

# BirdDog | EYES A300

FULL NDI®. NO COMPROMISES.



USER GUIDE  
PART 2: NDI® INSTRUCTIONS

NDI®



WELCOME TO THE FUTURE.



# BirdDog | EYES A300

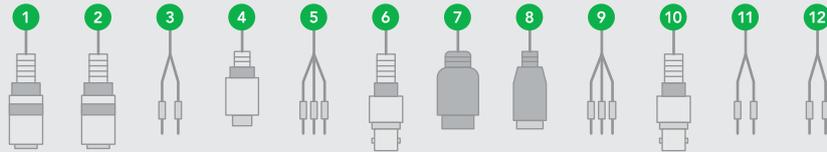
FULL NDI®. NO COMPROMISES.

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## GETTING TO KNOW YOUR A300

Thanks for purchasing BirdDog Eyes A300. 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



- 1. Audio Input • 2. Audio Output • 3. RS422 Connector (Combine with 11) • 4. Upgrade Interface • 5. Alarm Input
- 6. BNC Connector: 3G-SDI video output • 7. RJ45 Ethernet Port • 8. AUX DC12V Output • 9. AC Power Connector
- 10. BNC Connector: Analog video output • 11. RS485/RS422 Connector (Combine with 3) • 12. Alarm Output

### Powering Eyes A300

A300 is equipped with a sophisticated system allowing power from various sources:

#### 80w PoE (Power over Ethernet)

80w PoE is a convenient way to power A300 as it allows both data and power to be sent through the same standard Ethernet cable. To take advantage of 80w PoE, the network switch or PoE injector must support 80w PoE.

### Thermal management

Eyes A300 has been engineered to be passively cooled, no fans are required. In order to achieve this the entire enclosure of A300 is designed to dissipate heat. The main processor is capable of operating up to 100° C / 212° F.

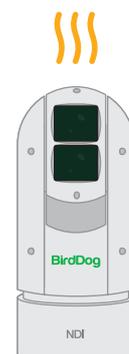
Some factors affect how much heat BirdDog will produce, and it is normal for it to feel warm to the touch.

Different network switches are capable of providing differing amounts of total power to all connected devices. A300 uses approximately 80 watts in PoE mode.

#### DC

Located at the rear of the A300 is a DC connection port. This power input socket is capable of accepting 24vDC power. A300 should only be powered by the BirdDog AC adaptor (not included).

BirdDog has been tested in extreme environments.



## BOOTING UP YOUR BIRDDOG EYES A300

### Indication of boot process

As soon as BirdDog A300 detects a power input signal the calibration process will begin. This involves the main camera head rotating a full 360° followed by the tilt mechanism calibrating. Once complete the A300 will settle on the stored home position<sup>1</sup> (Preset 7).

After initial boot up is complete your A300 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](http://bird-dog.tv)



## OPERATING EYES A300

### Web configuration panel

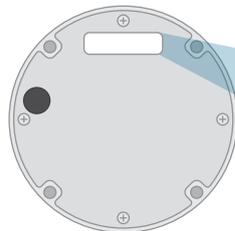
In this release, the web configuration panel allows you to alter key settings of A300, specifically A/V settings, and video frame rates, restarting the video processing engine, changing networking parameters, recalling PTZ presets and applying firmware updates.

“xxxxx” is the serial number of the A300, 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.

### Access via web browser (URL)

To access the web configuration panel please point your computer web browser to: <http://birddog-xxxxx.local/>

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](https://support.apple.com/kb/dl999?locale=en_AU)



Note: only the last 5 digits are required for accessing the web interface.

BirdDog Eyes A300

SERIAL xx:xx:xx:x **x:xx:xx**

### Accessing A300 via an IP address

A300 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.

### Accessing A300 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 A300 will fall back to a default address which is:

**192.168.100.100**

If A300 receives an IP address automatically from this server (DHCP) the IP address can be discovered in several ways, including BirdDog Central Lite available from:

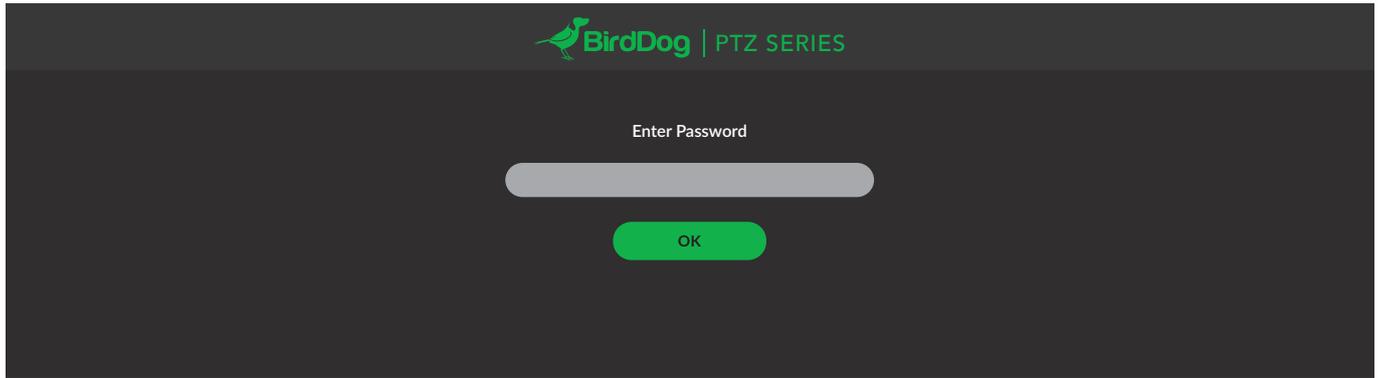
<http://www.bird-dog.tv/>

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 A300 is shared with other users (e.g. not private). By entering this password, the user is granted full access to the A300 configuration settings and could interrupt a live program.

## A/V SETUP

### CAM Audio selection

The 3.5mm stereo audio inputs on the A300 can accept either Line or Mic levels, please select the correct setting here to ensure appropriate audio levels are maintained.

### NDI Audio selection

A300 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 A300 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 A300 Manual. ie. 720p50 aligns with 1080i50/1080p50 but will not co-exist with any 29.97/30fps based camera setting.



## NETWORK SETTINGS AND DEVICE NAMING

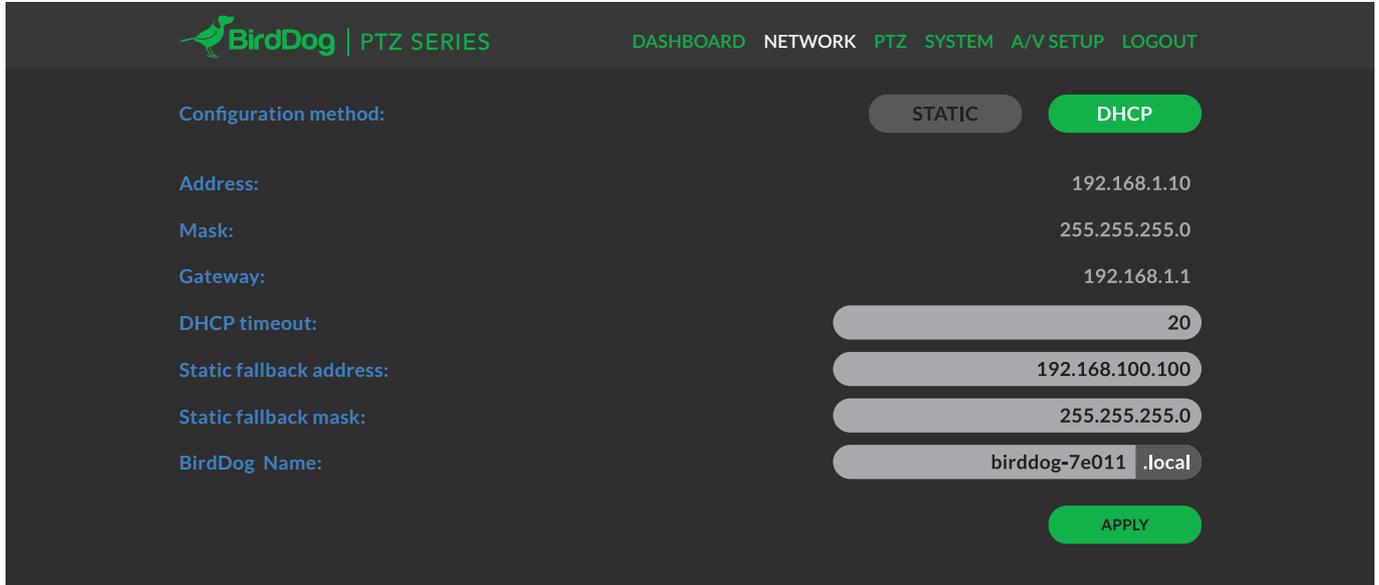
### Device naming

When A300 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 A300 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 A300 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 A300 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 A300 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.

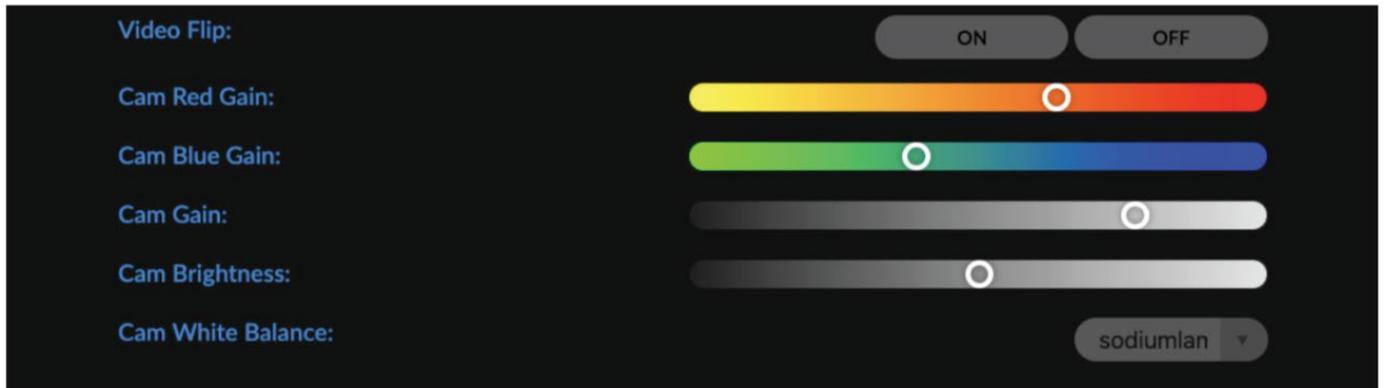
On NDI receiving devices, A300 will present as a source as follows:

**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.

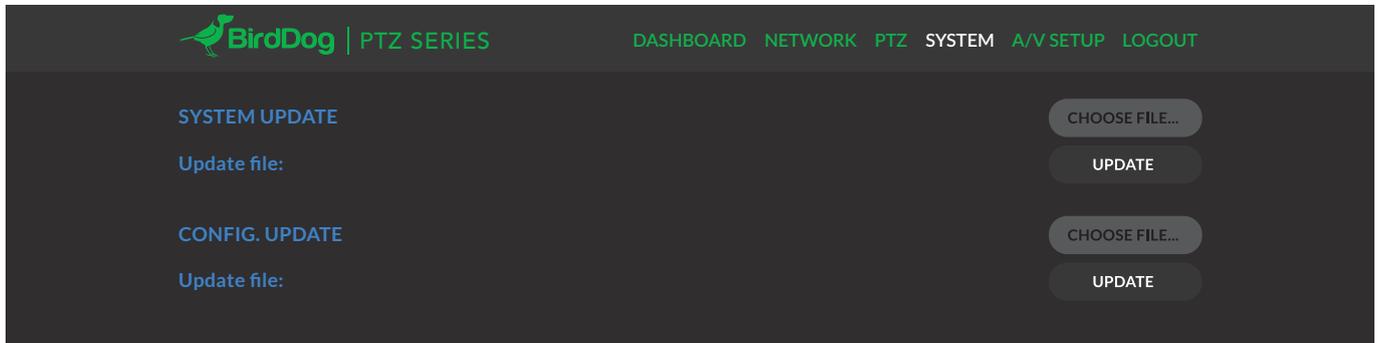


## FIRMWARE UPDATE

A300 is updateable via the web interface. Please check the below address regularly to ensure you have the latest firmware available for your device.

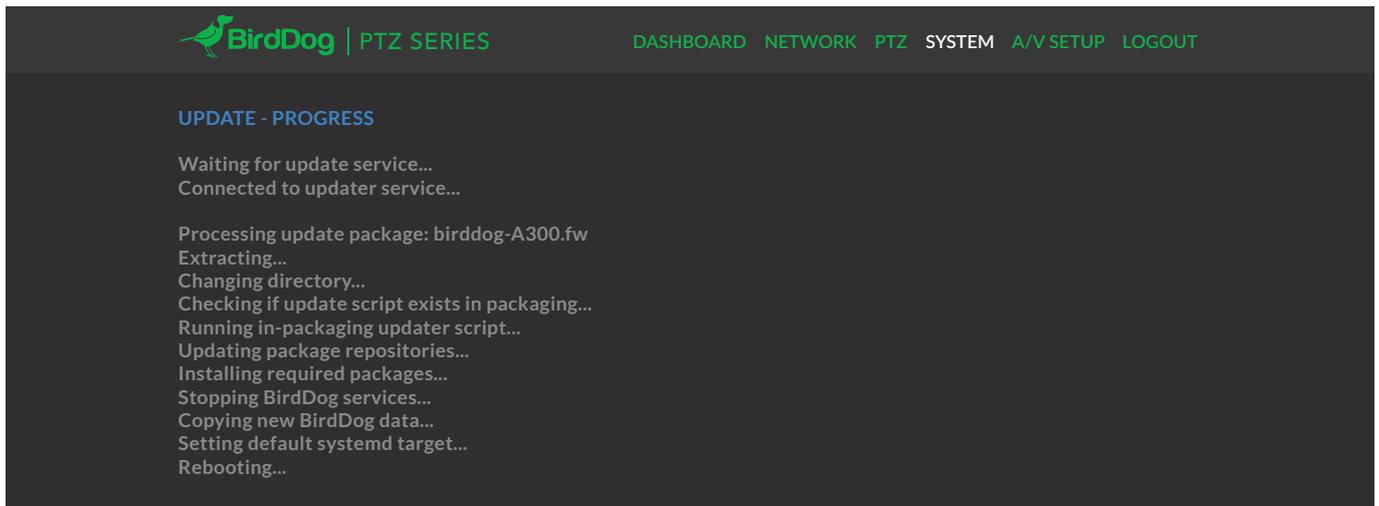
Having the latest firmware ensures you have all the latest features and performance updates to get the most out of A300: [bird-dog.tv/firmware-updates](http://bird-dog.tv/firmware-updates)

After downloading the latest firmware release, navigate to the settings tab on the A300 web configuration console click on Choose file... select the firmware update file and press the update button.



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.



## RECEIVING NDI STREAMS

There are many applications that support receiving the NDI signal that A300 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 A300 you will notice a configuration cog appears on the bottom right-hand side of the video display, this is a shortcut to access the A300 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 A300 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 A300 source.

Once connected to the A300 you will notice a configuration cog appears next to the source drop down window, this is a shortcut to access the A300 web configuration panel.

[bird-dog.tv](http://bird-dog.tv)

[hello@bird-dog.tv](mailto:hello@bird-dog.tv)