

MATRIX

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 **•stage** User Guide

HPA-1 (USB) Headphone Amplifier
DAC-1 Digital Audio Processor

Class **A**

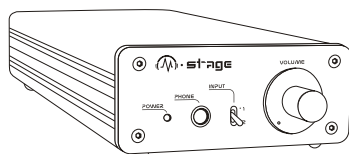
USB

96KHz
24bit

Thank you for becoming a member of **MATRIX** users.
Please take a few minutes to read this manual booklet
carefully before installing and using the product.
And enjoy the infinite auditory pleasure brought to
you by the superb performance of M-stage.

Be sure to keep all user
documentation handy for
future reference, including
the Model No. & Serial No.

CAUTION:
For the prevention of fire and
electric shock, do not let the
appliance deteriorate in damp
conditions!



HPA-1 (USB) Headphone Amplifier

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● FEATURES

MATRIX M-stage is a professionally designed driver and amplifier for high-impedance headphones, which can easily drive all kinds of moving-coil headphones. Sophisticated designs equip M-Stage with the following features to explore every small detail in the music for you, and provide you a tactile sensation of its sound performance to fully meet your demands for a high-quality Hi-Fi:

- Class A mode ensures its high drive capability and high fidelity.
- Professional PCB analog audio signal routing.
- Can easily drive all kinds of moving-coil headphones of up to 600 Ohms.
- With its output line, it can be used as a preamplifier.
- Two sets of RCA analog input (or a set of analog RCA inputs, a set of USB inputs, models with USB interface only) on the back panel to choose from.
- USB interface supports up to 24Bit/96kHz digital audio signal playback. (models with USB interface only)
- USB interface supports Microsoft Windows7, Vista, XP, 2000, Mac OS X system. (models with USB interface only)
- The gain settings can be easily graded.
- Using an ultra-low distortion audio op-amp to get the best signal playback for you.
- High-quality professional audio power transformer.
- Its internal circuit units equipped with multi-stage stabilized voltage supply independently.
- High quality ALPS volume Potentiometer.
- High quality gold-plated connectors.

Sound performance with a natural texture, a strong driving force to drive a variety of specifications of the headphones. Fully meet your to a high-quality Hi-Fi headphone amplifier's needs.

● INTRODUCTION

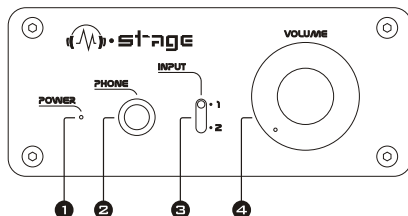
Please put M-Stage in a well-ventilated place away from heat

Source, and avoid dust accumulation and excessive vibration.
For the prevention from fire, please reserve some secure space around M-Stage according to the following requirements:

- At least 5cm on both sides and its back,
- At least 10cm from its top.

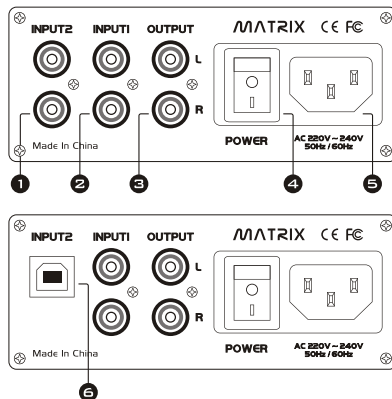
Do not stack M-Stage with other equipments which generate lots of heat, otherwise it may lead to the decline of M-Stage's working stability. It may even damage M-Stage, or cause other serious accidents.

● FRONT PANEL



- | | |
|------------------------|------------------|
| 1 Power LED | 2 Headphone jack |
| 3 Input channel switch | 4 Volume knob |

● BACK PANEL



- ❶ Analog input 2
- ❸ Analog output
- ❺ Power in

- ❷ Analog input 1
- ❹ Power switch
- ❻ USB input
(models with USB interface only)

● AC POWER

M-Stage has a power adapter of two specifications: AC 110/120V and AC 220/240V. Please choose according to your power supply specifications before purchasing, for connecting to the wrong power supply can result in equipment damage.

Make sure the input power is within the appropriate voltage range, low supply voltage will cause noises which affect your use.

To reduce noises and get the best playback effect, please use a three-wire power cable with the ground terminal, and ensure a reliable ground connection.

● SETTINGS & USAGE

POWER ON

Connect M-Stage to an AC power by plugging the cable into the power port on the back panel. Turn on the power, the blue LED will show that M-Stage is into working state.

If you don't use M-Stage for a long time, please turn it off and unplug the power cable to reduce electricity consumption.

INPUT CHANNELS

In working state, flicking the input channel switch on the front panel can switch M-Stage between the input1 and input2. (USB,models with USB interface only) .

VOLUME CONTROL

By turning the volume knob on the front panel, you can adjust the volume in real time.

Before you turn the power on, please check the volume knob to

Avoid excessive volume. High volume for a long time can cause hearing impairment.

HEADPHONE OUTPUT

M-Stage has a standard 1 / 4 "headphone output interface on the front panel for 6.35mm stereo headphone plugs.

If you use a 3.5mm headphone plug, please connect to a 6.35/3.5mm conversion connector first.

Do not insert mono audio track headphone plugs, for it might make damages to the equipment.

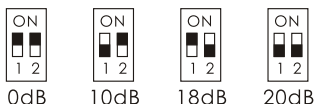
When the headphones plug into the front panel headphone jack, then the rear of the analog output will automatically turn off.

GAIN SETTINGS

There are two DIP switches at the bottom of M-Stage which can easily set the headphone amplifier to apply to a variety of headphones of different impedances among 0dB, 10dB, 18dB, 20dB respectively.

To set the amplifier, toggle the DIP switches of both channels to proper position accordingly, while the headphone amplifier power is turned off.

Four positions of the DIP switches are shown as below Correspondingly:



● TROUBLE SHOOTING

Check the following before calling for repair:

- Whether all the connections have been done correctly.
- Whether you operate M-Stage properly.

PROBLEMS	CAUSES	SOLUTIONS
OFF Power	<ul style="list-style-type: none"> ● It might be not plugged into a proper AC or turned off 	<ul style="list-style-type: none"> ● Make sure the power cable is connected to a proper AC and turn on
No sound output in headphones	<ul style="list-style-type: none"> ● Digital input cable disconnected or no input signal ● Volume has been turned to minimum ● Headphone plug is not properly inserted 	<ul style="list-style-type: none"> ● Make sure the digital input cable is linked up correctly ● Adjust the volume ● Insert the Headphone plug properly
Noises in headphones	<ul style="list-style-type: none"> ● Input power voltage is too low ● The ground terminal of the power cable is not properly connected ● Input cable is not properly connected 	<ul style="list-style-type: none"> ● Plug in an appropriate AC power ● Improve the ground connection ● Use of high-quality signal cable
USB input no sound (models with USB interface only)	<ul style="list-style-type: none"> ● Does the USB cable connect to the computer ● Does the computer audio playback device is set correctly 	<ul style="list-style-type: none"> ● Reliably connect the USB cable to your computer ● The computer audio playback device is set to MATRIX AUDIO device

If your problems cannot be solved by the remedies listed in the table above, please immediately unplug the power cable and contact **MATRIX** Customer Service.

● TECHNICAL SPECIFICATIONS

PERFORMANCE SPECIFICATIONS

RCA Input Impedance : 47 k Ω

Frequency response: 10Hz (-0.3dB) to 35 kHz (-1dB)

SNR: 95dB A-weighting

Distortion: <0.001% at 6mW/300 Ω

Output Power: 200mW/300 Ω , 400mW/60 Ω

Output Impedance : line out 60 Ω , phone out 5 Ω

USB interface: (models with USB interface only)

Sampling rate: 16~24Bit 44.1kHz~96kHz (Windows7、Vista、XP、2000、Mac OS X)

POWER SPECIFICATIONS:

Power-line voltage: AC 220V~240V(AC 110V~120V) 50/60Hz

Power consumption: <15W

Fuse specification: AC250V/1A

OTHER SPECIFICATIONS:

Weight: 1.2kg

Dimension: 260 x 105 x 48mm(L×W×H)

NOTE: Specifications subject to changes without prior notice.

● CUSTOMER SERVICE

From the date of purchase, **MATRIX** provides you with a one-year-limited warranty.

This warranty is confined to the malfunction of our products which is due to the quality problems of the original components or manufacturing issues.

Any failure and losses result from ignoring the cautions mentioned in this instruction or misusing as follows are not covered by the warranty:

- Inappropriate connection to the power.
- Attempts to disassemble the product.
- Circuit modification done by customer.
- Unauthorized replacement of the original components.
- Other unauthorized changes done by customer.

● ACCESSORIES



User guide



Power cable

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