



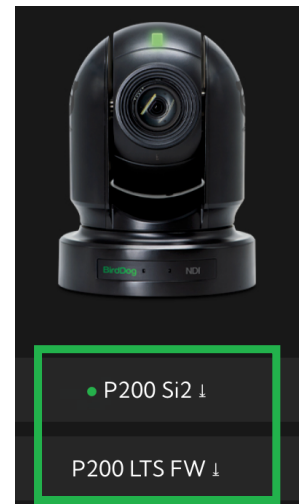
# BirdDog Firmware Release Notes

## All HD Cameras

Due to internal BirdDog requirements, our firmware releases don't always have sequential numbering. To upgrade the firmware, please follow the **Firmware Upgrade Instructions** located in your firmware download.

### IMPORTANT

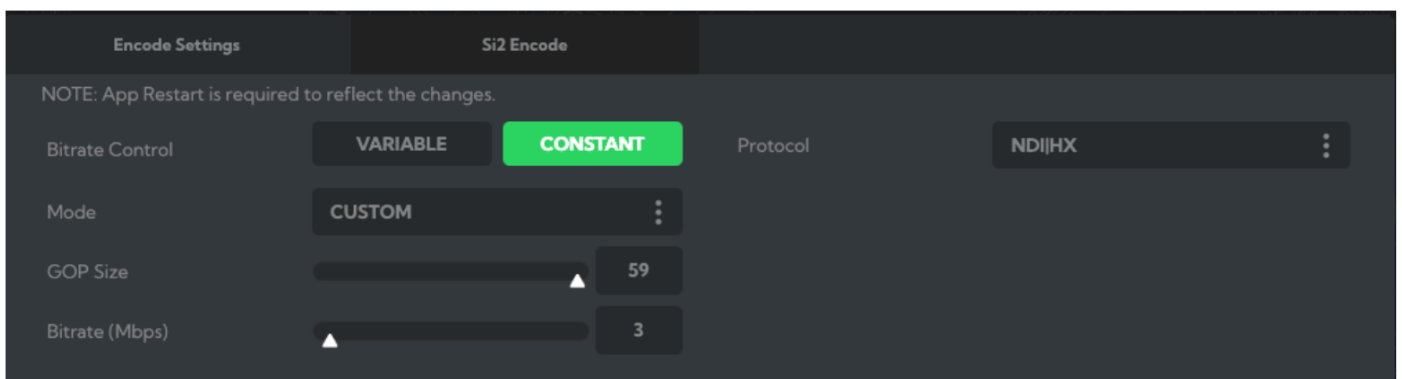
- After the update please power cycle the camera. This can be done by removing the Ethernet cable (for PoE power), power cycling the switch port, or by removing the dedicated power supply.
- Be aware that if you are still running older firmware, such as NDI 3.X, you must first upgrade to the latest LTS firmware for your camera before upgrading to Si2. For example, if you are upgrading your P200 from an older software, please first upgrade to the displayed LTS firmware on the website before moving on to the Si2 firmware.



## Firmware 5.5.112

### New Features

#### Si2 Encode



This release features additional native transmission protocols for different production use cases. The engine encodes the camera signal into high efficiency H.264 which is then transported via either the NDI|HX (version 2), SRT, RTSP or RTMP streaming protocols. The protocols are accessed via the new **Si2 Encode** tab located in the BirdUI on the AV Setup panel.

This release has the following features:

- High efficiency H.264 video encode. Maximum resolution 1080p30.
- Choice of either NDI|HX2/HX3, SRT, RTSP, and RTMP streaming protocols.



## Fixes

### All Cameras

- The **Preset Recall Speed** for PTZ ONLY presets now matches the current “Preset Speed” setting in the BirdUI.
- Fixed an issue that could cause the framerate to drop by half under some circumstances.

### P100

- Interlaced video is now working.
- A black or white flash is no longer displayed when recalling a Preset.

### A300

- “PTZ Only” Presets now recall correctly.

## Known Issues

### All Cameras

- Port 10000 is currently not available for an **SRT outgoing** connection.

### A200

- The **Manual Focus** setting changes to **Auto Focus** when the Zoom function is used.

## Confirming the updates

Please confirm the updates for your camera as described in the Firmware Update Instructions document located in your downloaded update file.

CAMERA	BASEBOARD	MCU VERSION	FIRMWARE
P100 AA	1.7.4	50	5.5.112
P100 AD	1.7.4	50	5.5.112
P110	1.7.4	13	5.5.112
P120	1.9.4	13	5.5.112
PF120	1.7.4	38	5.5.112
P200 A2/A3	N/A	24	5.5.112
P200 A4/A5	N/A	27	5.5.112
P240	N/A	09	5.5.112
A200 Gen 2	N/A	23	5.5.112
A300 Gen 2	N/A	17	5.5.112



## PREVIOUS FIRMWARE

### Firmware 5.5.094.1

This release contains the following features and fixes:

#### All Cameras

- Technical improvements to the firmware update process.

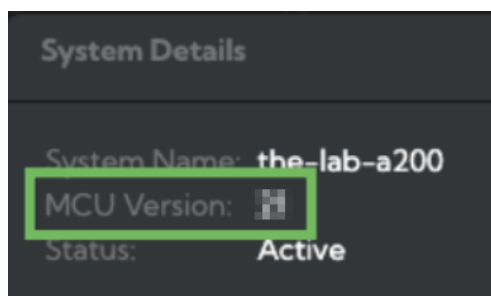
#### P400 and P4K

- Camera presets saved as PTZ ONLY now correctly recall the zoom setting.

### Confirming the update

To confirm the update, log in to the camera BirdUI and view the **System Details** on the Dashboard. Check that the **MCU Version** matches the number listed below for your camera.

CAMERA	MCU VERSION
P100 AA	49
P100 AD	49
P110	12
P120	12
PF120	37
P200 A2	23
P200 A4	26
P240	08
P400	28
P4K	22
A200 Gen 2	21
A300 Gen 2	15



### Firmware 5.5.093

This release contains the following features and fixes:

- Security update.
- Changes to the update process:
  - Improved update speed.
  - Update order is now reversed. It is recommended that the firmware is now updated before the MCU.



## Firmware 5.5.089

This update contains a critical security patch and is recommended for all users.

**WARNING** This firmware update cannot be rolled back without first lodging a Support ticket.

Other features and fixes of this release include:

### All cameras

- The **Source Status** display on the Dashboard is now working correctly and is no longer frozen on "Changing Video Format".
- Presets now work correctly with the **Flip** function engaged.
- Manual exposure settings are now correctly updated.
- The **Network Speed** display on the Dashboard now displays the correct units.
- The **Remote IP List** is now searched correctly.
- Pan and tilt movement is now improved at low speeds.
- NDI 5.5 library

### P4K/P400

- Video is now correctly output at 2160@23.97.
- Setting **Stream to Network** to OFF no longer causes the screensaver to flash.
- Interlaced video is now handled correctly.

### A200/A300

- Video no longer stutters during zooming.
- Camera Control/RESET function now works correctly. (A200)

### P200

- Preset **Colour Matrix** values are now correctly stored and recalled.

### P120

- PTZ only presets are now recalled correctly.

### P110

- The BirdUI/Camera Control/RESET function now works correctly.

## Known Limitations

### All cameras

- A **Factory Reset** does not clear the Presets.

### P4K/P400

- Analogue audio output is not working at SDI and UHD resolutions.
- The VISCA address cannot be changed.

### P200

- Outputting interlaced SDI causes Atomos monitor/recorders to crash.



## Firmware 5.0.064

This release features continued native support for NDI® 5 for maximum compatibility across the entire NDI® ecosystem.

## Firmware 5.0.054

This firmware release includes the following new features and bug fixes:

- Audio gain has been changed to better handle line level inputs.
- A bug preventing the P4K/P400 cameras from encoding 4:2:0 correctly has been resolved.

## Known Limitations

### All cameras:

- Performing a Factory Reset doesn't clear the Presets.

### P200:

- Outputting interlaced SDI to an Atomos monitor/recorder will cause the unit to crash.

### P4K/P400:

- No audio out on SDI at UHD resolutions.
- Visca Address Can Not Be Changed.
- A hard reboot (power off to shut down and then restart) is required after firmware installation to restore the video output signal.

## Firmware 5.0.053

This release features native support for NDI® 5 for maximum compatibility across the entire NDI® ecosystem.

## NDI® 5 Libraries

- The latest technology from NDI® provides increased compatibility and performance.
- **RUDP (Reliable UDP)** – Reduces overall network load by not requiring every packet to be acknowledged by every receiver. However, RUDP has built-in error correction for smooth and reliable transmission.
- **NDI® Genlock** – Select a source (BirdDog camera, converter or even TriCaster) to be the timing master. Provides more predictable timing in multi-camera environments.

## Unified Single File Firmware

- All cameras now share a single firmware update file. Some cameras require an additional MCU update, as detailed in the relevant Firmware Update Instructions in the firmware download.



## New Control Engine

- Greater VISCA compatibility.
- Overall better support for 3rd party applications.

## New WebUI

- Complete, ground-up redesign.
- Key system statistics are now displayed on the Dashboard **before** login – number of active connections, current encoder bandwidth, current network traffic and video format.
- More logically organized, responsive and mobile friendly.
- Faster overall UI response.
- Better browser compatibility.
- Download **and** Upload configuration files. Easily swap **Remote IP Addresses** and **NDI® User Groups** files between cameras.
- NDI® Signal Mute (video and audio). Toggle off the live NDI® stream in the WebUI and display your choice of static image. Choose from BirdDog splash screen, black image, or a live capture from the NDI® stream. API controllable.

## CamControl

Camera controls, including a newly designed Color Matrix, have been reorganized and grouped into a new CamControl tab.

## NDI Discovery Server Failover Support

You can nominate a list of multiple NDI® Discovery Servers which will then be used simultaneously. As long as one server remains active, all sources will always remain visible.

## NDI Scopes

- Real time overlayed Scopes (with or without transparency):
  - Histogram
  - Waveform
  - Vectorscope
  - RGB Parade
- Accurate – Scopes are directly fed from raw sensor data.
- Scopes can be displayed on Main, Proxy or both outputs. Allows for a clean Main NDI® stream with Scopes displayed on the Proxy stream.
- Selectable Scope location (top left, top right, bottom left, bottom right).
- Scaleable size (normal or double size).

## FreeD

- All cameras can be configured to transmit positional data over the network for use in Augmented Reality.
  - Includes Pan, Tilt, Zoom, Focus and Iris information.
  - Realtime, per frame data transmission.



- Integrates with many 3rd party graphics systems, including:
  - Unreal Engine
  - Brainstorm
  - Viz Vector
  - RT Softwareand many others.

The FreeD function is currently in beta. Final release coming soon.

## Known Limitations

The P4K cameras have the following known limitations in this beta release:

- A hard reboot (power off to shut down and then restart) is required after firmware installation to restore the video output signal.
- Audio out does not work on SDI at UHD resolution.
- The Visca address cannot be changed.