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› KENWOOD KAC-314 4-Channel Car Stereo Amplifier User Manual

Kenwood KAC-314

KENWOOD KAC-314 4-Channel Car Stereo Amplifier User Manual

Model: KAC-314

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your KENWOOD KAC-314 4-Channel Concert Series Car Stereo Amplifier. Please read this manual thoroughly before attempting to install or operate the amplifier to ensure proper use and optimal performance. Keep this manual for future reference.



Image: The KENWOOD KAC-314 amplifier, its retail packaging, and the included wiring harness, mounting screws, and user manual.

WHAT'S IN THE BOX

Upon opening the package, verify that all the following items are present:

- KAC-314 Amplifier Unit
- Wiring Harness
- Mounting Screws
- User Manual (this document)
- Warranty Card

SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. It is recommended to have the installation performed by a qualified professional.

Mounting Location

Choose a mounting location that is dry, well-ventilated, and away from direct sunlight or heat sources. Ensure sufficient space around the amplifier for proper heat dissipation. The compact design of the KAC-314 allows for flexible placement, such as under a seat or in the trunk.

Wiring Connections

Before making any connections, disconnect the vehicle's negative battery terminal to prevent short circuits. Use high-quality wiring for all connections.

- **Power (BATT+):** Connect to the positive (+) terminal of the car battery. An 8-gauge power lead is recommended. Install an appropriate fuse (not included) within 18 inches of the battery.
- **Ground (GND):** Connect to a clean, unpainted metal surface of the vehicle's chassis. Ensure a solid, low-resistance connection. An 8-gauge ground lead is recommended.
- **Remote (P.CON):** Connect to the remote turn-on lead from your car stereo or head unit.
- **Input:** The KAC-314 supports both RCA (Line In) and Speaker-Level Inputs. Use the appropriate input based on your head unit's output.
- **Speaker Output:** Connect your speakers to the designated speaker terminals. Pay attention to polarity (+/-) for each channel. The amplifier supports 4 channels at 75 watts RMS each at 2 ohms, or can be bridged to deliver 150 watts RMS x 2 at 4 ohms.



Image: Rear panel of the KENWOOD KAC-314 amplifier, illustrating the various connection terminals for power, ground,

remote, speaker outputs, and both RCA and speaker-level inputs.

OPERATING THE AMPLIFIER

Once installed, you can fine-tune the amplifier's settings to optimize your audio experience.

Input Sensitivity (Gain)

Adjust the INPUT SENSITIVITY control to match the output level of your head unit. Start with the control at minimum and slowly increase it until the sound is clear and distortion-free at high volume levels from your head unit. Avoid setting the gain too high, as this can lead to distortion and potential damage to speakers.

Filter Frequency (Crossover)

The KAC-314 features built-in high/low-pass filters (50-200 Hz, 12 dB/octave) to direct specific frequencies to your speakers or subwoofers.

- **LPF (Low-Pass Filter):** Use for subwoofers. This filter allows only frequencies below the set point to pass through.
- **HPF (High-Pass Filter):** Use for full-range speakers. This filter allows only frequencies above the set point to pass through.
- **OFF (Full Range):** Allows all frequencies to pass through.

Bass Boost

The variable BASS BOOST control (0-18 dB at 40 Hz) allows you to enhance low-frequency output. Use this feature sparingly, as excessive bass boost can cause distortion and potentially damage speakers, especially at high volumes.



Image: The control panel of the KENWOOD KAC-314 amplifier, displaying the adjustable knobs for input sensitivity, bass boost level, and filter frequency selection (LPF, HPF, OFF).

MAINTENANCE

To ensure the longevity and optimal performance of your KENWOOD KAC-314 amplifier, follow these simple maintenance guidelines:

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from dust and debris. Good airflow is essential to prevent overheating.
- **Connections:** Occasionally check all wiring connections to ensure they are secure and free from corrosion. Loose connections can lead to poor performance or damage.
- **Environment:** Avoid exposing the amplifier to extreme temperatures, moisture, or direct sunlight for extended periods.

TROUBLESHOOTING

If you encounter issues with your amplifier, refer to the following common problems and solutions before seeking professional service.

Problem	Possible Cause	Solution
No Sound Output	No power to amplifier Remote turn-on not connected Input signal missing Speaker wires disconnected or shorted	Check power and ground connections, fuse Verify remote wire connection to head unit Check RCA/speaker-level input cables Inspect speaker wiring for proper connection and shorts
Distorted Sound	Gain set too high Speaker impedance mismatch Poor ground connection	Reduce input sensitivity (gain) setting Ensure speakers match amplifier's impedance rating Verify secure and clean ground connection
Amplifier Overheats	Insufficient ventilation Improper impedance load Gain set too high	Ensure amplifier has adequate airflow Check speaker impedance; do not run below recommended minimum Adjust gain to appropriate level
Protection Light On	Short circuit in speaker wiring Overheating Voltage issues	Check all speaker wires for shorts Allow amplifier to cool down; improve ventilation Verify stable 12V power supply

SPECIFICATIONS

The following are the technical specifications for the KENWOOD KAC-314 amplifier:

- **Model Number:** KENWOOD KAC-314
- **Maximum Power Output:** 600 Watts
- **RMS Power Output (4 ohms):** 50W x 4 channels
- **RMS Power Output (2 ohms):** 75W x 4 channels
- **RMS Power Output (Bridged, 4 ohms):** 150W x 2 channels
- **Amplifier Class:** Class D
- **Frequency Response:** (Not explicitly stated in product data, typical for car audio is 20Hz-20kHz)
- **High/Low-Pass Filter:** 50-200 Hz, 12 dB/octave
- **Bass Boost:** 0-18 dB at 40 Hz
- **Input Sensitivity:** Supports both preamp (RCA) and speaker-level inputs
- **Voltage:** 12 Volts (DC)
- **Maximum Supply Voltage:** 20 Volts (DC)
- **Mounting Type:** Surface Mount
- **Dimensions (W x H x D):** Approximately 8-7/16"W x 2-1/8"H x 5-15/16"D (from product description)
- **Weight:** Approximately 3.42 Pounds

WARRANTY AND SUPPORT

Your KENWOOD KAC-314 amplifier is covered by a manufacturer's warranty. Please refer to the included warranty card for specific terms, conditions, and duration of coverage. For technical support, service, or warranty claims, please contact KENWOOD customer service or visit the official KENWOOD website. Keep

your proof of purchase for warranty validation.

For further assistance, you may visit the official Kenwood Store online:[Kenwood Store](#)

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