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› RECOIL GLIRCA2 2-Channel RCA Stereo Ground Loop Isolator Instruction Manual

RECOIL GLIRCA2

RECOIL GLIRCA2 2-Channel RCA Stereo Ground Loop Isolator Instruction Manual

Model: GLIRCA2 | Brand: RECOIL

1. INTRODUCTION AND OVERVIEW

The RECOIL GLIRCA2 is a 2-channel RCA stereo ground loop isolator designed to eliminate unwanted noise in audio systems. This device effectively removes buzzing or humming sounds often heard in car audio setups by isolating the audio signal and breaking the ground loop. It is intended for use with portable devices that have RCA audio outputs, including pre-amp outputs, ensuring a cleaner audio experience.



Image 1.1: The RECOIL GLIRCA2 2-Channel RCA Stereo Ground Loop Isolator, showing its compact design and integrated RCA cables.

2. PRODUCT FEATURES

- **Ground Loop Noise Elimination:** Effectively removes ground loop noise between the audio source and the amplifier or radio.
- **High Fidelity Audio:** Provides a near-perfect frequency response of +/- 0.03 dB from 2 Hz to 20,000 Hz, preserving audio quality.
- **Quality Construction:** Features split-pin RCA connectors with pure Oxygen Free Copper (OFC) wire for optimal signal transfer.
- **Signal Enhancement:** Utilizes proprietary audio transformers for a slight 1.3 dB gain, which can help maintain signal strength.

RCA Male Input & Femal Output

99.99% Pure Oxygen Free Copper



Image 2.1: Detailed view of the GLIRCA2's RCA male input and female output, highlighting the internal spiral shielding for noise reduction.

3. SETUP AND INSTALLATION

The RECOIL GLIRCA2 is designed for straightforward installation between your audio source unit and amplifier. Follow these steps for proper connection:

1. Identify the RCA output from your audio source unit (e.g., car stereo, head unit).
2. Connect the **male RCA plugs** (input) of the GLIRCA2 to the corresponding RCA output jacks on your source unit. The blue RCA plug typically corresponds to the right channel, and the white RCA plug to the left channel.
3. Connect the **female RCA jacks** (output) of the GLIRCA2 to the RCA input jacks on your amplifier.
4. The brown wires extending from the GLIRCA2 are generally not used for standard installations. However, if you experience no audio on either channel after installation, attach these brown wires to the source unit's ground point.

Installation

The RCA plugs (male) are the input to the GLIRCA2 and must be plugged into the source unit. The blue RCA plug is the right channel and the white RCA plug is the left channel. The RCA jacks are the output for the GLIRCA2. The brown wires are not usually used, The brown around wires are to be used to only if no sound is audible on both channels. Attach the brown wires to the source unit's ground.

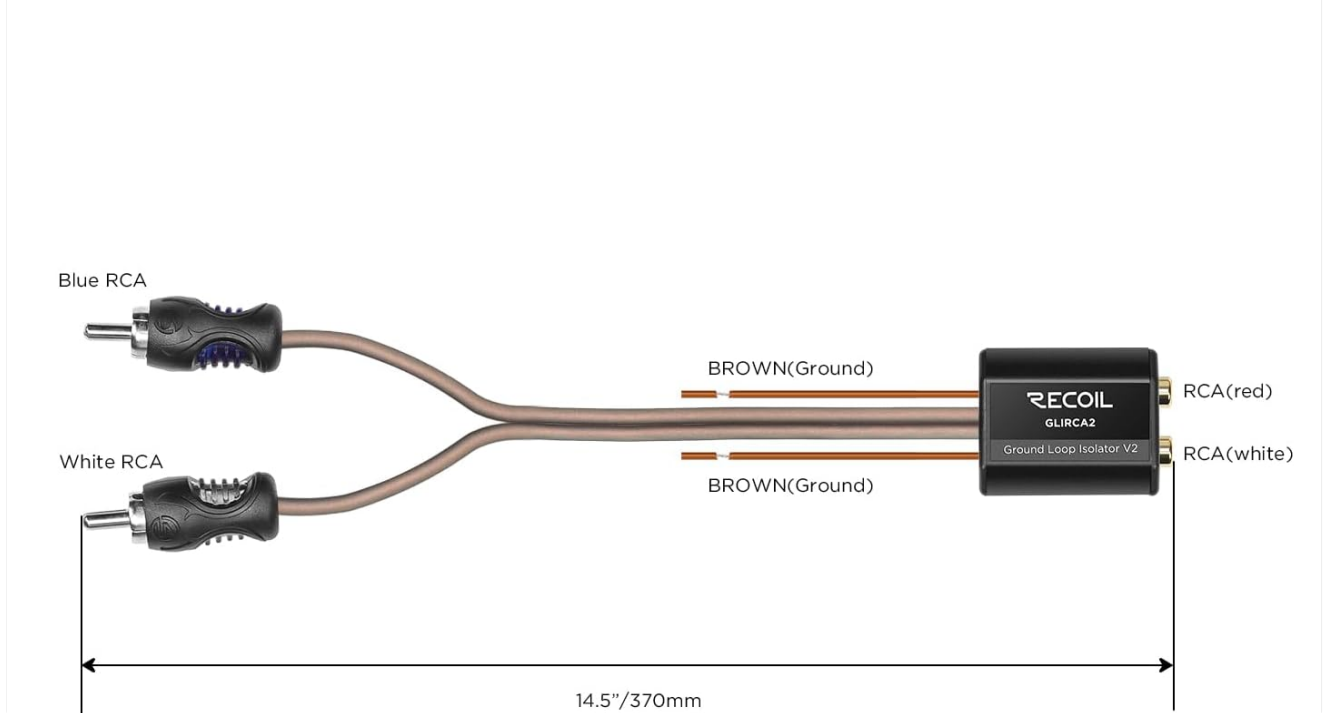


Image 3.1: Installation diagram for the RECOIL GLIRCA2, illustrating the connection points for RCA inputs, outputs, and optional brown ground wires.

Ensure all connections are secure to prevent intermittent audio or further noise issues.

4. OPERATION

Once correctly installed, the RECOIL GLIRCA2 operates passively to isolate the audio signal from ground loop interference. It requires no external power. The device automatically filters out electrical noise that travels through the ground path, allowing only the clean audio signal to pass through to your amplifier. This results in a significant reduction or complete elimination of humming, buzzing, or whining sounds in your audio system.

Applications

It eliminates the buzzing or humming noise often heard in car audio systems. Add it between the source unit and the amplifier. It isolates the signal and breaks the ground loop, allowing the signal to pass through cleanly.



Image 4.1: The GLIRCA2 in an application scenario, demonstrating its function in eliminating audio noise.

5. TROUBLESHOOTING AUDIO NOISE

Noise in car audio systems can originate from various sources. The GLIRCA2 addresses ground loop noise. If you still experience noise after installing the GLIRCA2, consider these common troubleshooting steps:

5.1. General Noise Sources

- **Radio Static:** If noise is present only on the radio (AM/FM), it might be coming through the antenna lead. Try unplugging the antenna; if the noise stops, an antenna noise suppressor may be needed.
- **Radiated Noise:** If noise disappears when the receiver is pulled from the dash while a CD is playing, it could be radiated from nearby components like a heater motor or car computer.

5.2. Engine Noise and Alternator Whine

Noise introduced through the power and ground wires connected to your receiver is often called engine noise or alternator whine. This typically manifests as a whining or clicking sound whose pitch varies with engine speed.

- **Improper Grounding:** Ensure your receiver is securely grounded. An improper ground is a primary cause of noise. Verify the ground wire is connected to the vehicle's chassis and not near other noise sources.

- **Power and Ground Wire Separation:** Always route power cables and RCA audio cables on opposite sides of the vehicle to prevent interference.
- **Check Connections:** Loose or corroded connections can introduce noise. Inspect all power, ground, and signal connections.

6. SPECIFICATIONS

Feature	Detail
Model	GLIRCA2
Channels	2-Channel Stereo
Frequency Response	+/- 0.03 dB from 2 Hz to 20,000 Hz
Gain	1.3 dB
Connectors	Split-pin RCA (Male Input), RCA (Female Output)
Wire Type	Oxygen Free Copper (OFC)
Item Weight	2.89 ounces (approx. 82 grams)
Package Dimensions	5.43 x 4.45 x 2.17 inches (approx. 13.79 x 11.30 x 5.51 cm)

Dimensions



Image 6.1: Dimensional drawing of the RECOIL GLIRCA2, indicating its physical size.

7. WHAT'S IN THE BOX

- 1 x RECOIL GLIRCA2 2-Channel RCA Stereo Ground Loop Isolator

8. WARRANTY AND SUPPORT

The RECOIL GLIRCA2 comes with a **1-year manufacturer's warranty**. For technical support, warranty claims, or additional product information, please visit the official RECOIL store or contact customer service through the retailer where the product was purchased.

You can find more information and contact details on the [RECOIL Store on Amazon](#).

