

# MATRIX

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 **stage** User Guide

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

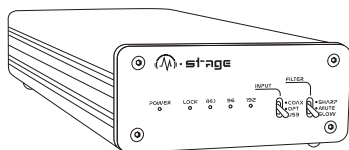
**Class A**

**USB**  $\frac{96\text{kHz}}{24\text{bit}}$

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!



## DAC-1 Digital Audio Processor

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## ● FEATURES

**MATRIX** M-stage DAC is designed for M-stage AMP headphone amplifier. Top PCM1792 D / A conversion unit can support the highest 24Bit/192kHz digital audio signal playback, the sophisticated design of the **MATRIX** M-stage DAC has the following features:

- A professional digital receiver chip of ultra-low jitter and an independent system clock.
- USB, Optical, and Coaxial digital signal input modes.
- Optical, coaxial interface supports up to 24Bit/192kHz digital audio signal playback.
- USB interface supports up to 24Bit/96kHz digital audio signal playback.
- A professional audio OP-Amp OPA2134 to provide you with the best signal playback effect.
- While starting up or switching channels, the sound will fade in, so as to prevent shock and hearing damage caused by excessive volume.
- High quality sealed audio power transformer, circuit unit with independent multi-stage regulated power supply.
- High-quality gold-plated connection terminals.

## ● INTRODUCTION

Please put M-Stage DAC 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 DAC according to the following requirements:

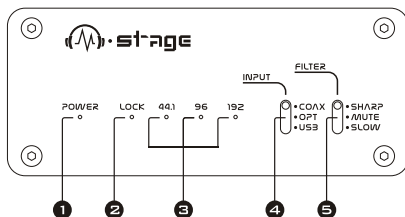
- At least 5cm on both sides and its back,
- At least 10cm from its top.

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

us accidents.

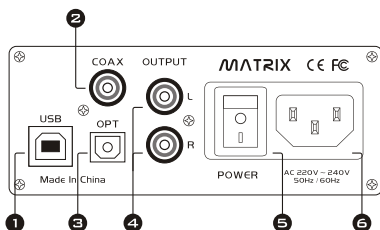
M-Stage DAC cannot stand fierce collisions. Please handle it gently while carrying, so as not to cause unnecessary damage.

## ● FRONT PANEL



- 1 Power LED
- 2 Signal lock LED
- 3 Sampling rate LED
- 4 Channel switch
- 5 Digital filter rolloff mode switch (Sharp or Slow)

## ● BACK PANEL



- 1 USB input
- 2 Digital coaxial input
- 3 Optical input
- 4 Analog output
- 5 Power switch
- 6 Power in

## ● AC POWER

M-Stage DAC 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

The M-stage DAC, power is turned on, the blue power indicator light on the front panel to enter the work state, if not using, turn off the power switch to reduce power consumption.

### INPUT CHANNELS

In the work state, toggle the M-stage DAC front panel input switch, input channel will convert between optical, coaxial, USB. if the currently selected input channel signal is locked ,the LOCK indicator will light up, otherwise it will flicker.

### DIGITAL FILTER ROLLOFF MODE AND MUTE SETTINGS

In the work state, toggle the M-stage DAC front panel Digital Filter Rolloff mode switch, the internal digital filter roll-off can be set for the sharp roll-off or slow roll-off, in order to get the different playback sound effects; When the switch is in the middle position, it will enter the mute state, and the sampling rate light flashes.

### SAMPLE RATE DISPLAY

M-stage DAC can automatically detect the input signal sampling rate, three LED display different sampling rates.

The input signal is 44.1k or 48k, 44.1k LED will light up.

The input signal is 88.2k or 96k, 96k LED will light up.

The input signal is 176.4k or 192k, 192k LED will light up.

## ● 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	● It might be not plugged into a proper AC or turned off	● Make sure the power cable is connected to a proper AC and turn on
The input signal can not be locked	● Digital input cable disconnected or no input signal	● High-quality signal cable is properly connected, and make sure that the front-end devices signal output
No sound output	● Digital input cable disconnected or in mute mode	● High-quality signal cable is properly connected, and Cancel the mute mode

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

### DIGITAL INTERFACE:

OPTICAL:	Sampling Rate : 16~24Bit/44.1kHz~192kHz
COAXIAL:	Sampling Rate : 16~24Bit/44.1kHz~192kHz
USB:	Sampling Rate : 16~24Bit/44.1kHz~96kHz (Windows7、Vista、XP、2000、Mac OS X)

### ANALOG INTERFACE:

RCA Output Level:	2.0VRMS
Frequency response:	20Hz~20KHz
SNR:	120 dBA-weighting
Dynamic Range:	119 dB
Distortion:	<0.0008% (1KHz)

### POWER REQUIREMENTS:

Power :	AC 220V 50/60Hz (AC 110V 50/60Hz)
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Power consumption: < 15W

Fuse specification: AC 250V/1A

**OTHER SPECIFICATIONS:**

Weight: 1.2kg

Dimensions: 260×105×48mm (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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