

# CLARUS<sup>®</sup> CONCERTO



## Owner's Manual Installation & Operation Guide



**CONGRATULATIONS AND THANK YOU FOR PURCHASING CLARUS CONCERTO!**

<b>TABLE OF CONTENTS</b>	<b>Page</b>
Important safety instructions	3
Front, rear and side views	5
Introduction and product overview	6
Features and technologies	7
Package contents	10
Installation overview	10
Planning your system	10
Trouble shooting	11
Specifications	12
Warranty	12

## **IMPORTANT SAFETY INSTRUCTIONS**

### **PLEASE READ THIS FIRST!**

Your Clarus Power Conditioner represents the latest in power conditioning technology. However, like any electronic device, if inappropriately or improperly installed it may not perform as intended. By following a few common sense precautions, your Clarus Concerto will give you a lifetime of worry-free performance.

The following safety precautions apply to this and all Clarus Power products.

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.**

**NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.**

**To reduce the risk of electric shock, do not remove the cover. There are no user-serviceable parts inside.**

#### **GENERAL:**

- Please read the safety instructions in this owner's manual prior to operating Clarus Concerto.
- Keep these safety instructions for future reference when operating Clarus Concerto.
- Heed all warnings contained in this operating manual and/or printed on Clarus Concerto.
- Follow all instructions.
- To prevent electric shock do not use with an extension cord, receptacle, or other outlet unless the blades can be fully inserted to prevent blade exposure.
- When not in use: Unplug the Clarus Concerto during lightning storms or when unused for long periods of time.
- Only use accessories specified by Clarus.

#### **INSTALLATION**

- Heat: Do not place the Clarus Concerto near any heat sources such as radiators, heat registers, stoves, A/V receivers or amplifiers that produce considerable amounts of heat.
- Water and moisture: Do not use the Clarus Concerto near water, such as a bathtub, washbowl, or swimming pool.
- Dripping or splashing: The Clarus Concerto should not be exposed to dripping or splashing and no objects filled with liquids, such as vases, should be placed on the Clarus Concerto.
- Carts and stands: When the Clarus Concerto is placed or mounted on a stand or cart; the unit should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the unit and cart to overturn or fall.
- Cleaning: Clean the Clarus Concerto only with a dry cloth.
- Ventilation: Provide at least 1" below and at least 3" above the CLARUS CONCERTO.

## ELECTRICAL POWER:

- Power Sources: The Clarus Concerto should only be connected to power sources specified in the owner's manual and marked on the unit.
- AC power cord: Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Grounding prong: Always use a power cable with a 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. The wide blade or the third prong is provided for your safety. If the plug does not fit into your outlet, please consult a qualified electrician for replacement of the obsolete outlet.
- Do not overload wall outlets as this can result in a risk of fire or electric shock.
- To completely disconnect this equipment from the AC mains, disconnect the power supply cord plug from the AC receptacle.

## CARE OF EQUIPMENT:

- In general, the only cleaning necessary for your Clarus Concerto is a light dusting. Unplug your component from the wall outlet before cleaning it. Do not use any type of liquid or aerosol cleaners.
- Do not operate your Clarus Concerto if liquid of any kind is spilled onto or inside the unit. Do not operate your Clarus Concerto near rain or water that's spilled or openly exposed (e.g., bathtub, kitchen or bathroom sink).
- Unplug the power cord from the AC power outlet when left unused for a long period of time.

## REPAIR OF EQUIPMENT:

- **Do not attempt to service the Clarus Concerto.** Refer all servicing to qualified service personnel. Servicing is required when the Clarus Concerto has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the Clarus Concerto, the Clarus Concerto has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **No User Serviceable Parts Inside.** If, for any reason, your Clarus Concerto is not operating properly, do not remove any part of the unit (cover, etc.) for repair. Unplug the unit and consult this owner's manual for warranty and service information.
- When replacement parts are required, be sure the service technician has used replacement parts specified by or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electrical shock, or other hazards.
- Upon completion of any service or repairs to this product, ask the technician to perform safety checks to determine that the product is in proper operating condition prior to use.
- If you have any difficulty operating the Clarus Concerto, please refer to the warranty information contained in this owner's manual.

## CLARUS CONCERTO Front Panel



- |                                     |                         |
|-------------------------------------|-------------------------|
| 1. Dimmer Control                   | 6. AC Voltage Meter     |
| 2. Analog Outlet Power-On LED       | 7. Grounded LED         |
| 3. Digital 1 Outlet Power-On LED    | 8. Polarity LED         |
| 4. Digital 2 Outlet Power-On LED    | 9. Protection Fault LED |
| 5. High Current Outlet Power-On LED | 10. Outlet Power Switch |

## CLARUS CONCERTO Rear Panel



### Total Outlet Rating 120V 15A MAX

- |                          |                               |
|--------------------------|-------------------------------|
| 1. AC Main Power Switch  | 6. High Current Duplex Outlet |
| 2. Power Cord Receptacle | 7. Digital 2 Duplex Outlet    |
| 3. 15A Circuit Breaker   | 8. Digital 1 Duplex Outlet    |
| 4. Ground Terminal       | 9. Analog Duplex Outlet       |
| 5. Alarm Switch ON/OFF   |                               |

## CLARUS CONCERTO Side Panel



1. Cable Support Bar (Included)

## INTRODUCTION AND PRODUCT OVERVIEW

The Clarus approach to power conditioning represents a radical new way of designing an application specific filtered AC energy delivery system. It is widely accepted that filtering the AC line keeps noise from contaminating the audio signal. It is also common knowledge that some filter designs will choke input current thus limiting peak performance of power amplifiers. Through extensive listening sessions, Clarus has determined that some filter designs used for conditioning analog components while measurably removing noise from the AC supply audibly degrade the component's musical signal output and restrict the sound from blooming.

**The Clarus solution** is the implementation of three separate and unique AC filter ensemble designs for its new line of Power Conditioners; one for Analog components, one for Digital components and one for High Current amplifiers.

## FEATURES AND TECHNOLOGIES

### 1800 WATT / 15 AMPERE RATING

The Clarus Concerto is designed to provide a maximum of 1800 Watts / 120 volts @ 15 Amps.

### 8 OUTLETS

The Concerto's high performance hospital grade outlets are engineered with advanced materials to ensure electrical contact reliability over time. Each duplex outlet is isolated to prohibit interaction between adjacent outlets. Outlet banks of the Concerto are labeled specifically with the appropriate component-type that will provide the highest level of filtering.

- 2 outlets labeled: **HIGH CURRENT** incorporate a massive 30A C-Core filter to deliver full power without restricting dynamics to high current equipment like power amplifiers, receivers and powered subwoofers.
- 4 outlets labeled: **DIGITAL** connect to filters that are specifically designed to deliver clean power to Digital Audio equipment like DACs and CD players. Clarus' proprietary design of complex multi-level filtering offers the best attenuation of noise while not restricting dynamics.
- 2 outlets labeled: **ANALOG** connect to filters that allow analog music to bloom. Engineered with C-Core filters ensure there is no restriction of dynamics. The technologically advanced C-Core has superb magnetic properties that performs and sounds better than any analog audio filter available.

### C-CORE TECHNOLOGY

Clarus line of power conditioners are made with proprietary Clean Core "C-Core" Technology which is used in all Analog and High Current filters. C-Core's high permeability and core loss are hardly affected by mechanical stress due to near-zero magnetostriction - a property of ferromagnetic materials that causes them to change their shape or dimensions during the process of magnetization. Furthermore, its low magnetostriction significantly reduces audible noise emission when the voltage and current applied to the core are in the audible frequency range. No other core performs as well to keep your AC signal silent and clean.

### VIBRATION CONTROL

A low frequency AC signal passing through the copper windings of an inductive filter can result in a mechanical vibration. To prevent these vibrations from becoming audible the Concerto model incorporates vibration dampening material providing a dead quiet base.

## **UNDER/OVER VOLTAGE PROTECTION**

Over/Under voltage protection provides an audible alarm and auto shut-down when voltage drops below 90VAC or above 135VAC protecting your precious audio components. We recommend that you determine the source of the over /under voltage event to prevent future occurrences. When safe voltage returns the Concerto will return to the last power status. Alarm can be switched on/off.

## **TMOV**

The Concerto protects from surges with highly sophisticated Thermal Metal Oxide Varistors (TMOV). If the surge suppression circuit is compromised the front panel Protection Fault LED will illuminate and the unit will shut down for safety. Ground and Polarity LEDs when lit indicate that the power cord and outlet to which the Concerto Canto is connected is in phase and properly grounded.

## **CABLE SUPPORT**

The Concerto provides a cable support system to easily handle the heaviest High Current power cable.

## **GROUND POST**

A dedicated ground post on the rear panel allows for the grounding of other sensitive electronics within the system.

## **REAR PANEL MAIN POWER SWITCH**

For safety, the Concerto incorporates a heavy duty 30amp main power switch on the rear of the chassis. This switch allows power flow to the unit but will not pass power to the outlets until the front panel outlet power switch is engaged

## **REAR PANEL CIRCUIT BREAKER**

If the Clarus Concerto experiences an incoming current in excess of 15A, the rear panel circuit breaker will trip and disconnect the mains power. To reset the breaker simply push RESET.

## **LED DIMMER CONTROL**

A LED Dimmer button control is located on the front panel. There are 4 panel light levels available; bright, medium, low and off. Pressing the button will switch from bright to medium to low to off to bright again and so-on. Please note; to comply with UL® standards, the LEDs can't be turned off completely thus the polarity & grounded LEDS remain on during the off level.



## **OUTLET LED STATUS**

Blue LEDs are provided on the front panel of the CLARUS CONCERTO to indicate status of the outlets. When the A (Analog), D1 (Digital 1), D2 (Digital 2), and HC (High Current) LEDs are illuminated it means power status of those outlets is ON.

**PROTECTION FAULT LED STATUS** If the PROTECTION FAULT LED illuminates it means the Surge Suppression electronics have been compromised and the unit will no longer be passing power to the outlets.

## **DIGITAL VOLTMETER**

A digital voltage reading meter is provided on the front panel to indicate the voltage of the incoming AC line. The meter's blue LEDs illuminate when the unit is connected to a live main. The brightness level may be changed using the front panel DIMMER control.

## **POLARITY & GROUNDED LED STATUS**

Polarity and Grounded LEDs will illuminate to indicate that the AC outlet into which the Clarus Concerto is connected is wired correctly. If the Polarity LED does not illuminate when the front panel power switch is activated the White and Black AC wires of the outlet into which the Clarus Concerto is connected are reversed. If neither the Polarity nor the Grounded LED illuminates, the outlet into which the Clarus Concerto is connected are not properly grounded.

**DO NOT OPERATE YOUR CLARUS CONCERTO WITH A LINE PROBLEM. IF THE POLARITY or GROUNDED LED DOES NOT ILLUMINATE, DISCONNECT THE UNIT IMMEDIATELY. A LICENSED ELECTRICIAN WILL NEED TO REPAIR THE FAULTY WIRING PRIOR TO RECONNECTING THE CLARUS CONCERTO.**

## **FRONT PANEL OUTLET POWER SWITCH**

To prevent inadvertent turn on or turn off, the front panel POWER switch must be depressed for at least 2 seconds. During the turn on and shut down power sequence there is a 3 second delay between each outlet duplex bank.

## **PACKAGE CONTENTS**

- (1) CLARUS CONCERTO
- (1) Installation & Operation Guide
- (1) Rear Cable Support Bracket

## **INSTALLATION OVERVIEW**

The following is an overview for installing your Power Conditioner product.

- Unpack all of the contents of the Clarus Concerto carton. Inspect for shipping damage
- Plan your system and lay out all of the equipment that will be connected to the Clarus Concerto.
- Place the Clarus Concerto in the location where it will be used, being sure to follow both the safety precautions listed in the front of this manual. **DO NOT** plug the unit in yet.
- Plug each of the components into the Clarus Concerto. Be sure that the plugs are fully seated as this helps to protect the connections from atmospheric contamination as well ensuring full contact. You may want to make a note on paper listing the components that are connected to each outlet.
- With the Concerto and all of the attached components in the OFF position, plug the Clarus Concerto into the wall.
- Turn the rear panel main power switch on.
- Depress the Concerto front panel power button and start outlet turn on sequence. Analog outlets turn on first followed by Digital 1, Digital 2 and High Current last in 2 second intervals.

## **PLANNING YOUR SYSTEM**

Think about which components need to work together, and place them in close proximity to one another. Be aware of those products that generate the most heat and understand that excessive heat adversely affects your components. Place them accordingly – allowing sufficient ventilation. You may also want to consider putting frequently handled components in the most convenient locations. By carefully planning the system's architecture in advance, your Clarus Concerto can be integrated into any configuration you choose.

## **PLACEMENT**

It is recommended that the Clarus Concerto be placed in the same location as your other audio components so it can be easily reached when manually operating the other controls in the system. There should be a clear line of sight between the operator and the unit to allow easy user feedback of system status. The Clarus Concerto should be placed on a flat, stable shelf or platform.

## PLANNING YOUR AC CONNECTIONS

### CONNECTING COMPONENTS TO CLARUS CONCERTO

On the rear panel there are eight (8) AC outlets. For maximum performance, connect your analog devices into the ANALOG outlets, digital components into the DIGITAL 1 and DIGITAL 2 outlets and the high current components into the HIGH CURRENT outlets. For convenience, any component may be connected into any outlet without causing harm to the individual components. However, maximum filtering may not be afforded for the device.

### MAKING CONNECTIONS

All components in a system must be connected to a Power Conditioner in order for the system to be protected from electrical disturbances and to achieve maximum noise filtering and line conditioning benefits. Failure to do this will degrade system performance and leave it vulnerable to electrical damage.

### TROUBLESHOOTING

Symptom	Possible cause	Solution
Clarus Concerto will not power up	The Clarus Concerto is not receiving power	<ol style="list-style-type: none"><li>1. Is the unit plugged into a live outlet</li><li>2. Is the rear panel switch in the ON position</li><li>3. Is the front panel power button depressed ON</li></ol>
	Circuit breaker is tripped	<ol style="list-style-type: none"><li>1. Reset the circuit breaker on the front panel</li><li>2. If the Breaker continues to trip, try moving one or more units to another Power Conditioner, you may be drawing too much current.</li></ol>
Protection Fault LED is ON	Indicates the internal surge protection is inoperative. This happens when the Clarus Concerto receives multiple surges and sacrifices itself to protect your electronics.	<ol style="list-style-type: none"><li>1. Disconnect your electronics from the Clarus Concerto</li><li>2. Contact your dealer for service</li></ol>
The Polarity LED is OFF	This indicates that the power cord or the wall outlet the Clarus Concerto is plugged into has its polarity inverted	<ol style="list-style-type: none"><li>1. Do not operate the Clarus Concerto with an inverted line; call an electrician to have the line repaired.</li></ol>
There is an audible “thump”, “click” or “pop” coming from my speakers during power up.	This is common, while annoying, it can happen when a preamplifier or power amp’s internal power supply is being turned on. It will not harm the loudspeakers	<ol style="list-style-type: none"><li>1. To minimize or eliminate “thumps”, “clicks” or “pops”, program the Preamplifier or A/V Processor to turn on before the Power Amplifiers.</li></ol>

## AC OUTLETS TECHNICAL SPECIFICATIONS

Line Voltage	120VAC 15A, 50/60 Hz
Spike Protection Modes	L-N, N-G, L-G
Spike Clamping Voltage (VMAX)	395V
Max Surge Current (kA)	L-N = 80kA
Max Spike Energy (Joule)	L-N = 960 Joules
RoHS (Restriction of Hazardous Substances)	Yes

## PHYSICAL SPECIFICATIONS

Net Weight	19 lbs.
Dimensions	3.5"Height X 19" Width X 12.75" Depth

## THREE YEAR LIMITED WARRANTY

### Scope and Duration of warranty

Subject to the terms and conditions stated below, Gordon J. Gow Technologies, Inc. d.b.a. Clarus® ("Clarus") warrants that this product shall be free from defects in workmanship or material for a term of (3) years from the date when it was purchased from an Authorized Clarus Dealer. This Warranty only applies to products purchased in the United States and used in the United States. Products purchased or used outside the United States are not covered by this Warranty. Warranties, if any, applicable outside the United States are the sole responsibility of the products' distributor in the country of purchase.

### What Clarus Will Do Under the Warranty

In the event of any defect covered by this warranty, Clarus shall without charge provide all parts, materials, and labor necessary to restore the product to its original specifications, and shall return the product to its owner at Clarus' expense. In the alternative, Clarus may at its sole option either replace the product without charge, or if its replacement is not commercially practicable or repair or replacement cannot be accomplished within a reasonable time, Clarus may refund the purchase price of the product, subject, where appropriate, to reasonable depreciation for use in accordance with applicable laws, in full satisfaction of its warranty obligations. Clarus will undertake to complete the repair and return of the product as soon as circumstances permits, unless prevented by causes beyond its reasonable control.

## **LIMITATIONS ON CLARUS' OBLIGATIONS UNDER THE WARRANTY**

CLARUS' SOLE OBLIGATION UNDER THIS WARRANTY SHALL BE TO REPAIR OR REPLACE THE PRODUCT, OR AT ITS OPTION REFUND THE PURCHASE PRICE, AS PROVIDED FOR HEREINABOVE. CLARUS DOES NOT WARRANT AGAINST, NOR SHALL IT BE LIABLE FOR, ANY OF THE FOLLOWING: REMOVAL OR INSTALLATION CHARGES; SHIPPING EXPENSES TO CLARUS OR ITS AUTHORIZED SERVICE FACILITY; LOSS OF OR DAMAGE TO INFORMATION, PROGRAMMING, DATA, OR MEDIA OF ANY KIND, PROPERTY DAMAGE OF ANY KIND, LOSS OF USE; OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES OF ANY KIND.

**Note: Some states do not allow exclusion or limitation of consequential damages, so the foregoing exclusion may not apply.**

### **Exclusions:**

#### **Parts and Occurrences That Are Not Covered by the Warranty**

This Warranty does not cover any of the following: (A) Products' glass panels, cabinetry, trim, or any other appearance items (except) where they are defective at the time of original sale and the product is delivered for repair within the first thirty (30) days thereafter; (B) batteries, or failure of or damage to the product caused by batteries; (C) failures arising from catastrophe (including lightning strike), misuse, neglect, or failure to properly connect and operate the product and/or any connected equipment in accordance with its manufacturer's instructions or otherwise than as designed and intended; (D) failures arising from improper installations of the product, or incompatibility of components in the system of which the product is a part (and not from defects in the product's workmanship or materials). (E) failures of any kind in products (I) which have been purchased from other than an authorized Clarus Dealer, or (II) which evidence any tampering, alteration, or attempted servicing by anyone other than Clarus or an authorized Clarus service facility, or (III) for which a claim has not been filed with Clarus within the three (3) year warranty term and within thirty (30) days following the occurrence giving rise to the claim; Clarus shall have no liability or obligation of any kind with respect to any of the foregoing types of failures.

#### **What the Owner Must Do to Obtain Service Under This Warranty**

To obtain service under this warranty, the owner must, within thirty (30) days following the occurrence giving rise to the claim and within the three (3) year term of this warranty, telephone Clarus at the number shown below, obtain a claim form and return authorization number, and then, at the owner's expense (1) arrange for any necessary de-installation of the product and for which a claim is made, and (II) deliver or ship the product, properly packaged in its original container (or, if unavailable then in a replacement container which Clarus will furnish to the owner at a nominal cost), with the RMA number on the shipping container, prepaid, and insured, to Clarus at the address below, or to an Authorized Clarus service facility if so directed by Clarus. In addition, the owner must provide evidence that the product is at the time of delivery within the scope of this Warranty, by including the original or a legible copy of the dated sales receipt with the product when submitted for repair. If requested by Clarus, the owner must cooperate with Clarus in investigating and processing the claim. All products must also be accompanied by the owner's name, address, and telephone number.

### **What the Owner Must Pay For**

As noted above, the owner must arrange and pay any expense for removing the product from its installation and delivering or shipping them to Clarus or the authorized Clarus service facility, to the extent requested by Clarus. Upon return of the product to the owner following repair or replacement, it shall be the owner's responsibility to arrange and pay for any reinstallation and reprogramming which may be required. In addition, it shall be the owner's obligation to pay for any repairs made to products for which the owner has not included a legible copy or the original of the dated sales receipt with the product when delivered for service, or which are otherwise subject to the exclusions noted above, at Clarus' or its authorized service facility's then current repair rates. Any product or connected equipment found to be outside the scope of this Warranty due to an applicable exclusion shall be returned to the owner at the owner's expense.

### **How to Learn Where the Nearest Authorized Clarus Service Facility is, or Obtain Answers to Other Questions Concerning This Warranty**

In order to learn the name and address of the nearest authorized Clarus service facility, obtain instructions for shipment of a covered product to Clarus, or obtain the answers to any other questions you may have concerning this Warranty, you may telephone Clarus between the hours of 9:00a.m. and 5:00p.m. Eastern Time, Monday through Friday, at 1.888.554.2514, or write to Service Department, Clarus, 6448 Pinecastle Blvd; Suite 101, Orlando, FL 32809, (Fax 1.800.553.1366).

**This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.**

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