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JL AUDIO LoC-22

JL AUDIO LoC-22 | 2-Channel High-to-Low Line Output Converter

User Manual

1. INTRODUCTION

1.1 Product Overview

The JL AUDIO LoC-22 is a 2-channel line output converter designed to integrate aftermarket amplifiers with factory car audio systems that lack RCA pre-amp outputs. It efficiently converts high-level (speaker-level) audio signals from a factory head unit or amplifier into low-level (RCA pre-amp level) signals, making them compatible with aftermarket amplifiers. This device is essential for upgrading your car's audio system while retaining the original head unit.

1.2 Safety Information

- Always disconnect the vehicle's battery negative terminal before beginning any installation.
- Ensure all wiring is properly insulated to prevent short circuits.
- Mount the LoC-22 securely in a dry location, away from excessive heat or moisture.
- Consult a professional car audio installer if you are unsure about any part of the installation process.
- Do not attempt to modify the unit. Unauthorized modifications may void the warranty and pose safety risks.

2. FEATURES

- 2-Channel Speaker-Level to RCA Line Output Conversion
- Adjustable Output Level Control
- Selectable Turn-On Mode (DC Offset or Signal Sensing)
- Selectable Input Load (Low Z or Normal)
- Compact and Durable Design
- Integrated Remote Turn-On Output for Aftermarket Amplifiers

3. PACKAGE CONTENTS

- JL AUDIO LoC-22 Line Output Converter Unit
- Wiring Harnesses (for power/remote and speaker inputs)
- User Manual (this document)

4. PRODUCT OVERVIEW AND COMPONENT IDENTIFICATION

Familiarize yourself with the various components and connections of your LoC-22 unit.



Figure 4.1: JL AUDIO LoC-22 Angled View

This image provides an overall angled view of the LoC-22 unit, highlighting its compact size and the general layout of its inputs, outputs, and controls. The black metal casing is visible, along with mounting tabs on the sides.



Figure 4.2: JL AUDIO LoC-22 Top View

This top-down view clearly shows the main labels and controls on the unit's surface. Key indicators include 'Input Load', 'Clipping' LED, 'Output Level' potentiometer, 'Line Outputs' (RCA jacks), and the 'Turn-on Mode' switch. The JL Audio logo and 'LoC-22 Line Output Converter' text are also prominent.



Figure 4.3: JL AUDIO LoC-22 Input Side View

This image details one side of the LoC-22, specifically showing the multi-pin terminal block for speaker-level inputs (L+, L-, R+, R-). Below the input terminal, the 'Input Load' switch is visible, offering 'Low Z (60 Ω)' and 'Normal (20 kΩ)' settings for impedance matching.



Figure 4.4: JL AUDIO LoC-22 Output Side View

This view displays the opposite side of the LoC-22. It features the power connector terminal block (+12V, Ground, Remote Out), the two RCA 'Line Outputs' (Left and Right), and the 'Turn-on Mode' switch, which can be set to 'DC Offset' or 'Signal' for automatic turn-on functionality.

5. SETUP AND INSTALLATION

5.1 Mounting

- Choose a secure, dry location within the vehicle, away from direct heat sources or moving parts.
- Ensure adequate ventilation around the unit.
- Use appropriate screws to mount the LoC-22 to a solid surface using its integrated mounting tabs.

5.2 Wiring Connections

Before making any connections, ensure the vehicle's battery negative terminal is disconnected.

1. **Power Connection:** Connect the +12V terminal of the LoC-22 to a constant +12V power source (e.g., directly to the battery with an inline fuse, or a fused accessory wire). Connect the Ground terminal to a solid chassis ground point.
2. **Speaker-Level Inputs:** Connect the speaker output wires from your factory head unit or amplifier to the LoC-22's speaker input terminal block (L+, L-, R+, R-). Ensure correct polarity.
3. **RCA Line Outputs:** Connect standard RCA cables from the LoC-22's 'Line Outputs' to the RCA inputs of your aftermarket amplifier.

4. **Remote Turn-On Output:** Connect the 'Remote Out' terminal of the LoC-22 to the remote turn-on input of your aftermarket amplifier. This will turn on the amplifier when the LoC-22 detects an audio signal or DC offset, depending on the selected turn-on mode.

6. OPERATING INSTRUCTIONS

6.1 Turn-on Mode Selection

The LoC-22 offers two methods for automatic turn-on:

- **DC Offset:** Select this mode if your factory head unit or amplifier produces a DC offset on its speaker outputs when turned on. This is the most common and reliable method for many modern factory systems.
- **Signal:** Select this mode if your factory head unit or amplifier does not produce a DC offset, but instead provides an audio signal when turned on. The LoC-22 will detect the presence of an audio signal to generate the remote turn-on output.

Set the 'Turn-on Mode' switch on the unit to the appropriate setting based on your vehicle's factory system.

6.2 Input Load Selection

The 'Input Load' switch allows you to optimize the LoC-22's input impedance for compatibility with various factory audio systems:

- **Normal (20 kΩ):** This is the standard setting and should work with most factory systems.
- **Low Z (60 Ω):** Some factory systems, particularly those with advanced diagnostic features, may require a lower impedance load to prevent them from detecting an open circuit and shutting down the audio output. If you experience audio cut-outs or errors, try this setting.

Set the 'Input Load' switch on the unit to the appropriate setting. Start with 'Normal' and switch to 'Low Z' if issues arise.

6.3 Adjusting Output Level

The 'Output Level' potentiometer allows you to match the output voltage of the LoC-22 to the input sensitivity of your aftermarket amplifier. This ensures optimal signal transfer and prevents clipping.

1. Turn the 'Output Level' control fully counter-clockwise (minimum).
2. Turn on your car's audio system and play a dynamic piece of music at about 75% of the head unit's maximum volume.
3. Slowly turn the 'Output Level' control clockwise until the 'Clipping' LED on the LoC-22 just begins to flicker. Then, back off slightly until the LED remains off.
4. Adjust the gain controls on your aftermarket amplifier according to its manufacturer's instructions, ensuring no clipping occurs at the amplifier stage.

7. MAINTENANCE

The JL AUDIO LoC-22 is designed for reliable operation with minimal maintenance.

- Keep the unit clean and free of dust. Use a soft, dry cloth for cleaning.
- Do not use harsh chemicals or abrasive cleaners.
- Periodically check all wiring connections to ensure they are secure and free from corrosion.

8. TROUBLESHOOTING

If you encounter issues with your LoC-22, refer to the table below for common problems and solutions.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No audio output from amplifier.	No power to LoC-22. Incorrect wiring. Incorrect Turn-on Mode.	Check +12V and Ground connections. Verify all speaker input and RCA output connections. Try switching the 'Turn-on Mode' between 'DC Offset' and 'Signal'.
Distorted audio / Clipping LED constantly on.	Output level set too high. Input signal too strong.	Reduce the 'Output Level' on the LoC-22. Ensure head unit volume is not excessively high.
Factory head unit shuts off or displays error.	Incorrect Input Load setting.	Switch the 'Input Load' to 'Low Z (60 Ω)'.
Amplifier does not turn on.	Incorrect Turn-on Mode. Remote Out wire disconnected.	Try switching the 'Turn-on Mode'. Check the connection from LoC-22 'Remote Out' to amplifier remote input.

9. SPECIFICATIONS

Feature	Specification
Model Number	LoC-22
Number of Channels	2
Dimensions (L x W x H)	7.77 x 11.99 x 3.12 cm (3.06 x 4.72 x 1.23 inches)
Weight	370 grams (0.82 lbs)
Input Load Options	Normal (20 kΩ), Low Z (60 Ω)
Turn-on Mode Options	DC Offset, Signal Sensing
UPC	699440984133

10. WARRANTY INFORMATION

JL AUDIO products are engineered and manufactured to the highest quality standards. This product is covered by a limited warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary by region and product. Please retain your proof of purchase for warranty claims. For detailed warranty information, please refer to the warranty card included with your product or visit the official JL AUDIO website.

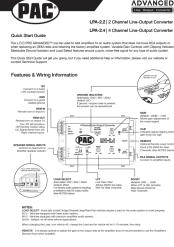
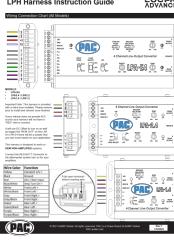
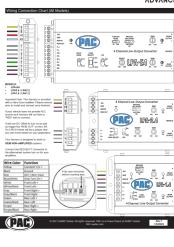
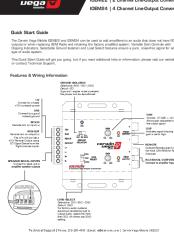
11. CUSTOMER SUPPORT

For technical assistance, troubleshooting, or general inquiries regarding your JL AUDIO LoC-22, please contact JL AUDIO customer support. You can find contact information, FAQs, and additional resources on the official JL AUDIO website:

www.jlaudio.com/support

When contacting support, please have your product model number (LoC-22) and a detailed description of your issue ready.

Related Documents - LoC-22

	<p>PAC LPA-2.2 & LPA-2.4 Line Output Converter Quick Start Guide</p> <p>This guide provides quick start instructions for the PAC LPA-2.2 (2 Channel) and LPA-2.4 (4 Channel) Line Output Converters, detailing features, wiring information, example installation, and gain level set-up procedures.</p>
	<p>PAC LPH Harness Instruction Guide: Wiring and Installation</p> <p>Comprehensive guide for PAC LPH harnesses, detailing wiring connections for LPA-E4, LPA2.4, LPA2.2, LPA1.4, and LPA1.2 line-output converters. Includes installation examples for 4-channel and mono amplifiers.</p>
	<p>PAC LPH Harness Instruction Guide: Amplifier Installation & Wiring</p> <p>This instruction guide provides detailed wiring information and installation examples for the PAC LPH Harness, a LOC PRO™ ADVANCED line-output converter. It covers models LPA-E4, LPA2.4, LPA2.2, LPA1.4, and LPA1.2, and is designed for installing aftermarket amplifiers in vehicles with OEM non-amplified audio systems, utilizing DC offset for remote turn-on.</p>
	<p>Wāvtech Link2 2-Channel Line Output Converter Owner's Manual</p> <p>Comprehensive owner's manual for the Wāvtech Link2 2-Channel Line Output Converter, detailing installation, features, specifications, and warranty information for professional audio installers.</p>
	<p>Baby Trend EZ Loc 30 Infant Car Seat Owner's Manual</p> <p>Comprehensive owner's manual for the Baby Trend EZ Loc 30 Infant Car Seat, providing detailed instructions on safety, installation, features, and maintenance for secure child transport.</p>
	<p>Cerwin Vega Mobile IOEM22 & IOEM24 Quick Start Guide</p> <p>A quick start guide for the Cerwin Vega Mobile IOEM22 (2 Channel) and IOEM24 (4 Channel) Line-Output Converters, detailing features, wiring, and specifications for adding amplifiers to car audio systems.</p>



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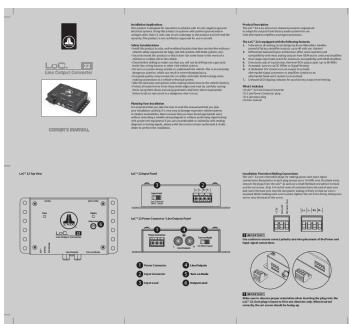


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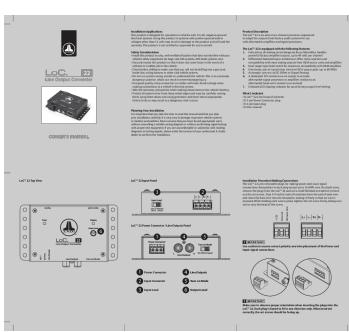


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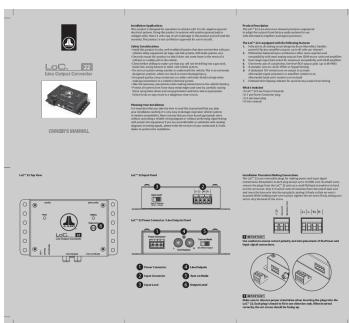


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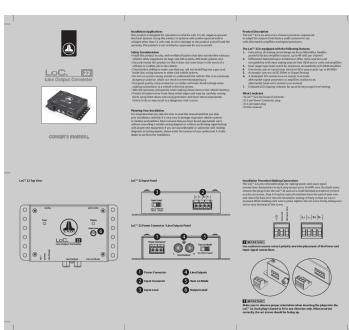


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OWNER'S MANUAL

JD250/1

JD500/1

JD1000/1

Class D Monoblock Subwoofer Amplifiers

Thank you for purchasing a JL Audio amplifier for your automotive sound system.

Your amplifier has been designed and manufactured to exacting standards in order to ensure years of reliable operation in your vehicle.

For maximum performance, we highly recommend that you have your new amplifier installed by an authorized JL Audio dealer. Your authorized dealer has the training, expertise and installation equipment

to ensure optimum performance from this product. Should you decide to install the amplifier yourself, please take the time

to read this manual thoroughly so as to familiarize yourself

with installation requirements and setup procedures.

If you have any questions regarding the instructions in this

manual or any aspect of your amplifier's operation, please contact your

authorized JL Audio dealer for assistance. If you need further assistance,

please contact the JL Audio Technical Support Department

at technical.jlaudio.com/support.



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