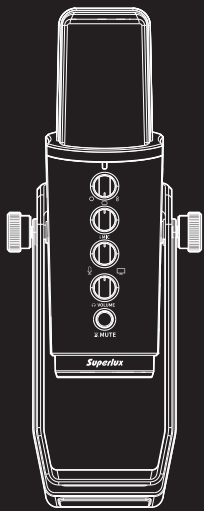# Superlux

E431U
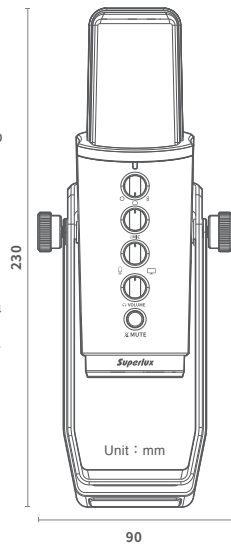### MULTI-PATTERN CONDENSER USB MICROPHONE

E431U MULTI-PATTERN CONDENSER USB MICROPHONE

Description

E431U is equipped with dual Ø14mm back-electret capsules which deliver crisp and dynamic sound reproduction. It features three different pattern settings which makes it easy to select the best pickup pattern for different professional recording requirements. E431U features a 3.5mm standard headphone jack for real-time and zero-latency monitoring. It is also able to adjust the microphone gain through the knobs at the front of the microphone.
It is unnecessary to operate the microphone via complicated driver. All you need is to plug the USB cable into the USB socket of the computer and to follow some simple system operation to start recording.
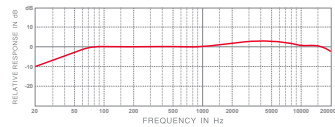
Features

• USB digital recording condenser microphone.
• Multi-pattern function to offer the best pickup pattern under different recording requirements.
• 24 bit, 192 kHz sampling rate.
• Equipped with high quality A / D converter for excellent sound quality
• Featured with headphone jack and individual volume control for zero-latency monitoring.
• The built-in headphone amplifier ensures extremely clear and rich playback details even under high volume.
• Flat and wide frequency response perfect for podcasting, home studio, live recording and narrating.
• Plug-and-play, compatible with Windows and Mac OS system.

Unit：mm

230

90

E431U Frequency Response
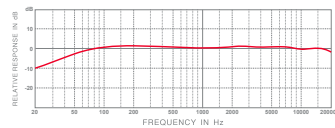(Cardioid / 8-figure / Omni directional)

Cardioid polar pattern
It picks up most signal on axis, rejects side noise, and picks up least to the back. It is suitable for live sound reinforcement. With its apparent proximity effect, most singers like to take advantage of the bass boost.
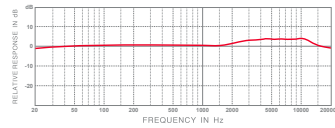
8-figure polar pattern
It is equally sensitive to both ends and rejects the sides. It is good in a noisy environment because it rejects distant noise and low frequencies. It is also a good choice for stereo recordings. It features a typical pressure gradient characteristic.

Omni directional polar pattern
With equal sensitivity in all directions, an omni microphone does not need to point toward the sound source. It features low handling and wind noise. It is welcomed for news gathering and music recording applications.

Specifications
※Notice：Specifications are subject to change.

Type	Ø14mm back-electret capsules
Polar Pattern	Cardioid / 8-figure / Omni directional
Frequency Response	20-20,000Hz
Sensitivity	-38 dBV/Pa (12.6 mV)
Max. SPL	108 dB (THD＜1%, at 1kHz)
Power Requirement	USB (5V DC)
Bit Depth	24 bit
Sampling Rate	192 kHz
Volume Control	Direct monitoring volume control, headphone monitoring volume control
Output Jack	USB C-Type
Impedance	≥16Ω
Headphone output power	150mW (at 1 kHz,1% T.H.D.,16Ω)
T.H.D.	＜0.5% (at 1kHz)
Headphone output jack	Ø3.5mm stereo headphone jack
Dimension	230X90X55mm
Net Weight	509g (17.9oz.)

Function Description

A Polar pattern switch knob
The polar pattern switch knob can be used to select among three different polar patterns, Cardioid / 8-figure / Omni directional

B Microphone gain knob
Microphone gain knob can be used to adjust the gain of microphone.

C Headphone volume control
The volume control can be used to adjust volume of the headphone.

D Monitoring mixing control knob
The monitoring mixing control knob can be used to adjust the mixing percentage between microphone direct signal and the output from recording software of computer / equipment
Ps. When turning the button counterclockwise, it increases the direct signal of microphone and decreases the signal from computer / equipment. On the other hand, when turning the button clockwise, it increases the signal from computer / equipment and decreases the direct signal of microphone. It is suggested to start from the center of the knob to keep the balance between direct signal of microphone and the signal from computer / equipment.

E Microphone mute button
When pressing this button, it only stops the input signal from going into the computer. If choosing "direct monitoring" when pressing the mute button, it is still able to monitor the microphone pickup signal.
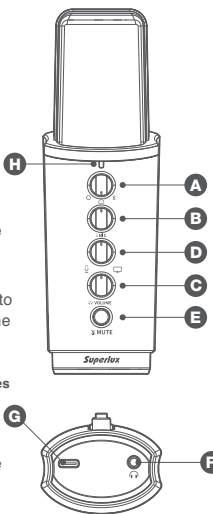
F Monitoring mixing control
The 3.5 mm headphone output jack can be used to connect headphones or active monitoring speakers

G USB connector
The furnished USB -C type connector cable can connect to any equipment with USB-A type port to record.

H USB Connection indicator
When the LED lights up, it indicates that the USB cable has been connected correctly and gotten power from USB port.

System requirements
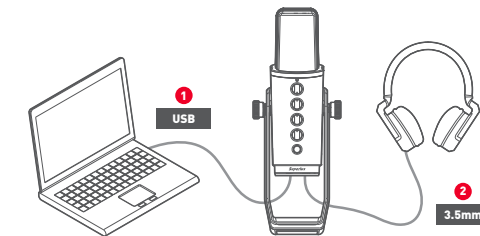USB 2.0 with 5V power

RAM
64MB RAM (minimum requirement)

Operating System
Microsoft Windows 10
Microsoft Windows 7 (Service Pack 1.0 version or above)
Microsoft Windows Vista Business (Service Pack 2.0 version or above)
Microsoft Windows XP Home/PRO (Service Pack 3.0 version or above)
Apple Computer Mac OS X 10.7 version or above

Installation
The furnished 1.5-meter USB cable can connect E431U USB microphone to the computer / equipment.
The USB-C type connector of the cable can be attached on the USB microphone. The USB-A type connector at the other end can be connected to the general USB port with power supply.

Furnished Accessories
1.5-meter type-C USB cable.

Quick Start

1 Put the E431U on the desk surface. Turn the side of E431U with Superlux trademark and LED indicator to the source. Adjust the grille to face the sound source directly.

2 Connect the USB-C type connector of the USB cable to the USB port at the bottom of E431U. Connect the USB-A type connector at the other end of the USB cable to the USB port of computer.
※Notice：Please make sure that the operating system (MAC OS or Windows) pop up the information window to notice the USB audio software has been found.

3 Turn on the application software / music recording software. Turn off the master output into mute condition. Then select the "Superlux E431U" as the input port.

4 Set a new MONO track in the recording software.

5 Adjust the microphone volume through the microphone gain knob.

6 Set the input volume level at 50% position. Then adjust the gain knob on the microphone to control the input volume.

7 Connect the headphone into the headphone output connector of E431U. Adjust the E431U USB Microphone directly to the source, then increase the volume to the suitable level.
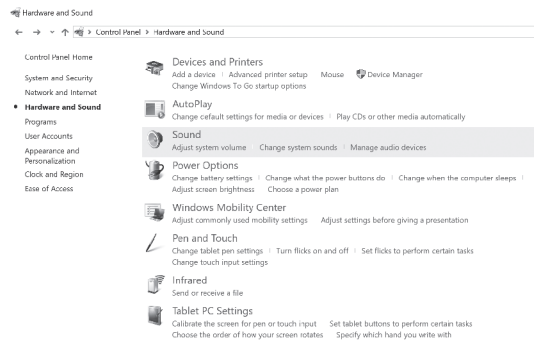※Notice：If you hear the distortion, it means the input is overloaded. Please lower the volume until no distortion.

Now you can start recording in the recording software, or follow instruction from other communication application software with E431U.
※Notice：If you feel the volume too loud or not enough after adjusting the gain knob of microphone, please check your recording system or refer to the "troubleshooting" of this manual to solve the problem.

※Notice：The USB port of computer should supply 5V power.

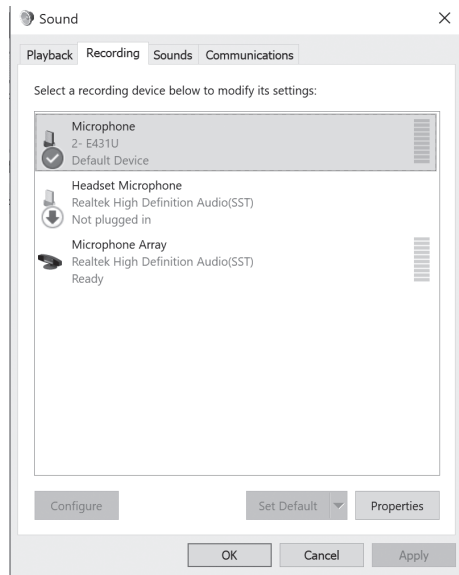---

USB audio equipment driver
If you encounter a problem, please check whether driver has been setup successfully.
If not, you can download at www.superlux.com.tw
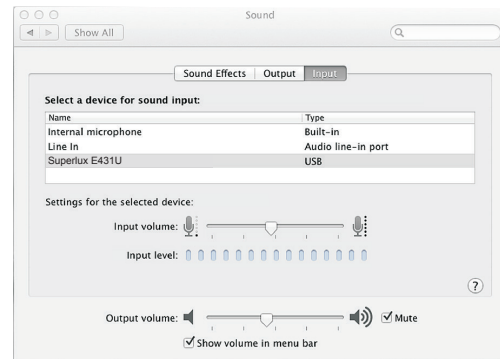
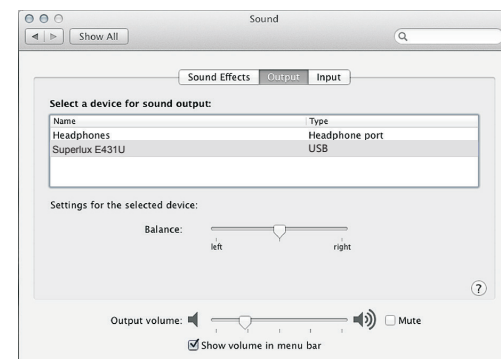## Windows operating system

1 Click "Sound" at the control panel.

2 Find E431U equipment in the Audio tab.

MAC OS operating system

1 Open the sound setting window from the system setting.

2 Choose E431U at the tabs of input and output.

Troubleshooting

Problem	Solution
No output from headphone	Check the volume of headphone and microphone volume control.
The volume of microphone is not enough	Adjust the microphone gain knob on E431U first. If the volume still not enough, please refer to the adjustment as below： **Windows operating system：** Control Panel / Sound and Audio Devices / Audio tab / Recording, click "Volume" to adjust the microphone gain.
The volume of headphone is not enough	First, adjust the volume control knob of headphone. Please follow the below steps if the volume is still not enough: **Windows Operating system：** Control Panel / Sound and Audio Devices / Audio tab / Sound Playback / Click "Volume" to adjust the output volume of headphone. **Mac OS Operating system：** System Preferences / Sound / Output tab to adjust output volume.

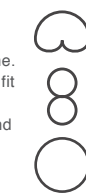## Knowing your microphone

Type of transducer

Condenser
With an extremely light weight diaphragm, it is very sensitive to sound. Very small versions are available for hidden applications. High performance condenser microphones are regarded as standard equipment in recording studios for extreme detail capturing.
They operate with phantom or battery power.

Polar Pattern

Cardioid / 8-figure / Omni directional
The polar pattern is one of important feature of microphone. Superlux E431U provides three different polar patterns to fit different environments/usages with the suitable polar pattern, such as instruments, singing, speech, or the sound of environment. The polar pattern can be selected by the polar pattern switch knob on the microphone.
*Please find the E431U Frequency Response

WARNING! INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH IF MISHANDLED COULD RESULT IN DEATH OR SERIOUS PERSONAL INJURY OR PROPERTY DAMAGE.
※Do not expose the unit to rain or an environment where it may be splashed by water or other liquids as doing so may result in fire or electric shock.
※Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.
※Do not subject to extreme force and do not pull on the cable, it might cause the product failures.
※Keep this product and the equipment which used together dry and avoid to exposure to extreme high temperature and humidity.

LIMITED WARRANTY

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