



JEFF ROWLAND
DESIGN GROUP

Model 735 MONOBLOCK AMPLIFIER

Operational Manual



© Jeff Rowland Design Group 2020 • All Rights Reserved

IMPORTANT SAFETY INSTRUCTIONS

The amplifier has been designed to operate at the highest level of efficiency and performance in any normal operating situation; however, there are a few important use and care principles that must be kept in mind when operating the amplifier:

- Read these instructions.
- Keep these instructions.
- Follow all instructions.
- Do not expose the amplifier to rain, moisture, or excessively damp conditions.
- Do not block any ventilation openings.
- Due to auto-ranging circuitry and dual-stage voltage regulation, the audio performance will not be affected by any voltage fluctuations within the operating voltage range. The MODEL 735 MONOBLOCK AMPLIFIER can be operated at any mains voltage over the range of 85 to 265 VAC without any adjustments necessary.
- The MODEL 735 MONOBLOCK AMPLIFIER must not be modified in any way, other than according to official service bulletins from JRDG (Jeff Rowland Design Group). Otherwise, the factory warranty will be immediately voided.
- When operating the MODEL 735 MONOBLOCK AMPLIFIER, a properly grounded AC receptacle should be used. A potential shock hazard may result if the supplied 3-wire, grounded AC cable ground terminal is defeated or lifted or the unit is connected to a 2-wire ungrounded AC outlet.
- The MODEL 735 MONOBLOCK AMPLIFIER is designed to perform optimally with no adjustments or maintenance for the lifetime of the product. Do not attempt to open the bottom or top cover of the amplifier and refer all service issues to qualified personnel. The voltages inside the MODEL 735 MONOBLOCK AMPLIFIER can be hazardous.

PROTECTIVE SYSTEMS

The MODEL 735 MONOBLOCK AMPLIFIER is equipped with internal fuses for protection against excessive AC current draw; however, since no protection circuitry or system can completely protect a product from every electrical hazard, certain precautions should be observed. In the event of severe voltage hazards such as lightning or when the amplifier will not be used for extended periods of time, the amplifier should be unplugged from the AC mains to avoid potential damage to the internal circuitry. All other audio/video system components should also be disconnected from AC mains power as hazardous voltages can easily travel throughout an interconnected system.



The crossed-out wheeled bin is the European Union symbol for indicating separate collection for electrical and electronic equipment.



This product complies with European Low Voltage (2006/95/EC) and Electromagnetic Compatibility (89/336/EEC) Directives when used and installed according to this instruction manual. For continued compliance servicing must be referred to qualified service personnel.

LIMITED WARRANTY

Jeff Rowland Design Group, Inc. warrants the materials, workmanship, and proper functioning of this product for a period of five years from the date of purchase as long as the product was operated in accordance with its operating manual, the products was not altered or improperly serviced or prepared, or if the product failed to function from the beginning. In the event of such a failure, the product will be repaired or replaced by Jeff Rowland Design Group, Inc. through one of its dealers. This warranty is extended to the original purchaser only and is non-transferable to any secondary or other purchaser.

In order to have this product repaired or replaced, the original purchaser must first obtain the prior authorization of Jeff Rowland Design Group, Inc. or one of its dealers.

Purchaser must then return the product, PACKAGED IN ITS ORIGINAL CARTON, FREIGHT PREPAID to: Jeff Rowland Design Group, Inc., 2911 North Prospect Street, Colorado Springs, Colorado, 80907, or to one of its dealers.

Jeff Rowland Design Group, Inc. reserves the right to inspect any product which is subject to any warranty claim prior to repairing or replacing it. Final determination of warranty coverage lies solely with Jeff Rowland Design Group, Inc. Said determination shall be made as soon as possible following receipt of the product. Jeff Rowland Design Group, Inc. may, at its option, require from the purchaser, valid proof of purchase (dated copy or photocopy of dealer's original invoice). Out-of-warranty claims will be billed for labor, materials, return freight, and insurance as required. Any product for which a warranty claim is accepted will be returned to the purchaser and costs of shipping and insurance will be factory prepaid within the boundaries of the USA. Units to be shipped outside of the USA will be shipped freight collect only. This warranty gives the holder specific legal rights. The purchaser also has implied warranty rights, and may also have other rights which may vary from state to state.

Jeff Rowland Design Group, Inc. strives to manufacture the very finest possible equipment and therefore reserves the right to make changes in design and improvements upon its previously manufactured models.

THE ABOVE WARRANTY IS THE SOLE WARRANTY GIVEN BY JEFF ROWLAND DESIGN GROUP, INC. AND IS IN LIEU OF ALL OTHER WARRANTIES; ALL IMPLIED

WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE SHALL BE STRICTLY LIMITED IN DURATION TO FIVE YEARS FROM THE ORIGINAL DATE OF PURCHASE AND UPON THE EXPIRATION OF THIS FIVE YEAR WARRANTY PERIOD, JEFF ROWLAND DESIGN GROUP, INC. SHALL HAVE NO FURTHER OBLIGATION OF ANY KIND WHETHER EXPRESSED OR IMPLIED.

Jeff Rowland Design Group, Inc. does not authorize any third party, including any dealer or representative, to assume any liabilities on its behalf or to make any warranties on its behalf unless authorized to do so.

Warranty registration cards must be completed and mailed to Jeff Rowland Design Group, Inc. within thirty (30) days of the date of purchase. If this product is used in a commercial or industrial application, then special warranty exclusions may apply. Contact your dealer or Jeff Rowland Design Group, Inc. for information regarding our commercial warranty policies.

GUIDE USE

This guide is designed to make installing and using this product as easy as possible. Information in this document has been carefully checked for accuracy at the time of printing; however, Jeff Rowland Design Group, Inc.'s policy is one of continuous improvement, therefore design and specifications are subject to change without prior notice. If you notice any errors please feel free to email us at: support@jeffrowlandgroup.com.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of the manufacturer. All trademarks and registered trademarks are the property of their respective owners.

© Copyright Jeff Rowland Design Group, Inc 2020

NOTE FROM JEFF ROWLAND DESIGN GROUP

Welcome to the Jeff Rowland Design Group “family” and congratulations on your purchase of what is unquestionably one of the world’s finest amplifiers. With its combination of features such as precision electronic circuitry, exceptional efficiency, and accurately machined chassis components throughout, your MODEL 735 MONOBLOCK AMPLIFIER will offer you many years of musically satisfying enjoyment.

Please take a few minutes to read the remainder of this Owner’s Manual before proceeding with the installation of the amplifier. A thorough understanding of the operational features will allow you to gain the maximum performance and ease of use for which this amplifier was designed.

Please note that your MODEL 735 MONOBLOCK AMPLIFIER serial number begins with the letters “SD”. Please include this number with any correspondence regarding your MODEL 735 MONOBLOCK AMPLIFIER. It has been my joy to create an audio component of enduring value that reflects the highest ideals of musical and artistic expression. It is my hope that these qualities will enrich your experience and pride of ownership.

If you have any additional questions regarding the installation or operation of the MODEL MODEL 735 MONOBLOCK AMPLIFIERS, please contact your authorized Jeff Rowland Design Group dealer or check the Jeff Rowland Design Group web site at <http://jeffrowlandgroup.com>.
Enjoy the music!

A handwritten signature in black ink that reads "Jeff Rowland". The signature is fluid and cursive, with a large, looping initial "J" and a long, sweeping underline.

Jeff Rowland

President, Jeff Rowland Design Group

TABLE OF CONTENTS

Special Design Features	6
Maintenance and Care	8
Unpacking and Placement	9
<i>Initial Inspection</i>	<i>9</i>
<i>Unpacking</i>	<i>9</i>
Front Panel	10
Rear Panel	11
Specifications	12

SPECIAL DESIGN FEATURES

MACHINED ALUMINUM CHASSIS: Precision-machined chassis with integrated heat-sinks, milled from a solid block of aircraft grade aluminum, provides exceptional thermal heat transfer/dissipation, RFI/EMI shielding, and resonance control.

CERAMIC CIRCUIT BOARDS: All audio circuits are implemented on mil-spec, multi-layer, low dielectric constant, Rogers™ ultra-rigid ceramic circuit board substrate for extremely low energy retention and absorption. Large low impedance ground planes areas for extended internal star-grounding.

COMPOSITE CIRCUIT ARCHITECTURE: Unique composite circuit architecture incorporating separate Class AB voltage and current gain blocks with an innovative error correction loop, delivering a sensuous grain-free musicality of unparalleled transparency and low level resolution.

BALANCED TOPOLOGY: Inherent cancellation effects of balanced topology implemented throughout all power and input/output circuits ensures greatly reduced distortion and noise under dynamic signal conditions.

HIGH-CURRENT COPPER BUS-BARS: High-current, dual polarity, ultra low impedance copper bus-bars distribute both power supply input current and signal output current, virtually eliminating intra-circuit EMI signal contamination, greatly reducing internal wiring, while increasing circuit board rigidity.

HIGH-PRECISION SURFACE MOUNT COMPONENTS: Extensive use of Lead (Pb)-free, low temperature coefficient, active and passive surface-mount components results in significantly smaller loop areas, reduced circuit capacitance and inductance, and introduces less noise than conventional leaded components.

TRANSFORMER-COUPPLING AND ISOLATION: Transformer coupled input circuitry provides universal component compatibility and virtually eliminate ground loop noise and RFI/EMI. Transformer coupling ensures identical amplifier overall gain when using unbalanced input adapters.

POWER FACTOR CORRECTION: Power Factor Correction (PFC) in the power supply reduces AC line harmonic noise pollution and increases AC line power utilization to 99%.

HIGH-EFFICIENCY SWITCH-MODE POWER SUPPLY: Highly efficient, compact, light weight, 1500 watt DC switch-mode power supply provides optimum voltage

regulation for all circuits and operating conditions, and allows for quiet operation over a wide range of AC mains power sources.

PARALLEL BINDING POSTS: Dual CE approved speaker output terminals require no tools for secure, low resistance connections, and allow for easy bi-wiring applications.

FLEXIBLE 20 AMP AC POWER: 20 amp AC power inlet accepts a wide variety of after-market high-performance power cables.

FRONT PANEL STANDBY BUTTON: Illuminated front panel push-button switches the amplifier into standby mode (<0.3 watt consumption).

REMOTE ON/OFF: A 1/8" (3.5mm) mini plug connector on rear panel permits amplifier power on/standby switching in remote and home theater applications.

IMPROVED AMPLIFIER ISOLATION: Proprietary damping material on the bottom of the amplifier chassis completely isolates the amplifier from its supporting structure.

MAINTENANCE AND CARE

All Jeff Rowland Design Group products are designed to provide a lifetime of enjoyment and listening pleasure.

The chassis is sealed to prevent dust from entering the interior of the chassis and thus should never need interior cleaning during the lifetime of the product. All internal circuitry is maintenance-free such that no adjustments of any kind are necessary over the lifetime of the product. If the amplifier is ever in need of service, updating, or upgrading, it should only be returned to an authorized repair facility or technician for servicing.

The front panel of the unit is precision-machined in a unique process that incorporates a diamond tipped cutting tool. This process was refined over many years to produce an attractive and unique appearance. Because the surface is not finished in the typical fashion of most audio and video equipment, there are a few rules that must be kept in mind when cleaning the equipment.

NOTE: PLEASE ALLOW THE FRONT PANEL, WHICH IS COATED WITH AN AUTOMOTIVE-GRADE POLYURETHANE FINISH, TO CURE FOR 6 MONTHS BEFORE ATTEMPTING TO CLEAN IT. THIS WILL PREVENT SMALL SCRATCHES FROM MARRING THE SURFACE BEFORE THE SURFACE COATING HAS HAD A CHANCE TO HARDEN COMPLETELY.

WARNING: THE FRONT PANEL OF THE UNIT SHOULD NEVER BE CLEANED WITH ANYTHING OTHER THAN A VERY SOFT COTTON CLOTH AND PLAIN WATER OR FINE OIL-BASED FURNITURE POLISH. BECAUSE OF THE FINE FINISH OF THE FRONT PANEL, USE OF ANY OTHER CLEANING AGENT MAY PERMANENTLY SCRATCH THE FINISH.

The top and bottom cover, sides and bottom are protected by a durable black anodized finish and can be cleaned with a soft cotton cloth (such as an optical lens or microfiber cleaning cloth) dampened with plain water. Water should be applied directly to the cloth and not the chassis. A very mild plastic or glass cleaner that does not contain ammonia may also be used. If a mark has been left on the chassis, do not use any type of abrasive or chemical cleaner to remove the mark.

If you have any questions about the care or cleaning of your MODEL 735 MONOBLOCK AMPLIFIERS, please contact your dealer before attempting to clean the chassis. The use of a cleanser or abrasive to clean the chassis that has not been approved by the factory will almost certainly damage the finish and will not be covered under warranty.

UNPACKING AND PLACEMENT

INITIAL INSPECTION

Inspect the shipping container for damage. If any portion of the shipping container, packing material, amplifier, or accessories are damaged or missing, notify your dealer and the shipper (if a claim is to be made) immediately.

NOTE: MANY SHIPPERS REQUIRE NOTIFICATION AND INSPECTION WITHIN 24 HOURS OF DELIVERY TO DETERMINE THE NATURE OF DAMAGES INCURRED.

Your Model 735 Monoblock Amplifiers have undergone extensive performance evaluations, listening tests, quality control inspections, and a minimum 72-hour burn-in period prior to shipment and should therefore be in perfect operating condition upon delivery. If the amplifier does not operate correctly, please notify your dealer immediately. We strongly suggest that you save all of the packing materials. If the amplifier is returned to your dealer or Jeff Rowland Design Group, the original packing materials must be used for shipment to avoid possible damage. Neither Jeff Rowland Design Group nor the shipper can be held responsible for damages incurred during transit if the original factory packing is not used. All factory returns require that Jeff Rowland Design Group issue a Return Authorization (RA) number prior to shipment.

UNPACKING

Carefully unpack amplifier chassis and power supply from original packing box. Remove all accessory items from the accessory box. Accessories include:

- 1 Detachable IEC AC Power Cord
- Operational Manual
- Warranty Card

IMPORTANT: RETAIN ALL PACKING MATERIALS FOR FUTURE TRANSPORT. SHIPPING PRODUCT IN INADEQUATE PACKING MATERIALS MAY VIOLATE THE JEFF ROWLAND DESIGN GROUP MANUFACTURER'S WARRANTY.

FRONT PANEL



Figure 1: Front Panel

- 1. FRONT PANEL POWER BUTTON.** Press this button to operate the amplifier. Press again to place the amplifier in Standby mode.
- 2. POWER INDICATOR LAMP** This light will illuminate when the amplifier is operational.

REAR PANEL



Figure 2: Rear Panel

1. **AC MAINS INPUT CONNECTOR.** Install the AC Power Cable into the AC input connector between the amplifier and your AC mains outlet.
2. **INPUT.** Balanced XLR. Use XLR to RCA input adaptor for RCA input capability.
3. **LOUDSPEAKER OUTPUTS.** Unscrew the knob on either the **SPEAKER OUTPUT A** or the **SPEAKER OUTPUT B** CONNECTORS and pull the securing block out far enough to allow access to the binding posts. Install the positive (usually red) loudspeaker cable spade terminal to the positive (+) binding post and the negative (usually black) spade terminal to the negative (-) binding post. Secure the loudspeaker connections by tightening the knob securely with your fingers.
4. **REMOTE ON/OFF.** A 1/8" (3.5 mm) mini-plug connector is provided on the rear panel of the MODEL 735 MONOBLOCK AMPLIFIER for remotely switching the amplifier between Operational and Standby modes. When connected to another component with the proper circuitry, the amplifier standby function can be turned **ON** and **OFF** remotely.

SPECIFICATIONS

Output Power	330 watts @ 8 ohms / 650 watts @ 4 ohms
Frequency Response	5 Hz - 90 kHz, - 3 dB
S/N Ratio	95 dB, ref. 1.0 watt @ 8 ohm load
Output Noise	<55 μ v, 20 Hz – 20 kHz, unweighted
Input Impedance	40k ohms
THD + Noise	<0.001% from 2.0 kHz - 20 kHz, gradually increasing below 2.0 kHz due to amorphous core input transformer
Damping Factor	>500, 20 Hz - 20 kHz
Overall Gain / Bal. or Unbal.	26 dB
Common Mode Rejection Ratio	> 90 dB, 20 Hz – 20 kHz
Absolute Phase Non-inverting	Pin 2 Positive
Inputs	Balanced (XLR)
Outputs	2 pair parallel binding posts
Power Consumption Idle	85 watts/VA, power factor corrected at all power levels
Power Consumption Standby	0.3 watt
Amplifier Weight	54 lbs. / 24.5 kg (each)
Amplifier Shipping Weight	64 lbs. / 29 kg (each)
Amplifier Dimensions (h/w/d)	5.75" x 15.5" x 16.25" / 146mm x 394mm x 413mm (each)