



Firmware Update Instructions

BirdDog P200

This document provides instructions on updating the camera firmware. There are 2 separate locations that require firmware to be updated.

- **MCU (Master Control Unit)**
The MCU is the overall control system that interprets and actions any incoming command to the camera. It sends image commands to the baseboard as well as controlling all the robotics such as Pan/Tilt/Zoom directly. Updating the MCU results in improvements in control compatibility, accuracy and speed.
- **NDI® Firmware**
The NDI® firmware handles all network-based activities including the Web User Interface (Web UI) and the encoding of video into NDI® video to be sent over the network. NDI® Firmware includes many important performance updates, features, functions, and compatibility updates.

Updating the Camera Firmware

Updating your camera is a 2 step process. Please update the camera as per these instructions and in this specific order.

What you will need

- 1 x P200 Firmware update .zip file (this contains all the files you need to update your camera).
- 1 x BirdDog P200 Camera.
- 1 x Windows PC or Laptop with a spare USB-A port running Windows 10.
- 1 x USB flash drive formatted as FAT32 on a Windows computer.

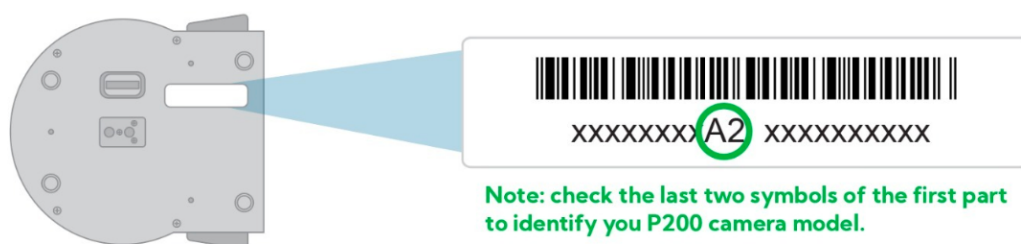
Note: While most USB flash drives smaller than 8Gb in capacity are compatible, some flash drives do not perform updates correctly. The Patriot Supersonic Boost XT USB flash drive has been successfully test and is recommended. This flash drive can be purchased from Amazon [here](#).



BirdDog P200 Revision Number Verification

BirdDog P200 has two distinct hardware revisions and it is important to know what revision number you have when updating the firmware. There are two ways to identify the hardware revision of your camera.

1. Check the barcode located on the bottom of your camera. If the last two digits of the first group of numbers are A1/A2/A3, then you should use A2/A3 firmware. If the last two digits are anything OTHER than A1/A2/A3, you should use A4/A5 firmware.



2. Alternatively, you can locate the current MCU firmware version via the camera OSD (On Screen Display). In order to see the On Screen Display, you'll need to view the camera's video output. You can do this via NDI (e.g. using NDI Studio Monitor – part of the free NDI Tools available at www.ndi.tv/tools) or using a monitor connected via HDMI or SDI.

Navigate to the WebUI PTZ menu>OSD tab. Click the OSD ON/OFF button. You can then use the OSD control buttons to navigate to the OSD System menu. The OSD is also accessible via the camera remote control by pressing the MENU button.

Enter the 18-digit SV number in the verification tool below to confirm the camera hardware revision .

[Revision number verification tool](#)

Procedure

Step 1. MCU Update

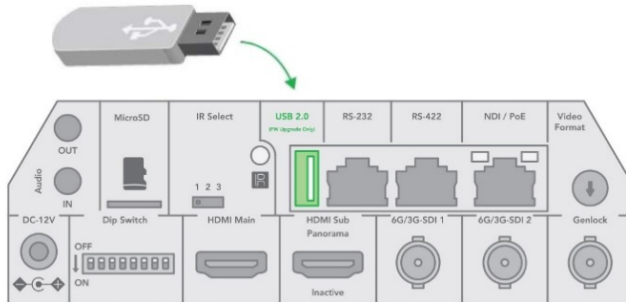
If your flash drive is not formatted as FAT32, format it using a Windows 10 PC. The following video provides instructions on this. The process should only take a few minutes.

[Formatting your USB drive](#)

To check how your flash drive is formatted, insert the flash drive into a Windows PC, open *My Computer* and right-click on the flash drive. In most cases, this is the D: or E: drive. Select *Properties* from the pop-up menu. The file system (FAT32) should be specified near the top of the *Properties* window.

- a. On your Windows PC, unzip the downloaded firmware folder and open the folder named STEP 1. This will contain a single .bin file.
- b. Insert your FAT32 formatted flash drive into your Windows PC.

- c. Copy the .bin file from the STEP 1 folder to the top level of the flash drive.
- d. Right-click on the flash drive in *My Computer* and eject the flash drive.
- e. Remove the flash drive from your Windows PC and insert it into the camera's USB port.



- f. Remove all power from the camera, wait for 10 seconds and re-power the device with the flash drive connected.
 - g. Once the camera has finished boot up (it will pan fully left and then back to centre), power down and re-connect all usual cables to the camera.
 - h. To confirm the update, we'll need to check the software version number on the On Screen Display (OSD). In order to see the OSD, you'll need to view the camera's video output, either via NDI® (e.g. using NDI Studio Monitor – part of the free NDI Tools available at www.ndi.tv/tools) or using a monitor connected via HDMI or SDI.
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Using the WebUI, navigate to the PTZ menu, OSD tab. Click the OSD ON/OFF button. You can then use the OSD control buttons to navigate to the System menu. The OSD is also accessible via the camera remote control by pressing the MENU button.



Check the long SV number at the bottom of the list.

- For A1/A2/A3 models, the number should end in **AA022**. If it does, then the update is confirmed.
 - For A4/A5 models, the number should end in **AA025**. If it does, then the update is confirmed.
- i. The MCU update is now complete. Proceed to the next step.

STEP 2. NDI® System Firmware Update

- Log into the camera Web UI.
- Navigate to the SYSTEM menu and select the SYSTEM UPDATE tab.
- Click the CHOOSE FILE button, and from the displayed popup window, navigate to the folder named STEP 2, select the contained .fw file and click UPDATE.

NOTE: This process will take up to 5 minutes and will require the camera to reboot. DO NOT power off the unit while this process completes.



- d. After the process reports as complete, allow 2 minutes for the camera to reboot and then refresh your browser.
- e. If you wish to use the Web UI, you'll need to log in again.
- f. The update process is now complete.

Support Resources

BirdDog are committed to your success with our products and we have a team of global support engineers ready to help you. Should you need further assistance, please do not hesitate to reach out.

Email us at help@birddog.tv

This is a high priority email address and is received by support, engineering and management. We are here to help!