

# CUBE·2mamos CUBE·4mamos

USB2.0 High-speed 2x2 Audio Interfaces

#### Unleash studio grade sound with the Cube4NanoS and Cube2NanoS!

Crafted with an exceptionally robust aluminum die-cast chassis, the Cube4NanoS and Cube2NanoS offer outstanding audio quality and versatile control. Whether you're a musician, podcaster, or content creator, a host of features will support your quest to produce the best possible result. With 14 segment LED metering, rock solid streaming via UNI OTG, direct monitoring, BUMP and SHAPE buttons to enhance the bottom and top end or even controlling your entire production via iCON's iO Pro software instead of the hardware, the Cube2 and 4NanoS have you covered. With exceptional audio quality, an attractive and professional layout and super stable ARM M7 500MHz technology, the Cube4NanoS and Cube2NanoS will elevate your sound and user experience to new heights.







RISK OF ELECTRIC SHOCK DO NOT OPEN RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIE

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVIDEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL

ATTENTION: POLIR EVITER LES RISQUES DE CHOC ELECTRIQUE: NE PAS ENLEVER LE COUVERCLE, AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER CONFIER ENTERETIEN AU PERSONNEL QUALIFIE AVIS: POUR EVITER LES RISQUES D'INCENDIE OL D'ELECTROCUTION, N EXPOSEZ PAS CET ARTICLE A LA PLUIE OU A L'HUMIDITE



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 products enclosure, that may be of sufficient magnitude to electric shock to persons. Le symbol clair avec point de fl che I intrieur dun triangle quilat ral est utilis pour alerter Lutilisateur de la pr sence Lint rieur du coffret de vottage dangereux non isol dampleur suff

exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (serviving) instructions in the literature accompanying the appliance. Le point d exclamation I int rieur d un triangle quilat ral est employ pour alerter les utilisateurs de la prsence d instructions importantes pour le fonctionnement et Lentretien (service) dans le livret d instruction accmpagnant l appari I

## 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.
- 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
- 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 heatproducing 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 for 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

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# Introduction

Firstly, congratulations on your purchase of the ICON Cube2NanoS or the Cube4NanoS. There are some fundamental differences between these two devices;

#### Cube4NanoS

2x Neutrik high quality Combo XLR with ¼ inch (6.35mm) jacks for mic, line or instruments

2 inch full color TFT screen display shows 14 segment LED level meters for inputs, outputs and OTG

2 headphone sockets

All connections are at the rear

#### Cube2NanoS

1x Neutrik high quality Combo XLR with  $\frac{1}{4}$  inch (6.35mm) jacks for mic or line input

1x ¼ inch (6.35mm) instrument input

1.3 inch full color TFT screen display shows 14 segment LED level meters for inputs, outputs and OTG

1 x headphone socket (¼ inch (6.35mm) jack output)

Other specifications remain the same.

In these pages, you'll find a detailed description of the features of the CubeNanoS devices, as well as a guided tour through their top, front and rear panels, step-by-step instructions for their setup and use and a full list of specifications.

As with most electronic devices, we strongly recommend you retain the original packaging. In the unlikely event that the product is returned for servicing, the original packaging (or reasonable equivalent) is required. With proper care and adequate air circulation, your CubeNanoS device will operate flawlessly for many years to come.

We trust that this product will provide years of excellent service and in the unlikely event that your product does not perform to the highest standard, every effort will be made to address the issue.

# What's in the package?

- Cube4NanoS or Cube2NanoS
- USB 2.0 cable (Type-C to Type-A) x 1



# Register your ICON Pro Audio product to your User Center

### 1. Check the serial number of your device

Please go to <a href="http://iconproaudio.com/registration">http://iconproaudio.com/registration</a> 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". If you see any other message, please contact our after-sales service team

# 2. Log in to your personal User Center for existing users or sign up as a new user

Existing user: Please log into your personal User Center by inputting 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 manuals in different languages and bundled software etc. for download.

### Features Pt. 1

The Cube4NanoS and the Cube2NanoS are updates of an iCON classic. The updated design includes an extremely strong aluminum die-cast chassis.

Both Cube4NanoS and Cube2NanoS high end preamps boast 125dB Analog to Digital conversion and 130dB Digital to Analog conversion. The mic preamps (connected to the Neutrik high quality Combo XLR inputs), boast an impressive 60dB of gain.

The Cube4NanoS features two 'headphone out' sockets located at the rear of the device (all physical I/O are situated at the rear of the Cube4NanoS for convenience), making it easy for collaborators when recording in a session, producing a streaming production or playing live. No need for headphone splitters when say a guitarist and a vocalist are working together - simply plug in and your headphone monitoring is easily accessed.

The Cube2NanoS is perhaps more suited to the solo musician/producer/podcaster and features one headphone out socket (situated at the front of the device) with its attendant gain control positioned above.

The Cube4NanoS offers two and Cube2NanoS offers one Neutrik © Combo XLR connectors, which combine an XLR connection and a ¼ inch (6.35mm) jack input in one housing.

The Cube2NanoS also has a ¼ inch (6.35mm) instrument input.

Both devices give you plenty of scope to manage your I/O needs, (2x2 physical I/O for both devices).

The UNI OTG USB-C connector port allows the user to directly connect to internet streaming services. If you are a producer, engineer or artist who broadcasts to the internet, you can do this with pristine audio quality via the CubeNanoS devices. Specially created coding, together with one of two onboard ARM M7 500MHz chips facilitate a super stable streaming environment with superb audio quality.

Users may connect to the iO Pro software simultaneously via the USB-C connection to enable the use of plugins such as reverb, compressors and delays on their live streaming broadcast or live performance.

The iO Pro software and the CubeNanoS hardware work seamlessly together. This is due to the use of digital potentiometers, which can be recognised by iO Pro. For example, users may click 'monitor' to launch the monitoring panel in iO Pro where headphone, master outputs, direct monitoring and OTG inputs can be managed within the program and on the CubeNanoS devices. Similarly, adjusting input gain, headphone gain, UNI OTG or Master levels within the iO Pro software will result in the same adjustment on the CubeNanoS. The corresponding LED semicircular indicators which are situated around the potentiometers will also be adjusted to reflect the changed value.

Impressive, right?!

The iO Pro manual is available for download inside the application or on the product page at the iCON Pro Audio website, (<a href="https://iconproaudio.com/iopromanuals">https://iconproaudio.com/iopromanuals</a>).

The CubeNanoS devices feature a full color TFT display screen with wide viewing angles, (the Cube4NanoS screen is 2 inches and the Cube2NanoS screen is 1.3 inches). Colorful, easy to read and responsive 14 segment metering indicators populate the screen for all I/O.

Both CubeNanoS devices feature a +48V button which activates phantom power for microphones that require it.

Connect a line level device such as a drum machine via the 1/4 inch (6.35mm) input/s on the Neutrik combo connectors on both devices. Typically, a TRS cable (balanced) is used for line level connections.

The Cube4NanoS features an INST button which switches the 1/4 inch (6.35mm) input from a line level input to an instrument level input, suitable for an electric guitar, for example. Cube2NanoS users should use the ¼ inch (6.35mm) instrument input at the front of the device for instruments. Typically TS cables (unbalanced) are used for instrument level inputs, (although TRS cables can also be used - although these will function in the same way as TS cables i.e. carrying an unbalanced signal when INST is selected).

Cube2NanoS users should only use line level inputs housed in the 1/4 inch (6.35mm) input on the Neutrik combo connector located at the back of the device when connecting line level devices such as drum machines or CD players and not the 1/4 inch (6.35mm) instrument input at the front of the device. Using an instrument level input on a line level jack can result in very poor audio quality as instrument-level signals are inherently weaker than line-level signals.

Direct monitoring (effectively bypassing processing on the computer) can be accessed by activating the illuminated button on top of the device on the Cube4NanoS and the MON button at the front of the device on the Cube2NanoS.

BUMP and SHAPE buttons can be activated to enhance the bottom and top end, respectively. BUMP is particularly useful when the user wishes to filter out unwanted low frequencies with a low cut, but maintain the vitality of the low end.

SHAPE infuses the signal with a breath of sonic 'air,' lifting the mid and top frequencies. Equally, these functions may be activated via iO Pro.

Together with easy to use onboard functionality and high grade internal components, the Cube2NanoS and Cube4NanoS have a future in the professional and high specification home studio for many years to come.

# Features Pt. 2: Cube4NanoS

- 24-Bit 192KHz 2x2 analog I/O full duplex simultaneous recording and playback
- USB 2.0 high speed
- Extremely strong and durable aluminium die cast chassis
- Extremely high audio quality (125dB Analog to Digital conversion 130dB Digital to Analog conversion)
- High-resolution analog mic preamps with 65dB of gain
- 2 inch full color TFT screen LED level meter for inputs, output and OTG
- Semi-circular, brightly colored LED indicators show input gain (green), headphone, OTG and master levels (blue)
- Digital potentiometers allow users to control parameters such as gain via physical controls or via iCON's iO Pro software
- Ability to use plugins in a live context whilst streaming/live via iCON iO Pro software
- +48V Phantom Power
- BUMP and SHAPE buttons enhance low and high end (respectively)
- Ability to connect to streaming services via iCON's super stable, high audio quality UNI OTG output
- Rock solid reliability with ARM M7 500MHz technology
- 2x high quality Combo XLR with ¼ inch (6.35mm) jacks for mic, line or instruments
- 2x headphone outputs
- 2x line out ¼ inch (6.35mm) unbalanced outputs
- Class-compliant with MacOS 10.15 or above & Windows 10 or above
- Direct monitoring available via illuminated button
- 5V Power input port for instances when the PC does not supply sufficient power
- Sturdy rubber base for enhanced stability

# Cube4NanoS Front Panel



## 1. Input gain encoders 1-2

These knobs control the input signal of Mic/Inst/Line inputs 1-2.

#### 2. BUMP button

Instigates a low cut, whilst retaining perceived bass energy with a subtle boost at the cut off frequency (around 60Hz). This is particularly useful when the user wishes to filter out unwanted low frequencies with a low cut, keeping low end 'vitality' while still filtering out unwanted frequencies below the cutoff frequency. The 'BUMP' text is illuminated by a bright blue LED light when activated.

#### 3. SHAPE button

This feature adds a touch of sonic 'air' by subtly boosting the mid and top end of the signal. The 'SHAPE' text is illuminated by a bright blue LED light when activated.

#### 4. +48V phantom power button

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

#### 5. INST button

Switches the Cube4NanoS's focus from the XLR to the ¼ inch (6.35mm) jack input and provides suitable gain for instrument level signals, (use a TS cable for instruments). If connecting line-level devices via the 1/4 inch (6.35mm) input, the INST button should be off (use a TRS cable for line connections). Choices will be reflected in, or can be selected in iO Pro if connected.

### 6. Display screen

TFT full color 2 inch wide angled display screen (can be seen from multiple directions) populated by clear, colorful metering for inputs 1 and 2, OTG, HP1 and HP2 and the stereo out channel.

### 7. Headphone volume encoders

Connect one or two pairs of stereo headphones to the two ¼ inch (6.35mm) TRS iack sockets and adjust the volume with these encoder knobs.

#### 8. Input/output indicators

Semi-circular illuminated input/output indicators. Green LED's illuminate the input gain knob indicators and blue LED's illuminate the headphone output.

# Cube4NanoS Rear Panel



## 1. Headphone (HP) outputs

Connect your headphones to this  $\frac{1}{4}$  inch (6.35mm) jack output. Individual headphone gain controls are available at the front of the device.

#### 2. Line Outputs

These are mono singled-end for each ¼ inch (6.35mm) analog outputs. These outputs are normally connected to monitors.

#### 3. Power supply connector

Whilst the Cube4NanoS is USB powered, a 5V/2A DC power supply connector is included in the design in case the PC/Mac you are using does not supply enough power.

# 4. USB connector (Type-C) Plese connect to USB 3.0 to get enough current

Connect this port with the provided USB cable (Type-C) to your Mac or PC.

#### 5. UNI OTG

This USB-C UNI OTG ports allows you to connect your smart device (OTG cable/adapter and Apple camera kit required). The connection has a very high dynamic range and is extremely stable, (please see 'UNI-OTG Connection' on page 26).

# 6. 2 x Neutrik Combo XLR with 1/4 inch (6.35mm) jacks for mic, instruments or line inputs

These are unbalanced instrument/balanced line inputs and balanced mic level inputs (XLR), connected to the Cube4NanoS pre-amp. These hybrid

connectors will accept a standard 3-pin XLR plug or a ¼ inch (6.35mm) TS or TRS connector. The inner 1/4 inch connector is for line and instrument inputs and the XLR is intended for microphones. Use a TRS cable (balanced) for LINE inputs. A TS cable (unbalanced) can be used for instruments, (a TRS cable can also be used, but will become unbalanced in the same way as a TS cable), when INST is selected.

Ensure INST is selected when using an instrument like an electric guitar and LINE is selected when connecting external equipment like a drum machne or preamp.

# Cube4NanoS Top Panel



#### 1. UNI OTG encoder

This encoder dial controls the amount of signal supplied to the UNI OTG port.

#### 2. MON button

This button activates direct monitoring. The button is illuminated when activated.

#### 3. Master out encoder

This encoder dial controls the overall signal level of outputs 1 and 2.

#### 4. LED indicators

Blue LED indicators that reflect the amount of gain applied via the encoders.

# Features Pt. 2: Cube2NanoS

- 24-Bit 192KHz 2x2 analog I/O full duplex simultaneous recording and playback
- USB 2.0 powered
- Extremely strong and durable aluminium die cast chassis
- Extremely high audio quality (125dB Analog to Digital conversion 130dB Digital to Analog conversion)
- High-resolution analog mic preamps with 60dB of gain
- 1.3 inch full color TFT screen LED level meter for inputs, output and OTG
- Semi-circular, brightly colored LED indicators show input gain (green), headphone, OTG and master levels (blue)
- Digital potentiometers allow users to control parameters such as gain via physical controls or via iCON's iO Pro software
- Ability to use plugins in a live context whilst streaming/live via iCON iO Pro software
- +48V Phantom Power
- BUMP and SHAPE buttons enhance low and high end (respectively)
- Ability to connect to streaming services via iCON's super stable, high audio quality UNI OTG output
- Rock solid reliability with ARM M7 500MHz technology
- 1x high quality Combo XLR with ¼ inch (6.35mm) jacks for mic or line inputs
- 1x ¼ inch (6.35mm) instrument input
- 1x headphone outputs
- 2x line out ¼ inch (6.35mm) unbalanced outputs
- Class-compliant with MacOS 10.15 or above & Windows 10 or above
- Direct monitoring available via illuminated button
- 5V Power input port for instances when the PC does not supply sufficient power
- Sturdy rubber base for enhanced stability

# Cube2NanoS Front Panel



# 1. Gain encoder knob for INST input

This dial controls the amount of gain applied to the  $\frac{1}{4}$  inch (6.35mm) input on the front panel

## 2. INST input

¼ inch (6.35mm) input for instruments. The amount of gain applied is controlled via the knob directly above (1). Use a TS (unbalanced) or TRS (unbalanced when connected) cable.

## 3. +48V phantom power button

Press to supply +48V phantom power to the associated XLR input, situated at the rear of the device. This phantom power circuit is suitable for most condenser microphones. When activated, the '+48V' text is illuminated by a bright red LED light.

#### 4. MON button

This button activates direct monitoring. When activated, the 'MON' text is illuminated by a bright green LED light.

### 5. BUMP button

Instigates a low cut, whilst retaining perceived bass energy with a subtle boost at the cut off frequency (around 60Hz). This is particularly useful when the user wishes to filter out unwanted low frequencies with a low cut, keeping low end 'vitality' while still filtering out unwanted frequencies below the cutoff frequency. The 'BUMP' text is illuminated by a bright blue LED light when activated.

#### 6. SHAPE button

This feature adds a touch of sonic 'air' by subtly boosting the mid and top end of the signal. The 'SHAPE' text is illuminated by a bright blue LED light

when activated.

### 7. Display screen

TFT full color 1.3 inch wide angled display screen (can be seen from multiple directions) populated by bright, colorful metering for inputs 1 and 2, OTG, headphones and the stereo out channel.

#### 8. Gain encoder knob for XLR/1/4 inch (6.35mm) input

This dial controls the amount of gain applied to the  $XLR / \frac{1}{4}$  inch (6.35mm) combo input on the rear panel

## 9. Headphone output

Connect your headphones to this ¼ inch (6.35mm) jack output.

## 10. Headphone volume control encoder knob

Control the volume of your headphone connection using this knob.

## 11. Input/output indicators

Semi-circular illuminated input/output indicators. Green LED's illuminate the input gain knob indicators and blue LED's illuminate the headphone output.

# Cube2NanoS Rear Panel



#### 1. Power supply connector

Whilst the Cube2NanoS is USB powered, a 5V DC power supply connector is included in the design in case the PC/Mac you are using does not supply enough power.

# 2. USB connector (Type-C)

Connect this port with the USB cable provided (Type-C) to your Mac or PC.

#### 3. UNI OTG

This USB-C UNI OTG ports allows you to connect your smart device (OTG cable/adapter and Apple camera kit required). The connection has a very high dynamic range and is extremely stable, (please see 'UNI-OTG Connection' on page 25).

#### 4. Line Outputs

These are balanced  $\frac{1}{4}$  inch (6.35mm) analog outputs. These outputs are normally connected to monitors. For best results use TRS cables (balanced).

# 5. Neutrik Combo XLR with 1/4 inch (6.35mm) jack for mic or line inputs

This is a balanced line input and balanced mic level input, connected to the Cube2NanoS pre-amp. This hybrid connector will accept a standard 3-pin XLR plug or a ¼ inch (6.35mm) TRS connector. The inner ¼ inch (6.35mm)connector is for line inputs **only** using TRS cables and the XLR is intended for microphones.

# Cube2NanoS Top Panel



#### 1. UNI OTG encoder dial

This encoder dial controls the amount of signal supplied to the UNI OTG port

#### 2. Master out encoder dial

This encoder dial controls the overall signal level of outputs 1 and 2.

## 3. LED indicators

These are blue LED indicators that reflect the amount of gain applied via the encoders.

A Brief Explanation of the Differences Between 'Line in' and 'Instrument Inputs'

"Line in" and "instrument in" are two types of inputs found on audio interfaces, and they differ in terms of the type of signal they can receive.

A line-in input is designed to receive a line-level signal, which is a signal that has been pre-amplified and has a higher voltage than an instrument-level signal. Line-level signals are typically used for sources such as mixers, CD players, or other audio playback devices. The line-in input is usually a balanced input that accepts a TRS (Tip-Ring-Sleeve) connector.

An instrument input, on the other hand, is designed to receive a lower instrument-level signal. This type of signal is generated by instruments such as guitars, basses, keyboards, and other electronic instruments. Instrument-level signals are usually unbalanced, meaning they have a single signal wire and a ground wire. The instrument-in input is usually an unbalanced TS (Tip-Sleeve) connector.

As a general rule, it is always best to connect external devices with the input and output volume low, for ear safety and the protection of equipment, (in case of feedback or unexpected interference.

See 'TRS, TS and XLR Connections' on Page 21 for more details.

# **Hardware Connections**

Connect the Cube2NanoS or Cube4NanoS outputs to your amplifier, powered monitors or surround system.

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. Ensure the +48V switch is turned OFF for microphones that do not require phantom power. For safety reasons, please ensure headphones are not worn when connecting devices and that all input and output volumes (of all devices) are at a low level or zero.





#### PC/MAC Smart Device Simultaneously



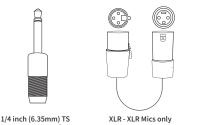
# TRS, TS and XLR Connections

Line outputs are balanced on the Cube devices. TRS (balanced) cables should be used for these connections. You will be able to distinguish a ¼ inch (6.35mm) TRS (balanced) cable from a TS (unbalanced) cable by their appearance.

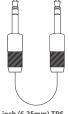
A TS cable has two contact points: the Tip (T) and the Sleeve (S) as seen in the diagram, below. These cables are typically used for mono and unbalanced signals such as an electric guitar.

A TRS cable adds an extra layer - the ring. It has three conductors: Tip, Ring, and Sleeve.

TRS cables can carry balanced mono signals. These are essential for professional audio setups, where noise reduction and interference rejection matter. TRS cables also handle stereo signals such as headphones or connections to audio interfaces from additional outboard equipment.







Instruments only

Suitable for connecting outboard equipment (XLR - outboard equipment TRS - audio interface)

1/4 inch (6.35mm) TRS - TRS Suitable for connecting outboard equipment

It is usual practice to connect external speakers/monitors using ¼ inch (6.35mm) TRS cables to LINE OUT ports as these connections offer the least amount of interference when compared to ¼ inch (6.35mm) TS cables. If you have ever connected active/non-active monitors to an audio interface with TS (unbalanced) cables, you may have noticed obvious audible interference, if only occasionally. Replacing TS cables with TRS cables may eradicate or vastly reduce this interference.

As mentioned above TRS cables are also capable of stereo connections as opposed to TS cables, which are only capable of mono connections, so they are an ideal choice when connecting an outboard preamp, a channel strip, a CD player, a drum machine or similar item to your interface.

The ¼ inch (6.35mm) input portion of the combo input at the rear of the device is automatically assigned as a LINE input on the Cube2NanoS. When using a combo XLR/¼ inch (6.35mm) input, Cube4NanoS users may switch to a LINE input either using the device itself (by deselecting INST so that it is not lit) or via iO Pro by selecting LINE. In so doing, you are providing a suitable input level for your device when using the ¼ inch (6.35mm) connector.

Connect the external device/s (whilst powered off) using TRS to TRS connections (¼ inch (6.35mm) connectors) or, if preferred and available, an XLR to TRS ¼ inch connector, (using the TRS connector on the audio interface and the XLR connector on the outboard equipment). As +48V phantom power only travels via an XLR connection, the TRS connection will be safe.

If your microphone requires phantom power and you have connected outboard equipment such as a preamp to your interface, always use the phantom power (+48V) on the outboard equipment rather than your audio device. If you have correctly ensured the outboard equipment is connected to the audio interface via a LINE connection using a TRS cable to the ¼ inch (6.35mm) portion of the Neutrik combo inputs, even if +48V is accidently selected, phantom power will be safely bypassed.

The advice is to NEVER connect an external device such as a preamp to an audio interface using an XLR to XLR connection. Whilst this might seem like a good idea at first, (as XLR connections are balanced), if the +48V phantom power is accidently activated on the audio interface, this will send unneeded additional power through the XLR connection and may lead to damage to the interface device as well as preamp, (especially if the preamp has +48V phantom power already activated). Equally, it is possible that any connected equipment, regardless of whether it has phantom power, when receiving an unexpected 48V charge may be damaged. Therefore, as a general rule, when connecting equipment;

Use the  $\frac{1}{4}$  inch (6.35mm) portion of the Neutrik XLR/  $\frac{1}{4}$  inch (6.35mm) combo inputs using a TRS balanced cable only (bypasses +48V phantom power supply).

NEVER use XLR-XLR connections.

Remembering this may help eliminate some potentially expensive repair bills in the future!

If connecting an external device such as a channel strip to the audio interface, in order that you may complete tasks like perform high pass filters, add compression and coloration using 'tube' simulators and so on, you may be concerned that the signal will effectively pass through two preamps, adding unwanted additional signal coloration. Users can be assured that any coloration is negligible and that gain controls will be fully accessible to control the input signal of the channel strip.

The following paragraph applies to the Cube4NanoS only.

Connecting instruments is normally executed using TS cables (unbalanced), although TRS cables can also be used. The connection is unbalanced when selecting INST, so even if you are using a TRS cable, the signal will remain unbalanced. It is important to remember when using an XLR/¼ inch (6.35mm) combo input to connect an instrument such as an electric guitar, that INST has been previously selected and that input gain is at a reasonably low level before connecting the cable/s.

Users of the Cube2NanoS are reminded that they should only use the ¼ inch (6.35mm) input at the front of the device for instruments connected via a TS/TRS cable - and only use the XLR/1/4 inch input at the rear for LINE inputs (¼ inch TRS) and XLR connections only.

In short, the usual practice would be:

Connecting LINE devices (drum machines, outboard gear etc.) - use TRS cables

If using an XLR connection on your outboard equipment to connect to your audio interface, it is best to choose an XLR to TRS ¼ inch (6.35mm) cable (always using the XLR connection for the outboard equipment and the TRS connection for your audio interface). Otherwise, choose a good quality TRS to TRS ¼ inch (6.35 mm) cable.

Note: This will remove any possibility of phantom power (+48V) being selected inadvertently on your audio interface and potentially damaging your equipment.

Connecting speakers/monitors - use TRS cables

Connecting instruments - use TS cables OR TRS cables (both unbalanced)

Connecting microphones - use XLR cables

#### Reminder:

NEVER use XLR cables to connect to external devices such as preamps as phantom power travels via XLR connections, (this is used to power microphones – external devices do not require phantom power and it could lead to damage to your device/s).

It may help to think of the XLR/¼ inch (6.35mm) combo inputs as balanced unless INST is selected, in which case they become unbalanced (applies to Cube4NanoS only).

# Different types of microphone connection method diagram



**Note:** For dynamic microphone users, please make sure +48V phantom power switch is "OFF" before you plug in your microphone, otherwise it may cause damage to your microphone.

# **UNI OTG Connection**



"OTG" connectivity is available via the Cube4NanoS and Cube2NanoS.

"OTG" stands for "On-The-Go". It refers to a feature available on many modern smartphones and tablets. OTG allows these devices to act as "hosts", enabling them to connect and interact with various USB peripherals.

"UNI" is iCON's own, improved method of OTG connection using new, advanced coding.

The CubeNanoS 'UNI OTG' capability allows the user to broadcast on social media, taking advantage of its superb audio capabilities. One of the unit's two extremely high quality ARM M7 chips along with new, especially created coding is used to enable the UNI OTG connection, resulting in extremely high quality audio and a super stable connection.

In order to use this feature, a special 'OTG cable must be used - a standard USB cable will not work. 'OTG' cables have an additional pin in the mobile phone connector, which allows the device to act as a 'host'.

- 1. Ensure that your smartphone or tablet supports OTG functionality. Most newer Android devices support OTG, but it's always a good idea to verify this in the device specifications or manual.
- 2. Obtain an OTG cable you will need an Apple Camera kit to connect.
- 3. Turn on the CubeNanoS device. Connect the CubeNanoS device via the USB-C port.
- 4. Plug the other end of the OTG cable into your mobile or tablet's charging or data port. Your device should recognize the CubeNanoS automatically.
- 5. Launch your chosen streaming or recording application on the device.

- 6. Check to see if it is receiving audio from the device. You should be able to hear the output of the CubeNanoS on your phone/device and/or see the signal of the output (depending on the app you are using).
- 7. Start streaming the audio output from the CubeNanoS will be reflected in your broadcast.
- 8. When you have completed your broadcast, safely eject the CubeNanoS. You can usually find an option to eject or safely remove USB 'peripherals' in the settings or notification panel of your device.

Please note that the above steps may vary slightly depending on your mobile/tablet device's manufacturer, model, operating system version, and streaming application. Additionally, not all mobile and tablet devices are guaranteed to work with OTG, as some may require specific drivers or have compatibility limitations.

Please note that the Apple Camera kit device is required when using the OTG connection.

# Installing your CubeNanoS device

To ensure proper functionality of your Cube4NanoS or Cube2NanoS for either Mac or Windows, iCON's iO Pro software should be downloaded and installed.

Please remember to ensure you've connected your device to your computer (PC or Mac) and turned it on. Please confirm you have a stable connection to the internet before installation of iO Pro commences.

During the installation, iO Pro will install various drivers. For example, the loopback drivers for Mac systems. For Windows systems, iO Pro will prompt the user to install ASIO drivers toward the end of the process. Please note that it is vital for Windows users to install ASIO drivers.

Full installation instructions can be found in the iO Pro manual and the quick start guide for your device.

# Steps:

- 1. Connect your device to your computer
- 2. Ensure it is on and connected to the internet
- 3. Download and read the installation instructions (Quick Start Guide or iO Pro manual)
- 4. As a precaution, disconnect other peripheral devices such as sound modules from your computer
- 5. Download iO Pro
- 6. Run the iO Pro installer.
- Grant permissions for iO Pro to install drivers (Windows users must install the ASIO drivers or the device will not function)

Documentation is periodically updated. Please ensure you are following instructions from the latest version of the Quick Start Guide or iO Promanual (available on the product page of the iconproaudio.com website).

# iO Pro Virtual Mixer and Plugin Host

Experience the ultimate audio control with iO Pro, the companion software for iCON Pro Audio interfaces. This powerful tool seamlessly integrates into your system, allowing you to transport audio effortlessly and utilize plugins without the

need for a DAW. Store your favorite plugin chains as presets for easy access, whether you're podcasting, streaming, recording, or mixing. iO Pro empowers you to achieve professional-grade results with ease.

Developed through years of dedicated research and development, iO Pro is a mature, stable, and intelligent software solution. It enables live plugin use, flexible channel routing, direct monitoring, and plugin sidechaining, among many other features. Compatible with both Windows and Mac, iO Pro is designed to enhance your audio experience across all platforms.

Full instructions on how to install iO Pro are in the iO Pro manual which can be found on the product page on the iCON website, (<a href="https://iconproaudio.com/">https://iconproaudio.com/</a>). It is also easy to locate within the iO Pro software itself, by selecting HELP and then MANUAL, (which you won't be able to do until you install the software obviously!).

Whilst it is important to read the instructions in the iO Pro manual/Quick Start Guide, users are hereby advised to ensure that their devices are connected and switched on prior to the installation process.

Windows ASIO drivers will be installed once the installation of the iO Pro software is complete. It is important that you complete the process and ensure the computer can 'read' the interface, by leaving it on during the installation process. Additionally, Mac users should note that loopback drivers are installed via iO Pro.

If, for any reason you stop the process before you successfully install iO Pro (and/or the ASIO drivers for Windows users), it is good practice to uninstall iO Pro completely, (checking to make sure it is deleted from your program files) and begin the installation afresh, (should you run into issues with multiple attempted installations, you may wish to try this). Ordinarily, you may simply reinstall iO Pro over the existing instance of the software.

To be clear - you do not need to have iO Pro running when using your interface in

day-to-day operations if you wish to use it as a traditional interface with a DAW, (you can simply download the necessary drivers and not use it again if you so wish).

**Windows users:** Install iO Pro and ASIO drivers **Mac users:** Install iO Pro *and* loopback drivers\*

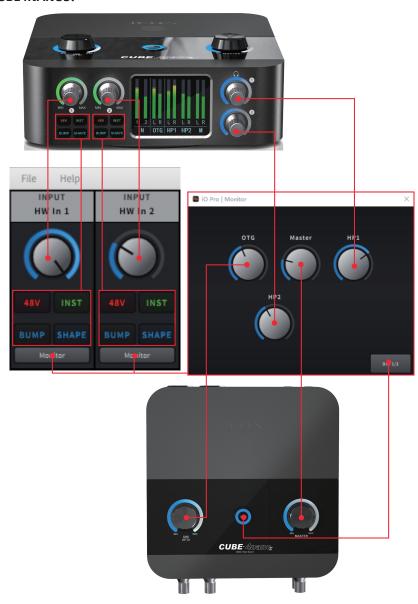
<sup>\*</sup> no special steps are required - iO Pro will install loopback drivers automatically

# Using your device with iO Pro

Using ICON iO Pro in conjunction with your CubeNanoS provides many advantages and you will note many of the functions of the device are mirrored in the software. Every compatible iCON device has its own unique version of iCON iO Pro.

Please see the diagram below to see how the CubeNanoS functions are reflected in iO Pro.

#### **CUBE4NANOS:**



#### **CUBE2NANOS:**



As the diagram suggests, functions such as '+48v phantom power' can be activated on the CubeNanoS devices via iCON iO Pro. This is likely to prove extremely useful if say, an engineer is stationed at a computer with the iO Pro software and/or a DAW running and the CubeNanoS is located some distance away. The engineer doesn't constantly need to leave their area in order to make changes to the equipment. Not only is this convenient, but it will likely prove over time, a labor saving factor.

The iO Pro software provides opportunities to do what the hardware can't do alone. For example, the use of loopback, using software plugins in a live context or for streaming productions (without the use of a DAW), and flexible routing. For example, any input can be routed to any output within iO Pro.

In order to gain a full understanding of the software, please download and read the iO Pro manual.



Cube2NanoS



# Specifications: Cube4NanoS

Cube4NanoS Specifications		
1/0		
Microphone Inputs (XLR - balanced)	Two	
High Impedance (Hi-Z) Instrument Inputs	Two	
Analog Line Inputs	Two	
Analog Monitor Outputs (DC coupled)	Two	
Digital Output Port	USB (UNI OTG)	
Audio to Digital Conversion		
Dynamic Range	125dB, A-weighted	
Signal-to-Noise Ratio	-125dB, A-weighted	
THD+N Ratio	-117dB, -1dBFS	
Digital to Audio Conversion		
Dynamic Range	130dB, A-weighted	
Signal-to-Noise Ratio	-130dB, A-weighted	
THD+N Ratio	-115dB, 0dBFS	
Mic1 / 2 Inputs (XLR, Balanced)		
Frequency Response	20Hz to 20kHz (+/-0.6dB)	
Noise EIN	<-120dB Input	
Impedance	3K Ohms	
Range	-8dB~+65dB Maximum Input	
Maximum Input Level	+18dBu	
Instrument1/2 Inputs (6.35mmTRS, Unbaland	ced)	
Frequency Response	20Hz to 20kHz (+/-0.6dB)	
Input Impedance	390K Ohms, typical Gain	
Range	-8dB~+60dB Maximum Input	
Maximum Input Level	+20dBu	
Line Outputs 1/2 (Stereo, Unbalanced)		
Frequency Response	20Hz to 20kHz (+/-0.1dB)	
Nominal Output Level	+4dBu, typical Maximum	
Maximum Output Level	+6.8dBu	
Output Impedance	220 Ohms Load	
Load Impedance	600 Ohm	
Headphone Outputs(Stereo, Unbalanced)		
Frequency Response	20Hz to 20kHz	
(+/-1dB) Maximum Output Level	+13dBu	
Typical Output Impedance	10 Ohms	
Impedance	32 to 600 Ohms	
Dimensions and Weights		
Dimensions (WxDxH)	165mmx181mmx63mm	
	(6.5"x7.13"x2.48")	
Weight	944g	

# Specifications: Cube2NanoS

Cube2NanoS Specifications	
1/0	
Microphone Inputs (XLR - balanced)	One
High Impedance (Hi-Z) Instrument Inputs	One
Analog Line Inputs	Two
Analog Monitor Outputs (DC coupled)	Two
Digital Output Port	USB (UNI OTG)
Audio to Digital Conversion	
Dynamic Range	125dB, A-weighted
Signal-to-Noise Ratio	-125dB, A-weighted
THD+N Ratio	-117dB, -1dBFS
Digital to Audio Conversion	
Dynamic Range	130dB, A-weighted
Signal-to-Noise Ratio	-130dB, A-weighted
THD+N Ratio	-115dB, 0dBFS
Mic Input (XLR, Balanced)	
Frequency Response	20Hz to 20kHz (+/-0.5dB)
Noise EIN	<-120dB Input
Input Impedance	500~2K Ohms
Gain Range	0dB~+60dB
Maximum Input Level	+18 dBu
Instrument Input (6.35mmTRS, Unbalanced)	
Frequency Response	20Hz to 20kHz (+/-0.5dB)
Input Impedance	390K Ohms
Typical Gain Range	+6dB~+45dB
Maximum Input Level	+10dBu
Line Outputs 1/2 (Stereo, Unbalanced)	
Frequency Response	20Hz to 20kHz (+/-0.5dB)
Nominal Output Level	+4dBu, typical
Maximum Output Level	+10dBu
Output Impedance	220 Ohm
Load Impedance	600 Ohm minimum
Headphone Outputs(Stereo, Unbalanced)	
Frequency Response	20Hz to 20kHz (+/-1.5 dB)
Maximum Output Level	+20dBu typical
Typical Output Impedance	10 Ohms
Impedance	16 to 600 Ohms
Dimensions and Weights	
Dimensions (WxDxH)	135mmx152mmx60mm
	(5.31"x5.98"x2.36")
Weight	688g

# Services

If your Cube4NanoS or Cube2NanoS need servicing, follow these instructions.

Check our online Help Center at http://support.iconproaudio.com, for information, knowledge, and downloads such as:

- 1. FAQ
- 2. Download
- 3. Product Registration
- 4. Video Tutorials

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 <a href="https://support.iconproaudio.com">https://support.iconproaudio.com</a> and then sign in to submit a ticket.

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

To send defective products for service:

- Ensure the problem is not related to operation error or external system devices.
- 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.
- 3. 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 the United States please visit our help centre - <a href="https://support.iconproaudio.com">https://support.iconproaudio.com</a> and submit a ticket to the technical support team.

If you are located in Europe, please email the support team and wait for a response before sending the product to:

Sound Service GmbH European Headquarters Moriz-Seeler-Straße3 D-12489 Berlin Telephone: +49 (0)30 707 130-0 Fax: +49 (0)30 707 130-189

E-Mail: service@sound-service.eu

If you are located in Hong Kong please email the support team and wait for a response before sending the product to:

the product to:
ASIA OFFICE:
Unit F, 15/F., Fu Cheung Centre,
No. 5-7 Wong Chuk Yueng Street,

Sha Tin, N.T., Hong Kong. Tel: (852) 2398 2286 Fax: (852) 2789 3947

Fotan.

Email: info.asia@icon-global.com



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