

# Leica IC80 HD Firmware Update V1.13.0

## Purpose

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

## Requirements

1. **ICC80 HD** camera with Firmware Version V1.87 or V1.93
2. HDMI-screen
3. PC with internet access
4. SD card reader (or SD card slot at your PC)

## Step by step procedure to update the firmware:

1. Make sure there is no SD card in the camera and the camera is in HD mode (LED light steady red). If the LED is blinking it indicates the camera is in PC mode and you must change the camera to HD mode. You can do this by pressing and holding the black button for 5 seconds after which you will hear a “beep” and the message “Start HD Mode” will appear on the screen.. The camera will then restart in HD mode and you will notice the LED is no longer blinking.



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 HD RC remote controller. The information text box is displayed on the screen. The firmware version inside the camera is listed as “Software Ver:”.If this version is 1.13.0 you do not need to update the firmware and can return to normal operation.
3. Go to the Leica webpage at <http://www.leica-microsystems.com/products/microscope-cameras/industry/details/product/leica-ic80-hd-1/downloads/> and check for an update of the firmware.



4. Download the new firmware version from the Leica website to your computer. The version of the firmware is visible inside the zip filename, eg. ICC80 HD-Firmware-V1130.zip.

5. Insert the camera SD card into a card-reader attached to the computer.
6. Unzip the downloaded file into the root folder of the SD card. The SD card should then contain the following files and folders:

|  |                  |          |
|--|------------------|----------|
|  Firmware_Update_Readme_V1130.pdf | 2013-08-26 12:20 | 170 KB   |
|  Fw_IC80HDT_V1130.elf             | 2013-08-26 11:34 | 5'633 KB |

7. Insert the SD card into the SD card slot of your camera or microscope.
8. Press and hold the hidden pinhole switch for about 10 sec until you hear a beep. Use a pen or a small screwdriver to press and hold the hidden switch.



9. A message will appear on the screen that the firmware is being updated. When you see the message, you can release the pressure on the hidden pinhole switch. The firmware will now be loaded into the camera, which takes about 20-30 seconds. Do not interrupt this process! When the update is finished, the screen will go blank and the LED light on the camera will turn off.
10. Unplug and re-plug the power to the camera. Wait until you see a live image on the HD screen.
11. Press the INFO button on the remote control to display the new camera information. Check if the new firmware version is correctly displayed. It should show now V1.10.0 (note that from this new firmware version onwards, all versions will be listed as Vx.y.z)
12. If the firmware version is not listed correctly repeat the steps 10 to 14. If necessary download the file again from the Leica web page.

## **New features in the firmware version 1.13.0 – Aug 2013**

- Due to a change of an internal electronic component, a small change to the firmware was needed. There are no visible changes for the user compared to the firmware version 1.10.0

## **New features in the firmware version 1.10.0 – Dec 2011**

- When the instrument is used in stand-alone mode, you can now switch between PAL-50Hz and NTSC-60Hz resolutions (1080-, 720-, 1080+, 720+). The clocking speed is indicated by a “-” for 50Hz and a “+” for 60Hz. Most HD screens work fine with either 50Hz or 60Hz signals, however when you find that your HD screen is not working correctly, please switch to a resolution which gives you a correct and stable live image.
- To change the clocking speed, use the procedure below:

Make sure there is no SD card in the camera and the camera is in HD mode (LED light steady red). If the LED is blinking it indicates the camera is in PC mode and you must change the camera to HD mode. You can do this by pressing and holding the black button for 5 seconds after which you will hear a “beep”. The camera will then restart in HD mode and you will notice the LED is no longer blinking.



To change the clocking speed, Double click the hidden pinhole switch with a pen or small screwdriver and you will hear a “beep”. Wait approximately 10 seconds until the second “beep” and the LED shows steady red. The camera has now changed the clocking speed. If you are not satisfied with the image or have no image on the screen, double click the hidden pinhole switch once again. The clocking speeds will change each time you double click the hidden pinhole switch from the out of box setting of 1080- in the following sequence (1080-, 720-, 1080+, 720+). Once you decide which format is best, you can check the format by single clicking the hidden switch and the format will appear on the monitor for several seconds.



## New features in the firmware version 1.93 – Aug 2011

- An improved pixel blemish algorithm was implemented to better correct dead pixels and hotspots.

## New features in the firmware version 1.87 – Jan 2011

- 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.

