

Recoil MALOC4

Recoil MALOC4 Mini 4-Channel Adjustable Line Output Converter Instruction Manual

Model: MALOC4 | Brand: Recoil

1. INTRODUCTION

The Recoil MALOC4 is a compact 4-channel adjustable line output converter designed to integrate aftermarket amplifiers with factory car radios. It converts speaker-level outputs to low-level RCA inputs, providing up to 8 volts output and a 12V remote turn-on trigger. This manual provides essential instructions for proper installation, operation, and maintenance of your MALOC4 unit.

2. SAFETY INFORMATION

- Always disconnect the vehicle's battery before beginning any electrical installation to prevent short circuits and damage.
- Ensure all wiring connections are secure and correctly insulated to prevent electrical hazards.
- Do not expose the unit to moisture or extreme temperatures.
- If you are unsure about any installation steps, consult a qualified car audio professional.
- Mount the unit in a location that does not obstruct vehicle operation or safety features.

3. PACKAGE CONTENTS

- 1x Recoil MALOC4 Line Output Converter
- 1x Wiring Harness
- 1x Instruction Manual

4. PRODUCT FEATURES

- Converts 4-channel speaker-level outputs from a factory radio to low-level RCA inputs for an aftermarket amplifier.
- Supports up to 80 watts RMS input per channel, with a total input capacity of 320 watts.
- Provides an adjustable output of up to 8 volts for optimal amplifier signal matching.
- Features an integrated 12V remote turn-on trigger for automatic amplifier activation.
- Utilizes premium Permalloy transformers to prevent signal loss and correct crossover distortion.
- Constructed with 99.99% Oxygen-Free Copper (OFC) wiring for superior signal transfer and clarity.
- Compact and ultra-small design allows for flexible and easy installation in various vehicle locations.

5. SETUP AND INSTALLATION

Follow these steps for proper installation of the Recoil MALOC4:

1. **Disconnect Battery:** Before starting, disconnect the negative terminal of your vehicle's battery to prevent electrical shorts.
2. **Identify Speaker Wires:** Locate the speaker output wires from your factory radio. The MALOC4's wiring harness is color-coded to standard speaker wire colors for easy identification.
3. **Connect Speaker Inputs:** Connect the corresponding speaker wires from your factory radio to the input side of the MALOC4's wiring harness. Ensure correct polarity (positive to positive, negative to negative).
4. **Connect Power and Ground:** Connect the 12V constant power wire (typically yellow) and the ground wire (typically black) from the MALOC4 harness to appropriate power and ground sources in your vehicle.
5. **Connect RCA Outputs:** Connect RCA cables from the MALOC4's RCA output jacks to the low-level RCA inputs on your aftermarket amplifier.
6. **Connect Remote Output:** Connect the remote output wire (typically blue) from the MALOC4 to the remote turn-on input of your amplifier. The MALOC4 will automatically provide a 12V signal to turn on the amplifier when it detects audio input.
7. **Mount the Unit:** Securely mount the MALOC4 in a suitable location, ensuring it is protected from physical damage and moisture.
8. **Reconnect Battery:** Once all connections are verified, reconnect the vehicle's battery.
9. **Test System:** Turn on your vehicle's audio system and test for proper functionality.

Applications

Use the MALOC4 when adding a 4-Channel amplifier to a factory radio to convert the radio's speaker level outputs to the low level (RCA) inputs.



This diagram illustrates the typical application of the Recoil MALOC4, demonstrating how it connects between a factory car radio's speaker outputs and an aftermarket amplifier's RCA inputs.

RCA Female Output Jack and Speaker Wire Input

99.99% Pure Oxygen Free Copper Wire



A detailed view of the Recoil MALOC4's wiring harness, emphasizing the 99.99% pure oxygen-free copper wires used for superior signal transfer.

6. OPERATING INSTRUCTIONS

The Recoil MALOC4 is designed for straightforward operation:

- **Automatic Remote Turn-On:** The MALOC4 automatically senses the audio signal from your factory radio and provides a 12V remote turn-on signal to your amplifier. When no audio signal is detected for approximately one minute, the remote output will shut off, turning off the amplifier.
- **Gain Adjustment:** Use a small screwdriver to adjust the gain controls (labeled 'L' and 'R' for each channel) on the MALOC4. Start with the gain set to minimum and slowly increase it until the desired output level is achieved without distortion. It is recommended to match the output voltage of the MALOC4 to the input sensitivity of your amplifier.

4-Channel Micro Line Output Converter

Total 320W Input (80W Per Channel) LOC with Remote Turn-On Trigger



A top-down view of the Recoil MALOC4, showing the four RCA output jacks and the individual left and right gain adjustment screws for each channel.

7. MAINTENANCE

The Recoil MALOC4 requires minimal maintenance:

- Periodically check all wiring connections to ensure they remain secure and free from corrosion.
- Keep the unit clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the unit to direct sunlight or excessive heat, which can degrade performance and lifespan.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
---------	----------------	----------

Problem	Possible Cause	Solution
No sound from amplifier.	Incorrect wiring, no power to MALOC4 or amplifier, amplifier not turning on, MALOC4 gain too low.	Check all power, ground, and signal connections. Verify 12V constant power to MALOC4. Ensure remote wire is connected and functioning. Adjust MALOC4 gain settings.
Distorted sound.	Gain set too high on MALOC4 or amplifier, poor signal quality, loose connections.	Reduce gain settings on both MALOC4 and amplifier. Ensure all connections are secure and free from corrosion. Check speaker wire integrity.
Amplifier does not turn on.	No 12V remote signal from MALOC4, MALOC4 not receiving audio input, faulty remote wire.	Verify MALOC4 is receiving audio input from the factory radio. Check the remote wire connection between MALOC4 and amplifier. Ensure MALOC4 has constant 12V power.
Intermittent sound.	Loose connections, faulty wiring, power fluctuations.	Inspect all wiring for loose connections or damage. Ensure stable power supply to the MALOC4 and amplifier.

9. SPECIFICATIONS

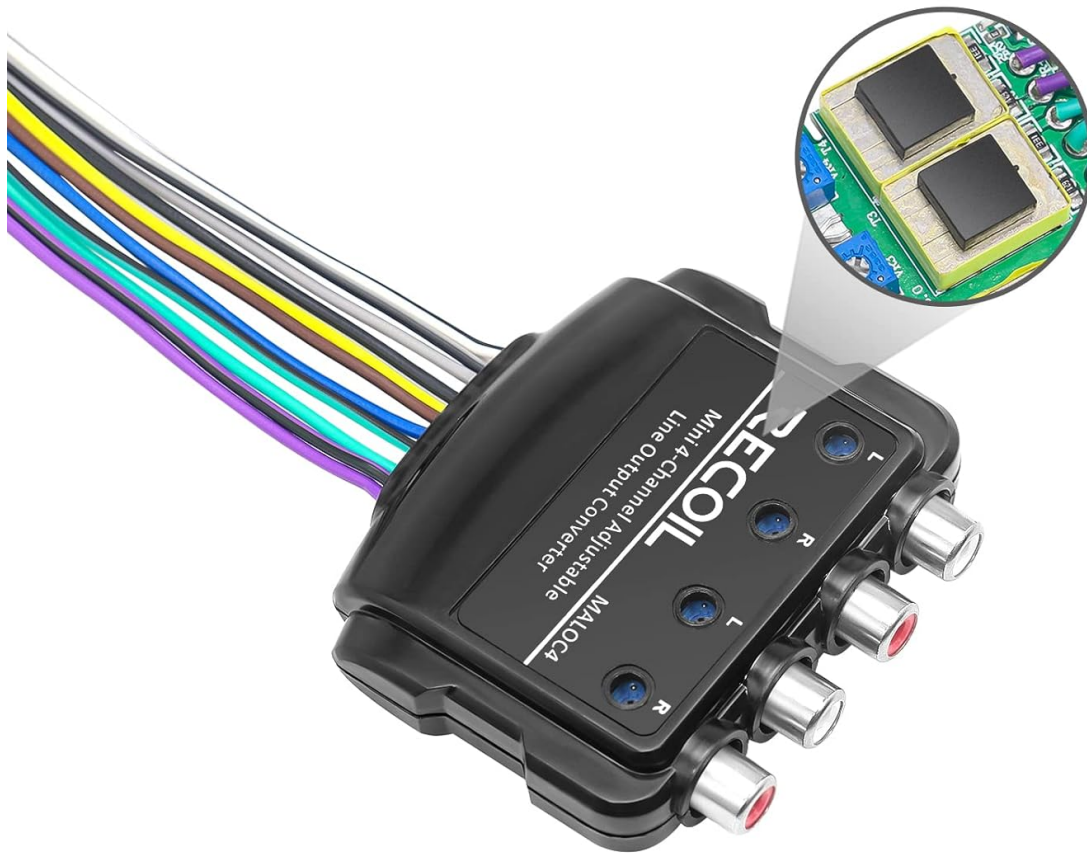
Feature	Specification
Brand	Recoil
Model	MALOC4
Number of Channels	4
Interface Type	RCA
Installation Type	Vehicle-mounted (In-line)
Minimum Power Supply	12 Volts
Max Input Power	80 Watts per channel (320W total)
Max Output Voltage	8 Volts
Wiring Material	99.99% Oxygen-Free Copper (OFC)
Dimensions (L x W x H)	2.77" x 2.48" x 0.5" (70.5mm x 63mm x 13mm)



This image provides the physical dimensions of the Recoil MALOC4, showing its compact size: 2.77 inches (70.5mm) length, 2.48 inches (63mm) width, and 0.5 inches (13mm) height.

Permalloy Transformers

Patented Permalloy transformer technology prevent signal loss and corrects crossover distortion.



This image displays the internal components of the Recoil MALOC4, highlighting the Permalloy transformers designed to prevent signal loss and correct crossover distortion.

10. WARRANTY AND SUPPORT

For specific warranty information regarding your Recoil MALOC4, please refer to the documentation included with your purchase or visit the official Recoil website. For technical support, installation assistance, or any other inquiries, please contact Recoil customer service through their official channels.