

AudioControl LC2i PRO

AudioControl LC2i PRO 2-Channel Line Output Converter User Manual

Model: LC2i PRO

1. INTRODUCTION

The AudioControl LC2i PRO is a 2-channel line output converter designed to integrate aftermarket amplifiers with factory audio systems. It features impedance matching, AccuBASS bass rolloff compensation, and multiple trigger modes for seamless integration and enhanced audio performance. This manual provides detailed instructions for installation, operation, and troubleshooting.



Figure 1: AudioControl LC2i PRO Line Output Converter

2. KEY FEATURES

- Active Speaker Level Inputs (up to 40V input handling)
- Built-In Line Driver with up to 9.5 Vrms Output
- AccuBASS Bass Rolloff Compensation Circuit
- Multiple Trigger Modes: GTO, Audio Sense, 12 V Turn On
- Load Selection Switch for Painless OEM Integration
- Includes AudioControl Universal Dash Remote (ACR1)
- Slim Chassis with Integrated Mounting Bracket

3. SETUP AND INSTALLATION

Before beginning installation, ensure the vehicle's battery is disconnected. Refer to the diagram below for component identification and wiring connections.

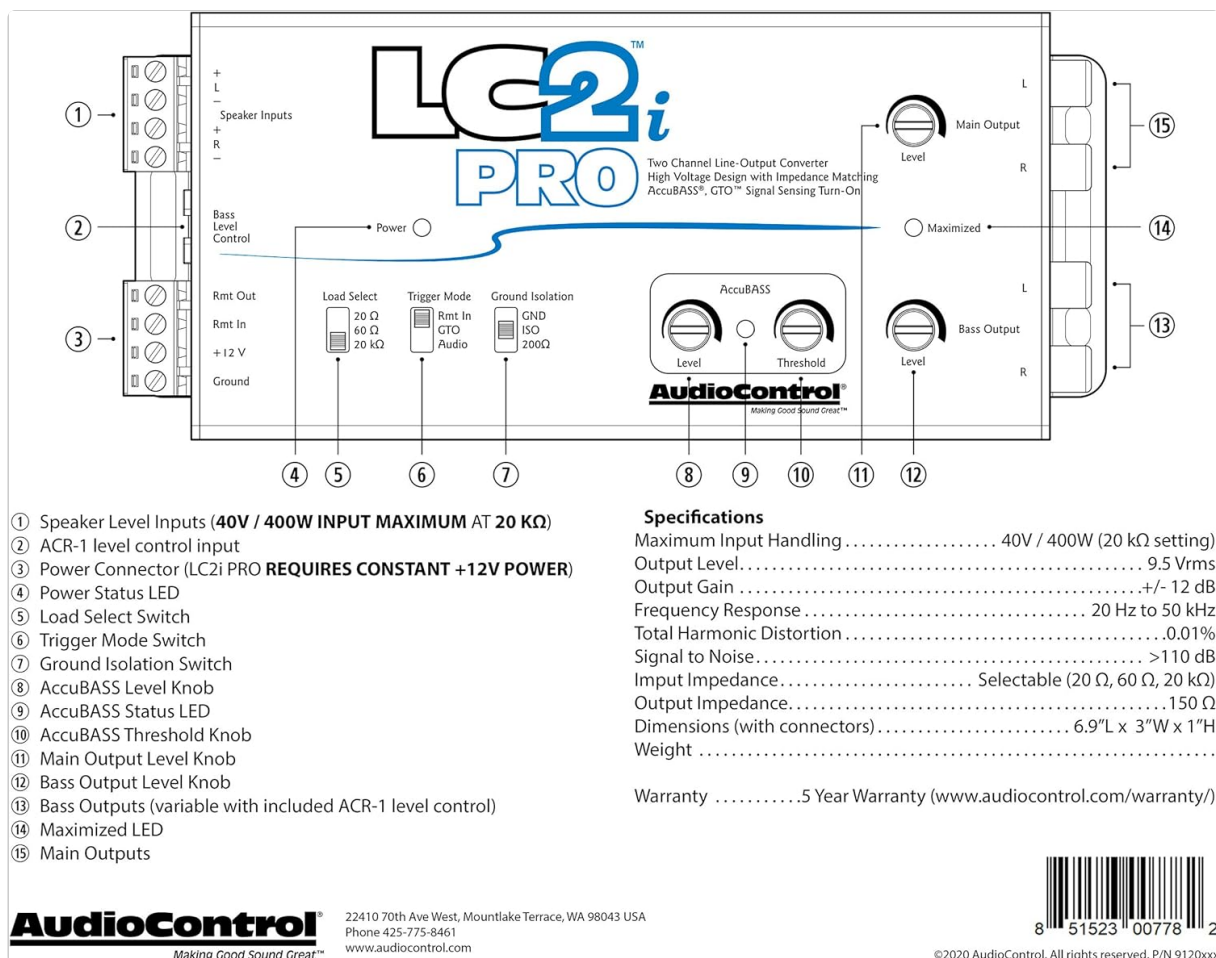


Figure 2: LC2i PRO Component Layout and Connections

3.1 Wiring Connections

1. **Speaker Level Inputs (1):** Connect the factory speaker wires (high-level signals) to these inputs. The LC2i PRO can handle up to 40V input.
2. **Power Connector (3):** Connect the +12V (constant power), Rmt In (remote turn-on input), Rmt Out (remote turn-on output), and Ground wires. The LC2i PRO requires constant +12V power.
3. **Main Outputs (15):** These are the RCA outputs for your full-range amplifier.
4. **Bass Output (13):** This is the RCA output specifically for your subwoofer amplifier, controlled by the

ACR-1 remote.

5. **ACR-1 Level Control Input (2):** Connect the included ACR-1 remote to this port for remote bass level adjustment.



Figure 3: AudioControl ACR-1 Remote

3.2 Switches and Settings

- **Load Select Switch (5):** This switch allows for seamless integration with various factory amplifiers. Options include 20 Ω , 60 Ω , and 20 k Ω . Adjust this setting if you experience issues with the factory system detecting an aftermarket load.
- **Trigger Mode Switch (6):** Select how the LC2i PRO turns on. Options are:
 - **Rmt In:** Uses a 12V remote turn-on signal from the head unit.
 - **GTO (Great Turn-On):** Senses a DC offset on the speaker inputs to turn on.
 - **Audio:** Senses audio signal on the speaker inputs to turn on.
- **Ground Isolation Switch (7):** Use this to eliminate noise caused by ground loops. Options include GND (common ground), ISO (isolated ground), and 200 Ω (200 Ohm resistor in series with ground). Start with GND and switch if noise is present.

4. OPERATING INSTRUCTIONS

Once installed, the LC2i PRO requires proper adjustment to achieve optimal audio performance.

4.1 AccuBASS Adjustment

The AccuBASS circuit (8, 9, 10) is designed to restore bass that is often rolled off by factory audio systems at higher volumes.

- **AccuBASS Level Knob (8):** Adjusts the amount of bass restoration.
- **AccuBASS Threshold Knob (10):** Sets the volume level at which AccuBASS begins to activate.
- **AccuBASS Status LED (9):** Indicates when AccuBASS is active.

Adjust these controls while listening to music to find the desired bass response without distortion.

4.2 Output Level Adjustment

- **Main Output Level Knob (11):** Adjusts the output level for the full-range main outputs.

- **Bass Output Level Knob (12):** Adjusts the output level for the bass output. This works in conjunction with the ACR-1 remote (2).
- **Maximized LED (14):** This indicator illuminates when the output signal is approaching clipping. Adjust the input and output levels to ensure this LED only flashes briefly on peak notes, indicating a clean, maximized signal.

5. SPECIFICATIONS

Maximum Input Handling	40V / 400W (20 kΩ setting)
Output Level	9.5 Vrms
Output Gain	+/- 12 dB
Frequency Response	20 Hz to 50 kHz
Total Harmonic Distortion	0.01%
Signal to Noise	>110 dB
Input Impedance	Selectable (20 Ω, 60 Ω, 20 kΩ)
Output Impedance	150 Ω
Dimensions (with connectors)	6.9" L x 3" W x 1" H
Weight	Not specified

6. TROUBLESHOOTING

- **No Sound:** Check all power connections (+12V, Ground, Remote In/Out). Verify speaker level inputs are correctly connected. Ensure output RCA cables are securely connected to the amplifier. Check the Trigger Mode setting.
- **Distorted Sound:** Reduce input and output gain levels. Check the Maximized LED (14) and adjust levels so it only flashes on peaks. Ensure AccuBASS settings are not over-boosting.
- **Noise (Hiss, Whine):** Verify proper grounding. Experiment with the Ground Isolation Switch (7) settings (GND, ISO, 200Ω). Ensure RCA cables are not routed near power wires.
- **Unit Not Turning On:** Check +12V and Ground connections. Verify the Trigger Mode setting. If using 'Rmt In', ensure a 12V signal is present. If using 'GTO' or 'Audio', ensure the factory head unit is on and producing sound.

7. MAINTENANCE

The AudioControl LC2i PRO is designed for reliable operation with minimal maintenance. To ensure longevity:

- Keep the unit clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the unit to extreme temperatures or moisture.
- Ensure all connections remain secure over time.

8. WARRANTY AND SUPPORT

The AudioControl LC2i PRO comes with a 5-year warranty. For detailed warranty information, please visit the official AudioControl website or refer to the documentation included with your product.

For technical support or further assistance, please contact AudioControl customer service or visit their support portal.

9. PRODUCT VIDEO OVERVIEW

This video provides an overview of the AudioControl LC Pro Series Line Output Converters, highlighting key features and benefits that are also applicable to the LC2i PRO model.

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Video 1: Features of the AudioControl LC Pro Series Line Output Converters