Soundcraft EPM12

Soundcraft EPM12 12-Channel Audio Mixer Instruction Manual

Model: EPM12

1. INTRODUCTION AND OVERVIEW

The Soundcraft EPM12 is a multi-format, low-cost audio mixer designed with an emphasis on quality build and audio performance. It features an easy-to-understand control surface, making it suitable for various applications including live music, recording, houses of worship, and multi-speaker installations.

An audio mixer serves to combine and process multiple audio signals into a cohesive output. It allows for blending and processing individual sound sources to create a balanced and clear final sound for the audience.

An overhead view of the Soundcraft EPM12 12-channel audio mixer, showcasing its array of knobs, faders, and input/output sections.

2. KEY FEATURES

- Frame sizes available: 6+2, 8+2, and 12+2 channels.
- Two configurable auxiliary buses for flexible routing.
- Input/Output connectivity includes XLR-type and ¼" metal jack connector sockets.
- RCA phono stereo playback inputs and record outputs.
- Three-band EQ with a swept mid-range on mono input channels.
- Two-band EQ on stereo input channels.
- TRS insert sockets on all mono inputs and the main mix output.
- Highly-transparent GB30 Mic preamps with 55dB gain range and +22dB headroom.
- Professional 48-volt phantom power for condenser microphones.
- PEAK LED signal monitoring for overload detection.
- 60mm high-quality faders for smooth and accurate channel control.
- Parallel monitor and headphone outputs.
- Ten-segment LED output metering.
- Intuitive and comprehensive solo system.
- Easily rack-mountable design.

3. SETUP

3.1 Power Connection

Connect the provided power cable to the mixer's power input and then to a suitable electrical outlet. Note that the EPM12 does not feature a dedicated on/off switch; it powers on when connected to a live outlet. Always ensure that any connected powered speakers or amplifiers are turned on **after** the mixer and turned off **before** the mixer to prevent damage or loud pops.

3.2 Input Connections

The EPM12 offers various input options:

- **Mono Inputs:** Use XLR connectors for microphones and ¼" TRS/TS jacks for line-level instruments or devices.
- **Stereo Inputs:** Use ¼" TRS/TS jacks for stereo line-level sources.
- **RCA Phono Inputs:** For connecting consumer-level stereo playback devices.
- **Phantom Power:** For condenser microphones, activate the 48V phantom power switch. Ensure dynamic microphones or other non-phantom powered devices are not connected when activating phantom power.

3.3 Output Connections

Connect your main speakers, monitors, and recording devices to the appropriate outputs:

- **Main Mix Output:** Typically XLR or ¼" jacks for connecting to power amplifiers or powered speakers.
- **Auxiliary Outputs:** ¼" jacks for sending signals to stage monitors or external effects processors.
- **Monitor Output:** ¼" jack for connecting to studio monitors.
- **Headphone Output:** ¼" stereo jack for headphones.
- **RCA Phono Record Outputs:** For connecting to recording devices.

4. OPERATING INSTRUCTIONS

4.1 Understanding the Channel Strip

Each input on the mixer corresponds to a vertical section of controls known as a "channel strip." All channel strips function similarly, allowing you to control individual audio sources.

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An instructional video explaining the basic theory and function of an audio mixer, demonstrating how different audio sources are combined and processed.

4.2 Gain Control

The **GAIN** knob (often labeled "MIC GAIN") at the top of each mono channel strip adjusts the input sensitivity. This is crucial for setting the initial signal level correctly. The EPM12 features transparent GB30 Mic preamps with a wide 55dB gain range and +22dB headroom. Adjust the gain so that the **PEAK** LED illuminates only momentarily on the loudest signals, avoiding constant illumination which indicates clipping.

4.3 Equalization (EQ)

- **Mono Channels:** Equipped with a 3-band EQ (High, Mid, Low). The Mid-range control is **swept**, meaning you can select the specific frequency to boost or cut within a range, offering precise tonal shaping.
- **Stereo Channels:** Feature a simpler 2-band EQ (High, Low) for basic tonal adjustments.

Use EQ to enhance or reduce specific frequencies in your audio signal, helping each instrument or vocal sit well in the overall mix.

4.4 Auxiliary Sends (AUX)

The EPM12 includes two configurable auxiliary buses. These allow you to send a portion of a channel's signal to external

devices (like effects processors) or to stage monitors. Each channel strip has AUX send knobs to control the amount of signal sent to each bus.

4.5 Pan Control

The **PAN** knob adjusts the position of the channel's signal within the stereo field (left to right).

4.6 Mute and Faders

- The **MUTE** button silences the channel's output to the main mix.
- The 60mm channel **FADER** controls the overall volume level of that channel in the main mix.

4.7 Main Mix and Monitoring

The main mix faders control the overall output level of the mixer. The monitor output and headphone output work in parallel, allowing both performers and engineers to listen to the mix simultaneously.
The ten-segment LED output meters provide a visual indication of the main mix's signal level, helping to prevent clipping.

5. MAINTENANCE

To ensure the longevity and optimal performance of your Soundcraft EPM12 mixer, follow these maintenance guidelines:

- **Cleaning:** Regularly wipe the surface of the mixer with a soft, dry cloth. For stubborn dirt, use a slightly damp cloth and mild cleaning solution, ensuring no liquid enters the controls or openings. Avoid abrasive cleaners.
- **Dust Protection:** When not in use, cover the mixer to protect it from dust and debris, which can affect faders and knobs.
- **Environmental Conditions:** Operate and store the mixer in a cool, dry environment, away from direct sunlight, excessive heat, humidity, and extreme temperature fluctuations.
- **Cable Management:** Ensure all cables are neatly organized and not under strain to prevent damage to connectors and internal wiring.

6. TROUBLESHOOTING

If you encounter issues with your EPM12 mixer, consider the following common troubleshooting steps:

- **No Sound Output:**

    - Check all cable connections from inputs to outputs.
    - Ensure main mix faders and individual channel faders are raised.
    - Verify that channels are not muted.
    - Confirm external amplifiers or powered speakers are turned on and receiving signal.
    - Check the power supply to the mixer.

- **Distorted Sound:**

    - Reduce the GAIN knob on the input channel. The PEAK LED should only flash occasionally.
    - Lower the channel fader or main mix faders if the output meters are consistently in the red.
    - Check for damaged cables or faulty microphones/instruments.

- **Hum or Noise:**

    - Ensure all connections are secure and balanced (XLR or TRS).
    - Check for ground loops; try plugging all audio equipment into the same power strip.
    - Keep audio cables away from power cables.

- **Phantom Power Issues:**

  - Ensure the 48V phantom power switch is engaged for condenser microphones.
  - Verify the microphone itself is functional.

7. SPECIFICATIONS

Feature	Detail
Model Number	EPM12
Number of Channels	12 (12 Mono Inputs, 2 Stereo Inputs)
Item Weight	14.77 pounds
Product Dimensions	14.25 x 17 x 3.56 inches
Power Source	Corded Electric
Voltage	230 Volts
Connectivity Technology	Auxiliary
Hardware Platform	CONSUMER_ELECTRONICS
Date First Available	January 16, 2004

8. WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the official Soundcraft website or contact their customer service department. Keep your purchase receipt as proof of purchase for any warranty claims.
You can visit the official Soundcraft store for more information: Soundcraft by Harman Store.