

## PIONEER GM-A6704

# Pioneer GM-A6704 4-Channel Car Amplifier Instruction Manual

MODEL: GM-A6704

## 1. Introduction

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This manual provides detailed instructions for the installation, operation, and maintenance of your Pioneer GM-A6704 4-Channel Car Amplifier. Designed to enhance your in-car audio experience, this amplifier delivers dynamic and impactful sound with its 1,000 watts maximum power output and Class A/B design. Please read this manual thoroughly before installation and use to ensure proper function and safety.



- Owner's Manual
- Warranty Card
- Installation Screws
- High-Level Input Wire Harness

*Video 1: Unboxing and contents of a similar Pioneer GM-A series amplifier (GM-A4704). This video demonstrates the typical items included in the package, such as the amplifier, owner's manual, warranty card, installation screws, and high-level input harness.*

## 4. Key Features

The Pioneer GM-A6704 amplifier offers several features designed for optimal audio performance:

- **4-Channel Class A/B Amplifier:** Provides clear sound and flexible speaker configurations, including the option to add a subwoofer.
- **Maximum Power Output:** Delivers 1,000 watts of max power, with 60 watts RMS x 4 at 4 ohms (190 watts RMS x 2 in bridged mode).
- **Efficient Class A/B Design:** Balances efficiency and performance, ensuring optimal power usage without excessive heat.
- **Low Distortion:** Minimizes crossover distortion for clean, high-quality audio output.
- **Tone Control:** Features variable high-pass (HPF) and low-pass (LPF) filters to tailor sound frequencies based on music genre and listening preferences.
- **Automatic Signal Sensing:** Automatically turns on the amplifier when the receiver is activated and selects the proper input signal mode.



The image is a promotional graphic for the Pioneer GM-A6704 amplifier. It features the Pioneer logo in the top left corner. Below the logo, the text reads "Hear every note, feel every beat." followed by "4-Channel - Class B, 1000 W Max Power Bridgeable Amplifier". On the right side, there is a 3D rendering of the black amplifier with red accents on the front panel. Below the main text and image, there is a section titled "AT A GLANCE" which contains three white rounded rectangular boxes. The first box says "1000 Watts Max Power", the second says "Adjustable Bass Boost", and the third says "Variable HPF (High Pass Filter)".

*Figure 2: Overview of the Pioneer GM-A6704 amplifier's capabilities, emphasizing its 4-channel, 1000W Max power, and bridgeable design.*

## 5. Setup and Installation

Follow these steps for proper installation of your amplifier:

### 5.1. Mounting the Amplifier

Choose a mounting location that provides adequate ventilation and is protected from moisture. Secure the amplifier using the provided mounting screws. Ensure the location allows for easy access to wiring connections and adjustments.

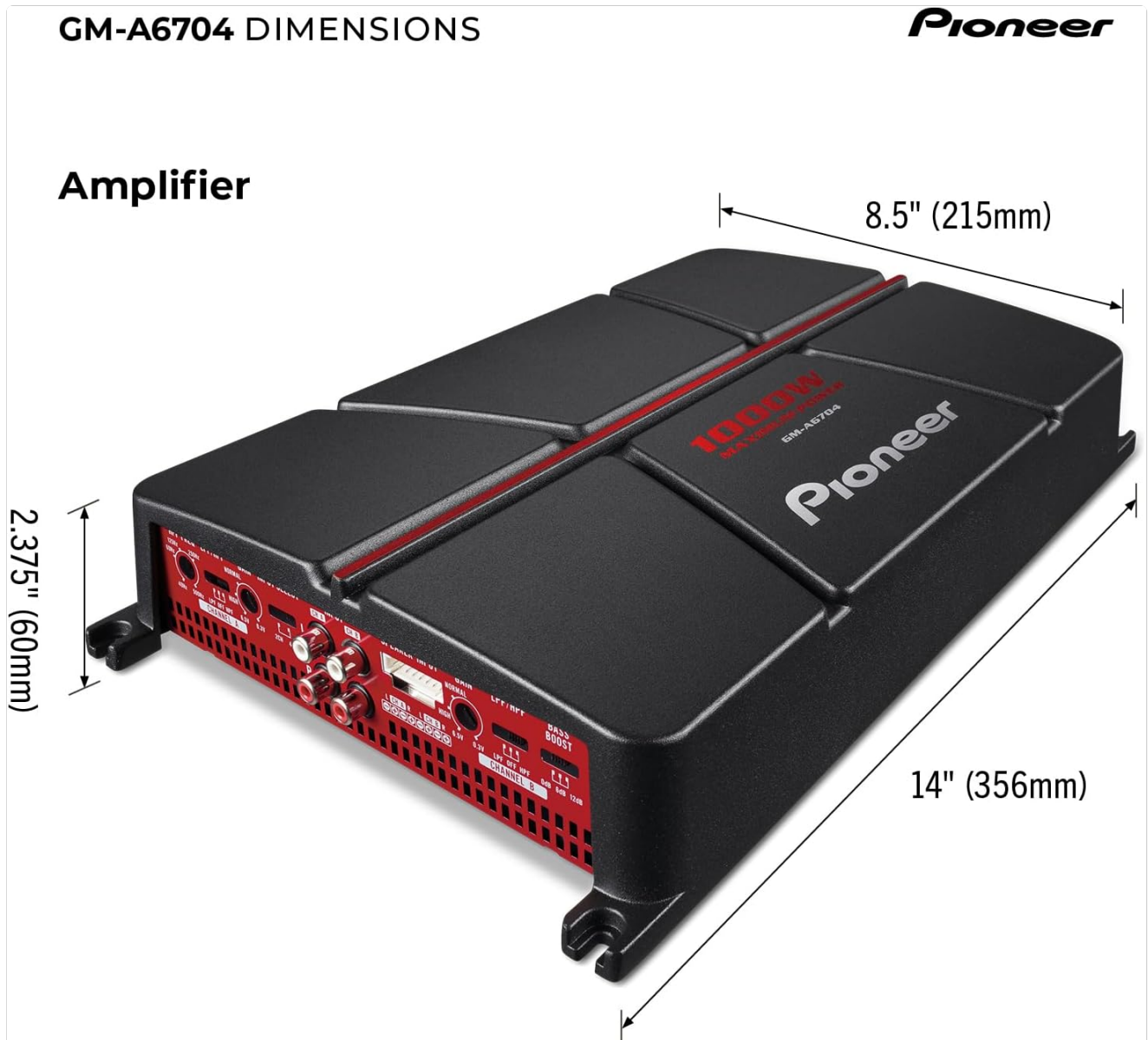


Figure 3: Dimensions of the Pioneer GM-A6704 amplifier. The amplifier measures 8.5 x 14 x 2.38 inches (215 x 356 x 60 mm), aiding in selecting an appropriate mounting location.

### 5.2. Wiring Connections

Ensure the vehicle's battery is disconnected before making any electrical connections.

- **Power (BATT):** Connect a suitable gauge power cable (e.g., 4-gauge) from the amplifier's 'BATT' terminal to the positive (+) terminal of the car battery. Install an in-line fuse (not supplied) within 18 inches of the battery.
- **Ground (GND):** Connect a short, heavy gauge ground cable from the amplifier's 'GND' terminal to a clean, unpainted metal surface on the vehicle's chassis. Ensure a good electrical connection.
- **Remote (REM):** Connect a remote turn-on wire from your head unit's remote output to the amplifier's 'REM' terminal. This turns the amplifier on and off with your head unit.
- **Speaker Outputs:** Connect your speakers to the 'SPEAKER OUTPUT' terminals. The GM-A6704 supports 4-

channel stereo operation or 2-channel/3-channel bridged operation. Refer to the wiring diagrams in the full owner's manual for specific configurations.

### 5.3. Input Connections

The amplifier supports both RCA (low-level) and speaker (high-level) inputs.

- **RCA Inputs:** If your head unit has RCA pre-outs, connect them to the amplifier's 'INPUT' RCA jacks (Channel A and Channel B).
- **Speaker Level Inputs:** If your head unit does not have RCA pre-outs, use the supplied high-level input wire harness. Connect the speaker wires from your head unit to the harness, then plug the harness into the 'SPEAKER INPUT' port on the amplifier.

## 6. Operating the Amplifier

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Once installed, adjust the amplifier settings for optimal sound quality.

### 6.1. Gain Control

The 'GAIN' controls (for Channel A and Channel B) match the output level of your head unit to the amplifier. Start with the gain set to minimum, then slowly increase it until you hear distortion, then back off slightly. This is crucial for preventing distortion and maximizing sound quality.

### 6.2. Crossover Settings (LPF/HPF)

The GM-A6704 features variable high-pass (HPF) and low-pass (LPF) filters for precise sound tuning.

- **HPF (High-Pass Filter):** Allows frequencies above the set point to pass through, typically used for full-range speakers to prevent them from playing low bass notes.
- **LPF (Low-Pass Filter):** Allows frequencies below the set point to pass through, typically used for subwoofers.
- Adjust the 'LPF/HPF' switch and 'FREQ' knob (for Channel A and Channel B) to suit your speakers and listening preferences.

# Tailor your audio experience.

High-and low-pass filters adjust the sound for enhanced audio and finely tuned bass.



**Pioneer**

**GM-A6704**

Figure 4: The amplifier's tone control features, including high-pass and low-pass filters, allow for tailoring the audio experience.

## 6.3. Bass Boost

The 'BASS BOOST' control allows you to enhance low frequencies. Adjust this setting carefully to avoid over-driving your speakers or subwoofer and causing distortion.



## Adjustable audio power.

This amplifier enhances sound balance with **adjustable bass boost** from 0 to 12 dB, available in 0 dB, 6 dB, or 12 dB levels, to match your listening preference and music style.

Figure 5: The amplifier features adjustable bass boost from 0 to 12 dB, allowing users to customize sound balance.

### 6.4. Input Select (2CH/4CH)

Use the 'INPUT SELECT' switch to choose between 2-channel or 4-channel input mode, depending on how your head unit is connected.

### 6.5. Bridged Mode

For increased power output to a single speaker (e.g., a subwoofer), the amplifier can be operated in bridged mode. This combines two channels into one. Refer to the wiring diagrams in the full owner's manual for specific instructions on bridging channels.

## 7. Maintenance

Regular maintenance ensures the longevity and optimal performance of your amplifier:

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's ventilation fins are free from dust and debris. Blocked vents can lead to overheating.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion. Loose connections can cause performance issues or damage.
- **Fuse Replacement:** If a fuse blows, replace it only with a fuse of the exact same type and amperage rating.

## 8. Troubleshooting

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

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No Power	Blown fuse, loose power/ground/remote wire, faulty battery connection.	Check and replace fuse, verify all power, ground, and remote connections are secure. Ensure battery terminals are clean.
No Sound	No input signal, speaker wires disconnected, gain set too low, head unit not on.	Check RCA/speaker input connections, verify speaker wiring, adjust gain, ensure head unit is powered on and playing audio.
Distorted Sound	Gain set too high, incorrect crossover settings, faulty speakers, poor input signal.	Lower gain, adjust LPF/HPF settings, check speaker condition, ensure clean input signal from head unit.
Amplifier Overheats	Insufficient ventilation, impedance too low, prolonged high-volume use.	Ensure proper airflow around the amplifier, verify speaker impedance matches amplifier's capabilities, reduce volume or allow cooling time.

For further assistance, refer to the complete owner's manual or contact Pioneer customer support.

## 9. Specifications

Detailed technical specifications for the Pioneer GM-A6704 amplifier:

Specification	Value
Brand	PIONEER
Model Number	GM-A6704
Number of Channels	4
Output Power (Max)	1000 Watts
RMS Power (4 Ohms)	60W x 4
RMS Power (Bridged 4 Ohms)	190W x 2
Amplifier Class	Class A/B
Item Dimensions (L x W x H)	8.5 x 14 x 2.38 inches
Item Weight	4.9 pounds
Voltage	12 Volts
Maximum Supply Voltage	26 Volts (DC)
Supply Current	5 Amps
Connectivity Technologies	RCA
Mounting Type	Surface Mount
UPC	884938340267

## 10. Warranty and Support

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Your Pioneer GM-A6704 amplifier comes with a limited warranty. Please refer to the included Warranty Card for specific terms, conditions, and registration information. For technical support, service, or additional product information, please visit the official Pioneer website or contact their customer service department.

**Online Resources:** For the most up-to-date information, FAQs, and additional support documents, please visit the [Pioneer Brand Store](#).