Behringer NU1000

Behringer iNUKE NU1000 Power Amplifier User Manual

Model: NU1000

1. Introduction

The Behringer iNUKE NU1000 is an ultra-lightweight, high-density 1000-watt power amplifier designed for professional audio applications. This amplifier delivers significant power output while maintaining a compact and efficient design, making it suitable for various sound reinforcement needs. Its advanced Class-D technology ensures reliable performance with minimal thermal buildup.
Key features include:

- Delivers 2 x 500 Watts into 2 Ohms; 2 x 300 Watts into 4 Ohms; 1000 Watts into 4 Ohms (bridge mode).
- Revolutionary cool-running High-Density Class-D technology for ultimate reliability.
- Ultra-efficient switch-mode power supply for noise-free audio and superior transient response.
- "Zero-Attack" limiters provide maximum output level with reliable overload protection.
- Built-in stereo crossover with low-cut, high-cut, and full range modes.

2. Important Safety Instructions

Please read and follow all safety instructions before operating this device to prevent electric shock, fire, or injury. Keep these instructions for future reference.

- **Power Source:** Connect the unit only to an AC power outlet that matches the voltage and frequency specified on the rear panel.
- **Grounding:** Ensure the power cord has a grounding conductor. Do not defeat the safety purpose of the polarized or grounding-type plug.
- **Ventilation:** Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Maintain adequate space around the unit for proper airflow.
- **Water and Moisture:** Do not use this apparatus near water or expose it to dripping or splashing. Do not place objects filled with liquids on the apparatus.
- **Heat:** Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- **Cleaning:** Clean only with a dry cloth.
- **Servicing:** Refer all servicing to qualified service personnel. Servicing is required when the apparatus has

been damaged in any way, such as power-supply cord or plug is damaged, 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.

- **Cables:** Use only specified attachments/accessories. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

3. Setup and Connections

3.1 Unpacking and Placement

Carefully unpack the Behringer iNUKE NU1000 amplifier. Inspect the unit for any signs of damage during transit. Place the amplifier in a well-ventilated area, ideally in a standard 19-inch equipment rack. Ensure sufficient space around the unit for proper airflow, especially around the rear fan.

3.2 Front Panel Overview

Figure 3.1: Front panel of the Behringer iNUKE NU1000 amplifier. This view shows the power button, channel level controls (CH A and CH B), and status indicators.

The front panel provides access to the main operational controls and indicators:

- **Power Button:** Turns the amplifier on or off.
- **Channel Level Controls (CH A, CH B):** Adjust the output level for each channel.
- **Signal/Clip LEDs:** Indicate signal presence and clipping (overload) for each channel.
- **Power LED:** Illuminates when the unit is powered on.

3.3 Rear Panel Connections

Figure 3.2: Rear panel of the Behringer iNUKE NU1000 amplifier. This view displays the AC power inlet, input connectors (XLR/TRS combo), output connectors (Speakon-compatible), and crossover mode switches.

The rear panel houses all input, output, and power connections:

- **AC Power Inlet:** Connect the supplied power cord here. Ensure the power source matches the unit's requirements.
- **Inputs (CH A, CH B):** These are combo XLR/TRS 6.35mm Jack connectors for balanced or unbalanced audio signals from your mixer or audio interface.
- **Outputs (CH A, CH B):** Speakon-compatible connectors for connecting to your loudspeakers. Ensure correct wiring for stereo or bridge mode.
- **Mode Switch:** Selects between Stereo, Parallel, or Bridge operating modes.
- **Crossover Switch:** Configures the built-in stereo crossover for Low-Cut, High-Cut, or Full Range operation.

3.4 Connecting Audio Devices

1. Connect your audio source (e.g., mixer, preamplifier) to the **Input CH A** and **Input CH B** using appropriate XLR or 6.35mm TRS cables.
2. Connect your loudspeakers to the **Output CH A** and **Output CH B** using Speakon-compatible cables. Ensure the impedance of your speakers matches the amplifier's capabilities (2 Ohms, 4 Ohms, or 8 Ohms).
3. Set the **Mode Switch** to your desired operation (Stereo for two separate channels, Bridge for mono high-power output).
4. Adjust the **Crossover Switch** based on your speaker setup. Use "Full Range" for full-range speakers, "Low-Cut" for subwoofers, or "High-Cut" for mid/high frequency speakers.
5. Connect the power cord to the **AC Power Inlet** and then to a grounded electrical outlet.

4. Operating the Amplifier

4.1 Powering On/Off

1. Before powering on, ensure all level controls on the amplifier and your audio source are set to their minimum positions.
2. Press the **Power Button** on the front panel. The Power LED will illuminate.
3. To power off, first reduce all levels, then press the **Power Button**.

4.2 Adjusting Levels

Gradually increase the level controls on your audio source, then slowly raise the **Channel Level Controls (CH A, CH B)** on the amplifier until the desired volume is achieved. Monitor the Signal/Clip LEDs:

- **Signal LED:** Indicates that an audio signal is present.
- **Clip LED:** If this LED illuminates frequently or stays lit, it indicates that the signal is too strong and clipping is occurring. Reduce the input level from your source or the amplifier's channel level to prevent distortion and potential speaker damage. The "Zero-Attack" limiters are designed to provide reliable overload protection, but continuous clipping should be avoided.

4.3 Crossover Settings

The built-in stereo crossover allows for flexible system configuration:

- **Full Range:** Passes the entire audio spectrum to the speakers. Suitable for full-range loudspeakers.
- **Low-Cut:** Filters out high frequencies, sending only low frequencies to the speakers. Ideal for subwoofers.
- **High-Cut:** Filters out low frequencies, sending only high frequencies to the speakers. Suitable for mid/high frequency speakers.

Adjust the crossover switch on the rear panel according to your speaker setup and desired sound reproduction.

5. Maintenance

Proper maintenance ensures the longevity and optimal performance of your Behringer iNUKE NU1000 amplifier.

- **Cleaning:** Disconnect the power before cleaning. Use a soft, dry cloth to wipe the exterior of the unit. Do not use liquid cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings, especially the rear fan, are free from dust and obstructions. Blocked vents can lead to overheating and reduced performance.
- **Cable Inspection:** Periodically inspect all audio and power cables for damage. Replace any frayed or damaged cables immediately.
- **Storage:** If storing the amplifier for an extended period, ensure it is in a dry, dust-free environment.

6. Troubleshooting

This section addresses common issues you might encounter with your iNUKE NU1000 amplifier.

Problem	Possible Cause	Solution
No power	Power cord not connected; Power outlet faulty; Amplifier power switch off.	Ensure power cord is securely connected. Test the power outlet. Press the power button on the front panel.
No sound output	Input cables disconnected; Output cables disconnected; Channel level controls at minimum; Source device not sending signal; Incorrect mode selection.	Check all input and output cable connections. Increase channel level controls. Verify audio source is active. Ensure Mode switch is set correctly (Stereo/Bridge).
Distorted sound / Clipping LED constantly on	Input signal too high; Amplifier output overloaded; Speaker impedance mismatch.	Reduce the input level from your audio source. Lower the amplifier's channel level controls. Ensure speaker impedance is within the amplifier's specified range.
Excessive fan noise	Dust buildup in fan/vents; Unit operating in a hot environment; Fan malfunction.	Clean fan and ventilation openings. Ensure adequate airflow around the unit. If noise persists and is abnormal, contact qualified service personnel.

7. Specifications

Feature	Detail
Model	NU1000
Output Wattage	1000 Watts (Bridge Mode into 4 Ohms); 2 x 500 Watts (2 Ohms); 2 x 300 Watts (4 Ohms)
Item Weight	6.61 pounds (approx. 3.0 kg)

Feature	Detail
Product Dimensions (L x W x H)	19.02 x 9.76 x 3.5 inches (approx. 48.3 x 24.8 x 8.9 cm)
Connector Type	6.35mm Jack (Inputs), Speakon-compatible (Outputs)
Material Type	Metal
Power Source	Corded Electric
Color	Black (with silver/grey chassis)

8. Warranty

Behringer products are designed and manufactured to the highest quality standards. For detailed warranty information, including terms and conditions, please refer to the warranty statement provided with your product or visit the official Behringer website. Keep your proof of purchase for any warranty claims.

9. Support

If you encounter issues not covered in this manual or require further assistance, please contact Behringer customer support. You can find contact information and additional resources on the official Behringer website. Please have your product model (NU1000) and serial number ready when contacting support.
Online Resources: For the latest drivers, software, and product information, visitwww.behringer.com.