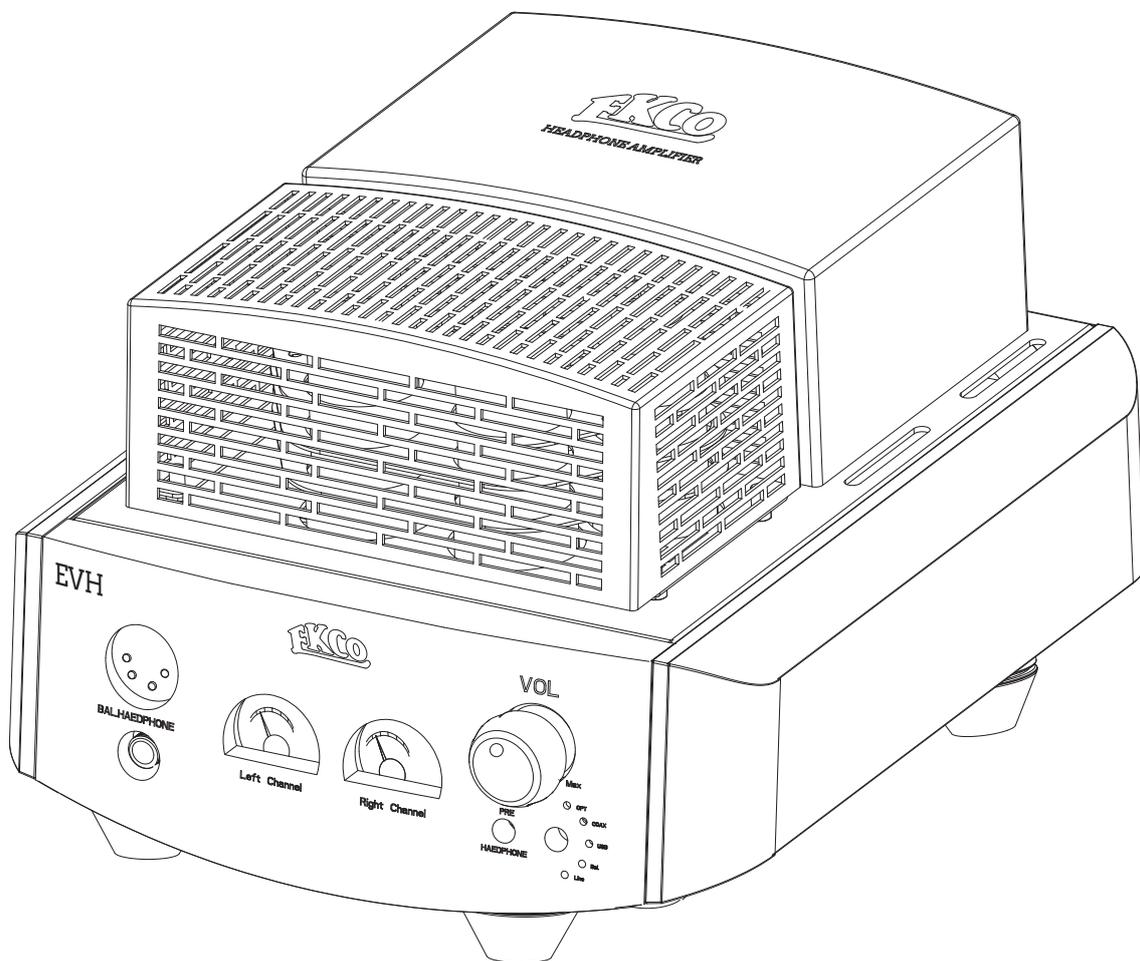


EVH

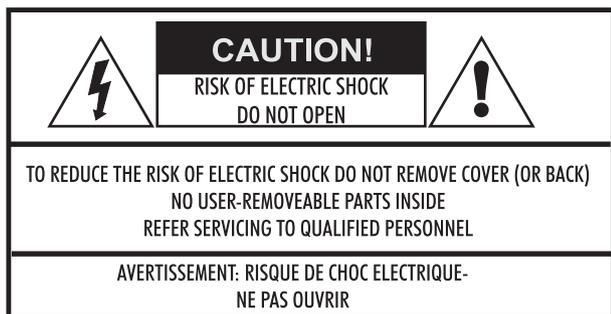
HEADPHONE AMPLIFIER



EVH

User Manual

IMPORTANT SAFETY INFORMATION



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only as recommended in these instructions.

Do not block any ventilation openings.

Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.



Use only attachments/accessories specified by the manufacturer.

Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been exposed to rain or moisture, does not operate normally, or has been dropped.

Warning: To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture. The product must not be exposed to dripping and splashing and no object filled with liquids such as a vase of flowers should be placed on the product.

No naked flame sources such as candles should be placed on the product.

Warning: The Mains plug is used as disconnect shall remain readily operable.

Caution: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Re-orientate or re-locate the receiving antenna. Increase the separation between the equipment and the receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

Mains Supply: The mains operating voltage is shown on the rear panel. If this voltage does not match the mains voltage in your area, consult your dealer about converting the unit.

The mains supply fuse on the rear panel is accessible when the IEC mains plug has been removed. In the rare event that it has broken, check for any obvious cause before replacing the fuse with one of the correct rating and type. The fuse values are:

220-230V (UK, Korea, etc.) T500mA 250V Slow Blow

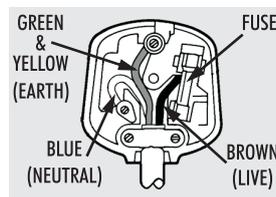
100-120V (USA, Japan, etc.) T1A 250V Slow Blow

IMPORTANT NOTICE TO UK USERS

The appliance cord is terminated with a UK approved mains plug fitted with a 5A fuse. If the fuse needs to be replaced, an ASTA or BSI approved BS1362 fuse rated at 5A must be used. If you need to change the mains plug, remove the fuse and dispose of this plug safely immediately after cutting it from the cord.

Connecting a Mains Plug

The wires in the mains lead are coloured in accordance with the code: Blue: NEUTRAL Brown: LIVE: Green and Yellow: Earth. As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:



The BLUE wire must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The BROWN wire must be connected to the terminal marked with letter L or coloured BROWN or RED.

The GREEN & YELLOW wire must be connected to the terminal marked with the letter E or coloured GREEN or GREEN & YELLOW or marked with the Earth Symbol (⊕).

⊕ Protective earthing terminal. The apparatus should be connected to a mains socket outlet with a protective earthing connection.

CAUTION: This appliance operates on very high voltages. DO NOT remove covers or dismantle. This is very dangerous and could cause severe shock.



BATTERY WARNING: The handset uses two AAA batteries. There is a risk of fire and burns if the batteries are handled improperly. Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water. Do not attempt to open batteries.

When the handset operation becomes erratic: replace the batteries with a pair of new batteries of the same type and construction.

Discard used batteries in accordance with recycling regulations in force in your area.

Warning: The battery (battery or batteries or battery pack) shall not be exposed to excessive heat such as sunshine, fire or the like.

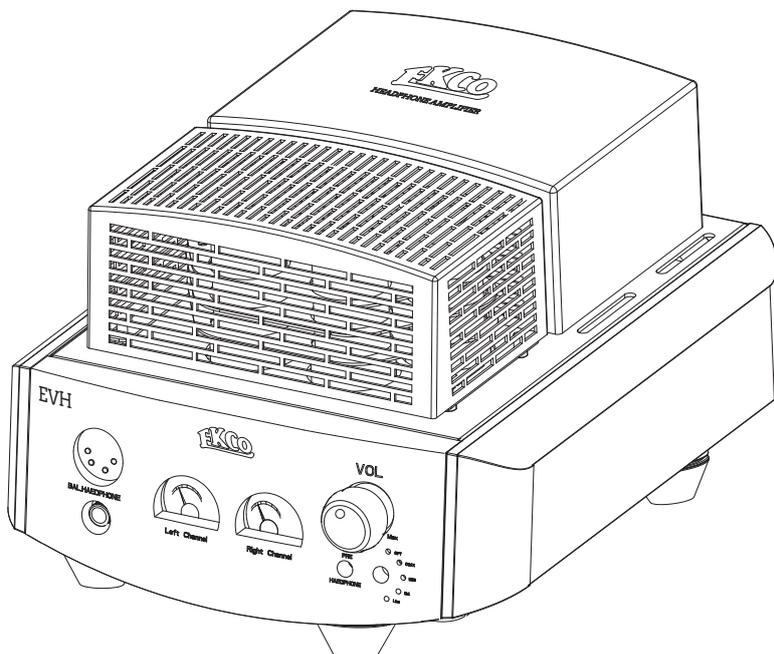
EKCO

EVH

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EVH HEADPHONE AMPLIFIER



INTRODUCTION

The EKCO EVH is designed for the music lover. We make no exaggerated performance claims and are content to let the results speak for themselves. Thank you for purchasing this EKCO equipment. We hope that it will bring you many years of listening pleasure, and that, like its illustrious predecessor, it will be a treasured possession for you and for future generations of music lovers .

PRELIMINARIES

The EKCO EVH carton contains:

- One EKCO EVH
- One IEC mains lead fitted with an appropriate mains connector
- Instruction Manual and Warranty Registration form
- One set of packing materials

Consult the dealer from whom you purchased the equipment if any item is missing.

Please retain the packing material for future transportation of the item.

Please read this manual in full before installing your new amplifier and retain the manual and your purchase receipt for future reference.

MAINS SUPPLY

The mains operating voltage of the unit is indicated on the rating plate attached to the unit. If this voltage does not match the mains voltage in your area, consult your EKCO dealer about converting the unit. The fuse rating should be:

- 220-240V T500mA 20mm
- 100-120V T1A 20mm

INSTALLATION

Place the unit on a stable rigid surface with at least 1m (3ft) of free space above it. If you are using a turntable, ensure that the tonearm / preamplifier combination is least 400mm away from the amplifier to minimize any hum conduction and ideally on a separate shelf. If you have to use the turntable and the amplifier on the same surface, place the turntable to the right of the amplifier to maximize the distance between the tonearm and the amplifier.



Do not use this amplifier in a confined space or an enclosed cabinet!

Avoid placing the amplifier in front of loudspeakers to avoid vibrations from the speaker drive units causing microphonics in the amplifier and degrading the sound.

If this is your first valve amplifier: please familiarise yourself with some important issues surrounding the safe use of your amplifier.

Valves Get Hot

Valve power amplifiers generate a lot of heat even with no input so it is vital to ensure adequate ventilation for your amplifier.

Although the protective cages over the valves get hot they are very unlikely to cause a burn. For absolute safety the units should be placed out of the reach of children and pets and away from heat-sensitive objects.

Valve Amplifiers Work at High Voltages

Valves require a high voltage to function. Do not open the case. Also ensure that nothing is poked, dropped or poured into the amplifier's case.

The environment should be dry and free from litter. Do not place magnetically or thermally sensitive objects (i.e. credit cards or optical disc) close to the unit.

Valves are Microphonic

Because valves are constructed from fine wires and tiny metal parts they can pick up external vibrations. If you place the power amplifier too close to speakers, direct sound at high volumes may vibrate the valves. 1 meter (3ft) to the side of each speaker should be considered a sensible minimum.

Interconnects and Cables

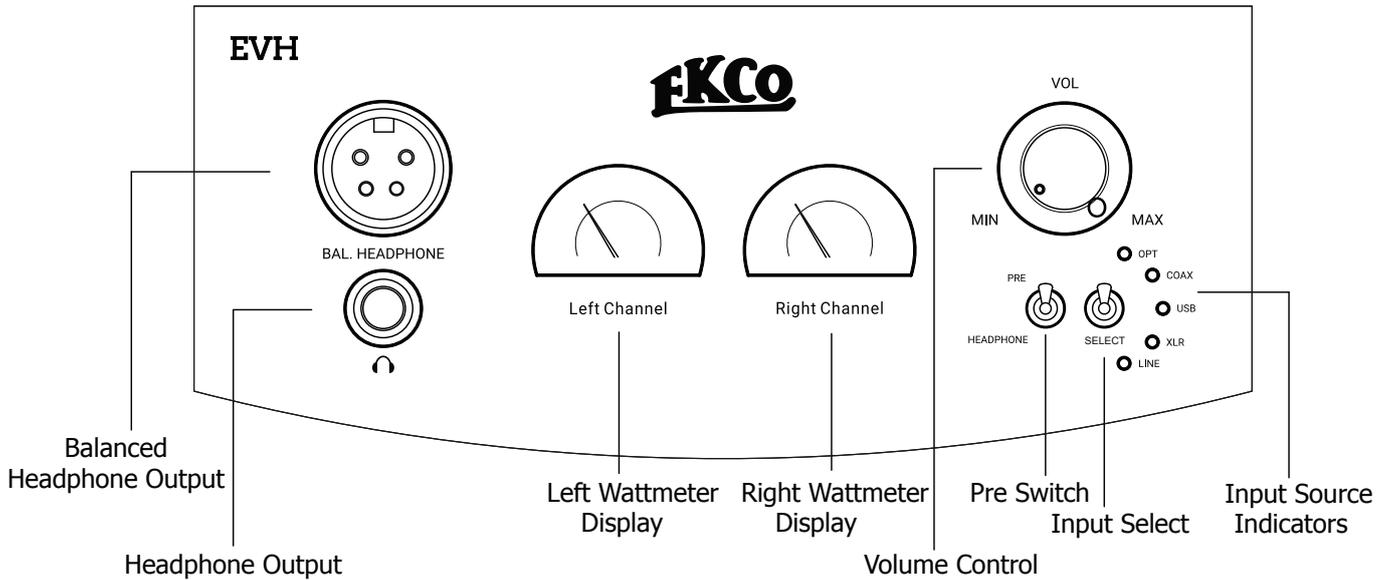
The signal inputs to the amplifier are via RCA phono connectors. As valve equipment works at high impedances, the phono interconnects from source unit should be well screened and of low-noise, low-capacitance construction. To minimize capacitance and other effects, signal interconnectors should be kept as short as possible.

Mains Earthing (Grounding)

This amplifier requires connection to an earthed (grounded) mains supply. In your sound system, the amplifier should be the only device connected to mains ground to negate hum induced by ground loops. For this reason we suggest that you avoid using interconnectors with separate ground wires. If any of your other equipment is grounded a 'hum loop' may arise. If this happens please consult your dealer for advice.

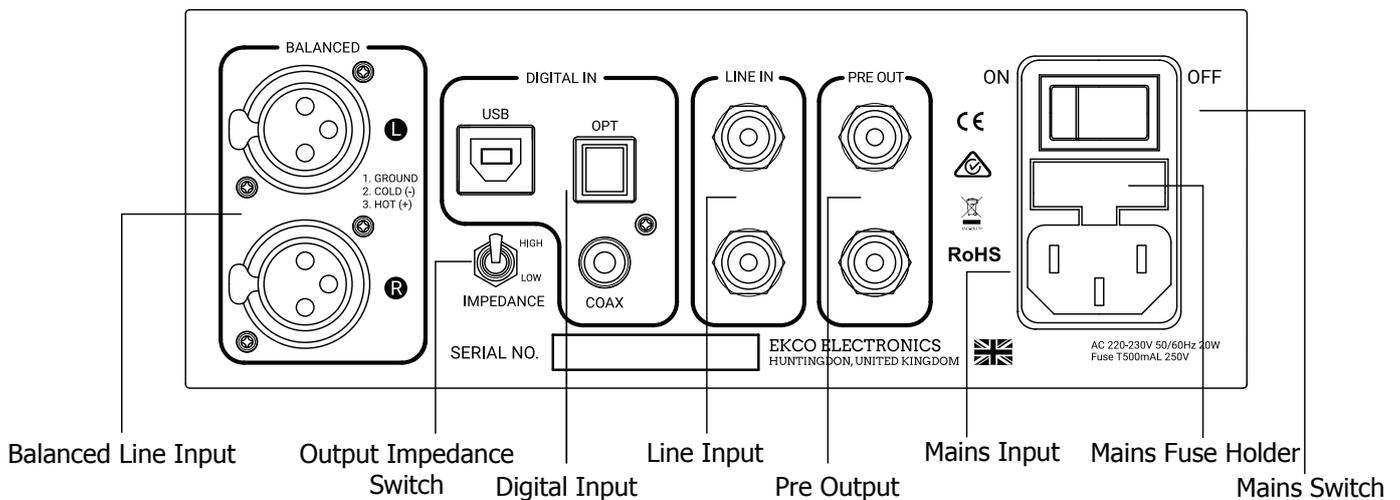
OPERATION

Front Panel



CONNECTIONS

Rear Panel



Switching On

- Select headphone output or Preamplifier output.
- Select HIGH or LOW impedance to match your headphones.
- Turn the volume control fully anticlockwise to its minimum setting (0).
- Switch the ON/OFF switch to '1' to the switch the amplifier ON.

Selecting an Input

Press the input selector. The input indicator indicates the selected input. Remember to turn the main system volume control to minimum when changing inputs or when changing discs, and especially when cleaning your stylus.

FURTHER INFORMATION

Burn In New Equipment

Burn in is very important. Valve components work at high voltage and temperature and when new they should spend an extended period at those temperatures to bed in. We recommend you burn in the amplifier for at least four or preferably twelve hours before first using it. If you run in your equipment for this extended period, make doubly sure that all the safety conditions covered in this manual are fully met. Supervise the equipment for the first hour or so and if you have to leave the unit unattended thereafter, look in occasionally to make sure all is well.

Warming Up Before Use

Allow at least fifteen minutes for the amplifier to 'warm up' before use. If you play loud music while the system is cold, the output valves will not be fully operated and the amplifier will be starved of voltage and current. The resulting distortion is unpleasant and may cause potential damage to the amplifier's valves and your headphones. Intensive use of the equipment before it has warmed up will shorten valve's life.

Valve Lifetimes

Valves contain a heating element. This heats up the valve's cathode which is coated to give off a steady stream of electrons. After a few years this coating will begin to wear out and performance will gradually deteriorate. The EL84 output valves are likely to deteriorate first but the driver valves will also eventually wear out.

As the valves start to wear out the sound will become less well defined and a lack of dynamics and power will become evident. Replacing the valves with a new set will fully restore the audio performance of the amplifier. When replacing valves it is essential to use the highest quality available. Poor quality valves will adversely affect the sound quality and may in extreme cases damage the amplifier. When replacing the output valves, use matched sets for best results.

Do not leave the amplifier permanently switched on or you will seriously shorten the lifespan of your valves!

Output Transformer

After installing or changing the wiring to your headphones, keep the volume control at zero, let the amplifier warm up and turn up the main volume gradually. If you don't hear sound, switched off immediately and investigate.

The output transformer is designed to match the high voltage, low current conditions in which the output valves operate to the low voltage high current requirements of headphones. Although robust, an output transformer can be damaged and in extreme cases wrecked, by careless use. If you play a valve amplifier into a short circuit, the output transformer will soak up a lot of energy before failing, but if the short persists the transformer could be damaged. Operating a valve amplifier at high output level without headphones connected can also damage an output transformer.

This amplifier must be used with a load connected, otherwise it may cause damage to the output transformer.

USING THE USB SOURCE

With the increased popularity of computers as source, this EVH USB D/A converter allows consumers to enjoy listening to digital music sources from a computer (Windows or Mac) via USB connection. This product is USB 1.1 and 2.0 compliant. This device supports sampling frequencies ranging from 35kHz to 384kHz (supports DSD64, DSD128, DSD256) and incorporates a high quality digital-to-analogue converter (DAC). The factory default is 48kHz input sampling frequency. With the computer in operation the EVH USB DAC will detect input data.

Note: Windows does not support 192kHz sampling frequency. Owners of computers (Windows) are required to install corresponding software provided in the accompanying CD-ROM. Simply follow the software installation instructions contained.

SPECIFICATIONS

Model :	EVH
Output Power :	500mW(75 Ω)
Output Impedance :	32 Ω ~ 300 Ω
Frequency Response :	20Hz - 20kHz (+/-0.5dB)
Input Sensitivity :	600mV (500mW 75 Ω)
S/N Ratio :	>90dB
Input Impedance :	50K Ohms
Channel Separation :	65dB (1kHz)
THD :	<0.1% (1kHz)
Vacuum Tubes :	V1, V32×6SL7 V2, V4..... 2×6SN7
Inputs :	1 Balanced input, 1 RCA line input 1 Coaxial input, 1 Optical input, 1 USB input
Digital Input Sampling Frequencies :	44.1kHz 48kHz 88.2kHz 96kHz 176.4kHz 192kHz USB(DSD256 PCM384kHz)
Dimension (H x W x D) :	170 X 220 X 300 (mm)
Net Weight :	5.5kg

International Service Centre

IAG House, 13/14 Glebe Road, Huntingdon, Cambridgeshire, PE29 7DL, UK.
Tel: +44 (0) 1480 452561 Eml: service@ekcoaudio.com

*IAG reserves the right to adjust the specifications and performance without notice.



IAG-EKCO

Correct disposal of this product. This marking indicates that this product should not be disposed of other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of a material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environment safe recycling.



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