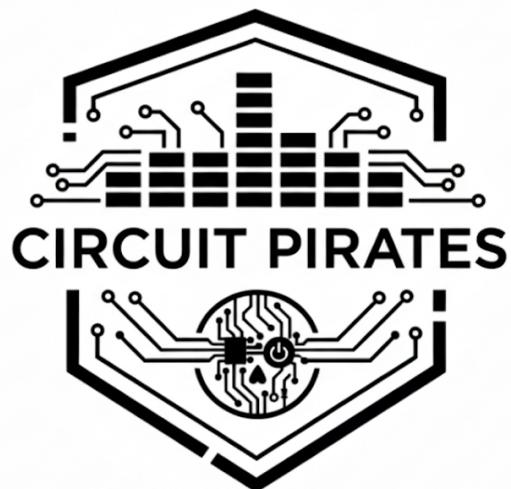


3 Channel Audio Mixer with 3 Band Equalizer

User Manual



Prepared By:
Circuit Pirates
Department of Electronic & Telecommunication Engineering
University of Moratuwa

Contents

1	Introduction	2
2	Safety Information	2
3	Product Overview	2
4	What's in the Box	3
5	Technical Specifications	3
6	Installation & Setup	4
7	Operating Instructions	4
8	Troubleshooting	4
9	Warranty Information	4
10	Support & Contact	5

1 Introduction

Thank you for choosing the Circuit Pirates 3 Channel Audio Mixer with 3 Band Equalizer. This product allows you to control bass, mid, and treble frequencies separately for each channel. Users can input audio through an instrument or microphone, and output the mixed signal to any speaker or sound system.

Use it for:

- Studio audio shaping
- Live sound adjustments
- Educational or engineering projects

2 Safety Information

General Safety Precautions

- Do not expose the device to moisture, rain, or liquids.
- Keep the device away from heaters, amplifiers, and direct sunlight.
- Only use the recommended **230V AC** power supply.
- Do not open or modify the enclosure.

Operational Guidelines

- Ensure the ventilation slots remain unobstructed.
- Disconnect power before servicing or adjustment.

3 Product Overview

This mixer includes three independent audio channels, each equipped with a low, mid, and high-band equalizer. It uses active RC filters, operational amplifiers, and buffered I/O to ensure high-quality audio processing.

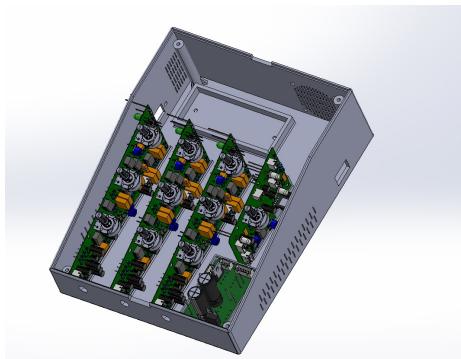


Figure 1: mixer unit

4 What's in the Box

- 3 Channel Audio Mixer with 3 Band Equalizer Unit
- 1× Power Cable
- 3× 3.5mm AUX Input Cable
- 3.5mm AUX Output Cable
- User Manual



Figure 2: Mixer Unit



Figure 3: Power Cable



Figure 4: AUX Cables

5 Technical Specifications

Electrical Specifications

- Supply Voltage: 230V AC
- Typical Operating Voltage: 12V
- Supply Current: 1 A
- Output Impedance: 8Ω
- Operating Temperature: 0–70°C

Mechanical Specifications

- Length: 220 mm
- Breadth: 170 mm
- Height: 65 mm

Inputs / Outputs

- 3.5mm AUX Mono Input
- 3.5mm AUX Mono Output

6 Installation & Setup

1. Connect the power supply.
2. Connect audio source to AUX IN.
3. Connect speakers/headphones to AUX OUT.

7 Operating Instructions

Adjusting Gains

Each knob controls a specific frequency band:

- **Low Band** – Bass control (50–250 Hz)
- **Mid Band** – Midrange control (250 Hz – 4 kHz)
- **High Band** – Treble control (4–20 kHz)

Volume Control

- Rotate clockwise = Boost
- Rotate counterclockwise = Cut

8 Troubleshooting

- **No Sound** Check power cable, AUX connections, and volume settings.
- **Distorted Output** Reduce input gain or check speaker impedance.
- **Humming / Noise** Ensure proper grounding and avoid long unshielded cables.
- **One Channel Not Working** Swap cables to isolate whether it's a cable or internal issue.
- **Low Output Volume** Increase channel gain and verify input signal level.

9 Warranty Information

1-Year Limited Warranty

Covers:

- Manufacturing defects
- Electrical failures (not caused by misuse)

Does NOT Cover:

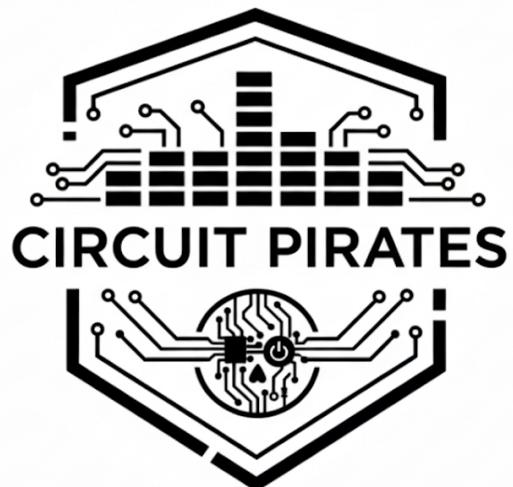
- Water damage
- Physical damage

10 Support & Contact

For technical support, replacements, or inquiries:

- **Circuit Pirates**

- Email: circuitpirates@789.com
- Phone: +94 70 195 8676
- Location: Moratuwa



Circuit Pirates