

NeoAmp





4 CHANNELS STEREO HEADPHONE AMP



NeoAmp is a 4-channel headphone amplifier that can provide mega-power to 4 headphones simultaneously.

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	<p>CAUTION</p> <p>RISK OF ELECTRIC SHOCK DO NOT OPEN RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR</p> <p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL</p> <p>ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE. AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER. CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE.</p> <p>AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE A LA PLUIE, OU A L'HUMIDITE.</p>			<p>The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure, that may be of sufficient magnitude to electric shock to persons. Le symbol clair avec point de foudre à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de voltage dangereux non isolé d'amplificateur.</p> <p>exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.</p>
				

Important Safety Instructions

1. Please read all instructions before operating the unit.
2. Keep these instructions for future reference.
3. Please read all safety warnings.
4. Follow the manufacturer instructions.
5. Do not use this unit near water or moisture.
6. Clean only with a dry cloth.
7. Install in accordance with the manufacture instructions
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. When the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on and pinched particularly at plugs, convenience receptacles and at the point at which they exit from the unit.
11. Unplug this unit during lightning storms or when unused for long periods of time.
12. Refer all servicing to qualified personnel. Servicing is required when the unit has been damaged in any way.

WARNING: To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture

Introduction

Welcome

A personal welcome to you from the management and employees of ICON

All of the co-workers here at ICON are dedicated to providing excellent products with inherently good value, and we are delighted you have purchased one of our products.

We sincerely trust this product will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

Welcome to ICON, and thank you for becoming part of our worldwide extended family!

Guide

In these pages, you will find a detailed description of the features of the NeoAmp, as well as a guided tour through its control panel, step-by-step instructions for its setup and use, and full specifications.

You will also find a warranty card enclosed-Please don't forget to fill it out and mail it in so that you can receive online technical support and so we can send you updated information about these and other ICON products in the future.

With proper care, your NeoAmp will operate trouble free for many years. We recommend you record your serial number in the space provided below for future reference.

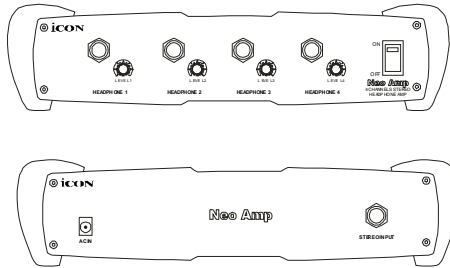
Please write your serial number here for future reference:

Purchased at:

Date of purchase:

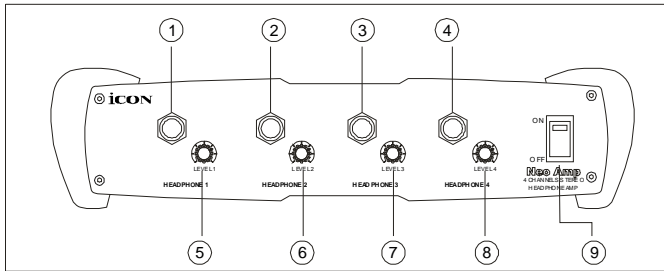
NeoAmp Features

NeoAmp



- Four channel stereo headphone amplifier
- Maximum output power on each channel regardless of different headphone impedances
- Four 1/4 inch stereo headphone outputs
- Individual volume control for each headphone output
- Stereo 1/4-inch input connector
- Rugged aluminum extrusion chassis
- Large rubber bumpers
- 18 Volt AC adapter included
- Three year extended warranty

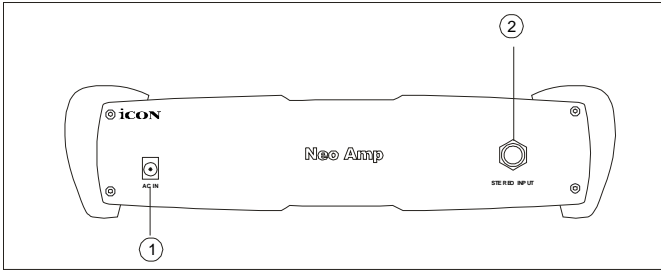
Front Panel Layout



- ① **HEADPHONE 1**
1/4" output for connecting headphone 1
- ② **HEADPHONE 2**
1/4" output for connecting headphone 2
- ③ **HEADPHONE 3**
1/4" output for connecting headphone 3
- ④ **HEADPHONE 4**
1/4" output for connecting headphone 4
- ⑤ **LEVEL 1**
Control knob used to adjust the output level of Headphone 1
- ⑥ **LEVEL 2**
Control knob used to adjust the output level of Headphone 2
- ⑦ **LEVEL 3**
Control knob used to adjust the output level of Headphone 3
- ⑧ **LEVEL 4**
Control knob used to adjust the output level of Headphone 4
- ⑨ **POWER SWITCH**
The LED glows red when the unit is on.

Rear Panel Layout

NeoAmp



① **AC POWER ADAPTER INPUT**

Connect the supplied power adapter here

② **STEREO INPUT**

1/4-inch TRS (TIP/RING/SLEEVE) connector to input main stereo signal

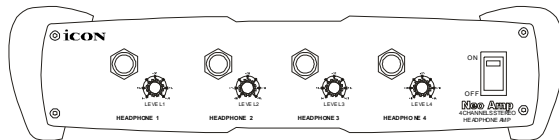
Operating the NeoAmp

The basic procedure for setting up and using your NeoAmp is simple and takes only a few minutes. Remove all packing materials (save them in case they are needed for future service or transportation) and check to make sure that you remove the supplied AC power adapter.

IMPORTANT NOTE: Before you connect your headphones, be sure to double check that all level controls are turned all the way down (fully counter clockwise position). The NeoAmp is small, but powerful. It can generate loud signal levels into the connected headphones. We recommend that you exercise extreme caution and care for your ears. Always start with the level controls all the way off and slowly raise the signal to a comfortable listening level.

Connect the output from the device you want monitored to the STEREO INPUT jacks on the NeoAmp Rear panel.

Set the controls to the following positions:



Turn the four headphone channel LEVEL knobs to their minimum (fully counterclockwise) setting.

Plug the NeoAmp power adapter into a wall outlet.

Apply a signal, like the output of a mixer playing a CD, to the NeoAmp's STEREO INPUT jack.

Connect a set of headphones to Channel 1 and slowly turn the channel's LEVEL knob clockwise until you hear the desired level.

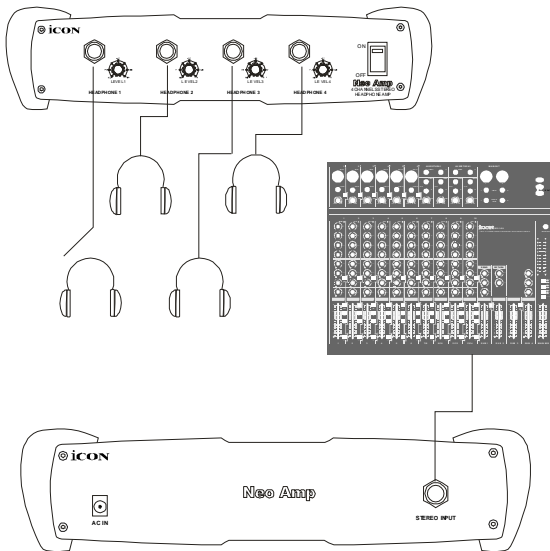
Operating the NeoAmp

Repeat the previous step for all the Channels that have headphones connected, making sure to start the LEVEL knob completely counterclockwise and then slowly raising it until the desired level is achieved. If you have connected different models of headphones to the various Channel Headphone jacks, you may find that some require more gain than others to achieve the same volume. This kind of disparity occurs if the various headphones have different impedances. The lower the impedance, the louder the headphone will sound compared to another, higher impedance headphone at the same VOLUME setting. Another factor affecting headphone loudness is called sensitivity. This is generally measured by determining the decibel (dB) level generated by 1 MW of power input. The higher the dB rating, the louder the headphone. See the reference chart for more details.

Typical Set-up

The diagram below shows a typical set-up for a small band using the NeoAmp headphone amplifier with a stereo mixer for a sophisticated personal headphone monitoring system.

Typical hook-up for four headphones with independent level control



NeoAmp Connections

HEADPHONE IMPEDANCE AND SENSITIVITY RATINGS

Virtually all headphones that terminate in a stereo 1/4" plug can be used with the NeoAmp Headphone Amp.

This chart provides a partial listing of some of the more popular models, along with their impedance and sensitivity ratings. Headphones with lower impedances (or higher sensitivity) will sound louder as compared to other, higher impedance (or lower sensitivity) headphones at the same channel Volume setting.

ICON has no connection with any of these manufacturers, nor do we endorse any particular models for use with the NeoAmp. This is simply a reference listing for your convenience. For more information about any of these headphones, contact the manufacturer directly.

ICON HEADPHONES

Model	Impedance	Sensitivity /MW
HP160	200 ohm	97 dB
HP400	200 ohm	97 dB
HP420	200 ohm	90 dB
HP424	200 ohm	>98 dB
HP428	200 ohm	>98 dB
HP500	600 ohm	>93 dB
HP600	600 ohm	>95 dB
HP722	600 ohm	>98 dB

OTHER MANUFACTURER'S HEADPHONES

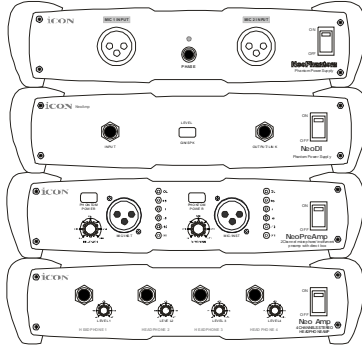
Manufacturer	Model	Impedance	Sensitivity /MW
AKG	K-141	600 ohm	98 dB
AKG	K-240	600 ohm	88 dB
Beyer	DT-150	250 ohm	114 dB
Beyer	DT-801	250 ohm	114 dB
Fostex	T-10	50 ohm	91 dB
Fostex	T-20	50 ohm	96 dB
Fostex	T-40	50 ohm	98 dB
Sennheiser	HD-450 (original)	70 ohm	94 dB
Sennheiser	HD-450 Series II	60 ohm	94 dB
Sony	MDR-7502	45 ohm	100 dB
Sony	MDR-7504	45 ohm	103 dB
Sony	MDR-7506	63 ohm	106 dB

Stacking NeoAmp

NeoAmp

Stacking the NeoAmp

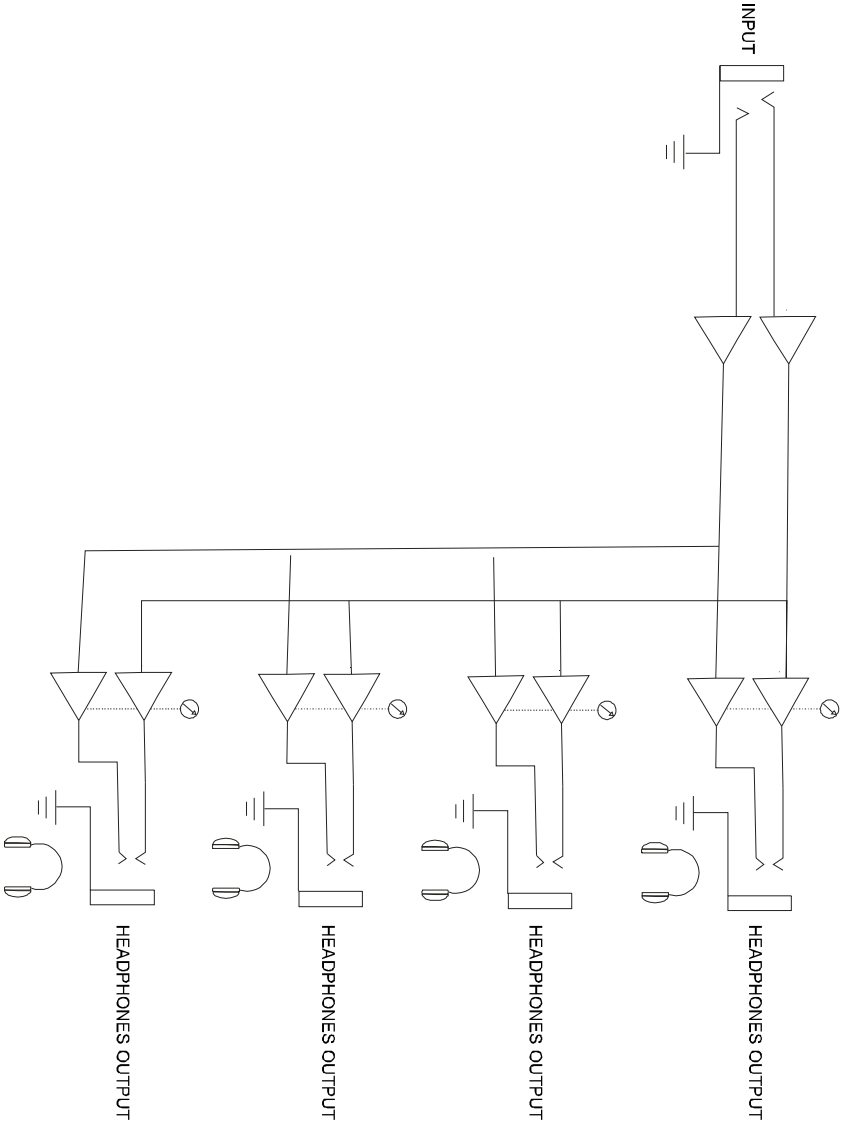
You can stack one NeoAmp or any other ICON Neo Series gears on top of each other by simply lining up the bumpers.



Specifications

Input Impedance	100K ohm unbalanced
Max Input Level	+19 dBV
Input Connectors	Stereo 1/4" TRS phone
Outputs	4 Stereo 1/4" TRS phone
Output Impedance	100ohm each output
Max Gain	20dB/Channel
S/N Ratio	>90dB
THD	<.005%
IMD (SMPTE)	<.005%
Power	18 V AC adapter
Dimensions	7.87"L x 4.88" W x 2" H (200 mm L x124 mm W x51 mm H)
Weight	2.5 lb (1.12 Kg)

Schematic



Services

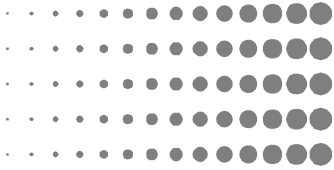
1. Ensure the problem is not related to operation error or external system devices.
2. Keep this owner's manual. We don't need it to repair the unit.
3. Pack the unit in its original packaging including end card and box. This is very important. If you have lost the packaging, please make sure you have packed the unit properly. ICON is not responsible for any damage that occurs due to non-factory packing.
4. Ship to the ICON tech support center or the local return authorization.

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