XTUGA 215

XTUGA 215 Professional Graphic Equalizer User Manual

Model: 215

1. Introduction

Thank you for choosing the XTUGA 215 Professional Graphic Equalizer. This dual-channel, 15-band stereo graphic equalizer is designed to provide precise audio control for a variety of applications, from home audio setups to professional studio environments. Its robust features, including low-frequency noise reduction and versatile input/output options, ensure an exceptional audio experience. This manual will guide you through the setup, operation, and maintenance of your new equalizer to help you achieve optimal performance.

2. Safety Information

- **Power Supply:** Ensure the equalizer is connected to a power source that matches the voltage specified on the unit (220V~240V / 50Hz/60Hz).
- **Ventilation:** Do not block ventilation openings. Ensure adequate airflow around the unit to prevent overheating.
- **Moisture:** Keep the unit away from water or excessive moisture. Do not operate in damp environments.
- **Cleaning:** Disconnect power before cleaning. Use a dry, soft cloth. Do not use liquid cleaners or aerosols.
- **Servicing:** Do not attempt to service this unit yourself. Refer all servicing to qualified service personnel.
- **Placement:** Place the unit on a stable, level surface. If rack-mounting, ensure it is securely installed.

3. Package Contents

Please check the box for the following items:

- XTUGA 215 Graphic Equalizer Unit
- Power Supply Cable
- User Manual (this document)

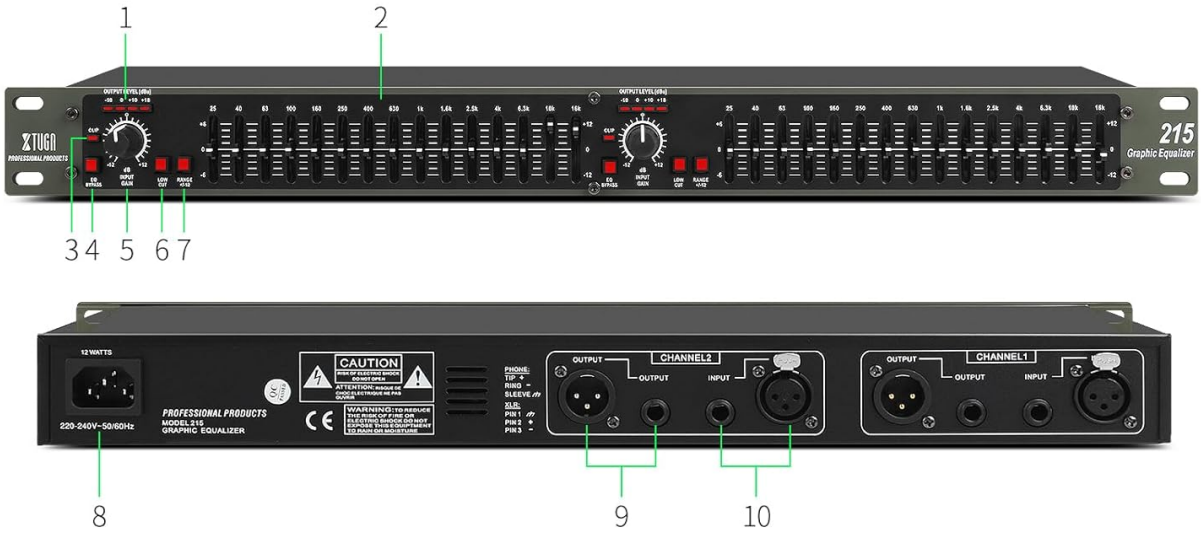
If any items are missing or damaged, please contact your retailer or XTUGA customer support.

4. Product Overview

The XTUGA 215 is a professional dual-channel, 15-band graphic equalizer designed for precise frequency adjustment. Below are images illustrating the front and rear panels of the unit, followed by a detailed description of its controls and indicators.

Figure 4.1: Front and Rear Panels of the XTUGA 215 Graphic Equalizer. The top image shows the front panel with all controls, while the bottom image displays the rear panel with input and output connections.

PRODUCT DESCRIPTION



1. 4-segment LED ladder display for monitoring output electronics
2. 15-segment equalization adjustment
3. CLIP button
4. Independent EQ button
5. Gain adjustment
6. Low cut button
7. Boost/Cut button
8. Power socket
9. Output interface
10. Input interface

Figure 4.2: Numbered diagram of the XTUGA 215 Graphic Equalizer's front and rear panels, indicating key controls and connection points.

4.1 Controls and Indicators

Refer to Figure 4.2 for the location of each component:

1. **4-segment LED ladder display:** Monitors output electronic levels.
2. **15-segment equalization adjustment:** Individual sliders for each of the 15 frequency bands per channel.
3. **CLIP button:** Indicates signal clipping or overload.
4. **Independent EQ button:** Toggles the equalization effect on/off for the respective channel.
5. **Gain adjustment:** Rotary potentiometer for adjusting the input gain level.
6. **Low cut button:** Activates the 40Hz low-frequency noise reduction filter.
7. **Boost/Cut button:** Adjusts the gain or decay values for the frequency bands.
8. **Power socket:** Connection point for the AC power cable.
9. **Output interface:** XLR balanced and 1/4" TRS unbalanced output connectors.
10. **Input interface:** XLR balanced and 1/4" TRS unbalanced input connectors.

5. Setup

Follow these steps to set up your XTUGA 215 Graphic Equalizer:

1. **Unpack the Unit:** Carefully remove the equalizer and all accessories from the packaging.
2. **Placement:** Place the equalizer on a stable, flat surface or install it into a standard 19-inch audio rack. Ensure there is sufficient space for ventilation around the unit.
3. **Power Connection:** Connect the provided power cable to the power socket (8) on the rear panel of the equalizer and then to a suitable AC power outlet.
4. **Audio Input Connection:** Connect your audio source (e.g., mixer, audio interface) to the Input interfaces (10) on the rear panel. You can use either XLR balanced or 1/4" TRS unbalanced cables.
5. **Audio Output Connection:** Connect the Output interfaces (9) on the rear panel to your audio destination (e.g., amplifier, powered speakers). Use either XLR balanced or 1/4" TRS unbalanced cables.
6. **Initial Settings:** Before powering on, ensure all 15-segment equalization adjustment sliders (2) are set to the 0dB (flat) position. Set the Gain adjustment (5) to its minimum position.
7. **Power On:** Turn on your audio source and destination devices first, then power on the XTUGA 215 Equalizer.

6. Operating Instructions

The XTUGA 215 Graphic Equalizer offers precise control over your audio frequencies. Here's how to operate its key features:

6.1 Dual 15-Band EQ Adjustment

Figure 6.1: The dual 15-band EQ adjustment sliders allow for precise real-time frequency shaping.

Each channel features 15 frequency bands, allowing you to boost or cut specific frequencies. Move the sliders (2) up to boost the frequency or down to cut it. The range of adjustment is ±12dB for each band, with gain and decay values ranging from ±6dB to ±15dB. Adjust these sliders to shape your audio signal according to your preferences or room acoustics.

6.2 EQ Switch Button (Bypass)

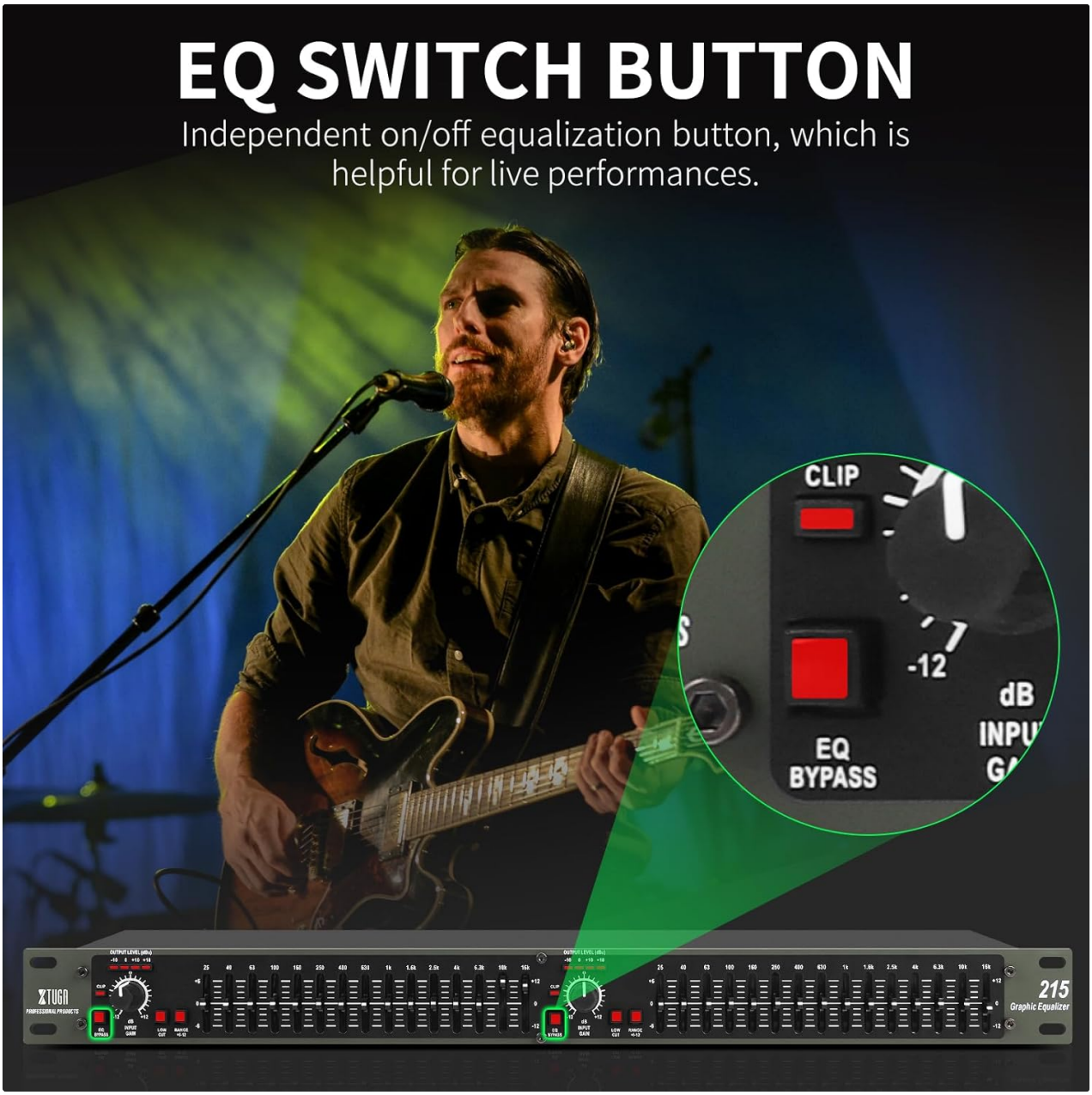


Figure 6.2: The EQ bypass switch allows for quick comparison between the equalized and unequlized signal.

The Independent EQ button (4) acts as a bypass switch. Pressing this button will bypass the equalizer circuit for that specific channel, allowing you to hear the audio signal without any equalization applied. This is useful for A/B comparisons and for quick machine debugging during live performances or studio sessions.

6.3 Gain Adjustment

Figure 6.3: The gain adjustment knob allows for precise control over the input signal level.

Use the Gain adjustment knob (5) to control the overall input level for each channel. This is a 41-step rotary potentiometer, providing fine control over the signal strength entering the equalizer. Adjust the gain to ensure the signal is strong enough without causing clipping, which is indicated by the CLIP button (3) illuminating.

6.4 Low Frequency Noise Reduction (LOW-CUT)

The Low cut button (6) activates a filter that effectively eliminates low-frequency noise below 40Hz. This feature is particularly useful for removing unwanted rumble, hum, or other low-end disturbances, resulting in a cleaner and purer sound quality.

6.5 Built-in Limiter

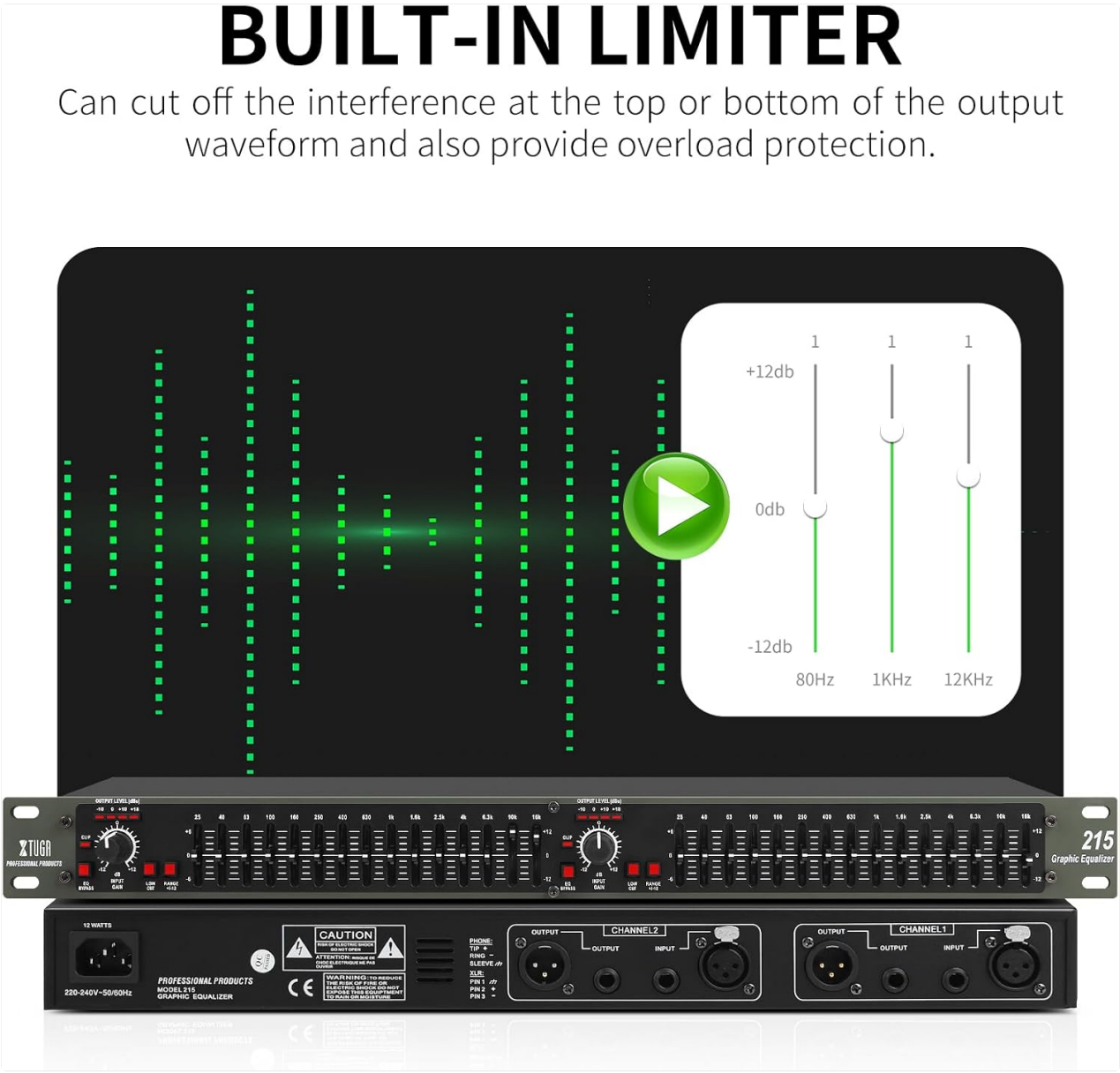


Figure 6.4: The built-in limiter prevents signal peaks from exceeding a set threshold, protecting equipment and maintaining audio integrity.

The XTUGA 215 features a built-in limiter that helps to prevent signal clipping and overload. This function automatically cuts off interference at the top or bottom of the output waveform, providing essential overload protection for your audio system and ensuring a clean output signal.

7. Maintenance

- **Cleaning:** Regularly wipe the unit with a soft, dry cloth to remove dust. Do not use abrasive cleaners or solvents.
- **Ventilation:** Ensure that the ventilation slots are free from dust and obstructions to prevent overheating.
- **Connections:** Periodically check all cable connections to ensure they are secure and free from corrosion.
- **Storage:** If storing the unit for an extended period, disconnect it from power and store it in a dry, dust-free environment.

8. Troubleshooting

If you encounter any issues with your XTUGA 215 Graphic Equalizer, please refer to the table below for common problems and their solutions.

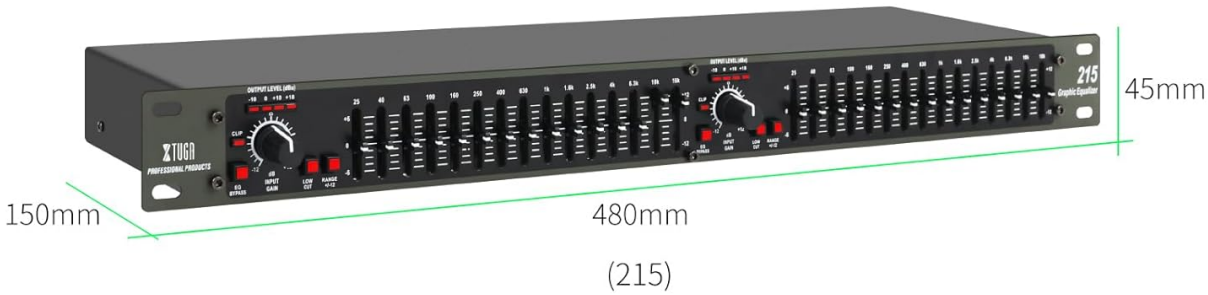
Problem	Possible Cause	Solution
No power	Power cable not connected; Power outlet faulty; Unit fuse blown.	Check power cable connection; Try a different outlet; Contact service for fuse replacement.
No sound output	Incorrect cable connections; EQ bypass engaged; Gain set too low; Source device not sending signal.	Verify all audio connections; Disengage EQ bypass (button 4); Increase Gain adjustment (knob 5); Check source device.
Distorted sound / CLIP light on	Input signal too high; Output signal too high.	Decrease input gain from source; Reduce Gain adjustment (knob 5) on the equalizer; Lower individual frequency band levels.
Unwanted hum or noise	Ground loop; Unshielded cables; Low-frequency noise.	Use balanced cables; Ensure proper grounding; Activate Low cut button (6).

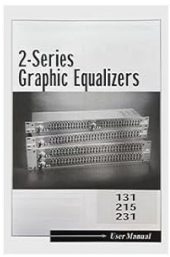
If the problem persists after trying these solutions, please contact XTUGA customer support for further assistance.

9. Specifications

Below are the technical specifications for the XTUGA 215 Graphic Equalizer:

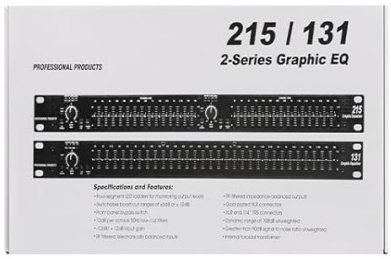
PRODUCT PARAMETERS





(Manual)

(Power supply)



(Package)

Input impedance: 22KΩ	Output impedance: 200Ω
Freq response: 20Hz~20KHz +0/-12db	Balanced paragraph: double 15 sections
Equal gain: +12dB/-12dB	Total resonance wave distortion: 0.05%(1kHz)
Signal ratio: >90db	Working voltage: 220V ~ 50Hz/60Hz

Figure 9.1: Product dimensions and a summary of technical specifications for the XTUGA 215 Graphic Equalizer.

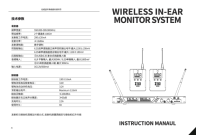
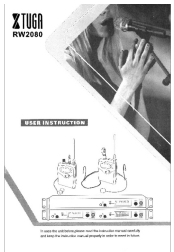
Parameter	Value
Input Impedance	22kΩ
Output Impedance	200Ω
Frequency Response	20Hz~20KHz +0/-12dB
Equal Gain	+12dB/-12dB
Signal Ratio	>90dB
Balanced Paragraph	Double 15 sections
Total Resonance Wave Distortion	0.05%(1KHz)
Working Voltage	220V ~ 50Hz/60Hz
Item Weight	2.18 pounds (989 Grams)

Parameter	Value
Package Dimensions	21.75 x 11.25 x 2.5 inches
Color	Black
Signal Format	Analog
Power Source	Corded Electric
Amperage	17 Milliamps

10. Warranty and Support

XTUGA products are designed and manufactured to the highest quality standards. For information regarding warranty coverage, please refer to the warranty card included with your product or visit the official XTUGA website. If you require technical support, have questions about product operation, or need assistance with troubleshooting beyond what is covered in this manual, please contact XTUGA customer service through the contact information provided on the XTUGA website or your purchase platform.

Related Documents - 215

	XTUGA SEM200 Wireless In-Ear Monitor System User Manual User manual for the XTUGA SEM200 Wireless In-Ear Monitor System, detailing product introduction, safety tips, transmitter and receiver overviews, main features, system settings, technical specifications, and usage illustrations for stage monitoring and audio broadcasting.
	XTUGA IEM1200 Wireless In-Ear Monitor System User Manual Comprehensive user manual for the XTUGA IEM1200 Wireless In-Ear Monitor System, detailing features, operation, and technical specifications for stage performance and sound broadcast.
	Xtuga SEM200 Wireless In-Ear Monitor System User Manual Comprehensive user manual for the Xtuga SEM200 Wireless In-Ear Monitor System, covering product introduction, safety tips, technical specifications, system settings, and usage instructions.
	XTUGA RW2080 Wireless Ear-Monitor System User Instruction Manual This document provides comprehensive user instructions for the XTUGA RW2080 wireless ear-monitor system. It covers product presentation, main features, functions, detailed front and back panel instructions for single and double channel receivers and transmitters, bodypack transmitter and receiver details, usage illustrations, system settings, and technical specifications.

	Xtuga RW2080 Wireless Ear-Monitor System User Manual Comprehensive user manual for the Xtuga RW2080 wireless ear-monitor system, detailing its features, operation, technical specifications, and setup instructions for stage performance and audio monitoring.
	XTUGA SF-1 Operation Instructions: Wired to Wireless Microphone Converter Learn how to set up and operate the XTUGA SF-1 Wired to Wireless Microphone Converter. This guide covers technical parameters, signal receiver and transmitter functions, matching instructions, and FCC compliance for the SF-1 audio adapter.