NVS-20100252AM/NVS-20110502AM/NVS-20011002AM
2 Channels Digital Power Amplifier
User Manual

Thank you for using our public address system. Please read this User Manual carefully to make better use of this equipment

Contents

Profile of Product

Description

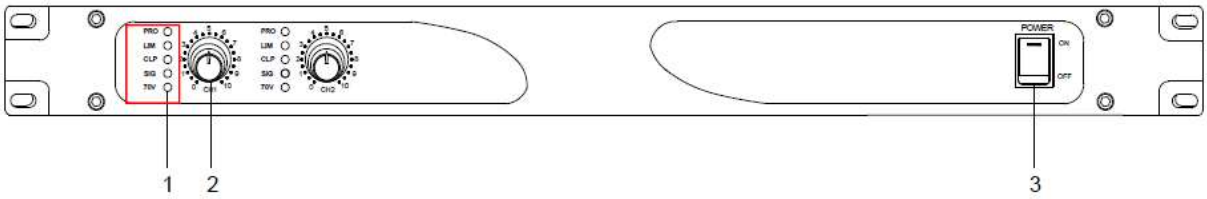
The NVS-20100252AM/NVS-20110502AM/NVS-20011002AM is a Class D digital amplifier designed for commercial and industrial public address applications. Rack mount design in 1U type. Both balanced and unbalanced line inputs are available for each channel. Balanced line output feeds to another power amplifier as well as secures the signal transmission is less noise and longer distance. 70V, 100V speaker outputs are convenient for installation when selection different speaker matching. Complete protection includes clip, short circuit, high temperature, and overload. With indications for power, signal, clip, protection, and temperature.

Features

- Multiple channels: 4-channel or 2-channel
- 5-unit LED lamp for status display
- Advanced active PFC (power factor correction)
- Efficient switching power supply
- Efficient CLASS D amplifier
- Support DC 24V power supply
- Adjust fan speed with temperature
- Equipped with voltage limit circuit
- All-protected circuit design
- Support real-time switch of 70/100V output
- Input sensitivity: 775mVRMS
- Both line input and output interfaces adopt HT-3.96 phoenix
- 100VRMS prior line input
- Balanced prior line input
- Balanced line input
- HB-9500 7.62 fence output socket with cover is adopted for power output

Appearance

Front Panel



1. Indicator

PRO: After being powered on and input with signal, if the protection indicator (PRO) and LIM are on first, go out after a few seconds, and are on again, the output short circuit fault occurs, and the above phenomena will repeat if the fault is not removed. Now, power off immediately, and re-power on after troubleshooting.

LIM: Limit indicator

A. Both LIM and PRO are on: Amplifier is in short circuit or over-current protection.

B. LIM is on while PRO goes out: After the continuous repeated signal makes the output power reach or exceed rated power for 2-4s, the power limits the start of circuit and halves the rated output power automatically. This circuit will not be started with audio and music applications under rated power.

CLP: Clip indicator, please reduce the gain properly to avoid severe clip

SIG: Signal indicator (signal output)

70V: Gear indicator, if it is on, the current gear is 70V output voltage.

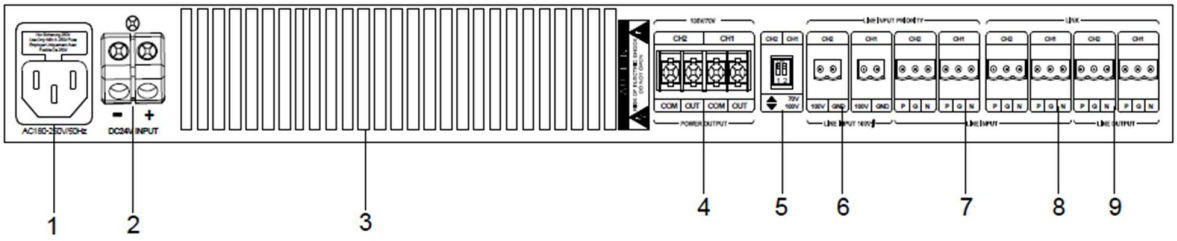
2. Channel volume control knob

Name the volume control knob (CH1) by the number of channels with an analogy, such as CH1, CH2

3. Power switch

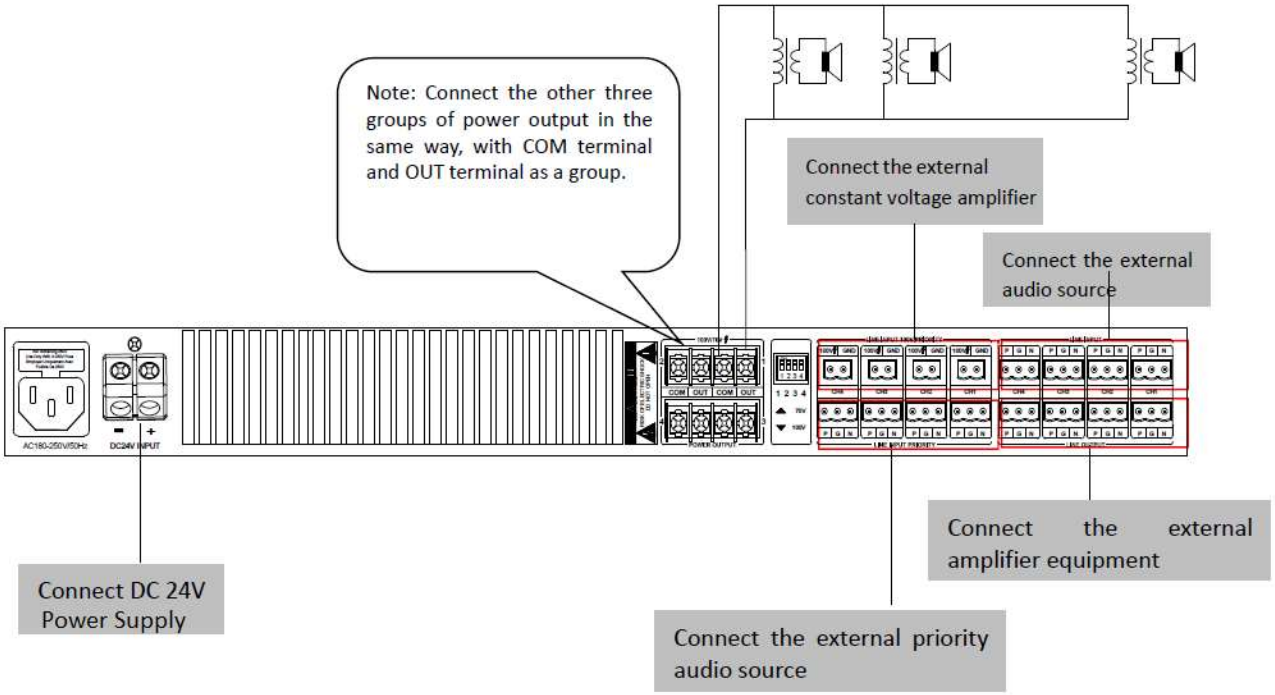
Power switch is provided with power indicator, when placing it in ON position, its internal power indicator will be on.

Rear Panel



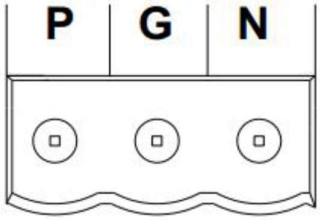
1. 220V AC power input (with fuse holder)
2. 24V DC power input (max. access core is Φ6mm)
3. Air outlet of fan
4. 70V/100V voltage output
5. 70V/100V output switch
6. Prior 100VRMS single unbalanced line input (2-position 3.96 phoenix)
7. Prior balanced line input (3-position 3.96 phoenix, priority signals 6 and 7 are directly mixed. After the priority signal amplitude exceeds threshold, the balanced line inputs to enter the mute status, and the balanced signal recovers output after it is lower than threshold for 2-3s)
8. Balanced line input (3-position 3.96 phoenix)
9. Balanced line output (3-position 3.96 phoenix)

Connection Diagram

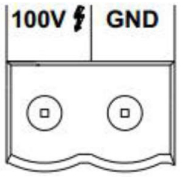


Input Connection

All line inputs and outputs should be connected to the 3-position 3.96 phoenix (Figure 1) or 2-position 3.96phoenix (Figure 2) on the machine's rear panel.



(Figure 1) 3-position 3.96 Phoenix



(Figure 2) 2-position 3.96 Phoenix

P — Signal (+)
G —Ground
N — Signal (-)
100V — 100V output terminal (hot terminal) of external constant voltage amplifier
GND — Output ground (cold terminal)

Output Connection

Output terminal locates on the rear panel and can be directly connected with wire. COM is common terminal and OUT is hot terminal.

Note: Never ever pair two "hot terminals."

Specifications

Part Number	**NVS-20100252AM**	**NVS-20110502AM**	**NVS-20011002AM**
Number of Channels	2	2	2
Rated Output power of each channel	125W	250W	500W
Input Sensitivity	775mVRMS (0dBV/all balanced input) 100VRMS (100V unbalanced input)		
Signal to Noise Ratio	>80dB (100VRMS output)		
Input Impedance	60K ohms (balanced) 20K ohms (balanced priority) 100K ohms (100V unbalanced)		
Channel Separation	>70dB(1KHz)		
Frequency Response	80Hz-15kHz (±3dB normal operating conditions)		
Total Harmonic Distortion	< 0.3 % (1kHz normal operating conditions)		
Up Speed	>29V/us		
Priority Threshold	>10mVp (prior balanced line input) >1000mVp (prior 100VRMS line input)		
Indicators	"Protection", "Limit", "Voltage Limit", "Signal", and "70V gear"		
Protection	Power-on, high temperature, DC, short circuit		
Power Supply	AC180-260V/50-60Hz DC24V (rated output power-3dB)		
Machine Legs	Four 6.5mm high soft plastic machine legs, can be removed as needed		
Power Consumption	300W	600W	1200W
Weight	6.7Kg	6.9Kg	7.3Kg
Dimension (L×W×H)	483×435×44mm (not including machine legs)		

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