KGUSS B100

KGUSS Topping B100 Mono Pure Power Amplifier Instruction Manual

Model: B100

1. INTRODUCTION

Thank you for purchasing the KGUSS Topping B100 Mono Pure Power Amplifier. This manual provides essential information for the proper setup, operation, and maintenance of your device. Please read it thoroughly before use to ensure optimal performance and safety.
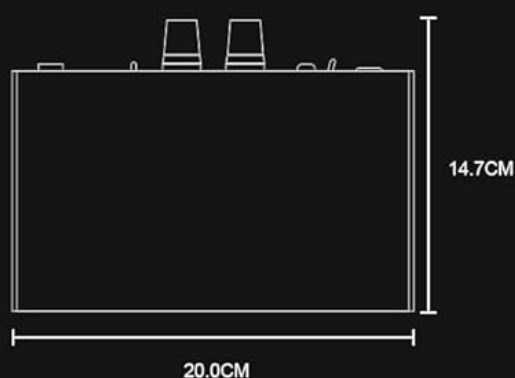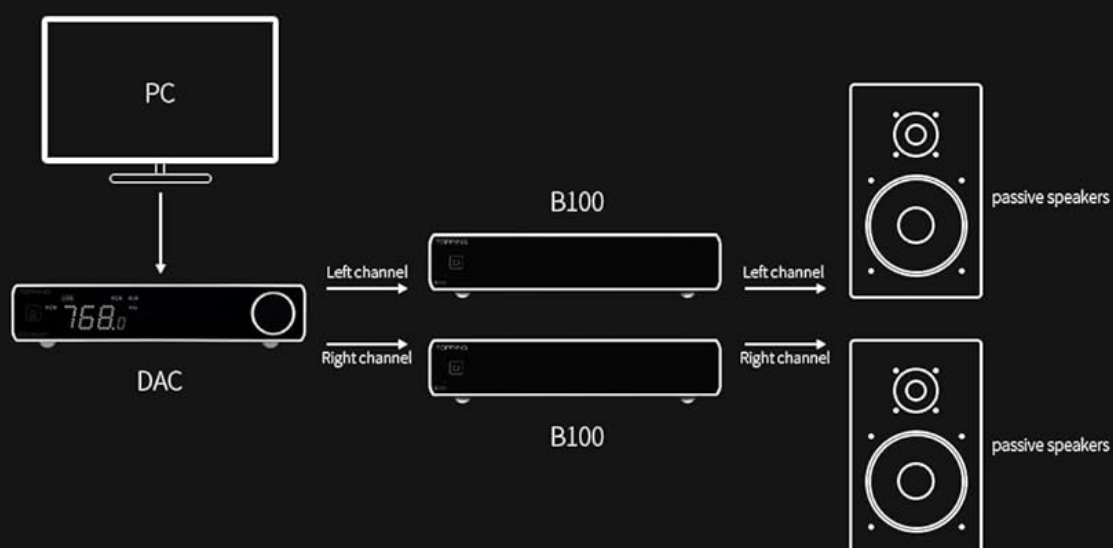
2. SAFETY INFORMATION

- Do not expose this device to rain or moisture.
- Do not disassemble the unit. Refer all servicing to qualified personnel.
- Ensure proper ventilation to prevent overheating.
- Use only the provided power adapter and cable.
- Keep the device away from heat sources, direct sunlight, and strong magnetic fields.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- TOPPING B100 Mono Power Amplifier
- AC to DC Power Adapter
- AC Cable
- Product Information Card

When building a stereo system, two B100s are required to drive two passive speakers respectively.

PC

B100

DAC

768.0

Left channel

Right channel

Left channel

Right channel

B100

passive speakers

passive speakers

14.7CM

20.0CM

TOPPING

B100

4.4CM

20.0CM

Contents list

B100

AC to DC power adapter

AC cable

Product Information Card

Image: Diagram showing a stereo setup with two B100 units and a list of included accessories.

4. PRODUCT OVERVIEW

4.1 Front Panel

Image: Diagram of the B100 front panel with labeled components.

1. **Power Indicator:** Shows the power status.
2. **Power Switch:** Touch to turn on the unit; touch and hold to enter standby state.
3. **Balanced Combo Input (XLR + 6.35mm TRS):** Input for balanced audio sources.
4. **Input Switch:** Selects between balanced and single-ended inputs.
5. **Single-Ended Input (RCA):** Input for single-ended audio sources.
6. **+ Speaker Output (4mm jack):** Positive terminal for speaker connection.
7. **- Speaker Output (4mm jack):** Negative terminal for speaker connection.
8. **Gain Setting (H/M/L):** Adjusts the amplifier's gain level.
9. **Firmware Upgrade Interface:** USB-C port for firmware updates only.
10. **12V Trigger In (3.5mm jack):** For synchronized power on/off with other devices.
11. **Power Input (DC38V):** Connects to the power adapter.

4.2 Rear Panel

5. SETUP

5.1 Connecting to Power

It is recommended to first connect the power adapter to the unit's power port, and then turn on the power. Use the provided AC to DC power adapter and AC cable.
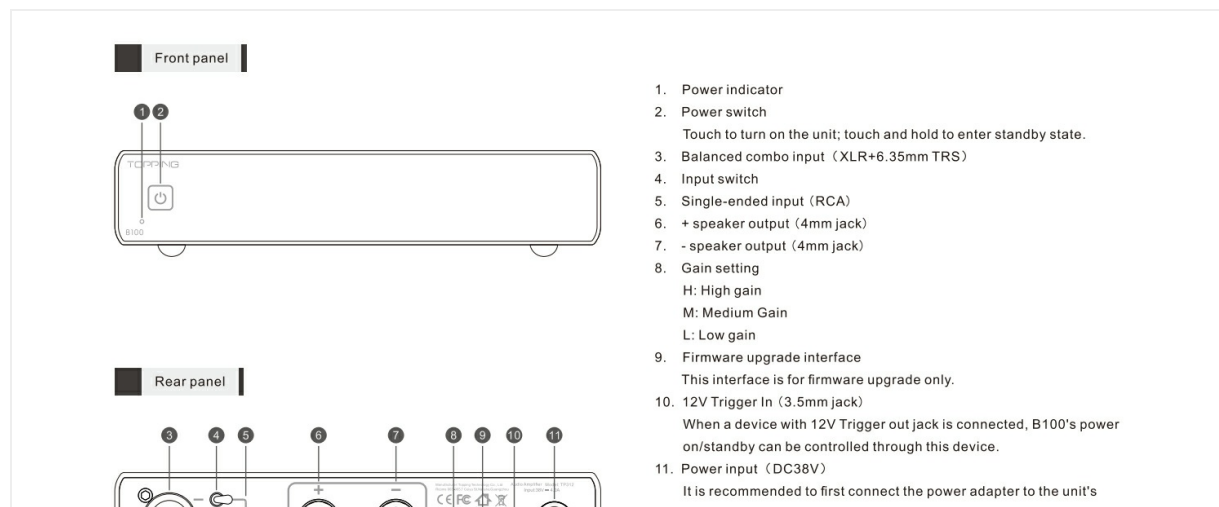
5.2 Connecting Input Sources

The B100 supports both balanced (XLR/TRS) and single-ended (RCA) inputs.

- Connect your audio source (e.g., DAC, preamp) to the **BAL** (XLR/TRS combo) or **SE** (RCA) input ports on the rear panel.
- Use the **Input Switch** on the front panel to select the corresponding input.

5.3 Connecting Speakers

The B100 features speaker terminals compatible with banana plugs, bare wire, or Y-insertion.

- **Banana Plugs:** Insert the banana plug into the end of the corresponding terminal.
- **Bare Wire/Y-insertion:** Unscrew the crystal case counter-clockwise. Insert stripped metal speaker wires into the round holes or Y-terminals around the periphery of the posts. Do not let bare speaker wires touch each other or the case of this unit. Finally, tighten the crystal case.
- Ensure correct polarity (+ to + and - to -) for each speaker.

Image: Detailed diagram showing how to connect input sources and speakers to the B100 amplifier.

5.4 12V Trigger Connection

The B100 is equipped with a 12V Trigger input interface, allowing for linked power on/off with other devices. Connect a 3.5mm trigger cable from a compatible device to the **12V Trigger In** port on the B100's rear panel. This enables simultaneous turn on or off of all devices that support this feature.

5.5 Stereo System Setup

When building a stereo system, two B100 units are required to drive two passive speakers respectively. Each B100 will handle one channel (left or right) from your DAC/preamp.

6. OPERATING

6.1 Power On/Off/Standby

Touch the **Power Switch** on the front panel to turn the unit on. Touch and hold the **Power Switch** to enter standby mode.

6.2 Input Selection

Use the **Input Switch** on the front panel to toggle between the balanced (BAL) and single-ended (SE) inputs.

6.3 Gain Adjustment

The B100 provides three gain adjustments: **H** (High), **M** (Medium), and **L** (Low). Select the appropriate gain level based on your speakers' sensitivity and listening preferences.

6.4 Volume Control

The B100 is a pure power amplifier and does not feature its own volume control. Volume adjustment should be managed by your connected preamplifier or DAC with preamp functionality.

7. MAINTENANCE

- Clean the unit with a soft, dry cloth. Do not use liquid cleaners or aerosols.
- Avoid blocking the ventilation slots to ensure proper heat dissipation.
- Disconnect the power adapter if the unit will not be used for an extended period.

8. TROUBLESHOOTING

If you encounter any issues with your B100 amplifier, please refer to the table below or watch the troubleshooting video for guidance.

Phenomenon	Solution
Can't be turned on	Check the power adapter. Only connect the power adapter to a power outlet, not to the unit. If the LED on the adapter blinks or does not light up, the adapter is defective. Check the power connection.
No sound	The device did not power on. Check LED and the power connection. Check that the proper input source is selected in the rear panel. Check the connections for all devices. Insert connection cables all the way in. Check the volume of all devices.
Abnormal sound	One channel's positive output and negative output may be reversed, please check and correct it. The cables may not be connected correctly, check and reconnect them. Probably overloaded. Try turning down the volume of the source or turning down the gain on the B100. Check to see if the problem is with the source, downstream equipment and cables.
Fault code A=2, B=2 or A=2, B=3	Firmware is abnormal. Unplug the power cable and plug in the USB-C to the FW port and plug in the USB-C to the FW port to the unit.
Fault code A=1, B=1 or A=1, B=2	Negative and positive voltage abnormal. Check the power adapter. Only connect the power adapter to a power outlet, not to the unit. If the LED on the adapter blinks or does not light up, the adapter is defective. Check the power connection. If the problem still persists after disconnecting the other devices and restarting it, the unit may be defective. Please contact the store where you purchased it.
Fault code A=1, B=3	Amplifier circuit outputs abnormal DC voltage. After changing the song, turning down the source volume and turning down the gain of the unit, unplug and re-plug the power cable and reboot the unit. If the problem still persists after disconnecting the other devices and restarting it, the unit may be defective. Please contact the store where you purchased it.
Fault code A=1, B=4	The protection circuit has been activated due to a rise in temperature within this unit. Reboot B100 after the unit cools down. Please put the unit in a place having good ventilation.
Fault code A=1, B=5	Too low load impedance or short-circuit load. Check if the output is short-circuited, the load impedance is too low or the load is short-circuited.
The usage of the USB port	For firmware upgrade only.

8.1 Troubleshooting Video

Your browser does not support the video tag.

Video: A short troubleshooting guide for common issues with the TOPPING B100 amplifier, provided by HIFI College.

9. SPECIFICATIONS

The following table details the technical specifications of the KGUSS Topping B100 Mono Pure Power Amplifier:

Spec

B100 Power Amplifier specifications		
Input	BAL	SE
THD+N @1kHz（A-wt）	<0.00008% @4Ω 5W	<0.00008% @4Ω 5W
	<0.00008% @8Ω 5W	<0.00008% @8Ω 5W
THD @20-20kHz（90kBW）	<0.00007% @4Ω 5W	<0.00007% @4Ω 5W
	<0.00007% @8Ω 5W	<0.00007% @8Ω 5W
SNR（A-wt）	151dB	149dB
Dynamic Range @1kHz（A-wt）	151dB	149dB
Frequency Response	20Hz-40kHz（±0.1dB）	20Hz-40kHz（±0.1dB）
	10Hz-100kHz（±0.5dB）	10Hz-100kHz（±0.5dB）
Output Level	56Vpp @4Ω	56Vpp @4Ω
	66Vpp @8Ω	66Vpp @8Ω
AP measured noise level （A-wt）	<0.7uVrms @G=L	<0.9uVrms @G=L
	<1.2uVrms @G=M	<2.3uVrms @G=M
	<2.6uVrms @G=H	<6.2uVrms @G=H
Actual noise level* （A-wt）	<0.3uVrms @G=L	<0.7uVrms @G=L
	<1.0uVrms @G=M	<2.2uVrms @G=M
	<2.4uVrms @G=H	<6.2uVrms @G=H
Input sensitivity	26.6Vrms @G=L	13.3Vrms @G=L
	8.6Vrms @G=M	4.3Vrms @G=M
	3.0Vrms @G=H	1.5Vrms @G=H
Gain	0dB @G=L	6dB @G=L
	10.4dB @G=M	16.4dB @G=M
	19.9dB @G=H	25.9dB @G=H
Output Impedance	<5mΩ	<5mΩ
Input Impedance	20KΩ	5KΩ
Output Power	100W @4Ω THD+N<1%	100W @4Ω THD+N<1%
	83W @8Ω THD+N<10%	83W @8Ω THD+N<10%
	70W @8Ω THD+N<1%	70W @8Ω THD+N<1%
Load Impedance	≥4Ω	≥4Ω

*Note:The actual noise level is obtained by boosting the noise of B100 by 40dB using a low noise amplifier in front of the APx555B then dividing the measured noise by 100 times.

Image: Detailed table outlining the electrical and performance specifications of the B100 amplifier.

Specification	Value
Product Dimensions	7.87 x 5.79 x 1.73 inches
Item Weight	4.4 pounds
Item Model Number	TOPPING B100
Manufacturer	TOPPING
THD+N @1kHz (A-wt)	<0.00008% @4Ω 5W (BAL), <0.00008% @8Ω 5W (SE)
SNR (A-wt)	151dB (BAL), 149dB (SE)
Dynamic Range @1kHz (A-wt)	151dB (BAL), 149dB (SE)
Output Power	100W @4Ω THD+N<1% (BAL), 100W @4Ω THD+N<1% (SE)
Load Impedance	≥4Ω

10. WARRANTY AND SUPPORT

KGUSS is committed to customer satisfaction. Your TOPPING B100 amplifier comes with:

- A 30-day money-back guarantee for any reason.
- More than 1 year quality restoration, covering repair and shipping costs for quality defects.
- 30-day price matching.

For any questions or support, please contact HIFI College, the authorized retailer, who is ready to answer any questions 24/7.