



Product

FastGene® FAS-Digi PRO

Cat. No.

GP-07LED

Category

Gel Documentation System





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General Information

SAFETY INFORMATION

Please read carefully the following notes to be able to properly use the FastGene® FAS-Digi PRO imaging system.

- ▲ Please wear the appropriate personal protective equipment.
- ▲ Please read the safety precautions stated in the Canon 200D operating manual.
- ▲ Using FastGene® Blue/Green LED XL-Transilluminator instrument will normally not injure eyes, skins, and samples. However, prolonged exposure of human naked eyes with light irradiation in the blue spectrum may increase the probability of suffering from retina diseases. Therefore, we recommend using the amber filter included in the box, when handling the transilluminator while the FastGene® FAS-Digi PRO box is open.
- ▲ Operate the FAS-Digi PRO only if it is connected to a safety socket.
- ▲ Place the unit on a level surface with minimal chance of dropping.

WARRANTY

The FastGene® Blue/Green LED XL-Transilluminator and the FastGene® FAS-Digi PRO is warranted against defects in materials and workmanship for 1 year. In case of any defects occurring in the instrument or accessories during this warranty period, Nippon Genetics Europe will repair or replace the defective parts at its discretion without charge.

The following defects, however, are specifically excluded:

- Defects caused by improper operation.
- Repair or modification done by anyone other than Nippon Genetics Europe or an authorized agent.
- Damage caused by substituting alternative parts.
- Use of fittings or spare parts supplied by anyone other than Nippon Genetics Europe.
- Damage caused by accident or misuse.
- Damage caused by disaster.
- Corrosion caused by improper solvent or sample.

For any inquiry or request for repair service, contact Nippon Genetics Europe or your local distributor. Please send a message containing information about the model and serial number of your instrument.

REGULATORY NOTICE

IMPORTANT: This Nippon Genetics Europe instrument is designed and certified to meet safety standards and EMC regulations. Certified products are safe to use when operated in accordance with the instruction manual. This instrument must not be modified or altered in any way. Alteration of this instrument will:

- Void the manufacturer's warranty
- Void the safety and EMC certification
- Create a potential safety hazard

Nippon Genetics Europe is not responsible for any injury or damage caused by the use of this instrument for purposes other than those for which it is intended, or by modifications of the instrument not performed by Nippon Genetics Europe or an authorized agent.

IMPORTANT NOTICE

Please, read the installation instruction carefully before installing the FastGene® Blue/Green LED XL-Transilluminator and the FastGene® FAS-Digi PRO Imaging System. This instrument is intended for clinical and research laboratory use with DNA gel activation and it must be operated only by specialized personnel aware of the potential risks associated with the chemical and biological agents normally used with this unit. This instrument is meant for use only by specialized personnel that know the health risks associated with blue light radiation and with reagents that are normally used with this instrument. Please wear the amber goggle for your own protection!

Please make sure to connect the instrument only to a protective current!



Camera

Camera type	Canon 200D, 24 MPixel (Resolution: 6000x4000), APS-C Sensor DIGIC 8 Processor, WiFi enabled
Image Sensor	APS-C sized CMOS Sensor
Resolution/Image Size	6000 x 4000 pixel
Bit Output Format	8-bit
Aperture	F/4-5.6
Lens	18-55 mm zoom Lens, manual
Exposure time	0.00025 to 30 seconds
Filter	Midori Green Amber Filter

Control

Control Software	NIPPON Genetics Camera Studio v1.0, WINDOWS 10
Saved Image Format	TIFF, JPEG
Image storage	Host computer dependent
Interface	Host computer dependent
	Host computer dependent
	Supports Mitsubishi thermal-printer P95D

Darkroom

Access	Front door, 180° opened
Power unit	Power supply for transilluminator and camera

Illuminator

Built-in Blue-Green light source	470-520 nm
View Area	26 x 21 cm

Unit

Material	Painted aluminum metal
Rated Voltage	100-240 V~, 50/60 Hz
Dimension (H x L x W)	52 x 33.5 x 32.5 cm
Weight	14 kg



NOMENCLATURE

- Blue/Green LED XL-Transilluminator
- Darkbox
- Amber goggles (in the Darkbox)
- Camera holder (in the Darkbox)
- USB-Stick with Software
- Cables:
 - a. Battery adapter for the camera (in the camera box)
 - b. USB-Cable to connect the camera to the PC (in the camera box)
 - c. Power cable 1: From a power socket to the Darkbox (in the illuminator box)
 - d. Power cable 2: From the Darkbox to the Blue/Green LED XL-Transilluminator (in the Darkbox)
- Camera:
 - a. Attached to the aluminum adapter (Please do not remove the aluminum adapter)
 - b. Amber filter attached to the lens





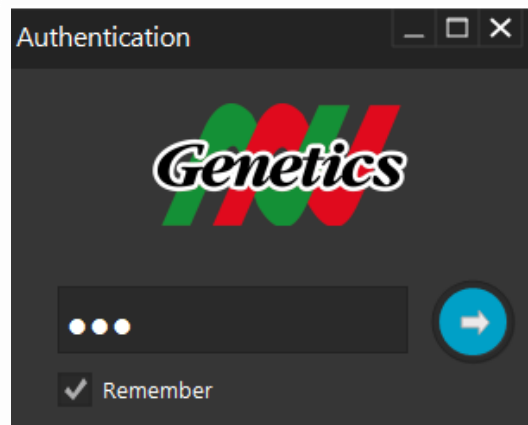
Operating the System

The FAS-Digi PRO is operated through the NIPPON Genetics Camera Studio Software:

Log in

The NIPPON Genetics Camera Studio Software is password protected to avoid unauthorized people to have access to the gel documentation system. The password to enter the software is

NgE



Main Menu

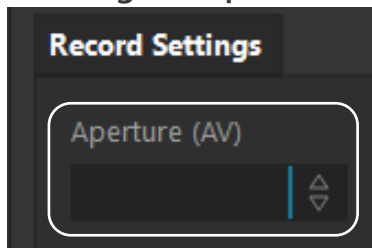
The NIPPON Genetics Camera Studio Software can control all necessary parameters to take an image with the FAS-Digi PRO.





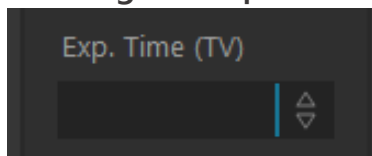
All the following operations can be performed or accessed via the main menu:

Selecting the aperture



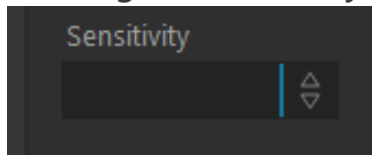
Opening of the iris: controls the amount of light to the sensor and regulates the depth of field. The value can be changed by using the dropdown menu or the mouse wheel.

Selecting the exposure time



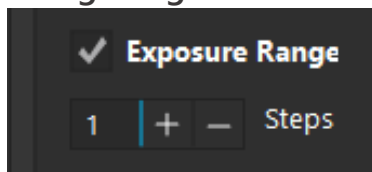
The exposure of the sensor to light in seconds. Minimal exposure time is 1/4000 up to 30 seconds.

Selecting the sensitivity of the sensor



Regulates the sensitivity of the sensor (ISO value). Maximal value is ISO 25625. The lower the sensitivity, the longer the exposure time will be. The higher the sensitivity, the higher the background noise will be.

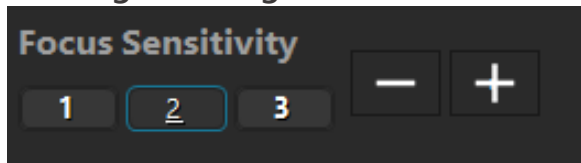
Taking images with different exposure



Activate the Exposure Range function!

Three images will be captured. Adjusting the difference in exposure value between the single shots using the -+. Three images will be displayed. Select the image with the best light exposure and click on **"Choose"**. The file can be saved as JPEG or TIFF.

Focusing the image

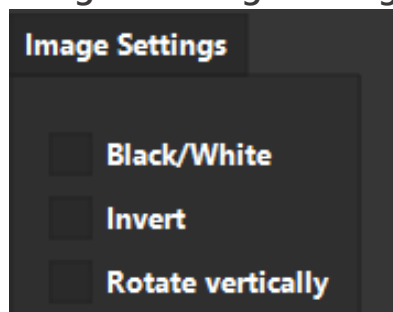


FOCUS SENSITIVITY

Adjusting the intensity by which the focus is changed. 1 is for very sensitive, fine adjustments. 3 is for large steps. Click on -+ or use the mouse wheel on the screen. Change of the focal plane.



Change the image settings



BLACK/WHITE

Changes the image from a coloured one to grey values.

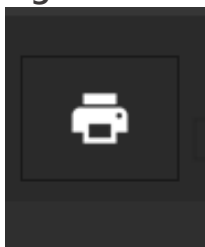
INVERT

Reverses the grey values turning white into black, and black into white.

ROTATE VERTICALLY

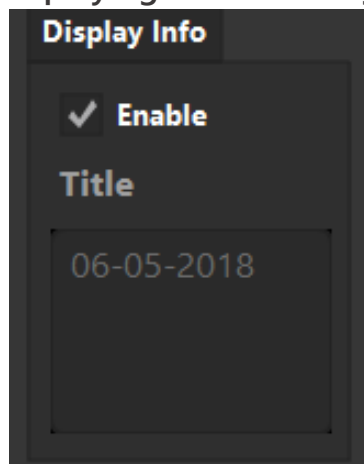
Mirrors the image vertically. Used if the gel is not in the right position.

Printing the live view



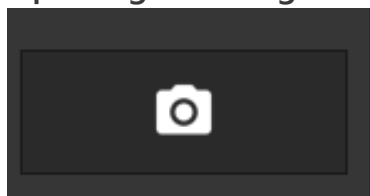
If you want to print the live view image without having to save data to the storage. The printer menu from windows 10 will appear. Please select your desired printer.

Displaying the recording information



Shows the aperture, exposure and ISO values on the image. Additionally, a title is shown. The standard title is the date. To change the title write your text in the box below.

Capturing the image



The image is recorded in the camera RAW mode and converted into a TIFF image. The image is formed by 3 x 8 bit values, resulting in a 24 bit image with a resolution of 24 MPixel and is saved on the harddrive of the computer or on a network location chosen by the user.



Contact Details

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