

Leica IC80 HD camera Firmware Update v1.87



Purpose

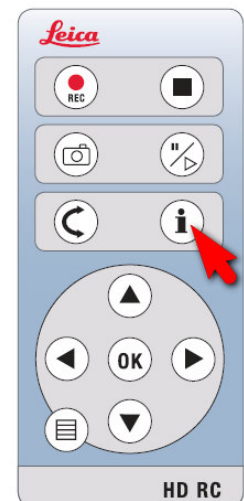
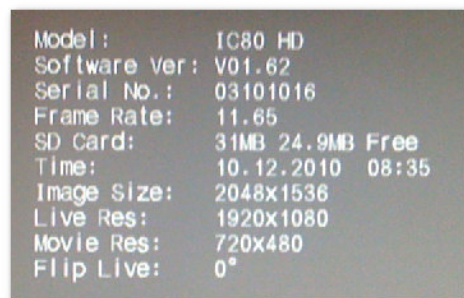
This document describes how to update the firmware of the IC80 HD camera.

Requirements

1. IC80 HD camera with Firmware Version lower than 1.87
2. IC80 HD standalone kit
Note: Without the standalone kit it is not possible to update the firmware of the camera.
3. PAL / NTSC screen or HDMI-screen
4. PC with internet access
5. SD card reader

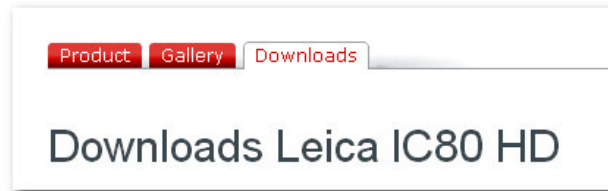
Step by step procedure to update the firmware:

1. Make sure the camera is connected using the **standalone kit** only, and is not connected to the computer via the USB cable. If the IC80 HD camera is not in standalone mode put it into standalone mode by pressing and holding the black button on the camera for about 5 seconds until the message "Start STANDALONE Mode" or "PC Mode disable" appears on the screen.
2. Please check first the current firmware version in your camera.
When you see a live video on your screen, press the INFO button "i" on the remote controller.
3. The information text box is displayed on the screen:



4. Make sure the camera Model is listed as "IC80 HD".
5. The firmware version inside the camera is listed as "Software Ver:". In the sample image above it is listed as version 1.62. If the firmware version already is V1.87 then you do not need to update it and you can quit this procedure.

- Go to the Leica webpage at <http://www.leica-microsystems.com/products/microscope-cameras/> and check the IC80HD Downloads section for an update of the firmware.



Download the new firmware version 1.87 from the Leica website to your computer. The version of the firmware is visible inside the zip filename, eg. Firmware_Update_IC80HD_V187.zip.

Please note that inside the zip file you also get updated versions of user manuals and release notes.

- Insert the camera SD card into a card-reader attached to the computer.
- Unzip the downloaded file into a new folder or directly to the SD card, comprising of the following files and folders:

Name	Size	Type
Readme_Firmware_Update.pdf	242 KB	Adobe Acrobat Doc...
DCIM		File Folder
IC80HD-Manuals		File Folder
Main.elf	6'017 KB	ELF File

The DCIM folder contains a test image that can be used to setup the best color setting for your HD-screen or HD-beamer. The IC80HD-Manuals Folder contains the updated manuals for the IC80HD in several languages that take into consideration all the changes since the last firmware update.

- Copy all the files and folders to the root of the SD card.
- Transfer the SD card from the computer to the SD slot of your IC80HD.
- If you have a firmware version V1.62 or less then press and hold the black button on the side of the camera for about **25 seconds (!)** until you hear a beep.



If you have a firmware version higher than V1.62 press and hold the hidden pin hole switch for about 10 sec until you hear a beep.



12. The following message will appear on the screen:

```
Updating EPROM! Do NOT interrupt!  
Wait 1 min until LED is off - then restart!
```

When you see this message, you can release the pressure on the black button or on the hidden pinhole switch. The firmware will now be loaded into the camera. This takes about 20-30 seconds. When the update is finished, the screen will go blank and the LED light on the camera will turn off.

13. Unplug and re-plug the power to the camera. Wait until you see a live image on the HD screen.

14. Press the INFO button on the remote control to display the new camera information:

```
Model:          IC80 HD  
Software Ver:   V01.85  
Serial No.:     03101016  
Frame Rate:    11.46  
SD Card:       2GB 1.8GB Free  
TIME:          10.12.2010 08:32  
IMAGE SIZE:    2048x1536  
Live Res:      1920x1080  
Movie Res:     720x480  
Flip Live:     0°  
Cam Mode:      HD
```

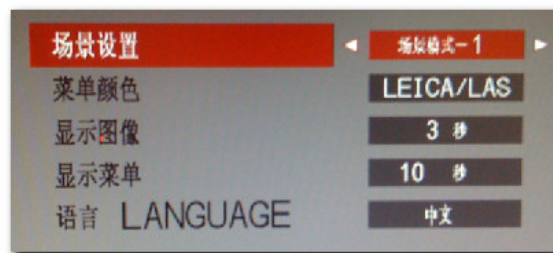
15. Check if the new firmware version is correctly displayed by pressing the “i” button on the remote control.

16. If the firmware version is not listed correctly repeat the steps 11 to 15. Make sure that you have copied all the files to the root of the SD card and not to a subfolder. If necessary download the file again from the Leica web page.

New features in the firmware version 1.87 – Jan 2011

- The IC80HD camera can now be powered by an USB power supply without automatically switching to PC mode. You have to switch manually between PC-mode and HD-mode by pressing the black button at the camera for about 5 seconds – depending on the preferred way of working with the camera.
- The On – Screen – Menu can now be switched to different languages:
ENGLISH / DEUTSCH / FRANCAIS / ESPANOL / ITALIANO / PORTUGUES / SVENSKA / CHINESE / JAPANESE

In case you want to switch back the On-Screen Menu to a known language please select the last menu entry in the main menu list and the last menu entry in the submenu list.



- You can now choose between several overlays: None, Leica, Crosshair white/black and Grid white/black:
- When the camera is in PC-Mode, the camera LED blinks every 1 second. You can also press the INFO Button anytime to check the actual mode of the camera ("Cam Mode:").
- When you want to play a movie file, you can also press the Stop/Play button on the remote control as well as the OK button.

