TEYUN Q16

TEYUN Q16 USB Audio Interface User Manual

Professional 16-bit/48kHz Audio Interface for Recording, Live Streaming, and Podcasting

1. Introduction

Thank you for purchasing the TEYUN Q16 USB Audio Interface. This device is designed to provide high-quality audio recording and playback for musicians, podcasters, live streamers, and content creators. With its 16-bit/48kHz audio resolution, phantom power, and versatile connectivity, the Q16 offers a professional yet user-friendly experience.
This manual will guide you through the setup, operation, and maintenance of your Q16 audio interface, ensuring you get the most out of its features.

Key Features:

- **Professional Audio Quality:** Equipped with high-precision 16-bit/48kHz audio resolution for clear and detailed sound.
- **Driver-free Installation:** Plug-and-play compatibility for quick setup.
- **Wide Compatibility:** Connects to PC, Mac, and mobile phone devices, supporting microphones, electric guitars, and bass.
- **"Zero-latency" Monitoring:** Direct monitoring allows musicians to hear their performance without delay.
- **Dual Power Source:** Powered via USB 2.0 or an external 5V DC adapter for flexible use.
- **Easy to Use:** Features 48V phantom power, DSP effects, and touch screen controls for intuitive operation.

2. Safety Information

- Do not expose the device to rain or moisture.
- Avoid placing the device near heat sources or in direct sunlight.
- Do not open the casing; there are no user-serviceable parts inside. Refer all servicing to qualified personnel.
- Use only the specified power adapters and cables.
- Ensure proper ventilation around the device during operation.
- Disconnect power before cleaning or when not in use for extended periods.

3. Package Contents

Please check the package to ensure all items are present and in good condition:

- TEYUN Q16 USB Audio Interface
- USB Cable

- User Manual (this document)
- (Optional) 5V DC Power Adapter (if included with your specific package)

4. Product Overview and Controls

Front Panel Controls:

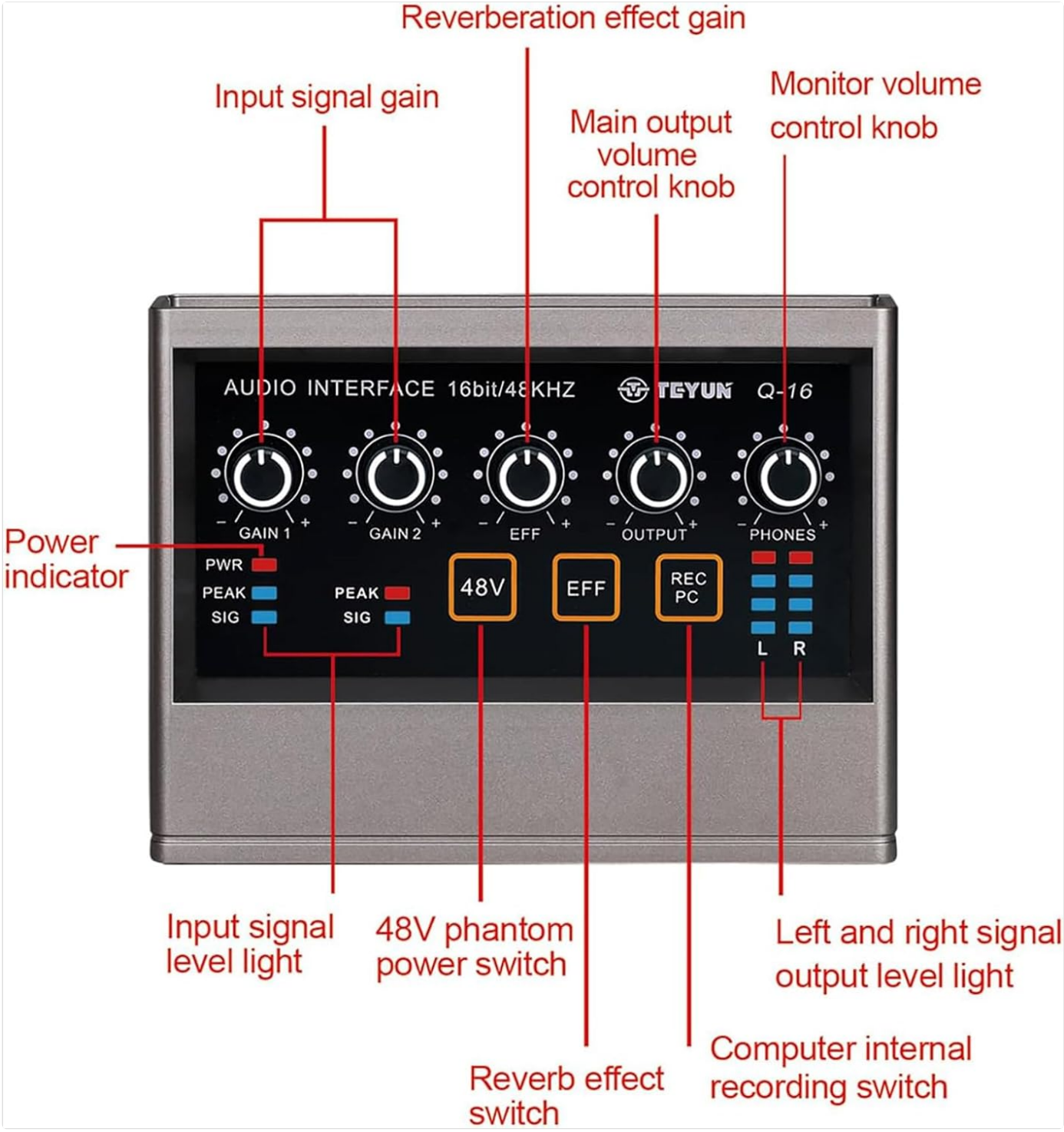


Figure 4.1: TEYUN Q16 Front Panel Controls. This diagram illustrates the various knobs, buttons, and indicators on the front of the audio interface, including input signal gain controls, phantom power switch, reverb effect switch, output volume, and headphone monitor volume.

- **GAIN 1** / **GAIN 2:** Input signal gain control knobs for Microphone/Instrument inputs.
- **PWR:** Power indicator light.
- **PEAK** / **SIG:** Input signal level lights (Peak indicates clipping, Sig indicates signal presence).
- **48V:** 48V Phantom Power switch for condenser microphones.

- **EFF:** Reverb Effect switch.
- **OUTPUT:** Main output volume control knob.
- **REC PC:** Computer internal recording switch (touch control).
- **PHONES:** Monitor volume control knob for headphones.
- **L** / **R:** Left and right signal output level lights.

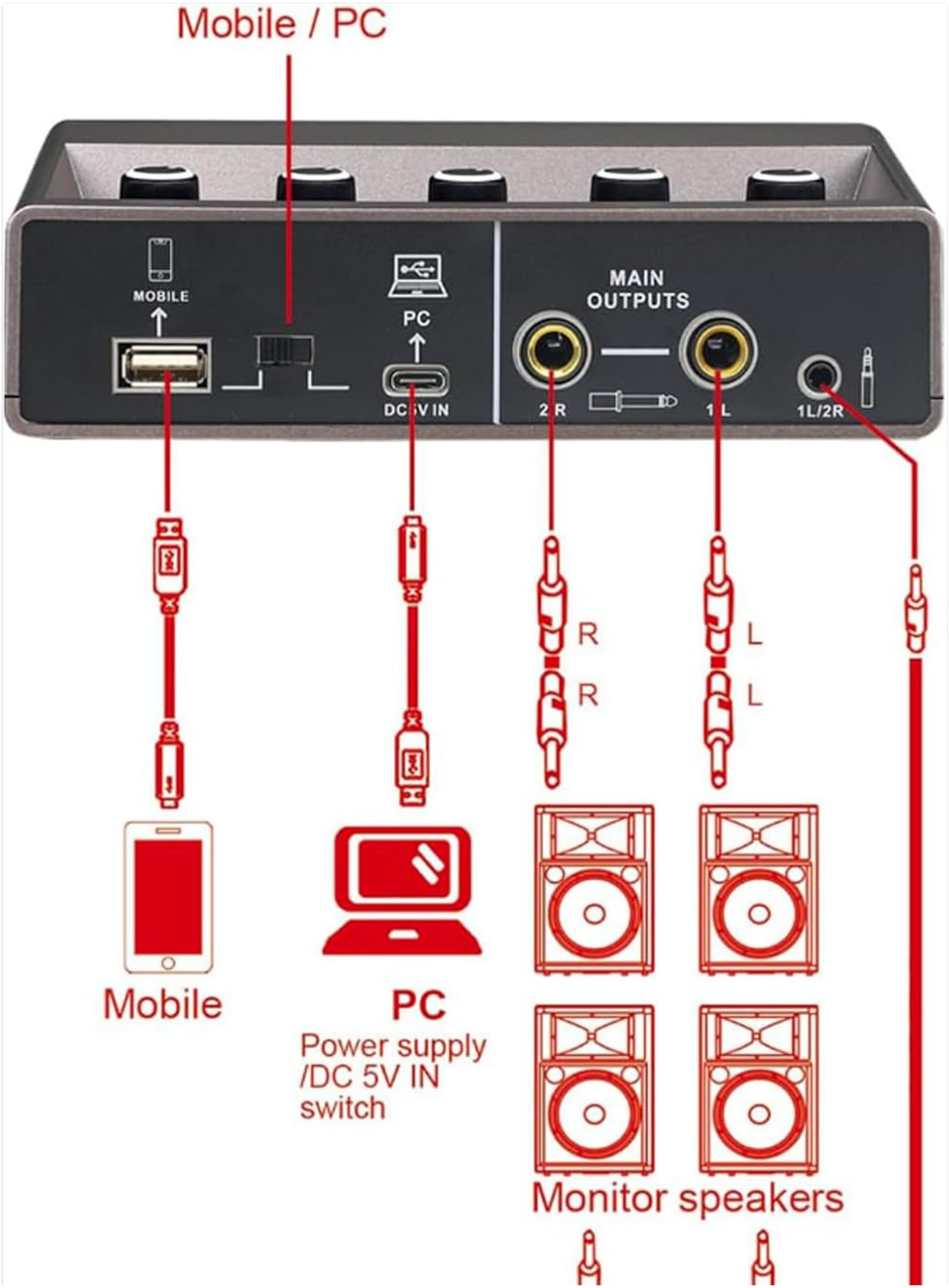
Front Panel Inputs:

Figure 4.2: TEYUN Q16 Front Panel Inputs. This image shows the input jacks on the front of the device, including two combo XLR/TRS inputs for microphones or line-level instruments, a dedicated Hi-Z input for guitar, and a headphone output.

- **HI-Z:** Dedicated input for high-impedance instruments like electric guitars.

- **INPUT 1 MIC/LINE:** Combo XLR/TRS input for microphone or line-level signals.
- **INPUT 2 MIC/LINE:** Combo XLR/TRS input for microphone or line-level signals.
- **PHONES:** 3.5mm stereo headphone output jack for monitoring.

Rear Panel Connections:



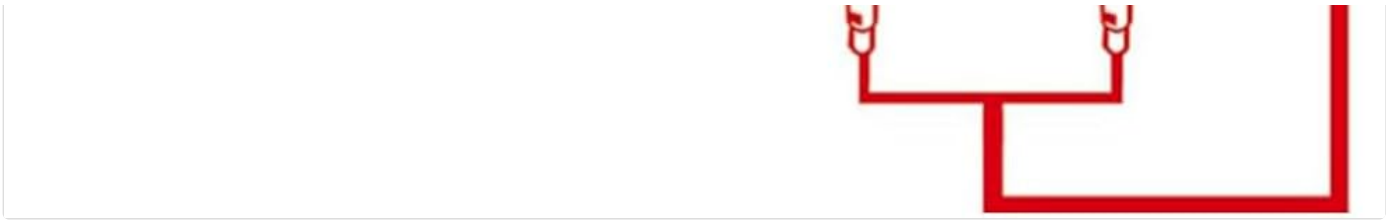


Figure 4.3: TEYUN Q16 Rear Panel Connections. This diagram illustrates the rear connections, including USB ports for mobile and PC, a DC 5V power input, and main outputs for monitor speakers.

- **MOBILE USB Port:** Connects to mobile phone devices.
- **PC USB Port:** Connects to PC or Mac computers.
- **DC 5V IN:** External 5V DC power input.
- **MAIN OUTPUTS (L/R):** 6.35mm TRS outputs for connecting to studio monitors or speakers.

5. Setup and Connections

5.1 Connecting to a Computer (PC/Mac)

1. Ensure your computer is powered on.
2. Connect one end of the provided USB cable to the **PC USB Port** on the rear of the Q16.
3. Connect the other end of the USB cable to an available USB port on your computer.
4. The Q16 is designed for driver-free installation. Your operating system (Windows or macOS) should automatically recognize the device.
5. Verify the device is recognized in your computer's sound settings (e.g., "Sound" in Windows Control Panel or "Sound Preferences" in macOS). Select the Q16 as your input and output device.

Figure 5.1: Connecting the Q16 to a PC or Mobile Device. The Q16 offers universal compatibility, allowing connection to both computers and mobile phones via USB.

5.2 Connecting to a Mobile Phone

1. Connect one end of the provided USB cable to the **MOBILE USB Port** on the rear of the Q16.
2. Connect the other end of the USB cable to your mobile phone (an adapter may be required depending on your phone's port type, e.g., USB-C to USB-A adapter).
3. The Q16 should be recognized by your mobile device as an external audio device.

5.3 Power Supply

The Q16 can be powered in two ways:

- **USB Bus Power:** When connected to a PC or mobile phone via USB, the device can draw power directly from the USB port.
- **External 5V DC Power:** If the connected device does not provide sufficient bus power, or for standalone operation, connect an optional 5V DC power adapter to the **DC 5V IN** port.

5.4 Connecting Microphones and Instruments

Figure 5.2: Two Input Two Output Configuration. The Q16 features two versatile inputs for various audio sources.

- **Microphones:** Connect XLR microphones to the **INPUT 1 MIC/LINE** or **INPUT 2 MIC/LINE** combo jacks. For condenser microphones requiring power, activate the **48V Phantom Power** switch.
- **Instruments (Guitar/Bass):** Connect electric guitars or basses to the **HI-Z** input for optimal impedance matching. Other line-level instruments (keyboards, synthesizers) can be connected to the **INPUT 1 MIC/LINE** or **INPUT 2 MIC/LINE** jacks using TRS cables.

5.5 Connecting Monitor Speakers and Headphones

- **Monitor Speakers:** Connect your studio monitors or active speakers to the **MAIN OUTPUTS (L/R)** using 6.35mm TRS cables.
- **Headphones:** Plug your headphones into the **PHONES** 3.5mm stereo jack on the front panel.

6. Operating the TEYUN Q16

6.1 Adjusting Input Gain

Use the **GAIN 1** and **GAIN 2** knobs to adjust the input level for your connected microphones or instruments. Monitor the **PEAK** and **SIG** indicators: the SIG light should illuminate when a signal is present, and the PEAK light should only flash occasionally during the loudest parts of your performance to avoid clipping.

6.2 Phantom Power (48V)

If you are using a condenser microphone, press the **48V** touch button to activate phantom power. The button will illuminate when active. Ensure dynamic microphones or ribbon microphones do not have phantom power applied unless specifically designed to handle it.

6.3 Reverb Effect (EFF)

Press the **EFF** touch button to enable or disable the built-in reverb effect. This can add spatial depth to your vocals or instruments during monitoring or recording.

6.4 Output and Monitoring

- **Main Output:** Use the **OUTPUT** knob to control the overall volume sent to your main monitor speakers.
- **Headphone Monitoring:** Adjust the **PHONES** knob to control the volume of your headphones. The Q16 offers "zero-latency" direct monitoring, allowing you to hear your input signal directly from the interface without any delay from your computer's processing. This is crucial for accurate performance and recording.

Figure 6.1: Real-Time Monitoring with the Q16. The interface provides latency-free monitoring, enabling musicians to hear their performance in real-time.

6.5 Computer Recording Switch (REC PC)

The **REC PC** touch button enables or disables the computer recording function. When active, the audio from the Q16 will be sent to your computer for recording in your Digital Audio Workstation (DAW) or recording software.

Figure 6.2: Touch Screen Switches. The 48V, EFF, and REC PC functions are activated via touch-sensitive buttons on the interface.

6.6 Using with Software

Once connected to your computer, open your preferred recording software (DAW) or audio application. In the software's audio settings, select the TEYUN Q16 as your audio input and output device. You can then arm tracks for recording and monitor your audio through the interface.

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Video 6.1: Overview of the TEYUN Q16 USB Audio Interface. This video demonstrates the physical features, connections, and basic functionality of the Q16 audio interface, highlighting its compact design and various input/output options.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid cleaners or aerosols.
- **Storage:** When not in use, store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Avoid dropping or subjecting the device to strong impacts.
- **Connections:** Periodically check all cable connections for secure fit and signs of wear.

8. Troubleshooting

Problem	Possible Cause	Solution
No power indicator light.	USB cable not connected or faulty; insufficient USB bus power; external power adapter not connected (if needed).	Ensure USB cable is securely connected. Try a different USB port. If using an external adapter, ensure it's connected and working.
No sound output from speakers/headphones.	Volume knobs (OUTPUT/PHONES) turned down; incorrect audio device selected in computer settings; faulty cables.	Increase OUTPUT and PHONES volume. Check computer's sound settings to ensure Q16 is selected as output. Test with different cables.
No input signal (SIG/PEAK lights off).	Input gain too low; microphone/instrument not connected properly; 48V phantom power not enabled for condenser mics; faulty mic/instrument.	Increase GAIN knob. Ensure mic/instrument is securely connected. Activate 48V for condenser mics. Test with another mic/instrument.
Audio is distorted or clipping (PEAK light constantly on).	Input gain too high.	Reduce the GAIN knob until the PEAK light only flashes occasionally during the loudest parts.
Latency during monitoring.	Monitoring through software instead of direct monitoring; high buffer size in DAW.	Ensure you are using the Q16's direct monitoring feature. Adjust buffer size in your DAW's audio settings (lower buffer size reduces latency but increases CPU load).
Device not recognized by computer.	Faulty USB cable/port; operating system issue.	Try a different USB cable and port. Restart your computer. Check for OS updates.

9. Specifications

Feature	Description
Model	Q16
Audio Resolution	16-bit / 48 kHz
Inputs	2 x Combo XLR/TRS (Mic/Line), 1 x HI-Z (Instrument)
Outputs	2 x 6.35mm TRS Main Outputs, 1 x 3.5mm Headphone Output
Phantom Power	+48V (switchable)
Connectivity	USB 2.0 (for PC/Mac and Mobile)
Power Supply	USB Bus Power or external DC 5V
Compatible OS	Windows, macOS, Android, iOS (via USB connection)
Dimensions (L x W x H)	7.87 x 5.31 x 2.17 inches (200 x 135 x 55 mm approx.)
Weight	10.6 ounces (approx. 300g)
Country of Origin	China

10. Warranty and Support

TEYUN products are designed for reliability and performance. For specific warranty details, please refer to the warranty card included with your product or visit the official TEYUN website. Keep your purchase receipt as proof of purchase for any warranty claims.
For technical support, troubleshooting assistance, or general inquiries, please contact TEYUN customer service through the contact information provided on the official website or your retailer's support channels. When contacting support, please have your product model (Q16) and purchase details ready.

Related Documents - Q16

	Q16 Smart Sports Watch User Manual Comprehensive user manual for the Q16 Smart Sports Watch, covering setup, features, and precautions. Learn how to connect to the HryFine app, use various functions like calling, messaging, sports tracking, and health monitoring.
	Teyun Q-12 Audio Interface In-Depth Review and Specifications A comprehensive review of the Teyun Q-12 USB audio interface, covering its features, pros, cons, technical specifications, performance measurements, and usage with OBS Studio. Includes detailed analysis of inputs, outputs, and controls.
	Teyun Q-12 Teardown and Analysis Detailed teardown and analysis of the Teyun Q-12 audio interface, examining its internal components, build quality, and performance limitations, originally documented by ChrisGrossman.com.
	Na4 Mixer: Analog Mixer and Digital Sound Card User Manual Comprehensive user manual for the Na4 Mixer, detailing its features as a combination analog mixer and digital sound card, including specifications, effects, connections, operation, and safety guidelines.
	BOMGE Q-12 Audio Mixer User Manual User manual for the BOMGE Q-12 2-Channel Audio Mixer Sound Mixing Console, featuring USB and 48V Phantom Power for recording and studio use.