

**OSD  
NERO  
HTD8150  
Multi  
Channel  
Amplifier**



# OSD NERO HTD8150 Multi Channel Amplifier Owner's Manual

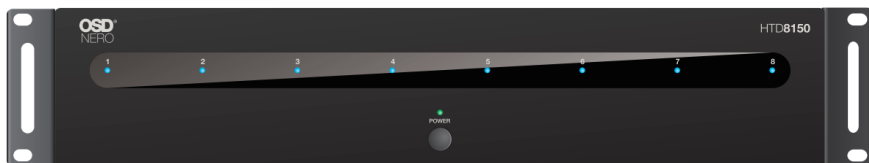
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## OSD NERO HTD8150 Multi Channel Amplifier



## Specifications

- **Model:** HTD8150 | HTD6150 | HTD4150
- **Thermal Protection:** Yes
- **Channels:** Multiple channels

- **Power:** Varies by model
- **Trigger Input:** 12VDC
- **Frequency Range:** 30Hz – 300Hz

## FAQs

- **What should I do if the Zone LED indicator blinks rapidly between red and blue?**
  - If this fault condition occurs, turn off the amplifier and check speakers for short circuit conditions.
- **How does the Trigger Input function?**
  - The 12V Trigger Input takes a 12VDC signal from another device; when a signal is sent, the amplifier switches on, and it returns to standby mode when the trigger is removed.
- **How do I set the crossover frequency using the Frequency Selector Knob?**
  - The knob sets the frequency for either the High Pass filter or the Low Pass Filter depending on which setting you select, either LP or HP.

## IMPORTANT SAFETY INSTRUCTIONS

### WARNING

- TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT USE THIS PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.
- TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
- TO PREVENT ELECTRICAL SHOCK, MATCH THE WIDE BLADE PLUG TO THE WIDE SLOT, AND FULLY INSERT.



- This lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated dangerous voltage within the product enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
- **CAUTION: RISK OF ELECTRIC SHOCK DO NOT OPEN**
- This lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated dangerous voltage within the product enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



- The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read these instructions.
2. Keep these instructions.
3. Read all warnings.
4. Follow all Instructions.
5. Do not use this apparatus near water.

6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install by the manufacturer's instructions.
8. Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades one wider than the other. A grounding-type plug has two blades and a third grounding prong. If the provided plugs do not fit into your outlet, consult an electrician for the replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the appliance.
11. Only use attachments or accessories specified by the manufacturer.
12. Unplug the apparatus during lightning storms or when unused for long periods.
13. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as a 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.

## **Introduction**

- Congratulations on buying one of the most flexible and powerful home theater or multichannel amps available.
- These are the ideal amps for mounting in confined spaces such as racks, credenzas, and cupboards.
- They are also ideal for running for long periods without having to worry about overheating.
- The internal fans are extremely quiet, only turning on when needed.
- Each of the HTD amplifiers is configured in such a way that any, or all, of the channels can be bridged for maximum power into 8 Ohms.
- Two of the channels can also be bridged and used as a subwoofer amp with available controls for cross-over frequency control as well as phase and level control.
- The amps can also be configured to turn on automatically when a 12 v signal is detected and turn off again when not detected.
- This is useful when the amp is not easily accessible, or you wish to simplify the turn-on/off procedure.
- Front panel LEDs indicate the status or warn of wiring issues, and a ground isolating switch is available to help troubleshoot hum issues. Welcome to the OSD family.

## **Thermal Protection**

- All HTD amplifiers are designed with special circuitry to safeguard the amplifier under a thermal overload condition.
- Thermal protection mode will only engage when the unit has been run at high volume for extended periods without adequate ventilation and when speaker impedances are below the minimum levels for the amplifier. In thermal
- In protection mode, the amplifier will automatically stop output. If this fault occurs, turn off the amplifier and check that the speaker impedance rating is above the minimum rating.
- Also, check for adequate ventilation around the amplifier and make necessary adjustments. The amplifier may be powered back on once the unit has cooled to safe operating temperatures.

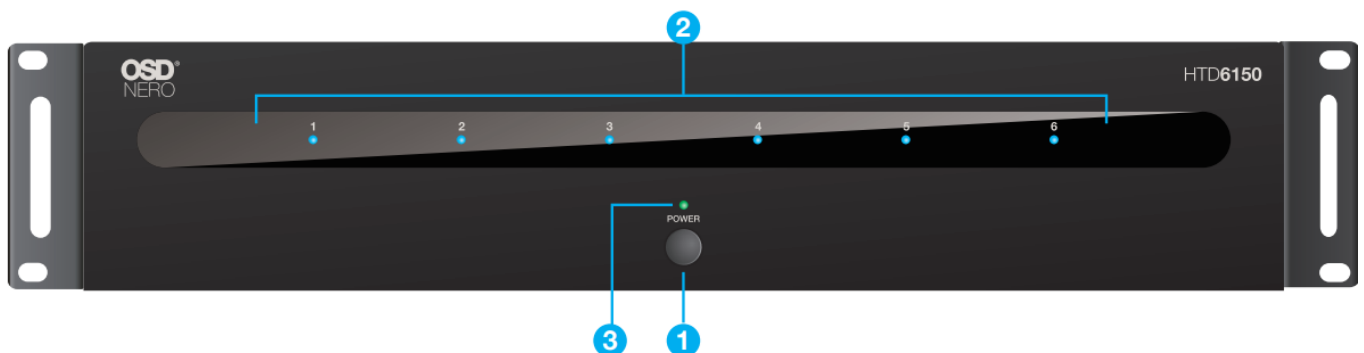
## Protection Circuitry

- Special circuitry has been designed into the HTD Series Multi-Channel Amplifiers to safeguard under a short-circuit condition.
- A faulty speaker can also cause a short circuit condition. The Zone LED indicator will blink rapidly between red and blue.
- If this fault condition occurs, turn off the amplifier and check speakers for short circuit conditions when appropriate.

## Installation

**Note:** the default gain for each channel is set to zero volume. Please adjust for each channel to set the maximum volume level for each zone. Typically, once you set it you forget it. Instead relying on your source device to control the master volume. The HTD Series Multi-Channel Amplifiers can be placed on a shelf, as part of an equipment rack, or on a table or cabinet. During installation, keep in mind that the amplifiers require proper clearances for ventilation and heat dissipation. The amplifier will take two rack spaces with the feet removed.

## Front Panel



### Note:

- The HTD4150, HTD6150, and HTD8150 all have similar Front Panels.
- The number of Status LEDs based on how many channels each Amp has (one per channel) is the only difference.
- The HTD6180 is featured here in the Callouts

### 1. Power/Standby Button

- **Note:** The rear panel AC Power Switch must be turned on first for the Front Panel to light up
- Press the Power Switch to turn the AMP On, press again to place the AMP in Standby mode

### 2. Status Display Window

- LED on top of Front power switch and 1-6 Zone LED Status for HTD6150 When switched off, the LEDs will not light up
- When turning the unit on, the Status LEDs will light up Green, and the 1-6 Zone LED will light up Blue  
When pressing the power button again, the Status LEDs will light up Amber (Going into standby), and the 1-6 Zone LEDs will turn off.
- When there are issues on the unit (such as high temperature/ short circuit ), the 1-6 Zone LED will turn to

RED, and the power LED will turn to Amber!

- **Noted:** if the problem was caused by high temperature, the unit would go back to work after the temperature comes down, but if there are any other failure issues, then the AMP will continue in the failure mode(1-6 Zone LEDs light up Red/ power LED amber). Turn the Amp off unplug it and Contact OSD customer service.

### 3. Power/Status 2-way LED light above the Power Button

- The power LED should be Green when you first press it, the Channel Status LEDs will be Blue.
- Press the Power Button again and the Status Lights turn off and the POWER LED turns AMBER

## Rear Panel



### 1. 12V Trigger

- Input takes a 12 VDC signal from another device using a Mono 3.5mm aux cable. When a signal is sent, the HTD amplifier will switch On; when the trigger is removed, the HTD will return to standby mode. The Main power switch on the back needs to be On for the Output trigger to send a signal to another connected device.

### 2. Front LED Dimmer Knob

- Allows you to adjust the brightness of the front LEDS, even to turn them fully off so they are not distracting in the darkness of a Home Theater.

### 3. Speaker Five-Way Binding Post

- For output connectors, the negative is on top, the positive is on the bottom for all channels.

### 4. Unbalanced Single RCA Input

- The even-numbered channels are the right channel input connections

### 5. Unbalanced Single RCA Input

- The odd-numbered input is the Left input for stereo and is marked for connecting a single bridge connection when grouping the two channels internally as one will be off. Standby Mode The amplifier will go into Standby mode when there is no 12V signal present.

### 6. Individual Gain Knob For Each Channel

- Unit is shipped from the factory with these set to 0dB, They must be adjusted

### 7. Stereo/Bridge (Mono) Switch

- Comes set to stereo from the factory. You can bridge the positive (right channel) and negative (left channel) together (mono output). The switch is found between the two adjacent channels that are bridged together.

### 8. Bridged Connection

- positive on the even-numbered (right) channel and negative on the odd-numbered (left) channel. 8Ω only

#### 9. **LP/OFF/HP**

- Channel 1 and Channel 2 for all three HTD Amplifiers feature a switch to select the Low Pass/Off/High Pass option that only works in the Bridged mode. High Pass means that the frequencies above the crossover Frequency setting selected will pass through, while the lower frequencies below pass below the crossover frequency selected. The Off-position bypasses the crossover selector altogether.

#### 10. **Frequency Selector Knob**

- this sets the frequency for either the High Pass filter or the Low
- Pass Filter depending on which setting you select either LP or HP.

#### 11. **Ground Isolation Switch**

- This switch selects the level of isolation between the audio signal ground and the AC earth ground. In normal operation, this switch should be in the GND Ground position. If there is trouble with an AC ground hum, try the other two settings for the best operation. For safety, the chassis is always connected to the earth's ground regardless of the switch setting.

#### 12. **AC Power Switch**

- This switch shuts off the main AC power. Normally the only time you need to turn this off is if the system is going to be shut down for an extended period. Use the front panel power button or master trigger inputs to switch the unit between standby and on. The main power must be on for either of these options to work.
- **Note:** Also turn the power switch off during lightning storms and windstorms with frequent power outages.

#### 13. **AC Voltage Selector Switch**

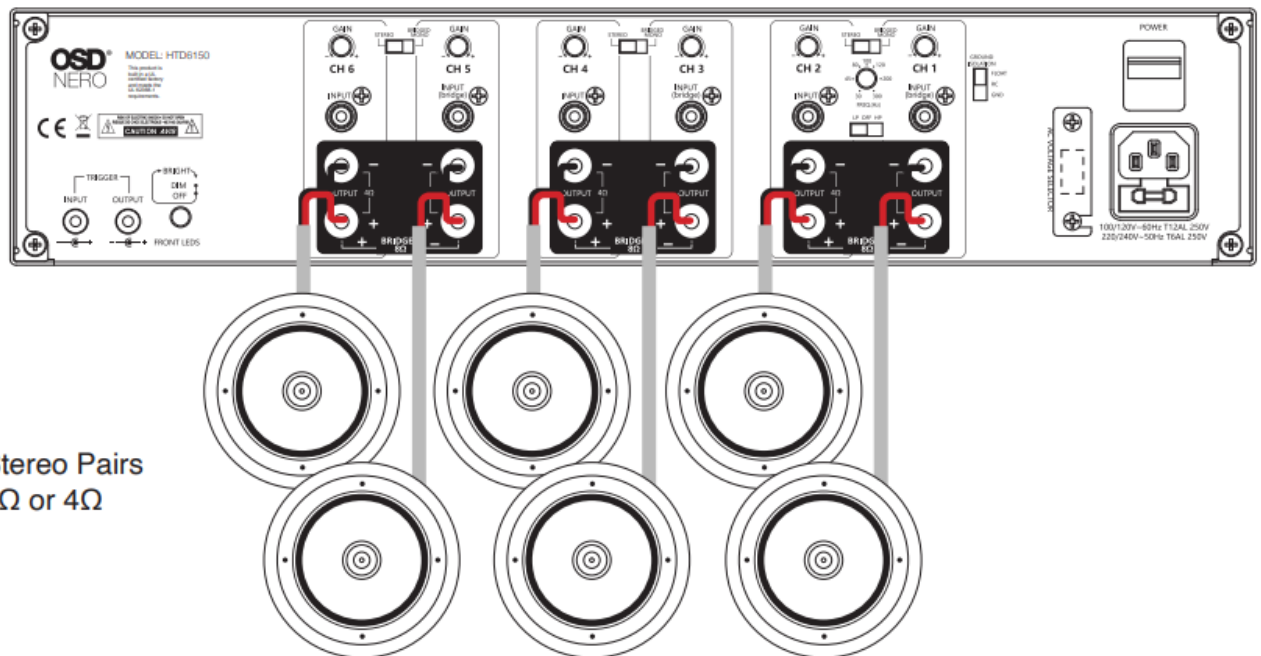
- Select either domestic ; 110V, or international; 230V

#### 14. **IEC Power Cord Receptacle**

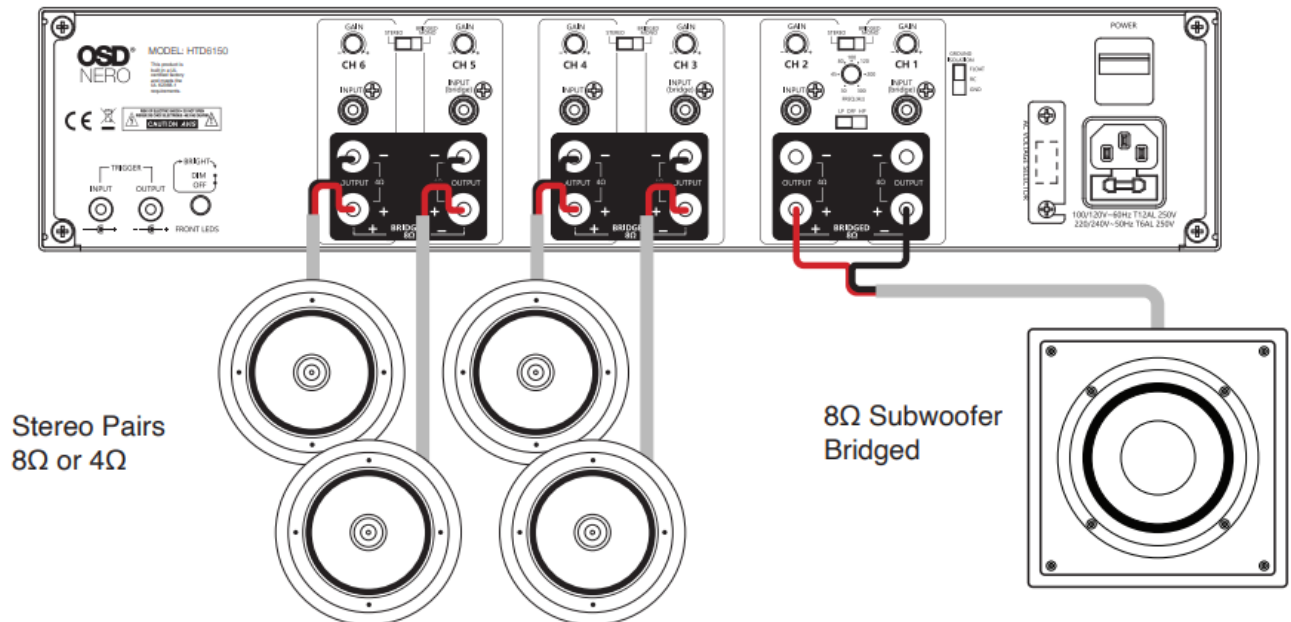
- The HTD amplifiers can be powered by any receptacle that provides either 115 VAC or 230 VAC. Check the AC Voltage Selector
- Switch to verify which selection is applicable to your area. There is a high-quality commercial power cable included in the box.
- There is a Fuse holder at the bottom of the AC Receptacle.
- **Make sure you replace the existing fuse with the proper Value for your application:**
  - 100/120V~60Hz T12AL 250V
  - 220/240V~50Hz T6AL 250V
  - MAX 1125 W

### **System Diagram Examples**

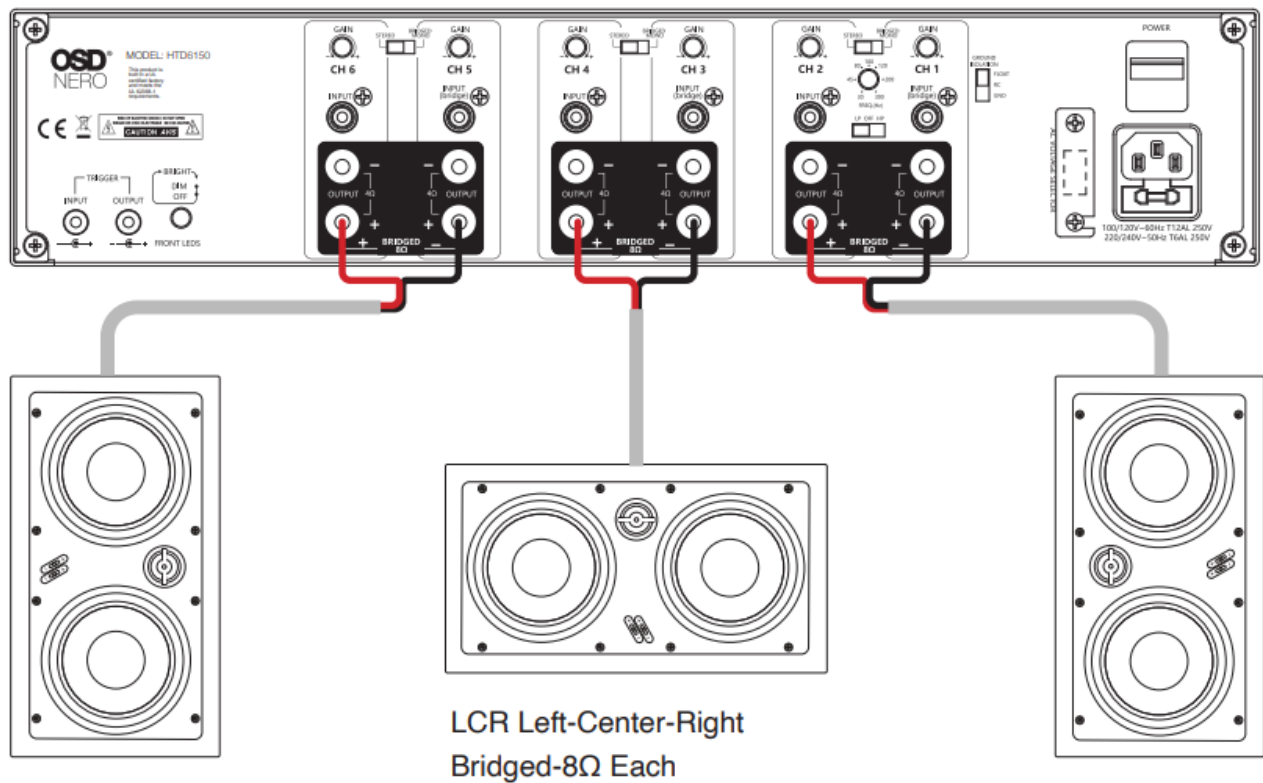
- **6 Channel Configuration**



### • 5 Channel Configuration



### • 3 Channel Configuration



## Specifications

Model			HTD-4150	HTD-6150	HTD-8150
Specification	Parameter	Measured in			
OUTPUT POWER(RMS)(UNIT:W),@.1% THD (SINGLE CHANNEL)	4 Ohms	Watts	150	150	150
OUTPUT POWER(RMS)(UNIT:W)@1% THD (SINGLE CHANNEL)	4 Ohms	Watts	200	200	200
OUTPUT POWER(RMS)(UNIT:W)@.1% THD (SINGLE CHANNEL)	8 Ohms	Watts	85	85	85
OUTPUT POWER(RMS)(UNIT:W)@1% THD (SINGLE CHANNEL)	8 Ohms	Watts	120	120	120
ALL CHANNEL OUTPUT POWER(RMS) (UNIT:W)@0.1% THD	4 Ohms	Watts	130	130	130
ALL CHANNEL OUTPUT POWER(RMS)(UNIT:W)@1% THD	4 Ohms	Watts	175	175	175
ALL CHANNEL OUTPUT POWER(RMS) (UNIT:W)@0.1% THD	8 Ohms	Watts	75	75	75
ALL CHANNEL OUTPUT POWER(RMS)(UNIT:W)@1% THD	8 Ohms	Watts	100	100	100



Bridged Rating (RMS)(UNIT:W)@1% THD (SINGLE CHANNEL)	8 Ohms	Watts	400	400	400
FREQUENCY RESPONSE @ + or -3dB – Hz	MHz – kHz	Hz	10-30KHz	12-39KHz	12-30KHz
SIGNAL TO NOISE(A-weighted)(UNIT:dB) Stereo mode, @1K/100Hz @1% THD, RC A input or named I/O	8 Ohms	dB	105	105	105
DAMPING FACTOR rated power	1 KHz	0 – 500	90	90	90
IDLE CURRENT – Amps	Amps	Amps	0.18	0.19	0.22
MAX.CURRENT @ALL CH. At rated power – Amps	Amps	Amps	5.9A	8.7A	12.1A
EFFICIENCY OF AMPLIFIER – %	x'%	%	88%	88%	88%
Amplifier Type (A, AB, H, D)		A, AB, H, D	D	D	D
Transformer type (EI, Toroidal)		EI, Toroidal	SMPS	SMPS	SMPS
Capacitors, number, and size		uF			
Air-cooled or fan-cooled		Air or Fan	Fan	Fan	Fan
12 Volt Triggers		mV	Y	Y	Y
Auto-On Sensing		Y/N	No	No	No
Sub-Out		Y/N	Y	Y	Y
Power Supply		115v, 230v or 110-230v	110/120 or 220/240v	110/120 or 220/240v	110/120 or 220/240v
Rack Mountable		Y/N	Y	Y	Y
Dimensions (Identical)		MM(LxWxH)	L=385mm/425mm	W=427mm	H=88mm

		Inches (LxW xH)	L=15.56"/16.73"	W=16.81"	H=3.46"
Weight, different per model	Net Weight	KG/Lbs	3.3 kg. 7.3 lbs.	3.57 kg. 7.88 lbs.	3.9 kg. 8.6 lbs.
	Gross Weight	KG/Lbs	4.41 kg. 9.74 lbs.	4.78 kg. 10.55 lbs.	5.0 kg. 11.04 lbs.
Certification		CL/ETL/UL	CE/UL Note	CE/UL Note	CE/UL Note


## WARRANTY INFORMATION

- OSD NERO Electronics has (2) a year limited warranty against defects in materials and workmanship. Proof of purchase must accompany all claims. During the warranty period, OSD Audio will replace any defective part and correct any defect in workmanship without charge for either parts or labor. OSD Audio may replace returned electronics with a product of equal value and performance. In such cases, some modifications to the mounting may be necessary and are not OSD Audio's responsibility.
- For this warranty to apply, the unit must be installed and used according to its written instructions. If necessary, repairs must be performed by OSD Audio. The unit must be returned to OSD Audio at the owner's expense and with prior written permission.
- Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or servicing performed by an agency or person not specifically authorized in writing by OSD Audio.
- OSD Audio sells products only through authorized dealers and distributors to ensure that customers obtain proper support and service. Any OSD Audio product purchased from an unauthorized dealer or other source, including retailers, mail order dealers, and online sellers will not be honored or serviced under the existing OSD Audio warranty policy. Any sale of a product by an unauthorized source or other manner not authorized by OSD Audio shall void the warranty on the applicable product.
- Damage to or destruction of components due to the application of excessive power voids the warranty on those parts.
- In these cases, repairs will be made based on the retail value of the parts and labor. To return for repairs, you must email customer service at [RMA@audiogeargroup.com](mailto:RMA@audiogeargroup.com) for a Returned Merchandise Authorization (RMA) number then the unit must be shipped to OSD
- Audio at the owner's expense, along with a note explaining the nature of the service required. Be sure to pack the product(s) in a corrugated container with at least 3 inches of resilient material to protect the unit from damage in transit.
- This Warranty Does Not Cover: Damage caused by abuse, accident, misuse, negligence, or improper operation (installation)
- Any products that have been altered or modified • Any product whose identifying number of decals, serial #, etc. has been altered, defaced, or removed Normal wear and maintenance.

## CONTACT INFORMATION

- OSD Audio
- Brea, CA
- [osdaudio.com](http://osdaudio.com).

**Documents / Resources**

	<p><a href="#">OSD NERO HTD8150 Multi Channel Amplifier</a> [pdf] Owner's Manual HTD8150, HTD6150, HTD4150, HTD8150 Multi Channel Amplifier, HTD8150, Multi Channel A mplifier, Channel Amplifier, Amplifier</p>
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**References**

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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