

NVS-20231602AM
2 CHANNEL PROFESSIONAL AMPLIFIER
2x800W
USER MANUAL



NVS-20231602AM

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Product Overview

Description

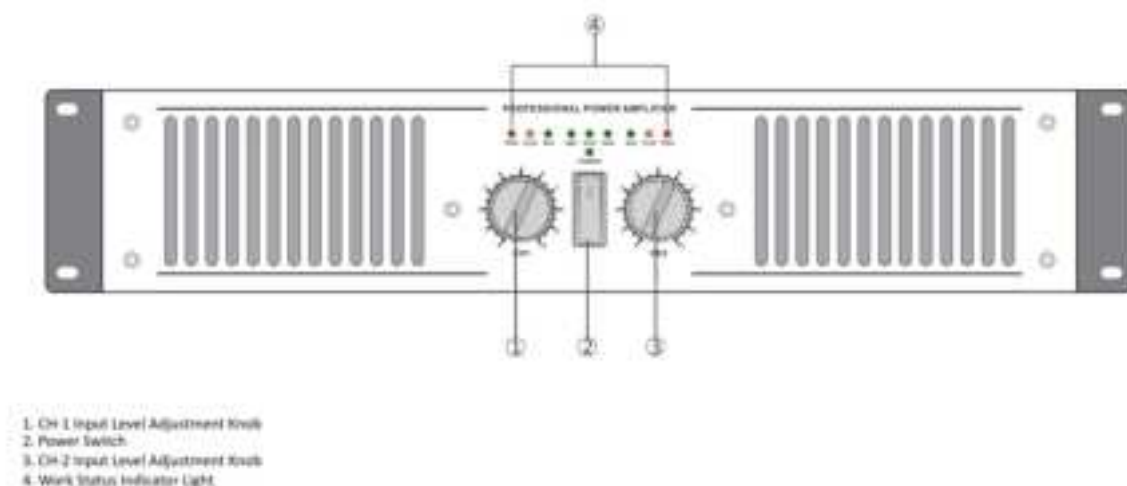
The NVS-20231602AM is a two-channel stereo professional power amplifier with low distortion and high efficiency. It is equipped with reliable protection of overvoltage, under-voltage, DC, short circuit and alarming function conference. BTL connection is available. It is suitable for conference system, meeting room, live performance.

Features

- Two-channel stereo professional power amplifier
- Individual volume control for each channel
- Equipped with stereo, parallel and BTL bridge three operating mode options for the choice of working mode switch selection
- Equipped with short circuit protection, DC protection, power off and a variety of protection and alarm functions
- Each channel is equipped with LED working status indication, low noise design
- Equipped with XLR signal input interface (female base) and XLR signal output interface (male base)

Appearance Description

Front Panel



① CH-1 Input Gain Control

Adjust this control to set the desired input gain for Channel 1. If the speakers are located at a distance and direct monitoring is not possible, refer to the calibrated scale on the front panel for accurate adjustment. *(Applicable only in Bridge or Parallel mode)*

② PowerSwitch

Activating this switch initiates the power amplifier's soft-start inrush current limiting circuit. Approximately 3–4 seconds after activation, an audible "click" indicates that the initial startup sequence has completed. After an additional 1–2 seconds, a second "click" will confirm the speaker output relays have engaged, indicating the amplifier is now in operational mode.

③ CH-2 Input Gain Control

Adjust this control to set the desired input gain for Channel 2. As with CH-1, use the front panel scale for reference when auditory feedback is unavailable. *(Applicable only in Bridge or Parallel mode)*

④ Operational Status Indicators

- **PRO (Protection Status - Yellow)**

Indicates a protection condition in CH-1 or CH-2. This LED illuminates under the following circumstances:

- During the initial 3–5 seconds of power-on or just after power-off, while the amplifier circuitry stabilizes and disconnects from speaker load.
- When internal component temperatures exceed 90°C.
- In the event of a general amplifier fault.

- **CLIP (Clipping Indicator - Red)**

Indicates signal clipping or abnormal output conditions:

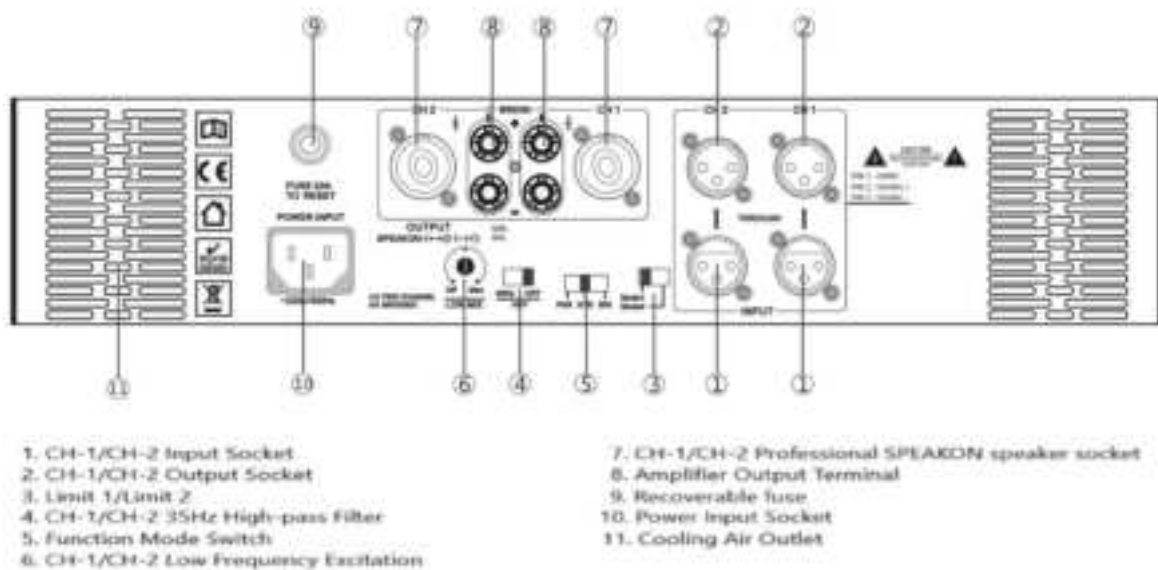
- When output signal amplitude nears the maximum power limit, indicating potential distortion. Reduce input level to prevent signal degradation.
- If a signal is present but there is no audio output and the indicator remains lit, a short circuit at the speaker load is suspected. Power down the amplifier, correct the fault, and restart operation.

- **SIG (Signal Presence Indicator - Red)**

Illuminates when a valid output signal is detected on CH-1 or CH-2, confirming normal amplifier operation.

- **BRI (Bridge Mode Indicator - Green)**
Indicates that the amplifier is operating in **Bridge Mode**. In this configuration, input is accepted only via CH-1, and output is bridged across both channels.
- **STR (Stereo Mode Indicator - Green)**
Indicates that the amplifier is operating in **Stereo Mode**, with independent input and output for each channel.
- **PAR (Parallel Mode Indicator - Green)**
Indicates that the amplifier is operating in **Parallel Mode**. In this mode, the input signal from CH-1 is simultaneously fed to both amplifier channels.

Rear Panel



① CH-1/CH-2 Input Connector

CH-1 and CH-2 inputs utilize standard **XLR (3-pin female) connectors**, configured as follows:

- Pin 1: Ground (Shield)
- Pin 2: Hot (+, Non-inverting Signal)

- Pin 3: Cold (–, Inverting Signal)

Please refer to the connection diagram on the rear panel when wiring the input.

② CH-1/CH-2 Signal Link Output Connector

The CH-1 and CH-2 outputs use standard **XLR (3-pin male) connectors**, allowing signal to be daisy-chained to additional amplifiers or signal processors. Wiring configuration is:

- Pin 1: Ground (Shield)
- Pin 2: Hot (+, Non-inverting Signal)
- Pin 3: Cold (–, Inverting Signal)

Please follow the rear panel labelling when connecting.

③ CH-1/CH-2 Limiter Switch

These switches activate the **integrated output limiter** on each channel to prevent distortion and protect connected speakers from signal peaks that exceed safe operating levels.

④ CH-1/CH-2 35Hz High-Pass Filter

This **low-cut filter** attenuates all frequencies below 35Hz to protect low-frequency transducers (woofers) from excessive excursion and possible mechanical damage due to subsonic content.

⑤ Operation Mode Selector Switch

Used to select the amplifier's working configuration:

- **Stereo Mode** (independent operation of CH-1 and CH-2)
- **Bridge Mode** (combined output for increased power)
- **Parallel Mode** (input signal from CH-1 sent to both channels)

⑥ CH-1/CH-2 Subharmonic Enhancer (Bass Exciter)

This control is part of the **bass enhancement processor** and adjusts the intensity of artificially generated low-frequency content.

Adjustment range: From 0 (off) to maximum intensity.

Note: Use with caution. Excessive enhancement may damage speakers, especially small or entry-level models that are not designed to handle extreme low-frequency energy.

⑦ CH-1/CH-2 SPEAKON Output Connector

In stereo mode, use the **professional-grade SPEAKON connectors** for speaker output with the following wiring:

- 1+: Positive terminal
- 1–: Negative terminal
- 2+ / 2–: Additional signal paths (optional depending on system configuration)

⑧ Amplifier Output Binding Posts

Provides alternative speaker connection via traditional **binding posts** or **banana plugs**, supporting high-current speaker cable connections.

⑨ Resettable Circuit Breaker

In case of amplifier malfunction or overload, the **resettable fuse** automatically disconnects power. After resolving the issue, press the circuit breaker button to restore normal operation.

⑩ AC Mains Power Inlet

Standard **IEC power socket** for connection to the AC mains power supply. Use only properly rated power cables.

⑪ Cooling Exhaust Vent

This is the **forced-air cooling outlet** for heat dissipation.

Important: Do not obstruct the vent under any condition to maintain adequate airflow and prevent overheating.

Specifications

Item No.	NVS-20231602AM
Rated Output / Per Channel, 8Ω	800W
Rated Output / Per Channel, 4Ω	1200W
Rated Output / BTL, 8Ω	2100W
Frequency Response	20Hz-20kHz (±1dB)
Total Harmonic Distortion	< 0.1%
Signal to Noise Ratio	≥98dB
Input Sensitivity	1.0V
Input impedance	20kΩ/balance, 10kΩ/unbalance
Damping coefficient	>230 /8Ω,1kHz
Channel crosstalk	<-62dB
Conversion rate	15V/μS
Power Supply	AC220-240V/50Hz
Weight	18kg
Dimension (L×W×H)	484×460.5×88mm

CAUTION

- When the power switch is "OFF", the machine is not completely disconnected from the power grid.
- For the sake of safety, please pull the power cord plug out of the socket when not using the equipment.
- The equipment shall not be subject to water drops or splashes, and objects such as vases filled with water shall not be placed on the equipment.
- To reduce the risk of electric shock, do not remove the cover. If necessary, please ask professional personnel to repair.
- The symbol on the rear panel indicates hazardous live. The connection of these terminals must be operated by the instructed person.
- The equipment is connected to the power grid through the power cord plug. In case of equipment failure or danger, the connection between the unit and the power grid can be disconnected by pulling out the power cord plug.
- Therefore, it is required to place the power socket to a position where the power cord can be plugged and unplugged conveniently.

Technical Description

When the **power switch** is in the "OFF" position, the unit remains **electrically connected** to the **AC mains supply**.

For safety purposes, always **disconnect the AC power cord** from the outlet when the equipment is not in operation.

This equipment must not be exposed to **liquid ingress** (e.g., dripping or splashing). Do not place **liquid-filled containers** (such as vases) on or near the unit.

To prevent **electrical shock**, do not remove the unit's cover. All servicing should be carried out by **qualified technical personnel**.

The rear panel contains a **hazardous voltage warning symbol**, indicating terminals with **live electrical potential**. These connections must only be handled by **authorized or trained personnel**.

The device is powered via a **detachable mains power cord**. In the event of a fault or hazard, the **mains supply can be fully disconnected** by unplugging the power cord.

Ensure the **AC outlet** is installed in an **accessible location** so the power cord can be easily connected or disconnected in an emergency.