BirdDog
Pod User Guide

2026

BirdDog

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IMPORTANT INFORMATION

Legal Notice

To ensure account security, please change the password after your first log in. You are recommended to set a strong password (no less than eight characters).

The contents of this document are subject to change without prior notice. Updates will be added to new versions of this manual as we improve or update the products or procedures described in it.

Best effort has been made to verify the integrity and correctness of the contents in this document, but no statement, information, or recommendation in this manual shall constitute a formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The product appearance shown in this manual is for reference only and may differ from the actual appearance of your device.

Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual.

Use of this document and the subsequent results shall be entirely the user's own responsibility.

REGULATORY COMPLIANCE

FCC Part 15

This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

LVD/EMC Directive

This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WELCOME TO BIRDDOG

Thank you for purchasing POD. If you have any questions regarding the device, please contact your authorised dealer.

Using This Manual
POD is a sophisticated device, so please read this manual before use and retain it for future reference.

Tip
When viewing the diagrams in this manual, use the zoom controls in your browser or PDF reader to reveal more detail.

We're Invested in Your Success
We pride ourselves on being approachable and easily contactable. We'd love to hear from you.

WELCOME TO THE FUTURE

What is NDI®?
Your new POD has been designed to support the cutting-edge NDI® video transmission standard. NDI® (Network Device Interface) is a high-quality, low-latency, frame-accurate standard that enables compatible devices to communicate, and to deliver and receive high definition video over your existing Gigabit Ethernet network.

Operating bi-directionally, NDI® devices can be auto-detected, powered, and controlled over the same Ethernet cable used to send video and audio. If you have a Gigabit network, you have the potential for a streamlined, interconnected video production environment.

With the introduction of NDI® 5, you can now securely share network sources between remote sites anywhere in the world — on a single network port. Even a smartphone can be an NDI® source.

BirdDog has been on the NDI® journey since the very beginning, and POD is just one of our products designed to take advantage of the features and potential of NDI®.

For more information on NDI®, please refer to birddog.tv.

KEY FEATURES

POD is an NDI® to USB webcam bridge. It makes professional NDI® video sources — cameras, switchers, graphics, and more — instantly available as a standard webcam and microphone input in Zoom, Microsoft Teams, and any other UVC/UAC-compatible conferencing or streaming application. No extra software is required.

Setup is simple:

- Connect POD to your network via the PoE Ethernet Port.
- Connect POD to your computer via the USB-C port.

NDI® 6

POD supports new NDI® 6 functions, including NDI® HX2 and HX3.

NDI Source Detection

POD automatically scans your network for available NDI® sources, so you can select and switch between them without manual configuration.

4 Programmable Buttons

The soft-touch buttons on top of POD, numbered 1 to 4, let you instantly switch between up to four pre-assigned NDI® sources — no computer or separate software required.

Non-Slip Grip Pads

3 rubberised, non-slip grip pads keep POD firmly in place on a desk or shelf.

PoE

For the ultimate in elegant installations, use a PoE (Power over Ethernet) switch to power POD without the need for any wall plugs.

Comprehensive API Support

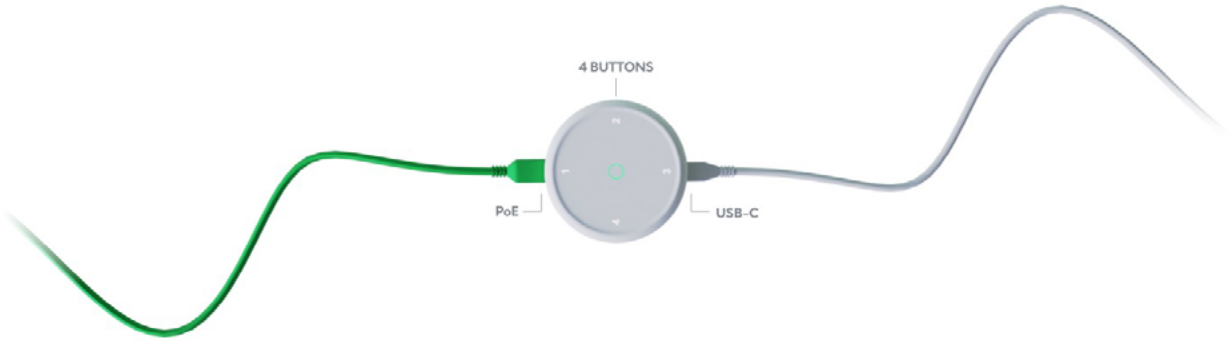
POD supports API commands so you can build automated Zoom Room, Teams Room, or custom control workflows.

Tiny Footprint

POD is compact and lightweight, designed to sit unobtrusively on a desk, meeting room table, or shelf.

GETTING TO KNOW POD

Physical Layout



Top: 4 numbered soft-touch source-select buttons and a bicolor status LED, encircled by a non-slip rubberized pads.

Bicolor ring indicator LED, White when powering up and turns Green when operating system is initialized
Sides: USB-C port (video and audio output to your computer) and an RJ45 PoE Ethernet port (network and power).

Powering POD

POD can be powered via its PoE RJ45 port. Connect it to a PoE-enabled network switch or PoE injector supporting the 802.3af standard. POD can also be powered by USB, but results may vary depending on the USB port and cable quality. PoE is recommended.

GETTING STARTED WITH POD

Make Your Connection

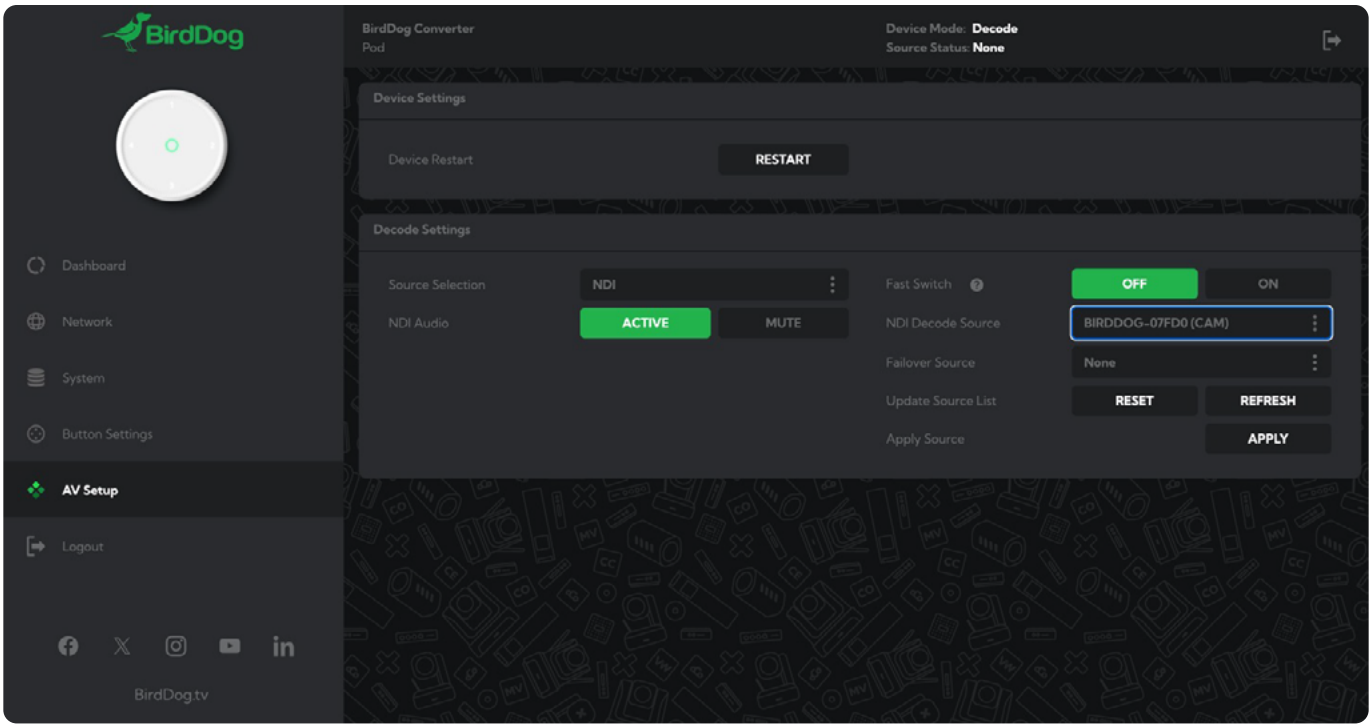
- Connect Pod to PoE (Ethernet Port) for power and network.
- Connect Pod's USB-C port to your computer, laptop, or UVC supported conferencing appliance.

Logging In

- Pod has no HDMI or display output of its own, so unlike an HDMI-connected converter there is no separate screen showing an on-screen splash. Instead, Pod's splash screen appears over its USB-C (UVC) video connection.
- Open the software on your computer that will receive Pod's feed (e.g. your PC's built-in camera app, Zoom, or Teams) and you'll see the splash screen there, including Pod's IP address.
- Once you have the IP address, type it into the address bar of a browser on a device connected to the same network. The BirdDog web interface (BirdUI) will display.
- Type the default password (birddog, all lower case) into the password field and press OK. You can change the password later in the BirdUI.

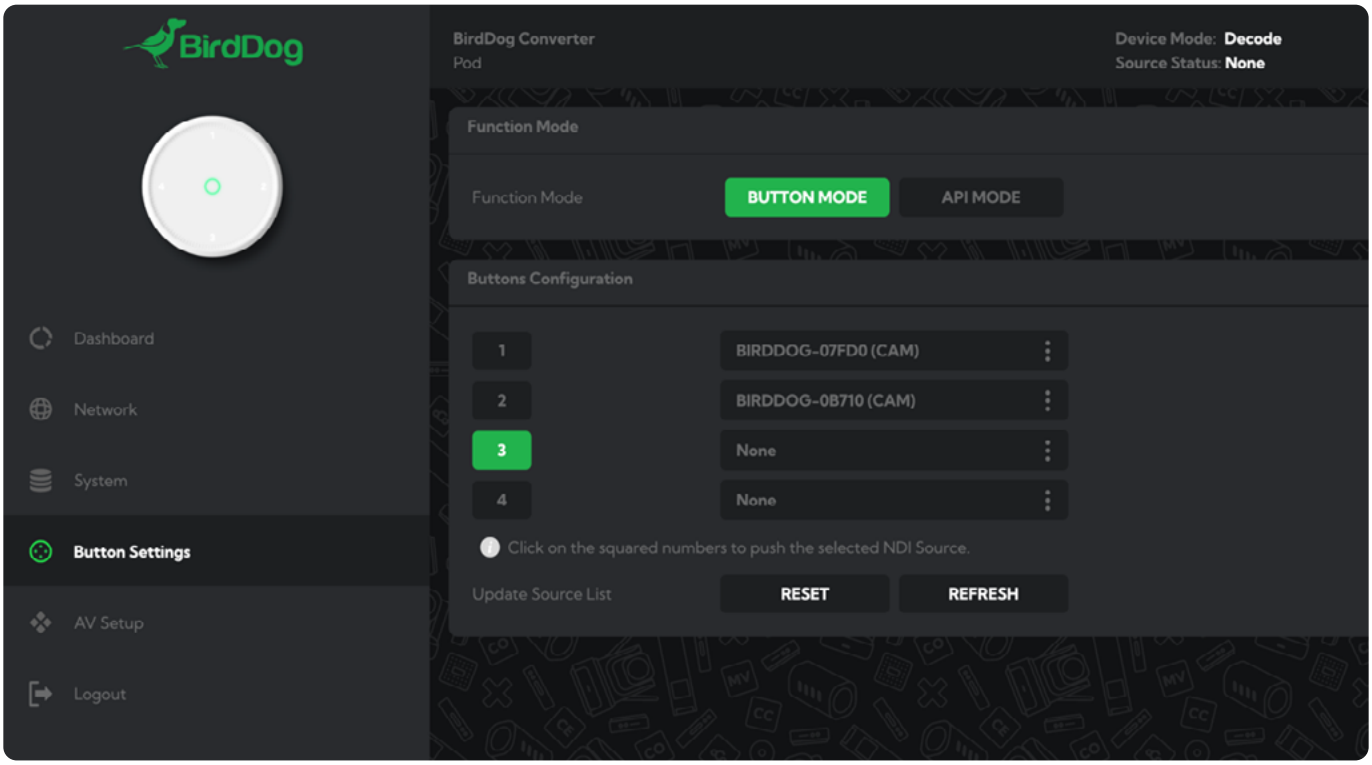
Selecting Your Source
There are three ways to select an NDI® source on Pod:

Via the BirdUI
1. Log in to the BirdUI as described above.
2. Select AV Setup.
3. Click the Update Source List REFRESH button.
4. Click the NDI Decode Source dropdown and select your desired source then click APPLY. Within a few seconds, the chosen source will be available to your computer as a webcam input.



Via the Front Buttons

Once sources have been assigned to buttons 1–4 in the BirdUI, press the corresponding button on top of POD to switch instantly between them — no browser required.



Controlling Sources via API

POD's NDI® source can be switched programmatically using its REST API, without needing to open the BirdUI. This is useful for building custom control panels, Zoom Room / Teams Room automations, or scripted source changes. Send a POST request to the /connectTo endpoint on POD's IP address, with a JSON body specifying the sourceName of the NDI® source you want to switch to.

Endpoint: http://<POD IP address>:8080/connectTo

Example Commands

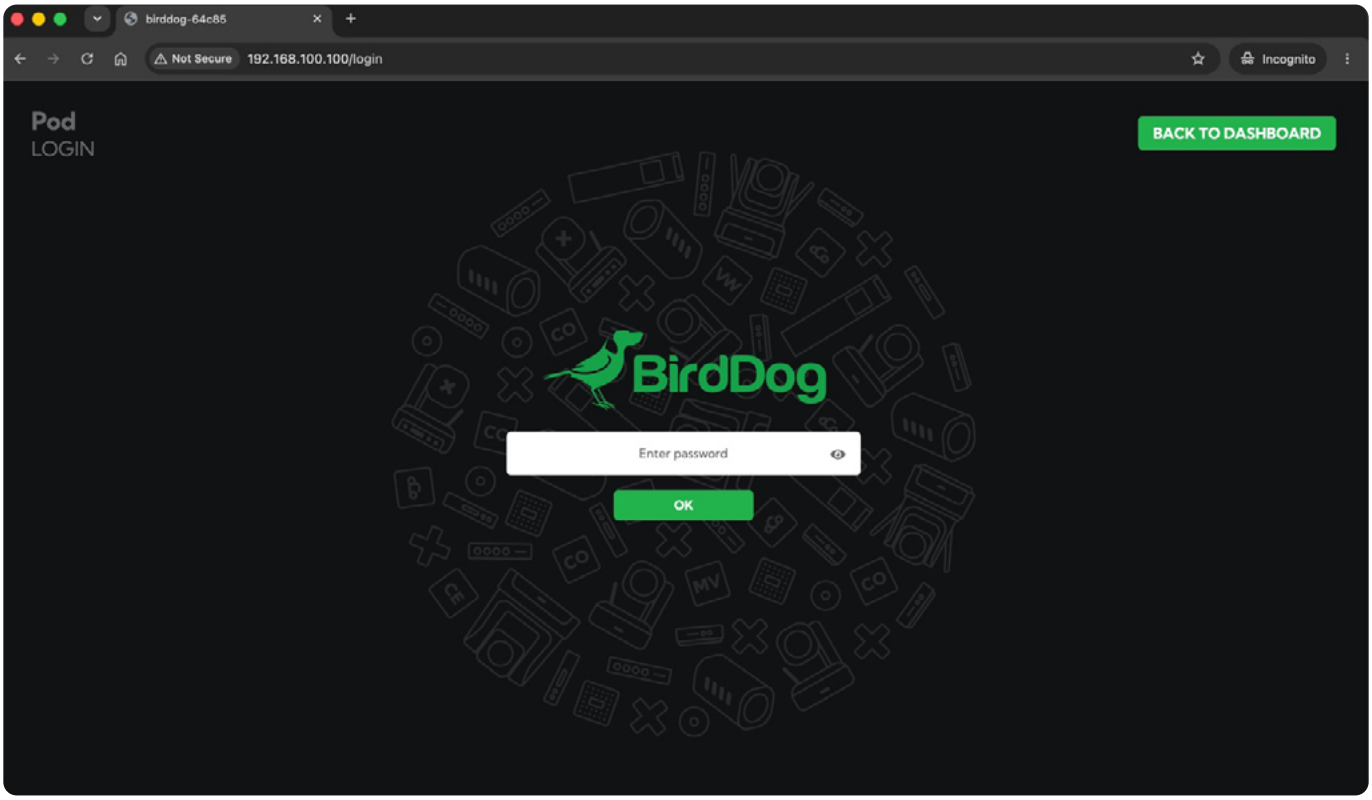
Windows Command Prompt

curl -X POST -H "Content-Type: application/json" -d "{\"sourceName\":\"BIRDDOG-0B710 (CAM)\"}" http://192.168.2.197:8080/connectTo

MAC Terminal

```
curl -X POST \
  -H "Content-Type: application/json" \
  -d '{"sourceName":"BIRDDOG-0B710 (CAM)"}' \
  http://192.168.100.100:8080/connectTo
```

WEB CONFIGURATION PANEL

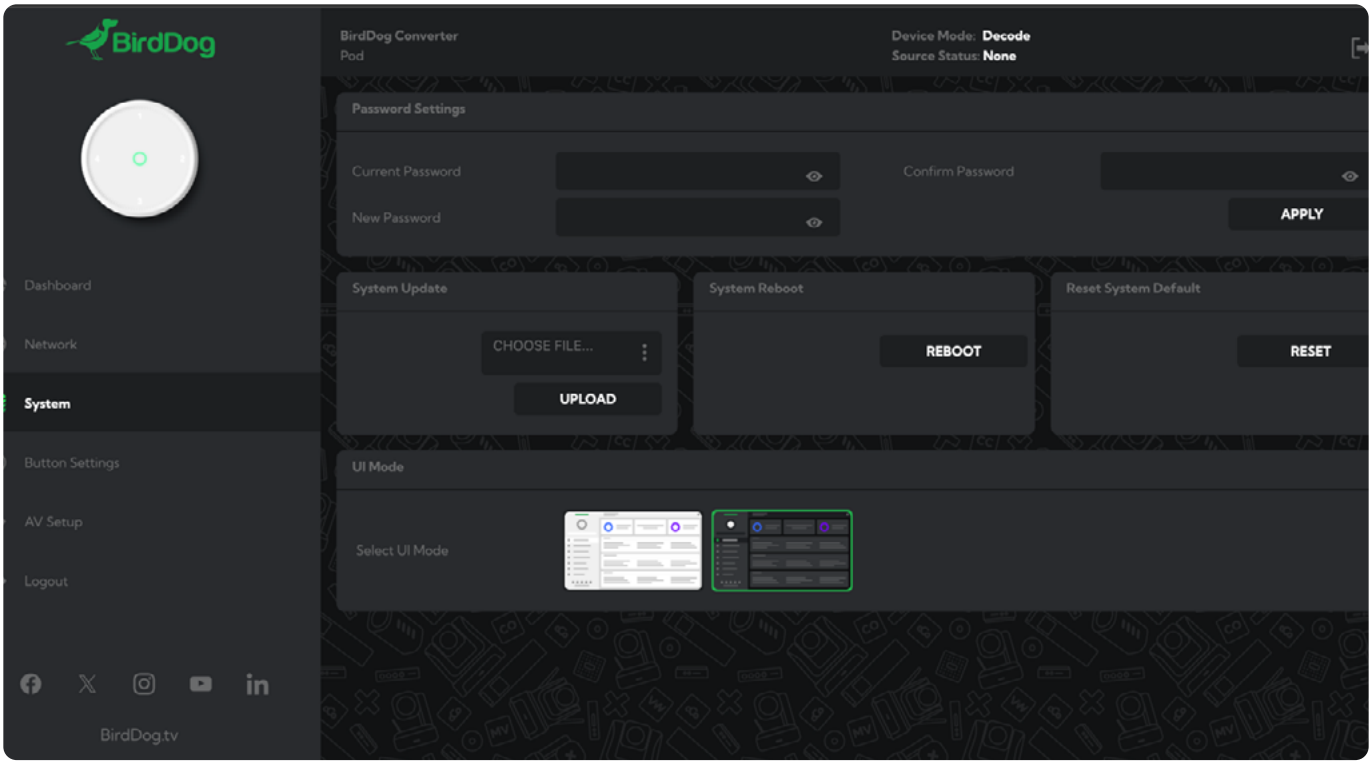


The web configuration panel (BirdUI) allows you to alter key settings of POD, specifically A/V settings, video frame rates, button-to-source assignments, restarting the video processing engine, changing networking parameters, and applying firmware updates.

Password Management
Once you direct your web browser to the BirdUI, you will need to log in to change any settings.

Default Password
The web configuration panel is secured by a user-selectable password.
The default password is: **birddog** (one word, lower case).

To change the password, simply log in using the default password, navigate to the Network tab in the web interface, and select Change Password.



NOTE: It is recommended to change this password in a network environment where your device is shared with other users (e.g. not private), since this password grants full access to the configuration settings and could interrupt a live program.

BIRDUI LAYOUT

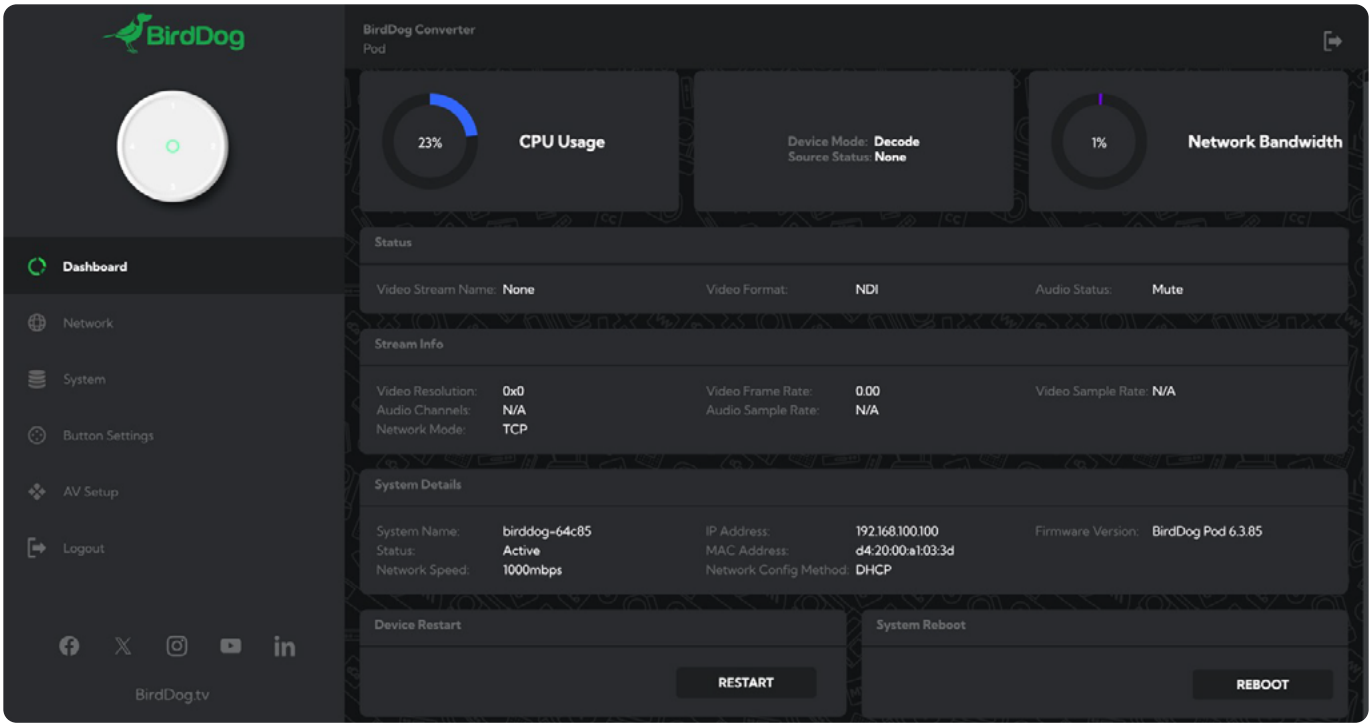
The BirdUI is organized into the following panels:

1. **Dashboard**
   Overall view of important information such as the network connection type and video stream format and resolution.
2. **Network**
   General network settings such as DHCP IP address details, timeout fallback address, and network name, as well as NDI®-specific network settings.
3. **System**
   System admin functions such as updates, password change, designation of group access, and reboot.
4. **AV Setup**

Full NDI® decode management, USB output, button assignment, and audio settings.

5. **Login/Logout**
   BirdUI login/logout.

DASHBOARD



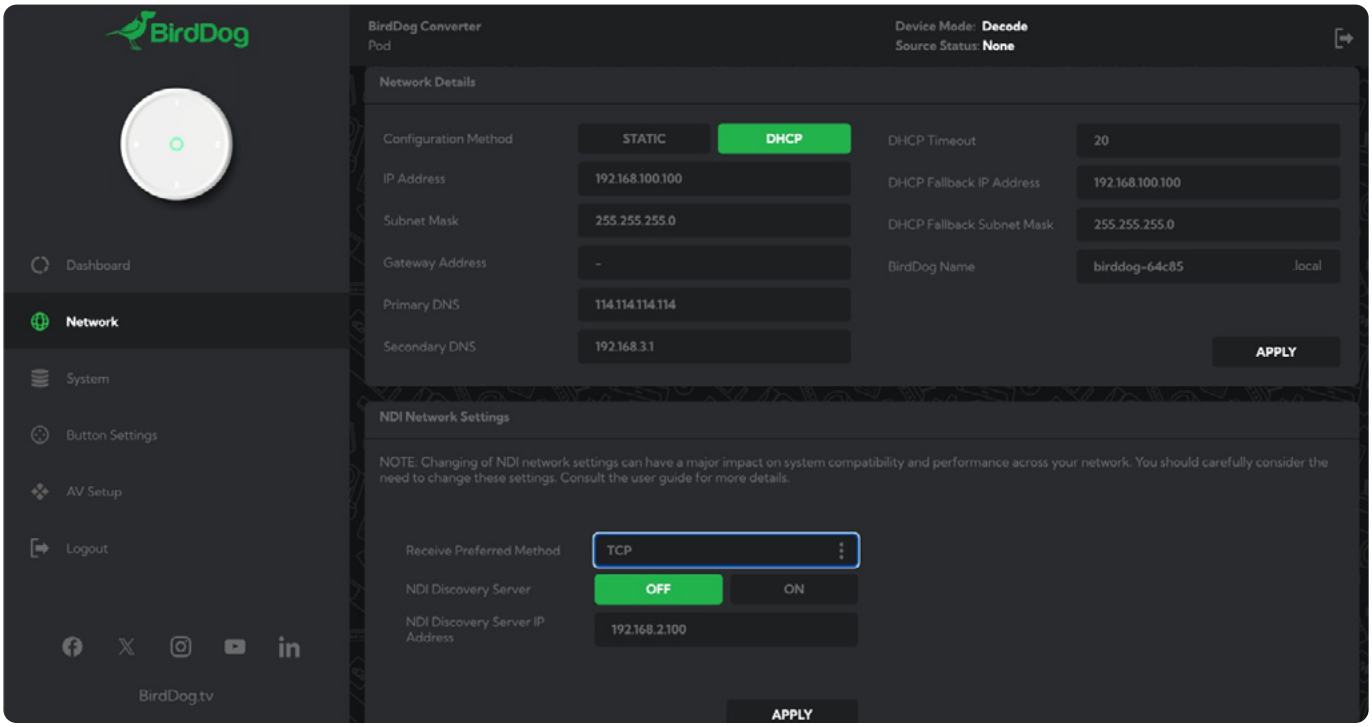
The Dashboard summarizes important settings and system information in one convenient location.

1. **CPU Usage**
   Current computer system CPU utilization.
2. **Device State**
   Pod is always in Decode mode.
   Source Status indicates whether the Pod is actively sending an NDI feed. If it is None the Splash Screen will be active.
3. **Network Bandwidth**
   Total network bandwidth consumption of Pod
4. **Status**
   - NDI® video stream name.
   - Selected video format. (NDI, NDI HX)
   - NDI® audio status (Active,Mute)
5. **Stream Info**
   - Source stream information:
   - Video resolution.
   - Video frame rate.
   - Video sample rate.
   - Number of audio channels.

- Audio sample rate.
- Network mode. (TCP, UDP, RUDP)

6. **System Details**
   - Pod System Name (BirdDog-XXXXX) Default name
   - IP Address.
   - Current Pod firmware version.
   - Status of the POD operating system.
   - MAC address (Last 5 digits = default system name)
   - Network speed.
   - Preferred network configuration method.

NETWORK



Network Details

Most computer networks provide for both automatic and manual configuration of network devices, and POD can accommodate either.

Configuration Method
Here you can set the network configuration to either DHCP (default) or Static. DHCP simplifies the management of IP addresses on networks. No two hosts can have the same IP address, so assigning them manually can potentially lead to errors. If your network is set up for DHCP, this is generally the best configuration to choose.

If you do choose to go with a Static IP address, you'll need to add the IP Address, Subnet Mask, and Gateway

Address information according to the requirements of your network.

DHCP Timeout, Fallback IP Address, Fallback Subnet Mask

You can set the timeout period during which POD will look for a DHCP IP address. After this period, Pod will default to the designated fallback IP address. (192.168.100.100 by Default)

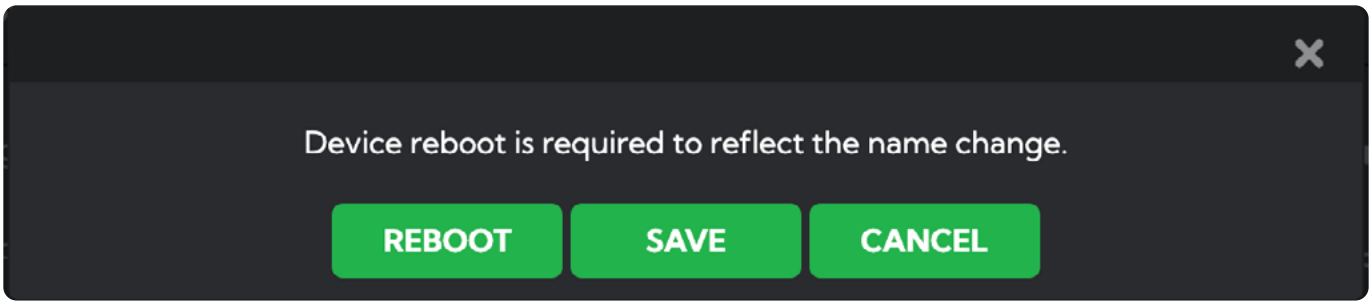
This can be useful if you use Pod in other network environments. For example, if a DHCP server is available in your normal office application, Pod will use the DHCP-supplied IP address. If you then use the device in another application without a DHCP server, it will always default to the known fallback IP address.

NOTE: Do not set the fallback IP address the same as the device IP address. It is recommended to keep the default fallback IP address.

BirdDog Name

You can give your device a meaningful name to make identification easier when viewing NDI® sources on a receiver such as a TriCaster, vMix, or Studio Monitor. Be sure to make the name unique, as no two devices on the network should have the same name. The name can be any combination of a–z, 0–9, and –.

After renaming your device, You can either immediately click REBOOT for the change to take effect or click



SAVE to continue adjusting settings and device name change will take place after next Reboot or Power Cycle

NDI® Network Settings

POD operates with the latest NDI® 6 Libraries. There are several options to configure its behavior in an NDI® network. It is recommended to use the RUDP transmit method unless you have reason to change.

Receive Preferred Method

TCP

The default method of transmission for NDI®. It operates well within local networks with predictable latency and limited jitter. BirdDog recommends TCP for typical applications, using alternative transports only for specific reasons.

UDP

Recommended for networks with extended latency from one end to the other. UDP does not receive confirmation of each packet being successfully received, vastly improving performance on busy networks, but can have consequences if there are other issues such as jitter or lost packets.

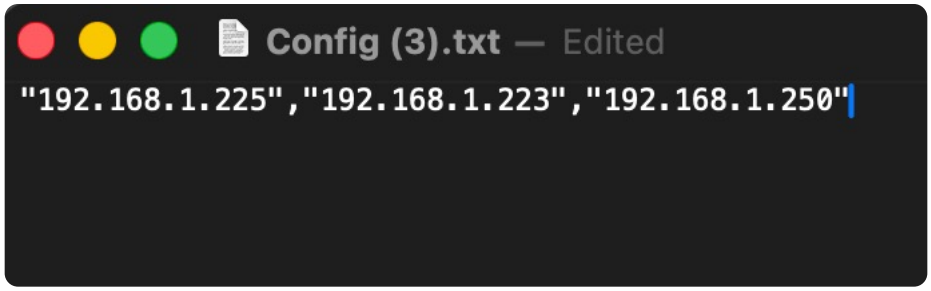
R-UDP (Reliable UDP)

Bridges the performance of TCP and UDP. Reduces overall network load by not requiring every packet to be acknowledged by every receiver, while retaining error correction for smoothness and reliability.

Multicast
Especially useful for use-cases that require a single source to be received on multiple receivers simultaneously. You should take care to ensure your network is specifically configured to support Multicast, as using it on an ill-prepared network can create unintended network problems.

NDI® Discovery
If you choose to use an NDI® Discovery Server, you can configure it here. By default, NDI® utilizes mDNS to create a zero-configuration discovery environment. Unless the network is specifically configured to disallow mDNS, NDI® sources will be discovered automatically.

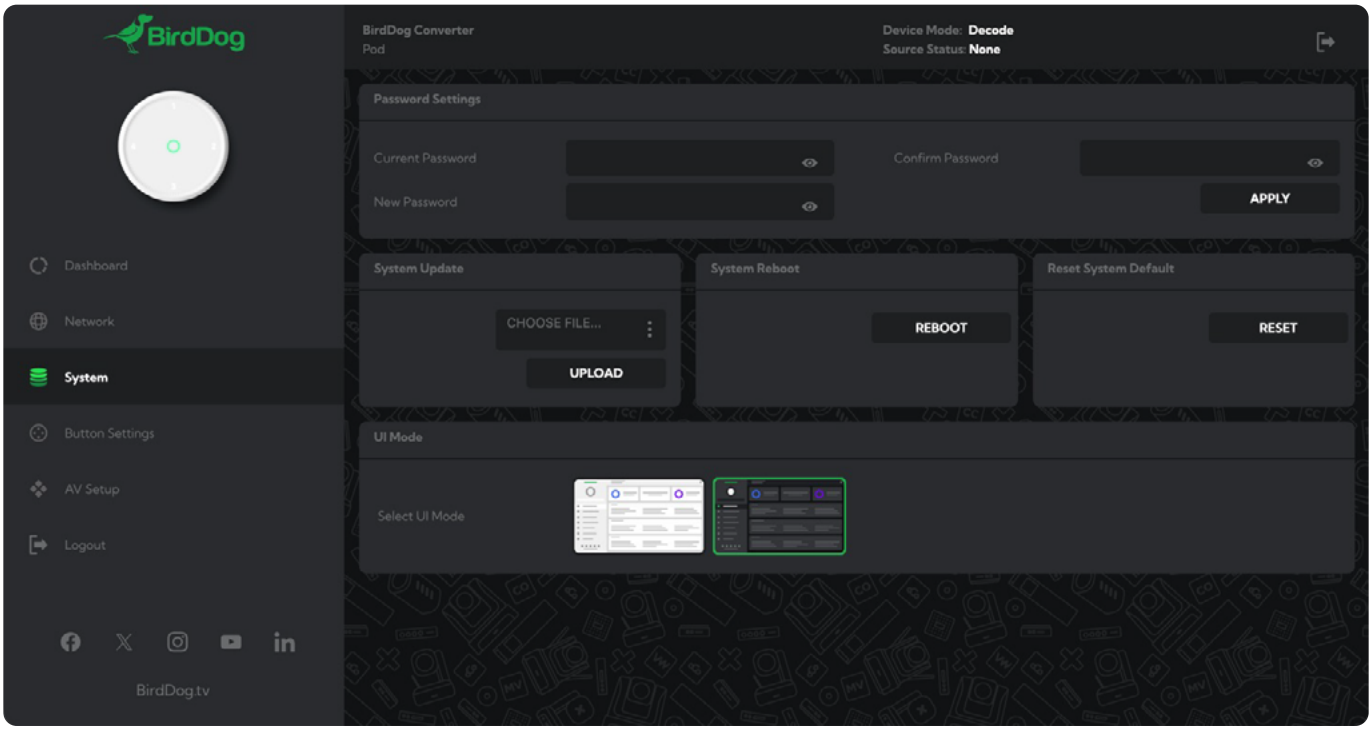
Access Manager Configuration
Remote IP List
By default, NDI® devices are visible to each other only when on the same subnet. To view or control a device on a different subnet, add its address manually as a Remote IP. Remote IP lists can be uploaded and shared between devices as a UTF-8 encoded string file. Click SAVE to download the .txt file, open the file and add desired remote IP address to the comma separated list with quotations.



Then save the file locally and then click UPLOAD to add the new Ips to Pod's remote list.

NDI® Group List
NDI® Groups restrict communication to only devices belonging to the same group — useful for controlling visibility and access in larger environments. Groups also need to be configured in NDI Access Manager, available in NDI Tools. The "Public" Group is the default NDI Group for normal visibility, if this is removed only entered NDI groups will be discoverable.

SYSTEM



Password Settings
The BirdUI is secured by a user-selectable password. The default password is birddog (one word, lower case). It is recommended that the default password be changed, since the BirdUI grants full access to the POD configuration settings.

1. Enter the current password.
2. Enter and confirm the new password, then click APPLY.

System Update
We are always adding new features and improving performance, so installing the latest firmware provides the best user experience. To upgrade the firmware, download the firmware file and follow the Firmware Upgrade Instructions.

System Reboot
Click this button to reboot the unit after important changes such as network settings or the BirdDog name.

Reset System Default
Click this button to revert all device settings to the factory default.

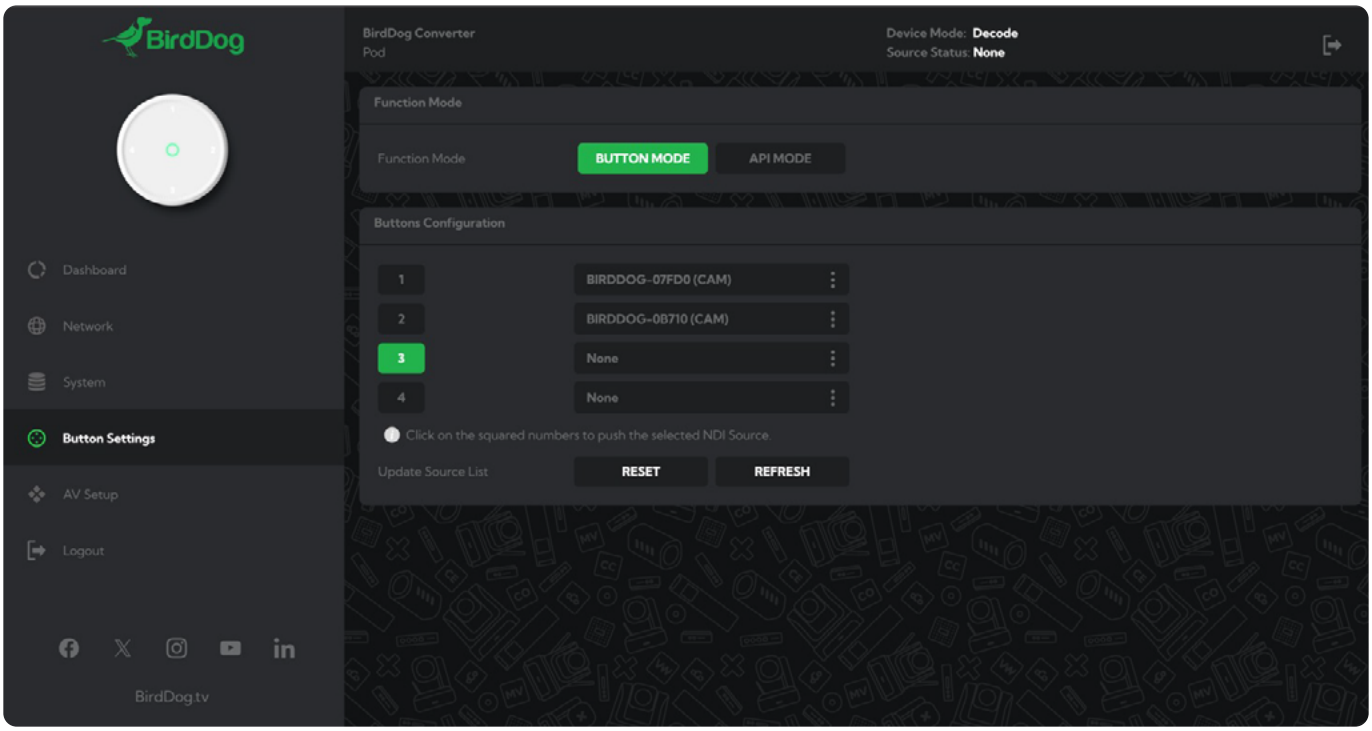
BUTTON SETTINGS

FUNCTION MODE

This is what determines what the touch buttons 1-4 on top of Pod will control

BUTTON MODE

This is where you assign which NDI Sources should correspond to each touch button on the top of Pod. Simply click the drop-down list to select the desired NDI Source. You can then press the touch button on Pod to change to that source, or click the numbers 1-4 on the webUI to change which NDI source is being output over UVC.



NOTE: Pod will switch best if chosen NDI sources are the same format (Full NDI, NDI HX) and framerate (30p, 60p) Otherwise the time of switching could be delayed.

RESET

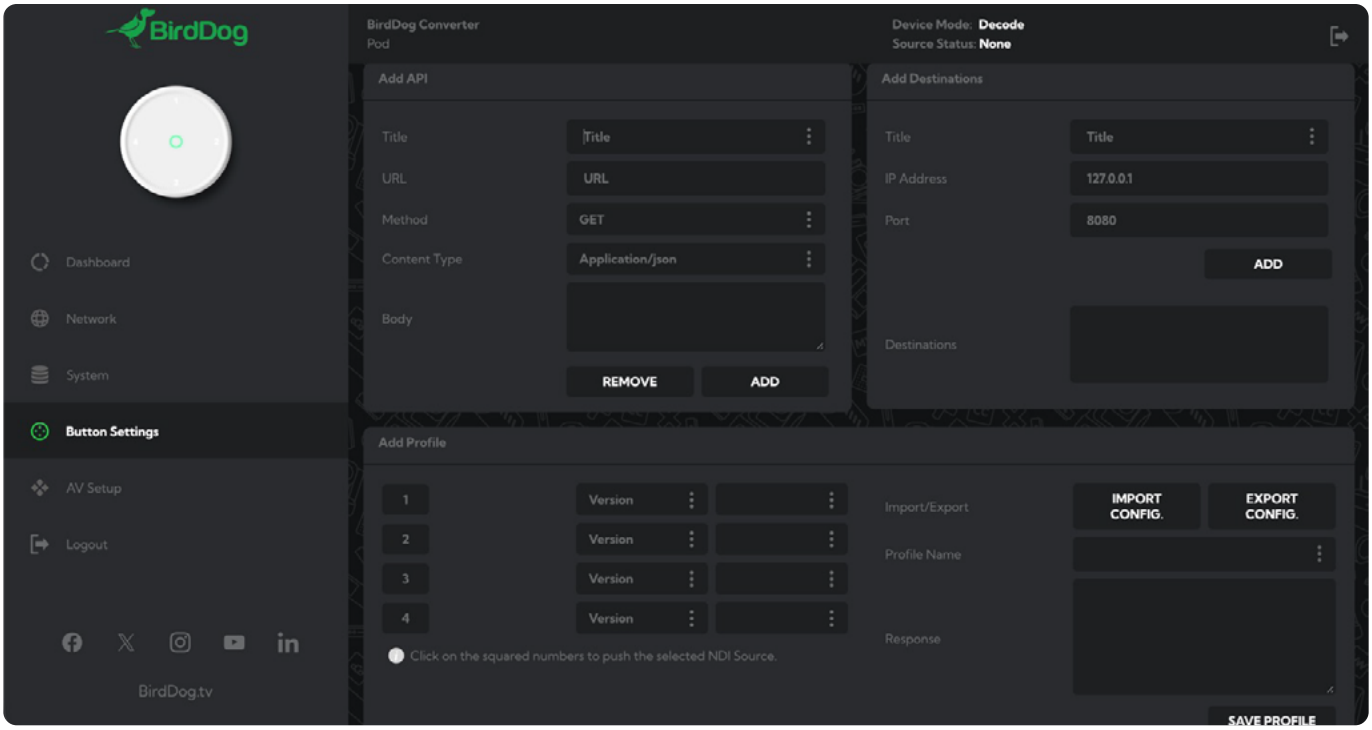
Click this button to clear the cache on the NDI source drop down list

REFRESH

Click this button to refresh the NDI source list, this can be needed if other NDI sources come online after Pod.

API MODE

This function allows you to use the touch buttons 1-4 to send API commands, this can be used to control Pod switching NDI sources or control other devices and functions by sending API commands to other destinations and devices on your network.



Add API

In this panel, you can build your API command by making selections from the following dropdown lists.

Title

Allows the selection of an API command from the displayed dropdown list or you can add your own Title and API.

URL

Displays the selected API and allows user input.

Method

Allows selection of the desired Method (POST or GET).

Content Type

Selects the Content Type as either JSON or plain text.

Body

Adds the Text string or JSON key:value pair.

Remove/Add buttons
These buttons edit the API_Management.xlsx spreadsheet. Click Remove to remove the displayed API command from the spreadsheet or click the Add button to add the currently displayed API command to the spreadsheet.

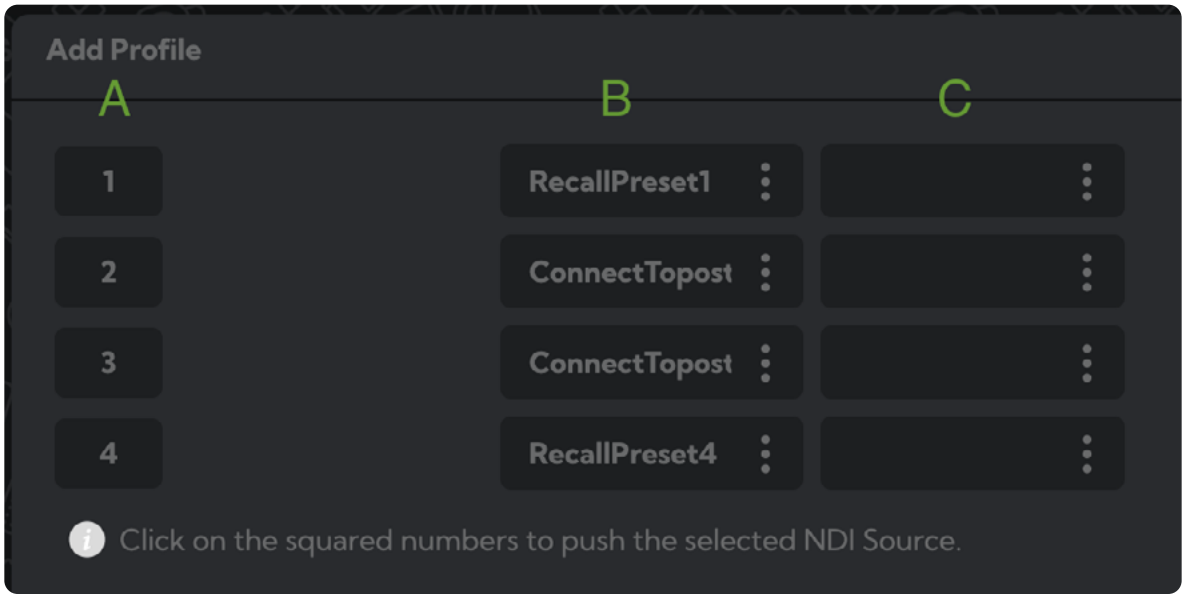
Add Destination
In this panel you configure the target device(s) for your API command.

Title
Editable name of the target device.
IP Address
Target device IP address.

Port
Target device listening port.

Destinations
After setting the above target device parameters, click ADD Button to add it to the Destinations list

Add Profile
A. Clicking the desired Function button will send the assigned API command (b) to the selected destination (c).
B. Selects one of the APIs from the Add API panel (as defined in the API_Management.xlsx file).
C. Selects one of the destinations defined in the Add Destinations panel.



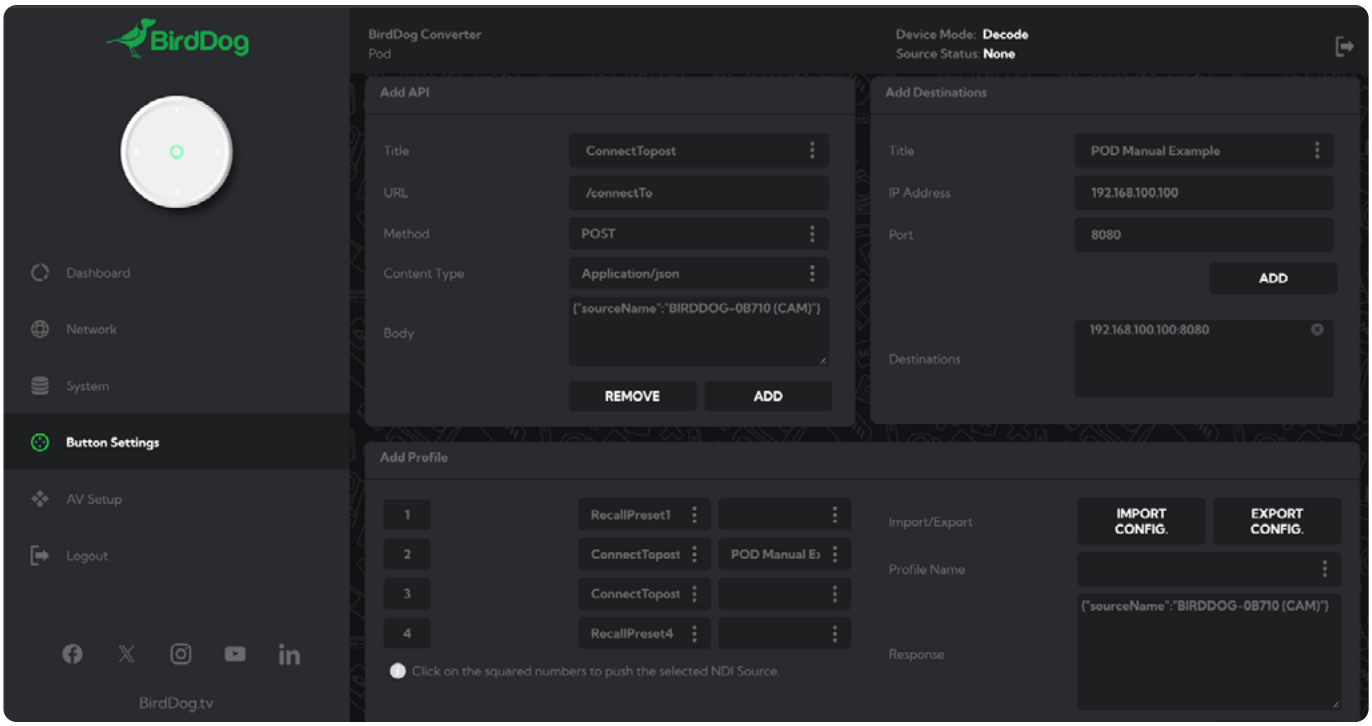
Import/Export
Imports or Exports an API_Management.xlsx file. This is the file from which you select and edit API commands.

NOTE: After importing the API_Management.xlsx file, you'll need to refresh the browser (Windows [F5]) to display the new file contents.

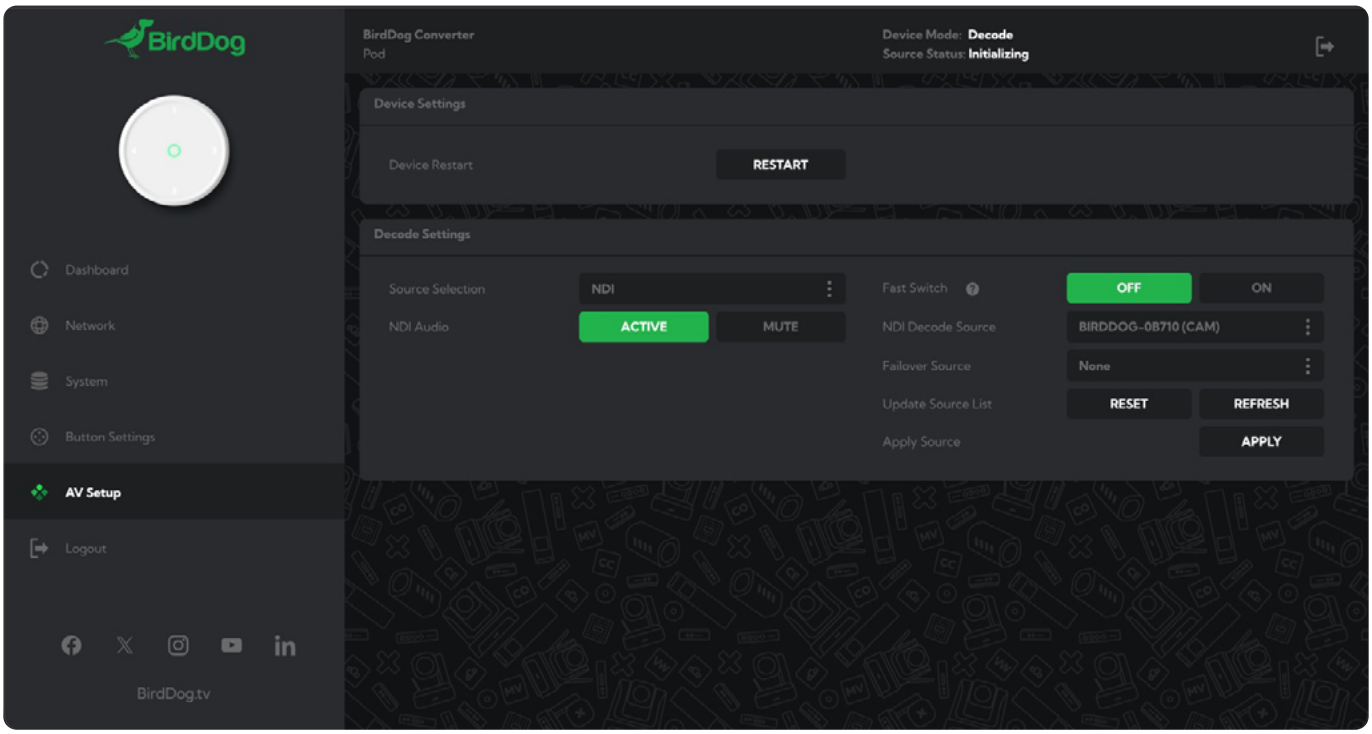
Profile
Saves the current configuration of the Function keys

Response
Displays the response of the API request.

In this example we are using a "ConnectTo" API Command to change the NDI source on POD to "BIRDDOG-07B10 (Cam) to have the Pod itself be the target device to change NDI source



AV SETUP



Device Settings

Device Restart
Click this button to restart the decode engine. This may be necessary after changing key settings such as resolution.

Decode Settings
Source Selection
NDI is the format the POD can convert to UVC output

NDI® Audio
Click the Mute button to disable the incoming NDI® stream audio.

Audio Output
POD outputs audio to your computer over USB-C (UAC), alongside the USB-C video (UVC) feed.

FastSwitch
This mode is OFF by default. When turned on, FastSwitch lets you switch between NDI® sources with no reconnection needed — video and audio switch instantly to the next source chosen. This also applies to switching via the API or the front-panel buttons.

NOTE: NDI® sources need to be the same format when using FastSwitch (NDI®, NDI® HX2, or NDI® HX3).

Switching between formats will delay the source change and POD may need a Device Restart.

NDI® Decode Source
Select an available NDI® source from the NDI Decode Source dropdown. Update this list by clicking the Update Source List REFRESH button.

Failover Source
If the selected NDI® stream is interrupted for any reason, POD can automatically switch to a nominated alternative NDI® stream. Select an available NDI® source for the failover function from the Available NDI Sources dropdown.

Apply Source
Click the APPLY button to save your changes.

TECHNICAL SPECIFICATIONS

Resolutions and Frame Rates	HD 1080p – 25, 29.97, 30, 50, 59.94, 60 HD 720p – 50, 59.94, 60
Supported Video Format	NDI® – 1080p60 in i-frame, low latency NDI® HX2/3 – 1080p60 in H.264 NDI® HX2/3 – 1080p60 in HEVC
Video Output	USB-C (UVC) – up to 1080p30
Audio Output	USB-C (UAC)
Network Connectivity	Ethernet RJ45 1000baseT
Power	PoE (802.3af)
Mechanical	4 programmable touch buttons Bicolor status LED Non-slip rubberized grip pads

NOTE: Specifications are sourced from the BirdDog POD tech specs page at birddog.tv and are subject to change without notice. Confirm current figures against the latest published spec sheet before publishing this manual.

GLOSSARY

Domain
A domain contains a group of computers that can be accessed and administered with a common set of rules. Domain can also refer to the IP address of a website on the Internet.

DNS
DNS (Domain Name System) is a system used by the Internet and private networks to translate domain names into IP addresses.

mDNS
mDNS (Multicast DNS) refers to the use of IP multicast with DNS to translate domain names into IP addresses and provide service discovery in a network that does not have access to a DNS server.

Ethernet
Ethernet, standardised as IEEE 802.3, refers to a series of technologies used to connect computers and other devices to a LAN (Local Area Network) or wide area network (WAN).

Firmware
Firmware is a class of software held in non-volatile memory that provides low-level control for a device's hardware.

Gigabit Ethernet (GigE)
An Ethernet capable of transmitting frames at a rate of a gigabit per second. A Gigabit-capable Ethernet network is recommended for NDI® production workflows.

IP
IP (Internet Protocol) is the communications protocol for the Internet, many wide area networks (WANs), and most local area networks (LANs) that defines the rules, formats, and address scheme for exchanging packets between devices.

LAN
LAN (Local Area Network) is a network that connects computers and devices in a room, building, or group of buildings. A system of LANs can also be connected to form a WAN.

Mbps
Mbps (Megabits per second) is a unit of measurement for data transfer speed, with one megabit equal to one million bits.

NDI®
NDI® (Network Device Interface) is a standard allowing for transmission of video using standard LAN networking. NDI® comes in two flavours, NDI® and NDI®|HX. NDI® is a variable bit rate, I-Frame codec that reaches rates of around 140Mbps at 1080p60 and is visually lossless. NDI®|HX is a compressed, long-GOP, H.264/HEVC variant that achieves much lower bitrates.

Packet (Frame)

A packet is a unit of data transmitted over a packet-switched network, such as a LAN, WAN, or the Internet.

PoE
Power over Ethernet — the ability to deliver electrical power to a device over the same cable used for network data.

Port
A port is a communications channel for data transmission to and from a computer on a network, identified by a 16-bit number between 0 and 65535. Port can also refer to a hardware socket used to physically connect a device to your computer or network.

RJ45
A form of standard interface commonly used to connect computers onto Ethernet-based local area networks (LAN).

Subnet
Subnet or subnetwork is a segmented piece of a larger network.

Tally
A system that indicates the on-air status of video signals, usually by the use of a red illuminated lamp.

TCP
TCP (Transmission Control Protocol) is a network communications protocol.

UDP
UDP (User Datagram Protocol) is an alternative protocol to TCP that is used when reliable delivery of data packets is not required.

UVC / UAC
USB Video Class (UVC) and USB Audio Class (UAC) are standard USB device classes that allow a device to be recognised as a webcam and microphone/speaker by a host computer without additional drivers.

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