

Pure Resonance Audio RMA120BT

Pure Resonance Audio RMA120BT 120 Watt 5-Channel Mixer Amplifier User Manual

Model: RMA120BT

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Pure Resonance Audio RMA120BT 120 Watt 5-Channel Rack Mount Commercial Mixer Amplifier. The RMA120BT is designed for commercial audio applications, offering 120 watts of Class D power, versatile input options, and multimedia connectivity including Bluetooth, USB, and TF card playback. Please read this manual thoroughly before operating the unit to ensure proper use and to maximize its performance and longevity.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

PACKAGE CONTENTS

Upon unpacking, please ensure all items listed below are present and in good condition:

- Pure Resonance Audio RMA120BT Mixer Amplifier
- Power Cable
- Remote Control
- User Manual (this document)



Figure 1: The Pure Resonance Audio RMA120BT mixer amplifier, its remote control, and the power cable.

PRODUCT OVERVIEW

Front Panel



Figure 2: Front Panel Controls and Indicators.

1. **Media Player Display:** Shows status for Bluetooth, USB, TF card, and FM radio.
2. **Media Player Controls:** Buttons for mode selection, play/pause, track skip, and volume for the integrated media player.
3. **USB Input:** For connecting USB storage devices.
4. **TF Card Slot:** For inserting TF (MicroSD) cards.
5. **MIC 1 Input (6.35mm Jack):** Microphone input with priority function.
6. **MIC 1-4/AUX 1-2 Volume Controls:** Individual rotary controls for adjusting the volume of each input channel.
7. **Bass/Treble Controls:** Tone adjustment for the master output.
8. **Master Volume Control:** Overall volume adjustment for all outputs.

9. **Output Indicators:** LEDs for power (PWR), signal (SIG), and clip (CLIP).
10. **Power Switch:** Turns the amplifier on or off.

Rear Panel



Figure 3: Rear Panel Connections.

1. **AC Power Input:** Connects to the included power cable.
2. **Speaker Outputs (70V / 4-16Ω):** Terminal block for connecting speakers. Select between 70V constant voltage or 4-16 ohm low impedance output.
3. **AUX Outputs (RCA):** Line-level audio output.
4. **AUX Inputs (RCA):** Line-level audio inputs for external devices.
5. **MIC 2-4 Inputs (Euroblock):** Balanced microphone/line inputs.
6. **Phantom Power Switch:** Activates +48V phantom power for condenser microphones on MIC 2-4.
7. **EMC Input (Euroblock):** Emergency input for priority announcements.
8. **MUTE Terminal:** For external mute control.

Remote Control



Figure 4: Remote Control Layout.

The included remote control allows for convenient operation of the media player functions, including power, mode selection, volume adjustment, track navigation, and EQ settings.

SETUP

Rack Mounting

The RMA120BT is designed for standard 19-inch rack mounting and occupies 1U of rack space. Ensure adequate ventilation around the unit when installing in a rack to prevent overheating. Use appropriate rack screws (not included) to secure the amplifier.

Speaker Connections

The amplifier supports both 70V constant voltage and 4-16 ohm low impedance speaker systems. **It is crucial to select the correct output type and connect speakers accordingly. Incorrect wiring can damage the amplifier and speakers.**

- **70V Systems:** Connect 70V transformer-equipped speakers to the "70V" and "COM" terminals. Ensure the total wattage of all connected speakers does not exceed the amplifier's 120W output.
- **Low Impedance Systems (4-16Ω):** Connect standard low impedance speakers to the "4-16Ω" and "COM" terminals. Ensure the total impedance of connected speakers is within the 4-16 ohm range.

Use appropriate gauge speaker wire for your installation. Refer to the rear panel diagram (Figure 3) for terminal locations.

Input Connections

- **Microphones:**
 - **MIC 1 (Front Panel):** Connect a dynamic microphone using a 6.35mm (1/4-inch) TS or TRS cable. This input has priority over other inputs.
 - **MIC 2-4 (Rear Panel):** Connect balanced microphones or line-level sources using Euroblock connectors. For condenser microphones, activate the +48V phantom power switch on the rear panel.
- **Auxiliary Audio Sources:**
 - **AUX 1-2 (Rear Panel):** Connect line-level audio devices (e.g., CD players, media players) using RCA cables.
- **Emergency Input (EMC):** Connect an emergency paging system or alarm trigger to the EMC Euroblock terminal. This input will override all other audio when activated.

Power Connection

After all audio and speaker connections are made, connect the supplied AC power cable to the AC power input on the rear panel and then to a suitable power outlet.

OPERATING INSTRUCTIONS

Power On/Off

Press the Power Switch on the front panel to turn the amplifier on or off. The PWR indicator will illuminate when the unit is powered on.

Input Selection and Volume Control

- **Microphone Inputs:** Adjust the individual volume knobs for MIC 1, MIC 2, MIC 3, and MIC 4 on the front panel to control microphone levels.
- **Auxiliary Inputs:** Adjust the individual volume knobs for AUX 1 and AUX 2 on the front panel to control line-level input levels.
- **Media Player:** Use the media player controls or the remote control to select the desired mode (Bluetooth, USB, TF, FM) and adjust its volume.
- **Master Volume:** Use the Master Volume knob to control the overall output level of the amplifier.
- **Tone Controls:** Use the Bass and Treble knobs to adjust the low and high frequencies of the master output.

Bluetooth Pairing

1. Press the "MODE" button on the front panel or remote control until "Bluetooth" is displayed.
2. On your Bluetooth-enabled device (e.g., smartphone, tablet), search for available Bluetooth devices.

3. Select "RMA120BT" from the list to pair. Once paired, the display will indicate a successful connection.
4. You can now stream audio wirelessly from your device to the amplifier.

USB/TF Card Playback

1. Insert a USB drive into the USB port or a TF card into the TF card slot on the front panel.
2. The amplifier will automatically switch to USB/TF mode and begin playing compatible audio files. If not, press the "MODE" button to select the correct source.
3. Use the media player controls or remote control to play/pause, skip tracks, and adjust volume.

FM Radio Operation

1. Press the "MODE" button until "FM" is displayed.
2. Press the Play/Pause button to initiate an automatic station scan. The amplifier will scan and save available FM stations.
3. Use the Previous/Next track buttons to navigate through the saved stations.

Emergency Input Priority

The EMC input has the highest priority. When a signal is detected on the EMC input, all other audio sources will be muted, allowing emergency announcements to be heard clearly.

MAINTENANCE

- **Cleaning:** Disconnect the power before cleaning. Use a soft, dry cloth to wipe the exterior of the unit. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure that the ventilation openings are clear and not obstructed. The amplifier uses forced air cooling, and proper airflow is essential to prevent overheating and ensure long-term reliability.
- **Connections:** Periodically check all cable connections for security and integrity. Loose connections can lead to poor audio quality or intermittent operation.
- **Storage:** If storing the unit for an extended period, disconnect it from power and store it in a cool, dry place away from direct sunlight and extreme temperatures.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No power	Power cable not connected; Power outlet faulty; Power switch off.	Ensure power cable is securely connected. Test the power outlet. Turn the power switch on.
No sound output	Speaker connections incorrect; Master volume too low; Input volume too low; Incorrect input selected; Mute activated.	Check speaker wiring (70V/4-16Ω). Increase Master and input volumes. Select the correct input source. Check for EMC input activation.
Distorted audio	Input signal too high (clipping); Speaker impedance mismatch; Faulty cable.	Reduce input volume. Verify speaker impedance matches amplifier output. Replace suspect cables.
Bluetooth not connecting	Amplifier not in Bluetooth mode; Device not in pairing mode; Device too far.	Ensure amplifier is in Bluetooth mode. Put your device in pairing mode. Move device closer to the amplifier.

Problem	Possible Cause	Solution
USB/TF card not playing	Incorrect mode selected; Incompatible file format; Faulty USB/TF card.	Select USB/TF mode. Ensure audio files are compatible (e.g., MP3). Try a different USB drive or TF card.

SPECIFICATIONS

Brand	Pure Resonance Audio
Model	RMA120BT
Output Power	120 Watts
Number of Channels	5
Speaker Outputs	70V, 4-16 Ohms
Inputs	4 x MIC/LINE (Euroblock, 1/4" Jack), 2 x AUX (RCA), 1 x EMC (Euroblock), USB, TF Card, Bluetooth, FM Tuner
Phantom Power	+48V (selectable for MIC 2-4)
Connectivity Technology	Bluetooth, Euroblock, RCA, TF Card, USB
Product Dimensions (D x W x H)	11.61" x 19" x 1.73" (1U Rack Mount)
Item Weight	9.9 Pounds

WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Pure Resonance Audio customer support. Keep your purchase receipt as proof of purchase for warranty claims.

You can typically find contact information on the manufacturer's official website or through your authorized dealer.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question