

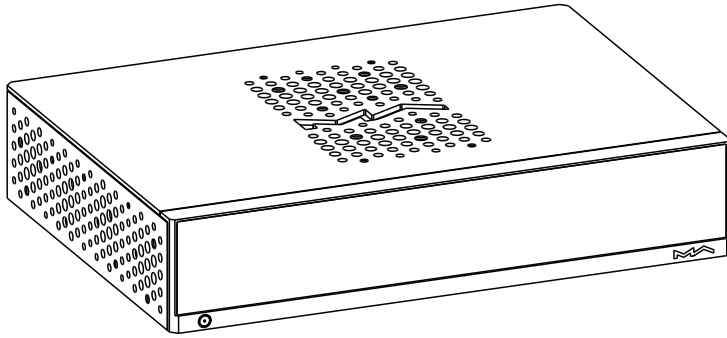


MS-1c

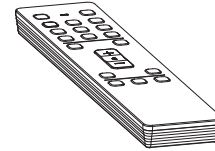
Music Streamer

USER MANUAL

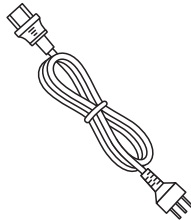
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Product



Remote control (RM4B)

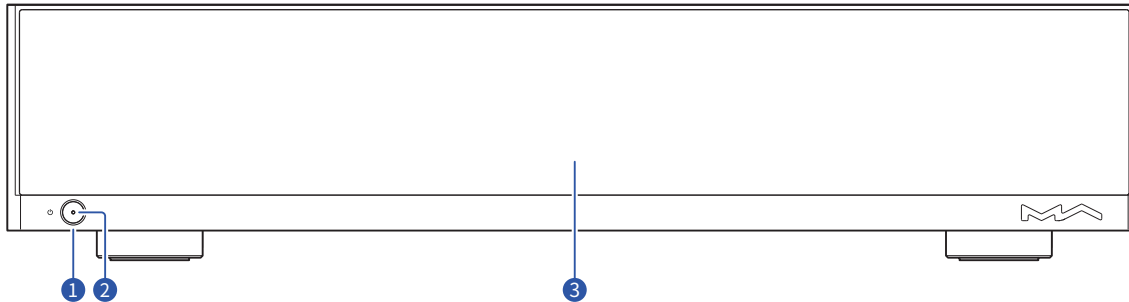


Power cable



Printed materials

Front



1 Power on/Standby

After connecting to power supply, press this button to power the device on, press it again to let the device standby. It will take about 30 seconds for the first start up after connecting to the power supply every time.

2 Status LED

The LED indicator will go off when the device is standby. It flashes when the device is delayed starting, and will keep lit up after the device is started.

3 LCD screen



A Status info

Status including time, network connection, storage device, NAS and hardware functions.

B Settings button

Tap on this button to enter the "Settings" menu and change the options of the device.

C Information of audio

Including album art, track title, artist, duration, audio format, sampling rate and sound color being used.

D Playback control buttons

With these buttons, you can control the playback, enable and disable loop and shuffle, check the playlists.

E My favorites button

Add tracks to My favorites or remove tracks from My favorites by tapping on this button.

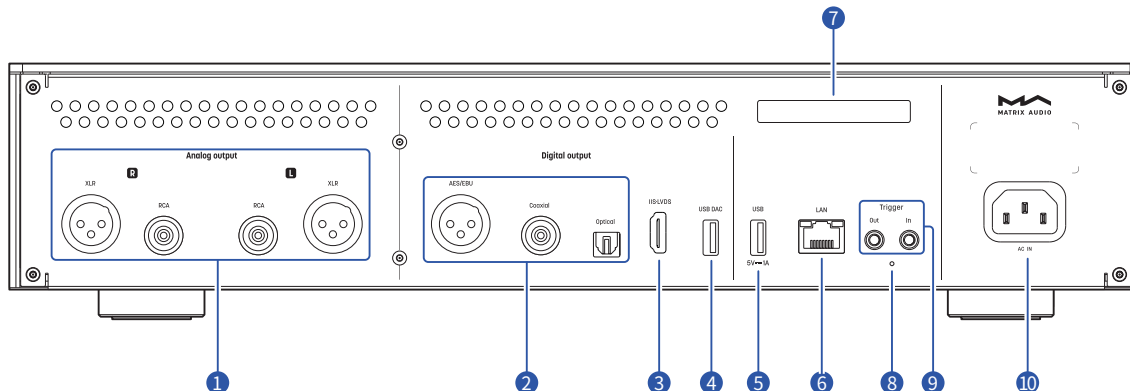
F Control bar

Streaming input : Playback music from the internet, local network, internal storage or USB storage.

Sound color : Adjust the sound color when playing PCM audio. This setting does not apply to DSD playback.

Volume and mute : Change output volume, mute and unmute.

Rear



1 Analog output

The XLR and RCA ports output analog signals at a fixed maximum volume by default. They can be set to variable output for connection to active speakers or amplifiers.

2 Optical, coaxial and AES/EBU outputs

The optical, coaxial and AES/EBU ports output up to 24bit/192kHz PCM signals in S/PDIF standard and 1bit/DSD64 signals via DoP.
 Note: When the sampling rate of the played audio file exceeds the maximum capability of the output port, the output will be turned off.

3 IIS-LVDS Output

The IIS-LVDS port outputs maximum 32bit/768kHz sampling rate PCM signals, DSD64/128/256/512 signal in Native DSD standard, and DSD64/128/256 signal via DoP. Connect to DACs with IIS-LVDS input port from Matrix Audio or other compatible devices through HDMI cables. The device features 4 kinds of IIS-LVDS pin definitions, which can be viewed and configured from the MA Remote App.

4 USB DAC output

An external USB DAC can be connected to the product via this port. The audio specs depend on the external DAC.
 This port provides up to 5V/1A low noise power to the external USB DACs.

5 USB

Connect to USB storage devices or CD drives. USB port provides a maximum 5V/1A power.

6 LAN

Connect to LAN port of the network router, the connection supports Gigabit transmission.

7 Wi-Fi antenna

8 Reset button

Only use this button when the unit works incorrectly, the unit can be reset to factory state. Please operate under the instructions by service team from Matrix Audio.

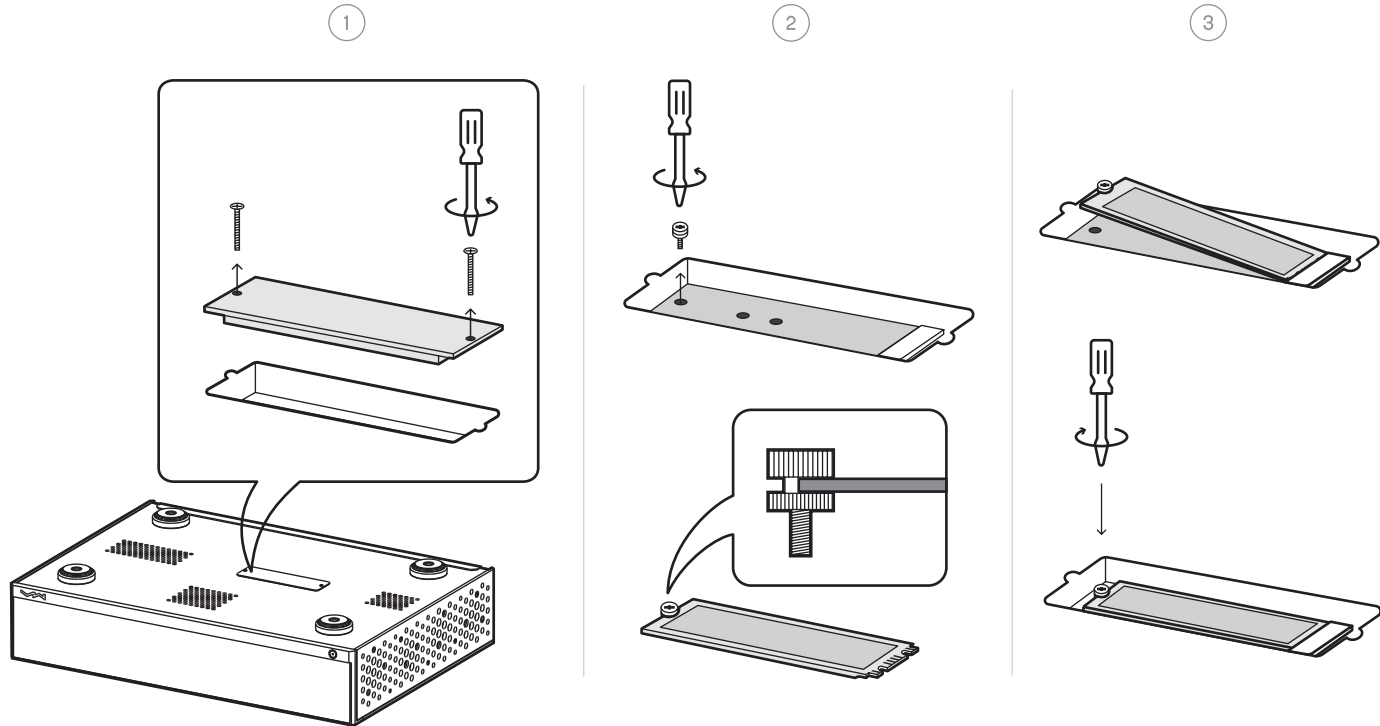
9 Trigger input/output

Connect to audio devices with trigger ports through $\phi 3.5\text{mm}$ mono plug cable, to achieve linkage control between the MS-1c and other devices. The trigger output provides a 12V DC signal. When connecting the MS-1c to the MP-1 using a $\phi 3.5\text{mm}$ stereo plug cable, and enabling "Advanced Control" in the MS-1c settings menu, you will be able to control the volume, input, and output channels of the MP-1 via the MA Remote App.

10 AC input

Please use a power cable which includes an earth wire and ensure you have a reliable earth wire connection. Otherwise, the casing of the device may have a slightly charged touch. If you need the device to be turned off completely, please turn off this switch. Otherwise, the device still consumes power in standby mode.

Bottom

**SSD slot**

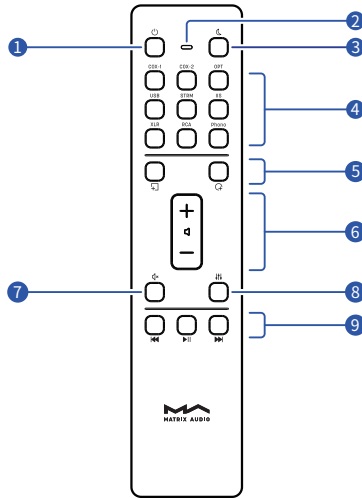
You can install an NVMe protocol high-speed SSD as internal storage. The slot supports 2280, 2242, and 2230 SSDs.

Please turn off and unplug the power cord of the device before installing the SSD. This expansion slot does not support hot swapping. Operating while powered on may risk damaging the SSD and the device.

After installing SSD and turning on the device, the device will notify you to format the SSD. It is recommended to format it on device to avoid compatibility issues. If the SSD has already been formatted before installation, the system will not prompt you to format. You can check and format the drive through the "Internal Storage" option in the device setting menu.

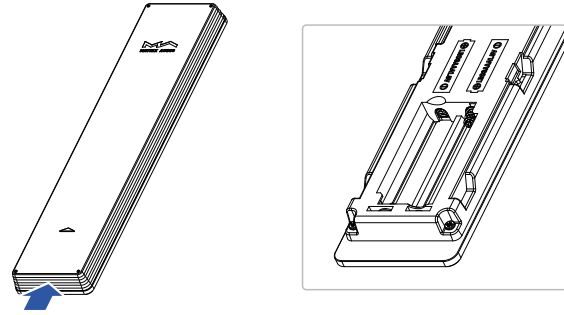
Note: The device supports a maximum power specification of 3.3V 3A for the SSD. Using an SSD with a working current exceeding 3A may cause instability. Please verify and confirm this information on the label of your SSD.

Remote Control



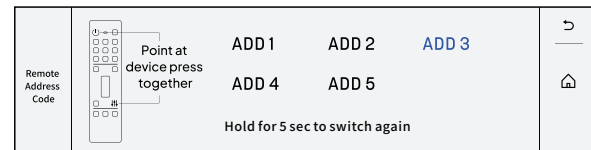
- 1 **Power on/Standby**
- 2 **Working/Battery status**
- 3 **Dimmer**
- 4 **Input channels** The MS-1c model has no input channels; therefore, the buttons in this area are inactive.
- 5 **Programmable buttons**
Define the functionalities of these buttons through MA Remote App, they are not defined by default.
- 6 **Volume**
Only available when the "Volume control" function is enabled.
- 7 **Mute/Unmute**
Press to mute, again to unmute. You also can unmute by pressing the +/- buttons in mute state.
- 8 **Sound color**
Press this button to select and switch between preset Sound colors.
- 9 **Playback control area**
When the input channel supports, the playback can be controlled by these buttons.

Slide in the direction of the arrow to open the battery holder. Please pay attention to the polarity when installing the batteries.




Point the remote control to the device when using it, the operating distance is about 8 meters. When the battery is low, the LED indicator on the remote control flashes red, there will also be a notification showing on the device screen.

If there are more than one Matrix Audio device in a single environment, in order to prevent 1 remote control from controlling multiple devices at the same time, we preset 5 address codes in the remote control, these address codes can be configured in the Settings menu showing below, and follow the instructions on the screen.



Connect to Network

LAN

Connect the product to the LAN port of the network router through an Ethernet cable. It is recommended to set up the router as a DHCP server, the device will be assigned an IP address automatically. Select "LAN" in option Network in Settings menu, you can configure the network specs manually, after joining the network, there will be an  icon shown in the status bar.

Wi-Fi

Enter Settings menu - Network - Wi-Fi, after the network scanning complete, choose the SSID of your network and enter the passwords, there will be a wireless connection icon shown in the status bar after connected. The devices support 2.4GHz/5GHz wireless network.

When the connection has no Internet access, there will be a  icon in the status bar.

MA Remote App

Install the MA Remote App for your iPad, iPhone or Android phone.



Let the device on the same network as your phone or tablet, the MA Remote App will automatically discover and connect to the device. If you need to add the device manually, use the Add Device Wizard.



To control and configure the devices through MA Remote App, or playback streaming music from the device, please refer to matrix-digi.com/tutorials for instructions.



Technical specifications

Digital Output

Optical, Coaxial, AES/EBU

PCM 16-24Bit /44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz

DSD 2.82MHz, 3.07MHz (DoP)

IIS·LVDS

PCM 16-32Bit /44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz, 384kHz, 705.6kHz, 768kHz

DSD 2.82MHz, 3.07MHz, 5.64MHz, 6.14MHz, 11.29MHz, 12.29MHz, 22.58MHz, 24.58MHz

USB DAC

Depends on the specifications supported by the connected USB DAC device. Not higher than PCM 32Bit/768kHz and DSD 24.58MHz.

The USB DAC port provides a maximum of 5V/1A low-noise power supply.

Analog Output

XLR

Output Impedance: 20Ω

Output Level: 4.5Vrms / 0~4.5Vrms Adjustable

SNR: >126dB A-weighting

THD+N: <0.02%@1kHz

Frequency Response: 20Hz-20kHz ±0.1 -3dB@83kHz

Crosstalk: >-130dB

RCA

Output Impedance: 20Ω

Output Level: 2.25Vrms / 0~2.25Vrms Adjustable

SNR: >123dB A-weighting

THD+N: <0.02%@1kHz

Frequency Response: 20Hz-20kHz ±0.3 -3dB@83kHz

Crosstalk: >-130dB

Network

LAN: 10/100/1000 Mbps

Wi-Fi: 2.4 GHz / 5 GHz

USB

USB 3.0

The USB port provides a maximum power of 5V/1A.

The USB port works with devices which conform to the USB mass storage standard and supports FAT, FAT32, exFAT, and NTFS file formats, but is not guaranteed to be compatible with all storage devices.

MA Player

Controller app: MA Remote App

Local Playback

Format Supported: MP3, WMA, WAV, AIF, AIFC, AIFF, AAC, FLAC, OGG, APE, ALAC, M4A, DSF, DFF, CUE, ISO

PCM 16-24Bit/44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz, 384kHz, 705.6kHz, 768kHz

DSD 2.82MHz, 3.07MHz, 5.64MHz, 6.14MHz, 11.29MHz, 12.29MHz, 22.58MHz, 24.58MHz

Room Ready

PCM 16-24 Bit /44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz, 384kHz, 705.6kHz, 768kHz

DSD 2.82MHz, 5.64MHz, 11.29MHz, 22.58MHz

Apple Music, QQ Music, AirPlay 2, DLNA/UPnP, TIDAL Connect, Spotify Connect, vTuner, Radio Paradise, Qobuz Connect, the audio specs depend on the service provider.

Trigger

Trigger in: DC 6-12V <10mA

Trigger out: DC 12V/50mA MAX

Storage Extension

M.2 2280 2242 2230 NVMe PCIe SSD slot

SSD supporting PCIe 3.0/4.0/5.0 standards, the maximum power specification provided by the expansion slot is DC 3.3V 3A.

Power

Power Voltage: AC 100V-120V 50/60Hz or AC 220V-240V 50/60Hz, factory-fixed

Standby Power Consumption: < 5W

MAX Power Consumption: < 50W

Weight & size

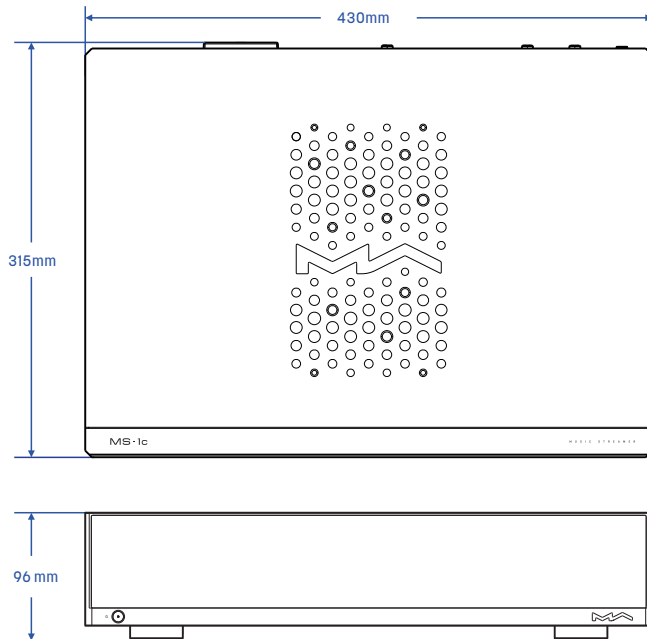
Weight: 6.5kg (14.33 pounds)

Dimension:

Width: 430 mm (16.93 inches)

Depth: 315 mm (12.40 inches)

Height: 96 mm (3.78 inches)



About Roon Ready

Being Roon Ready means that Matrix Audio music streamers transparently discover and connect to Roon without any configuration, and bit-perfect audio is delivered from Roon to your music streamer.

About Spotify

Use your phone, tablet or computer as a remote control for Spotify. Go to spotify.com/connect to learn how.

The Spotify Software is subject to third party licenses found here:

<https://www.spotify.com/connect/third-party-licenses>.

- This product is for indoor use only.
- For full ventilation, it is recommended to reserve a space of larger than 5 cm around the device.
- Do not cover the air vents with stuffs such as papers, tablecloths, and curtains to obstruct ventilation.
- Do not place stuff with flame, such as lighted candles, on the device.
- If the device is used in tropical areas, please be careful to prevent insects from entering the unit through the air vents.
- The device must not be subject to water droplets or splashes. Please do not place stuffs filled with liquids such as vases and cups on or near the device.