

CLARUS[®] DUET



Owner's Manual Installation & Operation Guide



CONGRATULATIONS AND THANK YOU FOR PURCHASING CLARUS DUET!

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IMPORTANT SAFETY INSTRUCTIONS

PLEASE READ THIS FIRST!

Your Clarus Duet 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 Duet 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 Duet.
- Keep these safety instructions for future reference when operating Clarus Duet.
- Heed all warnings contained in this operating manual and/or printed on Clarus Duet.
- Follow all instructions.
- **Warning:** to reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.
- To prevent electric shock do not use with an extension cord, receptacle, or other outlet unless the blades of your power cable can be fully inserted to prevent blade exposure.
- When not in use: Unplug the Clarus Duet during lightning storms or when unused for long periods of time.
- Only use accessories specified by Clarus.

INSTALLATION

- **Heat:** Do not place the Clarus Duet 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 Duet near water, such as a bathtub, washbowl, or swimming pool.
- **Dripping or splashing:** The Clarus Duet should not be exposed to dripping or splashing and no objects filled with liquids, such as vases, should be placed on the Clarus Duet.
- **Carts and stands:** When the Clarus Duet 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 Duet only with a dry cloth.
- **Ventilation:** Provide at least 1" below and at least 3" above the Clarus Duet.

ELECTRICAL POWER:

- **Power Sources:** The Clarus Duet 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 Duet 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 Duet if liquid of any kind is spilled onto or inside the unit. Do not operate your Clarus Duet 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 Duet.** Refer all servicing to qualified service personnel. Servicing is required when the Clarus Duet 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 Duet, the Clarus Duet 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 Duet 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 Duet, please refer to the warranty information contained in this owner's manual.
- Please read and observe the following safety points at all times.

CLARUS DUET Top Panel:



Total Outlet rating 120V 15A MAX

- | | |
|-------------------------------|-------------------------|
| 1. High Current Duplex Outlet | 4. Polarity LED |
| 2. Power-On LED | 5. Protection Fault LED |
| 3. Grounded LED | |

CLARUS DUET Side Panel



- | | |
|----------------------|--------------------------|
| 1. Main Power Switch | 3. Power Cord Receptacle |
| 2. Ground Terminal | 4. 15A Circuit Breaker |

INTRODUCTION AND PRODUCT OVERVIEW

The Clarus approach to power conditioning represents a radical new way of designing an application specific AC energy 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 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.

The Clarus Duet Power Block is designed with the strength and size to support the demands of a mono block amplifier.

FEATURES AND TECHNOLOGIES

1800 WATT / 15 AMPERE RATING

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

2 OUTLETS

The Duet's high performance hospital grade outlets are engineered with advanced materials to ensure electrical contact reliability over time. Two outlets labeled: **HIGH CURRENT** incorporate a massive 30A Clarus-Core filter to deliver full power without restricting dynamics to high current equipment like mono block amplifiers.

C-CORE TECHNOLOGY

Clarus line of power conditioners are made with proprietary Clarus-Core or "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.

TMOV

The Duet 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 POST

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

SIDE PANEL MAIN POWER SWITCH

For safety, the Duet incorporates a heavy duty 30amp main power switch on the side of the chassis.

SIDE PANEL CIRCUIT BREAKER

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

OUTLET POWER STATUS

A blue LED is provided on the top panel of the Clarus Duet to indicate status of the outlets. When the Power LED is illuminated it means power status of the 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.

POLARITY & GROUNDED LED STATUS

Polarity and Grounded LEDs will illuminate to indicate that the AC outlet into which the Clarus Duet is connected is wired correctly. If the GROUNDED LED does not illuminate the power cord and the outlet into which the Clarus Duet is connected are not properly grounded. If the Polarity LED is not illuminated when the front panel power switch is activated the White and Black AC wires of the outlet into which the Clarus Duet is connected are reversed.

DO NOT OPERATE YOUR CLARUS DUET 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 DUET.

PACKAGE CONTENTS

- (1) Clarus Duet
- (1) Installation & Operation Guide

INSTALLATION OVERVIEW

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

- Unpack all of the contents of the Clarus Duet carton. Inspect for shipping damage.
- Plan your system and lay out all of the equipment that will be connected to the Clarus Duet.
- Place the Clarus Duet 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 Duet. 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 all of the attached components in the OFF position, plug the Clarus Duet into the wall.
- Turn the power switch to ON.

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 Duet can be integrated into any configuration you choose.

PLACEMENT

It is recommended that the Clarus Duet 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. Since this was designed for mono block amplifiers we suggest that it sit on the floor between the amplifier and the wall outlet. There should be a clear line of sight between the operator and the unit to allow easy user feedback of system status. The Clarus Duet should be placed on a flat, stable and uncluttered surface.

PLANNING YOUR AC CONNECTIONS

CONNECTING COMPONENTS TO CLARUS DUET

On the top panel there are two (2) AC outlets. For maximum performance, connect only high current components into the HIGH CURRENT outlets. For convenience, any component may be connected into Duet's outlets without causing harm to the individual component. However, they may not be afforded maximum filtering and conditioning.

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 Duet will not power up	The Clarus Duet is not receiving power	<ol style="list-style-type: none">1. Check that the unit is plugged in2. Check the outlet for power3. Check that power button is in the ON position
	Circuit breaker is tripped	<ol style="list-style-type: none">1. Reset the circuit breaker on the side panel2. If the Breaker continues to trip, try moving one or more units to another Clarus Power Block, you may be drawing too much current.
Protection Fault LED is on	Indicates the internal surge protection is inoperative. This happens when the Clarus Duet receives multiple surges and sacrifices itself to protect your electronics.	<ol style="list-style-type: none">1. Disconnect your electronics from the Clarus Duet2. Contact your dealer for service
The Polarity LED is off	This indicates that the power cable or the wall outlet the Clarus Duet is plugged into has its polarity inverted	<ol style="list-style-type: none">1. Do not operate the Clarus Duet with an inverted line; call an electrician to have the line repaired.
There is an audible "thump", "click" or "pop" coming from my speakers during Duet up.	This is common, while annoying, it can happen when a preamplifier or powers amp's internal power supply is being turned on. It will not harm the loudspeakers	<ol style="list-style-type: none">1. To minimize or eliminate "thumps", "clicks" or "pops", program the Preamplifier or A/V Processor to turn on before the Power Amplifiers.

CLARUS DUET TECHNICAL SPECIFICATIONS

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	5.4 lbs.
Dimensions	9.75" L X 7" W X 3.75" H

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 fully complete the claim form and must provide evidence that the Product is at the time of delivery within the scope of this Warranty, by either having completed and submitted to Clarus on a timely basis the Warranty Registration Card, if one is included with the Product, or 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 neither completed and submitted (where one is included) the warranty Registration Card at the time of purchase nor include 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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As we continually strive to improve our products, Clarus reserves the right to change product specifications without notice. The technical and other information contained herein is not intended to set forth all technical and other specifications of Clarus products.

Additional information can be obtained on-line at www.claruscable.com.

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