

MX-Stream Audiophile Bit-Perfect Streamer Quick Guide

for full manual go to: https://www.musicalfidelity.com/mx-stream



The MX-Stream is a universal, transport-only network device that can take any online or network streaming service to your integrated amplifier or DAC. All you need is an existing USB Class 2.0 Audio input. The MX-Stream's digital audio circuitry is a complete custom design from scratch. We have separate power supplies and high-end voltage stabilization components for all the different PCB units. We have advanced re-clocking – even the main CPU is operated by an audio optimized clock, which is completely unheard in typical streaming solutions, as they typically run with standard CPU clocks like those in regular computers. Every incoming digital signal is cleaned up from the very beginning. All audio files that come in and out, are the best they can be by eliminating all unwanted noise that can be found in common streaming solutions. With an optimized software, we were able to push this high-tech hardware design to its absolute limits. All of this resulted in the first near-zero jitter streamer we have ever seen.

The MX-Stream is the perfect add-on for any integrated amplifier or DAC with USB B input. Not only is the technology inside the MX-Stream complete cutting-edge high-end, every analog circuit in integrated analog amps displays increased performance, when digital circuits and power supplies are kept separate from the analog circuitry. By squeezing in a lot of digital circuits, additional high frequency distortion across the entire system can be observed. Coming from the other direction, huge power supplies for pre and power amps with lots of magnetic radiation impact digital circuit performance negatively. By keeping streaming and amplification separate we can achieve our true high-end sound vision to greater effect and at a more affordable cost, while also guaranteeing the longest lifetime of our amplifiers and streamers.



Safety instructions



Warning of a hazard for the user, the unit or possible misuse.



Important notice.



AC outlet voltages vary from country to country. Before connecting to the mains, make sure that the voltage in your area meets the voltage requirements printed on the power supply.

The power supply is used to connect/disconnect the unit from the mains. Make sure that the power supply is easily accessible at all times. Never handle the device, the power supply while your hands are wet or damp. Avoid letting liquids enter the device or the power supply. Never place any item containing liquid, such as a flower vase on or near the device. Never spill any liquid on the device or the power supply. Never place any naked flame sources, such as lighted candles on or near the device. The product shall not be used in damp or wet locations, next to a bathtub, sink, swimming pool or any other similar conditions.



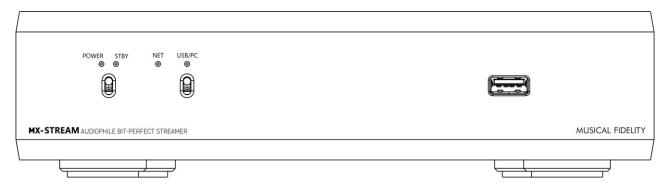
Make all connections whilst the unit is disconnected from the mains.

Never connect or disconnect power supply to or from the unit whilst the power supply is connected to the mains. Never use any other power supply than the one supplied with the unit.

- 2 - Issue 1



FRONT VIEW



POWER: lights up when unit is turned ON STBY: lights up, when unit is tuned OFF

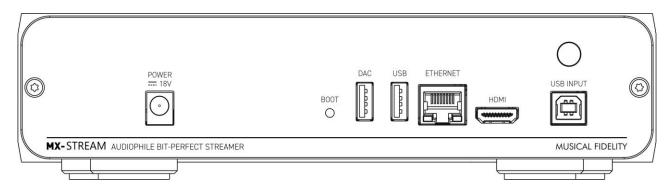
POWER/STBY Switch: turns the unit ON and OFF

 $NET: LED\ OFF-unit\ is\ off\ or\ booting\ up\ after\ power\ switch\ has\ been\ pressed;\ BLINKING\ ALTERNATELY-unit\ has\ successfully\ booted\ up/no\ network\ connection\ established;\ CONSTANTLY\ LIGHTING\ UP-unit\ has\ successfully$

booted up/ network connection established USB/PC: indicates USB/PC bypass input is ON

USB A input: connect external hard drive, mouse, keyboard, touchscreen, USB turntable, USB CD drive, etc...

REAR VIEW



POWER 18V: connect included power supply

BOOT: puts MX Stream into bootloader mode (see full online manual)

DAC: connection for DAC

USB: connection for USB devices like: external hard drive/USB stick, mouse, keyboard, touchscreen, USB turntable,

USB CD drive, etc...

ETHERNET: connect network cable

HDMI: connect HDMI cable for video output (audio output is only available on the DAC output)

USB INPUT: connect PC, laptop, phone etc. to bypass those devices to the DAC connected to the MX Stream

ANTENNA: connect the supplied WIFI/Bluetooth antenna

- 3 - Issue 1



Installation and first use

Setting up network connection

The unit can be connected to the network/internet via wired or wireless connection.

1. Wired connection: Connect a LAN cable from your router to the socket **Ethernet** on the back panel. Download the **MX-Stream App** (available for Android and iOS). Make sure your mobile device is on that same router's network, open the App and it will automatically find and connect to the MX-Stream. You can now control your MX-Stream.

2. Wireless connection:



Make sure the supplied antenna is mounted to its connector on the back panel

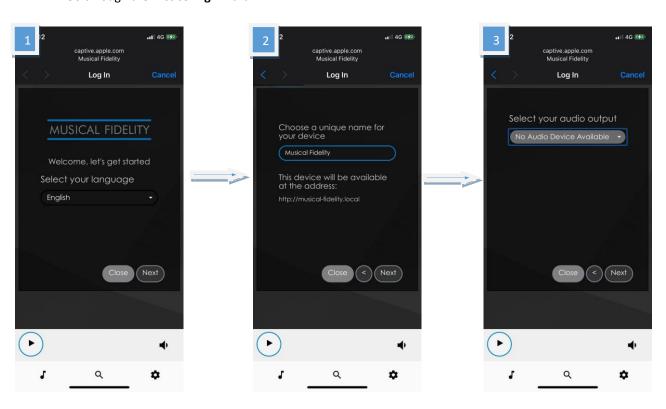
- Turn the MX-Stream on and wait until the **NET** LED is blinking alternately in short intervals. This means the boot up sequence has been completed, but a network/internet connection is NOT established.
- Open the Network Settings on your mobile phone and you will now find a network called Musical Fidelity. Connect to that network and a welcome page will open automatically (similar like signing in to a hotel room WIFI).



Should you encounter problems at this step, for example if the signing in process isn't initiated automatically, we recommend trying with different devices (other phones, tablets or also laptops work). The sign-in typically opens automatically, but there are some background circumstances which could "confuse" your device, which won't make it open the sign-in automatically.



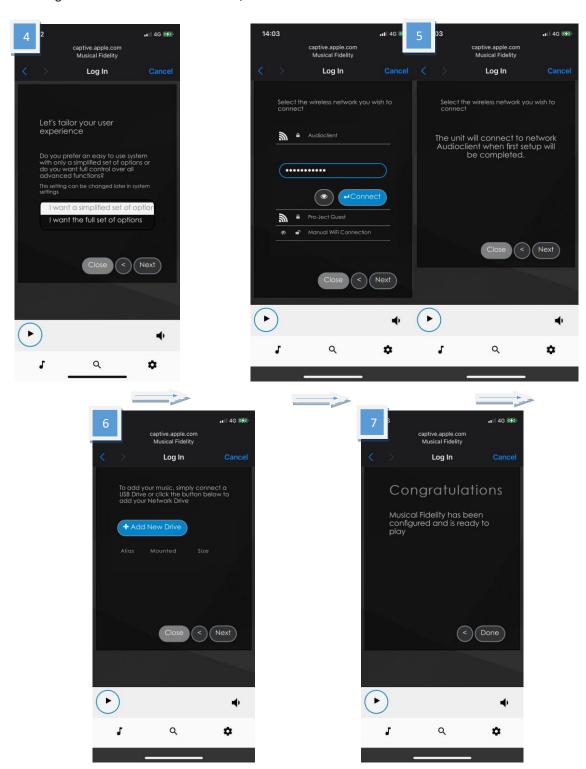
Go through the first config wizard:



- 4 - Issue 1



- 1. Language select your system language
- 2. Name choose a unique name of the unit
- 3. Output select the connected DAC which you want to use
- 4. **Simple/Full Options** choose between a simplified or the full options menu. Both options will set you off with bit-perfect playback quality. Beginners might find the simplified options easier to navigate, while expert users will benefit from all the control and digital playback transparency that the full set has on offer.
- 5. **Network** here you can connect to a wireless network, a list of available WiFi networks is shown. Select your desired WiFi network, type in the password and tap on the "Connect" button. The unit will reconnect to selected WiFi network when first setup will be completed.
- 6. Music manage all the network music locations, add NAS drives



- 5 - Issue 1



After the first setup assistant is complete the MX-Stream will connect to the specified WiFi network and close its internal **Musical Fidelity** network (the network you have just connected to for the WiFi setup in the previous step). Your MX-Stream is fully operational, once the **NET** LED on the front panel lights up constantly.

Your phone will automatically connect to your home WiFi again. To make sure, quickly check your phone's settings and see if it is correctly connected to your home WiFi. Download the **MX-Stream App** (available for Android and iOS), open the App and it will automatically find and connect to the MX-Stream. You are now ready to control your MX-Stream.



Once you have your MX-Stream up and running, make sure that one of the first things you do is to search for a new Firmware Update under Settings -> System -> System Update.

BT Connection

Pairing with Android devices

Open **Settings** and tap on **BT.** Turn on BT and tap on **Scan.** All found devices will show up now, tap on *Stream Box S2 Ultra* and confirm the connection.

BT pairing with Apple devices

Open **Settings** and tap on **BT**, turn on BT if it is not activated yet. Your device will automatically start searching for available devices. Tap on *Stream Box S2 Ultra* and confirm "Pairing" on your Apple device.

Control the MX-Stream

The control screen is divided into three parts: Browse, Playback and Queue

Browse works as a home page. Here you can go to any of the following pages.



Music library - here you can find all the available Music in your network and connected directly to the streamer: USB or NAS. Your library will be created automatically and sorted using the available metadata. (Some of these options are shown only when available)



Web radio – here you have access to a list of available internet radio stations. You also have access to a list of selected internet radio stations under Pro-Ject Selection.



BT connection – enables the BT input. Play music from connected BT devices.



USB/PC – Activate the USB/PC bypass input. You can connect a PC/Laptop/Phone or other streaming devices with a USB audio output to the USB B input on the MX-Stream. The input will be detoxed and cleaned up by the MX-Stream and forwarded to your connected DAC.



Shairport-Sync – This option lets you connect to Apple devices using the Airplay protocol. You need to select this input first and then the MX-Stream will show up as an Airplay option on your Apple devices.

- 6 - Issue 1



The following icons are shown after a successful login into the respective services under **Settings** > **Sources**



Tidal – gives you access to the Tidal streaming service



Spotify – gives you access to the Spotify streaming service

Qobuz – gives you access to the Spotify streaming service

Playback: This page shows the currently playing music. You also see information about the Artist and the Album. Additionally, you will see the Album Cover, given it is available. Here you also have the option to add tracks to your Favourites or to a playlist and to change your playback volume. Changing volume is also possible with your phone's or tablet's volume buttons.

Queue: This page shows the list of tracks in the current queue. At the upper right corner you also have the options for playback (shuffle, repeat), also you can save the current queue as a playlist.



Musical Fidelity Logo - tap on this button to go back to the home page (Browse)



Settings – gives you access to all general settings. The following menus are accessible here:

Sources: here you have access to all options for Network Drives and attached storages via USB. Also, you can enter your account information for the supported streaming services. Additional settings can be found for Album Art and Music Library. Under *Functionalities Control* you have the ability to enable or disable certain services. This is especially useful to enhance the performance of the unit.



Streaming services' icons appear on the home page (Browse) only after the login information is successfully entered

Playback Options: Here you have the option to choose your desired Output Device (USB DAC) and other settings for Playback, Volume and Audio Resampling. The default playback options ensure 1:1 bit-perfect playback.

Appearance: Here you can change the language of the unit, switch between background images or set your own images as background.

Network: Here you can find all information about your network. You can assign your unit a static IP address, pick a wireless network and activate/deactivate the hotspot function of the unit. You can also make settings on your DNS Server.

System: General settings can be made here. You can also enable/disable the video output via the HDMI socket. Under *System Updates* you can search for new software for the unit and download it. You can also set the unit back to Factory Settings.

Alarm: Here you can set a time for an alarm clock. This function needs an already existing playlist.

- 7 - Issue 1



Sleep: With the sleep timer you can set a time value after which the unit either turns off or stops the music.

Shutdown: Power off or reboot the unit.

Warranty



The manufacturer accepts no responsibility for damage caused by not adhering to these instructions for use. Modification or changes to any part of the product by unauthorized persons release the manufacturer from any liability over and above the lawful rights of the customer.

Should a problem be encountered which cannot be identified or resolved, please contact point of purchase/dealer for further advice. Only if the problem cannot be resolved there, the unit should be sent to the responsible distributor in your country. Warranty is valid in *country of purchase and for original purchaser only* and is not internationally nor personally transferable.

Copyright, trademarks

Musical Fidelity is a division of Audio Tuning Vertriebs GmbH.

This guide was produced by: Musical Fidelity Copyright © 2022. All rights reserved.

The information was correct at the time of going to press. The manufacturer reserves the right to make changes to the technical specification without prior notice as deemed necessary to uphold the ongoing process of technical development.

Windows[®] is a registered trademark of the Microsoft group of companies. Mac[®] and Mac OS[®] are trademarks of Apple Inc., registered in the U.S. and other countries. BT[®] is a trademark owned by the BT SIG, Inc., Apple is registered trademark of Apple Inc., Android[™] is a trademark of Google Inc.

Contains FCC ID: VVXLM811-0451

- 8 - Issue 1



Technical specifications

Internal Memory 16 GB

Audio Formats PCM 32bit/352.8kHz, DSD256

Internet Radio TuneIn

Streaming Services TIDAL, Spotify, Qobuz, HIGHRESAUDIO
Supported data protocols RAAT (Roon), Shairport, DLNA, UPNP

Inputs 2 x USB A (maximum combined current draw 1A), USB

B (PC-Detox), Network (Ethernet, WiFi), BT

Supported WiFi standards 802.11 b/g/n/d/e/h/i

BT Classic + EDR v2.1, v3.0, v4.0 and Low Energy

Outputs Audio optimized USB A, HDMI (video)

Outboard Power supply 18V/1A DC (included)

Accessories Wi-Fi antenna

Dimensions W x H x D (D with sockets)

220 x 56 x 215 (223) mm

Weight (without power supply):

1910g without power supply

MUSICAL FIDELITY

a Division of Audio Tuning Vertriebs GmbH

Margaretenstrasse 98

A-1050 Vienna

AUSTRIA

+43 1 544 858 0400

http://www.musicalfidelity.com

Musical Fidelity reserves the right to make improvements which may result in specification or feature changes without notice. E+OE.



- 9 - Issue 1



DISPOSAL

The crossed out wheeled bin label that appears on the back panel of the product indicates that the product must not be disposed of as normal household waste. To prevent possible harm to the environment please separate the product from other waste to ensure that it can be recycled in an environmentally safe manner. Please contact local government office or retailer for available collection facilities.

DISPOSITION

La poubelle sur roulettes barrées X, qui apparaît en logo sur le panneau arrière du produit, indique que celuici ne doit pas être traité comme un déchet domestique commun. Afin de protéger l'environnement, ce produit électronique devra être géré séparément et donc recyclé selon les nouvelles normes Européennes Rohs concernant les déchets d'appareils électroniques. Prière de contacter les services concernés gouvernementaux ou votre point de vente pour l'élimination et l'enlèvement de déchets électroniques équipés de composants électroniques.

DISPOSAL

La etiqueta cruzada hacia fuera del compartimiento que aparece en el panel trasero del producto indica que el producto no se debe reciclarse como basura normal de la casa. Para prevenir daños posible al ambiente separe por favor el producto de otras basura para asegurarse de que puede ser reciclada de una manera ambientalmente segura. Entre en contacto por favor a su oficina gubernamental local o a su minorista para las instalaciones disponibles de la colección.

RIFIUTI
L'etichetta del cassonetto barrato riportato sul retro dell'apparecchio indica che il prodotto non deve essere smaltito tramite la procedura normale di smaltimento dei rifiuti domestici. Per evitare eventuali danni all'ambiente, separare questo prodotto da altri rifiuti domestici in modo che possa venire riciclato in base alle procedure di rispetto ambientale. Per maggiori dettagli sulle aree di raccolta disponibili, contattate l'ufficio govenativo locale od il rivenditore del prodotto.

FACHGERECHTE ENTSORGUNG:

Das auf der Geräterückseite angebrachte Label deutet darauf hin, dass das Produkt nicht mit konventionellem Hauskehricht entsorgt werden darf. Um Schäden und Verschmutzungen an Umwelt und Mensch zu vermeiden, muss das Produkt fachgerecht entsorgt und von anderem Abfall getrennt werden. Wenden Sie sich bei Fragen hierzu an Ihren Fachhändler oder an eine öffentliche Informationsstelle.

AFVAL

Het label op de achterzijde van dit apparaat, een afvalbak op wielen met een kruis doorgehaald, geeft aan dat dit apparaat niet samen met gewoon huishoudafval mag worden weggegooid. Om mogelijke schade aan onze leefomgeving te voorkomen dient dit apparaat, gescheiden van gewoon huishoudelijk afval, te worden afgevoerd zodat het op een milieuvriendelijke manier kan worden gerecycled. Neem voor beschikbare inzamelplaatsen contact op met uw gemeentelijke reinigingsdienst of met uw elektronica leverancier.

<u>HÄVITTÄMINEN</u>

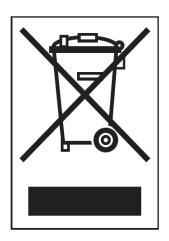
Yliruksattua jäteastiaa kuvaava tarra tuotteen takalevyssä kertoo, että tuotetta ei saa käsitellä normaalina talousjätteenä. Ympäristön suojelemiseksi on tuote pidettävä erillään muusta jätteestä ja se on kierrätettävä ekologisesti kestävällä tavalla. Ota yhteyttä laitteen myyjään tai Pirkanmaan Ympäristökeskukseen lähimmän kierrätyskeskuksen löytämiseksi.

<u>AFSKAFNING</u>

Logoet med en skraldespand med kryds over på bagsiden af apparatet indikerer at dette produkt ikke må kasseres som normal husholdningsaffald. For at forebygge mulig skade på miljøet, bedes De separere dette produkt fra andet affald, og sikre at det bliver genbrugt på en miljørigtig måde. Kontakt venligst de lokale myndigheder eller din forhandler for oplysning om nærmeste tilgængelige opsamlingssted for elektronikaffald.

ΔΙΑΔΙΚΑΣΙΑ ΑΠΟΡΡΙΨΗΣ

TON ΛΙΑΓΕΓΡΑΜΜΕΝΟ TΩ ΣΗΜΑ ME ΤΡΟΧΗΛΑΤΟ ΚΑΔΟ ΑΠΟΡΡΙΜΑΤΩΝ ΣΤΗΝ ΠΙΣΩ ΟΨΗ ΤΟΥ ΜΗΧΑΝΗΜΑΤΟΣ ΔΗΛΩΝΕΙ ΟΤΙ ΤΟ ΠΡΟΙΟΝ ΑΥΤΌ ΔΕΝ ΠΡΕΠΕΙ ΝΑ ΔΙΑΧΕΙΡΙΣΘΕΙ ΣΑΝ ΣΥΝΗΘΙΣΜΕΝΟ ΟΙΚΙΑΚΌ ΑΠΟΒΛΗΤΌ. ΠΡΌΣ ΑΠΟΦΥΓΉ ΕΝΔΕΧΟΜΕΝΗΣ ΕΠΙΒΑΡΥΝΣΗΣ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ, ΞΕΧΩΡΙΣΤΕ ΤΟ ΠΡΟΙΟΝ ΑΠΟ ΤΑ ΑΛΛΑ ΑΠΟΡΡΙΜΑΤΑ ΩΣΤΕ ΝΑ ΕΞΑΣΦΑΛΙΣΘΕΙ Η ΑΝΑΚΥΚΛΩΣΗ ΤΟΥ MF TON ПРЕПОИТА ТРОПО. ΠΑΡΑΚΑΛΟΥΜΕ NA ΕΠΙΚΟΙΝΩΝΗΣΕΤΕ ΥΠΗΡΕΣΙΑ THN ТОПІКН ME ΑΝΑΚΥΚΛΩΣΗΣ Η ΜΕ ΤΟ ΚΑΤΑΣΤΗΜΑ ΑΓΟΡΑΣ ΓΙΑ ΠΕΡΙΣΣΟΤΕΡΕΣ ΛΕΠΤΟΜΕΡΕΙΕΣ.



- 10 - Issue 1