iCON
Pro Audio

CUBE·6nano
ProDrive III
USB2.0 High-Speed

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

CE FC N1630

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

Thank you for purchasing the ICON ProAudio Cube6Nano 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 Cube6Nano digital audio interface, as well as a guided tour through its front and rear panels, step-by-step instructions for their setup and use, and full specifications.

Please register the product on our website at the below link
www. iconproaudio.com/registration:

Please follow the step by step procedures. Start by inputing the device's serial number as well as your personal information, etc. By registering your product online, you will be entitled to service and after-sales support at our Help Center by visiting our website at **www.iconproaudio.com**. Also, all the registered products under your account will be listed on your personal product page where you will find updated information such as firmware/driver upgrades, software bundles, user manual downloads, etc. for your device.

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 Cube6Nano 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.

What's in the package?

- Cube6Nano USB Recording Interface
- Quick Start Guide x 1
- USB 2.0 cable x 1

Register your ICON ProAudio product to your personal account

1. Check serial number of your device

Please go to **http:// iconproaudio.com/registration** or scan the QR code below.

Input your device's serial number and the other information on the screen. Click "Submit".

A message will pop up showing your device information such as model name and its serial number - Click "Register this device to my account" or if you see any other message, please contact our after-sales service team

2. Log in to your personal account page for existing user or sign up for new user

Existing user: Please log into your personal user page by inputing your user name and password.

New user: Please click "Sign Up" and fill in all the information.

3. Download all useful materials

All your registered devices under your account will show on the page. Each product will be listed along with all its available files such as drivers, firmware, user manual in different languages and bundled software etc. for download. Please make sure you have download the necessary files such as driver before you begin device installation.

Features

The ICON Cube6Nano USB recording interface provides an audio input and output module with USB connectivity. Main features include:

- 24-Bit 192KHz 6-In/6-Out USB Recording Interface
- High dynamic range:
    DAC: Dynamic Range: 114dB
    ADC: Dynamic Range: 114dB
- 4x4 analog I/O full duplex recording and playback
- Dual Mic/Instrument preamps with individual gain control and phantom power switch
- 2 analog 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
- Master volume control on the front panel
- Direct monitor knob control on the top panel
- 2 headphone output with assignable source and individual volume control
- Flexible channel routing via the software control panel
- ICON's innovative ProDrive Ⅲ ™ plug-ins hosting rack is provided
- Kilohearts plug-ins are provided
- USB2.0 High Speed equipped and USB bus-powered
- Supports DirectSound, WDM and ASIO2.0
- Compatible with Mac OS (Intel-Mac) 10.11 and later, iOS 9 or above and Windows 7, 8 & 10 (32-bit/64-bit)
- Full duplex, simultaneous record/playback
- +12VDC power supply connector is equipped for external power supply when using with iOS
- Rugged aluminum construction

Front Panel
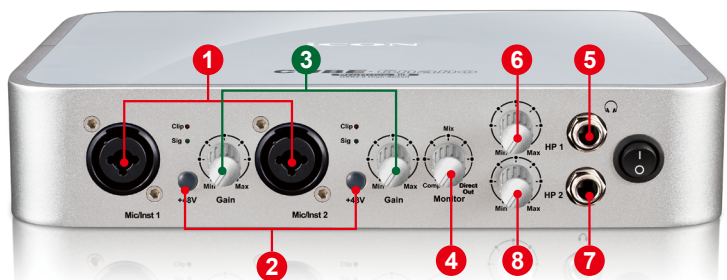
1. "Mic/Inst" inputs 1/2
Unbalanced instrument and mic level inputs. These hybrid connectors will accept a standard 3-pin XLR plug or a 1/4" TS connector.

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.

Comp (Anticlockwise)	Only PC audio signal will be monitored
Direct Out (Clockwise)	Only analog inputs (Mic/Inst 1&2) will be monitored
Mix (Centre)	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 Cube6Nano .

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 Cube6Nano '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: Cube6Nano is not able to work without the provided power adaptor connected. The USB bus power is not able to provide sufficient power supply for Cube6Nano .

Mac driver installation

Cube6Nano is a class compliant device. Thus there is no driver installation needed for Mac. Also, it fully supports iOS devices by connecting the unit to a camera kit.

Please follow the step-by-step procedures below to install your Cube6Nano USB recording interface.

1. Turn on your Mac
(Note: Do not connect the Cube6Nano digital audio interface to your Mac yet.)

2. Class compliant device
Cube6Nano is class compliant on macOS, so no driver installation is needed.

3. Copy the software control panel shortcut logo to your desktop
Open the previous "Mac" folder. Copy the "ProDrive Ⅲ" software panel shortcut

logo and paste it to your desktop.
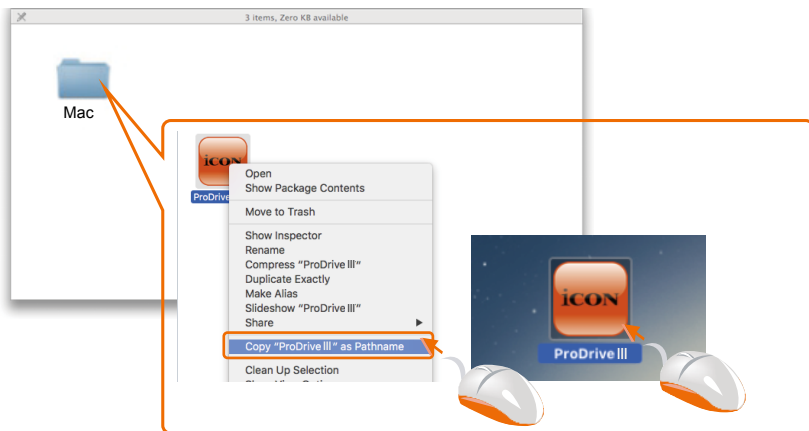
Diagram 1

4. Launch the software control panel
Click the Cube6Nano 's software control panel shortcut logo you have just copied to your desktop to launch the software control panel.

Diagram 2

5. Connect your Cube6Nano digital audio interface

Now connect the Cube6Nano digital audio interface to your Mac's USB port. *Note: Cube6Nano audio interface only support USB2.0. Your Mac must have a USB2.0 port.*

Diagram 3

6. Audio MIDI setup

Open the "Audio MIDI setup" window and confirm that the Cube6Nano device has been setup properly as shown in diagram 4.

Diagram 4

Mixer control panel

The mixers work like a matrix mixer. Activate and adjust the corresponding 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).
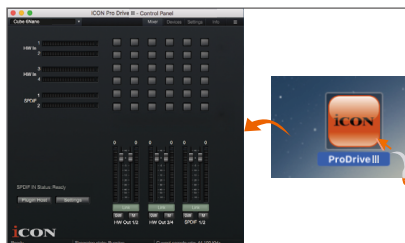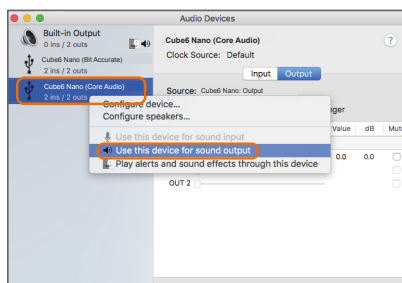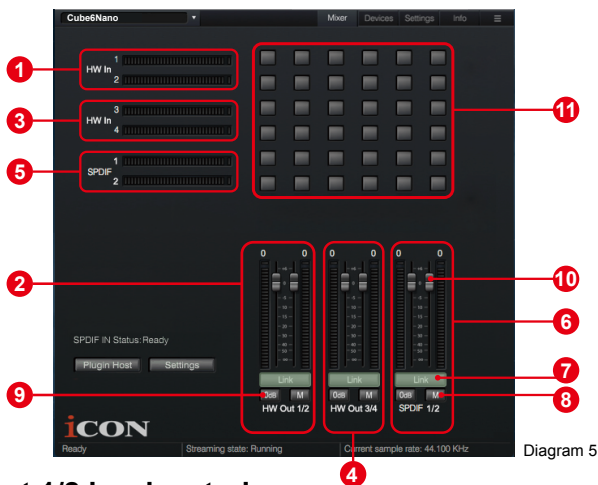

Diagram 5

1. **HW Input 1/2 level metering**
    Shows the hardware 1/2 input level. (HW In 1/2).

2. **HW Output 1/2 level metering**
    Shows the hardware 1/2 output level.(HW Out 1/2).

3. **HW Input 3/4 level metering**
    Shows the hardware 3/4 input level. (HW In 3/4).

4. **HW Output 3/4 level metering**
    Shows the hardware 3/4 output level.(HW Out 3/4).

5. **S/PDIF In 1/2**
    Shows the S/PDIF 3/4 input level (S/PDIF In 3/4).

6. **S/PDIF Out 1/2**
    Shows the S/PDIF 3/4 output level (S/PDIF Out 3/4).

7. **Link switch**
    Switch to adjust both channels' levels simultaneously.

8. **Mute switch**
    Switch to mute the corresponding channel.

9. **"0dB" switch**
    Switch to instantly adjust the corresponding channel to "0dB" level.

10. **Gain control fader**
    Slide to adjust the gain level for the corresponding channel.

11. **Inputs & Outputs Matrix switches**
    Switch to turn On/Off the corresponding input channel route to the corresponding output channel. Remember you may route any input(s) to any output(s).

Windows driver installation

Please follow the step-by-step procedures below to install your Cube6Nano USB recording interface and its driver.

1. Turn on your computer
Note: Do not connect the Cube6Nano digital audio interface to your computer yet.

2. Download the Windows driver from your "Personal User Page at www.iconproaudio.com"
After you downloaded the driver file, please click it to start the installation process.

| CONTROL SURFACES | KEYBOARDS | INTERFACES | HEADPHONES | MICROPHONES | STUDIO MONITORS | PROCESSORS |

Cube6Nano
Serial Number: BI6W5▮▮▮▮▮

Unregister this device

Latest driver for MacOS	V 1.1.0	Download
Latest driver for Win32	V 1.1.0	Download
Latest driver for Win64	V 1.1.0	Download

Diagram 6

3. Installation Wizard appears
Choose "Next" when you see the Welcome Screen shown in Diagram 7.
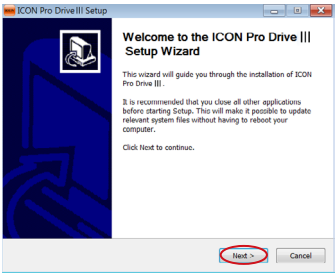
Diagram 7

4. License Agreement
Click "I Agree" to proceed.

Diagram 8

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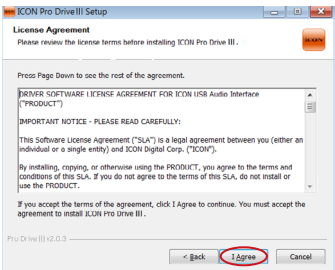
5. Select components for installation

Check mark the components that you would like to install. We strongly recommend that you select all components.
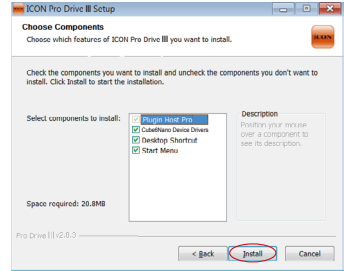
Diagram 9

6. Preparing installation files

Once 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.
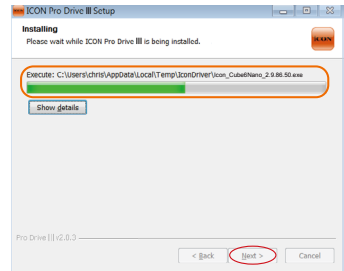
Diagram 10

7. Click "Install" to proceed.

Note: The same message will appear three times as there are three different driver installations.

Diagram 11

Diagram 12
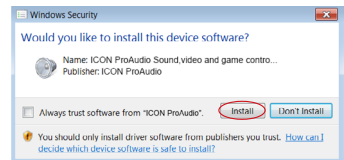
Diagram 13

8. Setup completed

A window as shown in Diagram 14 should appear. Choose "Finish".
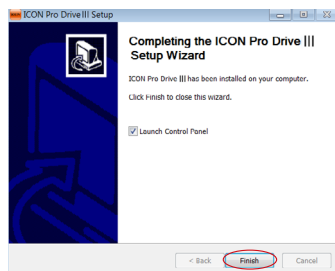
Diagram 14

9. Launch the software control panel

You may click the ICON ProAudio logo on the system tray to launch the software control panel (Page 16).
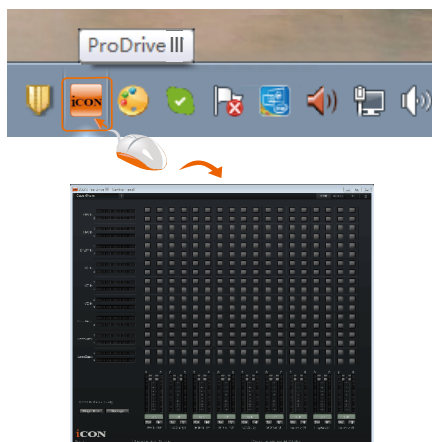
Diagram 15

10. Connect your Cube6Nano digital audio interface

Now connect the Cube6Nano digital audio interface to your computer's USB port.

Diagram 16

ProDrive Ⅲ
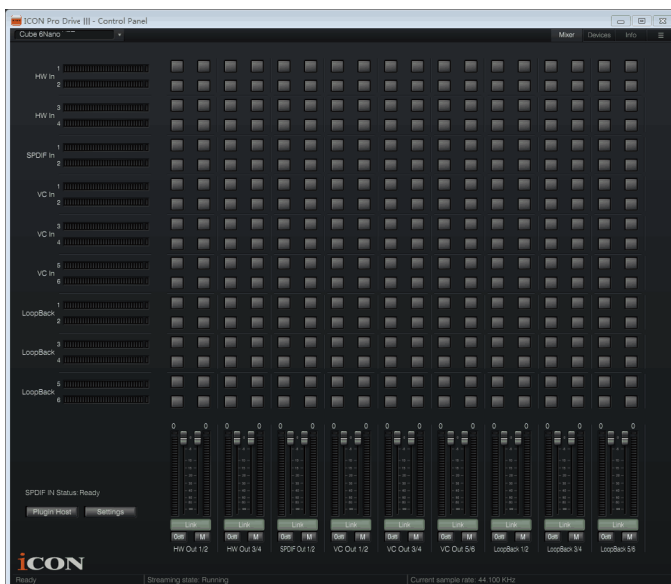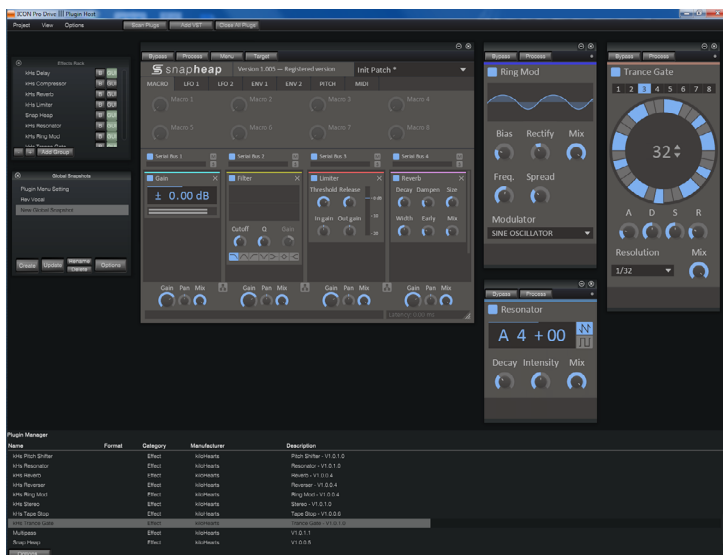
Diagram 17

Diagram 18

The Cube6Nano comes equipped with ProDrive Ⅲ - our innovative rack, plug-in host, and virtual signal router. ProDrive Ⅲ runs either in standalone mode or with your favorite digital audio workstation (DAW). Pull up your guitar modeling and play, or plug in your midi controller and control your favorite virtual instruments without running through your digital audio workstation.

Mixer control panel

On the mixer control panel, there are four different main types of ASIO channels that you can manipulate.

1. Cube6Nano Hardware channels (HW In 1/2, 3/4 & HW Out 1/2, 3/4)

These are the hardware input and output channels on Cube6Nano .

2. Cube6Nano S/PDIF channels (S/PDIF In 1/2 & S/PDIF Out 1/2)

These are the S/PDIF input and output channels on Cube6Nano .

3. Cube6Nano Virtual channels (VC In 1/2, 3/4 and 5/6), (VC Out 1/2, 3/4 and 5/6)

These are the input and output virtual channels that related to the WDM.
For example: WDM Out 1/2 linked to VC In1/2
                            VC Out1/2 linked to WDM In1/2

4. Cube6Nano Loopback channels (LB 1/2, 3/4 and 5/6)

These are the ASIO loop-back channels.

Diagram 19

By activating different cross points, you may route the corresponding signal to your desired channels.

1. HW Input 1/2 level metering

Shows the hardware 1/2 input level (HW In 1/2).

2. HW Output 1/2 level metering

Shows the hardware 1/2 output level (HW Out 1/2).

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3. HW Input 3/4 level metering
Shows the hardware 3/4 input level (HW In 3/4).

4. HW Output 3/4 level metering
Shows the hardware 3/4 output level (HW Out 3/4).

5. S/PDIF Input 1/2 level metering
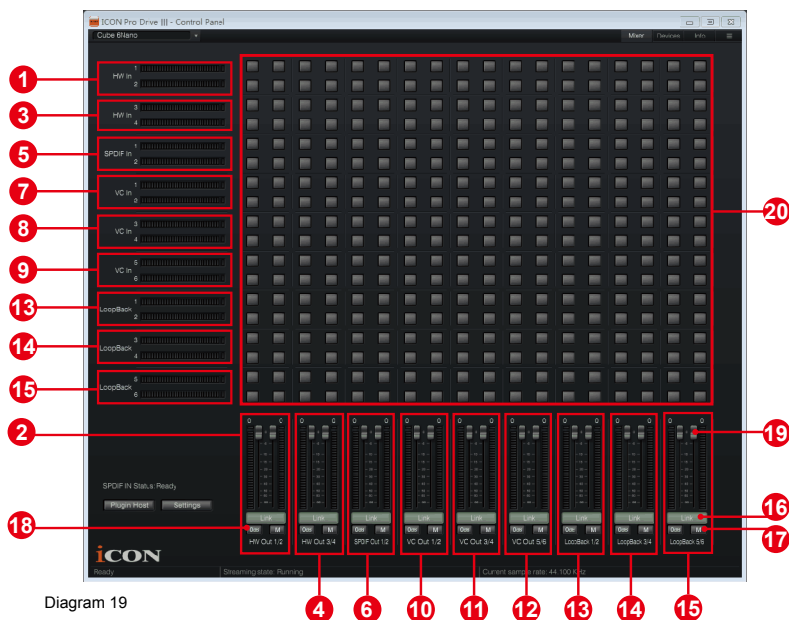Shows the S/PDIF 1/2 input level. (S/PDIF In 1/2).

6. S/PDIF Output 1/2 level metering
Shows the S/PDIF 1/2 output level. (S/PDIF Out 1/2)

7. VC In 1/2 (Virtual) input level metering
Shows the WDM 1/2 output level (VC In 1/2).

8. VC In 3/4 (Virtual) input level metering
Shows the WDM 3/4 output level (VC In 3/4).

9. VC In 5/6 (Virtual) input level metering
Shows the WDM 5/6 output level (VC In 5/6).

10. VC Out 1/2 (Virtual) output level metering
Shows the ASIO 1/2 VC output level (VC Out 1/2).

11. VC Out 3/4 (Virtual) output level metering
Shows the ASIO 3/4 VC output level (VC Out 3/4).

12. VC Out 5/6 (Virtual) output level metering
Shows the ASIO 5/6 VC output level (VC Out 5/6).

13. Loopback 1/2
Shows the ASIO loop-back 1/2 channel's level metering.

14. Loopback 3/4
Shows the ASIO loop-back 3/4 channel's level metering.

15. Loopback 5/6
Shows the ASIO loop-back 5/6 channel's level metering.

16. Link switch
Switch to adjust both channels level simultaneously.

17. Mute switch
Switch to mute the corresponding channel.

18. "0dB" switch
Switch to instantly adjust the corresponding channel to "0dB" level.

19. Gain control fader
Slide to adjust the gain level for the corresponding channel.

20. Inputs & Outputs Matrix switches
Switch to turn On/Off the corresponding input channel route to the corresponding 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).

Settings (Sample rate and latency settings)

Click the "Setting" button to launch the settings window.
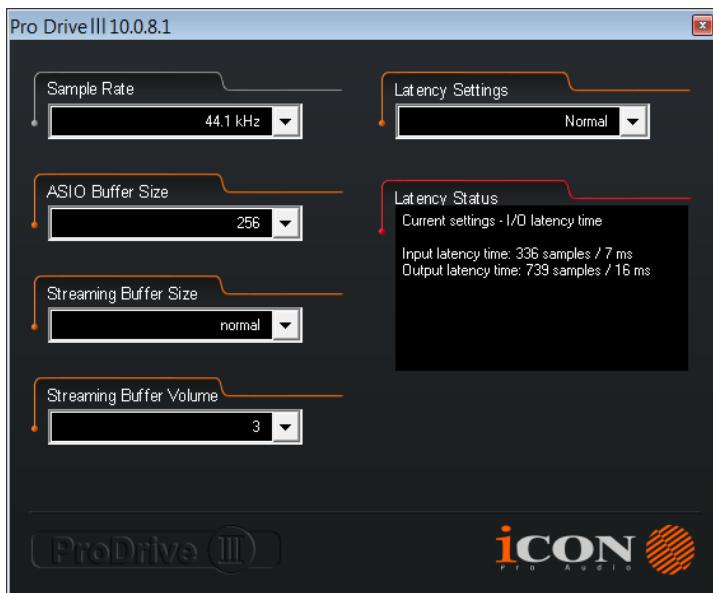
Diagram 20

Sample rate setting

Select your desired sampling rate from 44.1KHz to 192KHz on the pull down window shown in Diagram 21.
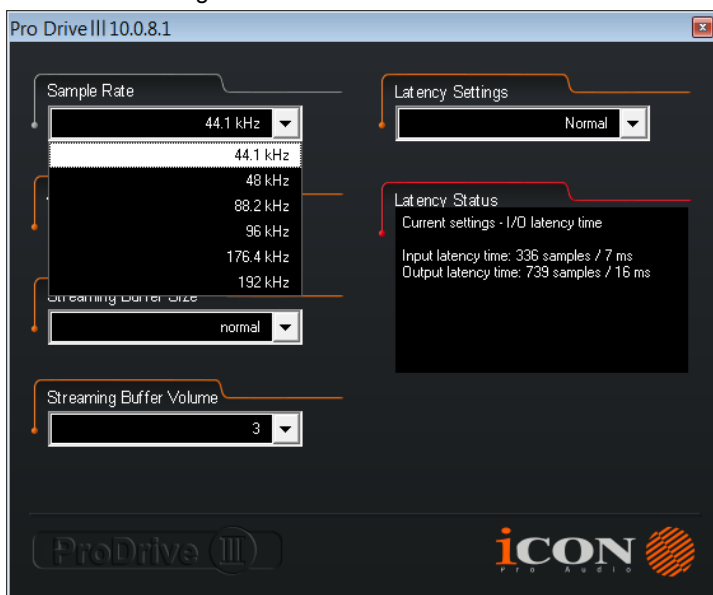
Diagram 21

Latency settings

There are six standard latency settings to select. If you would like to customize your own latency value, select custom.

● Safe (maximum latency)
● Extra Large
● Normal
● Small
● Very Small
● Minimum (minimum latency)
● Custom
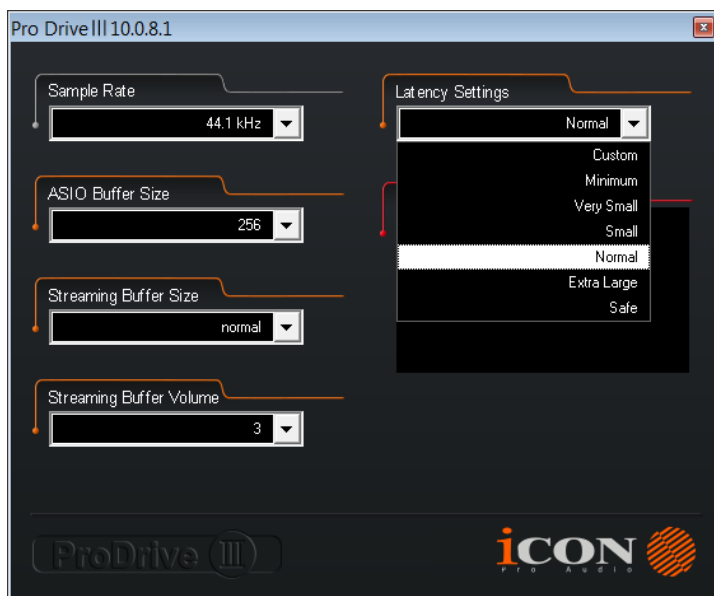
Diagram 22

There are three different settings you can adjust to customize your own latency settings: These values include:

1. ASIO buffer Size

You may adjust the value ranging from 32/64/128/256/512/1024/2048 and 4096.
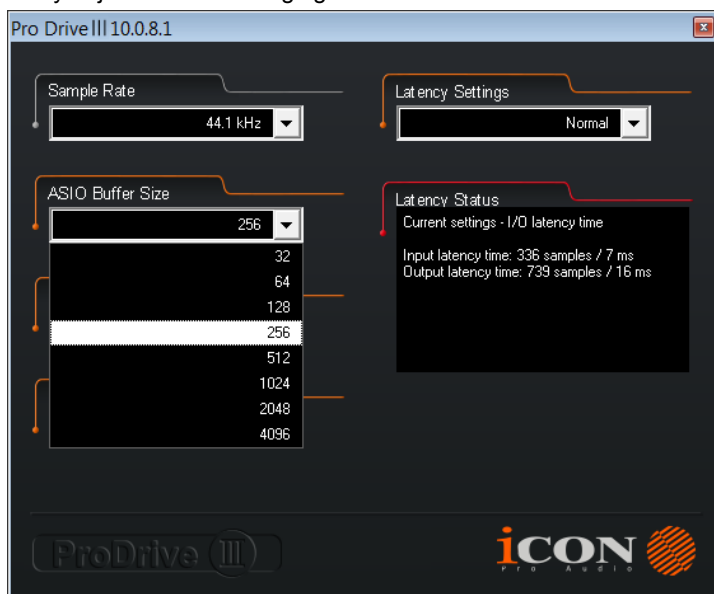
Diagram 23

2. Streaming buffer Size

Adjustable settings: Minimum/Low/Normal/High and Maximum.

Diagram 24

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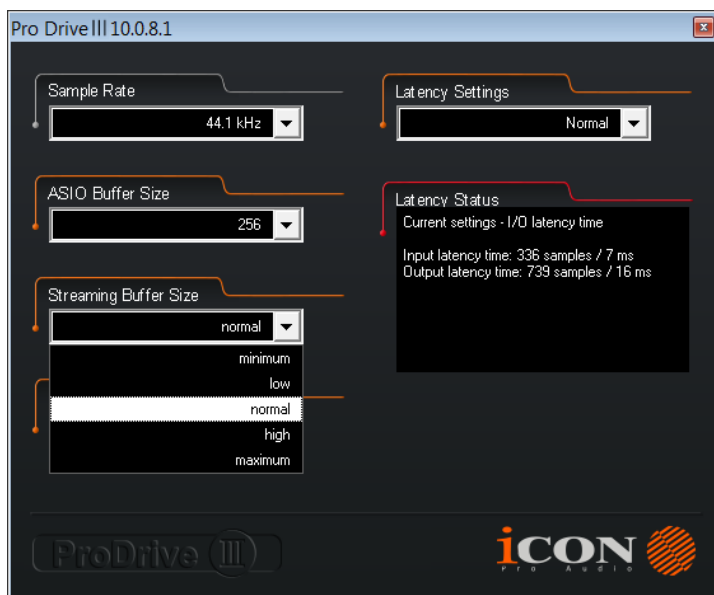
3. Streaming buffer volume

Adjustable values: 2/3 and 4.
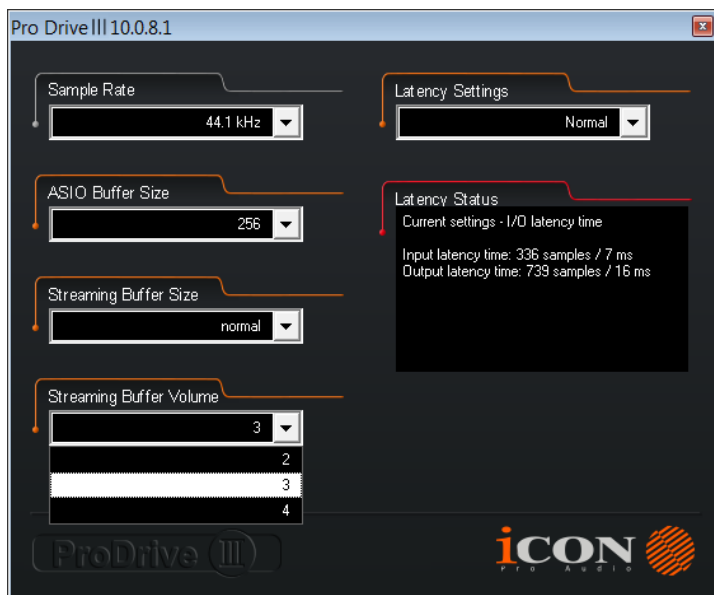
Diagram 25
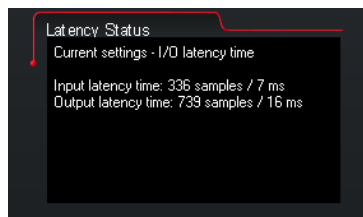
Diagram 26

*(**Note:** If a warning message appears on the "Latency Status" windows, please select a larger latency setting.)*

*(**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 Cube6Nano digital audio interface.)*

ProDrive Ⅲ *hosting rack*

With the ProDrive Ⅲ Rack, you can use any of your plug-ins with your DAW. Or

you may use your device as a standalone plug-ins effector without the need to run a DAW.

Hardware Connections

Connect the Cube6Nano digital audio interface outputs to your amplifier, powered monitors or surround system. In 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.
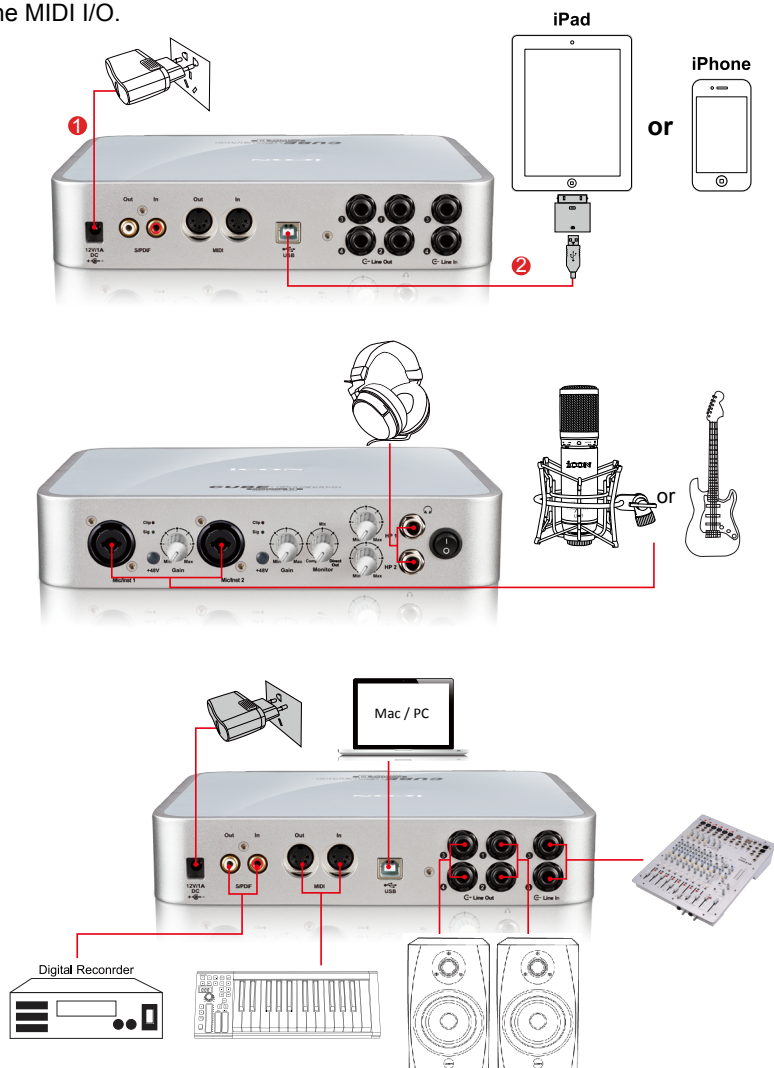
Specifications

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

Frequency Response: ....22Hz to 22kHz (+/-0.1dB)
Dynamic Range:...114dB, A-weighte
Signal-to-Noise Ratio:..................................-114dB, A-weighted
THD+N: .... -100dB
Crosstalk:...-100dB @ 1kHz
Input Impedance:...Inst in: 390K Ohms, typical;
                           Mic in: 1.8K Ohms, typical
Adjustable Gain: ....+53dB
Total Gain Range:...+56dB

Line Inputs 3-4 (balanced):

Frequency Response: ....22Hz to 22kHz (+/-0.1dB)
Dynamic Range:...114dB, A-weighted
Signal-to-Noise Ratio:..................................-114dB, A-weighted
THD+N: ....-100dB
Crosstalk:... -100dB @ 1kHz
Nominal Output Level:.................................. Balanced: +4dBu;
                           Unbalanced: -10dBV
Maximum Output Level:................................Balanced: +10.2dBu, typical;
                           Unbalanced: +2.0dBV, typical
Input Impedance:...10K Ohms, typical

Line Outputs 1-4 (balanced):

Frequency Response: ....22Hz to 22kHz (+/-0.1dB)
Dynamic Range:...114dB, A-weighted
Signal-to-Noise Ratio:..................................-114dB, A-weighted
THD+N: ....-100dB
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 Cube6Nano needs servicing, follow these instructions.

Check our online Help Center at **http://support.iconproaudio.com/hc/en-us**, for information, knowledge, and downloads such as:
1. FAQ
2. Download
3. Learn More
4. Forum

Very often you will find solutions on these pages. If you don't find a solution, create a support ticket at our online Help Center at the link below, and our technical support team will assist you as soon as we can.

Navigate to **http://support.iconproaudio.com/hc/en-us** and then sign in to submit a ticket.

As soon as you have submitted an inquiry ticket, our support team will assist you to resolve the problem with your ICON ProAudio device as soon as possible.

To send defective products for service:

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. See our service centers and distributor service points at the link below:

    If you are located in US
    Send the product to:
    North America
    Mixware, LLC – U.S. Distributor
    11070 Fleetwood Street – Unit F.
    Sun Valley, CA 91352; USA
    Tel.: (818) 578 4030
    Contact: www.mixware.net/help

    If you are located in Hong Kong
    Send the product to:
    ASIA OFFICE:
    Unit F, 15/F., Fu Cheung Centre,
    No. 5-7 Wong Chuk Yueng
    Street, Fotan,
    Sha Tin, N.T., Hong Kong.

    If you are located in Europe
    Send the product to:
    Sound Service
    GmbHEuropean
    HeadquarterMoriz-Seeler-Straße
    3D-12489 Berlin
    Telephone: +49 (0)30 707 130-0
    Fax: +49 (0)30 707 130-189
    E-Mail: info@sound-service.eu

5. For additional update information please visit our website at:
    www.iconproaudio.com

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