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The “NICERIZER 16” Owner’s Manual

Firstly, let me congratulate you on your purchase of the “Nicerizer 16”. I know you will be as pleased with its sonic qualities as we are.

You are now the proud owner of a “Nicerizer 16” that has the advantages of more than 25 years experience in audio engineering, today’s component and manufacturing technology, but still retaining “that sound” uniquely achievable through Class A design.

As you can tell, Phoenix Audio International (UK) is dedicated to the development of Class A discrete technology used within high build-quality equipment.

The “Nicerizer 16” was originally conceived because of the demand from customers for something that would "sweeten" the output from Digital Audio Workstations and to make the final mix easier to distribute and handle.

The “Nicerizer 16” is designed to take the output out of the digital realm, and to add the Class A characteristics and feel before the final recording.

The ““Nicerizer 16”” uses our well proven and loved Class A output stage (DSOP-2), but also has our latest breakthrough in transformerless Class A, Discrete Mic Input Technology which gives a "valve-like" sound, and our Class A, Discrete, Virtual Earth mixing stage.

You CAN hear the difference!!!

The “Nicerizer 16” is a 2U 19" rack mountable 16 channel Input unit, which can be stacked and linked up to 6 units.

Applications:

Range from "digital sweetening" to source routing, to DAW mixing and from studio to stadium.

Specifications:

- 16 channels of our Class A, discrete, truly balanced transformerless input stage.
- Our proven and loved Class A, discrete, transformer balanced output stage (DSOP-2).
- Class A, Discrete, High Gain, Inverting (Virtual Earth) Mixing stage.
- Individual pan control for each channel (16 x Pan pots).
- 16 x Balanced Input XLR's. Can accept balanced or unbalanced input with no -6dB loss.
- 2 x mix busses (Stereo Mix Bus).
- 1/4" TRS Inserts on Busses (L + R Bus Insert points).
- +8dB Boost button on each channel.
- Master mix bus output level control.
- Stereo LED level monitoring. Switchable for each channel and Main Output.
- Stereo/mono Headphone monitoring switchable to each channel and Main output, includes headphone monitoring of the mix bus. (L, R, and Stereo).
- Main Outputs on Balanced XLR's
- Monitor Outputs on 1/4" TRS Jacks
- Class A Stereo Width control with Loss-less Bass. Pan-able from mono through to +25% Wider + Width control Bypass switch.
- Huge headroom available on all channels. Input Headroom +26dB. Output Headroom +26dB

Overview

The Input signal is fed to the “Nicerizer 16” via the Input XLR’s on the rear panel. The input signal is panned by the associated pan control on the front panel and can be monitored by selecting the associated channel on the Monitor control on the front panel. Monitoring can be achieved via the Headphone jack, and visually by the LED metering on the front panel.

The Nicerizer 16 is usually used in channel pairs Eg: 1- Left, 2 –Right.

All channels can be monitored individual, and the L bus and R bus can also be monitored individually. The main bus output level is adjusted via the main level control on the front panel.

Connections and functions:

Rear connections:

All connections to the “Nicerizer 16” are wired as follows:

3 Pin XLR connectors: Pin 1 – Ground, Pin 2 – Hot (signal +ve), Pin 3 – Cold (signal –ve).

1/4” (6.35mm) TRS Stereo Jack Sockets: Tip – Hot (signal +ve), Ring - Cold (signal –ve), Sleeve- Ground.

1/4” (6.35mm) TS Mono Jack Sockets: Tip – Signal, Sleeve – Ground.

1/4” (6.35mm) TRS Bus Insert Jack Sockets: Tip – Send, Ring – Return, Sleeve – Common.

Rear Panel

Inputs:

On the rear panel there are 2 rows of XLR connectors Numbered 1 – 16. These correspond with the Pan controls and monitor control on the front panel.

These are Balanced XLR Inputs, but are equally capable of accepting an unbalanced signal without the 6dB loss often associated with sending an unbalanced signal into a balanced input.

Inserts:

There are two TRS “_” Jacks marked Insert L and R. These are unbalanced inserts to allow you to insert outboard equipment across the busses (such as a compressor). The inserts can be used as unbalanced or balanced inserts, providing the correct cable is used. (see connections and functions for wiring detail).

Main Outputs:

There are 2 x Main output XLR’s Labeled Output L and R. These provide access to the 2 mix busses which are transformer-balanced Outputs and can be used in either balanced or un-balanced mode. These outputs can also be chained to any number of pieces of external equipment as long as total loading does not exceed 600R.

Monitor Outputs:

There are 2 x TRS _" Jacks Labeled Mon L and R. These provide monitor outputs that can be sent to external equipment such as amplifiers.

Front Panel:

Pan Controls

The front panel has 2 rows of Pan controls numbered 1 - 16 associated with the Input XLR's on the rear panel. Each channel is individually controlled and can be panned From Left to Right, and anywhere in between.

+8 dB Push-button switches

Between the rows of Pan controls there is a row of Push-button switches marked +8. Each switch is associated with an individual channel, and pressing a switch will add an additional gain of +8dB to the input of that channel.

Monitor Selector Switch

The monitor Selector switch is a 9 position switch that selects pairs of channels for monitor purposes Eg: 1 and 2, 3 and 4 Etc. and also allows monitoring of the main L and R outputs. Monitoring is achieved visually by the LED meter, and is also available on the Monitor Jack socket.

Each channel can be monitored individually on the Monitor jack by using the monitor selector toggle switch.

Monitor Output Jack Socket

The _" TRS Monitor output jack can be used to drive headphones to monitor individual channels (mono), stereo channels (channel pairs), or the Main Output. The Monitor Jack Socket can also be used to send signal to external monitoring equipment.

Monitor Level Control

The Monitor Level Control adjusts the level available at the Monitor Headphone Jack Socket.

Monitor selector Toggle Switch

The switch has 3 positions. L, R and Stereo. When the switch is in the L position the Left signal being monitored via the Monitor Selector switch is sent to both sides of the headphone at once (mono). Eg: Channel 1 sent to both sides of headphone. When the switch is in the R position the Right Signal being monitored by the Monitor Selector switch is sent to both sides of the headphone at once (mono) Eg: Channel 2 sent to both sides of headphones. When the switch is in the Central position (stereo) The left signal is sent to the left headphone, and the Right signal to the Right headphone (Eg: 1 on Left, 2 on Right), this also allows you to hear any mixing that may have occurred via the pan controls across the two associated channels.

LED Level monitoring

The LED Level metering follows the monitor selector switch. Eg: If the Monitor Selector switch is in position 1 / 2, the Top row of LED's will show the input Level of Channel 1(L), and the bottom row will show the input level Channel 2 (R). This is measured as the level after the input amplifier, and is the level being sent onto the busses.

When the monitor selector switch is set in the L/R position, the meter displays the level being sent to the Output XLR's.

The LED Level indicator lights an LED as each indicated level is reached. (-12, -6, 0, +3, +6 dB). Although the metering only shows a maximum level of +6dB and the LED's are Red, this in **NO WAY indicates that the unit is clipping!!** The Nicerizer 16 is capable of delivering up to +26dB, way beyond the capability of the LED Meters.....So, if you want a much hotter output, just turn it up!!

Stereo Width Control and Toggle switch

The Stereo Width control is a Class A, Discrete, lossless-bass circuit that can be used to control the perceived "width" of the stereo image. The control only affects the output of the signal after the bus (it has no effect on individual channels before the bus).

The width control will alter the image from mono, round to approximately 25% wider than the original image sent to the busses.

The stereo width toggle switch can be used to bypass the width control so that the control has no effect on the stereo image regardless of its position.

Main Output Level Control

The Main Output Level control is used to adjust the Output Level of the unit. The control affects the Main Output XLR's and Main Output Monitor Jacks on the rear panel, and the effect can be seen on the Monitor Level LED Meter when the Monitor Selector Switch is in the L/R position. Remember!! You can turn this control almost all the way to it's maximum position, way beyond the LED Metering Display's Capability, and still be sure that the Output will not clip! (The output can actually be driven another +20dB beyond the last Red LED before the unit might clip).

Illuminated Mains switch.

Switching this switch into the 'ON' position so that the Neon glows, has a profound effect on the sound quality and gain of the unit. This is best left in the "ON" position for normal use. ☺