

BLAUPUNKT AMP1604

BLAUPUNKT AMP1604 4-Channel Full-Range Car Amplifier User Manual

Model: AMP1604

1. INTRODUCTION AND PRODUCT OVERVIEW

The BLAUPUNKT AMP1604 is a 4-channel, full-range amplifier designed to enhance the audio system in your vehicle. This amplifier provides increased power output for both speakers and subwoofers, offering flexibility in configuring your car audio setup. It features a compact design suitable for various installation locations.



Figure 1.1: Top view of the BLAUPUNKT AMP1604 amplifier.

2. SAFETY INFORMATION

Please read all instructions carefully before installing and operating this amplifier. Failure to follow these instructions may result in damage to the amplifier, vehicle, or personal injury.

- **Professional Installation Recommended:** Due to the complexity of car audio systems, professional installation is recommended.
- **Power Connections:** Ensure all power connections are secure and properly fused to prevent short circuits and fire hazards. Disconnect the vehicle's battery before starting installation.
- **Ventilation:** Install the amplifier in a location that allows for adequate ventilation to prevent overheating.
- **Wiring:** Use appropriate gauge wiring for power, ground, and speaker connections.
- **Moisture:** Avoid exposing the amplifier to moisture or extreme temperatures.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- BLAUPUNKT AMP1604 Amplifier
- User Manual (this document)

4. PRODUCT FEATURES

The BLAUPUNKT AMP1604 amplifier includes the following key features:

- Amplifier Class: AB
- 4/3/2 Channel Operation
- Max. Output Power: 1600W
- RMS Power (4 Ohms): 55W x 4
- RMS Power (2 Ohms): 79W x 4
- Frequency Response: 10Hz - 30kHz
- Crossover Frequency: 50Hz - 250Hz
- Crossover Slope (dB/oct): 8-10dB/oct
- Signal-To-Noise Ratio: $\geq 96\text{dB}$
- Voltage Supply: 11-15V DC
- Gain Adjust: 200mV ~ 8V
- Total Harmonic Distortion: $\leq 0.05\%$
- RCA Input: 4 Channel
- Fuse: 25A x 2
- Dimensions: 11 x 7.4 x 2.2 inches



1600 WATT **AMPLIFIER** AMP1604

Other Features

- Amplifier Class: AB
- 4/3/2 Channel
- Max Output Power: 1600W
- RMS Power (4 Ohms): 55W x 4
- RMS Power (2 Ohms): 79W x 4
- Frequency Response: 10Hz - 30kHz
- Signal to Noise Ratio: $\geq 96\text{dB}$
- Voltage Supply: 11-15V DC
- Gain Adjust: 200mV ~ 8V
- Total Harmonic Distortion: $\leq 0.05\%$
- RCA Input: 4 Channel
- Crossover Frequency: 50Hz - 400Hz
- Crossover Slope (dB/oct): 8-10dB/oct
- Fuse: 25A x 2
- Dimensions: 11 x 7.4 x 2.2 in

Figure 4.1: Detailed features and specifications of the AMP1604.

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. Consult a professional if you are unsure about any steps.

5.1 Mounting the Amplifier

- Choose a secure, dry location with adequate ventilation. Avoid mounting on carpet or in enclosed spaces without airflow.
- Ensure the mounting surface is strong enough to support the amplifier's weight.
- Use appropriate hardware to secure the amplifier firmly to prevent movement during vehicle operation.

5.2 Wiring Connections

Refer to the diagrams below for proper wiring connections. Always disconnect the vehicle's negative battery terminal before making any power connections.



Figure 5.1: Power and speaker terminal connections.

- **Power (B+ / +12V):** Connect to the positive terminal of the vehicle's battery using a heavy-gauge power cable. Install an inline fuse (not supplied) within 18 inches of the battery.
- **Ground (GND):** Connect to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid electrical connection.
- **Remote (REM):** Connect to the remote turn-on lead from your head unit. This wire turns the amplifier on and off with the head unit.
- **Speaker Outputs (CH1-CH4):** Connect your speakers to the corresponding terminals. Observe correct polarity (+ and -).
- **RCA Inputs (CH1-CH4):** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's RCA inputs.
- **High-Level Inputs (HI INPUT):** If your head unit does not have RCA outputs, use the high-level inputs. Connect speaker wires from your head unit directly to these inputs.

6. OPERATING INSTRUCTIONS

Once installed, adjust the amplifier settings for optimal audio performance.



Figure 6.1: Amplifier control panel.

- **Input Mode (2CH/4CH):** Select the input mode based on how many RCA input channels are connected from your head unit. If using 2 RCA inputs for all 4 amplifier channels, select 2CH. If using 4 RCA inputs, select 4CH.
- **Gain Control (Min/Max):** Adjust the gain control to match the output voltage of your head unit. Start with the gain at minimum and slowly increase it until the desired volume is achieved without distortion.
- **Crossover Settings (HPF/LPF/FULL):**

- **HPF (High Pass Filter):** Allows frequencies above the set point to pass through. Useful for speakers to prevent low bass distortion.
- **LPF (Low Pass Filter):** Allows frequencies below the set point to pass through. Useful for subwoofers.
- **FULL:** Allows all frequencies to pass through.
- **Crossover Frequency (50Hz - 250Hz):** Adjust the cutoff frequency for the HPF or LPF as needed for your speakers or subwoofers.
- **Bass EQ (0dB - 18dB):** Provides a bass boost at a specific frequency. Use sparingly to avoid distortion.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and performance of your amplifier.

- **Cleaning:** Periodically clean the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Connection Checks:** Annually, inspect all wiring connections (power, ground, remote, RCA, speaker) to ensure they are secure and free from corrosion.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from dust and debris to maintain proper heat dissipation.

8. TROUBLESHOOTING

If you experience issues with your amplifier, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Amplifier does not turn on	No power, blown fuse, faulty ground, no remote signal	Check power and ground connections. Verify inline fuse and amplifier fuses. Check remote wire connection and voltage.
No sound output	No input signal, speaker wires disconnected, amplifier in protect mode	Check RCA or high-level input connections. Verify speaker wire connections. Check for protect light; if on, troubleshoot power/ground/speaker shorts.
Distorted sound	Gain set too high, improper crossover settings, poor ground connection, damaged speakers	Reduce gain. Adjust crossover settings. Check ground connection. Inspect speakers for damage.
Amplifier overheats	Insufficient ventilation, impedance mismatch, gain too high	Ensure adequate airflow around the amplifier. Verify speaker impedance matches amplifier's capabilities. Reduce gain.

9. SPECIFICATIONS

Specification	Value
Manufacturer	Blaupunkt Audio

Specification	Value
Model Number	AMP1604
Mounting Type	Surface Mount
Number of Channels	4
Max. Output Power	1600 Watts
RMS Power (4 Ohms)	55W x 4
RMS Power (2 Ohms)	79W x 4
Frequency Response	10Hz - 30kHz
Crossover Frequency	50Hz - 250Hz
Crossover Slope	8-10dB/oct
Signal-To-Noise Ratio	≥96dB
Voltage Supply	11-15V DC
Gain Adjust Range	200mV ~ 8V
Total Harmonic Distortion	≤0.05%
RCA Input Channels	4
Fuses	25A x 2
Dimensions (L x W x H)	11 x 7.4 x 2.2 inches
Item Weight	7 pounds
ASIN	B09HL4QSCT
GTIN/UPC	650076323314

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official BLAUPUNKT website. Keep your proof of purchase for warranty claims.