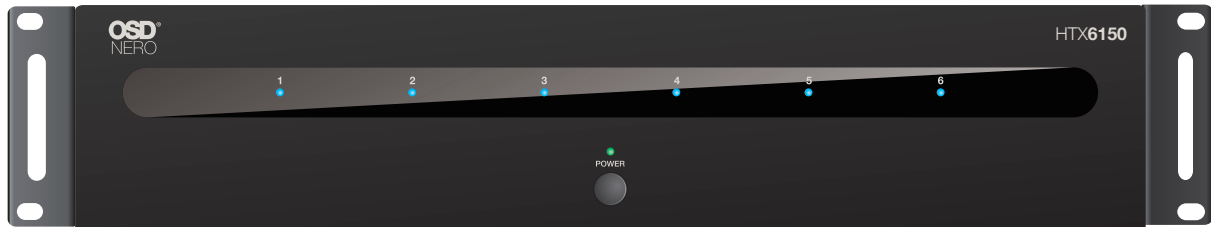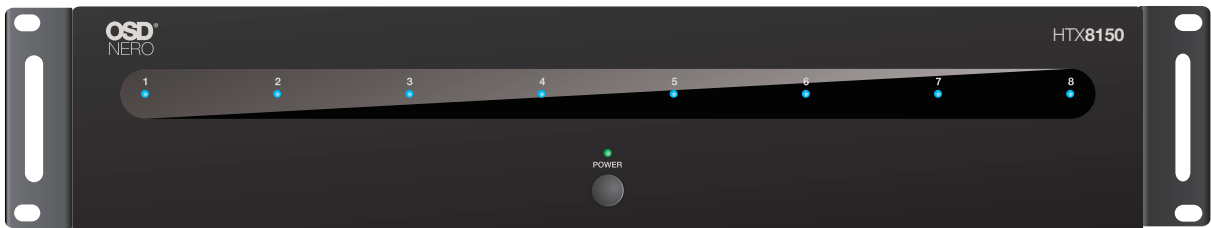# OSD® NERO

HTX SERIES MULTI CHANNEL HT AMPLIFIER OWNER'S MANUAL

HTX**8150** | HTX**6150** | HTX**4150**
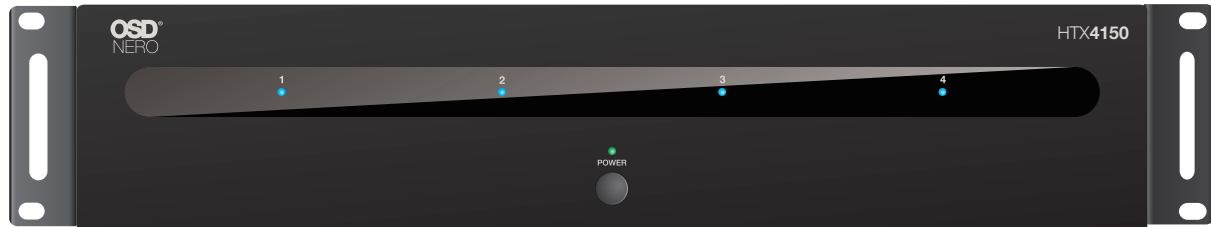
WARNING

- TO PREVENT FIRE OR SHOCK HAZARD, 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 HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
- TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT, FULLY IN-SERT.

This lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the use to the presence of un-insulated dangerous voltage within the products 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 lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the use to the presence of un-insulated dangerous voltage within the products 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 appliance.

IMPORTANT SAFTEY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3 Read all warnings.
4 Follow all Instruction.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturers 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 with one wider than the other. A grounding type plug has two blades and a third grounding prong. If the provided plugs does not fit into your outlet, consult an electrician for 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 form 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 of time.
13. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in anyway, 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.

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 of time without having to worry about over-heating. The internal fans are extremely quiet, only turning on when needed. Each of the HTX amplifiers are 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 and 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 LED's indicate 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 HTX 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 HTX 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 max 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 HTX 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
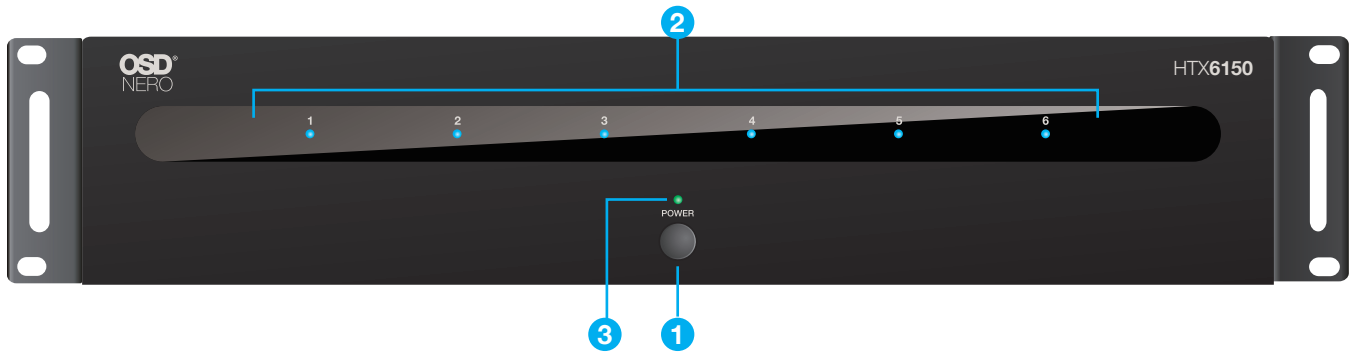
Note:

The HTX4150, HTX6150, and HTX8150 all have similar Front Panels.

The number of Status LEDs based upon how many channels each Amp has (one per channel) is the only difference.

The **HTX6180** 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 HTX6150 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 and unplug it and Contact OSD customer service.

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

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 HTX amplifier will switch On; when the trigger is removed, the HTX 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
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 oneLED will be off. Standby Mode The amplifier will go into Standby mode when ther 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 to odd numbered (left) channel. 8Ω only

9. LP/OFF/HP
Channel 1 and Channel 2 for all three HTX Amplifiers feature a switch to select 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 all together.

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 the 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 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 of time. 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, windstorms with frequent power outages.

13. AC Voltage Selector Switch
Select either domestic ; 110V, or international; 230V

14. IEC Power Cord Receptacle
The HTX 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 for your area. There is a high-quality commercial power cable included in the box.

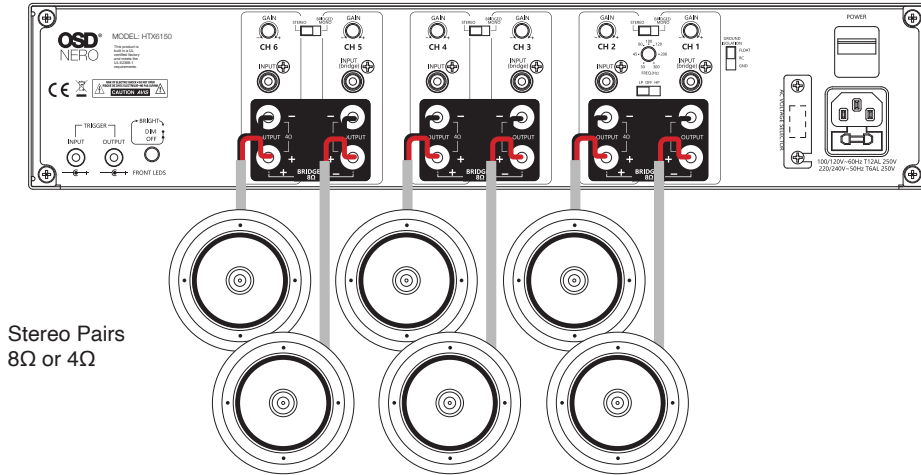There is Fuse holder at the bottom of the AC Receptacle. Make sure you replace the existing fuse with the proper Value for your application:

100/120V~60Hz T12AL 250V

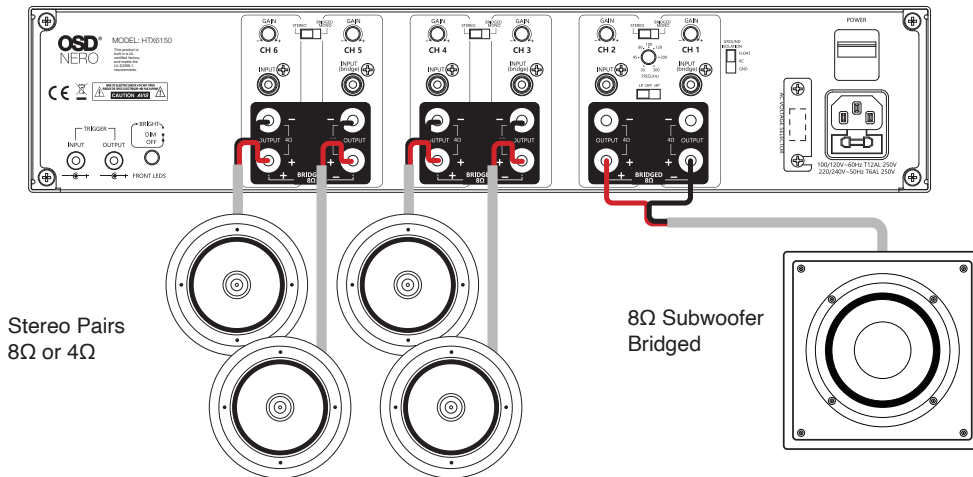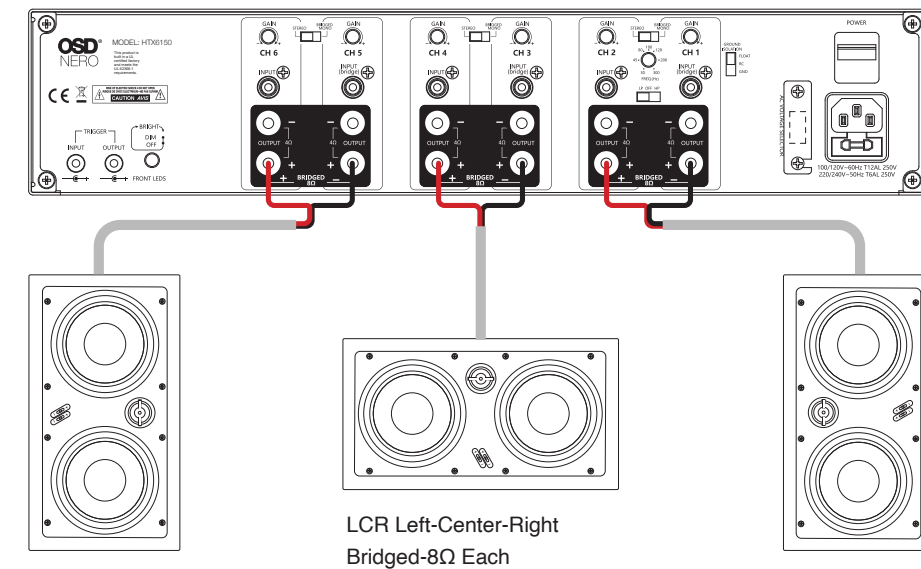220/240V~50Hz T6AL 250V
MAX 1125 W

System Diagram Examples

6 Channel Configuration

Stereo Pairs
8Ω or 4Ω

5 Channel Configuration

Stereo Pairs
8Ω or 4Ω

8Ω Subwoofer
Bridged

3 Channel Configuration

LCR Left-Center-Right
Bridged-8Ω Each

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NERO

Specifications

Model			HTX-4150	HTX-6150	HTX-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	xHz - xKHz	Hz	10-30KHz	12-39KHz	12-30KHz
SIGNAL TO NOISE(A weighted)(UNIT:dB) Stereo mode, @1K/100Hz @1% THD, RCA 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 (LxWxH)	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 have (2) 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 damaged resulting from abuse or from 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 existing OSD Audio warranty policy. Any sale of 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 application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, you must email customer service at 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 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 decal, serial #, etc. has been altered, defaced or removed • Normal wear and maintenance.

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