



LINK USER GUIDE



Stack Audio LINK User Guide. Version 1.3 April 2019.

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LINK User Guide

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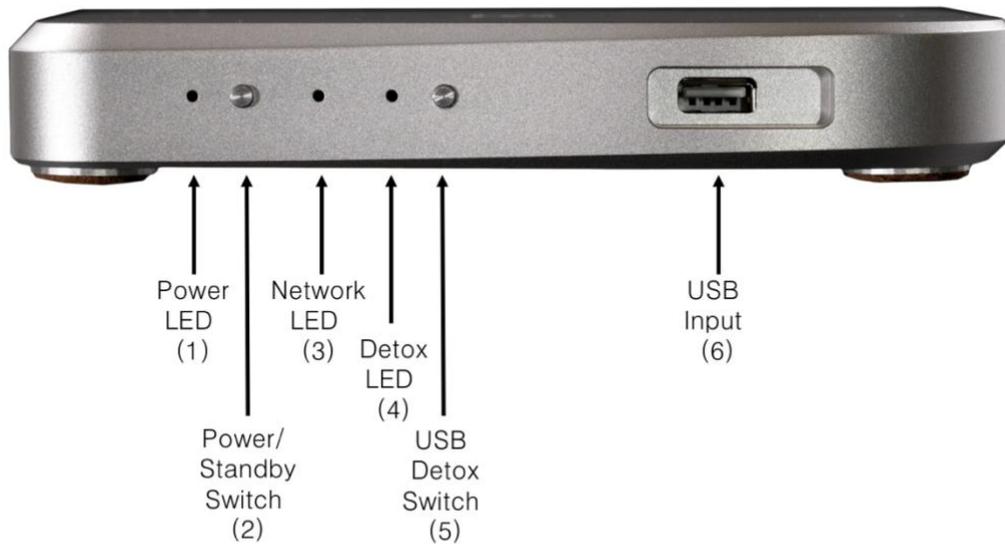
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1. Safety Notice

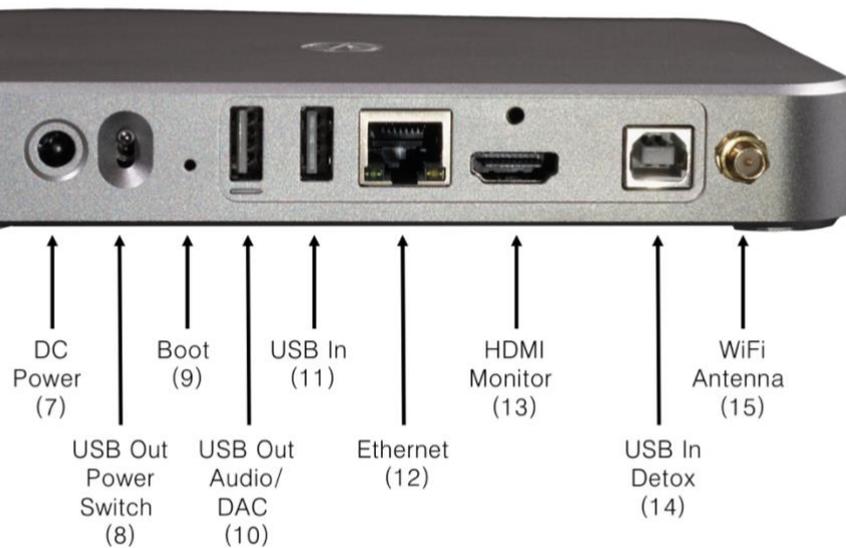
- The LINK is provided with a 110/240v compatible mains 1–1.5amp, 18v DC power supply with a 2.5mm jack. We recommend you use this power supply with the LINK. The power supply connects the LINK to the mains; never handle the power supply with wet or damp hands.
- Do not expose the LINK or the power supply to any liquid, water or moisture. Never handle the power supply with wet or damp hands.
- Do not open the LINK or try servicing it yourself as this will void the warranty.
- Do not use the LINK in high temperatures (50c+) and near heat sources such as radiators. Ensure it is well ventilated.

2. Connections & installation

LINK Front Panel



LINK Rear Panel



Note: the numbers in brackets (n) alongside the front and rear panel labels on the images above are used in the following sections to aid identification of the switches and connections.

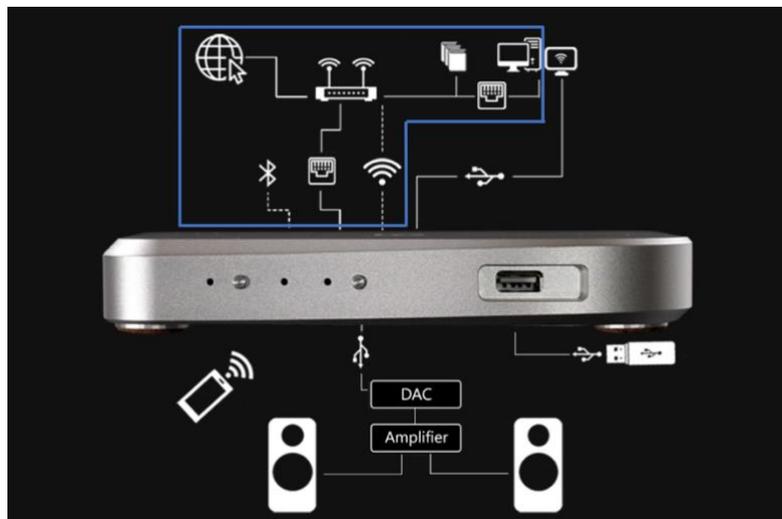
Mains Power Connection and Power/Standby

The LINK is supplied with a mains DC adaptor with the appropriate plug for different countries. Connect the DC adaptor to the LINK's power socket (7) on the rear panel before connecting to the mains.

Use the Power/Standby Switch (2) on the front panel to turn the LINK on or back into standby. After switching on, the Power LED (1) will change from red to blue. The Network LED (3) will light up blue when the LINK is operational and the network connection is established. This may take up to 60 seconds. Powering down also takes up to 60 seconds to ensure all files are closed correctly. The Power LED (1) will blink red and blue during the process and show red when in standby.

Do not disconnect from the mains without powering down fully.

Network Connections



The LINK needs to be connected to a home network (LAN) before it can be used. Connection can be via ethernet or wi-fi.

The Ethernet port (12) is on the back panel for connecting an Ethernet cable to a home router. A wired connection is recommended for maximum reliability and performance, particularly for high-resolution music playback. We recommend using a CAT5e, 6 or above cable capable of streaming at 1Gb/s.

The supplied wi-fi antenna should be attached to the connector (15) on the rear panel to enable connection to a router via wi-fi either for streaming or control purposes.

The Network LED (3) on the front panel will show blue when a stable network connection has been established and the LINK has successfully booted. To follow the set-up instructions and see the LINK on your web browser you will need to find the IP address your router has allocated to the LINK. For instructions on the set-up procedure refer to section 3 on page 7.

System connections

The LINK is designed to connect various streaming inputs to an existing DAC (Digital to Analogue Converter) in a two-channel hi-fi system.



It has only one output, the USB Type A connector (10) on the back panel. This can be connected to any USB equipped DAC or DAC/Amplifier. A USB cable with a Type A connector for the LINK end and either a Type A or B connector for the DAC should be used.



The LINK has a USB Out Power Switch (8) on the rear panel which enables users to either send power to the DAC (switch down) or turn the supply off (switch up). If your DAC has its own internal power supply, we recommend you turn the USB Power Switch off for the best sound quality.

If you are unsure if your DAC has a power supply, try turning the USB Power Switch off. If you can still hear music, your DAC has an internal power supply.

Connecting to music sources

Wired

The LINK can be connected directly to a PC or laptop or it can be connected to a home network with an Ethernet cable. It can also stream music from USB flash disks and drives.

- USB connection to PC or laptop

This should be done via the USB Type B input on the rear panel (14), marked DETOX Input on the baseplate. When the USB Detox Switch (5) on the front panel is activated this cleans up the signal from the PC or laptop removing digital noise before passing it through to the DAC. The Detox LED (4) shows blue when the Detox circuitry is activated. To de-activate the Detox when reverting to network streaming, press the Detox Switch (5) again.

- USB flash disks and drives

These can be connected to either of the two USB Type A inputs on the front (6) and back (11) panels. The USB input (6) on the front panel can be found behind the magnetic cover which is released by pushing on the left side.

- External CD drives

An external CD/DVD drive can be connected to either of the LINK's USB ports for playing and ripping audio CDs.

- Home Servers, NAS Drives and Router

Connection to music libraries held on home servers, NAS drives and internet based streaming services. Where possible we recommend a wired Ethernet connection as described in the Network Connections section above.

- HDMI connection

There is an HDMI port (13) on the rear panel of the LINK. This is for connection to touchscreens or a TV monitor to display the control screens. *Note: this is not an I²S HDMI output.*

- USB Keyboard and Mouse

To control the LINK using a HDMI monitor without a touchscreen, a USB keyboard and mouse must also be connected. It is recommended this is done via wireless USB dongle. This can be connected to either the of the two USB Type A inputs on the front (6) and back (11) panels.

Wireless

The LINK can be connected via Wi-Fi or paired with Android and Apple Bluetooth enabled devices. It can stream music over Wi-Fi and Bluetooth. To activate, turn on Bluetooth and scan for available devices. When the Link is found, click on 'connect' or confirm 'pairing' depending on the device you're using.

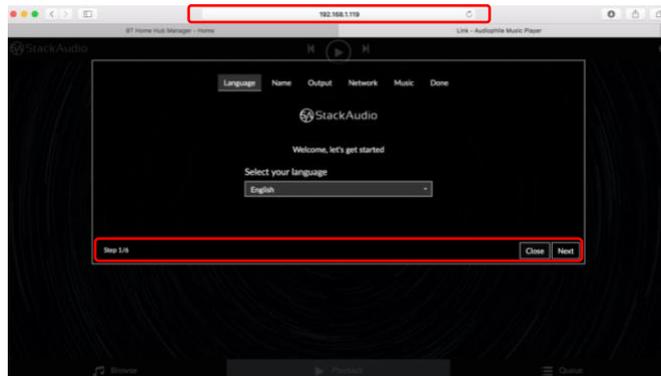
3. Set Up

The LINK can be connected to a home network and the internet and set up either by a wired or wireless connection. For a wired connection attach an ethernet cable to the port on the rear panel. For a wireless connection ensure the supplied antenna is attached to the connector on the rear panel.

Once connected to home network or internet router set up can be carried out through any other connected device with a web browser or via settings/wi-fi/search for available devices. The LINK can be controlled through all web browsers, Windows, MacOS, Android, iOS and others.

If necessary, you can find the IP address of the LINK by looking at the list of devices connected to your router. Use your Home Hub/Router manager or run ipconfig (or a similar utility) and note the IP address of the LINK. The IP address can be found in the list of connected devices in the DHCP server list in your router administration. The LINK will show up as link.local. Programmes such as Advanced IP Scanner, FING (Android) or Network Analyzer (iOS), can be also used to find out the IP address of the streamer.

Type the address into your web browser:



Follow the 6-step set-up instructions displayed on your browser or mobile device as in the illustration.

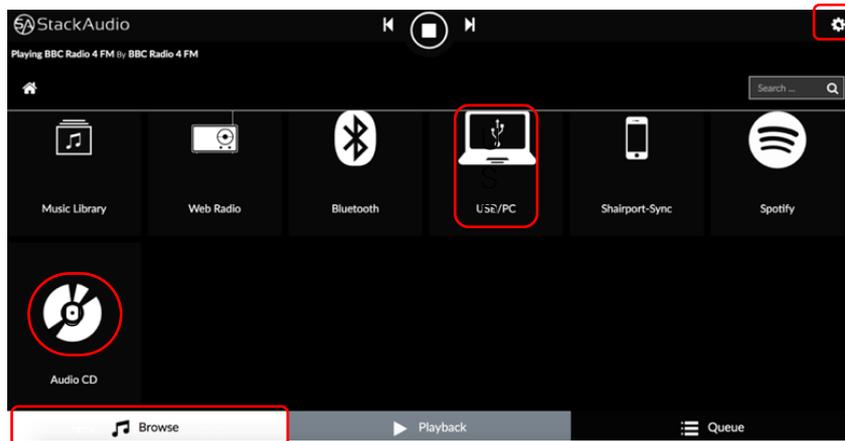
4. Operation, Control & Software

The LINK uses open sourced software from Volumio custom built for Stack Audio. You can control the LINK using the Volumio interface from a PC, laptop or mobile device.

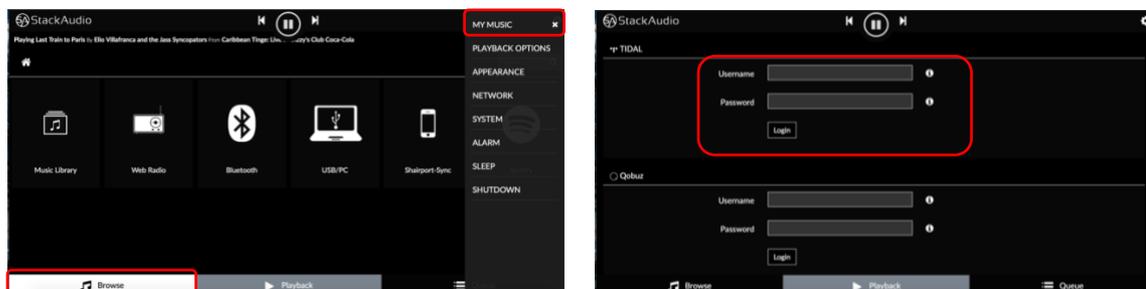
A mobile app for Volumio is available free to download for iOS and Android devices. The interface looks and works in the same way on the mobile app and the PC/laptop web browser. You can also use other uPNP apps such as Bubble or Kinsky. (*Note not all generations of uPNP apps will work*).

There are 3 main control screens on the interface: **browse**, **playback** and **queue**.

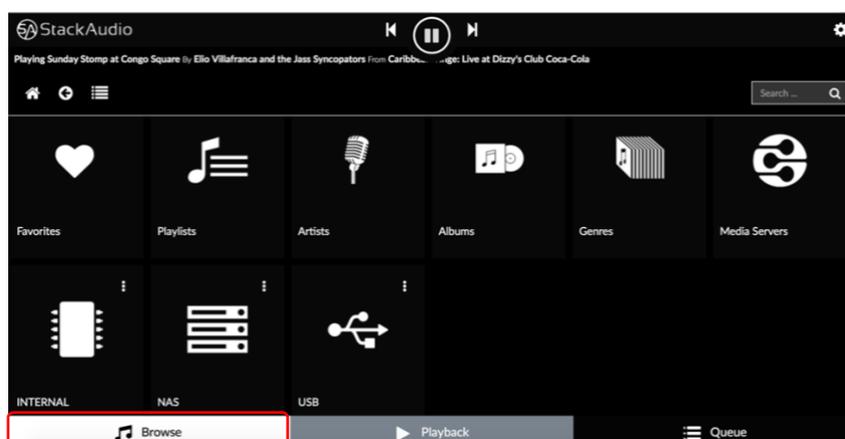
The **browse screen** lets you select your streaming sources including any connected external USB devices (Audio CD shown in this illustration). If you have connected a PC or Laptop via the USB Type B input on the rear panel (14) you should activate the USB Detox Switch (5) on the front panel for the best sound quality as explained in the section *connecting to music sources* on page 6.



The MY MUSIC menu from the settings symbol (top right) enables you to login to Spotify, TIDAL and Qobuz accounts. These appear on the browse screen only after login has been activated.

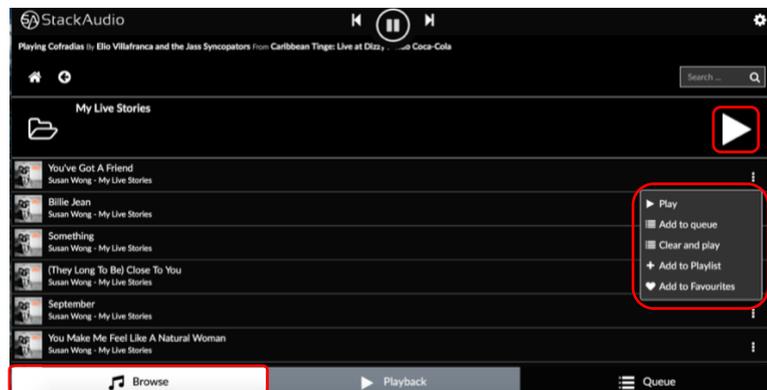


Click on one of the high-level menus to open the sub-menu. For example, opening Music Library shows this:

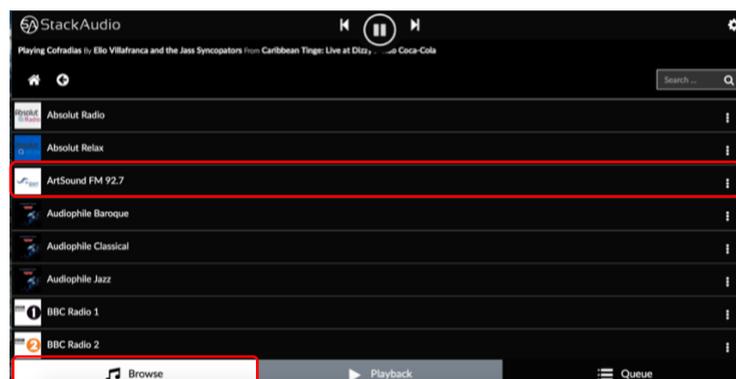


Opening a library will allow you to follow the music library file structure or playlist to find the album or track to wish to play.

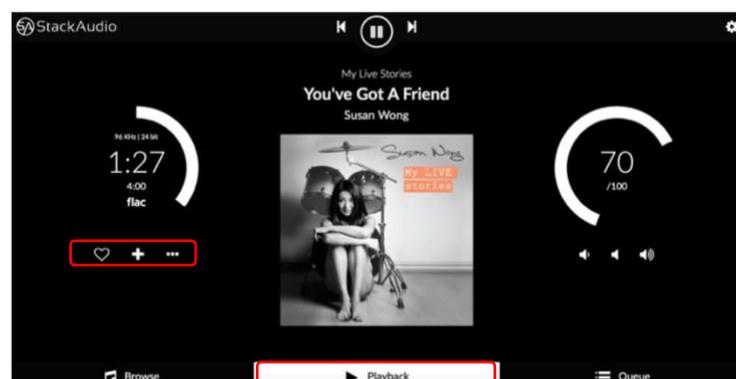
- Clicking on the arrow will add the whole album to the queue and start it playing. Clicking on an individual track will add that to the queue and start it playing.
- Clicking on the 3 dots to the right of a track will bring up more options:



The same procedure is followed with other sources, for example web radio. Click on the station you want to listen to start it playing.

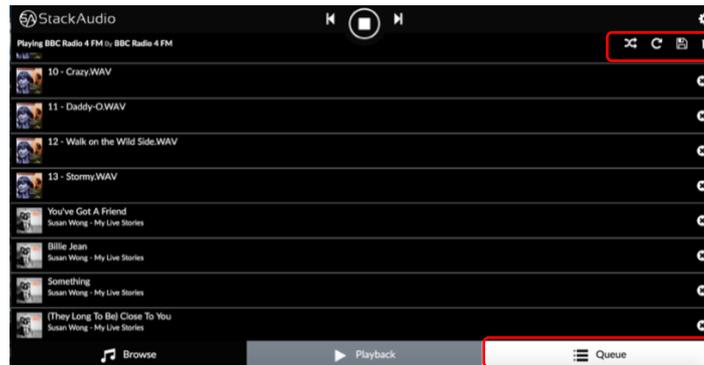


The **playback screen** displays information about the music track or source being played and volume level if enabled in the software (see settings, PLAYBACK OPTIONS):

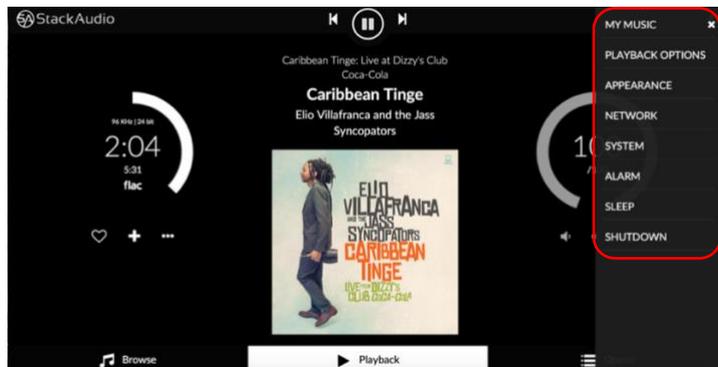


The icons on the left enable you to add to favourites, playlists or share the track.

The **queue screen** shows a cumulative list of all tracks and sources played and queued with options to manage individual tracks of the whole queue:



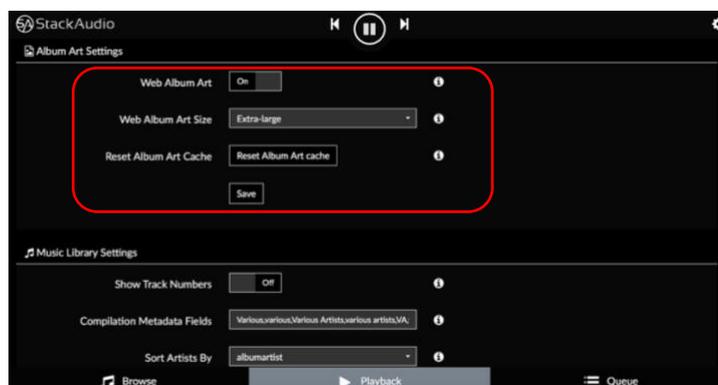
The **settings** menu can be accessed from the settings symbol top right of any of the main screens:



Settings menus

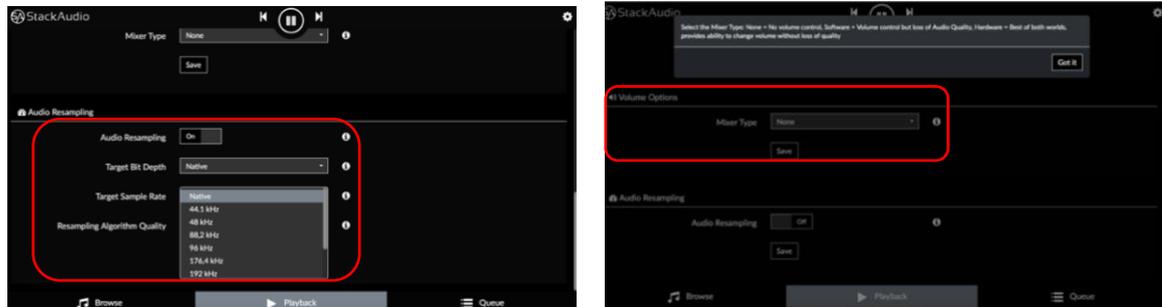
MY MUSIC

Update and change music database entries, add network drives, set functionalities for UPNP Renderer, Shairport-Sync, Roon Ready and DNLA Browser. You can also enter user names and passwords for Spotify, Tidal and Qobuz accounts (see **browse screen** section above) and adjust Music Library and Album Art settings e.g.:



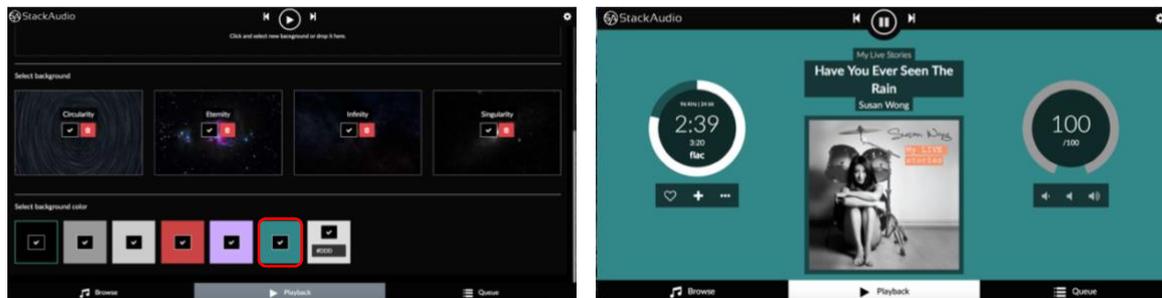
PLAYBACK OPTIONS

Select the output device (DAC), set and adjust playback options including DSD file handling, volume control, buffering and audio resampling e.g.:



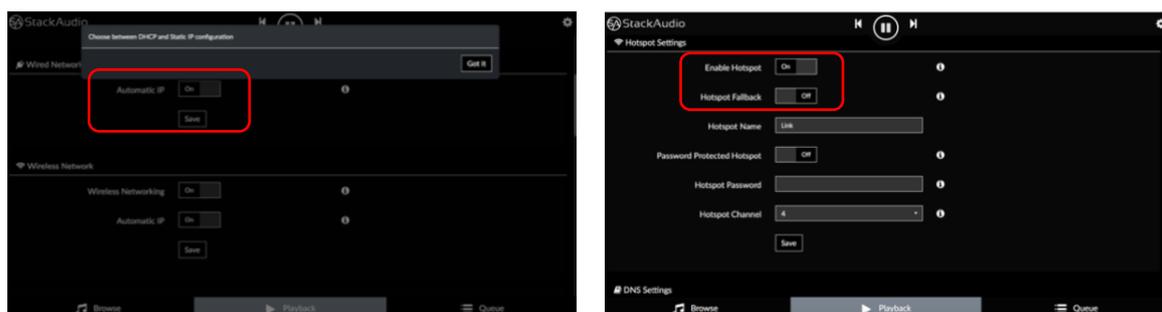
APPEARANCE

Choose alternative backgrounds and colour schemes for the LINK control screen from the default selection or add an image of your own e.g.:



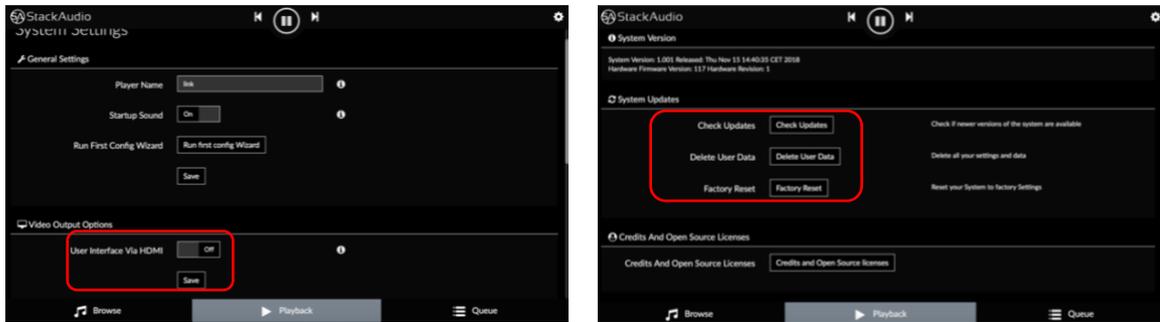
NETWORK

Check the network status (wired and wireless), select a network to join, adjust IP settings (static or automatic), enable or disable wireless networking and activate Hotspot or Custom DNS server e.g.:



SYSTEM

Adjust general settings including HDMI monitor output, check for software updates or reset the LINK to factory settings e.g.:



ALARM, SLEEP, SHUTDOWN

You can use these menus to control how the LINK wakes up (a playlist must be set for this function), time or duration to stop playing or shut down, and power-off or re-start.

5. Servicing and Maintenance

There are no user-serviceable parts in the LINK. Updates of the installed software can be downloaded via the SYSTEM menu in the settings.

There is a Boot button on the rear panel (9) which allows experienced users to load different operating systems onto the internal computer. To activate, press the Boot button for 5 seconds (requires a needle or similar fine point to access through the hole) until the red LED (4) on the front panel starts blinking. The LINK can now be used as a storage device and a new operating system can be installed. To exit the boot mode, press the USB Detox switch (5) on the front panel. CAUTION: This will overwrite the installed software. Stack Audio does not take any responsibility for damage or alterations to the software in the LINK. We are happy to advise how to reinstall the Link software if needed,

6. Warranty & Liability

The Stack Audio LINK is guaranteed for 3 years from the date of purchase against defects in manufacture and design.

This warranty applies to the first owner and is not transferrable.

Proof of purchase from Stack Audio or authorised dealers are required to process the warranty. The serial number found on the base of the LINK must be supplied.

Items must be returned in the original packing with all supplied accessories and fittings.

If returning an item directly to Stack Audio, please ensure they are returned via registered post/delivery service at your cost. We recommend that you use a recognised service and insure all items for the full value as stated on your invoice. Stack Audio will not be held responsible for items that are lost, stolen or damaged in transit.

This warranty is limited to the repair or replacement of the equipment at our discretion.

Exclusions

The following are not covered by the Stack Audio warranty:

- Transportation costs.
- Damage caused by incorrect installation, connection or packing.
- Damage caused by any use other than the correct use described in the User Guide, negligence, modifications, or use of parts that are not made or authorised by Stack Audio.
- Damage caused by faulty or unsuitable ancillary equipment.
- Damages caused by accidents and causes beyond the reasonable control of Stack Audio.
- Products where the serial number has been altered, deleted, removed or made illegible.
- Repairs or modifications that have been carried out by an unauthorized person including to the installed software on the LINK.

If you purchased your Stack Audio product from a dealer or distributor, please contact them first in the event of a warranty claim or technical query. If purchased from the Stack Audio website, please contact Stack Audio directly.

The Stack Audio Moneyback Guarantee and Warranty do not affect your statutory rights.

7. Technical Data

Dimensions

174(W), 140mm (D), 25mm (H), 1kg (without external power supply)

Inputs:

- 2 x USB inputs
- 1 x USB B detox input
- Ethernet input
- 18v 1amp– 1.5amp DC input

Outputs

- 1 x dedicated USB audio output
- HDMI output for connection to TV/video monitor/touch screens for control (not i2s)

Streaming Protocols and Services

- Shairport-sync (Apple compatibility)

- Roon ready (In progress)
- UPnP AV protocol with audio streaming extension (OpenHome)
- Gapless Playback
- On-Device Playlist
- MQA (only if DAC supports hardware unfolding)
- TIDAL, Spotify, Qobuz
- Web radio: Shoutcast

Communication Protocols

- Ethernet
- USB
- Wi-Fi – 802.11 b/g/n/d/e/h/i
- Bluetooth – Classic + EDR v2.1, v3.0, v4.0 and Low Energy

Supported Audio File formats:

- Lossless: DSF (DSD), DIFF (DSD), DoP (DSD)
- PCM Lossless: FLAC, Apple Lossless (ALAC), WAV, AIFF Compressed (lossy)
Audio: MP3, AAC (in M4A container) MQA (only if DAC supports hardware unfolding)

8. Trouble Shooting & Support

If you encounter a problem with your LINK and need assistance, please email Stack Audio at: theo@stackaudio.co.uk

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Bluetooth® is a trademark owned by the Bluetooth SIG, Inc.,

Apple is registered trademark of Apple Inc.,

Android™ is a trademark of Google Inc.

FCC ID: VVXLM811-0451



In line with the Waste Electronic and Electrical Equipment Directive this product should not be treated as normal household waste. It should be recycled, so please take it to an approved collection facility.

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