NMP40

User Manual

AUDAC

www.audac.eu

ADDITIONAL INFORMATION

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the Audac website @ www.audac.eu.

The Spotify software is subject to third party licenses found here:
https://www.spotify.com/connect/third–party–licenses

Index

Introduction 5

Precautions 6
- Safety requirements 6
- Legal notice about music services 7
- Caution servicing 7
- EC Declaration of Conformity 7
- Waste of Electrical and Electronic Equipment (WEEE) 7

Chapter 1: Connections and connectors 8
- Connection standards 8

Chapter 2: Overview NMP40 9

Chapter 3: Using the NMP40 10
- Module screen 10
- Spotify connect 11
- Soundtrack your brand 11
- Troubleshooting 12

Chapter 4: Web interface & configuration 13
- Module screen 14
- Settings screen 15

Chapter 5: Installing the NMP40 17

Chapter 6: Additional information 19
- Technical specifications 19
- Notes 20

Introduction

SourceCon™ network audio player module

The NMP40 is a professional network audio player featuring SourceCon™ modular technology. This unique technology guarantees true plug & play implementation to any compatible device. When inserted to a supporting slot, the module is instantly installed, discovered and ready for operation without requiring any additional internal wiring or complex configuration.

The NMP40 SourceCon™ network audio player enables the possibility to stream audio files from various music streaming services directly to a professional audio system while maintaining the best available sound quality.

Compatible with various streaming technologies like SoundTrack Your Brand and Spotify connect you can stream music straight to your professional sound system directly from the cloud while using only your computer or mobile device as a controller. This avoids any unwanted interruptions and maintains higher sample rates.

NMP40 also supports streaming services covering music royalties, making it legally allowed to set the to set the right ambient with the right music in all types of public places.

The balanced stereo line output is implemented on its panel using two 3–pin terminal block connections.

Precautions

READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

- ALWAYS KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE. NEVER THROW THEM AWAY
- ALWAYS HANDLE THIS UNIT WITH CARE
- HEED ALL WARNINGS AND FOLLOW ALL INSTRUCTIONS
- AVOID ELECTROSTATIC DISCHARGE BY TOUCHING A GROUNDED POINT BEFORE REMOVING THE MODULES FROM THEIR PROTECTIVE BAG
- AVOID TOUCHING OF THE COMPONENTS ON THE CIRCUIT BOARD DIRECTLY
- NEVER EXPOSE THIS EQUIPMENT TO RAIN, MOISTURE, ANY DRIPPING OR SPLASHING LIQUID. NEVER PLACE AN OBJECT FILLED WITH LIQUID ON TOP OF THIS DEVICE
- DO NOT INSTALL THIS UNIT NEAR ANY HEAT SOURCES SUCH AS RADIATORS OR OTHER APPARATUS THAT PRODUCE HEAT
- DO NOT PLACE THIS UNIT IN ENVIRONMENTS WITH A HIGH LEVEL OF DUST, HEAT, MOISTURE OR VIBRATION
- THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS
- ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER.
- UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME
- CAREFULLY CHECK THE UNIT'S CONDITION AFTER UNPACKING. IF THERE IS ANY DAMAGE TO THE CARTON BOX OR THE UNIT ITSELF, INFORM YOUR VENDOR IMMEDIATELY.
- ONLY CONNECT THIS UNIT TO A MAINS SOCKET OUTLET WITH PROTECTIVE EARTHING CONNECTION
- THE INSTALLATION, CONNECTION AND CONFIGURATION OF THE DEVICE SHOULD BE DONE BY QUALIFIED TECHNICIANS

LEGAL NOTICE ABOUT MUSIC SERVICES

Various music services are supported in the NMP40. Depending whether your system is used in residential or commercial installations, make sure that the configured music service is legally authorized for your typical applications. E.g. Spotify is intended for use in residential systems while Soundtrack Your Brand is licensed for commercial usage. Regional differences might occur depending of the country / location, so contact your local authorities in case of any doubt.

CAUTION – SERVICING

This product contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing (unless you are qualified to do so.)

EC DECLARATION OF CONFORMITY

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC) and 2014/35/EU (LVD)

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The WEEE marking indicates that this product should not be disposed with regular household waste at the end of its product life. This regulation is created to protect both the environment and human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose of this product at your local collection point or recycling centre for electrical and electronic waste. Do this to make sure that the product is recycled in an environmental friendly way, and help to protect the environment in which we all live.

CAUTION

The symbols shown are internationally recognized symbols that warn about potentiation hazards of electrical products. The lightning flash with arrow point in an equilateral triangle means that the unit contains dangerous voltages. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the users manual.

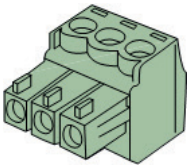
These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

Chapter 1
Connections and connectors

CONNECTION STANDARDS

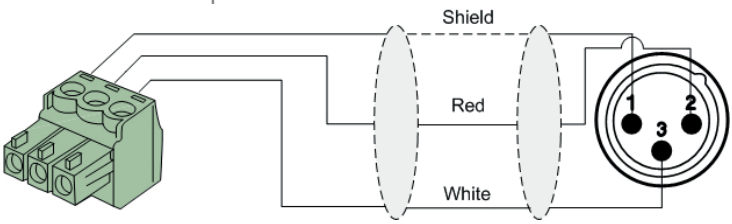
The in– and output connections for AUDAC audio equipment are performed corresponding to international wiring standards for professional audio equipment.

3–Pin terminal block:
For balanced output connections

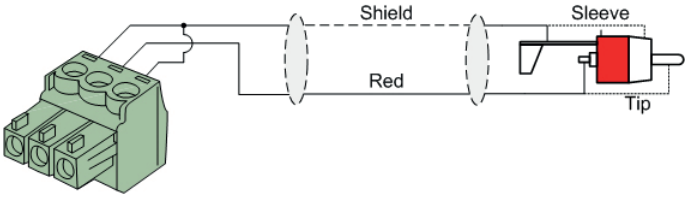


Left:	Signal –	(XLR Pin 3)
Center:	Signal +	(XLR Pin 2)
Right:	Ground	(XLR Pin 1)

For balanced line output connections:



For unbalanced line output connections:



Chapter 2
Overview NMP40

The NMP40 is a SourceCon™ compatible module featuring an (internal) board–edge connector which carries all signals for getting it connected to any supporting main unit.

All external in & output connections shall be made using the available connectors on the panel.

1) Balanced stereo line output:
The balanced stereo line output is implemented using two 3–pin terminal block connectors. The audio output available on this connector allows it to be fed to any amplifier or pre–amplifier.

2) Ethernet RJ45 connector:
The Ethernet connection is implemented through an RJ45 connector, which works as the input connection for accessing various music services over network. It shall be connected to a LAN network with internet access for connectivity to the audio streaming provider.

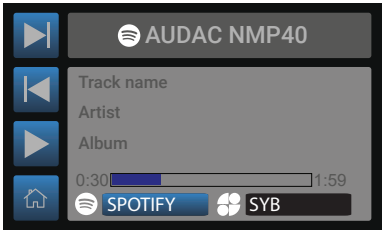
Chapter 3
Using the NMP40

Since the NMP40 is a SourceCon™ module, it can be combined with a variation of supporting main units. The operation and configuration interface might slightly vary depending of the unit where it is installed to, however offered functions will always be identical. Some specific functions might be available from the device's front panel, while other advanced configuration settings have to be made through its web interface.

This manual guides you through the control possibilities through the front panel control and the configuration settings which have to be made through the web interface.

Module screen

The module screen of the NMP40 indicates the current status and playback mode for the player. Basic control functions such as the selection of the streaming service (selectable between Spotify & Soundtrack your brand) can be done here, while standard control functions (play, pause, previous, next, ...) are also possible depending on the available functions for the configured service.



The left section of the screen indicates 4 quick buttons which can be controlled through the tactile buttons on the left screen side. Switching between the streaming services is done through rotation of the rotary dial and pressing it when the desired service is highlighted.

The device ID for the connected streaming service is shown in the title bar on top of the module screen.

Spotify connect

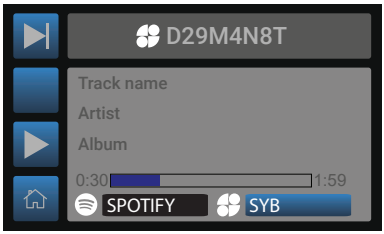
Use your phone, tablet or computer as a remote control for Spotify.
Go to spotify.com/connect to learn how.

Device name:
The device name of the NMP40 for recognizing as a connect device in any Spotify supporting application can be adjusted. This allows a clear and intuitive user experience, especially when multiple devices are used in one network. The default device name is 'AUDAC NMP40' followed by an unique Mac address for each module.

Soundtrack your brand

Soundtrack your brand (refered as SYB) is a music service, focussed on providing music playlists to businesses. The soundtracks can be selected based on the mood or genre you want to play in your business. Customized soundtracks can also be created and can be automatically filled in with similar songs.

The NMP40 will act as a playback device for your SYB configured zones. Each device will get an unique device ID, allowing it to pair it with any of the zones enabled in your SYB account. Control can be done through the SYB web portal or iOS application. All music data should be managed from the SYB own applications and the NMP40 will only act as a playback device. Only basic functions (skip track, play/pause & volume adjustments) are possible from the NMP40.



Connect to Soundtrack Your Brand:

1. Create an account at www.soundtrackyourbrand.com
   (direct link is available from the settings screen in the web interface).
2. Go to locations and add a zone
3. Select **Hardware device** and enter the device ID from the player which needs to get paired to the corresponding zone.
   The device ID is an 8–digit ID which is unique for each player, and which can be found from the title bar in the main and module screen (D29M4N8T in the example) or from the settings menu in the web interface.
4. Click connect player
5. Your NMP40 is now connected to your SYB account and ready to be used.

Offline support:
Soundtrack your brand downloads tracks to the NMP40 when its online, to have music available when the internet connection is lost. The amount of time it takes for your device to download music depends on your dedicated bandwidth, internet speed, storage settings and selected music quality. Before any music will be played, an internet connection has to be established first for having an NTP time sync and downloading of the tracks.

Troubleshooting

These notifications might occur in some specific situations when the NMP40 is not playing. The below descriptions explain the reasons for these notifications, allowing you to trace back the cause and solve the problems accordingly.

Waiting for NMP40:
When powering–up the device, it might take a while (~30 seconds) before the NMP40 is ready for operation. The reason behind this is that the operation system from the NMP40 takes a while before fully booted and ready for operation. During this booting, the display will indicate the 'Waiting for NMP40', but will return to normal operation mode once fully booted.

Waiting for NTP sync (Only SYB):
When using the Soundtrack Your Brand streaming service, synchronization with a time server is required under all circumstances. Because the SYB services uses timed events and schedules, no music is played if no time synchronization is available avoiding undesired of faulty music playback. In default configuration, an internet pool timeserver is configured. It might take few minutes before any NTP time sync is available when booting the system. Other services (e.g. Spotify) doesn't require any NTP sync and will play at all times.

Nothing scheduled right now (Only SYB):
When the NMP40 is connected with an active SYB account, but there is currently no music scheduled in the weekly scheduler.

Firewall settings (Only SYB):
For the music streaming services to work properly, following ports needs to be open for outbound traffic:

– 80 (TCP) – HTTP
– 443 (TCP) – HTTP
– 53 (UDP/TCP) – DNS
– 123 (UDP) – NTP

Additionally, equipment or software that intercepts or filters web traffic such as proxies, web filtering devices or security appliances, are not supported. If you use such solutions in your network, the player must be excluded from being affected, or our service cannot work.

Chapter 4:
Web interface & configuration

The NMP40 contains a number of configuration settings, which are only configurable through the web interface (of the main device it is connected to, e.g. XMP44).

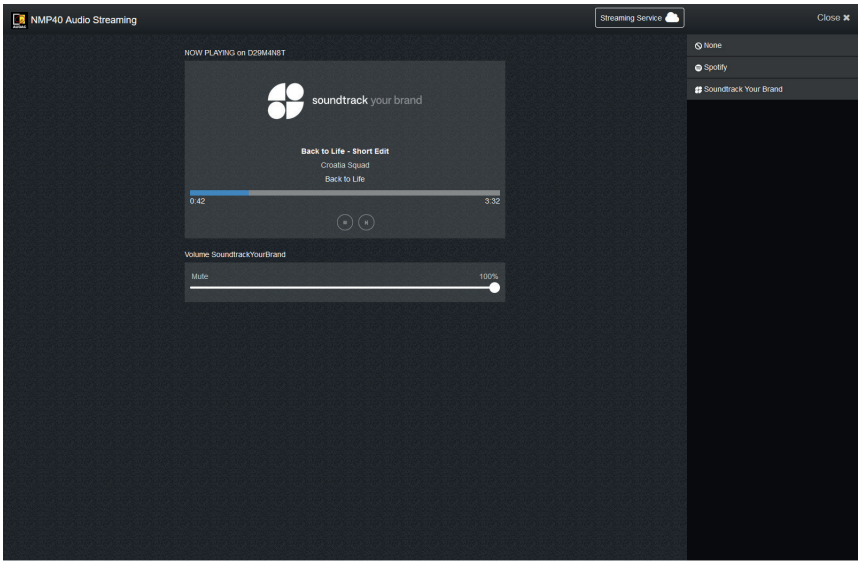
The web interfaces are fully responsive based on HTML5 technology can be accessed from any web socket supporting device, offering cross–platform compatibility with Windows, Mac OS, Linux, Android and iOS without requiring any installed applications or web plugins. The fully adaptive structure guarantees a clear viewing on all different kinds of screen sizes.

When application specific or total system control is required, the NMP40 can be integrated using the Audac Touch™ application. This application allows to custom configure your control panel (Dashboard) according to project or user specific requirements.

For using the remote web–control or Audac–Touch interface, the NMP40 and its main device shall be connected to an Ethernet LAN network and accessed by its IP address.

Start your default web browser and enter the IP address of the embedded web–control interface in the address bar. (the IP address depends on type of main device to which its connected, and its settings)

Module screen



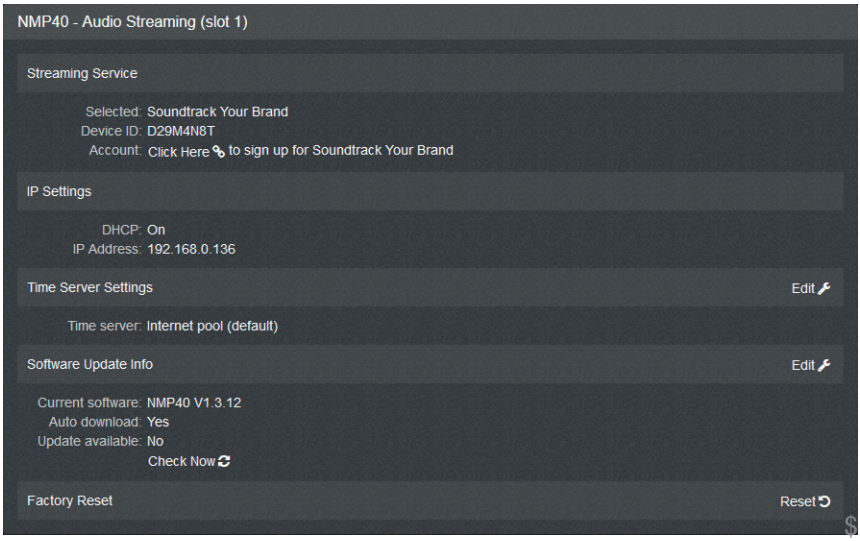
The module screen of the web interface gives an overview of the currently playing music service, the track information and standard control functions (play, pause, previous, next, ...) are available depending the service which currently is being used.

Above the status window is the device ID shown as ‘Now playing on #DeviceID’, while a volume bar below allows output volume adjustment.

The top right corner shows a ‘Streaming service’ selection button, allowing to switch between the various streaming services.

Settings screen

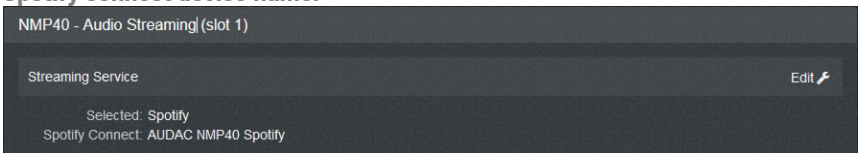
The settings screen includes all configurable settings which can be made to the NMP40. Depending of the configured streaming service, slightly different settings will be shown.



The selected streaming service will be shown, together with the device ID / device name.

Soundtrack your brand device ID:
For Soundtrack Your brand operation, the device ID shown here is required for pairing the device with your account.

Spotify connect device name:



The device name can be changed in the settings menu from the system the module is installed (only the web application). The device ID can be changed in any name and will be instantly updated in the applications and the device's main screen.

IP settings:
If IP settings for the NMP40 are set to DHCP, the IP address will be automatically assigned by the DHCP server in your network. It is not possible to configure the NMP40 to a fixed IP address

Time server settings:
When using the Soundtrack Your Brand streaming service, synchronization with a time server is required under all circumstances because the SYB services uses timed events and schedules. In default configuration, a network timeserver is used which guarantees accurate timing of the system. Adjustments in time settings according to various time zones are internally corrected.

Software update info:
Information about the currently running software version and the available updates is indicated in this menu. The NMP40 will automatically search for available updates (unless this function is disabled) or manual checking can be done through pressing the 'Check now' button. If any update is available, it will be indicated and the 'Install' button will appear. When pressing, the update will be started and installed. The NMP40 will interrupt its operation shortly when installing, but will resume to normal operation mode automatically afterwards.

Chapter 5
Installing the NMP40

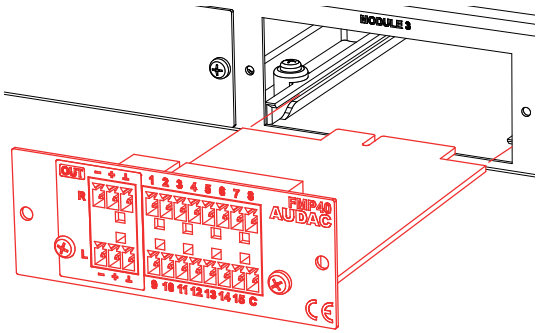
CAUTION

Before installing the NMP40 to any SourceCon™ compatible device, make sure the power is switched off. Malfunctions or electrical shocks may occur otherwise.

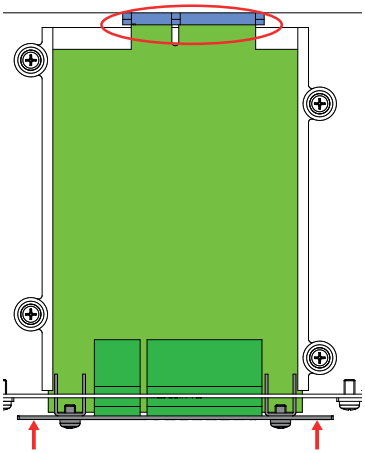
Step 1:
Make sure that the slot where the module should be installed is open and ready for installation. Depending on the main unit, some module slots will be covered by blind panels when delivered. The corresponding blind panels should be removed by releasing the screws on both ends.

Step 2:
Before removing the modules from their protective bag, we recommend touching a grounded metal chassis (or any other grounded point) to prevent electrostatic discharges affecting the sensitive electronic components. It is recommended to always hold the module card by the metal connection panel and avoid touching of the components on the circuit board directly.

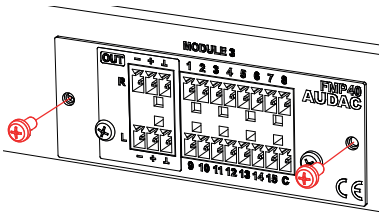
Step 3:
Align both edges of the module with the guide rails inside the slot and carefully insert the module into the slot. It should slide into the slot without any considerable resistance when well positioned into the guide rail.



Step 4:
Some resistance might occur when the module's board edge connector reaches the connection counterpart on the main board. Gently push the module all the way into the slot to ensure that the contacts are correctly inserted. The module is well inserted when its connection panel touches the metal chassis of the main device where inserted to.



Step 5:
Fasten the module into the slot using the included screws. Be aware that damage or malfunctions may occur if the module is not correctly fastened.



Step 6:
Once the module is correctly installed, the system can be powered–on and the module functionality will be automatically discovered.

Chapter 6
Additional information

Technical specifications

Connection	SourceCon™ interface card slot
Output	Balanced stereo line output (2 x 3–pin Euro Terminal Block ~ 3.81 mm)
Output level	+7 dB ~ –91 dB (Software configurable)
Signal/noise	100 dB
THD+N	< 0.02%
Frequency response	20 Hz – 20 kHz
Crosstalk	80 dB
Power consumption	2.5 Watt
Dimensions (W x H x D)	87 x 34.5 x 114 mm
Weight	0.075 Kg
Packaging	Carton box
Shipping weight & Volume	1.08 Kg – 0.028 Cbm
Compatible devices	XMP44 Modular audio system MFA Series amplifiers

Notes