

## Allen & Heath AH-QU-16C

# Allen & Heath QU-16C Digital Mixer User Manual

Chrome Edition

## INTRODUCTION

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The Allen & Heath QU-16C Chrome Edition is a compact, rack-mountable digital mixer designed for professional audio applications. It integrates advanced features and technologies from larger Allen & Heath systems, offering a powerful and intuitive mixing experience. This manual provides essential information for setting up, operating, and maintaining your QU-16C mixer.

## SAFETY INFORMATION

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Please read and understand all safety warnings and instructions before operating the QU-16C mixer. Retain this manual for future reference.

- **Power Supply:** Use only the specified power adapter. Ensure the voltage matches your local power supply.
- **Ventilation:** Do not block ventilation openings. Ensure adequate airflow around the unit to prevent overheating.
- **Moisture:** Do not expose the unit to rain or moisture. Avoid placing liquids on or near the mixer.
- **Servicing:** Refer all servicing to qualified service personnel. Do not attempt to service the unit yourself.
- **Placement:** Place the mixer on a stable, level surface or securely mount it in a rack. Avoid extreme temperatures or direct sunlight.

## WHAT'S IN THE BOX

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Upon unpacking your Allen & Heath QU-16C, please verify that all the following items are included:

- QU-16C Chrome Mixer
- Power Cable

- User Manual (this document)

If any items are missing or damaged, please contact your dealer or Allen & Heath support immediately.

## SETUP

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This section guides you through the initial setup of your QU-16C digital mixer.

### Physical Placement and Connections

The QU-16C is designed for both desktop use and rack mounting. Ensure the mixer is placed in a location with sufficient ventilation and away from direct heat sources.



Figure 1: Front view of the Allen & Heath QU-16C Digital Mixer, showcasing its control surface and touchscreen.

**Power Connection:** Connect the supplied power cable to the IEC inlet on the rear panel of the mixer and then to a suitable AC power outlet. Ensure the power switch is in the 'Off' position before connecting.



Figure 2: Rear panel of the QU-16C, highlighting the various input and output connections including XLR, TRS, USB, and Network ports.

**Audio Inputs:** The QU-16C features 16 AnalogiQ total recall preamps. Connect your microphones and line-level sources to the XLR/TRS combo jacks on the rear panel. Channels are labeled 1-16.

**Audio Outputs:** Connect your main PA system, monitors, and other output devices to the XLR 'Mix outputs' and 'R-Main-L' outputs. Additional outputs like AES out and 2TRK out are also available.

**USB Connection:** For multi-track recording and playback, connect a USB cable from the 'USB B' port on the mixer to your computer. The QU-16C supports USB audio streaming.

**Network Connection:** The 'Network' port allows for remote control via the Qu-Pad Mixing App on an iPad. Connect an Ethernet cable from this port to a Wi-Fi router.

## Initial Power-Up

1. Ensure all connections are secure.
2. Flip the power switch on the rear panel to the 'On' position.
3. The mixer will perform a self-test and boot up. The touchscreen will display the main interface.
4. The motorized faders will calibrate to their stored positions.

## OPERATING THE QU-16C

The QU-16C offers a user-friendly interface with a combination of physical controls and a responsive touchscreen.

### Control Surface Overview

The mixer's control surface is divided into several key areas:

- **Input Channels:** Each channel features a motorized fader, Mute button, Select button, and a rotary encoder for gain and other parameters.
- **Touchscreen:** The 5-inch, 800x480 pixel touchscreen provides visual feedback and access to deeper settings, routing, effects, and scene management.
- **Rotary Encoders:** Dedicated data encoder and other rotary controls allow for precise adjustments of

parameters displayed on the screen.

- **FX Section:** Access to iLive FX, allowing for high-quality effects processing.
- **Master Section:** Dedicated master fader and controls for main mix outputs.

## Key Features and Functions

- **17 Motorized ALPS Faders:** These faders provide instant access to all channels and masters, dynamically following the mix selection for intuitive control.
- **AnalogiQ Preamps:** High-quality preamps with zero crossing detection and a 1dB step gain stage ensure pristine audio capture.
- **iLive FX:** Integrated effects processing derived from Allen & Heath's iLive series, offering a wide range of studio-grade effects.
- **100-Scene Recall:** Save and recall up to 100 complete mixer setups, including fader positions, processing, and routing.
- **USB Audio Streaming:** Record multi-track audio directly to a USB drive or stream to a computer for DAW integration.
- **Automatic Mic Mixer (AMM):** Firmware V1.8 and later includes an AMM feature, ideal for conferences and panel discussions.
- **Qu-Pad Mixing App:** Control the mixer wirelessly from your iPad, allowing you to mix from anywhere in the venue.

## MAINTENANCE

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Proper maintenance ensures the longevity and optimal performance of your QU-16C 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, followed by a dry cloth. Avoid abrasive cleaners or solvents.
- **Dust Protection:** When not in use, cover the mixer with a dust cover to prevent dust and debris from entering the faders and controls.
- **Fader Care:** The motorized faders are precision components. Avoid applying excessive force or liquid to them.
- **Software Updates:** Regularly check the Allen & Heath website for firmware updates to ensure your mixer has the latest features and bug fixes.



Figure 3: The QU-16C mixer shown with a protective dust cover, recommended for long-term storage or transport.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your QU-16C mixer.

Problem	Possible Cause	Solution
No audio output	Master fader down, Mute engaged, incorrect routing, faulty cables.	Check master fader level, ensure channels and master are unmuted, verify output routing on touchscreen, test cables.
No input signal	Gain too low, Mute engaged, faulty microphone/instrument, incorrect input selection.	Increase input gain, ensure channel is unmuted, test microphone/instrument, verify input patching.
Faders not moving	Mixer not powered on, fader calibration issue, hardware fault.	Ensure power is on. If issue persists after power cycle, contact support.
Touchscreen unresponsive	Temporary software glitch, hardware fault.	Perform a power cycle (turn off and on). If issue persists, contact support.

For more detailed troubleshooting or issues not listed here, please refer to the comprehensive online resources or contact Allen & Heath support.

## SPECIFICATIONS

Detailed technical specifications for the Allen & Heath QU-16C Digital Mixer:

- **Item Model Number:** AH-QU-16C
- **Number of Channels:** 16
- **Item Weight:** 16.06 pounds (7.3 Kilograms)
- **Product Dimensions:** 24 x 13.8 x 26.8 inches

- **Hardware Interface:** USB
- **Power Source:** Corded Electric
- **Standing Screen Display Size:** 5 inches
- **Connectivity Technology:** USB
- **First Available Date:** December 2, 2015

## WARRANTY AND SUPPORT

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For information regarding the product warranty, please refer to the warranty card included with your purchase or visit the official Allen & Heath website. Warranty terms and conditions may vary by region. For technical support, service, or further inquiries, please visit the Allen & Heath support page on their official website or contact your local distributor. Keep your purchase receipt and serial number handy when contacting support.