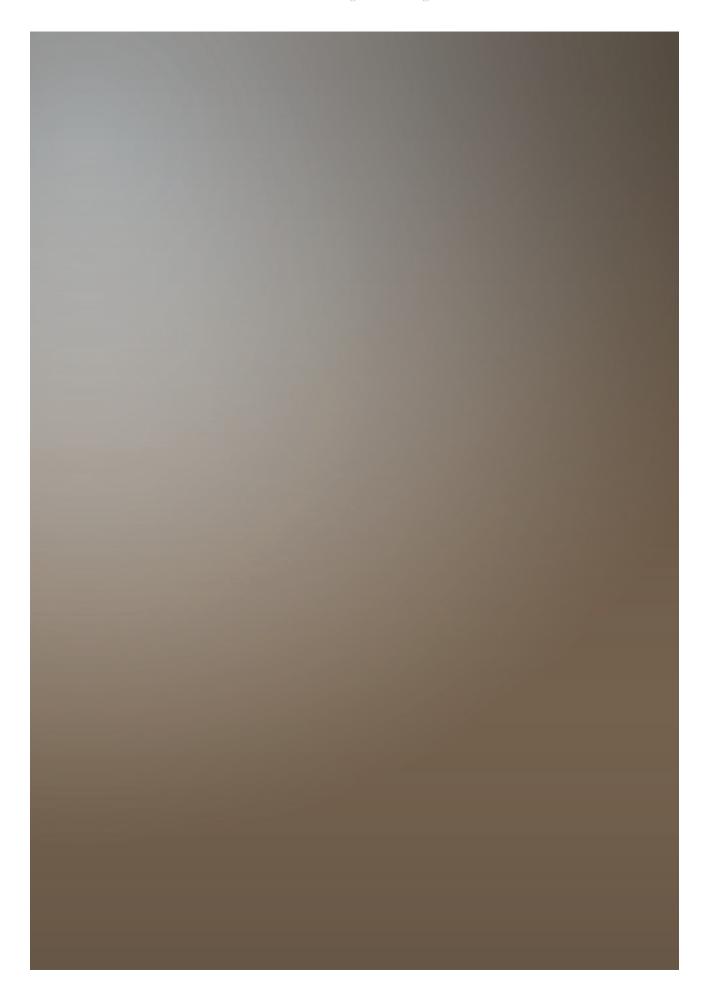


# MANUAL

K3 DAC





#### Congratulations

on the purchase of your Roksan K3 DAC.
Your audio component is designed and manufactured to the highest specifications and rigorously tested to offer many years of reliable and high quality musical enjoyment.

Correct installation and operation of the product will have a significant influence on the performance of your audio system and ensure many years of trouble-free listening.



#### UNPACKING

Included in the packing of your K3 DAC product you will find the following:

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

After removing the product and the above items please retain ALL packing materials. Correct packing is required for the transportation of your product.

#### **MAINTENANCE**

After disconnecting the component from the mains power supply, the chassis and front panel may be cleaned with a dampened cloth or chamois leather. **Avoid using abrasives or solvents.** 

#### **EU DIRECTIVES**

This product is designed to comply with the legal provisions of EU Directives 89/3336/EC and 72/23/EC. The standards that 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 is compliant to EN 60065.

**THIS PRODUCT MUST BE EARTHED**. Please ensure that other equipment connected to it is earthed according to the manufacturer's instructions.

#### AC MAINS SUPPLY

Your Roksan product 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 this label as below:

230V products: Voltage range 220V-240V 115V products: Voltage range 100V-120V

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 the country.

The plug should not normally be removed from the lead. If you do remove it, please dispose of it safely so it cannot be plugged into a mains socket whilst in a potentially dangerous condition. We suggest you obtain a new lead from your dealer.



Should you move to an area that has a different mains voltage or plug from that originally supplied, please contact your Roksan dealer for assistance.

#### PLEASE OBSERVE CORRECT MAINS POLARITY AT ALL TIMES.

The mains fuses are located on the rear panel next to the IEC mains connector. They must only be replaced with a fuse of the type and rating as described on the fuse rating label on the rear panel.

This product requires connection to earth (ground). The earth wire (green/yellow in the UK) of the mains cable supplied with your product must be connected to a suitable 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 unused for some time, unplug it from the mains supply.

#### **GENERAL CAUTIONS**

#### **FCC WARNING**

This equipment may generate or use radio frequency energy. The user may lose the right to operate his equipment if unauthorised modifications are made.

#### INTERFERENCE

If 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 the following:

- Re-orient on relocating receiving antenna
- Increase the distance between the Roksan component and receiver
- Connect to the unit to a different mains circuit from that of the receiver
- Consult your Roksan dealer or an experienced radio/TV technician for help and advice



#### INSTALLATION

K3 DAC - Front Panel View



- 1. AC Mains Power Switch
- 2. USB (B-type) input
- 3. IR receiver (for remote control)
- 4. USB input indicator (front input)
- 5. USB 2 input indicator (rear input)6. Optical Toslink input indicator

- Coaxial RCA input indicator
   XLR input indicator
   Roksan wireless transmitter technology connection indicator (blue)
   DSD information indicator (white)
- 11. Input selector / wireless transmitter pairing buttons
- 12. Roksan wireless transmitter receiver



K3 DAC - Rear Panel View



- 13. RCA Analogue outputs (2 pairs)
- 14. XLR analogue output
- 15. XLR digital input
- 16. Coaxial RCA digital input
- 17. Optical Toslink digital input
- 18. USB 2 (B-type) digital input
- 19. IEC Mains Inlet Socket
- 20. AC Mains Fuse Holder

#### SETUP

Although it is an internally complex and sophisticated product, the K3 DAC has been designed to make it very easy for the customer to quickly connect and enjoy extremely high quality music reproduction. Following the instructions below will ensure fuss-free set-up.

Please refer to the front & rear panel views. The moulded IEC connector of the supplied mains lead should be plugged into the socket (19) on the rear of the unit first and then plugged into the mains supply. The Mains power switch (1) is on the front underside of the DAC. This switch can be left on; if however the DAC is likely to be unattended for a long period, switch it off and unplug the mains lead from the wall.



#### SIGNAL CONNECTIONS AND OPERATION

ANALOGUE OUTPUT: The Analogue Outputs (10) use Gold plated RCA Phono sockets and should be connected to a LINE input of your Preamplifier or Amplifier.

Standard convention - Right Channel - Red; Left Channel - Black or White.

DIGITAL INPUT: A variety of digital sources can be connected to the K3 DAC via a number of inputs (XLR, Coaxial, Optical & USB), depending on the availability of digital output connector type on the source.

To select the relevant input press either the right or left front-located Input buttons until the desired input is illuminated.

IMPORTANT NOTE: For optimum performance it is recommended to use high quality inter-connect cables such as ROKSAN HDC-03A High Definition Analogue Cable and HDC-01D High Definition Coaxial Digital Cable.

#### CONNECTING A COMPUTER VIA USB

The two USB inputs can be used with a Windows or Mac operating system computer using a USB B-type connector cable.

NOTE: the Input LED marked USB relates to the front mounted input socket and USB 2 to the rear mounted socket.

NOTE: Its 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.

#### MAC OPERATING SYSTEM

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

To select as your current Playback Device:

• Navigate to System Preferences > Sound, then choose the Output tab and select "Roksan K3 DAC USB Audio 2.0 (or 1.0 depending on the interface)"





#### WINDOWS OPERATING SYSTEM

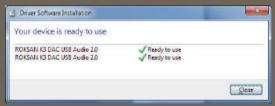
The driver can only be installed on PCs using Windows 7 onwards, and therefore USB inputs will not work on PCs with older versions of Windows.

For primary installation on each computer:

• Before connecting the DAC to your PC run the latest version of the driver setup software, which can be found on the website. The Setup Wizard will guide you through the process.



• To initialise the driver installation connect the DAC to your PC via a USB cable, switch on the DAC and select the appropriate USB input. A pop-up window will 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 K3 DAC USB Audio 2.0/1.0" (You can right-click and "Set as Default Device" if desired)





#### 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 92x)

This is only possible via a computer connected to the K3 DAC USB inputs using a music player program that is able to read DSD files. Numerous programs that can achieve this are available to download. When DSD information is detected, the DSD LED on the front panel will illuminate white.

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

#### INPUT SELECTION MEMORY

The K3 DAC employs a 'convenience' feature and is programmed to automatically default onto the last input that was used for more than 15 seconds. Upon start-up the K3 DAC will revert to this input. The exception to this if the wireless pairing connection is not achieved. If successfully paired, however, it will default upon start-up to the Wireless input.

#### WIRELESS INPUT

#### **ROKSAN K-LINK WIRELESS STREAMING TECHNOLOGY**

Your K3 DAC has a built-in receiver that can be used with Roksan's K-LINK wireless streaming technology. Simply connect your desired device using the correct transmitter (see images below) for either a digital or analogue source and, once paired, the transmitter will send the signal in full CD quality to the receiver in the DAC with a range of up to 150 metres\*. The K3 DAC wireless function is only possible with Roksan's K-LINK technology and a K-LINK transmitter.

KLINK Digital USB transmitter





#### K-LINK Analogue Transmitter



Connect your device to the correct Transmitter and follow the numbered points below:

### PAIRING K-LINK TRANSMITTERS TO THE K3 DAC

Please follow the points below for pairing both K-LINK transmitters (Analogue and USB)

- Using the front-located input selector buttons choose the Wireless Input (blue LED).
- If the transmitter is not paired when the wireless input is selected then the blue LED will blink once per second.
- To start the paring process, press either of the two Input buttons and the amplifier's K-LINK receiver will enter into Pairing Mode.
- The blue light on the amplifier will now speed up and blink three times per second for two seconds to indicate paring initiation. After two seconds it will slow to two blinks per second, indicating the amplifier is ready to pair with the transmitter.
- Next put the K-LINK Transmitter into pairing mode by pressing the Pairing Button on the transmitter. This has to be done AFTER the two-second pairing initiation in step 4. Press the pairing button on the transmitter, when paired the light will stop blinking on both the amplifier and the transmitter to indicate pairing was successful.
- Pairing has to be completed with ten seconds of the Wireless Input light of the K3 DAC blinking twice per second, otherwise you will have to repeat the process from step 3.

#### Reasons for pairing failure:

- Range between the units is too far (\*maximum specified range is 150m, average indoors range will be approx. 30m)
- Range is too close at less than 30cm, the units will not pair or connect



#### K3 DAC WIRELESS LED STATUS

- OFF another input is selected
- ON solid paired and operational
- ON, but blinks once per second not paired
- ON, blinking three times per second entering pairing mode (pairing mode starts two seconds later)
- ON, blinking OFF twice a second in pairing mode (stays in this mode for ten seconds or until paired)

#### NOTE

- When powered, the transmitter will blink constantly until paired.
- Pairing function cannot be operated via the R7 remote
- NOTE: The transmitter will only need to be paired once with the DAC unit. If for whatever reason the transmitter and DAC do not pair automatically after initial pairing, please repeat the above process from step 3.

#### USB WIRELESS TRANSMITTER

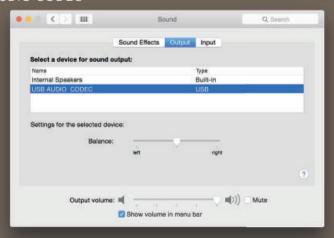
In addition to the analogue transmitter there is also a Roksan K-LINK USB transmitter. This can be used with both Windows and Mac operating systems by simply inserting into a USB slot of a computer. The driver will need to be installed before use by following the procedures below:

#### MAC OPERATING SYSTEM

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

To select as your current Playback Device:

 Navigate to System Preferences > Sound, then choose the Output tab and select "USB AUDIO CODEC"



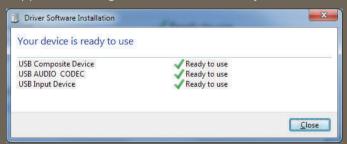


#### WINDOWS OPERATING SYSTEM

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

For the primary use on each computer:

• To initialise the driver installation connect the USB transmitter to your PC. A pop-up window will 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 "USB Audio Device" (You can right-click and "Set as Default Device" if desired)





#### PAIRING THE USB TRANSMITTER

To pair the USB transmitter, the USB device has a recessed pairing button. The paring procedure is the same for the analogue transmitter. Please refer to the previous 'Paring K-LINK Transmitters to the K3 DAC' section for details.

#### GUARANTEE

There are no user serviceable parts inside your Roksan analogue product. In the unlikely case of a fault developing, refer all servicing to your appointed Roksan dealer, distributor or Roksan approved service agent.

Your Roksan DAC is guaranteed against any defects 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 14 days of the purchase. Roksan reserves the right to ask for a copy of your purchase invoice.

#### This quarantee excludes:

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

Carriage costs to Roksan shall be born by the consigner.

All claims under this warranty must be made through an authorized 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. Unauthorized servicing will void this guarantee.

Warranty will only be valid when the product is bought through the authorized retailer.

Warranty registration can be done online at www.roksan.co.uk/rw.php



#### **SPECIFICATIONS**

#### Digital Inputs

- 1x XLR AES3/SPDIF balanced up to 192kHz resolution
- 1x RCA/Coaxial SPDIF up to 192kHz resolution\*
- 1x TOSLINK optical up to 192kHz resolution\*
- 1x Front panel USB type 'B' connector for computer
- 1x Rear panel USB type 'B' connector for computer
- K-Link wireless transmitter receiver
- (via the Roksan K-Link transmitter)

#### Outputs

• 1x line level RCA (phono)

• 1x line level XLR (balanced)

Output Impedance

Sample frequencies supportedTHD

• THD + N

54.9R (RCA) and 2x 54.9R (Balanced XLR)

44.1k and 48k (both x1, x2 and x4)

@ 1kHz -20dBFs < 0.003% , @ 20Hz -3dBFs < 0.008%

@ 20kHz -20dBFs < 0.003%

#### General

• Dimensions - WxHxD (mm): 432 x 380 x 105mm (incl. feet)

• Weight: 7kg

\* 192kHz resolution is not supported by all optical and coaxial cables. Please refer to cable manufacturers' specifications.



## ROKSAN AUDIO LIMITED

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