OSD Audio MX1680-GEN2

OSD Audio MX1680 GEN2 8 Zone Amplifier User Manual

Model: MX1680-GEN2

1. INTRODUCTION AND OVERVIEW

The OSD Audio MX1680 GEN2 is a high-performance, multi-channel amplifier designed for distributed audio systems. This Class D amplifier provides 16 channels across 8 independent zones, delivering 80 Watts per channel into 4 Ohms or 50 Watts per channel into 8 Ohms. It is suitable for both residential and commercial audio installations, serving as a main amplifier for multi-room audio or integrating into home theater systems.

Key features include front-panel on/off buttons for each zone, efficient Class D amplification for low distortion, and built-in protection circuitry against thermal overload and short circuits. Its slim, 2U rack-mountable design (hardware included) allows for flexible installation.

Image 1.1: Front and rear view of the OSD Audio MX1680 GEN2 Multi-Zone Digital Amplifier.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating this device. Retain this manual for future

reference.

- **Power Source:** Connect the amplifier only to the type of power source indicated on the unit. Ensure the voltage is correct for your region.
- **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 expose this appliance to rain or moisture. Do not place objects filled with liquids, such as vases, 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.
- **Grounding:** This appliance must be grounded. Ensure the power cord is connected to a properly grounded outlet.
- **Servicing:** Do not attempt to service this product yourself. Refer all servicing to qualified service personnel.
- **Cleaning:** Unplug the unit from the power outlet before cleaning. Use a dry cloth for cleaning.

3. SETUP AND INSTALLATION

3.1 Unpacking

Carefully remove the amplifier from its packaging. Verify that all components listed in the 'What's in the Box' section are present. This includes the MX1680 GEN2 amplifier and the Quick Start Guide.

3.2 Placement

The MX1680 GEN2 is designed for rack mounting (2U height) or placement on a flat, stable surface. Ensure adequate ventilation around the unit to prevent overheating. Avoid placing it near other heat-generating equipment.

3.3 Connections

Refer to the rear panel diagram for all input and output connections.

Image 3.1: Detailed view of the rear panel input and output connections.

- **Speaker Outputs:** Connect your speakers to the corresponding zone terminals. Ensure correct polarity (+ to + and - to -). The amplifier supports both 4-ohm and 8-ohm speakers. For bridged mode operation, refer to section 4.3.
- **Line Inputs (RCA):** Each zone has a dedicated stereo RCA Line In. Connect your audio sources (e.g., pre-amplifier, media player) to these inputs.
- **Bus Inputs (RCA):** The amplifier features two stereo Bus Inputs (Bus In 1, Bus In 2). These allow a single audio source to be distributed to multiple zones.
- **Line Outputs (RCA):** Each zone also has a stereo RCA Line Out, allowing the audio signal from that zone to be passed to another amplifier or audio device.
- **Trigger In/Out:** The 12V Trigger In allows the amplifier to be turned on/off by an external device. The 12V Trigger Out can be used to control other devices.
- **AC Power Input:** Connect the supplied power cord to the AC IN receptacle and then to a suitable wall outlet.

Image 3.2: Detailed view of Bus inputs and Trigger connections on the rear panel.

4. OPERATING INSTRUCTIONS

4.1 Power On/Off

Press the main power button on the front panel to turn the amplifier on or off. A red LED indicator will illuminate when the unit is powered on.

Image 4.1: Front panel power button.

4.2 Zone Control

Each of the 8 zones has a dedicated button on the front panel. Pressing a zone button will activate or deactivate that specific audio zone. The corresponding LED will indicate the zone's status.

Image 4.2: Front panel zone selection buttons.

4.3 Input Selection and Volume Adjustment

On the rear panel, each zone features switches for input selection and rotary controls for volume adjustment:

- **Input Selector:** A slide switch allows you to select the audio input for each zone:**Line In** (dedicated input for that zone), **Bus In 1**, or **Bus In 2**.

- **Volume Controls:** Separate rotary controls for Left and Right channels (Vol. Left, Vol. Right) allow for precise volume balancing within each zone.
- **Stereo/Bridge Switch:** A switch allows you to configure the zone for stereo operation or bridged mono operation. In bridged mode, two amplifier channels combine to deliver higher power to a single speaker. Ensure the speaker impedance is appropriate for bridged mode (typically 8 ohms minimum).

4.4 Audio Sensing

The amplifier incorporates an audio sense feature that automatically activates a zone when an input signal is detected and turns it off after a period of no signal. This helps conserve power and prolong the unit's lifespan.

Image 4.3: Example of multi-zone audio distribution with the amplifier.

5. MAINTENANCE

The OSD Audio MX1680 GEN2 amplifier requires minimal maintenance. Follow these guidelines to ensure optimal performance and longevity:

- **Cleaning:** Periodically wipe the exterior surfaces with a soft, dry cloth. Do not use liquid cleaners or aerosol sprays, as they may damage the finish or internal components.
- **Ventilation:** Ensure that the ventilation openings on the top and sides of the unit remain clear of dust and obstructions. Dust accumulation can impede airflow and lead to overheating.
- **Connections:** Occasionally check all cable connections to ensure they are secure and free from corrosion. Loose connections can lead to signal loss or degradation.
- **Storage:** If storing the amplifier for an extended period, disconnect it from power and store it in a cool, dry place, away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

If you experience issues with your MX1680 GEN2 amplifier, consult the following troubleshooting guide. For problems not resolved here, please contact OSD Audio support.

Problem	Possible Cause	Solution
No power	Power cord disconnected; Power outlet faulty; Amplifier fuse blown	Check power cord connection; Test outlet with another device; Contact service for fuse replacement.
No sound from a zone	Zone not activated; Incorrect input selected; Source device off/muted; Speaker wires loose/incorrectly connected; Volume too low	Press the zone button on the front panel; Verify input selector switch position; Check source device; Inspect speaker connections; Adjust zone volume controls.
Distorted sound	Input signal too high; Speaker impedance mismatch; Faulty speaker cable; Amplifier overheating	Reduce source device output level; Ensure correct speaker impedance (4 or 8 ohms, or 8 ohms for bridged); Check speaker cables; Ensure proper ventilation.
Amplifier shuts off unexpectedly	Overheating; Short circuit in speaker wiring; Protection circuit activated	Ensure proper ventilation; Check all speaker wiring for shorts; Allow unit to cool down before restarting.

7. SPECIFICATIONS

Feature	Specification
Model Number	MX1680-GEN2
Channels	16 Channels (8 Zones)
Power Output (4 Ohms)	80 Watts per channel (1KHz)
Power Output (8 Ohms)	50 Watts per channel (1KHz)
Amplifier Class	Class D
Product Dimensions (L x W x H)	16.81 x 16.14 x 3.46 inches
Item Weight	23 pounds
Rack Mountable	Yes (2U, hardware included)
Manufacturer	OSD Audio
Date First Available	January 31, 2020

8. WARRANTY INFORMATION

Warranty information for the OSD Audio MX1680 GEN2 amplifier is typically provided with your purchase documentation or can be found on the official OSD Audio website. Please refer to these resources for details regarding warranty coverage, terms, and conditions.
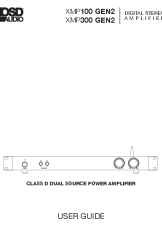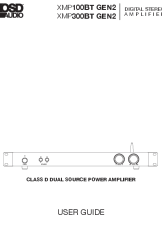
9. SUPPORT

For technical assistance, product inquiries, or service requests, please contact OSD Audio customer support. You can typically find contact information, including phone numbers and email addresses, on the official OSD Audio website:

www.osdaudio.com

Please have your model number (MX1680-GEN2) and purchase details ready when contacting support.

Related Documents - MX1680-GEN2

	OSD Audio MX Series Multi-Zone Amplifier Owner's Manual This manual provides operating instructions and specifications for the OSD Audio MX Series Multi-Zone Amplifiers, including models MX880, MX1280, and MX1680. It covers safety instructions, introduction to the product, thermal and protection circuitry, installation, front and rear panel descriptions, system configuration, and detailed specifications.
	OSD Audio XMP100/XMP300 Gen2 Digital Stereo Amplifier User Guide User guide for OSD Audio XMP100 Gen2 and XMP300 Gen2 digital stereo amplifiers, detailing safety instructions, features, front and rear panel controls, setup procedures, technical specifications, and warranty information.
	OSD Audio XMP100BT GEN2 / XMP300BT GEN2 Digital Stereo Amplifier User Guide User guide for the OSD Audio XMP100BT GEN2 and XMP300BT GEN2 digital stereo amplifiers, covering safety instructions, features, front and rear panel descriptions, setup, specifications, and warranty information.
	OSD Audio XMP300BT Gen2 / XMP100BT Gen2 Stereo Power Amplifiers - Owner's Manual Detailed owner's manual for OSD Audio XMP300BT Gen2 and XMP100BT Gen2 stereo power amplifiers, covering features, setup, specifications, applications, safety instructions, warranty, and FCC compliance.

	[OSD Audio NERO MAX12 Wi-Fi Multiroom Amplifier Manual](#) User manual for the OSD Audio NERO MAX12 Wi-Fi Multiroom Amplifier, detailing its features, specifications, connections, and operation via app or optional keypads.
	[OSD Audio NERO MAX12 Wi-Fi Multiroom Amplifier User Manual](#) Comprehensive user manual for the OSD Audio NERO MAX12 Wi-Fi Multiroom Amplifier, detailing features, specifications, installation, and operation for multi-zone audio distribution. Includes information on optional keypads and app control.

Documents - OSD Audio – MX1680-GEN2

[pdf] Specifications Datasheet Dimension Guide

MX1680 Gen2 Multi Zone Digital Amp GEN2 datasheet wholehouseaudio mm5 graphics s |||
MX1680 Gen2 Multi Zone Digital Amp The New MX1680 Gen2 features Front Panel On/Off Zone Buttons with Status LEDs. The MX1680 Gen2 is a powerful 8-zone, 16-channel digital amplifier for commercial and residential audio systems that require reliable power in multiple zones. A slim 2U, rack-mountable,...
lang:en score:38 filesize: 346.68 K page_count: 1 document date: 2024-02-06

[pdf] User Manual Owner's Manual

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[pdf] Frequently Asked Questions

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