





# **CUBE·6nano**

USB2.0 High-Speed

6-In / 6-Out with +48V Phantom Power  
Recording USB Interface



User manual

<div style="display: flex; justify-content: space-between; align-items: center;">  <div style="text-align: center;"> <p><b>CAUTION</b></p> <p>RISK OF ELECTRIC SHOCK DO NOT OPEN RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR</p> <p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL</p> <p>ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE: NE PAS ENLEVER LE COUVERCLE. AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER. CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE. AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE A LA PLUIE OU A L'HUMIDITE</p> </div>  </div>	<div style="display: flex; flex-direction: column; align-items: center;">   </div> <p>The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure, that may be of sufficient magnitude to electric shock to persons. Le symbol clair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de voltage dangereux non isolé d'ampleur suffisante.</p> <p>exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.</p>
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## Important Safety Instructions

1. Read this manual thoroughly before using this unit.
2. Keep this manual for future reference.
3. Take notice of and comply with all warnings included in the user's manual or indicated on the appliance.
4. Follow all instructions included in this manual.
5. Do not expose this unit to rain or moisture. Avoid having water or other liquids spilled on this unit.
6. When cleaning the cabinet or other parts of this appliance, use only a dry or slightly damp soft cloth.
7. Do not block any ventilation openings or interfere with the proper ventilation of this unit. Install in accordance with the manufacturer's instructions.
8. Do not use or store near any heat sources such as radiators, heat registers, stoves, or other heat-producing appliances.
9. Do not interfere with the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. These are designated for your safety. If the provided plug does not fit into your outlet, consult an electrician.
10. Protect the power cord from being walked on or otherwise damaged by items placed on or against them. Particular attention should be given to the plugs, receptacles, and the point where the cord exits the appliance.
11. To avoid the risk of electrical shock, do not touch any exposed wiring while the unit is in operation.
12. Only use attachments/accessories specified by the manufacturer.
13. Unplug this unit and all connected electrical equipment during lightning storms or when left unused a long period of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the appliance has been damaged in any way or fails to operate normally.

**WARNING: To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture**

# Contents

- Introduction.....4
- What's in the package? .....4
- Features .....5
- Front Panel.....6
- Rear Panel.....7
- Mac driver installation.....8
- Software control panel.....10
- Windows driver installation.....11
- Software control panel.....14
- Hardware Connections.....18
- Minimum System Requirements.....19
- Specifications .....20
- Services.....21

## Introduction

Thank you for purchasing the ICON Cube 6 Nano digital audio Interface. We sincerely trust this product will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

In these pages, you'll find a detailed description of the features of the Cube 6 Nano digital audio interfaces, as well as a guided tour through their front and rear panels, step-by-step instructions for their setup and use, and full specifications.

You'll also find a warranty card enclosed---please don't forget to fill it out and mail it so that you can receive online technical support at: [www.icon-global.com](http://www.icon-global.com). And so we can send you updated information about these and other ICON products in the future. As with most electronic devices, we strongly recommend you retain the original packaging. In the unlikely event the product must be returned for servicing, the original packaging (or reasonable equivalent) is required.

With proper care and adequate air circulation, your Cube 6 Nano digital audio interface will operate without any trouble for many years. We recommend that you record your serial number in the space provided below for future reference.

Please write your serial number here for future reference:

Purchased at:

Date of purchase:

## What's in the package?

- Cube 6 nano USB Recording Interface
- Quick Start Guide
- Driver Software CD
- Different language electronic user manual & quick start guide (pdf)
- USB cable

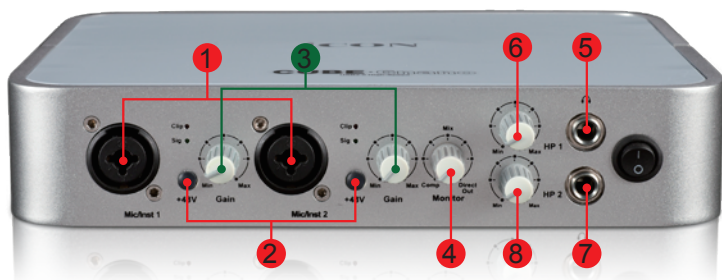
# Features



The ICON Cube 6 Nano USB recording interface provides an audio input and output module with USB connectivity. Main features include:

- 24-Bit 96/192KHz 6-In/6-Out USB Recording Interface
- 4x4 analog I/O full duplex recording and playback
- Dual MIC/Instrument preamps with individual gain control and phantom power switch
- 2 analogue line inputs on 1/4" TRS jacks
- 4 analog outputs on 1/4" TRS jacks
- S/PDIF I/O on RCA coaxial connectors
- 1 x 1 – 16 channel MIDI I/O
- Direct monitoring control knob on the front panel
- 2 headphone output with assignable source and individual volume control
- Flexible channel routing via the software control panel
- USB2.0 haute vitesse équipée
- Supports DirectSound, WDM and ASIO2.0
- Compatible with Mac OS (Intel-Mac) and Windows XP, Vista (32-bit/64-bit), Windows 7 (32-bit/64-bit) & Windows 8 (32-bit/64-bit)
- Full duplex, simultaneous record/playback
- Rugged aluminum construction

## Front Panel



### 1. “Mic/Inst” inputs 1/2

Unbalanced instrument and mic level inputs. These hybrid connectors will accept a standard 3-pin XLR plug or a 1/4” TS connector.

### 2. 48V phantom power switch

Press to supply +48V phantom power to the associated XLR input. This phantom power circuit is suitable for most condenser microphones.

### 3. Input gain level controls 1/2

These potentiometers control the input level of their associated analog Mic/Inst/Line input.

### 4. Direct monitoring control knob

This potentiometer controls the audio signal flow of the PC output and the actual analog inputs.

<b>Comp (Anticlockwise)</b>	Only PC audio signal will be monitored
<b>Direct Out (Clockwise)</b>	Only analog inputs (Mic/Inst 1&2) will be monitored
<b>Mix (Centre)</b>	Both PC & analog inputs audio signal will be monitored

### 5. HP Monitor 1 output

This output jack accepts a standard 1/4” stereo TRS headphone connector.

### 6. HP Monitor 1 volume control

This potentiometer controls the output level of HP Monitor 1.

### 7. HP Monitor 2 output

This output jack accepts a standard 1/4” stereo TRS headphone connector.

### 8. HP Monitor 2 volume control

This potentiometer controls the output level of HP Monitor 2.

## Rear Panel



### 1. USB 2.0 Connector

Connect it with the provided USB cable to your Mac/PC's USB connector. Your Mac/PC must have a USB2.0 connector in order to run the full speed of Cube 6 Nano.

### 2. Line inputs 3/4

These are unbalanced analog inputs on standard 1/4" TS connectors at -10dB line level.

### 3. Line outputs 1-4

These are unbalanced analog outputs on standard 1/4" TS connectors at +6dBu line level.

### 4. S/PDIF coaxial I/O connectors

S/PDIF digital input and output on coaxial RCA connectors. The digital input is selected via the Cube 6 Nano's software control panel, while the digital output will be sent to the coaxial.

### 5. MIDI I/O connectors

MIDI input and output on standard 5-pin DIN connectors

### 6. 12V/1A power adaptor

Connect the provided power adaptor here.

**Note:** Cube6 Nano is not able to work without the provided power adaptor connected. The USB bus power is not able to provide sufficient power supply for Cube6 Nano.

# Mac driver installation

Please follow the step-by-step procedures below to install your Cube 6 Nano USB recording interface and its driver.

## 1. Turn on your Mac

**Note:** Do not connect the Cube 6 Nano digital audio interface to your Mac yet

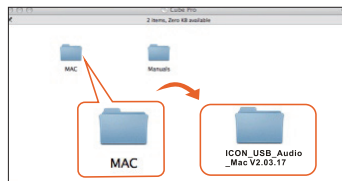


Diagram 1

## 2. Insert the Driver CD into your CD-Rom.

After you have inserted the provided Driver CD into your CD-Rom, a pop-up window should appear as shown in Diagram 2, then click on the "Mac" folder to open the installation files list. Click "ICON\_Cube 6 Nano.mpkg"

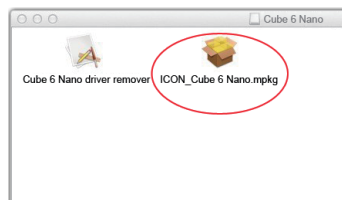


Diagram 2

## 3. Welcome Screen appears

Choose "Continue" when you see the Welcome Screen shown in Diagram 3

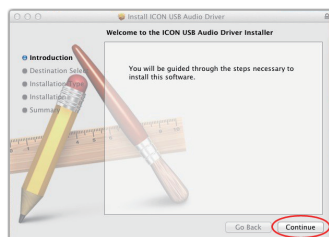


Diagram 3

## 4. Set install location

Click the "Change install location" button if you would like to set your preferred install location; otherwise click the "Install" button.

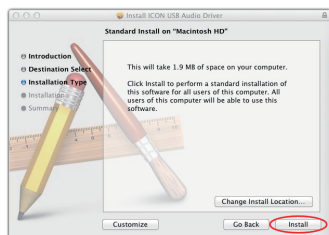


Diagram 4

## 5. Installation start

The driver installation has started; please wait until the process has completed.

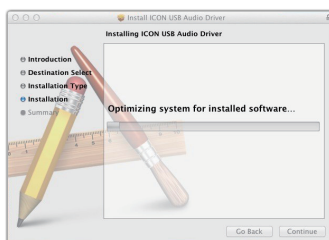


Diagram 5



## 6. Installation completed

The driver installation has completed successfully. Click the “Close” button.

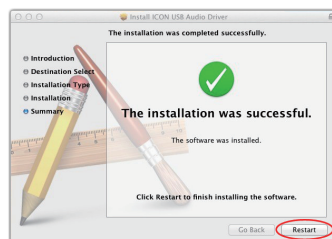


Diagram 6

## 7. Copy the software control panel shortcut logo to your desktop

Open the previous “Mac” folder. Copy the “Cube 6 Nano” software panel shortcut logo and paste it to your desktop.

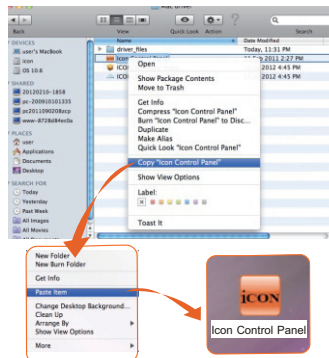


Diagram 7

## 8. Launch the software control panel

Click the Cube 6 Nano's software control panel shortcut logo you have just copied to your desktop to launch the software control panel.

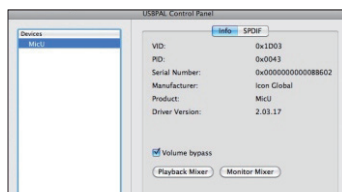


Diagram 8

## 9. Audio MIDI setup

Open the “Audio MIDI setup” window and check if the Cube 6 Nano device has setup properly as shown below in diagram 9. If your Cube 6Nano device does not appear on the system settings. It means the driver did not install properly, go through the “Driver Installation” procedure again.

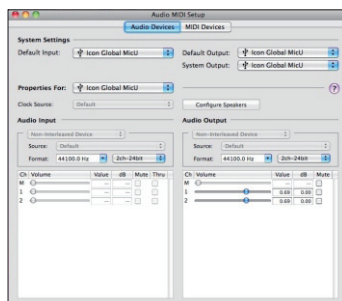


Diagram 9

# Software control panel

The “Playback” and “Monitor” mixers work like a matrix mixer. Activate and adjust the correspondence input or output channel level. They are very useful and make your inputs and outputs very flexible. You may route any of your input(s) to any output(s).

## Playback Mixer

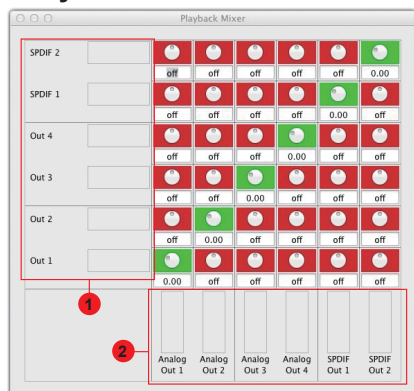


Diagram 10

### 1. Software output level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF output level metering

Showing the input level for the software input channel.

### 2. Hardware output level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF output level metering

Showing the output level for the hardware output channel.

## Monitor Mixer

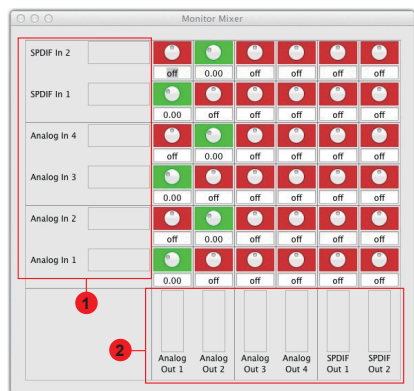


Diagram 11

### 1. Hardware inputs level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF input level metering

Showing the input level for the hardware input channel.

### 2. Hardware outputs level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF output level metering

Showing the output level for the hardware output channel.

# Windows driver installation

Please follow the step-by-step procedures below to install your Cube 6 Nano USB recording interface and its driver.

## 1. Turn on your computer

**Note:** Do not connect the Cube 6 Nano digital audio interface to your computer yet

## 2. Insert the Driver CD into your CD-Rom.

After you have inserted the provided Driver CD into your CD-Rom, an Installation screen should appear as shown in Diagram 12, then click "Windows Driver" for the driver installation"

**Note:** If the Installation screen do not appear automatically. Go to the CD folder and double click "Setup"



Diagram 12

## 3. Installation Wizard appear

Choose "Next" when you see the Welcome Screen as Diagram 13 shown

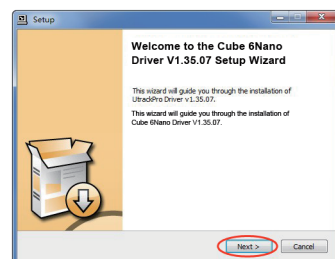


Diagram 13

## 4. License Agreement

Check mark the "I accept the terms in the License Agreement" and click "Next".

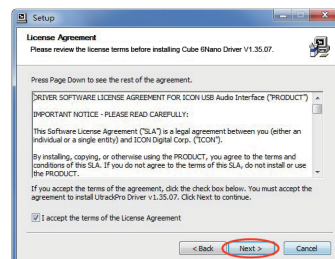


Diagram 14

### 5. Confirm driver installation

A confirmation on the driver installation screen will appear, click "Next".

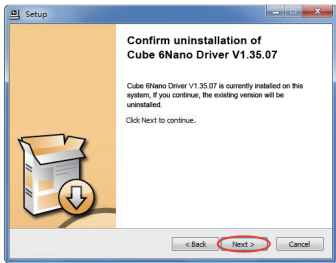


Diagram 15

### 6. Driver setup

Driver setup Choose the location of the driver and click "Next" as shown in Diagram 16

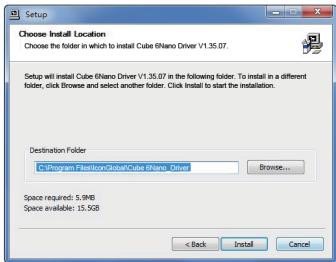


Diagram 16

### 7. Installation start

The installation process has started. The process may take some time depending on your computer performance; please be patient and wait for the process to finish.

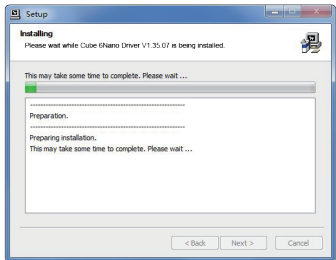


Diagram 17

### 8. Software installation window

A window as shown in Diagram 18 should appear. Choose "Install this driver software anyway"

**Note:** Although this message appears, the Cube 6 Nano driver is fully tested and supports Windows XP, Vista, Windows 7 & Windows 8.

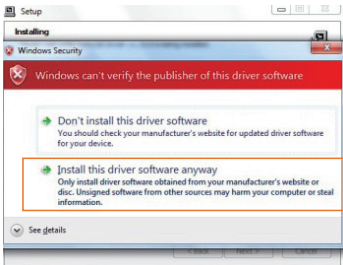


Diagram 18

## 9. Setup completed

A window as shown in Diagram 19 should appear. Choose "Next".

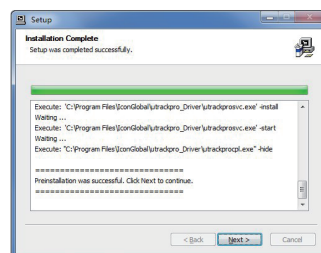


Diagram 19

## 10. Connect your Cube 6 Nano digital audio interface

Now connect the Cube 6 Nano digital audio interface to your computer's USB port and click "Finish".

**Note:** Cube 6 Nano audio interfaces only support USB 2.0. Your computer must have an USB2.0 port.

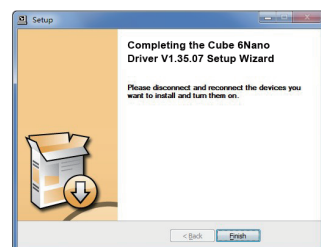


Diagram 20

## 11. Installing device driver software

The Cube 6 Nano driver is installing

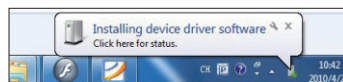


Diagram 21

## 12. Driver installation completed

Cube 6 Nano driver installation has completed and is ready to use.

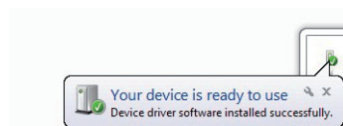


Diagram 22

## 13. Launch the software control panel

You may click the Cube 6 Nano logo on the system tray to launch the software control panel (Page 14).



Diagram 23

# Software control panel

## 1. Sample rate settings

Select your desired sampling rate from 44.1kHz to 192kHz on the pull down window shown in Diagram 24. Click "Apply" after the selection has been made to set the value.

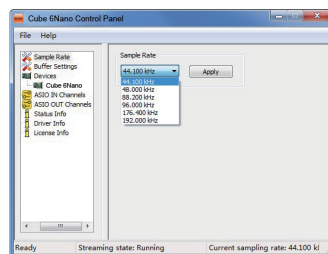


Diagram 24

## 2. Buffer Size settings

You may select the buffer size for "Streaming" and "ASIO". Click "Apply" after you have made the selections.

**Note:** If a clicking sound occurs, you should change to a larger buffer size for the settings. If the largest buffer size has been selected and there is still a clicking sound, it means your computer performance is not able to handle the task. (It is not caused by the Cube 6 Nano digital audio interface)

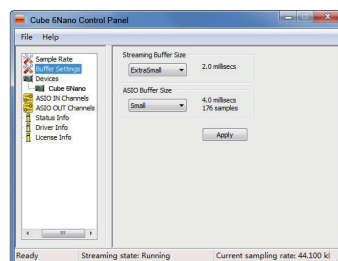


Diagram 25

## 3. Device settings

Shows the serial number & product ID of your Cube 6 Nano device. If it doesn't show, it means your device is not properly installed. Please go through the "Driver Installation" process again (Page 11).

## 4. Monitor Mixer

Click this button to launch the "Monitor Mixer" (Page 15)

## 5. Playback Mixer

Click this button to launch the "Playback Mixer" (Page 16)

## 6. S/PDIF Status and Pass Through

Showing the S/PDIF device signal status.

## 7. S/PDIF Pass Through

"Tick" the box if you want S/PDIF signal pass through

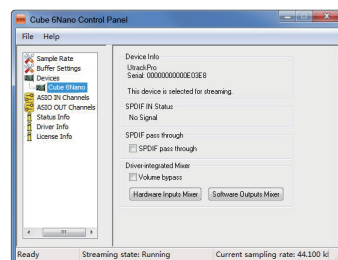
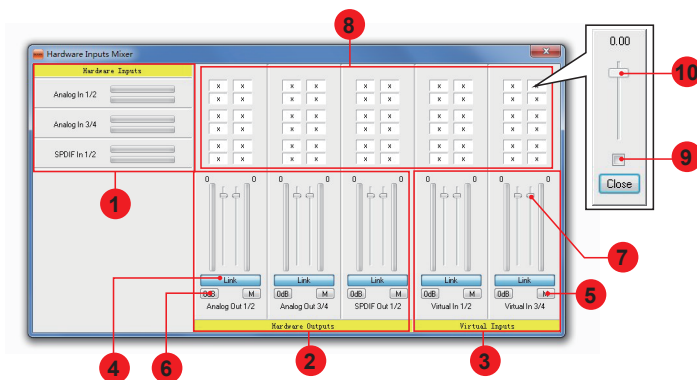


Diagram 26

## Monitor Mixer



### 1. Hardware input level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF input level metering  
Showing the input level for the hardware input channel.

### 2. Hardware output level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF output level metering  
Showing the output level for the hardware output channel.

### 3. Virtual inputs level metering

Cube 6 Nano - Virtual1,2,3,4 input level metering  
Showing the input level for the virtual input channel.

### 4. Link switch

Switch to adjust both channel levels simultaneously.

### 5. Mute switch

Switch to mute the corresponding channel.

### 6. “0dB” switch

Switch to instantly adjust the corresponding channel to “0dB” level.

### 7. Gain control fader

Slide to adjust the gain level for the corresponding channel.

### 8. Inputs & Outputs Matrix switches

Switch to turn On/Off the corresponding hardware input channel route to the corresponding hardware output channel. The matrix is very useful and makes your inputs and outputs very flexible. You may route any of your input(s) to any output(s).

## 9. Inputs & Outputs Matrix Mixer

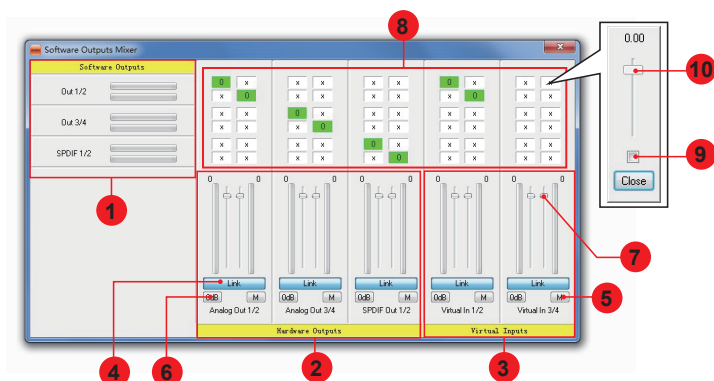
"Check" the box to activate the mixer.

## 10. Inputs & Outputs Matrix Mixer Gain Control

Adjust the gain for the corresponding hardware channel.

After finishing the adjustment, click "Close" to close the window.

## Playback Mixer



### 1. Software output level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF output level metering  
Showing the input level for the software input channel.

### 2. Hardware outputs level metering

Cube 6 Nano – Ch 1,2,3,4 & S/PDIF output level metering  
Showing the output level for the hardware output channel.

### 3. Virtual inputs level metering

Cube 6 Nano - Virtual1,2,3,4 input level metering  
Showing the input level for the virtual input channel.

### 4. Link switch

Switch to adjust both channel levels simultaneously.

### 5. Mute switch

Switch to mute the corresponding channel.



## **6. “0dB” switch**

Switch to instantly adjust the corresponding channel to “0dB” level.

## **7. Gain control fader**

Slide to adjust the gain level for the corresponding channel.

## **8. Inputs & Outputs Matrix switches**

Switch to turn On/Off the corresponding hardware input channel route to the corresponding hardware output channel. The matrix is very useful and makes your inputs and outputs very flexible. You may route any of your input(s) to any output(s).

## **9. Inputs & Outputs Matrix Mixer**

"Tick" the box to activate the mixer.

## **10. Inputs & Outputs Matrix Mixer Gain Control**

Adjust the gain for the corresponding hardware channel.

After finishing the adjustment, click "Close" to close the window.

## Hardware Connections

Connect the Cube 6 Nano digital audio interface outputs to your amplifier, powered monitors or surround system. Two-channel stereo operation, the default outputs are channels 1 and 2.

If you are monitoring through headphones, connect your headphones to the device's headphone output.

Connect your microphones, instruments or other line level analog sources to the device's analog inputs.

Connect your S/PDIF digital devices to the coaxial digital I/O and MIDI device to the MIDI I/O.



# Minimum System Requirements

**Important:** The Cube 6 Nano digital audio interface is supported by Mac OS (Intel-Mac), Windows XP, Windows Vista Windows 7 and Windows 8 (32-bit/64-bit). The Cube 6 Nano digital audio interface is not supported by Windows 98 or Windows Me. For Windows XP, you must be running SP1 or later. Visit the Windows update web pages to make sure you have the most current updates and fixes supplied by Microsoft. On the Mac, the Cube 6 Nano digital audio interface is supported by Mac OSX version 10.5.5 or later (must be Intel-Mac). Earlier versions of Mac operating systems are not supported.

## Windows OP:

Pentium 4 -1.0 GHz or higher  
1.0 GHz RAM  
DirectX 8.1 or higher  
Windows XP (SP1), Windows 2000 (SP3),  
Windows Vista or Windows 7

## Mac OP:

Intel-Mac 1.0 GHz or higher  
1.0 GHz RAM  
OS 10.5.5 or later

# Specifications

## Mic/Inst Inputs 1/2 (Balanced; at Minimum Gain):

Frequency Response .....	22Hz to 22kHz (+/-0.1dB)
Dynamic Range .....	100dB, A-weighted
Signal-to-Noise Ratio .....	-100dB, A-weighted
THD+N .....	<0.0061% (-90dB)
Crosstalk .....	-100dB @ 1kHz
Maximum Input level .....	-3.8dBu, typical
Input Impedance .....	Inst in: 500K Ohms, typical Mic in: 1.8K Ohms, typical
Adjustable Gain .....	> 50dB
Total Gain Range .....	+54dB

## Line Inputs 3/4(TRS):

Frequency Response .....	22Hz to 22kHz (+/-0.1dB)
Dynamic Range .....	100dB, A-weighted
Signal-to-Noise Ratio .....	-100dB, A-weighted
THD+N .....	<0.0061% (-90dB)
Crosstalk .....	-100dB @ 1kHz
Nominal Input Level .....	Balanced: +4dBu Unbalanced: -10dBV
Maximum Input level .....	Balanced: +10.2dBu, typical Unbalanced: +2.0dBV, typical
Input Impedance .....	10K Ohms, typical

## Line Outputs 1-4 (TRS):

Frequency Response .....	22Hz 22kHz (+/-0.1dB)
Dynamic Range .....	102dB, A-weighted
Signal-to-Noise Ratio .....	-102dB, A-weighted
THD+N .....	<0.003% (-90 dB)
Crosstalk .....	-100dB @ 1kHz
Nominal Output Level .....	Balanced: +4dBu Unbalanced: -10dBV
Maximum Output Level .....	Balanced: +10.2dBu, typical Unbalanced: +2.0dBV, typical
Output Impedance .....	150 Ohm
Load Impedance .....	600 Ohm minimum

## Headphone Outputs: 1 & 2 (at Maximum Volume; Into 100 Ohm load):

Frequency Response .....	22Hz to 22kHz (+/-1dB)
Power into Ohms .....	90 mW into 100 Ohms
THD+N .....	<0.06% (-66dB)
Signal-to-Noise Ratio .....	-90dB, A-weighted
Max Output Level into 100 Ohms .....	+2.0dBV, typical
Output Impedance .....	75 Ohm
Load Impedance .....	32 to 600 Ohms

## Services

If your Cube 6 Nano needs servicing, follow these instructions.

1. Ensure the problem is not related to operation error or external system devices.
2. Keep this owner's manual. We don't need it to repair the unit.
3. Pack the unit in its original packaging including end card and box. This is very important. If you have lost the packaging, please make sure you have packed the unit properly. ICON is not responsible for any damage that occurs due to non-factory packing.
4. Ship to the ICON tech support center or the local return authorization.

### **U.S. OFFICE:**

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