



1073SPX-D



1073 Channel Strip and USB/ADAT Audio Interface

User Manual

Issue 1

Health & Safety Notice

**FOR YOUR OWN SAFETY AND FOR THE PROTECTION OF OTHERS
PLEASE OBSERVE THE FOLLOWING HEALTH AND SAFETY INSTRUCTIONS**



- READ THESE INSTRUCTIONS AND KEEP THEM HANDY
- HEED ALL SAFETY WARNINGS
- DO NOT USE NEAR WATER
- CLEAN ONLY WITH A DRY CLOTH
- DO NOT INSTALL NEAR HEAT SOURCES
- DO NOT BLOCK VENTILATION OPENINGS
- PROTECT THE POWER CORD
- USE ONLY ACCESSORIES SPECIFIED BY THE MANUFACTURER
- UNPLUG POWER CORD WHEN UNUSED FOR LONG PERIODS OF TIME
- REFER ALL SERVICING TO QUALIFIED PERSONNEL ONLY
- NO USER SERVICEABLE PARTS INSIDE

**FAILURE TO OBSERVE THESE PROCEDURES AND RECOMMENDATIONS
WILL INVALIDATE THE MANUFACTURER'S WARRANTY**



Avertissements de Santé & Sécurité

POUR VOTRE SECURITE ET CELLE DES AUTRES MERCI DE RESPECTER LES INSTRUCTIONS DE SANTE ET SECURITE SUIVANTES



- LISEZ CES INSTRUCTIONS ET GARDEZ-LES À PORTÉE DE MAIN
- TENEZ COMPTE DE TOUS LES AVERTISSEMENTS DE SÉCURITÉ
- NE PAS UTILISER PRÈS D'UNE SOURCE D'EAU
- NETTOYER UNIQUEMENT AVEC UN CHIFFON SEC
- NE PAS INSTALLER PRÈS D'UNE SOURCE DE CHALEUR
- NE PAS BLOQUER LES BOUCHES D'AÉRATION
- PROTÉGER LE CORDON D'ALIMENTATION
- N'UTILISER QUE LES ACCESSOIRES SPÉCIFIÉS PAR LE FABRICANT
- DÉBRANCHER LE CORDON D'ALIMENTATION DE LONGUES PÉRIODES D'INACTIVITÉ
- CONFIER TOUTES LES OPÉRATIONS DE MAINTENANCE À DU PERSONNEL QUALIFIÉ UNIQUEMENT
- AUCUNE PIÈCE INTERNE N'EST RÉPARABLE PAR L'UTILISATEUR

LE NON-RESPECT DE CES PROCÉDURES ET RECOMMANDATIONS INVALIDERA LA GARANTIE DU FABRICANT



Important Safety Instructions

For your own Safety and for the protection of others, please observe the following safety precautions:

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) **WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture**
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 10) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 11) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

WARNING:

WHERE THE MAINS PLUG OR AN APPLIANCE COUPLER IS USED AS THE DISCONNECT DEVICE, THE DISCONNECT DEVICE SHOULD REMAIN READILY OPERABLE.

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Instructions Importantes sur la Sécurité:

Pour votre sécurité et celle des autres merci de respecter les instructions de santé et sécurité suivantes :

- 1) Lisez ces instructions.
- 2) Gardez ces instructions.
- 3) Tenez compte de tous les avertissements.
- 4) Suivez toutes les instructions.
- 5) **ATTENTION:** afin de réduire les risques d'incendie ou de choc électrique, n'exposez pas cet appareil à la pluie ou à l'humidité
- 6) Nettoyez uniquement avec un chiffon sec
- 7) Ne pas bloquer les bouches d'aération
- 8) Ne pas installer à proximité d'une source de chaleur telle qu'un radiateur, une bouche d'air chaud, des plaques de cuisson (ou cuisinière), ou n'importe quel autre appareil producteur de chaleur (y compris un amplificateur)
- 9) Protégez le cordon d'alimentation afin d'éviter les piétinements et pincements, et plus particulièrement à proximité des prises de courant ou tout autre élément de branchement, ainsi qu'au point de sortie de l'appareil)
- 10) Débranchez cet appareil pendant les orages ou de longues périodes d'inactivité.
- 11) Confiez toutes les opérations de maintenance à un technicien qualifié. Un entretien est nécessaire lorsque l'appareil a été endommagé de quelque manière que ce soit, comme par exemple si le cordon d'alimentation ou la fiche sont endommagés, du liquide a été renversé ou des objets sont tombés dans l'appareil, si l'appareil a été exposé à la pluie ou à l'humidité, s'il ne fonctionne pas correctement ou a subi une chute de hauteur.

ATTENTION:

AFIN DE RÉDUIRE LES RISQUES D'INCENDIE OU DE CHOC ÉLECTRIQUE, N'EXPOSEZ PAS CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.

ATTENTION:

LORSQUE LA FICHE SECTEUR OU UN COUPLEUR D'APPAREIL EST UTILISÉ COMME DISPOSITIF DE DÉCONNEXION, LE DISPOSITIF DE DÉCONNEXION DOIT RESTER FACILEMENT OPÉRATIONNE.



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1073SPX-D Introduction



Legendary Preamps

Neve preamps have been at the forefront of studio technology for 60 years, providing a premium front end system that allows engineers, artists, and producers to have confidence in their recording system, allowing their creativity to shine through.

Analogue Legacy

The Neve 1073[®] is considered by many to be the best preamp ever made, capturing the very essence of the Neve sound. Manufactured from the early 1970s to the present day, the discrete class-A design offers a transformer-balanced preamp, inductor-based EQ, choke-coupled high-pass filter and transformer-balanced output stage. Each of these components combine, along with out technical expertise to produce audio magic at the module output.

Modern Extras

The 1073SPX-D accommodates a complete 1073[®] circuit in a stand-alone 1U rack-mount unit. At its core, the 1073SPX retains the same class-A design as the original 1073, but includes many additional features to ensure the unit sits comfortably in the modern studio environment.

Digital Innovation

The 1073SPX-D is the latest innovation in the Neve 1073 line, combining a complete 1073 channel strip with a powerful digital audio interface. Featuring USB and ADAT connectivity, the 1073SPX-D becomes a one-stop-shop for recording, mixing & monitoring in any studio environment or for any audio application.

Custom Workflows

The SPX-D's new digital interface can be used in multiple ways, allowing for many varied workflows. Musicians can connect the 1073SPX-D directly to a PC/Mac computer, providing a simple plug & play workflow. The 1073SPX-D can also be utilised as an ADAT audio expander for an existing audio interface, allowing home studio users to add a complete 1073 channel strip to their system.



Rack Mount Instructions

- ▶ Elevated Operating Ambient- If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (30°C) specified by the manufacturer.
- ▶ Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- ▶ Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not created by improper or uneven mechanical loading.
- ▶ **Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).**

Installation en Baie (rack)

- ▶ Température en service élevée – si l'installation est effectuée dans un endroit clos et/ou multi-rack, il se peut que la température localisée soit plus élevée que la température ambiante. Dans ce cas, il faudra faire attention à ce que l'environnement soit compatible avec la température ambiante maximale (30°) spécifiée par le fabricant.
- ▶ Aération réduite – l'installation de l'appareil dans une baie devra être réalisée afin de permettre une circulation d'air suffisante pour que le fonctionnement de celui-ci ne soit pas compromis.
- ▶ Installation mécanique – l'installation de l'appareil dans un rack devra être réalisée afin d'éviter une position qui s'avèrerait dangereuse dans le cas d'une installation instable.
- ▶ Mise à la terre convenable – la mise à la terre dans le cas d'une installation en baie/rack doit être maintenue. Une attention particulière devra être portée pour toute connexion indirecte (par exemple utilisation d'une multiprise)



The SPX-D, delivered in premium packaging, contains the following-

- **SPX-D 19" rack unit**
- **USB A > USB B 2.0 cable (Black)**
- **USB C > USB B 2.0 cable (Black)**
- **User Manual QR link**
- **Neve Outboard Product Brochure**
- **Neve Sticker**

Physical Computer Connections

Connect your 1073SPX-D unit to your computer using the USB cable provided, do not use USB cables longer than 3m as they can cause a drop in performance of your unit. The 1073SPX-D is USB 2.0 compliant; USB 2 and USB 3 ports can be used for digital audio transfer. Once a Stable connection is made, (and the AMS Neve Audio Driver is installed for PC users) the USB LED will illuminate Blue.

Connecting via a USB hub

It is best practice to connect the 1073SPX-D Directly to your computer's USB port, ensuring a stable connection with a continuous power supply. If a USB Hub is required, it is highly recommended to use a high-quality, powered USB Hub.

Software Quick Start

The following information contains connection & software installation instructions for Mac and PC systems. The 1073SPX-D complies with the USB Device Class Definition for Audio Devices 2.0 specification.

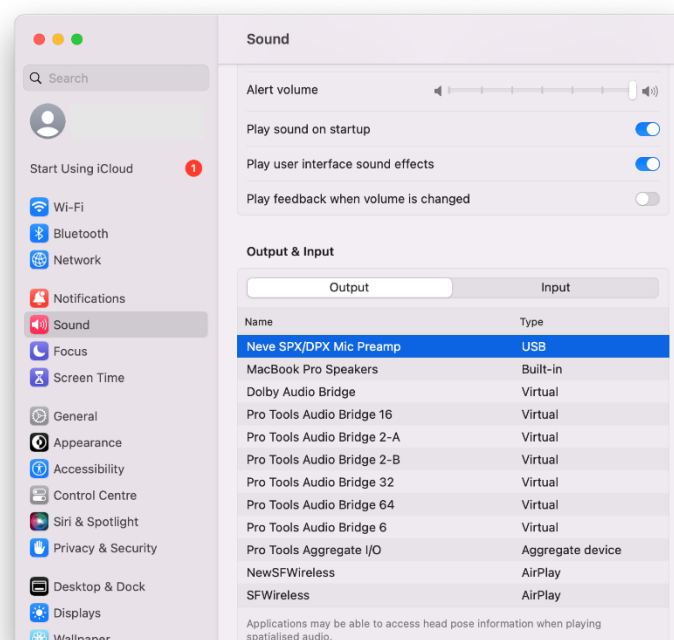
MAC

The 1073SPX-D will appear as a core audio device once connected to your Apple Mac computer.

To select the 1073SPX-D as your Mac Audio Interface, navigate to-

🍏 > System Settings > Sound

Select Neve SPX/DPX Mic Preamp as both Input and Output Device



Windows

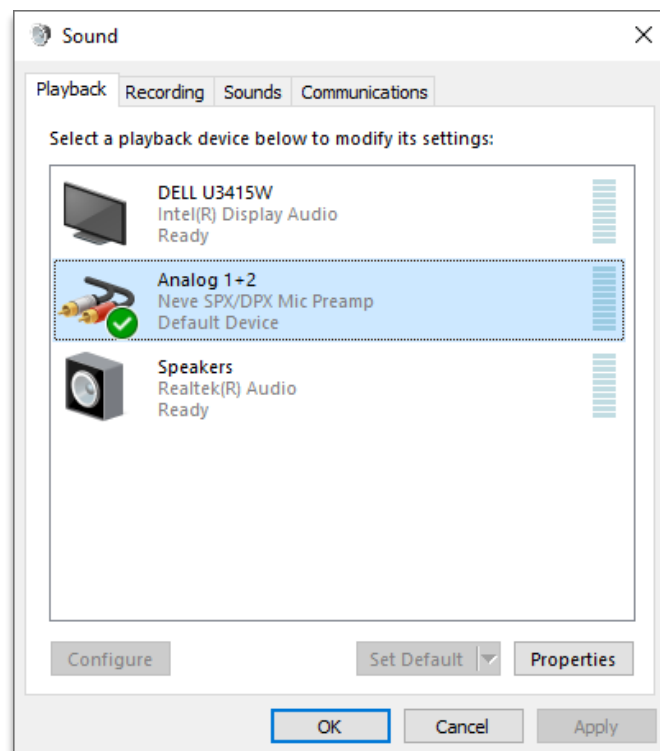
To operate on a Windows 10 PC, download and install the 1073SPX-D Driver from - <https://www.ams-neve.com/1073SPX-D/#MoreInfo> > **Downloads**

Follow the setup wizard instructions to install the driver.



To select the 1073SPX-D as your PC Audio Interface, navigate to – **Control panel>Hardware & Sound>Sound>Manage Audio Devices.**

Select 1073SPX-D Dual Mic Pre as the Playback and Recording device.



Input Connections



Rear connections

The 1073SPX-D features independent rear mounted female XLR connections for microphone or line level inputs.

The rear connections are ideally suited for studio integration into patch bays or direct connections to studio microphone snakes and line-level equipment such as audio interface outputs.

The two Rear connections are the default inputs for the 1073SPX-D.



FRONT Switch

The FRONT switch activates the front mounted Combi Mic/line/DI connector and disables the rear XLR input connections.

Toggleing the **FRONT** switch allows for easy access to the unit via the front combi input, without disconnecting the integrated rear inputs.



Front input Connections

Microphone Input (XLR Connection)

Connect microphone sources via an XLR cable to the front combi input.

Line/DI Input (TRS Connection)

Connect line or instrument sources via a TRS/TS jack cable to the front combi input.



DIGI

The DIGI switch activates the digital line input, fed from DAW output 3 named **Neve Out 3 (Digi/Mon 3)**.

This input is designed so that the 1073SPX-D can act as a USB or ADAT hardware insert by sending DAW signals directly into the SPX-D line preamp.

When DIGI is depressed, front & rear analogue line inputs (XLR & TRS/TS) are bypassed and only the digital input is fed to the 1073 Line preamplifier.



Preamp Controls



The 1073 SPX-D features the legendary 1073 preamp, complete with transformer-balanced topology and multiple gain stages for all input types.

Gain Switch

The 1073SPX-D gain switch is used to select the input type (Mic or Line) and set the preamp gain level for the selected input.

Preamp gain is incremented in 5dB steps, ranging from -20 to +10 of line level, and -20 to -80dB of microphone level.

The **line preamp** has seven gain settings, selectable from the gain switch. In each of these positions, the rear XLR or front TRS line input is selected via the **FRONT** switch setting.

The **microphone preamp** has 13 switch settings, selectable from the gain switch. In each of these positions, the rear XLR or front XLR microphone input is selected via the **FRONT** switch setting.

There are two 'off' positions. The first **off** position deactivates the line preamp before switching to the microphone preamp.

The second 'off' position denotes the point in which the first single-transistor gain stage is deactivated, and the second, dual-transistor gain stage is activated.

At higher gain settings, a greater degree of harmonic saturation can be achieved by adjusting the output gain via the **O/P Level** into the DAW.

Phantom Power (+48v)

The **+48V** switch activates phantom power for the front & rear XLR microphone inputs. When activated, the red LED will illuminate.

Dynamic microphones such as SM58's and Ribbon microphones do not require phantom power (+48v).

The +48V switch should be switched off for dynamic and ribbon microphones.

Condenser Microphones require Phantom power.

The +48V switch should be switched on for condenser microphones.

Note: Before activating Phantom Power, ensure that the monitor level is turned down to protect your monitoring system from pops.





Lo-Z

Lo-Z Switches the front or rear microphone input impedance from the default 1.2k Ω setting to 300 Ω impedance.

This switch should be used to impedance match the microphone preamp to the connected microphone.

Most modern microphones use higher impedance settings, so the default 1.2k Ω setting should be used.

Vintage microphones may use lower impedances, so the Lo-Z setting of 300 Ω should be used.

Note: Always check your microphone output impedance settings before activating lo-Z



DI

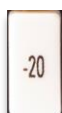
The **DI** Switch activates the front TRS DI instrument preamplifier input.

When depressed, instruments can connect to the front TRS combi connector via a 6.35mm TS or TRS jack cable.

The DI input has a high impedance of 2M Ω . DI signals pass through the microphone transformer and mic preamp stage of the 1073SPX-D.

To apply gain to an instrument DI, set the 1073SPX-D gain switch to the microphone input side of the switch, and adjust gain accordingly.

NOTE: When DI is depressed, all other microphone inputs are automatically disconnected



-20

The **-20** switch Provides 20dB of attenuation to the DI input, accommodating 'hot' instrument signals.

In the default position (**-20** off) the input impedance of the DI input is approximately 2M Ω .

When set to -20dB attenuation (**-20** depressed) the input impedance of the DI input is approximately 200k Ω .



EQ Section



The 1073SPX-D uses a three-band inductor-based EQ circuit, identical to the classic 1073 80-series modules. The EQ circuit also includes a choke-based high pass filter.

EQ Switch

The three-band EQ and HPF are activated via the **EQ** switch. Unless **EQ** is switched, the EQ and HPF are completely bypassed.



High Frequency

The high EQ band control provides smooth +/-16dB of fixed frequency shelving EQ at 12kHz.



Mid Frequency

The mid EQ band control provides smooth +/-18dB of peaking EQ with a fixed Q.

The second ring of the dual concentric control is a switched frequency selector, ranging from 0.36, 0.7, 1.6, 3.2, 4.8, & 7.2kHz.

In the 'off' position, the mid EQ band is bypassed.



Low Frequency

The Low EQ band control provides smooth +/-16dB of shelving EQ.

The second ring of the dual concentric control is a switched frequency selector, ranging from 35, 60, 110, & 220Hz.

In the 'off' position, the low EQ band is bypassed.



High Pass Filter

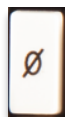
The **HPF** is a switched rotary control used to activate an 18dB per octave high pass filter into the 1073SPX-D signal path.

Corner frequencies are selectable at 50, 80, 160 & 300Hz.

In the 'off' position, the HPF is bypassed.



Output Connections & Controls



Phase

The Phase switch reverses the phase of the 1073SPX-D output signal. In the default position, absolute phase is preserved through the unit. When Phase is depressed, the output signal of the unit is inverted by 180 degrees.



Insert Send & Return Connections

The insert send and return TRS connections are balanced at +4dBu, allowing for connection to professional audio equipment such as compressors etc.



INS

The **INS** Switch activates the rear TRS insert send/return loop into the SPX-D signal path.



PRE

When depressed, the **PRE** switch positions the insert send/return loop before the 1073SPX-D EQ circuit (pre-EQ).

In the default position, the insert loop is positioned immediately after the EQ circuit (post-EQ).



Line O/P

The Line O/P male XLR connection is the main analogue output of the 1073SPX-D.

Connect the Line output to an available line input on your audio interface to record SPX signals into your DAW.



O/P Level

Adjusts the output audio level fed to the XLR output.

This control is post-EQ but pre-output transformer.

The pot ranges from -inf to +5dB, the thick line on the graticule indicates the point of nominal unity gain.



Metering

The 1073SPX-D features a 7-stage LED PPM meter ranging from -30dB to +24dBu.

Metering can be fed from three sources, selected by pressing **O/P LEVEL**.



I/P – Displays metering just after the preamp gain switch.



EQ – Displays metering after the EQ & Insert send/return loop circuit.



O/P – Displays metering after the output level control.

In addition to the 7-stage LED meters, each of the meter source LEDs (I/P, EQ, O/P) include clip indication and will illuminate red if their respective signal source is close to clipping.

Monitor Connections & Controls



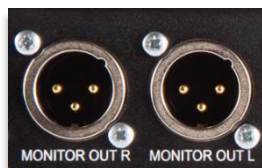
Monitor Input

The two monitor in L and monitor in R connections are used to input a stereo monitor source into the 1073SPX-D analogue monitor path.

These connections are ideally used as monitor connections from an external audio interface, providing an additional monitor attenuator control via the **HP/LS level** pot.



HP/LS level must be set to **MON** to activate the stereo analogue monitor path.



Monitor Output

The two monitor out L and R connections are used as the main stereo monitor output for the 1073SPX-D.

These connections are designed to connect to active studio loudspeakers or amplifiers.



HP/LS Level

The HP/LS Level control is a full range attenuator ranging from 0dB at the fully clockwise position to $-\infty$ at the fully counter-clockwise position.

The HP/LS Level control features a centre détente at the 12-o'clock position. This position is set at -10dB from the maximum output level and is ideally set as an 85dB SPL calibration point for your studio loudspeakers.

This control attenuates the Stereo XLR monitor outputs and the TRS headphone outputs in parallel.



Monitor CUT

Monitor CUT can be activated by short-pressing the HP/LS Level pot. When depressed CUT will disable the stereo monitor L&R XLR outputs. The TRS HP output will remain un-cut.

Monitor Source Selection

Long pressing the HP/LS Level pot selects between the four available monitor sources detailed below.



SPX- The output of the SPX-D channel strip is fed equally to the left & right stereo monitor outputs as a mono signal.



DAW- The output of the DAW/computer is fed into the left & right stereo monitor output as a stereo signal.



BLEND (SPX/DAW) - A blend of mono SPX-D output and stereo DAW input is fed into left & right stereo monitor outputs. When both SPX and DAW LEDs are illuminated, the **BLEND** pot is engaged.



MON - The stereo analogue monitor input is fed into the stereo left & right monitor outputs.



Blend

The blend control is used to crossfade stereo DAW and mono SPX signals into the 1073SPX-D stereo monitor path. This pot is designed to allow for latency-free monitoring when tracking through the 1073SPX-D.

- At the centre position, DAW and SPX signals are each attenuated by 6dB.
- At the maximum, counter-clockwise position (**DAW**) the SPX signal is fully attenuated, and only the stereo DAW signal is present at the stereo monitor output.
- At the maximum, clockwise position (**SPX**) the DAW signal is fully attenuated, and only the mono SPX signal is present at the stereo monitor output.

A long press of the **BLEND** pot changes the stereo DAW signal from output **1/2** to output **3/4**.

This switch allows two independent stereo mixes to be selected and sent to the headphones or stereo monitors.



Digital Connections & Controls



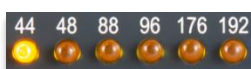
The USB 2.0 B-type port is used along with the cable(s) provided to connect the SPX-D to your computer as an audio interface.

When connected, the 1073SPX-D can be used as both a playback and recording device for the connected computer and DAW software applications.



When a valid USB connection is made, the USB LED will illuminate blue, indicating that the device can now be configured as the computer audio interface.

Sample rate selection is handled either from the DAW application, or from the ASIO/Core audio driver.



The LEDs on the front of the unit indicate the selected sample rate.



ADAT Connections

The 1073SPX-D features one optical output port and one optical input port. These two optical connections are used to connect the 1073SPX-D via TOSLINK cables to another ADAT-enabled audio interface such as the Neve 1073OPX or another 1073SPX-D.



Wordclock Synchronisation

The 1073OPX USB/ADAT Digital card has a Wordclock 75Ohm BNC output connector.

This output can be used to synchronise external equipment to the 1073SPX-D internal clock.

The Wordclock output transmits sync data when either ADAT internal/external mode or USB mode is selected.



USB/ADAT Hub Mode

The 1073SPX-D has two possible modes of digital operation.

USB/ADAT Hub mode enables the 1073SPX-D to function as a 9x12 I/O USB audio interface for your Mac or PC, expandible via ADAT in and out connections.

Connect the 1073SPX-D to your computer via USB. The USB LED will illuminate once the computer selects the SPX-D as its audio device.

In USB/ADAT Hub mode, the USB audio interface will report two analogue inputs, 8 digital inputs, four analogue outputs, and 8 digital outputs from the audio driver (Core Audio for Mac, AMS Neve USB Audio Device Control Panel for PC).

USB Driver I/O

The 1073SPX-D has two digital inputs to the USB connection and four digital outputs from the USB connection.

- Neve Input 1 is reserved to send the 1073SPX-D signal into the DAW.
- Neve Input 2 (Neve Input 2) is unused.
- Neve Outputs 1&2 (Mon L/R) are reserved for stereo DAW monitoring.
- Neve Outputs 3&4 (Digi/Mon) can be configured as an additional stereo monitoring pair.
- Neve Output 3 is also used as the SPX-D digital **DIGI** line input.



ADAT Output

In USB/ADAT Hub mode, a single ADAT output is used to transmit up to eight additional outputs digitally from your DAW via the ADAT output port.

At lower sample rates (44.1kHz, 48kHz) the optical output can transmit eight channels of digital audio. ADAT OUT transmits channels 1-8.

At higher sample rates (88.2kHz, 96kHz) only the first four channels of digital audio are available. ADAT OUT transmits channels 1-4.

At the highest sample rates (176.4kHz, 192kHz) only the first two channels of digital audio are available. ADAT OUT transmits channels 1-2.



ADAT Input

In USB/ADAT Hub mode, the ADAT IN port is used to feed signals from external devices through the 1073OPX USB and into the DAW.

At lower sample rates (44.1kHz, 48kHz) the optical output can transmit eight channels of digital audio. ADAT IN transmits channels 1-8.

At higher sample rates (88.2kHz, 96kHz) only the first four channels of digital audio are available. ADAT IN transmits channels 1-4.

At the highest sample rates (176.4kHz, 192kHz) only the first two channels of digital audio are available. ADAT IN transmits channels 1-2.

Sample Rate	ADAT OUT	ADAT IN
44.1/48 kHz	DAW Outputs 5-12	DAW Inputs 3-10
88.2/96 kHz	DAW Outputs 5-8	DAW Inputs 3-6
176.4/192 kHz	DAW Outputs 5-6	DAW Inputs 3-4

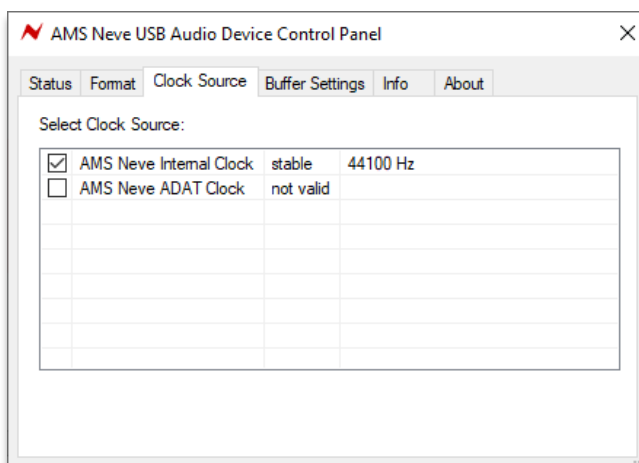
Internal/ADAT clock source selection

In USB Hub mode, the 1073SPX-D can either clock to its internal clock source or can clock to an external source via the ADAT input.

Note: sample rates must be matched on both devices when using ADAT clock mode.

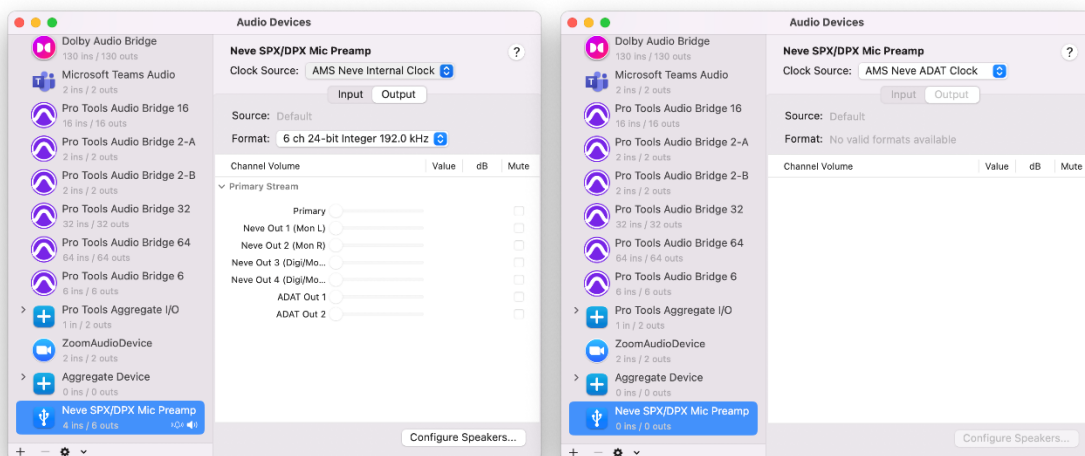
Clock Source Selection PC

Open the AMS Neve USB Audio Device Control Panel, navigate to 'clock source tab and select either AMS Neve Internal clock, or AMS Neve ADAT Clock.



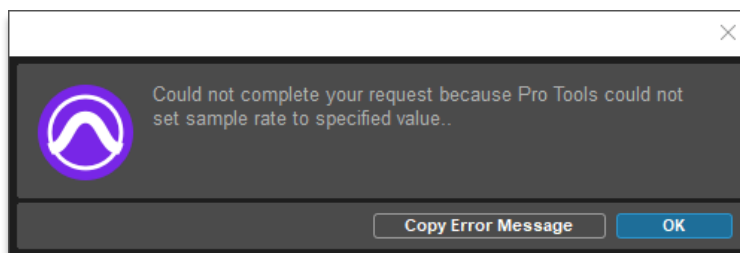
Clock Source Selection Mac

Open Audio MIDI Setup, navigate to 'show audio devices' and select either AMS Neve Internal clock, or AMS Neve ADAT Clock from the dropdown option at the top of the window.



Sample Rate/ ADAT Channel Count Configuration

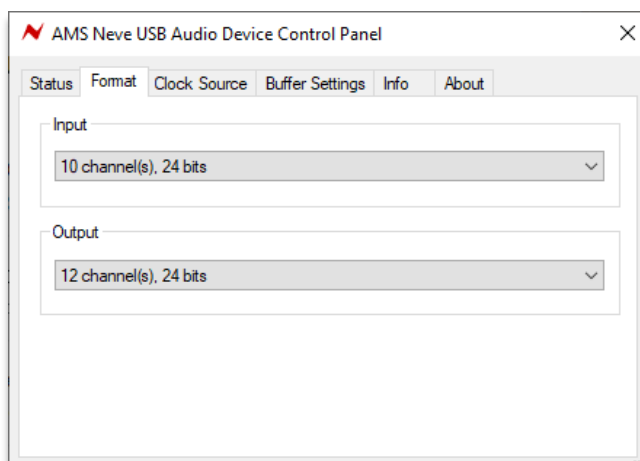
When using the 1073SPX-D in USB/ADAT Hub mode, adjustments must be made from within the audio driver in order to correctly map the unit's digital ADAT I/O to the available channel count at the requested sample rate. If this step is not performed, the DAW may present an error message when changing sample rates.



PC

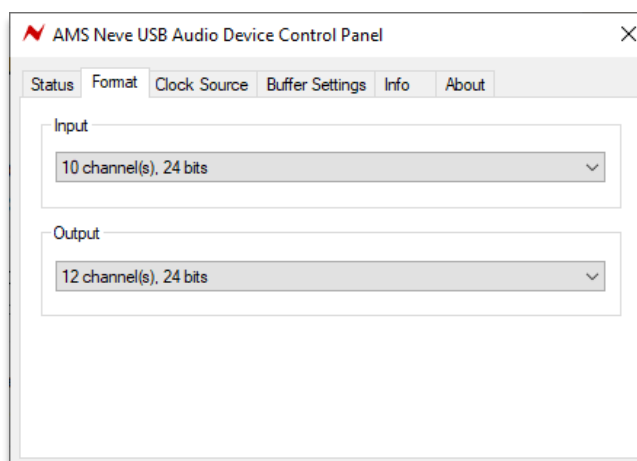
To configure the ADAT channel count for your selected sample rate -

- ▶ Navigate to the **Windows Start Menu>AMS Neve>AMS Neve USB Audio Device Control Panel**
- ▶ Open the **AMS Neve USB Audio Device Control Panel** application
- ▶ Open the **Format** tab



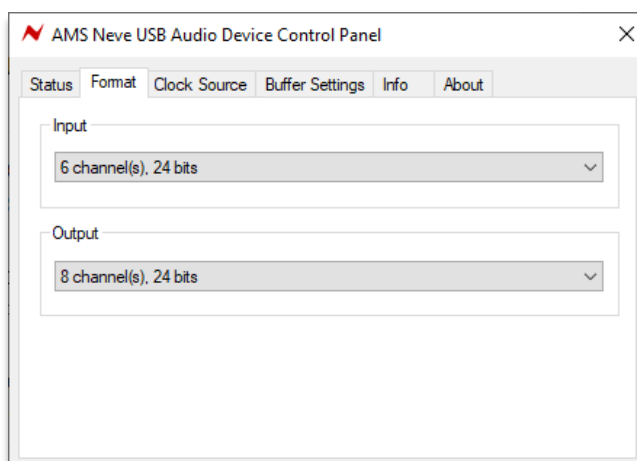
To configure for 44.1 or 48kHz sample rates, select –

- ▶ Input – 10 channel(s)
- ▶ Output – 12 channel(s)



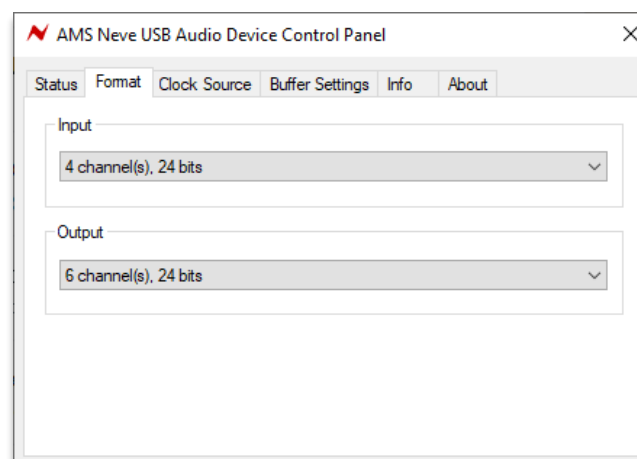
To configure for 88.2 or 96kHz sample rates, select –

- ▶ Input – 6 channel(s)
- ▶ Output – 8 channel(s)



To configure for 176.4 or 192kHz sample rates, select –

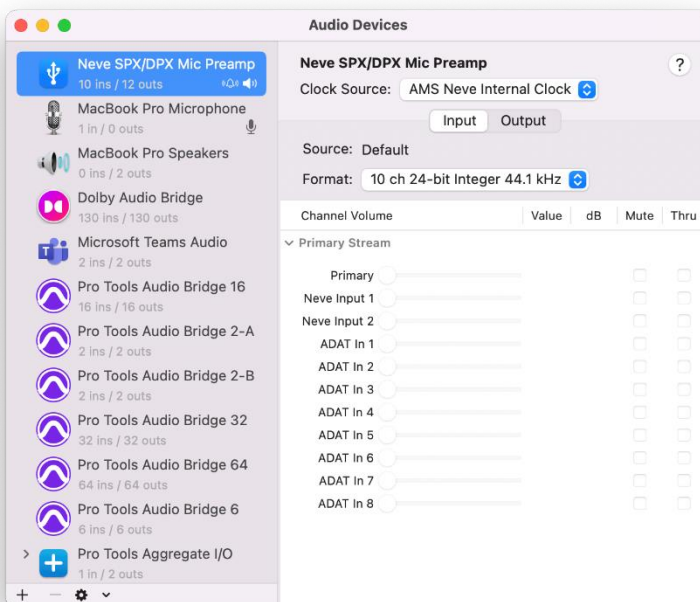
- ▶ Input – 4 channel(s)
- ▶ Output – 6 channel(s)



Mac

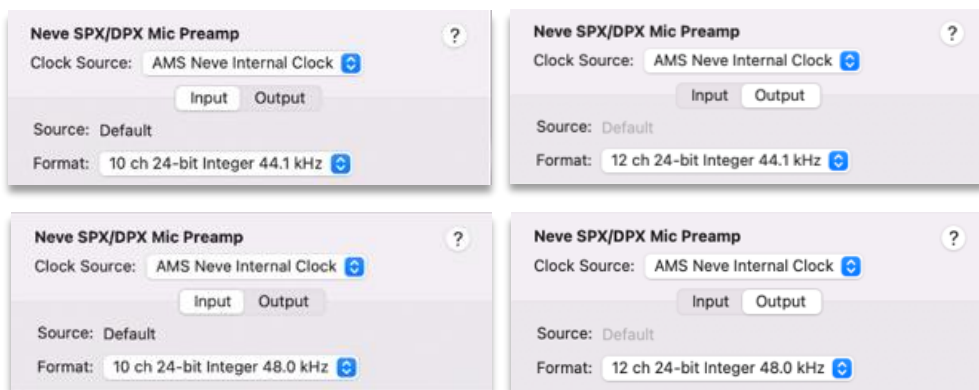
To configure the ADAT channel count for your selected sample rate -

- ▶ Navigate to the **Applications>Utilities>Audio MIDI Setup**
- ▶ Select **Neve SPX/DPX Mic Preamp** from the Audio Devices Window
- ▶ Select **Input & Output** tabs to configure the ADAT I/O channel count



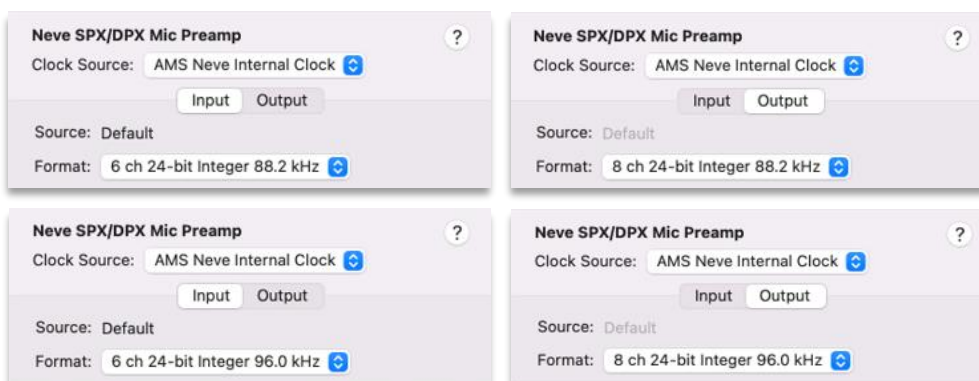
To configure for 44.1 or 48 kHz sample rates, select –

- ▶ Input – 10 ch 24-bit Integer 44.1 kHz/10 ch 24-bit Integer 48 kHz
- ▶ Output – 12 ch 24-bit Integer 44.1 kHz/12 ch 24-bit Integer 48 kHz



To configure for 88.2 or 96 kHz sample rates, select –

- ▶ Input – 6 ch 24-bit Integer 88.2 kHz/6 ch 24-bit Integer 96 kHz
- ▶ Output – 8 ch 24-bit Integer 88.2 kHz/ 8 ch 24-bit Integer 96 kHz



To configure for 176.4 or 192 kHz sample rate, select –

- ▶ Input – 4 ch 24-bit Integer 176.4 kHz/4 ch 24-bit Integer 192 kHz
- ▶ Output – 6 ch 24-bit Integer 176.4 kHz/6 ch 24-bit Integer 192 kHz

Neve SPX/DPX Mic Preamp ?

Clock Source: AMS Neve Internal Clock

Input Output

Source: Default

Format: 4 ch 24-bit Integer 176.4 kHz

Neve SPX/DPX Mic Preamp ?

Clock Source: AMS Neve Internal Clock

Input Output

Source: Default

Format: 6 ch 24-bit Integer 192.0 kHz

Neve SPX/DPX Mic Preamp ?

Clock Source: AMS Neve Internal Clock

Input Output

Source: Default

Format: 4 ch 24-bit Integer 192.0 kHz

Neve SPX/DPX Mic Preamp ?

Clock Source: AMS Neve Internal Clock

Input Output

Source: Default

Format: 6 ch 24-bit Integer 176.4 kHz



ADAT Audio Expander Mode



ADAT Audio Expander mode allows the 1073SPX-D to function as an I/O expansion device for your current audio interface (provided that it includes either an ADAT input or an ADAT input & output).

The 1073SPX-D features an optical output port and an optical input port. These two optical connections are used to connect the 1073SPX-D via TOSLINK cables to your audio interface, expanding its recording capabilities by adding a complete 1073 channel strip and two additional stereo monitor outputs.

ADAT Outputs

In ADAT Audio Expander mode, the ADAT output is used to transmit the digital output signal of the 1073SPX-D channel strip at sample rates ranging from 44.1kHz to 96kHz.

ADAT Input

In ADAT Audio Expander mode, the ADAT IN port is used to feed signals from the DAW, through your audio interface, and into the 1073SPX-D DAW 1&2 or 3&4 stereo monitor input at sample rates ranging from 44.1kHz to 96kHz.

Sample Rate Selection

To select the 1073SPX-D sample rate, **press the SR button** located to the left of the sample rate LEDs. The sample rate will toggle through 44, 48, 88, and 96.

The sample rate set on the 1073SPX-D must match the sample rate set on your audio interface.

Digital Synchronization

The 1073SPX-D can operate as Master clock or can slave to an external clock via the ADAT input via the **SYNC** switch located to the right of the sample rate LEDs.

Internal clock (INT LED On)

In internal clock mode, the 1073SPX-D is the master clock for your audio interface. In this mode, your audio interface must select ADAT as its clock source.

ADAT Clock (INT LED Off)

In ADAT clock mode, the 1073SPX-D receives its clock source from the ADAT Input. In this mode, your audio interface must be set to internal clock source.



Dimensions & Power Requirements

Height	44mm/1.75 inches
Width	480mm/19 inches
Depth	360mm/14.17 inches
Weight	5.475Kg/12.07Lbs
Voltage	100 – 240Vac
Current	0.2A @ 240Vac

PSU	Neve PS12221
+16V internal fuse	T2A 230V 20mm
-16V internal fuse	T2A 230V 20mm
48V internal fuse	T250mA 230V 20mm



Audio Specification

Microphone Inputs	
Frequency Response 20Hz to 20kHz	+/- 0.25dB
Frequency Response 10Hz to 35kHz	+/-0.5dB
Distortion (THD)	<0.2% 20-20kHz, <0.02% 1kHz
Noise EIN	<-124.5dBu 20-20kHz unweighted, gain @ 60dB
Gain Range	20 to 80dB
Maximum Input Level (Max Gain @ 80dB)	-56dBu
Maximum Input Level (Min Gain @ 20dB)	+6dBu
Input Impedance	1200Ω / 300Ω
Line Inputs	
Frequency Response 20Hz to 20kHz	+/- 0.25dB
Frequency Response 10Hz to 35kHz	+/- 0.5dB
Distortion (THD)	<0.2% 20-20kHz, <0.02% 1kHz
Noise (EIN)	<-100dBu 20-20kHz unweighted, gain @ 20dB
Gain Range	-10 to +20dB
Maximum Input Level (Max Gain @ 20dB)	+6dBu
Maximum Input Level (Min Gain @ -10dB)	+36dBu
Input Impedance	10kΩ
DI Inputs	
Frequency Response 20Hz to 20kHz	+/- 0.5dB
Distortion (THD)	<0.2% 20-20kHz, <0.02% 1kHz
Gain Range	20 – 80dB without pad
Maximum Input Level (Max Gain @ 80dB)	-56dBu
Maximum Input Level (Min Gain @ 20dB)	+6dBu
Input Impedance	2MΩ / 200kΩ
Insert Send / Return	
Maximum Output Level	+26dBu
Maximum Input Level	+26dBu
Mon Outputs	
Maximum Output Level	+20dBu

Headphone output (600Ω load)	
Maximum Output Level	+20dBu
Frequency Response	10 - 30kHz +/-0.1dB
Distortion (THD)	0.005%
Noise floor	-90dBu
Metering	
Signal	~-30dBu
Clip	+23dBu



AD/DA Specification

Type	Device	Sample Rate	THD+Noise	Dynamic Range	Distortion	Max Input Level	Max Output Level
USB	A/D Conversion	48,000	<100dBFS ¹	>119dB	<0.002% ²	>+26dBu	-
USB	D/A Conversion	48,000	<-91.5dBu ¹	>117dB	<0.001% ²	-	26dBu
USB	A/D Conversion	192,000	<100dBFS ¹	>119dB	<0.002% ²	>+26dBu	-
USB	D/A Conversion	192,000	<-91.5dBu ¹	>117dB	<0.001% ²	-	26dBu

¹THD+Noise (A weighted), 20Hz, 20kHz filter ON, measured through line in transformer

²Distortion, with a +26dBu input signal, minimum gain

Round Trip Latency (RTL)

Type	Device	S.R.	Bits	Buffer	Measured RTL (ms)	Noise Floor
ASIO	AMS Neve USB Audio Device	44100	32	16	8.707	-110.7
ASIO	AMS Neve USB Audio Device	44100	32	32	10.454	-110.4
ASIO	AMS Neve USB Audio Device	44100	32	64	10.794	-111.4
ASIO	AMS Neve USB Audio Device	44100	32	128	12.132	-111.1
ASIO	AMS Neve USB Audio Device	44100	32	256	16.145	-111.8
ASIO	AMS Neve USB Audio Device	44100	32	512	26.327	-111.6
ASIO	AMS Neve USB Audio Device	44100	32	1024	45.669	-111.3
ASIO	AMS Neve USB Audio Device	44100	32	2048	87.029	-111.6
ASIO	AMS Neve USB Audio Device	48000	32	16	8.854	-109.1
ASIO	AMS Neve USB Audio Device	48000	32	32	9.958	-110.5
ASIO	AMS Neve USB Audio Device	48000	32	64	10.604	-111.7
ASIO	AMS Neve USB Audio Device	48000	32	128	11.062	-111.1
ASIO	AMS Neve USB Audio Device	48000	32	256	17.875	-111.6
ASIO	AMS Neve USB Audio Device	48000	32	512	25.333	-111.2
ASIO	AMS Neve USB Audio Device	48000	32	1024	45.104	-111.6
ASIO	AMS Neve USB Audio Device	48000	32	2048	82.188	-110.6
ASIO	AMS Neve USB Audio Device	96000	32	16	5.062	-109.7
ASIO	AMS Neve USB Audio Device	96000	32	32	5.49	-109.5
ASIO	AMS Neve USB Audio Device	96000	32	64	6.312	-109.8
ASIO	AMS Neve USB Audio Device	96000	32	128	6.104	-109.3
ASIO	AMS Neve USB Audio Device	96000	32	256	9.062	-109.6
ASIO	AMS Neve USB Audio Device	96000	32	512	13.99	-109.6
ASIO	AMS Neve USB Audio Device	96000	32	1024	23.323	-109.7
ASIO	AMS Neve USB Audio Device	96000	32	2048	40.99	-109.7
ASIO	AMS Neve USB Audio Device	192000	32	32	3.365	-107
ASIO	AMS Neve USB Audio Device	192000	32	64	3.516	-107.1
ASIO	AMS Neve USB Audio Device	192000	32	128	4.474	-107.2
ASIO	AMS Neve USB Audio Device	192000	32	256	4.771	-107.2
ASIO	AMS Neve USB Audio Device	192000	32	512	7.099	-107.5
ASIO	AMS Neve USB Audio Device	192000	32	1024	11.516	-107.1
ASIO	AMS Neve USB Audio Device	192000	32	2048	21.484	-107.4

Unit Connection Tables

Power and Comms	USB2 Type-B
Preamplifier Microphone Inputs	XLR 3-pin plug female
Preamplifier Line Inputs	XLR 3-pin plug female & ¼" TRS Jack socket
Preamplifier DI inputs	¼" TRS Jack sockets
Headphone Output	¼" TRS Jack socket
Insert Sends	¼" TRS Jack sockets
Insert Returns	¼" TRS Jack sockets
Monitor Outputs	XLR 3-pin plug male

¼" Inputs and Outputs

All ¼" Line Inputs & Outputs on the unit have the same wiring, excluding headphones

Tip	Hot
Ring	Cold
Sleeve	Ground

XLR Inputs & Outputs

All XLR Inputs & Outputs on the unit have the same wiring

Pin 2	Hot
Pin 3	Cold
Pin 1	Ground



Dimensions & Exigences Alimentation

Hauteur	44mm/1.75"
Largeur	480mm/19"
Profondeur	360mm/14.17"
Poids	5.475Kg/12.07Lbs
Voltage	100 – 240Vac
Courant	0.2A @ 240Vac

PSU	Neve PS12221
+16V fusible interne	T2A 230V 20mm
-16V fusible interne	T2A 230V 20mm
48V fusible interne	T250mA 230V 20mm



Spécifications Audio

Entrées Microphone	
Réponse de fréquence 20Hz à 20kHz	+/- 0.25dB
Réponse de fréquence 10Hz à 35kHz	+/-0.5dB
Distortion (THD+N)	<0.2% 20-20kHz, <0.02% 1kHz
Bruit EIN	<-124.5dBu 20-20kHz unweighted, gain @ 60dB
Plage de Gain	20 – 80dB
Niveau Maximum Entrée (Gain Max @ 80dB)	-56dBu
Niveau Maximum Entrée (Gain Min @ 20 dB)	+6dBu
Impédance d'entrée	1200Ω / 300Ω
Entrées Ligne	
Réponse de fréquence 20Hz à 20kHz	+/- 0.25dB
Réponse de fréquence 10Hz à 35kHz	+/- 0.5dB
Distortion (THD+N)	<0.2% 20-20kHz, <0.02% 1kHz
Plage de Gain	<-100dBu 20-20kHz unweighted, gain @ 20dB
Niveau Maximum Entrée (Gain Max @ 20dB)	-10 – +20dB
Niveau Maximum Entrée (Gain Min @ -10dB)	+6dBu
Impédance d'entrée	+36dBu
Entrées Directes (DI)	
Réponse de fréquence 20Hz à 20kHz	+/- 0.25dB
Distortion (THD+N)	<0.2% 20-20kHz, <0.02% 1kHz
Plage de Gain	20 – 80dB without pad
Niveau Maximum Entrée (Gain Max @ 80dB)	-56dBu
Niveau Maximum Entrée (Gain Min @ 20dB)	+6dBu
Impédance d'entrée	2MΩ / 200kΩ
Départs insert	
Niveau Maximum Sortie	+26dBu
Niveau Maximum Entrée	+26dBu
Sorties Moniteur	
Niveau Maximum Sortie	+20dBu

Sortie Casque (charge 600 Ohm)	
Niveau Maximum Sortie	+20dBu
Réponse de fréquence	10 - 30kHz +/-0.1dB
Distortion (THD +N)	0.005%
Bruit de fond	-90dBu
Mesure	
Signal	-30dBu
Clip	+23dBu



Spécification AD/DA

Type	Dispositif	S.R	Bruit	Plage Dynamique	Distortion	Niveau Max Entrée	Niveau Max Sortie
USB	A/D Conversion	48,000	<100dBFS ¹	>119dB	<0.002% ²	>+26dBu	-
USB	D/A Conversion	48,000	<-91.5dBu ¹	>117dB	<0.001% ²	-	26dBu
USB	A/D Conversion	192,000	<100dBFS ¹	>119dB	<0.002% ²	>+26dBu	-
USB	D/A Conversion	192,000	<-91.5dBu ¹	>117dB	<0.001% ²	-	26dBu

¹Bruit (Pondéré A), 22Hz, 22kHz filtre ON

²Distortion, avec un signal d'entrée de 26dBu, gain minimum

Latence aller-retour

1

Type	Dispositif	S.R.	Bits	Tampon	RTL mesuré (ms)	Bruit de Fond
ASIO	AMS Neve Dispositif USB Audio	44100	32	16	8.707	-110.7
ASIO	AMS Neve Dispositif USB Audio	44100	32	32	10.454	-110.4
ASIO	AMS Neve Dispositif USB Audio	44100	32	64	10.794	-111.4
ASIO	AMS Neve Dispositif USB Audio	44100	32	128	12.132	-111.1
ASIO	AMS Neve Dispositif USB Audio	44100	32	256	16.145	-111.8
ASIO	AMS Neve Dispositif USB Audio	44100	32	512	26.327	-111.6
ASIO	AMS Neve Dispositif USB Audio	44100	32	1024	45.669	-111.3
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ASIO	AMS Neve Dispositif USB Audio	48000	32	16	8.854	-109.1
ASIO	AMS Neve Dispositif USB Audio	48000	32	32	9.958	-110.5
ASIO	AMS Neve Dispositif USB Audio	48000	32	64	10.604	-111.7
ASIO	AMS Neve Dispositif USB Audio	48000	32	128	11.062	-111.1
ASIO	AMS Neve Dispositif USB Audio	48000	32	256	17.875	-111.6
ASIO	AMS Neve Dispositif USB Audio	48000	32	512	25.333	-111.2
ASIO	AMS Neve Dispositif USB Audio	48000	32	1024	45.104	-111.6
ASIO	AMS Neve Dispositif USB Audio	48000	32	2048	82.188	-110.6
ASIO	AMS Neve Dispositif USB Audio	96000	32	16	5.062	-109.7
ASIO	AMS Neve Dispositif USB Audio	96000	32	32	5.49	-109.5
ASIO	AMS Neve Dispositif USB Audio	96000	32	64	6.312	-109.8
ASIO	AMS Neve Dispositif USB Audio	96000	32	128	6.104	-109.3
ASIO	AMS Neve Dispositif USB Audio	96000	32	256	9.062	-109.6
ASIO	AMS Neve Dispositif USB Audio	96000	32	512	13.99	-109.6
ASIO	AMS Neve Dispositif USB Audio	96000	32	1024	23.323	-109.7
ASIO	AMS Neve Dispositif USB Audio	96000	32	2048	40.99	-109.7
ASIO	AMS Neve Dispositif USB Audio	192000	32	32	3.365	-107
ASIO	AMS Neve Dispositif USB Audio	192000	32	64	3.516	-107.1
ASIO	AMS Neve Dispositif USB Audio	192000	32	128	4.474	-107.2
ASIO	AMS Neve Dispositif USB Audio	192000	32	256	4.771	-107.2
ASIO	AMS Neve Dispositif USB Audio	192000	32	512	7.099	-107.5
ASIO	AMS Neve Dispositif USB Audio	192000	32	1024	11.516	-107.1
ASIO	AMS Neve Dispositif USB Audio	192000	32	2048	21.484	-107.4

Table de connexion de l'unité

Alimentation et Communications	USB2 Type-B
Préamplificateur (Sorties Microphone)	XLR 3-broches F
Préamplificateur (Entrées Ligne)	XLR 3-broches F & ¼" (6.35mm) TRS Jack
Préamplificateur (Entrées Directes DI)	¼" (6.35mm) TRS Jack
Sortie Casque	¼" (6.35mm) TRS Jack
Départs Insert	¼" (6.35mm) TRS Jack
Retours Insert	¼" (6.35mm) TRS Jack
Sorties Moniteur	XLR 3-broches M

¼" Entrées et Sorties

Toutes les entrées & sorties ¼" (6.35mm) de l'unité ont le même câblage, sauf casque

Pointe	Chaud
Bague	Froid
Corps	Masse

XLR Entrées et Sorties

Toutes les entrées & sorties XLR de l'unité ont le même câblage

Point 2	Chaud
Point 3	Froid
Point 1	Masse

