Carvin Audio C1648

CARVIN Audio C1648 16-Channel 4-Bus Mixer User Manual

Model: C1648

1. INTRODUCTION AND OVERVIEW

The CARVIN Audio C1648 is a professional 16-channel, 4-bus concert series mixing console designed for live sound applications, including installations in churches, performance venues, and touring sound systems. It offers advanced features for precise audio control and robust construction for reliable performance.

This manual provides essential information for setting up, operating, maintaining, and troubleshooting your C1648 mixer to ensure optimal performance and longevity.

Figure 1.1: Front view of the CARVIN Audio C1648 16-Channel 4-Bus Mixer, showing all input channels, faders, and master section controls.

2. KEY FEATURES

The C1648 mixer is equipped with a comprehensive set of features designed for professional audio mixing:

- 16 input channels for versatile connectivity.
- 4-bus design for flexible signal routing and sub-mixing.
- 8 channel sends: 6 dedicated monitor sends and 2 effects sends for extensive monitoring and external processing capabilities.

- 4-band channel EQ with dual sweep parametrics for Low-Mids and Hi-Mids, providing precise tonal shaping.
- Integrated 4-bus compressor with link switches, ideal for controlling dynamics on groups like drums or vocals.
- Two 5V USB power ports for convenient device charging or powering accessories.
- Robust construction ensuring durability for demanding live environments.
- Manufactured in the USA, reflecting high-quality craftsmanship.

3. SETUP GUIDE

Follow these steps to set up your CARVIN Audio C1648 mixer:

1. **Unpacking:** Carefully remove the mixer from its packaging. Inspect for any signs of damage during transit. Retain the original packaging for future transport or storage.
2. **Placement:** Place the mixer on a stable, flat surface in a well-ventilated area. Ensure there is adequate space around the unit for air circulation and cable connections.
3. **Power Connection:** Connect the supplied AC power cord to the mixer's power input and then to a grounded electrical outlet. Ensure the mixer's power switch is in the OFF position before connecting.
4. **Input Connections:** Connect microphones, instruments, and other audio sources to the appropriate input channels using XLR or 1/4-inch TRS cables. Each channel features both XLR and 1/4-inch inputs.
5. **Output Connections:** Connect the main outputs (XLR or 1/4-inch) to your power amplifier or powered speakers. Connect monitor sends to stage monitors and effects sends to external effects processors.
6. **Initial Power-Up:** Once all connections are secure, switch the mixer's power ON. Observe the power indicator light.

4. OPERATING INSTRUCTIONS

This section outlines the basic operation of the C1648 mixer:

4.1 Channel Controls

- **Gain Control:** Adjust the input gain for each channel to achieve an optimal signal level without clipping.
- **4-Band EQ:** Use the High, High-Mid (sweepable), Low-Mid (sweepable), and Low controls to shape the tone of each input.
- **Aux/Monitor Sends:** Adjust the individual send levels for each of the 6 monitor sends and 2 effects sends to route signals to monitors or external effects.
- **Pan Control:** Position the signal within the stereo field.
- **Channel Fader:** Control the overall volume of each channel in the main mix.

4.2 Master Section

- **Main Mix Faders:** Control the overall output level of the stereo main mix.
- **Group Faders:** Adjust the levels of the four sub-groups (buses).
- **4-Bus Compressor:** Engage and adjust the compressor for each of the four buses. Use the link switch to apply compression across linked buses.
- **Monitor/Effects Master Sends:** Control the overall output level for each of the 8 sends.
- **Headphone Output:** Connect headphones for monitoring the mix.

5. MAINTENANCE

Proper maintenance ensures the longevity and performance of your C1648 mixer:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the mixer. For stubborn dirt, a slightly damp cloth with mild soap can be used, but ensure no liquid enters the unit. Avoid abrasive cleaners or solvents.
- **Dust Protection:** When not in use, cover the mixer with a dust cover to prevent dust and debris from accumulating on faders, knobs, and connectors.
- **Ventilation:** Ensure that the ventilation openings are not blocked to prevent overheating.
- **Cable Management:** Organize cables neatly to prevent tripping hazards and reduce strain on connectors.
- **Storage:** If storing the mixer for an extended period, ensure it is in a cool, dry environment, preferably in its original packaging or a protective case.

6. TROUBLESHOOTING

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
No sound output	Power off; cables disconnected; faders down; mute engaged.	Check power, all cable connections, raise faders, disengage mute buttons.
Distorted sound	Input gain too high; output level too high; faulty cable.	Reduce input gain; lower output levels; test/replace cables.
Hum or noise	Ground loop; faulty cable; interference.	Check grounding; use balanced cables; isolate power sources.
Channel not working	Input not connected; channel fader down; gain too low.	Verify input connection; raise channel fader; increase gain.

If the problem persists after trying these solutions, please contact Carvin Audio customer support or a qualified service technician.

7. SPECIFICATIONS

Technical specifications for the CARVIN Audio C1648 mixer:

Parameter	Value
Product Weight	9.98 kg (22 lbs)
Product Dimensions (W x D x H)	56.39 x 41.15 x 9.53 cm (22.2 x 16.2 x 3.75 inches)
Model Number	C1648
Country of Production	USA
ASIN	B00BOW31K4
Number of Channels	16
Manufacturer	Carvin Audio
UPC	670541583005
Frequency Response	20 - 20 K Hz ± 1 dB

Parameter	Value
Total Harmonic Distortion	0.01% 20 - 20 K Hz
EIN (Equivalent Input Noise)	-117 dBm
S/N Ratio	90 dB
Dynamic Range	104 dB
Mic Gain	52 dB
Line Gain	30 dB
Total Gain (balanced)	72 dB
Max Output	+28 dBm
Power Requirements	90 to 250 VAC, 50-60 Hz, 50 VA

8. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official Carvin Audio website. Keep your proof of purchase for warranty claims.
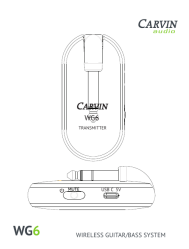
For technical support, service, or replacement parts, please contact Carvin Audio customer service directly. Contact information can typically be found on their official website or in the product packaging.

Website: www.carvinaudio.com (Please note: This is a placeholder URL as specific support links were not provided.)

Related Documents - C1648

[Carvin Audio TRC Active Column Array Systems: Product Overview and Specifications](#)
Explore the Carvin Audio TRC Active Column Array Systems, including models TRC200A, TRC400A, and TRC600A. This document details the TRx3118A subwoofer and TRx3900F column array, covering features, technical specifications, applications, and system configurations for professional audio reinforcement.

	[Carvin Audio TRx3900F Column Array Element: Specifications & Application Guide](#) Detailed overview of the Carvin Audio TRx3900F, a high-output, 3.5-inch column array loudspeaker. Features, specifications, application examples, flyware options, and system wiring diagrams for professional audio reinforcement.
	[Carvin TRC-A Powered Column Array Systems: Setup and Operation Guide](#) Comprehensive guide to Carvin Audio's TRC-A series powered column array systems, detailing system configurations, setup instructions, DSP settings, control panel functions, safety precautions, and warranty information.
	[CARVIN WG6 Wireless Guitar/Bass System User Manual and Specifications](#) Detailed user manual and specifications for the CARVIN WG6 Wireless Guitar/Bass System, covering operation, features, battery, safety, and warranty information.
	[Carvin Live Sound Mixers C Series Brochure and User Guide](#) A comprehensive brochure and user guide for Carvin's C Series Live Sound Mixers, detailing features, operation, and specifications for models C1648P, C1648, C2448, and C3248.
	[PROEL M1622USB 16-Channel 4-Bus Mixer with FX and USB - User Manual](#) Comprehensive user manual for the PROEL M1622USB audio mixer. Discover its 16 channels, 4 buses, built-in FX, USB audio interface, and compressor features for professional sound mixing.

Documents - Carvin Audio – C1648

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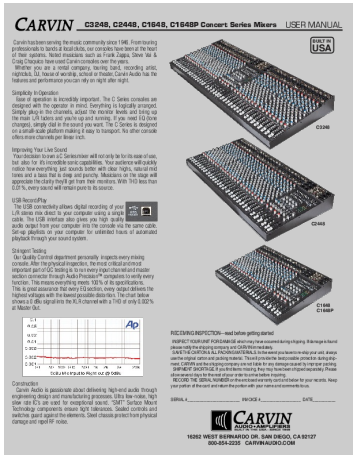
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C3248, C2448, **C1648**, **C1648**P Concert Series Mixers USER MANUAL Carvin has been serving the music community since 1946. From touring professionals to bands at local clubs, our consoles have been at the heart of their systems. Noted musicians such as Frank Zappa, Steve Vai Craig Chaquico have used C...

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