BirdDog | EYES P200

FULL NDI®. NO COMPROMISES.

USER GUIDE | MAY 2019

PART 2: NDI® INSTRUCTIONS

**NDI®**

WELCOME TO THE FUTURE.

BirdDog | EYES P200

FULL NDI®. NO COMPROMISES.

GETTING TO KNOW YOUR P200

Thanks for purchasing BirdDog Eyes P200. Please take some time to read this document to allow you to get the most out of your purchase and familiarize yourself with the features available in the unit.

Physical connectors

IR Select	Audio OUT
Video Format	Audio IN
USB	CVBS
RS232	HDMI
DC 12V	3G-SDI
RS422	PoE
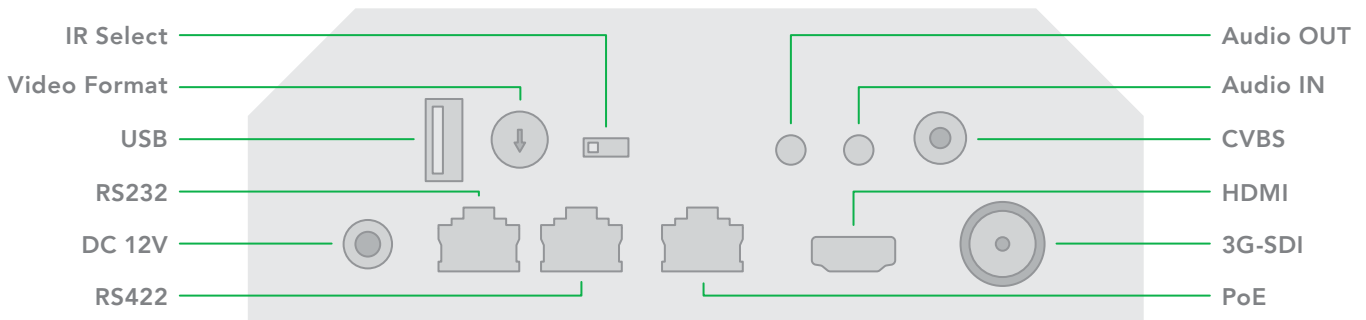
Powering Eyes P200

P200 is equipped with a sophisticated system allowing power from various sources:

PoE+ (Power over Ethernet)

PoE+ is a convenient way to power P200 as it allows both data and power to be sent through the same standard Ethernet cable. To take advantage of PoE+, the network switch that P200 is directly plugged into must support PoE+ (802.11at).

Different network switches are capable of providing differing amounts of total power to all connected devices. P200 uses approximately 14 watts in PoE mode.

DC

Located at the rear of the P200 is a DC connection port. This power input socket is capable of accepting 12vDC power. P200 should only be powered by the included AC adaptor.

Thermal management

Eyes P200 has been engineered to be passively cooled, no fans are required. In order to achieve this the entire enclosure of P200 is designed to dissipate heat. The main processor is capable of operating up to 100° C / 212° F.

Some factors affect how much heat BirdDog will produce, and it is normal for it to feel warm to the touch.
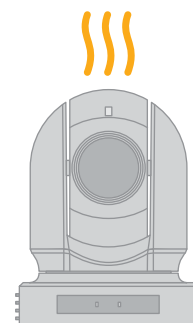
In extreme circumstances (a hot day/direct hot sun) it is advised to power P200 via DC as this produces less heat than PoE.

BirdDog has been tested in extreme environments.

BOOTING UP YOUR BIRDDOG EYES P200

Indication of system boot process
As soon as BirdDog P200 detects a power input signal the left hand 'power/fault' light will light up green.[1]

On the ethernet/NDI connector on the rear.

After initial boot up is complete your P200 unit will be visible as a source on any NDI compatible devices on the SAME ethernet subnet.

For further networking architecture instructions including routing please consult either your system administrator or the support page at bird-dog.tv

1
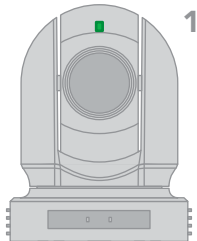
## OPERATING EYES P200

Web configuration panel
In this release, the web configuration panel allows you to alter key settings of P200, specifically A/V settings, and video frame rates, restarting the video processing engine, changing networking parameters, recalling PTZ presets and applying firmware updates.

Access via web browser (URL)
To access the web configuration panel please point your computer web browser to: http://birddog-xxxxx.local/

"xxxxx" is the serial number of the P200, the serial number is printed on the box and on the main unit. Note the web address is case sensitive and should be all lower case. Your computer will need to have 'Bonjour' services loaded in order to access the unit via it's 'friendly' name described above.

Apple devices come pre-installed with Bonjour, while Windows devices need a small plugin available here: https://support.apple.com/kb/dl999?locale=en_AU
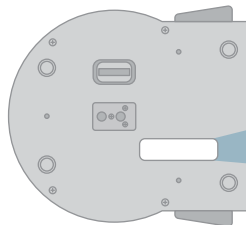
Note: only the last 5 digits are required for accessing the web interface.

BirdDog Eyes P200
SERIAL xx:xx:xx:xx:xx:xx

BirdDog Finder application
In addition to typing this URL in manually there is an application: BirdDog Finder, which is available from http://www.bird-dog.tv/firmware-updates. This application looks on the local network for any NDI capable P200 and launches the web configuration interface directly from the application.

Accessing P200 via an IP address
P200 is configured to automatically receive a network (IP) address from the computer network via DHCP (Dynamic Host Configuration Protocol). Most corporate, education and home networks have a DHCP server present on the network to allow this to occur. Usually your Internet Router provides this.

If P200 receives an IP address automatically from this server (DHCP) the IP address can be discovered in several ways, including the BirdDog Finder application or BirdDog Central Lite available from: http://www.bird-dog.tv/

Accessing P200 on a network without a DHCP server
Some standalone or private networks may not have a DHCP server. After 30 seconds of searching for an automatically assigned IP address P200 will fall back to a default address which is:

192.168.100.100

In order to access the web configuration panel on a network which is configured to a different subnet, change your computers IP address to match the BirdDog unit. Once you gain access to the BirdDog web configuration panel choose your IP address to match the rest of the devices on your network.

For instructions on setting your computers IP address please consult your computer operating system manual or IT support resources.

PASSWORD MANAGEMENT

Once you direct your web browser to the web configuration panel you will need to log in to change any settings.
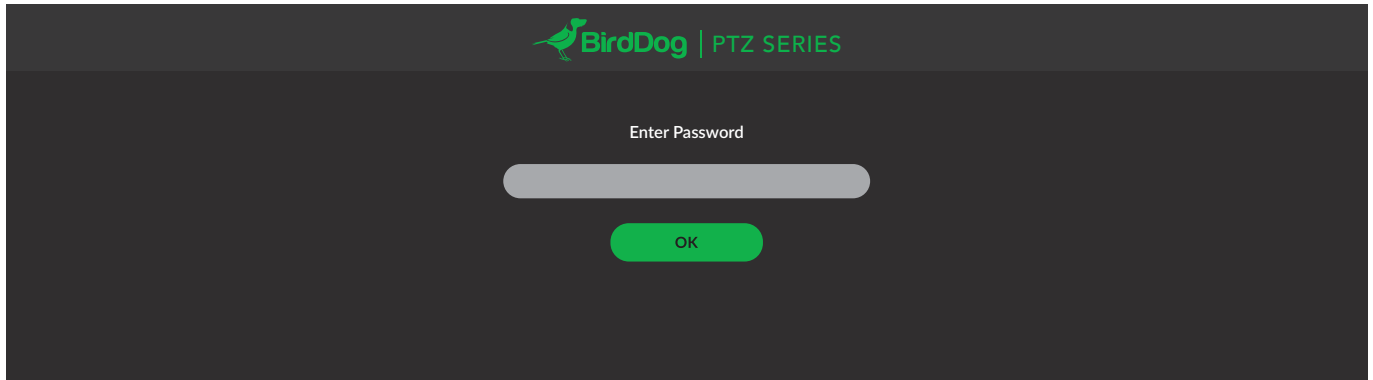
Default password
The web configuration panel is secured by a user-selectable password. The default password is:

birddog (one word, lower case).

To change the password simply login using the default password, navigate to the network tab in the web interface, and select change password.

It is recommended to change this password in a network environment where P200 is shared with other users (e.g. not private). By entering this password, the user is granted full access to the P200 configuration settings and could interrupt a live program.

A/V SETUP

CAM Audio selection
The 3.5mm stereo audio inputs on the P200 can accept either Line or Mic levels, please select the correct setting here to ensure appropriate audio levels are maintained.

NDI Audio selection
P200 is able to operate its audio configuration either as an embedded stereo pair within the same NDI stream as the video or utilising the audio input/speaker output as a BirdDog Comms audio talkback system client. For more information on BirdDog Comms please see the BirdDog website.


NDI Video selection
Eyes P200 is capable of outputting independent video formats for both NDI and SDI/HDMI. This setting affects only the NDI video output. Please note that the video rate you select here must be of the same family as the SDI/HDMI video output set in Part 1 of the P200 Manual.
ie. 720p50 aligns with 1080i50/1080p50 but will not co-exist with any 29.97/30fps based camera setting.

3G/1.5G Video Quality
By choosing LOW, MEDIUM or HIGH on the Video quality settings you can adjust the amount of network bandwidth the full NDI stream produced by the BirdDog consumes. This directly affects image quality and should only be adjusted by advanced operators.
LOW - 30% lower than 'target' NDI rates MEDIUM - 'target' NDI bandwidth
HIGH - 30% higher than 'target' NDI rates
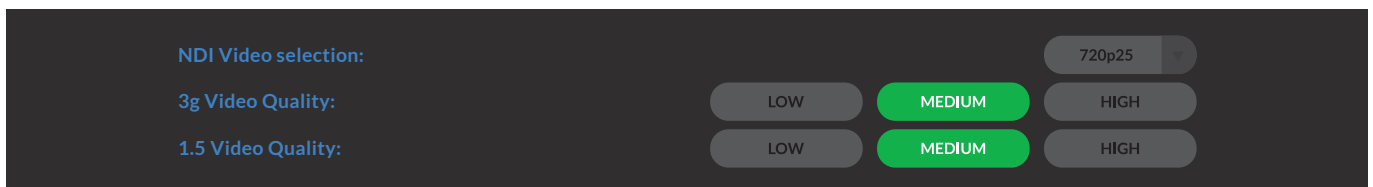
NETWORK SETTINGS AND DEVICE NAMING

Device naming

When P200 is first powered on it defaults to the naming convention as described in the web configuration panel section of this manual.

http://birddog-xxxxx.local/

It is possible to change the name along with the network settings to better suit your environment.

In the web configuration panel, navigate to the network section.
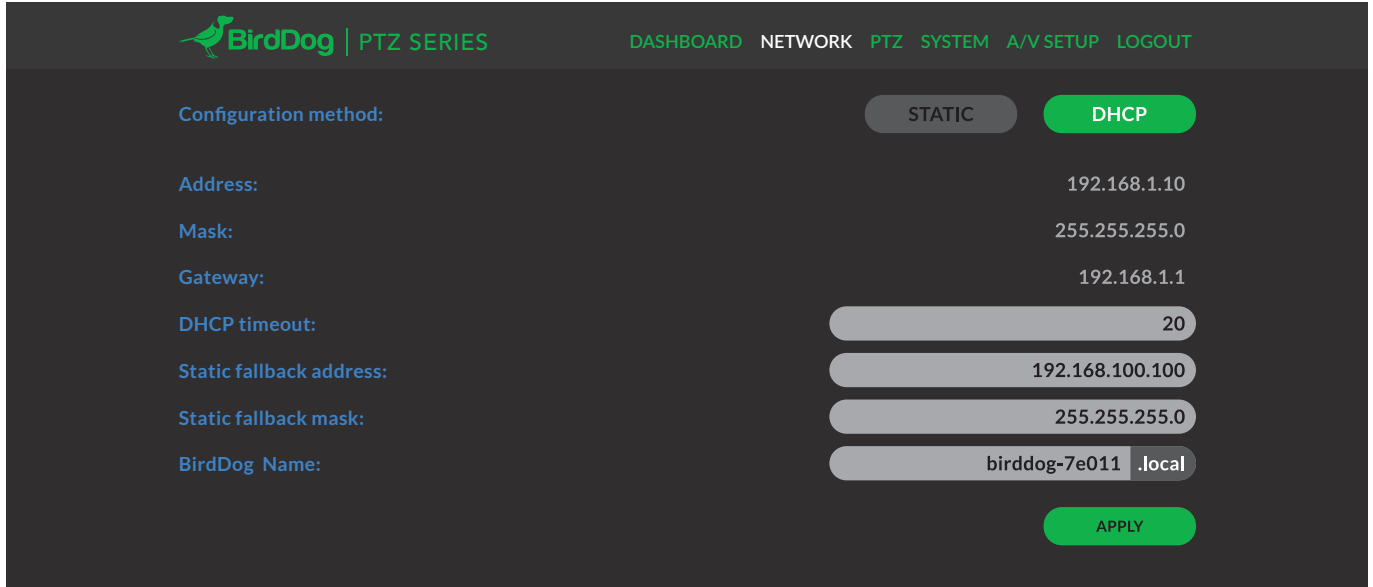
IP configuration method

You can configure P200 to operate on the network with a dynamic (DHCP) IP address or a fixed address.

For smaller networks DHCP networking is generally suitable, however larger networks with managed operations will often determine each device needs to have a dedicated and static IP address.

DHCP IP address

DHCP is set as the network configuration by default for Mini.

Static IP address

To enable a static IP address, change configuration method to static and fill in the details required in Address, Mask and Gateway. Particular attention should be paid to the Address and Mask fields as incorrect information entered will result in P200 not being visible on the network and a factory reset will be required in order to recover the unit.

IP address recovery

In the event that the P200 is not visible on the network, the network has changed, or the static IP address details have been lost, reset the BirdDog back to its default settings by following the factory reset procedure.

BirdDog name

You can name each P200 with a friendly name that makes sense for each production (Camera 1, Camera 2, etc). This name will appear on any NDI receiver when it looks for video coming from Mini over the network. The name must not include any special characters and can be any combination of 'a-z, 1-0, and –'.
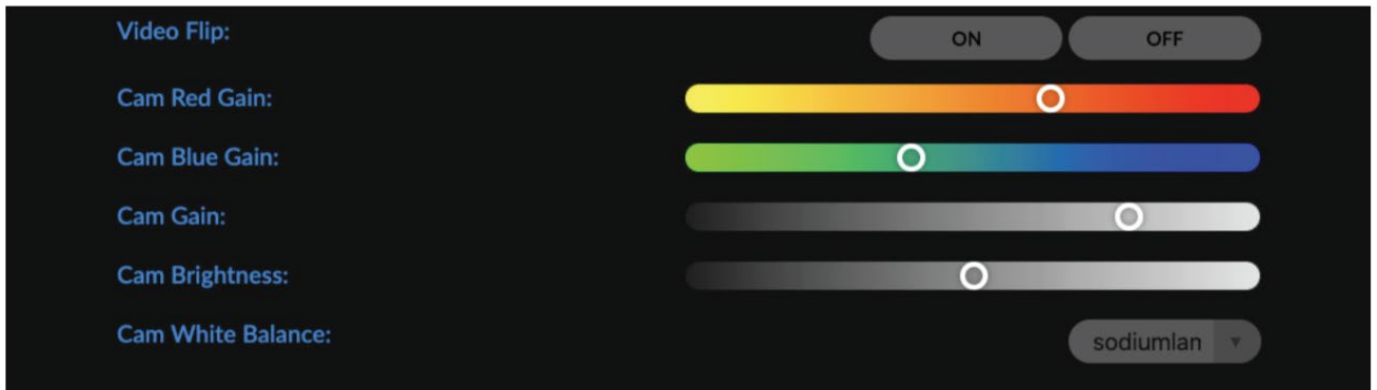Note: no uppercase characters are valid.

On NDI receiving devices, P200 will present as a source as follows:

birddog-name [CAM]

when the unit is set to automatic input.

IMAGE SETTING

For exposure/white balance & picture control details please refer to Part 1 of the BirdDog Eyes user manual.

| Video Flip:	8	ON	OFF
Cam Red Gain:			
Cam Blue Gain:			
Cam Gain:			
Cam Brightness:			
Cam White Balance:			sodiumlan ▾

TALLY SUPPORT

Onboard Tally

P200 supports Tally within the NDI protocol. Tally is a method of identifying which source is being used 'on air' at any particular time.

Whenever a P200 source is being used on the program output of an NDI compatible receiver that supports Tally metadata, the LED will light up red on the front of the P200 unit.
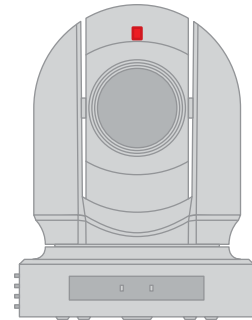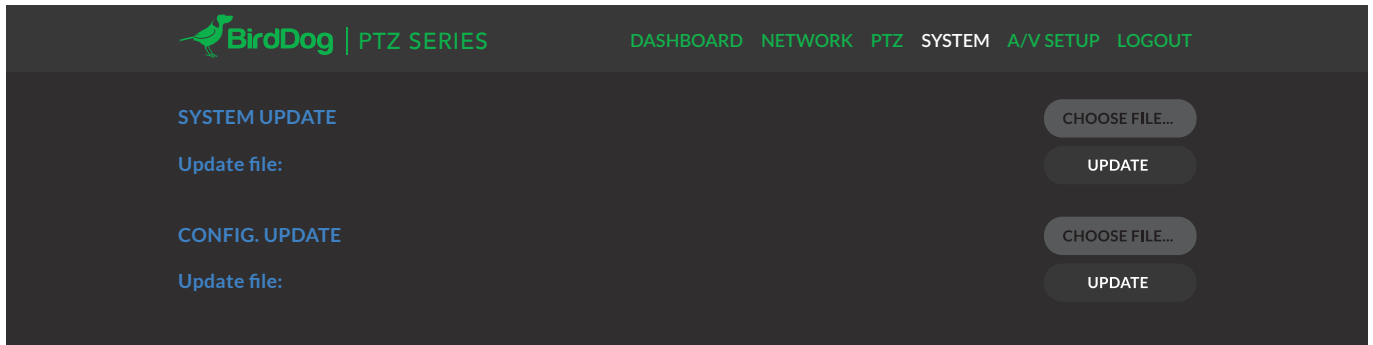
FIRMWARE UPDATE

P200 is updateable via the web interface. Please check the below address regularly to ensure you have the latest firmware available for your device.
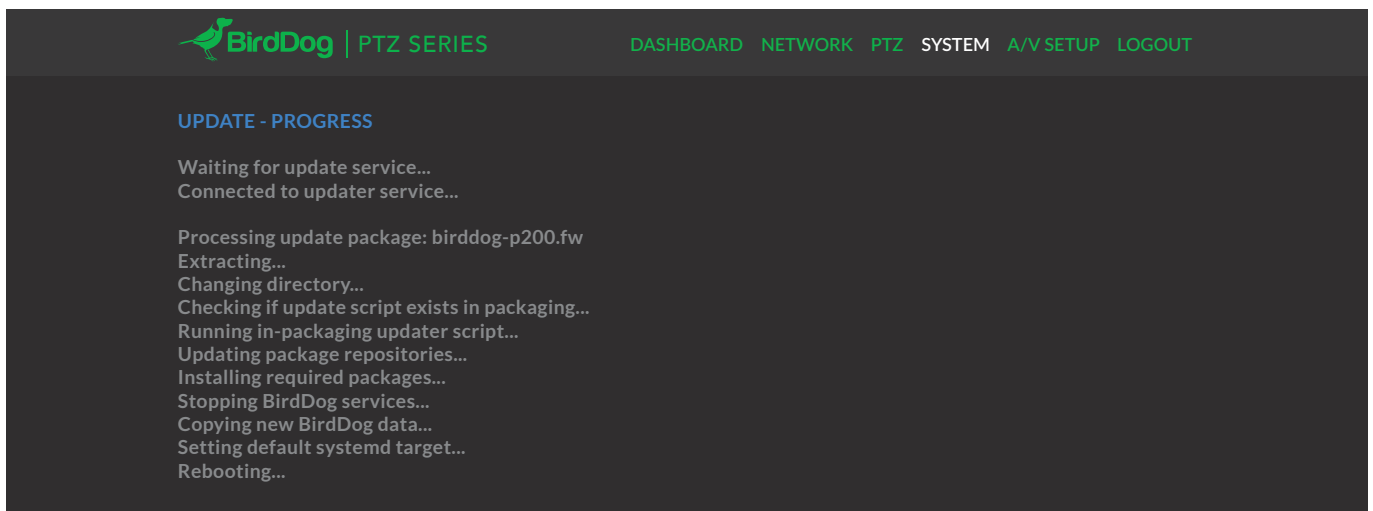
Having the latest firmware ensures you have all the latest features and performance updates to get the most out of P200: bird-dog.tv/firmware-updates

After downloading the latest firmware release, navigate to the settings tab on the P200 web configuration console click on Choose file… select the firmware update file and press the update button.

BirdDog | PTZ SERIES   DASHBOARD   NETWORK   PTZ   **SYSTEM**   A/V SETUP   LOGOUT

SYSTEM UPDATE   CHOOSE FILE...

Update file: UPDATE

CONFIG. UPDATE   CHOOSE FILE...

Update file: UPDATE

The screen will update the status of the update procedure, once complete it will reboot the main processor.

Please wait for 30 seconds and refresh your browser to access the unit again.

BirdDog | PTZ SERIES   DASHBOARD   NETWORK   PTZ   **SYSTEM**   A/V SETUP   LOGOUT

UPDATE - PROGRESS

Waiting for update service...
Connected to updater service...

Processing update package: birddog-p200.fw
Extracting...
Changing directory...
Checking if update script exists in packaging...
Running in-packaging updater script...
Updating package repositories...
Installing required packages...
Stopping BirdDog services...
Copying new BirdDog data...
Setting default systemd target...
Rebooting...

RECEIVING NDI STREAMS

There are many applications that support receiving the NDI signal that P200 produces. Each application will vary slightly on how you choose your source.

NewTek Studio Monitor
NewTek provide a free Studio Monitor application that allows you to monitor many NDI sources on a standard Windows computer. Once Studio Monitor is launched on your computer, simply right click anywhere in the interface and select your Mini from the drop-down list.

Once connected to the P200 you will notice a configuration cog appears on the bottom right-hand side of the video display, this is a shortcut to access the P200 web configuration panel.

NewTek TriCaster Series
NewTek TriCaster series devices allow several NDI sources to be received simultaneously, the amount of simultaneous connections varies by what model TriCaster you have. Consult your TriCaster user manual to determine how many connections are available on your device.

To select P200 as a source on your TriCaster, simply click on the configuration cog below your desired source location, this will bring up the Input Setting dialog, select from the drop-down list your P200 source.

Once connected to the P200 you will notice a configuration cog appears next to the source drop down window, this is a shortcut to access the P200 web configuration panel.

bird-dog.tv

hello@bird-dog.tv