

FIRMWARE UPGRADE PROCEDURE

IMPORTANT NOTICES

- 1. You should never do a firmware upgrade when running on battery power. Ensure the camera is connected to AC power.**
- 2. You should perform the upgrade PCC version 1.3 or higher. If you do not have right software please contact Vision Research.**
- 3. If for some reason the firmware upgrade fails, the camera will likely need to be returned to Vision Research for service.**
- 4. For v710 cameras, if your camera's firmware is 670 or less, the camera needs to be returned to have the camera calibrated along with the firmware upgrade. Please contact support@visionresearch.com to arrange for an RMA.**

Performing a Firmware Upgrade

The Firmware upload button allows the end user to, in one simple operation, load firmware and FPGA, (Field Programmable Gate Array), firmware. It allows the end user to load firmware files into the selected visible camera, or in a camera which responds to ping command, by introducing its IP address and a value for camera version.

Using this Firmware button provides for the upload firmware files to your camera or cinestation. After loading the firmware files, the program tries to reconnect the camera or cinestation. It may be necessary to power the camera or cinestation off then on again for Phantom to reconnect to the camera or cinestation.

1. Download zipped firmware files from Vision Research Website:
 - a. Connect to the Internet.
 - b. Open your web browser application.
 - c. In the URL entry field enter the link e-mailed to you via Vision Research Technical Support.
 - d. Locate and download the appropriate firmware file for your camera or cinestation model. Be sure to note location the file is being downloaded into.
2. Create a Windows folder to copy and save the downloaded zipped file into:
 - a. From the Windows desktop click Start>My Computer.
 - b. In the My Computer dialogue window:
 - 1) Navigate to the location the zipped firmware file was downloaded into.
 - 2) Click once on the downloaded zipped firmware file to select, (highlight), it.
 - 3) Click on the Edit menu option, and
 - 4) Select the Move to Folder... command.

5) In the Move Items dialogue window, navigate to the drive/folder location to create the Windows folder the zipped firmware file will be stored in, and

6) Click the Make New Folder button.

7) Enter a name for the newly created folder.

8) Click the Move button.

9) Unzip the zipped firmware file.

3. If you have a cinemag/cinestream compatible camera, install the cinemag/cinestream onto the camera or cinestation (cinemag only) and apply AC power to the camera or cinestation. If you do not have a cinemag or cinestream, apply AC power to the camera.

4. For PCC, launch the PCC application and from the Manager Tab, select the Nucleus button,



This will launch the Phantom Nucleus program and will display a dialogue window:

a. Click the down arrow next to the Camera field and select the camera or cinestation the firmware upgrade is to be performed on.

b. Select the Files to Upload

1) Click on the Firmware button and navigate to the folder where the firmware file is located, select the ph7.* file, and click Open.

2) Click on the FPGA button and navigate to the folder where the FPGA file is located and change the Files of Type field to All Files(*.*). Select the *.bin.* file and click Open. The format for the *.bin* is as follows each camera:

Camera	FPGA file exetension
Phantom v641 v341	v131.bin.*
Phantom v341	v131.bin.*
Flex	v135.bin.*
Cinestation	csg12.bin.*
Phantom v640	v13.bin.*
Phantom v710/v711, v310/v311, v210/v211, v12.1/v611	v122.bin.*
Phantom HD	phd.bin.*
Phantom v7.3	v73.bin.*
Phantom v9.1, v10	14g4.bin.*
MIRO 1/EX1, 2/EX2, 3, 4/EX4, AO	mirocfmb.bin.*
Phantom P65	np65.bin.*

3) Click on the Cinemag button (if your camera has a cinemag interface) and navigate to the folder where the Cinemag file is located, select the fdhd.bin.* file and click Open.

4) Click on the Kernel button and navigate to the folder where the kernel file is located, select the zImage.ocotea.* file and click Open.

5) Once you have selected all of the files click on UPLOAD.

6) Click the OK button in the "Camera RAM cines will be deleted" warning message window if there are cines in the camera's RAM.

7) Click the OK button in the "Proceed with uploading..." message window. The system will now display a series of information windows indicating

- Files are being uploaded
- Wait for camera to re-boot and press OK – During the reboot, the camera's fan will slow down and then the fan will speed up.
- If camera has not yet rebooted message
- Camera pool changed message.

8) If you have upgraded a CineStation to 694 firmware, the CineMag will need to be re-seated in order for it to be recognized. With power applied to the CineStation, re-seat the cinemag. In the Phantom Nucleus window, click the Refresh button to verify changes followed by clicking the Close button. This will verify the changes to Firmware, FPGA, Kernel and Cinemag (if applicable).

9) For cameras whose Kernel was updated to 16140, power cycle the camera.

10) For PCC, go to CAMERA and select CineMag version.

11) Close and restart the Phantom Camera Control software. For Phantom, go to HELP and select ABOUT to verify MAG. For PCC, go to CAMERA and select CineMag version.

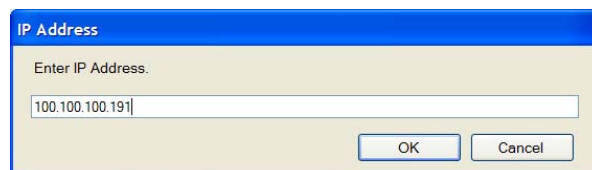
NOTE: If your camera originally had the following firmware or higher installed, you are finished, otherwise proceed to step 5 below for V12.1, V210 and V310 cameras. For the P65 camera proceed to step 6:

V12.1:	670-387153-16092-12194
V210:	670-387153-16092-12194
V310:	670-387153-16092-12194
P65:	747-858073-16092-12236

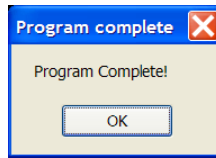
5. Change the Hardware settings for v12.1, v210, and v310 cameras only using "920 bbias & tbias.exe".

a. From the location the downloaded zip file was placed in locate, "920 bbias & tbias.exe" and double click on it.

b. In the window that pops up, type in the camera's IP address.



c. Click OK. The program will change the hardware settings. When the hardware settings have been changed, the program will respond with:

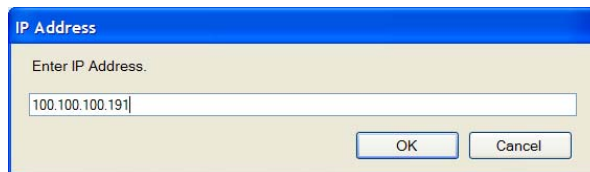


d. Click OK.

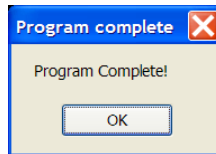
6. Change the Hardware settings for P65 cameras only using "Tsetsns20.exe".

a. From the location the downloaded zip file was placed in locate, "Tsetsns20.exe" and double click on it.

b. In the window that pops up, type in the camera's IP address.



c. Click OK. The program will change the hardware settings. When the hardware settings have been changed, the program will respond with:



d. Click OK.

7. Change the Hardware settings for P65 cameras only using "Tsetsns20.exe".