# 8000P

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8000Q

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# **User Instructions**

# audiolab

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# 8: Warranty

### Audiolab limited warranty

Audiolab Ltd. warrants this product, subject to the terms and conditions below, to be free from defects in materials and workmanship. During the warranty period Audiolab will repair or replace (at Audiolab's option) this product, or any defective part in this product, if it is found to be defective due to faulty materials, workmanship or function. The warranty period may vary from country to country.

#### Terms and conditions:

The warranty starts on the date of purchase (or the date of delivery if this is later).

You must provide proof of purchase / delivery before work can be carried out. Without this proof, any work carried out will be chargeable to you. Audiolab or its authorised agents or distributors.

- Products not purchased from an Audiolab authorised dealer.
- Products that were not new at the time of original purchase.
- Products sold 'as is', 'as seen' or 'with all faults'.

Repairs or replacements as provided under this warranty are the exclusive remedy of the consumer. Audiolab shall not be liable for any incidental or consequential damages for breach of any express or implied warranty in this product. Except to the extent prohibited by law, this warranty is exclusive and in lieu of all other warranties whatsoever, both express and implied, including, but not limited to, the warranty of merchantability and fitness for a practical purpose.

This warranty provides benefits that are additional to and do not affect your statutory rights as a consumer.

All work will be carried out by Audiolab or its authorised agents or distributors. Any unauthorised repair or modification will void this warranty.

If any part is no longer available it will replaced with a functional replacement part.

Any parts that are replaced will become the property of Audiolab. Any repair or replacement under this warranty will not extend the period of warranty.

This warranty is valid only in the country of purchase, applies only to the first purchaser and is not transferable.

### The following are not covered:

- Products on which the serial number has been removed, altered or otherwise made illegible.
- Normal wear and tear and cosmetic damage.
- Transportation or installation of the product.
- Accidental damage, faults caused by commercial use, acts of God, incorrect installation, connection or packaging, misuse, neglect or careless operation or handling of the product which is not in accordance with Audiolab's user instructions.
- Equipment that has been operated in conjunction with unsuitable, inappropriate or faulty apparatus.
- Repairs or alterations carried out by parties other than

Some countries and US states do not allow the exclusion or limitation of incidental or consequential damages or implied warranties so the exclusions in the paragraph above may not apply to you. This warranty gives you specific legal rights, and you may have other statutory rights, which vary from state to state or country to country.

#### How to claim:

To obtain warranty service contact the Audiolab authorised dealer from which you purchased this product. Do not despatch goods without the prior agreement of the dealer, Audiolab or their authorised distributors.

If asked to return products for inspection and/or repair, pack carefully, preferably in the original cartons or packaging affording an equal degree of protection, and return prepaid. If unsuitable packaging is used, Audiolab may make a charge for the supply of new packaging.

Insurance is recommended as goods are returned at owner's risk. Audiolab or their authorised distributors cannot be held liable for loss or damage in transit.

Packing, insurance and freight on the return journey will be paid by Audiolab or their authorised agents or distributor if corrective work proves to be necessary.

# 1: Statutory & Safety Information



TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER NO USER-REMOVEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL

> ADVERTISSEMENT: RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR



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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. In the event that you pass the product to a third party this instruction manual should be provided along with the product. Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

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 powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus 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.

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

**8000Q:** 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.

**Important Note:** The batteries supplied with the 8000Q handset should be treated with care and not punctured or damaged. Used batteries should be disposed of in full conformity with recycling regulations in your area. NEVER dispose of batteries in a fire or in the general rubbish.

#### Mains supply and safety

Mains Supply: The mains voltage of Audiolab units is shown on the rear panel. If this does not match the voltage in your area, consult your dealer. The mains supply fuse is on the rear panel. If it has broken, check for any obvious cause before replacing the fuse with one of the correct rating and type. The fuses for all areas are type T (time lag ) AL 20mm. The fuse values are:

 8000Q:
 220-240V:
 1.0A
 100-120V:
 1.6A

 8000M:
 220-240V:
 3.15A
 100-120V:
 5.0A

 8000P:
 220-240V:
 4.0A
 100-120V:
 5.0A

Fuse Carrier



The fuse is located in a slide-in carrier which also contains a spare fuse. The carrier can only be pulled out after the IEC power cord is unplugged. When the carrier is opened the first fuse is the spare. Remove and safely dispose of the blown fuse before replacing it.

Class II construction double insulated. These products must not be connected to earth.

**Power Cord:** An AC power cord is normally supplied with a mains plug suitable for your area. If you have any doubts, consult your dealer about obtaining a suitable power cord.

#### 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:

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 the letter L or coloured BROWN or RED.



# 7: Specifications

### **8000Q** Pre-amplifier

Inputs: Gain and Sensitivity

CD, TUNER, AUX, VIDEO, TAPE 1, TAPE 2: IMPEDANCE:  $20k\Omega$ GAIN: Adjustable by 3dB steps 0 -15dB., corresponding to SENSITIVITY(nom.): 100, 140mV, 200mV, 283mV, 400mV, 562mV HEADPHONES: Gain adjustable 18dB - 33dB in 3dB steps

Signal To Noise Ratio (IHF, rel. 0.5V output) Any input, any gain setting: 97dB Headphones: 80dB Frequency Response 10 Hz-20 kHz ± 0.2 dB: 1 Hz-75 kHz -3 dB.

Total Harmonic Distortion & Noise Less than 0.007 % ref 7.7V rms, 20Hz - 20kHz

### 8000P Power Amplifier

**Rated Output Power** 100W (20dBW) /Channel into  $8\Omega$  both channels driven Input 1V rms for 100W into  $8\Omega$ Input Impedance:  $50k\Omega$ Load Connected in parallel with INPUT Gain 29.0 dB at1kHz Signal To Noise Ratio (IHF, rel. 0.dBW) Better than 95 dB **Frequency Response**  $20\,\text{Hz}$ - $20\,\text{kHz}\pm0.3\,\text{dB}$ 0.1 Hz-75 kHz -3 dB **Total Harmonic Distortion & Noise** Less than 0.05 % **Channel Balance** Within 1 dB Polarity (Phase) Non-Inverting Muting Muting controlled automatically **Operating Temperature Range** 10-35°C Power Requirements (Depending on Region) 50-60 Hz 100V, 110-120V, and 220-240V models available Maximum Power Consumption: 500 VA

# 8000M Power Amplifier

**Rated Output Power** 125W (21dBW) /Channel into 8Ω, 20Hz - 20kHz Input Sensitivity  $1.12V \, \text{rms}$  for  $120W \, \text{into} \, 8\Omega$ Input Impedance:  $50k\Omega$ Load Connected in parallel with INPUT Gain 29.0 dB at1kHz Signal To Noise Ratio (IHF, rel. 0.dBW) Better than 96 dB **Frequency Response**  $20 \, \text{Hz}$ - $20 \, \text{kHz} \pm 0.3 \, \text{dB}$ 0.1 Hz-75 kHz -3 dB. **Total Harmonic Distortion & Noise** Less than 0.05 % Polarity (Phase) Non-Inverting Muting Muting controlled automatically **Operating Temperature Range** 10-35°C Power Requirements (Depending on Region) 50-60Hz 100V, 110-120V, and 220-240V models available Maximum Power Consumption: 300 VA **Dimensions** (WXHXD) 445x74x337 mm - including feet, terminals and controls 445 x 64 x 302 mm- excluding feet, terminals and controls Weight Net: 8.2 kg Shipping: 9.6 kg

Channel Balance Within 1 dB Channel Separation Better than 100 dB @ 1 kHz any input, any setting Pre-amp Output Max. Output > 7.7 V RMS (20dBm); Output impedance 75  $\Omega$ Headphone Output > 7.7 Vrms; 100 $\Omega$ : (for headphones 8 $\Omega$ -2 k $\Omega$  impedance) Record Output VIDEO OUT, TAPE 1 OUT, TAPE 2 OUT: Gain 0 dB (x1); 100 $\Omega$ Muting Attenuation > 63 dB, controlled automatically Operating Temperature Range 10-35 °C Power Requirements (Depending on Region)

50-60Hz 100V, 110-120V, and 220-240V models available Maximum Power Consumption: 15 VA

Dimensions (WXHXD) 445x74x335 mm - including feet, terminals and controls 445 x 64 x 302 mm- excluding feet, terminals and controls Weight Net: 6 kg Shipping:7.3 kg Dimensions (WXHXD) 445x74x337 mm - including feet, terminals and controls 445 x 64 x 302 mm- excluding feet, terminals and controls Weight Net: 8.7 kg Shipping: 10 kg

Audiolab reserves the right to alter design and specification without notice. Specification may vary for different countries.

Audiolab is a member of the International Audio Group.

# 5: Operation

#### Switching On

Make sure all the signal and loudspeaker connections to and from the amp are secure and correctly made.

Plug the power cords into the pre-amplifier and the power amplifier/s and then into the wall socket.

Switch on at the mains and then switch on the pre-amlifier followed by the power amplifier/s.

The power indicators on all the units will light showing the system is operational.

The 8000Q pre-amplifier may be operated via the front panel or the remote handset.

When you have finished using the equipment switch off all the power amplifiers. Some enthusiasts prefer to leave the preamplifier permanently switched on. If you do this, ensure that the pre-amplifier is set to mute with the volume control at minimum.

#### Phase

It is essential that the loudspeaker connections are secure and with the positive and negative terminals correctly connected.

This becomes especially important in bi-wired and bi-amplified systems where the effects of one or more incorrectly connected (out of phase) loudspeakers may severely impair the sound and yet be difficult to detect.

If the sound appears muddled and lacking clarity this may be because one or more speaker connections are not correctly made. Always check loudspeaker connections carefully when you have made any alteration to your system.

### **Maintaining Connections**

Connections should be checked periodically. If necessary the plugs should cleaned with a proprietary cleaner or, in the case of loudspeaker connections, freshly re-made.

# Bi-Amplified connection- 8000Q with four 8000M power amplifiers



# 6: Service

#### Care & Cleaning

While cleaning is in progress the AC power cord must be unplugged from the AC power supply socket.

Grease or dirt on the equipment may be removed with a soft, lint-free cloth slightly moistened with a mild solution of warm water and detergent or washing-up liquid. Do not use any other solutions or solvents.

If you have any queries regarding the use of Audiolab equipment, consult your dealer.

#### Servicing

Servicing of Audiolab products should only be carried out by authorised service agents. If service is required the equipment should be returned, securely packaged, preferably using original packaging, to your dealer.

In the UK equipment may be returned to the IAG Service Centre. In the USA equipment may be returned to the Service address shown on this page.

Always telephone before returning any equipment.

A note should be enclosed giving your name, address, telephone number, and a brief description of the reason for return.

If you require Service outside the Warranty period, do not hesitate to contact your dealer.

Service Address - UK IAG Service Centre Unit 4 St Margaret's Way **Stukeley Meadows Industrial Estate** Huntingdon Cambs **PE29 6EB** England Tel: +44 (0)1480 452561 Fax: +44 (0)1480 13403 Service Address - USA IAG America, Inc. 15 Walpole Park South Walpole MA 02081 USA Tel: +1 508 850 3950 Fax +1 508 850 3905

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# 2a: Introduction- 8000Q



### Unpacking

Unpack the product fully. The carton should contain

- ⊗ The Audiolab 8000Q
- ⊗ One IEC power cord suitable for your area
- ⊗ One Remote Handset with two AA batteries
- ⊗ This instruction manual

Report any damage or shortage to your dealer as soon as possible. Retain the packing if possible. If you dispose of the packing, do so with regard to any recycling regulations in your area.

Inserting Batteries in the Handset

The battery compartment is on the rear of the handset. Unwrap the batteries, open the compartment cover and insert the batteries. Follow polarity indications in the battery compartment. Replace batteries in pairs. Use new batteries of the same type and rating.

# **Controls and Functions**

**Power Switch** 

When power is switched on the 8000Q is muted for 3 seconds. Input Selector

Turn to select the listening source. The 8000Q mutes briefly when a new input is selected.

#### **Gain Switch**

This enables you to operate the volume control over a wide area while minimising noise. For initial installations, set gain to 9dB. REDUCE Gain: high sensitivity loudspeakers, low level listening. INCREASE Gain: low sensitivity loudspeakers, low output sources. ⊗ When changing gain the 8000Q will briefly mute.

Altering the gain will not affect the Record Outputs.
 Volume Control

Adjusts playing volume. Always turn the volume up gradually. Turn the volume down before changing inputs.

#### Record Selector

Turn to select source to record to Tape 1, Tape 2 or Video. You can record to any CD, tape or other recorder with analogue inputs. Record selector and input selector operate independently. It is possible to record from any source whilst listening to another.

Mute (available on the Remote Handset)

Toggles the pre-amp output On/Off. Recording is unaffected. Headphone Socket

Socket for connection of headphones. Unplug headphones when not in use. Connecting headphones mutes the 8000Q.

### **Remote Handset**

Buttons shown in white control the 8000Q.

Buttons shown in grey operate Audiolab CD players and have no effect on the 8000Q.

As the handset uses RC5 coding it will operate many CD players. Check with your dealer.



Press to select listening source. The INPUT selector on the front panel turns.

If you wish to record, the record input must be selected manually.

#### Volume =

Input



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# 3a: Connections- 8000Q



### 8000Q Connections

#### CD, TUNER, AUX, VIDEO IN, TAPE 1 IN, TAPE 2 IN

The six inputs may be used for connecting any line level source.

# VIDEO OUT, TAPE 1 OUT, TAPE 2 OUT

Three sets of record outputs for connection of up to three stereo audio recorders, e.g. tape recorder, CD recorder, audio recording input of VCR ,DVD, MP3, MiniDisc recorder, etc.

#### PRE-AMP OUT 1 & 2

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Low impedance (100 ohm) pre-amplifier outputs for driving external power amplifiers, sub-woofers or signal processors. Long cables may be used if required. Pre-amp outputs are switched off when integrated mode is selected or whenever amplifier is muted.

## GROUND ,,,,,,,,

Use only if phono pre-amplifier and turntable are used and both are Class II double insulated (no earth connection). In this case the ground terminal can be connected to the metalwork of these units to eliminate residual hum. The ground terminal must not be used as a safety earth. If in doubt consult your dealer.

### Running In the 8000Q

 Before first use, run the 8000Q for a few hours set either to mute or with the volume control turned to minimum. This enables the components to 'burn in'. Connecting the 8000Q to the 8000P - Standard Speaker Connection



#### Connecting the 8000Q to the 8000P - Bi-Wired Speaker Connection



# 3b: Connections- 8000P & 8000M

### Switch power off when making connections



# 8000M



#### Input

For connecting a pre-amplifier or other line level source. Do not connect directly to a CD player or other source unless the source has its own fully adjustable volume control.

#### Load

Connected in parallel with the input. Use to connect a second power amplifier, either to bi-amplify or to run remote loudspeakers. Loudspeaker Terminals - 8000P

Each channel has two sets of loudspeaker terminals connected in parallel. The second pair is to facilitate bi-wiring, etc. Loudspeaker Terminals - 8000M There are two sets of loudspeaker terminals connected in parallel.

#### **Good Practice**

- ⊗ Use good quality screened interconnects for signal connections
- When running long connections between pre-amplifier and power amplifier, ensure the pre-amplifier has a low output impedance (<600Ω) and use low capacitance cables.</li>
- $\,\otimes\,\,$  Never run long signal cables close or parallel to mains cables.
- ⊗ Loudspeaker cables should be low resistance cables designed for audio use - not general purpose 'bell' or 'zip' wire.

#### **Running In**

 Before first use, run power amplifiers for a few hours with the source equipment set to mute or the volume control turned to minimum. This enables the components to 'burn in'. Multiple Combinations of Audiolab Power Amplifiers

Typically, for bi-amplifying, one would use two 8000P or four 8000M amplifiers. However, the 8000M and 8000P can be used together in a bi-amplified stereo configuration where two 8000M amplifiers drive the bass channels and one 8000P drives the treble channels. Each channel should have the same configuration of amplifiers.

Both the 8000M and the 8000P can be used in conjunction with the 8000S integrated amplifier for multi-amping.

Combinations of amplifiers in a multi-channel system should have the same gain and phase characteristics or imbalance will result. We recommend the use of Audiolab amplifiers throughout such a system. Current Audiolab amplifiers are gain and phase compatible with previous models.

When not in use, the power amplifiers should be switched off.

# 4: Connecting Loudspeakers

# 8000M - Standard Loudspeaker Connection

If you are stacking the 8000M, by convention the Left Channel is the upper connection



# 8000M - Bi-Wired Loudspeaker Connection

Bi-wiring offers improved sound quality because high and low frequency signals are carried individually to the loudspeaker drive units.



# 8000P - Bi-Amplified Loudspeaker Connection

The principle of Bi-wiring can be extended by using a dedicated power amplifier for each loudspeaker drive unit



Standard and Bi-Wired loudspeaker connections using the 8000P are shown in Section 3a.

# **Connecting Loudspeakers**

Switch power off when connecting loudspeakers.

Use good quality low resistance loudspeaker cable.

Connect the Positive RED (+) terminal of the amplifier to the Positive (+) RED terminal of the loudspeaker. Connect the Negative (-) BLACK terminals similarly. Tighten the loudspeaker terminals securely by hand. Make there are no loose strands of wire which could cause shorts.

Switch power off when making connections

When bi-wiring loudspeakers, make sure you remove the straps connecting the HF and LF terminal pairs.



# 2b: Introduction- 8000P & 8000M

# 8000P



#### 8000M O

**POWER LED RED**=Power On

### Unpacking

Unpack the product fully. Each carton should contain

- $\otimes \quad \text{The appropriate Audiolab Power Amplifer}$
- $\otimes$  One IEC power cord suitable for your area
- $\otimes \quad \text{This instruction manual} \quad$

Report any damage or shortage to your dealer as soon as possible. Retain the packing if possible. If you dispose of the packing, do so with regard to any recycling regulations in your area.

# **Power Switch**

When any Audiolab power amplifier is switched on, the output remains muted for 8 seconds. After 8 seconds you will hear the safety relay switch on and the system will now be operational. When the amplifier is powered the red power indicator will light.

#### **Power Amplifier Protection Circuits**

**Short Circuit Protection:** If the output terminals are connected together or there is a short caused by a faulty speaker or connecting lead, the amplifier will mute and un-mute until the fault condition is removed.

POWER

audiblab

POWER SWITCH

**DC Offset Protection:** If there is an internal or external fault which may cause DC voltage to be presented to the loudspeaker, the amplifier will mute and stay muted until the fault is removed.

**Thermal Protection:** If the amplifier is driven excessively for long periods, or the output devices are pushed beyond their safe operating area, the amplifier will switch off and then switch back on again when it has cooled down.

In all cases, if the amplifier does not respond to remedial action, consult your dealer.