AUDIOropa ProLoop NX3 Loop Amplifier User Manual

ProLoop NX3
Class D loop driver
User manual

Contents

Introduction

Thank you for having purchased the »PRO LOOP NX3« Class D loop driver!
Please take a few moments to read this manual. It will ensure you the best use of the product and many years of service.

PRO LOOP NX3

2.1 Description

The PRO LOOP NX series consists of Class D loop drivers made to equip rooms with au- dio support for people with hearing loss.

2.2 Performance range

The »PRO LOOP NX3« belongs to a generation of induction loop drivers with high performance and efficiency. With this device it is possible to establish installations according to the international standard IEC 60118-4.

2.3 Contents of package

Please check if the following pieces are included in the package:

- PRO LOOP NX3 induction loop driver
- Power cable 1.5 m, connectors CEE 7/7 – C13
- 2 pieces 3-point Euroblock-connectors for Line 1 and Line 2
- 1 piece 2-point Euroblock-connectors, loop output
- Adhesive loop-indication signs

Should any of these items be missing, please contact your retailer.

2.4 Advice and safety

- Never pull on the power cord to remove the plug from the wall outlet; always pull the plug.
- Do not operate the device near heat sources or in rooms with high humidity.
- Do not cover the air vents so that any heat generated by the device can be dissipated by air circulation.
- An installation must be carried out by qualified personnel.
- The device must be out of reach of unauthorized persons.
- The device is only to be used for operating inductive loop systems.
- nstall the device and its wiring in such a way that there is no danger, e.g. by falling or tripping.
- Connect the loop driver only to wiring which complies to IEC 60364.

Function

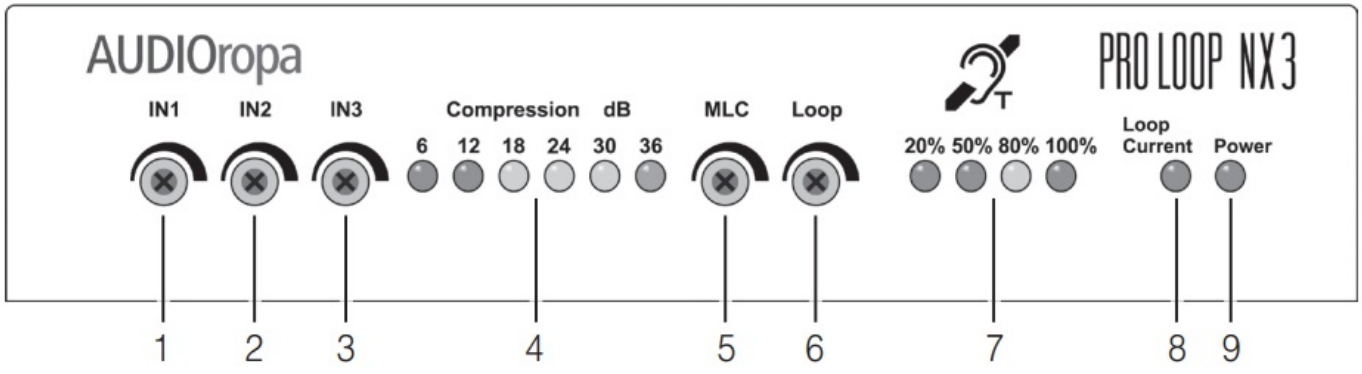
An inductive listening system basically consists of a copper wire connected to a loop amplifier. Connected to an audio source, the loop amplifier generates a magnetic field in the copper conductor. The listener‘s hearing aids receive these inductive audio signals wirelessly in real time and directly in the ear – free from distracting ambient noise.

Indicators, connectors and controls

4.1 Indicators

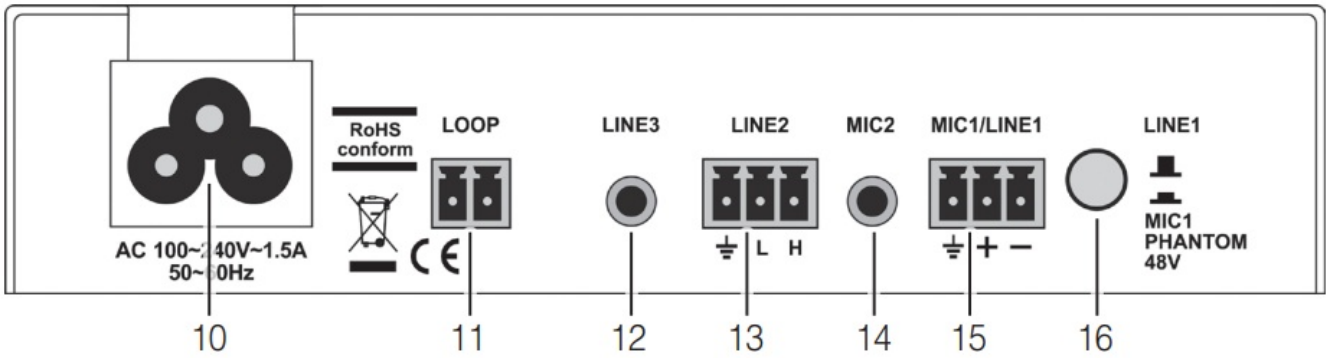
The function status of the loop amplifier is continuously monitored.
The current status is indicated by corresponding LEDs on the front panel.

4.3 Front panel and controls



1. IN 1: For adjusting the Mic/Line level of input 1
2. IN 2: For adjusting the Line level of input 2
3. IN 3: For adjusting the Line level of input 3
4. Compression: Display of the level reduction in dB, in relation to the input signal
5. MLC (Metal Loss Correction) Compensation of frequency response due to metal influence in the building
6. MLC (Metal Loss Correction) Compensation of frequency response due to metal influence in the building
7. Loop output current display
8. Loop LED (red) – Lights up by incoming signal when a loop is connected
9. Power-LED – Indicates operation

4.4 Rear panel and connectors



10. Mains socket
11. Loop: 2-point Euroblock output connector for loop cable
12. LINE3: Audio input via 3,5 mm stereo jack
13. LINE2: Audio input via 3-point connector
14. MIC2: 3,5 mm stereo jack for Electret microphones
15. MIC1/LINE1: Mic- or Line- input via 3-point Euroblock connector
16. Switches input MIC1/LINE1 between LIINE-level and MIC-level with 48V phantom power

⚠ **Attention, Warning, Danger :**
The loop driver features a protection circuit which reduces the power output to maintain safe operating temperatures.
To reduce the risk of thermal limitation and to allow proper heat dissipation, it is recommended to keep the space directly above and behind the device clear.

Mounting the loop driver
If necessary, the unit can be screwed to a base or wall using the mounting brackets. Observe the safety instructions for the tools that may be used for this purpose.

4.4 Adjustments and connectors

4.4.1 Loop connector (11)
The induction loop is connected via the 2-point Euroblock connector

4.4.2 Audio inputs
Audio sources connect via the 4 inputs of the driver provided for this purpose.
The driver has 3 types of input :
MIC1/LINE1: Line or microphone level
MIC2: Microphone level
LINE2: Line level
LINE3: Line level

4.4.3 Power supply

PRO LOOP NX drivers use a direct power supply of 100 – 265 V AC – 50/60 Hz.

4.4.4 Terminal assignment:

The connector MIC1/LINE1 (15) is electronically balanced.

LINE2 is unbalanced and has two different sensitivities (L = Low / H = High).

4.4.5 Power on / off

The unit does not have a mains switch. When the mains cable is connected to the amplifier and a live socket, the amplifier switches on. The power LED (see figure 4.2: 9) lights up and indicates the switched-on state.
To switch off the unit, the power supply must be disconnected. If necessary, disconnect the mains plug from the socket.

4.4.6 Display row »Compression dB« (Figure 4.2: 4)

These LEDs indicate the level reduction in dB, in relation to the input signal.

4.4.7 LED »Loop Current« (Figure 4.2: 8)

This red LED lights up when the loop is connected and an audio signal is present.
If the loop is interrupted, short-circuited or the loop resistance is not between 0.2 to 3 ohms, the »Loop Current« LED is not displayed.

Audio input

5.1 Sensitivity (figure 4.2: 1, 2, 3)

The input levels of MIC1/LINE1, MIC2, LINE2 and LINE3 can be adjusted according to the connected audio source.

5.2 Analogue AGC (Automatic Gain Control)

The incoming audio level is monitored by the unit and automatically reduced using analogue amplifier technology in the event of an overloaded input signal. This ensures safety against feedback problems and other unwanted effects.

5.3 MIC1/LINE1 change-over switch

The pushbutton-switch on the back of the loop driver (see figure 4.3: 16) switches the LINE1 input from LINE-level to MIC1 microphone level in the depressed position.
Please note that this activates 48V phantom power.

⚠ **ATTENTION:**

If you connect an unbalanced audio source, do not press the MIC1/LINE1 change-over switch, as this may damage the audio source!

5.4 MLC-level regulator (Metal Loss Control)

This control is used to compensate the frequency response due to metal influence. If there are metal objects close to the ring loop line, this can lead to a reduction of the amplifier power by dissipating the generated magnetic field.

Maintenance and care

The »PRO LOOP NX3« does not require any maintenance under normal circumstances.
If the unit becomes dirty, simply wipe it clean with a soft, damp cloth. Never use spirits, thinners or other organic solvents. Do not place the »PRO LOOP NX3« where it will be exposed to full sunlight for long periods. In addition, it must be protected against excessive heat, moisture and severe mechanical shocks.
Note: This product is not protected against splash water. Do not place any containers filled with water, such as flower vases, or anything with an open flame, such as a lit candle, on or near the product.
When not used, store the device in a dry place, protected from dust.

Warranty

The »PRO LOOP NX3« is a very reliable product. Should a malfunction occur despite the unit being set up and operated correctly, please contact your dealer or the manufacturer directly.
This warranty covers the repair of the product and returning it to you free of charge.
It is recommended that you send in the product in its original packaging, so keep the packaging for the duration of the warranty period.
The warranty does not apply to damage caused by incorrect handling or attempts to repair the unit by people not authorised to do so (destruction of the product seal). Repairs will only be carried out under warranty if the completed warranty card is returned accompanied by a copy of the dealer's invoice/till receipt.
Always specify the product number in any event.

Disposal of used electric and electronic units (applicable in the countries of the European Union and other European countries with a separate collection system).
The symbol on the product or the packaging indicates that this product is not to be handled as ordinary household waste but has to be returned to a collecting point for the recycling of electric and electronic units.
You protect the environment and health of your fellow men by the correct disposal of this products. Environment and health are endangered by a faulty disposal.
Material recycling helps to reduce the consumption of raw material. You will receive further information on the recycling of this product from your local community, your communal disposal company or your local dealer.

Specifications

Height / Width / Depth:	33 mm x 167 mm x 97 mm
Weight:	442 g
Power supply:	100 – 265 V AC 50 / 60 Hz
Cooling system:	Fanless
Automatic Gain Control:	Speech-optimised, dynamic range: > 40 dB
Metal Loss Correction (MLC):	0 – 4 dB / octave
Operational range:	0°C – 45°C, < 2000 m above sea level

Loop output:

Loop current:	2,5 A RMS
Loop tension:	12 V RMS
Loop resistance DC:	0,2 – 3,0 Ω
Frequency range:	80-6000 Hz (+/- 1,5 dB)

Inputs:

MIC1/LINE1	Mic and Line Level, 3-point Euroblock plug 5-20 mV / 2 kΩ / 48 V (MIC) 25 mV – 0.7 V / 10 kΩ (LINE)
MIC2	5-20 mV / 2 kΩ / 5 V
LINE2	Line Level, 3-point Euroblock plug H: 25 mV – 100 mV / 10 kΩ (LINE) L: 100 mV – 0.7 V / 10 kΩ (LINE)
LINE3	Line Level, 3,5 mm stereo jack socket 25 mV – 0.7 V / 10 kΩ (LINE)

Outputs:

Loop connector	2-point Euroblock plug

This device complies with the following EC directives:

CE	– 2017 / 2102 / EC RoHS-directive – 2012 / 19 / EC WEEE-directive – 2014 / 35 / EC Low voltage directive – 2014 / 30 / EC Electromagnetic Compatibility

Compliance with the directives listed above is confirmed by the CE seal on the device.
CE compliance declarations are available on the Internet at **www.humantechnik.com**.

UK CA Humantechnik's UK authorised representative:
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United Kingdom
Sarabec Ltd., hereby declares that this device complies with all UK statutory instruments.
UK declaration of conformity available from: Sarabec Ltd.
Technical specifications subject to change without prior notice.

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Documents / Resources

	AUDIOropa ProLoop NX3 Loop Amplifier [pdf] User Manual ProLoop NX3, ProLoop NX3 Loop Amplifier, Loop Amplifier, Amplifier

References

- Willkommen
- User Manual