left (◀) or right (▶) buttons will return to line/phono inputs.



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## TROUBLESHOOTING

If you suspect that your Roksan **blak** Integrated Amplifier is not operating properly, you should check all the connections carefully. Pay particular attention to speaker phasing and channel connections. Phono plugs should be fully inserted - a frequent cause of problems is due to the phono plug surrounds not making proper contact. Below are some commonly encountered problems with suggestions for possible cures. The list is not exhaustive: If you have any unresolved problems, please consult Roksan or your appointed Roksan dealer or distributor.

SYMPTOM	LIKELY CAUSE	SUGGESTED REMEDY
<ul style="list-style-type: none"> <li>No power</li> </ul>	<ul style="list-style-type: none"> <li>AC Mains lead not inserted properly</li> <li>Unit not switched on</li> </ul>	<ul style="list-style-type: none"> <li>Ensure AC Mains lead is fully inserted</li> <li>Switch unit on (on the front underside)</li> </ul>
<ul style="list-style-type: none"> <li>No output on one or both channels</li> <li>Very low sound output</li> <li>Poor speaker imaging, lack of Bass output</li> </ul>	<ul style="list-style-type: none"> <li>Amplifier in standby mode (LED on display)</li> <li>Missing or bad input signal connection Incorrect speaker connection</li> <li>Wrong input selected</li> <li>Loudspeakers connected out of phase</li> <li>Amplifier muted or volume set to 0</li> </ul>	<ul style="list-style-type: none"> <li>Check that amplifier is out of standby mode</li> <li>Check all input connections</li> <li>Check speaker output connections on rear panel</li> <li>Select correct input, ascertain source is working</li> <li>Check polarity of speaker connections (especially important if Multi-wiring, Multiamping)</li> </ul>
<ul style="list-style-type: none"> <li>Hum from speakers</li> </ul>	<ul style="list-style-type: none"> <li>Incorrect grounding</li> </ul>	<ul style="list-style-type: none"> <li>Check Mains polarity and grounding on all connected equipment</li> </ul>

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## GUARANTEE

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Your Roksan **blak** product is guaranteed against any defect in materials and workmanship for a period of five years from the date of purchase.

This guarantee only becomes effective once your product has been registered within fourteen days of purchase. Roksan reserves the right to ask for a copy of your purchase invoice.

This guarantee excludes:

- Damage caused due to accident, misuse, neglect and incorrect installation, adjustment or repair.
- Liability for damage or loss during transit from the retailer or purchaser to Roksan or its authorised distributor for the purposes of repair or inspection.

Carriage costs to Roksan shall be borne by the consignor. All claims under this warranty must be made through an authorised Roksan retailer. If equipment returned for repair to Roksan is found on inspection to comply with the product specification, Roksan reserves the right to make a charge for examination and return carriage. Unauthorised servicing will void this guarantee. Warranty will only be valid when the product is bought through the authorised retailer. All the warranty issues will be dealt through the selling retailer.

Warranty registration can be done online at: <http://www.roksan.co.uk/rw.php>

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## SPECIFICATIONS

Inputs \_\_\_\_\_ 3 x RCA line inputs  
 \_\_\_\_\_ 1 x Pair analogue XLR inputs  
 \_\_\_\_\_ 1 x USB type-B input 24/192 & DSD compatible (only operational with 'USB' Version)  
 \_\_\_\_\_ MM phono input  
 \_\_\_\_\_ aptX Bluetooth input  
 \_\_\_\_\_ MM input - gain, 76.75dB@1kHz, input impedance 47k ohm, 150pF  
 \_\_\_\_\_ Line & XLR inputs - input impedance 24k ohm XLR, 40k ohm RCA

Gain \_\_\_\_\_ @ 1kHz, 8ohm 36,75dB

THD \_\_\_\_\_ @ 1W, 8ohm, 5kHz < 0.02%  
 \_\_\_\_\_ @ 12W, 8ohm, 5kHz < 0.035%

Power output \_\_\_\_\_ @ 1kHz, 8ohm > 150W  
 \_\_\_\_\_ @ 1kHz, 4ohm > 230W

Frequency response \_\_\_\_\_ @ -3dB, 12W, 8ohm from < 20Hz to more than 80kHz

Channel balance \_\_\_\_\_ @ 1kHz, 8ohm, 12W better than 0.3dB

Cross talk \_\_\_\_\_ @ 1kHz, 8ohm < -104dB

S/N \_\_\_\_\_ @ 1kHz, 8ohm, 1W > 76dB

Dimensions (H x W x D) \_\_\_\_\_ 140 x 440 (inc. faceplate) x 309mm / 140 x 400 (chassis) x 309mm

Weight \_\_\_\_\_ 14kg

Rated Power Consumption \_\_\_\_\_ 480W

Maximum Power Consumption \_\_\_\_\_ 800W

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