

Orion OLH28C

Orion OLH28C 2-Channel High-to-Low Converter

INSTRUCTION MANUAL

1. Introduction

The Orion OLH28C is a 2-channel high-to-low audio signal converter designed to integrate factory car audio systems with aftermarket amplifiers. This device converts high-level speaker outputs from your vehicle's factory head unit into low-level RCA signals, enabling connection to external amplifiers for improved sound quality and system expansion. It ensures compatibility and delivers clear audio signals with minimal distortion.

2. Key Features

- **Seamless Integration:** Connects factory audio systems to aftermarket amplifiers.
- **Clear Sound Quality:** Provides precise signal conversion with minimal distortion.
- **Universal Compatibility:** Works with a wide range of car audio systems.
- **Compact Design:** Sleek and lightweight structure for easy installation in limited spaces.
- **Durable Performance:** Constructed with premium components for reliable, long-lasting operation.

3. Setup and Installation

Proper installation is crucial for optimal performance. Ensure the vehicle's battery is disconnected before beginning any wiring. Refer to your vehicle's wiring diagram for speaker wire identification.



Figure 3.1: Top view of the Orion OLH28C converter, illustrating the high-level input terminals and low-level RCA outputs.

3.1 Wiring Connections

- High-Level Inputs (Speaker Wires):** Connect the speaker output wires from your factory head unit to the corresponding terminals on the OLH28C.
 - **L+ (White):** Left speaker positive input.
 - **L- (White/Black):** Left speaker negative input.
 - **R+ (Gray):** Right speaker positive input.
 - **R- (Gray/Black):** Right speaker negative input.
- Power and Ground:**
 - **V+ (Red):** Connect to a switched 12V power source (e.g., accessory wire).
 - **GND (Black):** Connect to a solid chassis ground point in the vehicle.
- Remote Turn-On (Blue):**

REM (Blue): This wire provides a 12V remote turn-on signal to your aftermarket amplifier. Connect this to the amplifier's remote input terminal.
- Low-Level Outputs (RCA):** Connect standard RCA cables from the OLH28C's RCA outputs to the RCA inputs of your aftermarket amplifier.

- **L (Left RCA):** Connect to the left channel input of the amplifier.
- **R (Right RCA):** Connect to the right channel input of the amplifier.



Figure 3.2: Bottom view of the Orion OLH28C, highlighting the Left and Right RCA output connections.



Figure 3.3: Angled view of the OLH28C, showing the complete set of input and output wiring for installation.

3.2 Mounting

The compact design of the OLH28C allows for flexible mounting. Secure the unit in a dry location, away from excessive heat or moisture, using appropriate fasteners. Ensure wires are not pinched or strained.

4. Operating Instructions

Once properly installed and wired, the Orion OLH28C operates automatically. When the vehicle's ignition is turned on, the converter will receive power and generate a remote turn-on signal for your amplifier. Audio signals from the factory head unit will be converted and passed to the amplifier. No user adjustments are typically required for basic operation.

5. Maintenance

The Orion OLH28C requires minimal maintenance. Periodically check all wiring connections to ensure they are secure and free from corrosion. Keep the unit clean and free of dust and debris. Avoid exposing the unit to extreme temperatures or moisture.

6. Troubleshooting

- **No Sound:**

- Verify all power (V+), ground (GND), and remote (REM) connections are secure and receiving proper voltage.
- Check high-level input wires from the factory head unit for proper connection and signal.
- Ensure RCA cables are correctly connected between the converter and the amplifier.
- Confirm the amplifier is powered on and functioning correctly.

- **Distorted Sound:**

- Check all wiring for loose connections or shorts.
- Ensure the high-level input signals are not excessively strong, which could cause clipping.
- Verify the amplifier's gain settings are properly adjusted and not set too high.

- **Amplifier Not Turning On:**

- Check the remote (REM) wire connection from the OLH28C to the amplifier.
- Ensure the OLH28C is receiving power (V+ and GND).

7. Specifications

Model	OLH28C
Brand	Orion
Number of Channels	2
Mounting Type	Freestanding
UPC	818550019331

8. Warranty and Support

For warranty information or technical support, please refer to the documentation included with your purchase or contact Orion customer service directly. Keep your proof of purchase for any warranty claims.