NAD®

CI 8-150 DSP

Multi-Channel Amplifier

NAD · Multi-Channel Amplifier CI 8-150 DSP

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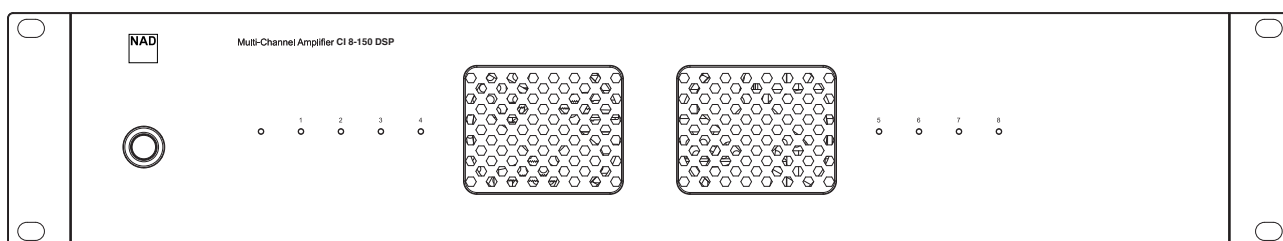
Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

- **Read instructions** - All the safety and operating instructions should be read before the product is operated.
- **Retain instructions** - The safety and operating instructions should be retained for future reference.
- **Heed Warnings** - All warnings on the product and in the operating instructions should be adhered to.
- **Follow Instructions** - All operating and use instructions should be followed.
- **Cleaning** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- **Attachments** - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- **Water and Moisture** - Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- **Accessories** - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- **Cart** - A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- **Ventilation** - Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- **Power Sources** - This product should be operated only from the type of power source indicated on the marking label and connected to a MAINS socket outlet with a protective earthing connection. If you are noSt sure of the type of power supply to your home, consult your product dealer or local power company.
- **Power Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
- **Mains Plug** - Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- **Outdoor Antenna Grounding** - If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
- **Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
- **Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- **Overloading** - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- **Flame Sources** - No naked flame sources, such as lighted candles, should be placed on the product.
- **Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

- **Damage Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    - When the power-supply cord or plug is damaged.
    - If liquid has been spilled, or objects have fallen into the product.
    - If the product has been exposed to rain or water.
    - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
    - If the product has been dropped or damaged in any way.
    - When the product exhibits a distinct change in performance-this indicates a need for service.
- **Replacement Parts** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- **Safety Check** - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

WARNING

THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.

THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING : SHOCK HAZARD - DO NOT OPEN
ATTENTION : RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR

CAUTION REGARDING PLACEMENT
To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) than is equal to, or greater than shown below.
Left and Right Panels: 10 cm
Rear Panel: 10 cm
Top Panel: 10 cm

RESPONSIBLE PARTY
Lenbrook International
633 Granite Court
Pickering, ON L1W 3K1
Canada
Tel: 1 905 8316555

CAN ICES-3 (B)/NMB-3(B)
This Class B digital apparatus complies with Canadian ICES-3

EU CONFORMITY STATEMENT
This product and, if applicable, the supplied accessories are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Radio Equipment Directive 2014/53/EU and EMC Directive 2014/30/EU.

This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 2004/108/EC.

FCC STATEMENT

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

CAUTION

- Changes or modifications to this equipment not expressly approved by NAD Electronics for compliance could void the user's authority to operate this equipment.
- This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
  1 This device may not cause harmful interference, and
  2 This device must accept any interference received, including interference that may cause undesired operation.
- This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.
- To prevent electric shock, match wide blade of plug to wide slot, fully insert.
- Marking and rating plate can be found at the rear panel or bottom panel of the apparatus.
- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.
- Mains plug is used as disconnect device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.
- An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.
- The device for operation in the band 5150–5250 MHz is for indoor use only to reduce the potential for harmful interference to co-channel mobile satellite systems.
- Operating temperature: 0 – 40 °C

IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.

NOTES ON ENVIRONMENTAL PROTECTION

At the end of its useful life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's manual and packaging point this out.

The materials can be reused in accordance with their markings. Through re-use, recycling of raw materials, or other forms of recycling of old products, you are making an important contribution to the protection of our environment.

Your local administrative office can advise you of the responsible waste disposal point.

INFORMATION ABOUT COLLECTION AND DISPOSAL OF WASTE BATTERIES (DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF EUROPEAN UNION) (FOR EUROPEAN CUSTOMERS ONLY)

Pb

Batteries bearing any of these symbols indicate that they should be treated as "separate collection" and not as municipal waste. It is encouraged that necessary measures are implemented to maximize the separate collection of waste batteries and to minimize the disposal of batteries as mixed municipal waste.

Hg **Cd**

End-users are exhorted not to dispose waste batteries as unsorted municipal waste. In order to achieve a high level of recycling waste batteries, discard waste batteries separately and properly through an accessible collection point in your vicinity. For more information about collection and recycling of waste batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

By ensuring compliance and conformance to proper disposal of waste batteries, potential hazardous effects on human health is prevented and the negative impact of batteries and waste batteries on the environment is minimized, thus contributing to the protection, preservation and quality improvement of the environment.

GETTING STARTED

WHAT'S IN THE BOX

Packed with your CI 8-150 DSP you will find
*   Two detachable mains power cord
*   4 pieces of 4-position terminal block (for SPEAKERS)
*   1 piece of 2-position terminal block (for +12V TRIGGER IN)
*   4 pieces of feet with mounting screws
*   Important Safety Instruction sheet
*   Quick Setup Guide

QUICK START

Refer to the supplied CI 8-150 DSP Quick Setup Guide for basic instructions in setting up your new NAD CI 8-150 DSP. The following important notes must also be observed when setting up your CI 8-150 DSP.

IMPORTANT SETUP NOTES

*   Before setting up or making connections, ensure that the CI 8-150 DSP and other devices to be connected to CI 8-150 DSP are unplugged or powered down.
*   Connect external speaker cables to supplied SPEAKERS terminal block ensuring that the connections match CI 8-150 DSP's rear panel SPEAKERS terminal markings.
*   Bare wire or loose strands from the speaker cables must not touch the rear panel or other speaker terminals.
*   After installing the external speaker cables to the supplied SPEAKER terminal blocks, plug in the wired up SPEAKER terminal blocks to corresponding SPEAKERS (1- 8) rear panel terminals of CI 8-150 DSP.
*   Before connecting the power cord's plug to the mains power outlet, ensure that the other end of the power cord is firmly connected to CI 8-150 DSP's AC Mains input socket.
*   Press front panel POWER button to switch ON CI 8-150 DSP from standby mode. Output channels with audio will have their corresponding front panel Output Channel LED indicators illuminated blue.

SAVE THE PACKAGING

Please save the box and all of the packaging in which your CI 8-150 DSP arrived. Should you move or otherwise need to transport your CI 8-150 DSP, this is by far the safest container to do so. We've seen too many otherwise perfect components damaged in transit for lack of a proper shipping carton, so please: Save that box

1 **2** **3** **3**

4 **5** **6** **7**

8 **9** **10** **11** **12** **13**
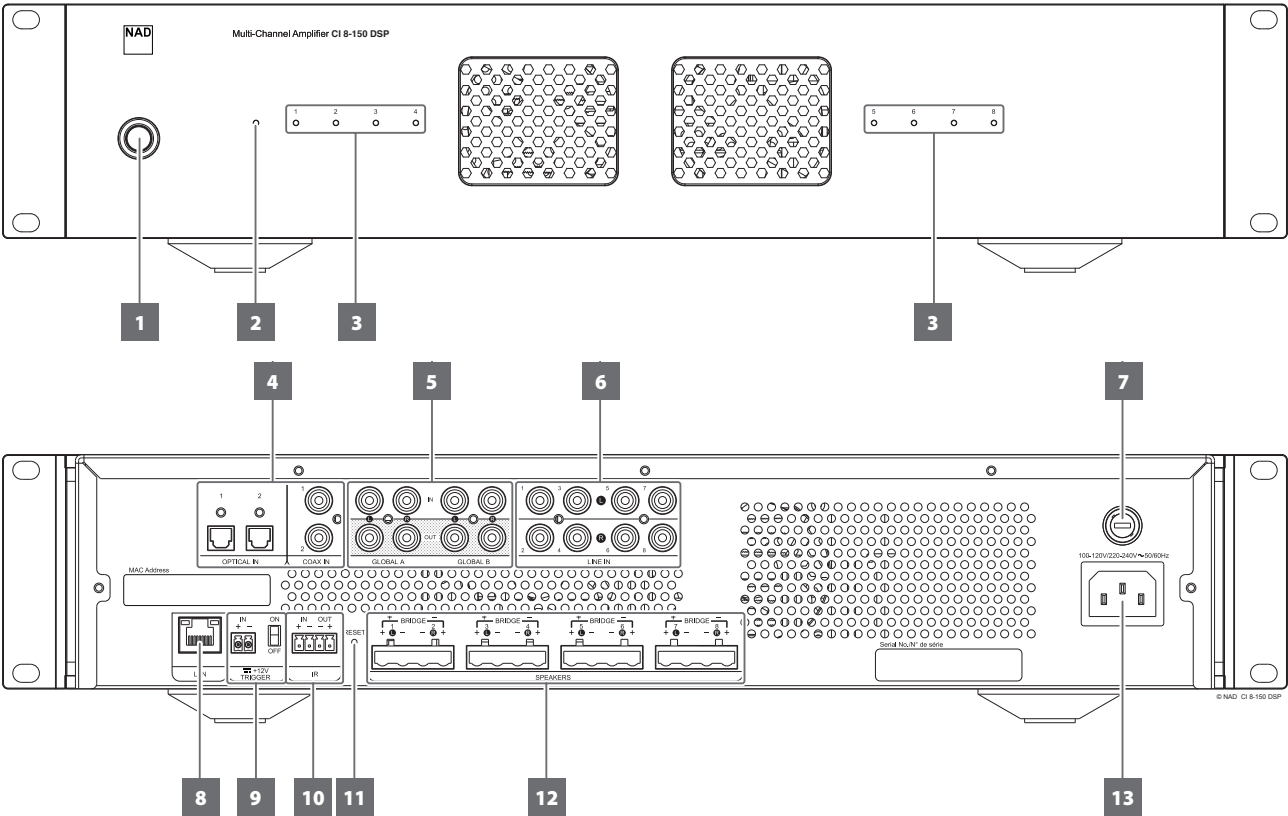
ATTENTION!

Please ensure that the CI 8-150 DSP is powered off or unplugged from the mains power outlet before making any connections. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

1 POWER BUTTON

- Press this button to switch ON CI 8-150 DSP from standby mode. All eight Output Channel LED indicators will turn red for about 5 seconds, briefly all blue and then blue for those output channels with audio output or no light (except Power LED) if there is no audio output. The 5 seconds delay in powering up is intended for system power stability and security self-check.
- Pressing the Power button again turns the unit back to standby mode. The Power LED indicator will turn from blue to amber.

NOTE

"Power Mode" (Setup - Power - Power Settings - Power Mode - Power Button) must be set to "Power Button" for the unit to power up via front panel Power button.

2 POWER LED

- This indicator will light up amber when CI 8-150 DSP is at standby mode. When CI 8-150 DSP is powered up from standby mode, this indicator will illuminate blue.

POWER AND OUTPUT CHANNEL LED STATUS INDICATORS

DESCRIPTION	POWER LED STATUS	OUTPUT CHANNEL LED 1-8 STATUS
Operating mode	Blue	When there is audio at particular output channels, the corresponding front panel Output Channel LED indicators are illuminated blue. If there is no audio output, the corresponding Output Channel LED indicators are not illuminated.
Standby mode	Amber	Off, no light
System reboot	Blue - Amber - Red - Blue	Blue/No light - Red - Blue - No light - Blue/No light depending on the presence or absence of audio output
Overvoltage or under voltage	Red	Off, no light
AMP current error	Blue	Corresponding Output Channel LED indicator is red
AMP DC error	Red	Off, No light

3 OUTPUT (1-8) CHANNEL LED INDICATORS

- The Output Channel LED indicators (1-8) correspond to SPEAKERS 1-8. When there is audio at particular output channels, the corresponding front panel Output Channel LED indicators are illuminated.
  - For example, if there is audio output at SPEAKERS 1-2, the front panel Output Channel LED indicators 1 and 2 are illuminated blue.
  - If there is no audio output, the corresponding Output Channel indicators are not illuminated.

NOTE

When GLOBAL INTERRUPT A and/or GLOBAL INTERRUPT B is selected for specific Zones (A, B, C, or D) and an active line input signal is present at either GLOBAL A or GLOBAL B input terminals, the corresponding OUTPUT CHANNEL LED indicators for the Zone(s) will illuminate.

4 **OPTICAL IN 1-2/COAXIAL IN 1-2**
- Use applicable connectors (not supplied) to connect OPTICAL IN 1-2 and/or COAXIAL IN 1-2 terminals to corresponding Digital Audio Output terminals of compatible external devices such as preamplifiers, streamers or other applicable devices.
- Configure LINE INPUT 1-8 via INPUT/OUTPUT menu of the web-based CI 8-150 DSP User Interface. OPTICAL IN 1-2 and/or COAXIAL IN 1-2 sources can be assigned to specific or multiple OUTPUT channel(s).

5 **GLOBAL A, GLOBAL B IN/OUT**
- These IN/OUT terminals are dedicated only to GLOBAL settings.
- Global Interrupt A and/or Global Interrupt B can be toggled ON or OFF in the **Zones** menu. All four Zones offer the option to enable Global Interrupt A and/or B, which, when activated, will take priority and override all other active line inputs within the selected zone(s).
- Global Interrupt A corresponds to Global A IN while Global Interrupt B to Global B IN.
- Global A or B input will override any active line or digital input. Once Global A or B input stops receiving audio signal, the amplifier will automatically revert to the previous input source.

GLOBAL A IN, GLOBAL B IN
- Use RCA-to-RCA leads to connect Audio Output terminals from compatible external devices such as preamplifiers, streamers or other applicable devices to GLOBAL A IN and/or GLOBAL B IN terminals.
- GLOBAL A takes priority over GLOBAL B.

GLOBAL A OUT, GLOBAL B OUT
- Use RCA-to-RCA leads to connect GLOBAL A and/or GLOBAL B OUT terminals to audio INPUT terminals of compatible external devices such as amplifiers, receivers or other applicable devices.
- The GLOBAL OUT terminals are line level "loop through" output. The same level of input signal from corresponding GLOBAL IN is available at the corresponding GLOBAL OUT terminal thereby allowing the same signal to be shared or passed on to another amplifier.
- At standby mode, line level "loop through" output at GLOBAL A OUT and GLOBAL B OUT terminals remain available as long as the sources for GLOBAL A IN and GLOBAL B IN are active.

6 **LINE INPUT (1-8)**
- The LINE INPUT ports are numbered 1 to 8. Use RCA-to-RCA leads to connect the LINE INPUT terminals to corresponding Audio Output terminals of compatible external devices such as preamplifiers, streamers or other applicable devices.
- Configure LINE INPUT 1-8 via INPUT/OUTPUT menu of the web-based CI 8-150 DSP User Interface. Each LINE INPUT source can be assigned to specific or multiple OUTPUT channel(s).

7 **FUSE HOLDER**
- In the unlikely event a fuse needs to be replaced, unplug the AC power cord from the mains power outlet. Then, remove all connections from the amplifier. Use a flathead screwdriver or similar to open the fuse holder via the slot located at the top edge of the fuse holder. With the screwdriver in place, push it outward to unlatch and open the fuse holder.
- Only replace the fuse with the same type, size, and specification – T15AL 250V.

NOTE

Do not use any substitute fuse of different type, rating or value. Failure to observe this precaution may cause damage to the amplifier circuits and may create a fire hazard and/or defeat the safety built into the amplifier and may void the warranty.

8 **LAN**
- To access the CI 8-150 DSP's web interface for setup, the unit must be connected to a local area network (LAN) via its Ethernet port. An active internet connection is required for over-the-air (OTA) updates.
- Use a standard Ethernet cable (not supplied) to connect the CI 8-150 DSP's LAN port to your router or network switch.
- DHCP must be supported by the router to assign an IP address to the amplifier.

NOTES
- NAD is not responsible for any malfunction of the CI 8-150 DSP and/or the internet connection due to communication errors or malfunctions associated with your broadband internet connection or other connected equipment. Contact your Internet Service Provider (ISP) for assistance or the service bureau of your other equipment.
- Contact your ISP for policies, charges, content restrictions, service limitations, bandwidth, repair and other related issues pertinent to internet connectivity.

9 **+12V TRIGGER**
+12V TRIGGER IN +/-
- Use the supplied 12V TRIGGER terminal block to connect +12V TRIGGER IN +/- terminals to corresponding terminals of compatible external +12V TRIGGER source. Install the wired up 12V TRIGGER terminal block to CI 8-150' DSPs +12V TRIGGER IN +/- rear panel terminal.
- The +12V TRIGGER IN allows the CI 8-150 DSP to be remotely switched between standby and operating modes by the external controlling device connected to +12V TRIGGER IN.
- The external controlling device, such as compatible preamplifiers, integrated amplifiers, receivers, etc., must be equipped with +12V trigger output to use this feature.
- Refer also to the item about "12V TRIGGER- ON/OFF".

+12V TRIGGER IN – ON/OFF
- This dual-function switch toggles between detecting (ON) a +12V input via the +12V TRIGGER IN and disabling (OFF) the +12V TRIGGER IN function.
- When the 12V TRIGGER ON/OFF switch is set to ON and the +12V TRIGGER IN terminals are connected to a compatible external device with a +12V DC trigger output, the CI 8-150 DSP can be remotely switched between standby and operating modes. This functionality depends on the presence or absence of a +12V DC supply at the +12V TRIGGER IN terminals (refer also to item about +12V TRIGGER IN +/-).
- Note that with +12V TRIGGER IN-ON/OFF switch set to ON, the CI 8-150 DSP cannot switch between standby and operating modes on its own. Instead, the external device connected via +12V TRIGGER IN will manage the powering up and down of the CI 8-150 DSP.
- +12V TRIGGER IN is disabled when +12V TRIGGER IN - ON/OFF switch is set to OFF. This is the default setting and allows the CI 8-150 DSP to power up normally.

10 IR IN/OUT

- IR IN/IR OUT are not supported at this time.

11 RESET

- Use the RESET button to manually restore CI 8-150 DSP to its factory default settings.
- While at operating mode, press and hold RESET button until Power LED continuously flash in amber color. Release hold of RESET button. Factory reset is completed when the continuously flashing amber Power LED stops and unit goes to standby mode.

12 SPEAKERS (1 - 8)

- The supplied SPEAKERS terminal blocks support wire sizes up to 10 AWG (American Wire Gauge).
- Refer to the table below for additional guidance on AWG sizes and recommended wire lengths.

SPEAKER WIRE GAUGE	MAXIMUM SPEAKER WIRE LENGTH		
	4 Ohms Speakers	6 Ohms Speakers	8 Ohms Speakers
18 AWG	16 feet	24 feet	32 feet
16 AWG	24 feet	36 feet	48 feet
14 AWG	40 feet	60 feet	80 feet
12 AWG	60 feet	90 feet	120 feet
10 AWG	100 feet	150 feet	200 feet

- Connect external speaker cables to supplied SPEAKERS terminal block ensuring that the connections match CI 8-150 DSP's SPEAKERS terminal markings.
- To illustrate, connect CI 8-150 DSP SPEAKERS "1+" terminal to corresponding "+" terminal of your external speaker and "1-" connected to external speaker's "-" terminal. Follow the same connection configuration when connecting other external speakers to SPEAKERS terminals "2+" and "2-" up to "8+" and "8-".
- After installing the external speaker cables to the supplied SPEAKER terminal blocks, plug in the wired up SPEAKER terminal blocks to corresponding SPEAKERS (1- 8) rear panel terminals of CI 8-150 DSP.

SAMPLE STEREO MODE SPEAKER CONNECTION FOR SPEAKERS 1 AND 2

EXTERNAL SPEAKER TERMINAL	CI 8-150 DSP SPEAKERS TERMINAL			
	SPEAKERS "1+"	SPEAKERS "1-"	SPEAKERS "2-"	SPEAKERS "2+"
External Speaker 1 "+" terminal	✔			
External Speaker 1 "-" terminal		✔		
External Speaker 2 "+" terminal				✔
External Speaker 2 "-" terminal			✔	

- At Bridge Mode, connect the external single speaker to corresponding CI 8-150 DSP SPEAKERS terminals marked "1+" and "2+" ensuring that "1+" is connected to the external speaker's "+" terminal and "2+" connected to the external speaker's "-" terminal. This is a sample BRIDGE mode connection for SPEAKERS 1 and 2. The same BRIDGE mode configuration applies to the remaining SPEAKERS terminal blocks.
- Bridge Mode is enabled or disabled via the OUTPUT section of INPUT/OUTPUT menu of the web-based CI 8-150 DSP User Interface.

SAMPLE BRIDGE MODE SPEAKER CONNECTION FOR SPEAKERS 1 AND 2

EXTERNAL SPEAKER TERMINAL	CI 8-150 DSP SPEAKERS TERMINAL			
	SPEAKERS "1+"	SPEAKERS "1-"	SPEAKERS "2-"	SPEAKERS "2+"
Single external Speaker "+" terminal	✔			
Single external Speaker "-" terminal				✔

13 AC MAINS INPUT

- The CI 8-150 DSP comes supplied with two separate AC power cords. Select the AC power cord appropriate for your region.
- Before connecting the power cord's plug to the mains power outlet, ensure that the other end of the power cord is firmly connected to CI 8-150 DSP's AC Mains input socket.
- Always unplug the power cord from the mains power source first, before disconnecting the other end from the CI 8-150 DSP's AC Mains input socket.

OPERATION

USER INTERFACE

The CI 8-150 DSP can be accessed, configured and managed via a web-based User Interface. Start access to your CI 8-150 DSP by following the GUIDELINE FOR NETWORK SETUP CONNECTION.

GUIDELINE FOR NETWORK SETUP CONNECTION

This guideline is applicable to iOS/iPadOS and Android devices as well as Windows and macOS desktops. Adapt the guidelines according to your control device.

1 Use an Ethernet cable (not supplied) to connect CI 8-150 DSP's LAN port to your Wired network or router.

NOTES

- *For wired connection to be established, ensure that a broadband router that supports Ethernet is setup and available.*
- *Ensure that CI 8-150 DSP and the control device (iOS/iPadOS and Android devices as well as Windows and macOS desktops) are connected to the same network.*
- *Note the MAC (Media Access Control) address located on the rear panel as this information is needed when identifying the CI 8-150 DSP on the network.*

2 Power up your CI 8-150 DSP.

3 Use any network IP scanner to find your CI 8-150 DSP's Network ID (listed as the product name (NAD CI 8-150 DSP) immediately followed by the last six digits in the MAC (Media Access Control) address (example: NAD CI 8-150 DSP_123456). Note also the corresponding IP address assigned by the network.

NOTE

If your network IP scanner does not show exactly the CI 8-150 DSP Network ID nomenclature as described above, find and select instead the product brand "NAD" among the devices detected.

4 Type the IP address into your control device's web browser to access your CI 8-150 DSP's User Interface (UI).

5 Configure your CI 8-150 DSP's Dashboard, Setup, Input/Output, Zones and DSP parameters via the User Interface.

FIRMWARE UPGRADE PROCEDURE

1 When you access the User Interface of your CI 8-150 DSP, a firmware upgrade prompt will appear if a newer version is available. Select either "I want it now" to proceed immediately or "Delay 24 hours" to postpone the update.

2 Another method to check for firmware upgrade is to go to Setup – Information, Back Up and Restore. Go down to the menu under Amplifier Firmware and then Check for Update. Suggest proceeding with Internet Update as Manual Update is normally for authorized service technicians.

3 Follow the firmware upgrade prompt instructions to complete the upgrade process.

MAIN MENU OPTIONS

The CI 8-150 DSP User Interface consists of the following five main menu options.

A **Dashboard**
B **Setup**
C **Input/Output**
D **Zones**
E **DSP**

A   DASHBOARD

1   AMPLIFIER STATUS

Reboot: Restart unit by switching from operating mode to standby mode and switch back to operating mode again.
Celsius or Fahrenheit: Select Celsius or Fahrenheit as temperature unit of measurement.
Power: Select **Off** to switch unit to standby mode. Select **On** to power up unit from standby mode. Make sure the unit is connected to the network.
Network: IP address is displayed as dynamically assigned by your router.
Left Fan/Right Fan: Show Fan Speed Information – **Low, Medium, High** or **Off**
Main Unit Temperature: Internal temperature measured in Celsius or Fahrenheit.
Amplifier Status: Indicate condition of amplifier
Model and Firmware version: Show amplifier model number and current installed firmware version

2   CHANNEL STATUS

- Display status of Output Channel 1–8 (Speakers 1 – 8) based on their audio levels and current settings.
- Select speaker icon ◁)) to mute or restore audio output.

B   SETUP

1   NETWORK

NETWORK ID
DHCP

DHCP setting controls IP Address allocation.

- **On:** Current IP Address is displayed. The router dynamically assigns an IP address, which may change each time the CI 8-150 DSP is powered up.
- **Off:** Static IP address can be manually assigned. Perform a network scan to identify unused IP address within the range of your router. Entering an incorrect IP address may render the CI 8-150 DSP inaccessible. A

thorough understanding of network setup is recommended before modifying IP settings.

IP ADDRESS

• Depending upon DHCP Setting (On/Off), IP address is displayed as dynamically assigned by your router or based on the static IP address you manually entered.

IP SUBNET MASK

• Advanced network function that is best left unchanged. It is advised that only experienced network administrators make changes in this field

2 POWER

POWER SETTINGS
POWER MODE

There are four methods the CI 8-150 DSP can be powered up. Drag the slider icon to select any of the following power modes.

a Power Button
b Always On
c 12V Trigger
d Signal Sense

a POWER BUTTON

• This is the default setting. CI 8-150 DSP is powered up and powered down by pressing front panel POWER button.

b ALWAYS ON

• The CI 8-150 DSP remains powered on and in operating mode. Power down by switching to Power Button method or unplugging the AC power cord from the mains power outlet.

c 12V TRIGGER

• The CI 8-150 DSP powers up or down based on the presence or absence of a +12V DC supply at the +12V TRIGGER IN terminals (refer also to item about +12V TRIGGER IN).
• To enable proper functioning of the 12V TRIGGER power mode, ensure the rear panel 12V TRIGGER ON/OFF switch is set to ON.
• The CI 8-150 DSP can be remotely switched between standby and operating modes by a compatible external device connected to the +12V TRIGGER IN -/+ terminals.

d SIGNAL SENSE

• Signal sense feature enables CI 8-150 DSP to automatically wake up from standby mode when triggered by active line input signal.
• CI 8-150 DSP will power up to the input source that activated the unit to operating mode.

ECO MODE

• Minimum power consumption of less than 0.5W.
• There is no network access while the unit is in Eco standby mode.
• Normal power settings are maintained at Eco Mode Off setting.

At Eco Mode ON setting, the amplifier will function as follows.

POWER MODE SETTING	RESULT
Power button or Signal Sense	Unit will automatically enter Eco standby mode when there has been 20 minutes of no active line input signal.
Signal Sense	Unit switches from Eco Standby mode to operating mode when triggered by an active line input signal.
12V Trigger	Unit switches from Eco Standby mode to operating mode when triggered by +12V Trigger source.
Always On	ECO mode is automatically set to Off.

STANDBY

• Standby can only be setup at Eco Mode **Off** setting and under the following conditions.
  Power Mode: Power Button or Signal Sense
  Eco Mode: Off
  No active line input signal
  - Unit automatically goes to standby mode after a set of selectable periods of time – 5, 10, 15, 30, 60 minutes or OFF.

POWER UP DELAY

• Powering up CI 8-150 DSP can be delayed by up 20 seconds. Drag the slider icon to desired time delay setting (0 to 20 seconds).
• Use the Power Up Delay feature to stagger the turn-on sequence, particularly when multiple devices share the same electrical circuit.

FAN SPEED INFO

The CI 8-150 DSP front panel features two cooling fans. Each fan operates independently based on the temperature of its respective channel (left and right), though the individual channel temperatures are not displayed. Fan speed is automatically adjusted according to the following temperature thresholds:

• **Low Speed:** The fan activates at 50°C and turns off when the temperature drops below 45°C.
• **Medium Speed:** The fan activates at 60°C and shifts back to low speed if the temperature falls below 55°C.
• **High Speed:** The fan activates at 70°C and returns to medium speed when the temperature drops below 65°C.

3 INFORMATION, BACK UP AND RESTORE

OPERATION

AMPLIFIER IDENTIFICATION
FLASHING LED INDICATOR(S)
On: Power LED (amber) and all Output Channel LED (blue) indicators flash continuously. This is particularly useful in identifying your CI 8-150 DSP when stacked in a rack alongside other devices.
Off: Stop or prevent Power LED (amber) and all Output Channel LED (blue) indicators from flashing continuously.

AMPLIFIER INFORMATION
The following information about your CI 8-150 DSP are automatically generated and displayed.
- Model
- Serial Number
- Current Firmware Version details
- Date firmware was last updated.

Another item is **Unit Name**. Type or enter in the **Unit Name** field the desired name you will identify your CI 8-150 DSP.

INSTALLATION INFORMATION
Type or enter the Installation details for the following items
- Project Name of the installation job
- Name of the Installer
- Contact number of the Installer
- Date installation was completed.
- Date installation was last modified.

PASSWORD PROTECTION
This feature helps control access and prevent unauthorized modifications when enabled.
On: Set up a password to secure your CI 8-150 DSP. Once a password is configured, changes cannot be made in the User Interface without entering the correct password.
Off: No password protection is enabled, allowing unrestricted access to modify settings in the User Interface.

NOTE
If a password is set, the user will be unable to make changes to any configured settings unless the correct password is entered.

FORGOT PASSWORD
If you forget your password, follow the steps below to regain access:
1 **Retrieve the Existing Password**
  - Contact your installer to obtain the password that was originally configured.
2 **Perform a Manual Password Reset**
  - Press the rear panel RESET button five (5) times within 10 seconds. Each press must be no longer than 3 seconds.
3 **After Resetting**
  - Refresh the webpage in your browser.
  - Navigate to the Password Protection section in the Information, Backup and Restore menu.
  - Set a new password to secure your CI 8-150 DSP.

AMPLIFIER FIRMWARE
CHECK FOR UPDATE
- Select **Check for Update** to search for any new firmware update. If new firmware details are shown, follow the upgrade prompt instructions to complete the update process.
- It is recommended to opt for an **Internet Update**, as **Manual Update** is generally intended for authorized service technicians.
- Contact NAD Support for assistance with the manual update procedure.

SAVE SETTINGS
- After configuring all menu options, select **Save Settings** to store them in a single file. Depending on your web browser, the saved file will either be automatically placed in your Downloads folder or prompt you to choose a directory. Make sure to note the file name and location for easy access later.
- You can save multiple configurations if you wish to tweak menu settings and store them in separate files.
- This feature is especially useful when restoring previously saved settings after a factory reset of your CI 8-150 DSP.

LOAD SETTINGS
- Select **Load Settings** to load previously saved configuration settings into your CI 8-150 DSP. You may choose the same file or one of the files saved using the **Save Settings** function.
- After selecting Load Settings, locate and select the desired file from its directory. The stored parameters will be recalled and applied to your CI 8-150 DSP.

CREATE INSTALLATION REPORT
- Generate a detailed report listing all configured settings.
- Print the report for review and reference to better understand the configured settings.

FACTORY RESET
- Selecting **Factory Reset** will restore your CI 8-150 DSP to its original factory default settings. All saved settings, entries, and custom configurations will be permanently erased.
- Upon selecting **Factory Reset**, the Power LED transitions from blue (operating mode) to flashing blue, eventually settling to amber (standby mode).

NOTE
If a password is set, the user will not be able to select or access the Factory Reset feature without entering the correct password.

C INPUT/OUTPUT

1 INPUT
GLOBAL INPUTS
- There are two Global Inputs - Global A and Global B. Global A (Global Interrupt A) and/or Global B (Global Interrupt B) can be toggled ON or OFF in the **Zones** menu. All four Zones offer the option to enable Global Interrupt A and/or B, which, when activated, will take priority and override all other active line inputs within the selected zone(s).
- GLOBAL A takes priority over GLOBAL B.
- Global A or B input will override any active line or digital input. Once Global A or B input stops receiving audio signal, the amplifier will automatically revert to the previous input source.

a NAME
- Rename GLOBAL A and/or GLOBAL B by entering preferred name or identification in the input field.

b INPUT GAIN

- Input Gain refers to the adjustment of the input signal level before it is processed or amplified. Proper input gain ensures the signal is strong enough to maintain quality without introducing distortion or unwanted noise. It sets the foundation for clean and balanced audio by establishing the correct initial signal strength.
- If there are inconsistencies with signal sensing, the input gain should be increased. It is recommended to initially set the gain to maximum. If any unwanted noise is introduced, gradually reduce the level until the noise disappears—this represents the optimal gain setting for that source. Input gain can also be used to balance audio levels across multiple sources with varying output levels.
- Drag the slider icon to adjust input gain level within ±6 dB range at 0.5 dB increments. The corresponding numerical value of the adjusted input gain level is reflected in the input field next to the slider icon. The desired input gain value can also be entered directly in the same input field.

INPUT 1-12

Configure each Input (1-12) according to name preferences, input gain and sum.

a NAME and INPUT

- Configure Name and Input Gain in the same manner as defined under GLOBAL INPUTS.

b SUM (MONO)

- Two adjacent line input sources are summed up to provide a mono signal output. Set SUM (Mono) to "On" to combine two adjacent line input sources or "Off" to maintain stereo input sources.

2 OUTPUT

NAME

- The factory default names of the eight OUTPUT channels are Output 1 through Output 8.
- Each OUTPUT channel can be renamed by typing directly over its default name. For example, replace "Output 1" with a custom name such as "Living Room."
- Each OUTPUT channel corresponds to Speakers 1 to 8 respectively.

INPUT

- Each OUTPUT channel can be assigned any of the INPUT channels (Line 1-8, Optical 1-2 or Coaxial 1-2).
- Select the desired INPUT from the drop-down list to assign a specific OUTPUT channel to a source INPUT.

GAIN OFFSET

- Gain offset can be used to compensate for differences in sound pressure level (SPL) among speakers in a room, often caused by their placement. For example, a speaker positioned in a corner may produce a higher SPL due to surface reflections compared to one placed in open space.
- Additionally, applying DSP to individual speakers can affect the output level of each channel.

- It is recommended that once all configurations are complete, the installer measures the SPL of each speaker using an SPL meter (not supplied) and makes any necessary adjustments to ensure consistent output levels across all channels.
- Drag the slider icon to adjust gain offset level within ±6 dB range at 0.5 dB increments. The corresponding numerical value of the adjusted gain offset level is reflected in the input field next to the slider icon. The desired gain offset value can also be entered directly in the same input field.

DSP PRESET

- Assign a DSP Preset number to a specific OUTPUT channel. Make sure the selected DSP Preset has been previously configured and saved.

BRIDGE MODE

- Combine both adjacent output channels into Mono output by setting "Bridge Mode" to "On".
- Set "Bridge Mode" to "Off" to maintain stereo output.
- Refer also to item about "SPEAKERS (1-8)" under "IDENTIFICATION OF CONTROLS" for further information and guideline about Bridge Mode.

D ZONES

The CI 8-150 DSP is divided into four Zones – Zone A, Zone B, Zone C and Zone D. These four Zones are defaulted to the following respective Zone Channel and Zone Input.

Zone A
- Zone Channel - Output 1, Output 2
- Zone Input – Line 1, Line 2

Zone B
- Zone Channel - Output 3, Output 4
- Zone Input – Line 3, Line 4

Zone C
- Zone Channel - Output 5, Output 6
- Zone Input – Line 5, Line 6

Zone D
- Zone Channel - Output 7, Output 8
- Zone Input – Line 7, Line 8

USING CI 8-150 DSP IN A HOME THEATRE SYSTEM

- For a standard 5.1 or 7.1 home theatre setup, it is recommended to use CI 8-150 DSP's default configuration. Inputs 1–5 should be used for a 5.1 system, and Inputs 1–7 for a 7.1 system. In this configuration, due to auto-pairing, one channel will remain unused.
- To maximize available power in a 5.1 system, configure Line Inputs 1+2, 3+4, and 5+6 to Sum (Mono), and set Outputs 1+2, 3+4, and 5+6 to Bridge Mode to drive the Left, Center, and Right (LCR) channels, delivering up to 280W per channel into 8 ohms. Use Inputs 7 and 8 with Outputs 7 and 8 for the surround channels.

OPERATION

ZONE NAME
- The default factory names of the four Zones are Zone A, Zone B, Zone C and Zone D.
- Each Zone can be renamed by typing directly over its default name. For example, replace "Zone A" with a custom name such as "Dining Room."

ZONE OUTPUT
- Assign a pair of OUTPUT channels to a Zone. For example, to configure Zone A, select the desired OUTPUT channel from the drop-down list. When Output 1 is selected, Output 2 is automatically paired and assigned to Zone A.
- Each Zone can be assigned from one up to four pairs of OUTPUT channels. However, doing so may limit or completely use up the available OUTPUT channel options for the other Zones.
- If the same pair of OUTPUT channels are assigned to a different Zone, they will be removed from their original Zone assignment.
  - For example, Output 1 and Output 2 are initially assigned to Zone A, and then select them also for Zone B during configuration. A confirmation prompt will appear. Upon confirming (Yes), Output 1 and Output 2 will be reassigned to Zone B and automatically removed from Zone A.
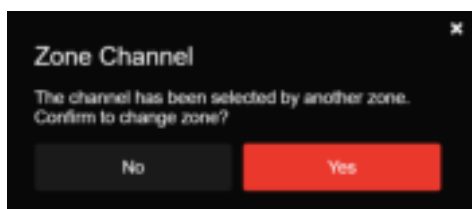
ZONE INPUT
- Assign a Line input (1-8), Optical 1, Optical 2, Coaxial 1 or Coaxial 2 to a Zone. For example, select Line 1 from the drop-down list as the desired Zone Input for Zone A.
- When Line 1 is selected, Line 2 is automatically paired and assigned to the Output Channels of the Zone being configured. The same applies to Line 3-4, Line 5-6 and Line 7-8.
- If Optical 1 is selected for the Zone being configured, the Output Channels assigned to that Zone will have Optical 1L and Optical 1R as their Zone input. The same applies to Optical 2, Coaxial 1 and Coaxial 2.
  - For example, Coaxial 1 is the selected input for Zone A where the assigned Output Channels are Output 1-2 and Output 3-4. Output 1 will have Coaxial 1L, Output 2 will have Coaxial 1R, Output 3 will have Coaxial 1L and Output 4 will have Coaxial 1R.
- Changes to the Zone Input are reflected in the Output section of Input/Output menu.

MUTE
- Mute or restore audio output of the selected Zone.

GLOBAL INTERRUPT A, GLOBAL INTERRUPT B – ON/OFF
- When GLOBAL A or GLOBAL B is set to ON, the input connected to the GLOBAL IN terminal overrides all other active line input channels.
- If GLOBAL B is ON and GLOBAL A is OFF, the GLOBAL B input becomes the active source.
- If both GLOBAL A and GLOBAL B are ON, GLOBAL A takes priority and becomes the active input, overriding GLOBAL B and all other inputs.
- GLOBAL A takes priority over GLOBAL B.

E DSP

DSP CONFIGURATION AND OPTIMIZATION
The amplifier's DSP capabilities allow the installer to fine-tune the audio system to address acoustic anomalies caused by the room environment or to optimize speaker performance.

DSP Setup Procedure
1 **Select Output Channel**
   Begin by selecting the output channel to which the DSP filter will be applied.
2 **Check Existing DSP Preset**
   The interface will display if a DSP preset has already been assigned to the selected channel.
3 **Enable Test Tone**
   Activate the test tone for the selected output channel. Use the Type option to choose between the internal pink noise generator or an external signal source. Adjust the Volume so the internal test tone is approximately 30–40 dB above the ambient noise level in the room.
4 **Measure Frequency Response**
   Use a spectrum analyzer (not supplied) to measure the speaker's frequency response in the room.
5 **Create a New DSP Profile**
   Under Parametric EQ, select a preset from the drop-down menu to begin editing. Preset selection is required before adjustments can be made. Assign a name to the preset—such as the speaker model or room location—for easy reference.
6 **Apply EQ Adjustments**
   Make the necessary adjustments to the EQ parameters as required by the measurement results.
7 **Activate New Profile**
   Return to the DSP Preset section and select the newly created profile for the active channel.
8 **Repeat for Other Channels**
   Proceed to the next output channel and repeat the process.

NOTES
- *DSP presets can be saved and exported for use on other amplifiers or imported from previously created configurations.*
- *To apply the same DSP settings to other channels or presets, the Duplicate function can be used to copy a profile to another preset.*

1 CHANNEL SETTINGS

OUTPUT CHANNEL, DSP PRESET
- Assign a DSP Preset (Preset 1-9) to each Output Channel (Output 1-8) as desired.
- Ensure the selected DSP Preset has been properly configured and saved beforehand.

2 TEST SIGNAL
A test signal can be sampled or loaded through all the channels. This is useful for checking audio level of each channel or comparing/balancing audio levels among the channels.

a TEST SIGNAL
- **On:** Activate the test signal for the selected output channel.
- **Off:** Deactivate the test signal for the selected output channel.

b TYPE
- The test signal can be a pink noise generator or actual input signal from any of the line input channels.
- Select from the drop-down list Pink Noise or Line1 to Line 8 to serve as test signal for the specific output channel.
- Pink noise is useful in setting up audio and equalization levels.

c VOLUME
- Drag the slider icon to adjust the test signal audio level within a ±12dB range.
- Alternatively, the desired test signal audio level can also be entered directly in the input field next to the slider icon.

3 PARAMETRIC EQ

Parametric equalization (EQ) is a highly flexible type of audio filtering that allows precise control over individual frequency bands.
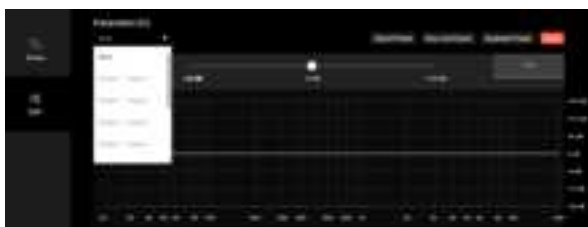
a PRESET SELECTION AND CONFIGURATION

Under Parametric EQ tab, select a preset from the drop-down list (Preset 1–9).

i. Choose the preset number to either configure new settings or recall previously saved parameters.

ii. Configure the following parameters to be stored in the selected preset (e.g., Preset 1):
- Master Gain
- HPF, Band 1-5, LPF
- Slope
- Gain
- Frequency
- Q
- Delay
- Peak Limiter
- RMS Limiter
- Tilt Control
- Phase

MASTER GAIN

- Adjusting the Master Gain affects all output channels simultaneously. This ensures uniform gain control across all output channels.
- Drag the slider to adjust the level within a ±12 dB range.
- The numerical value of the adjusted gain level is displayed next to the slider.
- Alternatively, the desired gain level can also be entered directly in the input field next to the slider icon.

HPF, BAND 1-5, LPF
- Select ⏻ icon beside HPF, Band 1-5 or LPF to enable particular band and configure the parameters.

SLOPE
- Slope refers to how abruptly frequencies are attenuated by the filter once the cutoff frequency is passed. Slope is quantified in decibels per octave (dB/octave). Available selectable filter (roll off) slope values are 6 dB, 12 dB, 18 dB and 24 dB per octave.

GAIN
- Adjust the amplitude (boost or cut) of the selected frequency. Gain level can be adjusted to ±10 dB.

FREQUENCY
- Set the frequency level where applicable configured parameters will be enabled.

Q
- "Q" setting refers to the depth the bandwidth can be adjusted. Q level is from 0.1 up to 24. Bandwidth is wider at lower Q level and narrower with higher Q level.

DELAY
- Delay can be used on output channels to improve time alignment between multiple speakers, compensating for varying speaker distances to the listening area.
- This can be set by measuring the distance from the speaker to the main listening area and entering values in feet or meters. Value can also be entered in milliseconds.

PEAK LIMITER
- Peak Limiter reduces the amplitude of the loudest peaks of an audio signal to protect speakers and amplifiers from potential damage. It can be used to avoid clipping or distortion.

OPERATION

RMS LIMITER
- RMS Limiter is an additional layer of protection for speakers connected to the output channel by matching the long term power of the amplifier to that of the speakers.

TILT CONTROL
- Tilt control can be used to make adjustments to the overall tonal balance of an output channel by boosting or cutting high or low frequencies.

PHASE CONTROL
- Phase control can be used to correct time alignment issues between a subwoofer and speaker channels which maybe caused by the subwoofer position in the room.

b IMPORT PRESET

Load previously saved Parametric EQ settings into your CI 8-150 DSP.
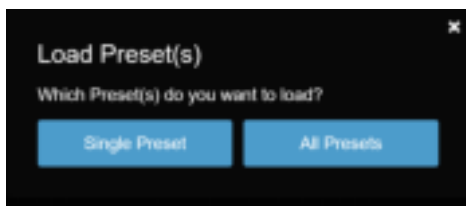
IMPORT A SINGLE PRESET
i. Select a Preset Number (e.g., Preset 1) under Parametric EQ drop-down list to begin the import process
ii. Click **Import Preset**.
iii. To load a setting into a specific preset (e.g., Preset 1), select **Single Preset** to load a previously saved configuration file to your CI 8-150 DSP. This file corresponds to the ones discussed in the "Save and Export" section below.
iv. When prompted, browse to the folder where your saved parameter files are located. Select the desired file. The parameters will now be loaded into the chosen Preset (Preset 1).
v. To load another setting into a different preset, simply select another Preset number (e.g., Preset 2) and repeat the process.

IMPORT ALL PRESETS
i. Select **All Presets** to load all saved presets at once.
ii. When prompted, find and choose the file that contains all your saved settings (typically named "all_eq_settings").
iii. This will populate all the preset slots with their corresponding saved parameters.

c SAVE AND EXPORT
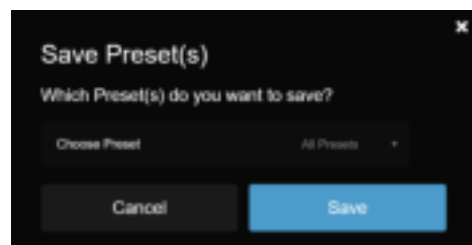
Save configured parameters to a specific Preset (e.g., Preset 1), or save all configured Presets collectively into a single Preset file (All Presets).
i. Select a preset (Preset 1–9) from the Parametric EQ drop-down list.
ii. Configure the desired parameter settings, then select **Save And Export** to store the configuration.
iii. Based on your web browser, the saved settings will either be saved in your Downloads folder or you may be prompted to choose a directory. Take note of the file name and directory for easy access.
iv. If assigning the configured settings to **Preset 1**, select Preset 1. Repeat the same process for other presets (Preset 2–9).
v. To store all configured presets as a single file, select **All Presets**. The saved file is typically named "all_eq_settings".

d DUPLICATE PRESET

Copy settings from one configured Preset (e.g., Preset 1) to another Preset number (e.g., Preset 3). In this example, the settings from Preset 1 will overwrite any existing settings in Preset 3.
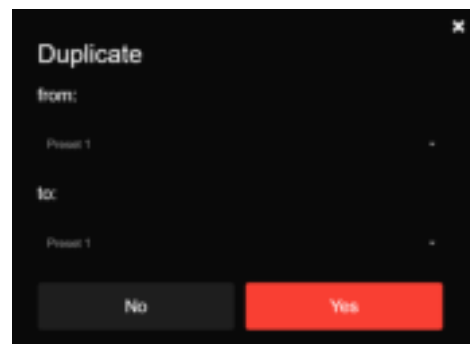
i. From the "from:" drop-down list, select the Preset number you want to copy (e.g., Preset 1).
ii. From the "to:" drop-down list, select the destination Preset number (e.g., Preset 2).
iii. Select Yes to copy the settings from the selected "from:" (Preset 1) to the "to:" (Preset 2).
iv. Any existing settings in the "to:" Preset will be overwritten by the copied settings.

e RESET

Selecting RESET will restore current Preset number to its default configurations.
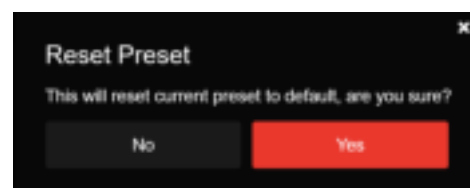
All specs are measured according to IHF 202 CEA 490-AR-2008 standard. THD is measured using AP AUX 0025 passive filter and AES 17 active filter.

GENERAL SPECIFICATIONS

LINE INPUT, SPEAKER OUT

Continuous output power into 8 ohms	150 W (20 Hz - 20 kHz 0.02% THD - all channels driven)
	180 W (20 Hz - 20 kHz 0.02% THD - two channels driven)
Continuous output power into 4 ohms	180 W (20 Hz - 20 kHz 0.02% THD - all channels driven)
	300 W (20 Hz - 20 kHz 0.02% THD - two channels driven)
Continuous output power into 8 ohms (Bridged mode)	280 W (20 Hz - 20 kHz 0.02% THD - all channels driven)
	500 W (20 Hz - 20 kHz 0.02% THD - two channels driven)
THD (20 Hz – 20 kHz)	<0.02 % (1 W to 120 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>90 dB (A-weighted, 500 mV input 1 W out 8 ohms)
Clipping power (all channels driven)	160W (1 kHz 0.1 % THD 8 ohms)
	200 W (1 kHz 0.1 % THD 4 ohms)
Clipping power into 8 ohms (Bridged mode)	300 W (1 kHz 0.1 % THD - all channels driven)
	550 W (1 kHz 0.1 % THD - two channels driven)
IHF dynamic power (all channels driven)	8 ohms: 180 W
	4 ohms: 280 W
IHF dynamic power (two channels driven)	8 ohms: 200 W
	4 ohms: 360 W
IHF dynamic power (Bridged mode, all channels driven)	8 ohms: 520W
	4 ohms: 670 W
IHF dynamic power (Bridged mode, two channels driven)	8 ohms: 600 W
	4 ohms: 800 W
Peak output current	26 A (1 ohm, 1 ms)
Damping factor	150 (20 Hz to 6.5 kHz 8 ohms)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Channel separation	>75 dB (1 kHz)
	>65 dB (10 kHz)
Maximum undistorted input level	3300 mV
Input sensitivity (for 150 W in 8 ohms, maximum volume)	1450 mV
Analog Input audio sense threshold (one channel with signal)	3 ± 0.5 mVrms (ref. 100 Hz - 10 kHz)
Trigger IN level	3 - 30 Vdc
Standby power	0.5 W

DIMENSION AND WEIGHT

Gross dimensions (W x H x D)*	483 x 90 x 435 mm
	19 1/16 x 3 9/16 x 17 3/16 inches
Shipping weight	15.5 kg (34.2 lbs)

* - Gross dimension includes extended rear panel terminals, rack ears and excludes feet.

SPECIFICATIONS

HEAT OUTPUT (BTU)

CONDITION		230V/50HZ			120V/60HZ		
		INPUT POWER (W)	OUTPUT POWER TO SPEAKER (W)	HEAT OUTPUT (BTU/HR)	INPUT POWER (W)	OUTPUT POWER TO SPEAKER (W)	HEAT OUTPUT (BTU/HR)
Eco mode Standby Power at 8 ohms		0.33	-	1.13	0.39	-	1.33
Network Standby Power at 8 ohms		1.19	-	4.06	1.30	-	4.44
Idle power at 8 ohms		86.00	-	-	87.00	-	-
Output power at 8 ohms, all channels driven	1/8 rated power	241.00	150.00	310.50	245.00	150.00	324.15
	1/3 rated power	506.00	400.00	361.69	516.00	400.00	395.81
	1/2 rated power	735.00	600.00	460.64	760.00	600.00	545.94
	Full rated power	1376.00	1200.00	600.54	1453.00	1200.00	863.27
Output power at 4 ohms, all channels driven	1/8 rated power	248.00	150.00	334.39	252.00	150.00	348.04
	1/3 rated power	526.00	400.00	429.93	530.00	400.00	443.58
	1/2 rated power	761.00	600.00	549.49	786.00	600.00	634.66
	Full rated power	1443.00	1200.00	829.15	1510.00	1200.00	1057.78

NAD

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