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- AudioControl LC-5.1300 High-Power 5/3 Multi-Channel 1300 Watt RMS Car Audio Amplifier User Manual

#### AudioControl LC-5.1300

# AudioControl LC-5.1300 High-Power 5/3 Multi-Channel 1300 Watt RMS Car Audio Amplifier

Model: LC-5.1300 Brand: AudioControl

#### INTRODUCTION

The AudioControl LC-5.1300 is a high-power, multi-channel car audio amplifier designed to deliver exceptional sound quality and robust performance. This amplifier is engineered to seamlessly integrate with both OEM and aftermarket sound systems, providing significant power to your speakers and subwoofers. Its advanced features, including AccuBASS processing and flexible input options, ensure optimal audio reproduction in various car audio setups.

## **KEY FEATURES**

- **Configurable Operation:** Can be configured as a 5-channel or 3-channel amplifier to suit different system requirements.
- **High Power Output:** Delivers 4 x 200 watts + 1 x 500 watts RMS at 2 ohms, or 4 x 100 watts + 1 x 300 watts RMS at 4 ohms. Bridged output provides 400 watts at 4 ohms.
- AccuBASS Processing: Patented technology designed to correct for bass roll-off, ensuring full bass response at all volume levels.
- MILC (Maximum Input Level Control): Patent-pending technology that prevents clipping and distortion by optimizing input signal levels.
- GTO Signal Sense: Automatic turn-on feature that detects an audio signal, eliminating the need for a remote turn-on wire.
- Advanced Crossovers: Features 3-way independent Linkwitz-Riley Alignment crossovers, adjustable from 30 Hz to 5000 Hz for precise sound tuning.
- Flexible Inputs: Includes 8 summable active speaker-level inputs for seamless OEM integration and 6 balanced preamp inputs.
- PFM Subsonic Filter: Protects subwoofers from damaging ultra-low frequencies.
- Optional Remote Control: Compatible with the optional ACR-1 remote for convenient level control.
- Durable Construction: Built with a solid one-piece aluminum chassis for enhanced durability and heat dissipation.

# WHAT'S IN THE BOX

Upon opening the package, you will find the following components:

- AudioControl LC-5.1300 Amplifier Unit
- · Speaker Connectors
- Fuses
- · Instruction Manual

# SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. It is recommended that installation be performed by a qualified professional. Always disconnect the vehicle's battery before beginning any electrical work.

# **Component Overview**

Familiarize yourself with the amplifier's layout and connections.



Figure 1: Top view of the LC-5.1300 amplifier. This image displays the sleek black chassis with the AudioControl logo and model name prominently featured.



Figure 2: Angled view of the LC-5.1300 amplifier, highlighting the control panel with various adjustments and input/output terminals.



Figure 3: Rear view of the LC-5.1300 amplifier, detailing the power, ground, remote, line-level inputs, speaker-level inputs, speaker outputs, and subwoofer output connections.

## **Wiring Connections**

- 1. **Power Connection:** Connect the main power wire (minimum 3 AWG recommended) from the vehicle's battery to the +12V terminal on the amplifier. Ensure an appropriate fuse (4 x 30A) is installed close to the battery.
- 2. **Ground Connection:** Connect a ground wire of the same gauge as the power wire to the Ground terminal on the amplifier and to a clean, solid metal point on the vehicle's chassis.
- 3. **Remote Turn-On:** Connect the remote turn-on wire from your head unit to the Remote terminal on the amplifier. Alternatively, utilize the GTO Signal Sense feature if your head unit does not provide a remote output.

## 4. Input Connections:

- Speaker Level Inputs: For OEM integration, connect speaker wires from your factory head unit or amplifier to the 8 speaker-level inputs. The amplifier can sum these signals automatically.
- Preamp Inputs: For aftermarket head units, connect RCA cables from your head unit's preamp outputs to the 6 balanced preamp inputs.
- 5. **Speaker Outputs:** Connect your speakers and subwoofers to the corresponding speaker output terminals. Pay close attention to polarity (+/-) for all connections.

## **Initial Settings**

Before powering on, ensure all connections are secure. Set initial gain levels to minimum and crossover settings to a neutral position. Refer to the detailed manual for specific tuning instructions for AccuBASS, MILC, and crossover adjustments.

## **OPERATING INSTRUCTIONS**

Once installed, the LC-5.1300 amplifier is designed for straightforward operation. The primary adjustments are made during the initial setup phase to match your audio system's characteristics.

• Power On/Off: The amplifier will power on automatically when a remote signal is received or when the GTO Signal Sense detects an audio signal. It will power off shortly after the audio signal or remote signal is removed.

- Gain Adjustment: Use the gain controls for each channel to match the output voltage of your head unit. The MILC (Maximum Input Level Control) indicator lights will assist in setting the optimal gain without clipping.
- Crossover Adjustment: Adjust the high-pass, band-pass, and low-pass filters to direct appropriate frequencies to your speakers and subwoofers. This prevents distortion and optimizes sound clarity.
- AccuBASS Control: Fine-tune the AccuBASS feature to restore low-frequency information that may be lost in factory audio systems, providing a fuller bass response.
- Optional Remote Level Control (ACR-1): If connected, the ACR-1 remote allows for convenient, on-the-fly
  adjustment of the subwoofer level from the driver's seat.

## MAINTENANCE

The AudioControl LC-5.1300 amplifier is built for durability and requires minimal maintenance. Following these guidelines will help ensure its longevity:

- Cleaning: Periodically wipe the amplifier's exterior with a soft, dry cloth to remove dust and debris. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the amplifier has adequate airflow around its heatsink fins. Do not block ventilation openings. Overheating can lead to reduced performance or damage.
- **Connections:** Occasionally check all wiring connections to ensure they remain tight and free from corrosion. Loose connections can cause intermittent issues or damage.
- Fuse Replacement: If a fuse blows, replace it only with a fuse of the exact same type and rating (30A). Using an incorrect fuse can damage the amplifier or cause a fire.

## **TROUBLESHOOTING**

If you encounter issues with your LC-5.1300 amplifier, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No Power / Amplifier Not Turning On	Blown fuse, loose power/ground/remote wire, GTO signal sense not detecting signal.	Check and replace fuses. Verify all power, ground, and remote connections are secure. Ensure head unit is on and providing a signal if using GTO.
No Sound Output	Input cables disconnected, speaker wires disconnected, incorrect crossover settings, amplifier in protection mode.	Check RCA/speaker-level input connections. Verify speaker wire connections and polarity. Adjust crossover settings. If in protection, turn off and check for shorts or overheating.
Distorted Sound	Gain set too high, MILC indicator active, incorrect crossover settings, speaker impedance mismatch.	Reduce gain levels until MILC indicator is off. Adjust crossovers. Verify speaker impedance matches amplifier's capabilities.
Overheating / Protection Mode	Insufficient ventilation, low impedance load, prolonged high volume use.	Ensure proper airflow around the amplifier. Check speaker impedance. Reduce volume or allow amplifier to cool down.

If the problem persists after attempting these solutions, contact AudioControl customer support or a certified car audio technician.

#### **SPECIFICATIONS**

Category	Specification
Inputs	
Preamp Inputs	6 balanced
Preamp Input Voltage Range	500 mV - 6 Vrms
Speaker Level Inputs	8
Speaker Level Input Voltage Range	3 V - 40 Vrms
Outputs (Rated Continuous RMS Power at 14.4V)	
4 Ohms	100 W x 4 + 300 W x 1
2 Ohms	200 W x 4 + 500 W x 1
Bridged 4 Ohms	400 W
Performance	
Frequency Response	20 Hz - 22 kHz
Signal to Noise	102 dBa Ref 200 W @ 2 Ohm
THD+N	0.1%
Minimum Power / Ground Wire Gauge	3 AWG wire
Fuse Rating	4 x 30 A
Crossover	3-way Linkwitz-Riley Adjustable From 30 Hz - 5000 Hz
Physical Characteristics	
Dimensions (W x H x D)	12.0" x 2.1" x 8.0"
Weight	7.2 lbs (3.3 kg)

## WARRANTY AND SUPPORT

The AudioControl LC-5.1300 amplifier comes with a 5-year warranty, as stated in the product description. For detailed warranty terms and conditions, please refer to the official AudioControl website or the warranty card included with your product.

For technical support, product inquiries, or service, please visit the official AudioControl support page or contact their customer service department directly. Keep your purchase receipt and product serial number handy for faster assistance. Official AudioControl Website: www.audiocontrol.com

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