



How to upgrade G60 firmware & FPGA to support interchangeable lenses

Upgrade G60 Firmware & FPGA (If needed)



Upgrade G60 Firmware

1. Download the latest firmware and FPGA packages.

(Contact Happy to get them)

 FPGA_On_Line_EN_F6T_0253720101_20210619_H3_IPTP_5.5.18_210619
 IPTP_H3_EN_STD_5.5.18_210623

2. Unzip packages.

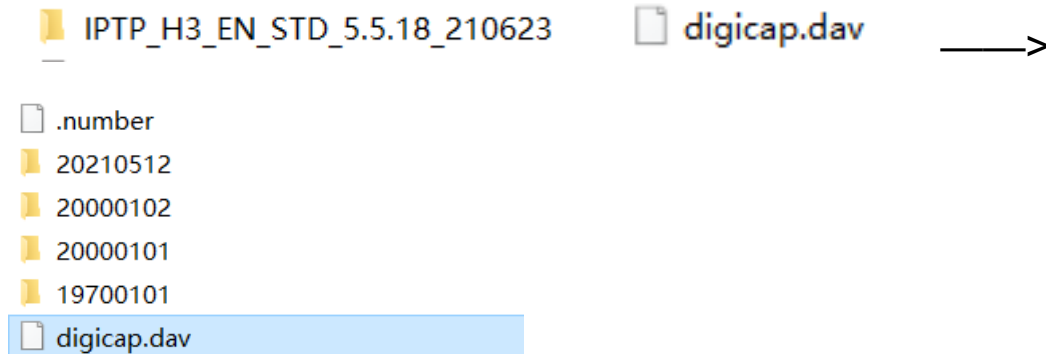
 FPGA_On_Line_EN_F6T_0253720101_20210619_H3_IPTP_5.5.18_210619
 IPTP_H3_EN_STD_5.5.18_210623

3. Turn on the G60.

4. Connect the device to PC via USB cable.



5. Firstly, drop the .dav file of **IPTP_H3_EN_STD** into camera's main folder.



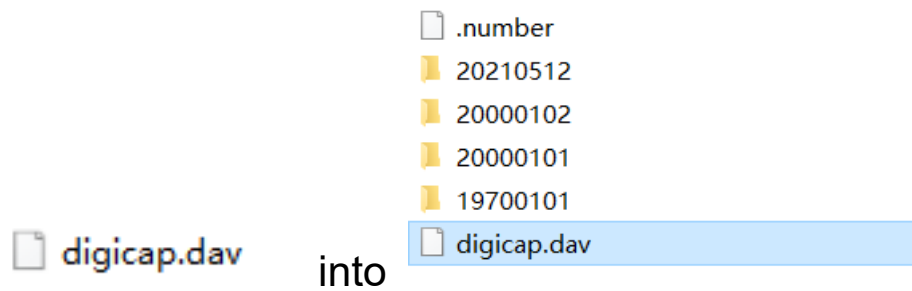
6. Once finish transmission, unplug the USB camera and turn of the camera, then turn it on again, it will be ungraded automatically.



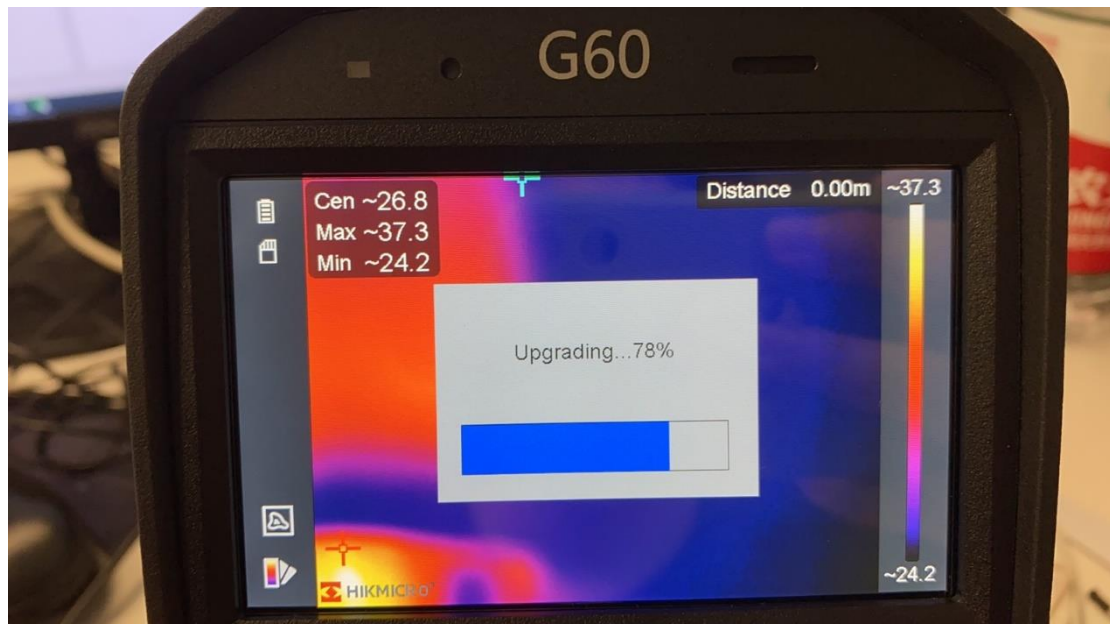
Upgrade G60 FPGA

1. Secondly, drop the .dav file of **FPGA_On_Line_EN_F6T** into camera's main folder.

FPGA_On_Line_EN_F6T_0253720101_20210619_H3_IPTP_5.5.18_210619



2. Once finish transmission, unplug the USB camera and turn of the camera, then turn it on again, it will be ungraded automatically.



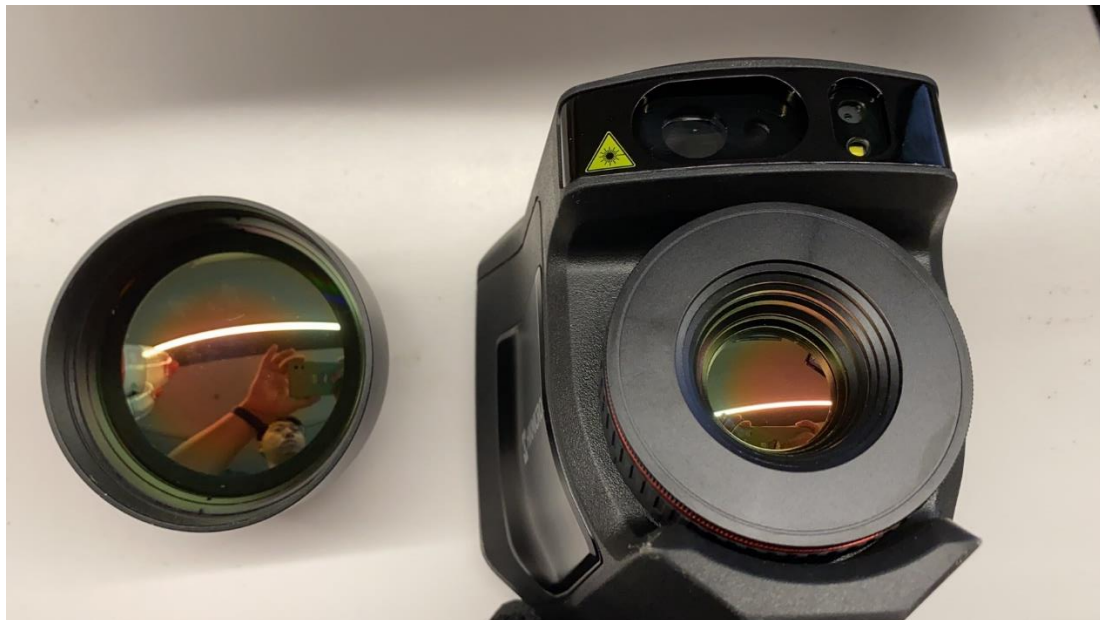
3. Go into device information to check whether the upgrade worked successfully.



Auto-Cal Lenses Calibration Process

Lens Change Instruction

1. Change the lenses.



2. Press the black ring and rotate it anticlockwise



3. Find the both white point of the interchangeable lens and the camera.

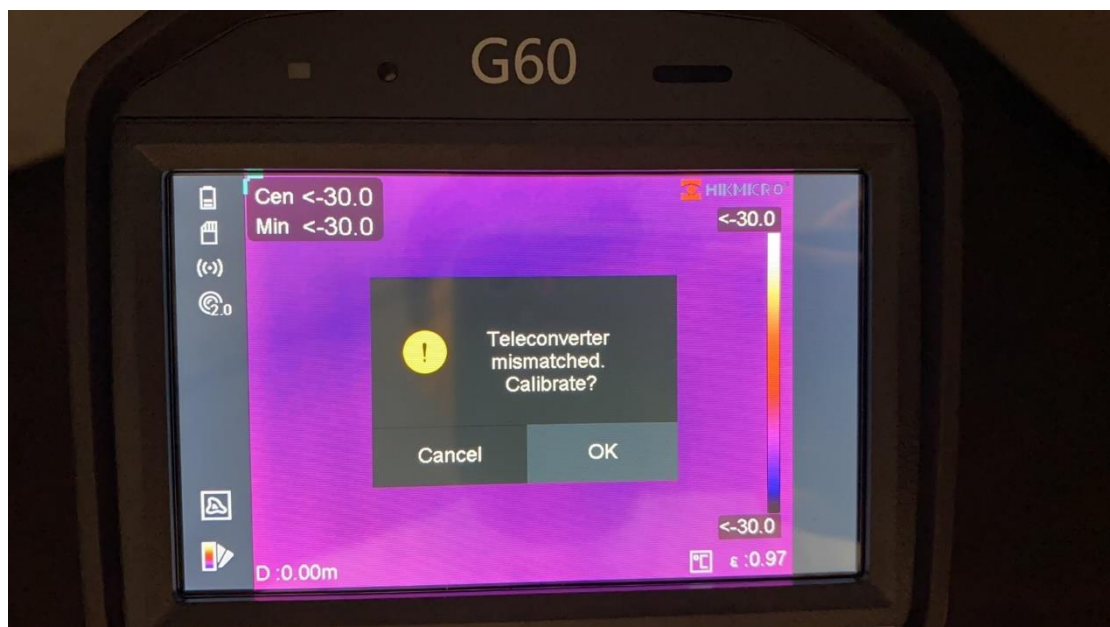


4. Rotate the interchangeable clockwise to lock it.



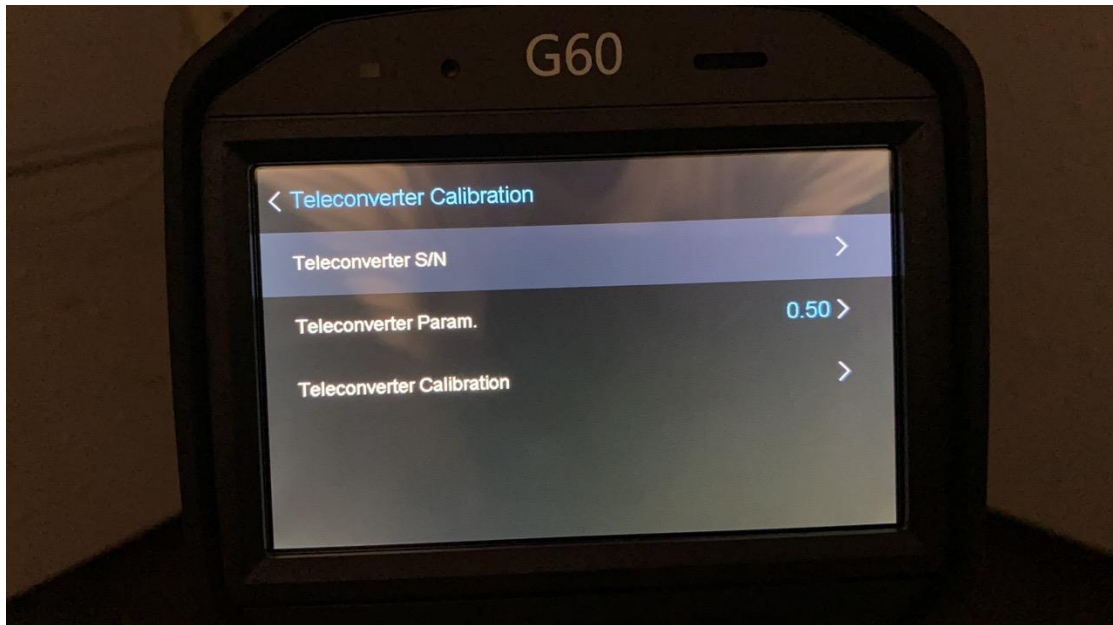
First Time to Use Lenses Instruction

1. For the first time to install an interchangeable lens, a small window will pop up. Press 'OK' to enter.



2. There are three sections which need to fill in.
Teleconverter S/N, Teleconverter Param. and

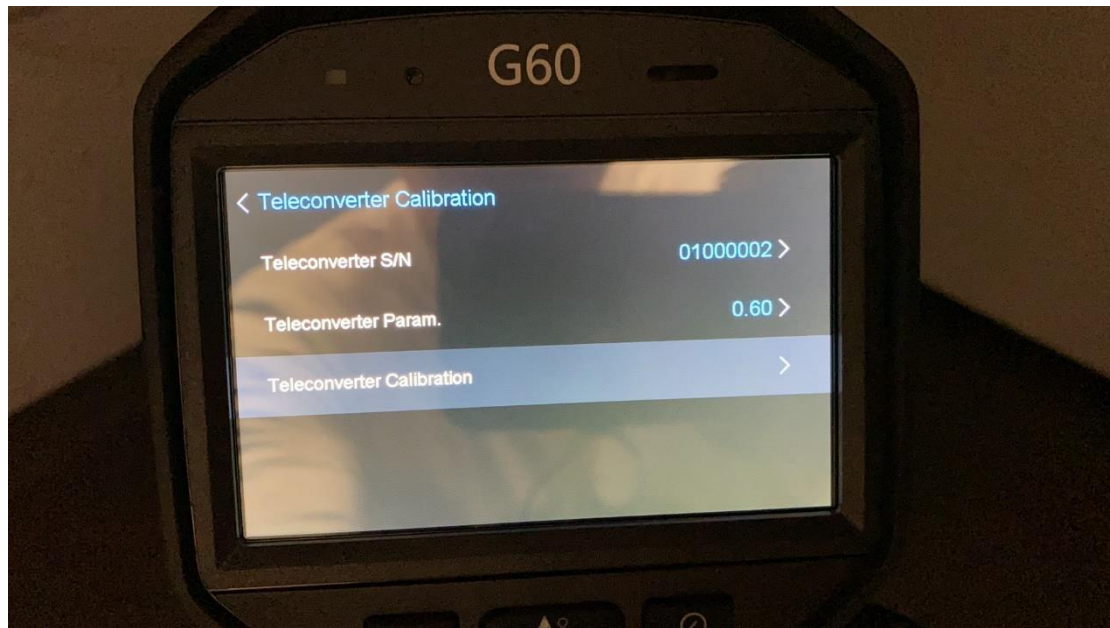
Teleconverter Calibration.



3. Find the Teleconverter S/N on the side of the lens then tape in.



4. Find the Teleconverter Param. on the sticker of the lenses then tape in.



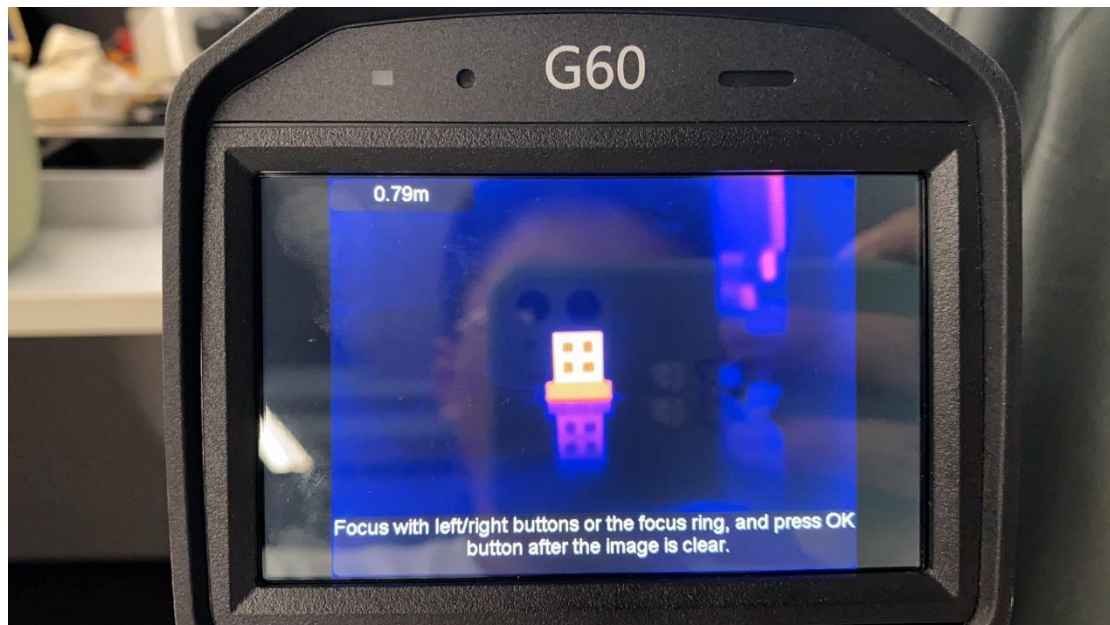
5. Power the calibration tool 'TARGET' over a minute to heat it.



Laser Ranging

Enter into Teleconverter Calibration page, keep the device and 'TARGET' at a certain distance. Recommendation:

0.5x lens (0.5m to 1.5m), 2x lens (1.5m to 2.5m), 3x lens (3m to 4m). Then aim at the 'TARGET', press OK button to point the laser on the word TARGET.



Focus Calibration

Take 0.5x lens for example, use left/right button or the focus ring to adjust the focus manually until the word TARGET and the four fences are clear on the screen.

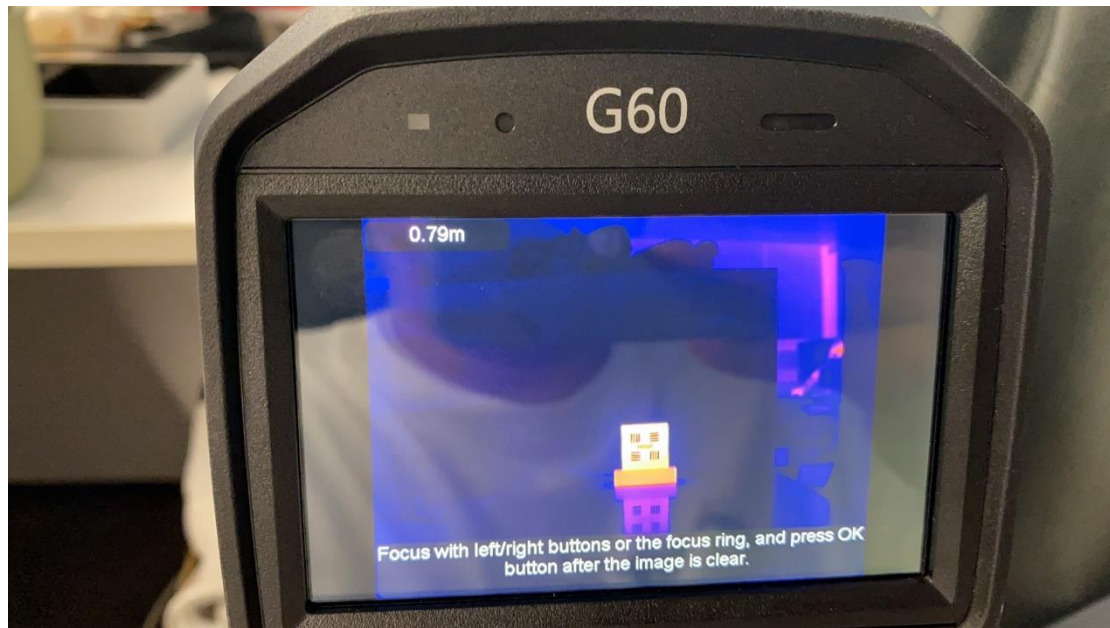


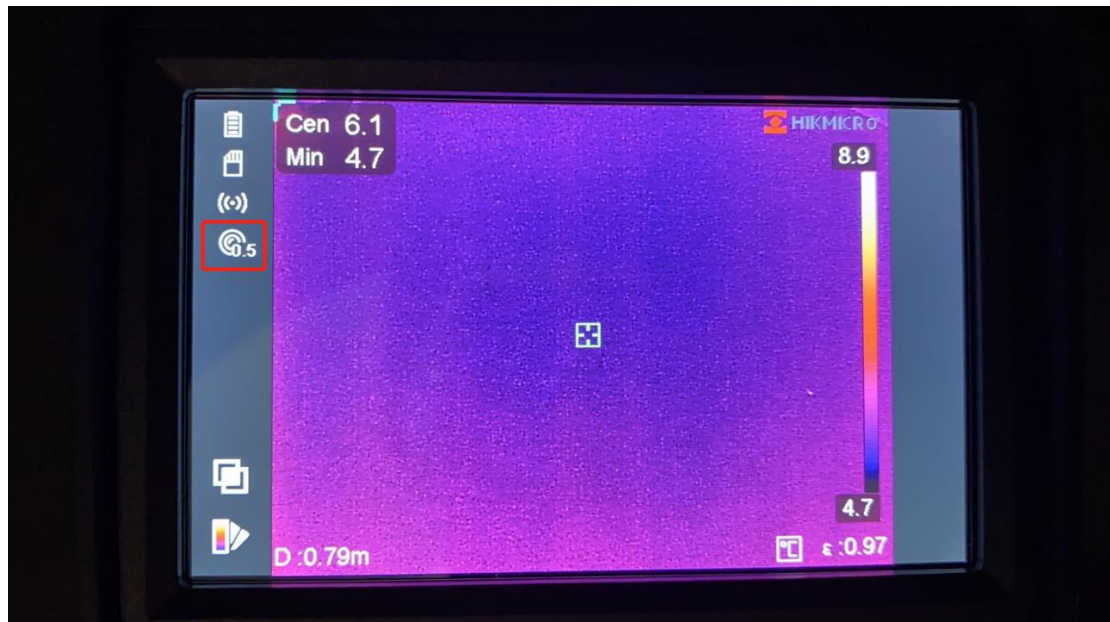
Image Fusion Calibration

Adjust navigation buttons to align the word TARGET in the thermal image with the word TARGET in the optical image. And the four fences are almost the same deviation.

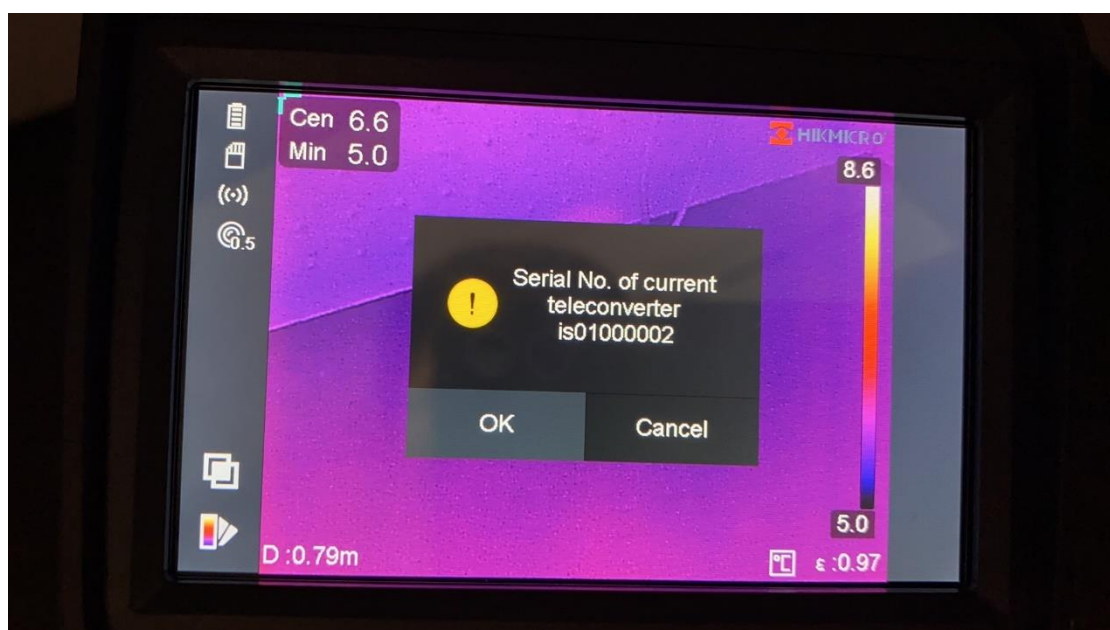


After Finishing the Process

There will be an icon on the left which shows 0.5x or 2x or 3x lens.



Once the lens is recorded with the camera, the next time it will pop up the serial number for user to double check.



This reminder can be turned off in Capture Setting
——>Teleconverter Check.



Lenses Information Check

In the Device Information page, it shows the lenses that have been bound to the device.

