LEGRIA GX10

4K Camcorder

Firmware ver. 1.0.1.0

Instruction Manual
PAL

Specifications

LEGRIA GX10

♦ — Values given are approximate figures.

System

- **Recording System**
  Clips:
  > Video format: MPEG-4 AVC/H.264
  > Audio format: MPEG-4 AAC-LC, 16 bit, 48 kHz, 2 channels
  > File format: MP4
  Photos:
  > DCF (Design rule for Camera File system), compatible with Exif Ver. 2.3[1], JPEG compression
  > [1]This camcorder supports Exif 2.3 (also called "Exif Print"). Exif Print is a standard for enhancing the communication between camcorders and printers. By connecting to an Exif Print-compliant printer, the camcorder's image data at the time of shooting is used and optimized, yielding extremely high quality prints.

- **Video Configuration (recording/playback)**
  > Bit rate: 150 Mbps, 35 Mbps, 17 Mbps, 8 Mbps, 4 Mbps
  > Resolution: 3840x2160, 1920x1080, 1280x720
  > Color sampling: 4:2:0, 8 bit
  > Frame rate: 50.00P, 25.00P

- **Recording Media (not included)**
  For approximate recording times, refer to the *Reference Tables* (📖 147)
  SD, SDHC (SD High Capacity) or SDXC (SD eXtended Capacity) card (2 slots)

- **Image Sensor**
  1.0-type single-plate CMOS sensor
  Effective pixels: 8,290,000 pixels♦ (3840x2160)

- **LCD Touch Screen**
  8.92 cm (3.5 in.) color LCD, 16:9 aspect ratio, 1,560,000 dots♦, 100% coverage, capacitive touch screen operation

- **Viewfinder:** 0.61 cm (0.24 in.), equivalent to 1,560,000 dots♦, 100% coverage

- **Microphone:** Stereo electret condenser microphone

- **Lens**
  f=8.3 – 124.5 mm, F/2.8 – 4.5, 15x optical zoom, 9-blade iris diaphragm
  35mm equivalent focal length: 28.3 - 424.6 mm♦ (using Dynamic IS)
  >   25.5 - 382.5 mm♦ (using other IS modes)

- **Lens Configuration**
  18 elements in 14 groups (2 aspheric elements)

- **Filter Diameter:** 58 mm

- **Focus**
  Manual focus, AF-boosted MF, continuous AF
  AF type: Dual Pixel CMOS AF, contrast-detection AF
  Minimum focusing distance: 60 cm; 1 cm at full wide angle

- **White Balance**
  Automatic white balance (AWB); 2 preset settings (daylight, tungsten lamp); color temperature setting; custom white balance (2 sets)

- **Minimum Illumination♦**
  0.1 lx (shooting mode [🌙 Low Light], shutter speed 1/2)
  1.4 lx (50.00P, shooting mode [**P** Programmed AE], auto slow shutter [On], shutter speed 1/25)

- Image Stabilization
  Optical-shift image stabilizer + digital compensation (Standard IS, Dynamic IS, Powered IS)

- Size of Photos: 3840x2160, 1920x1080, 1280x720

Wi-Fi

- Wireless Standard: IEEE802.11b/g/n (2.4 GHz band), IEEE802.11a/n (5 GHz band)

- Connection Methods
  Infrastructure (Wi-Fi Protected Setup (WPS), search for access points, manual), Camera Access Point

- Authentication Methods: Open, shared key, WPA-PSK, WPA2-PSK

- Encryption Methods: WEP-64, WEP-128, TKIP, AES

- Available Wi-Fi Channels
  2.4 GHz band: CH1 to CH13
  5 GHz band: CH36 to CH64* (Infrastructure only)

  * These channels are also prohibited for outdoor use in the following regions:
    Australia, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong S.A.R., Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom

Terminals

- HDMI OUT Terminal: HDMI mini connector, output only

- USB Terminal: mini-B receptacle, Hi-Speed USB, output only

- MIC Terminal
  ∅ 3.5 mm stereo mini-jack (unbalanced)
  –65 dBV (auto volume, full scale –12 dB) / 5 kΩ or more
  Microphone attenuator: 20 dB

- ∩ (headphone) Terminal
  ∅ 3.5 mm stereo mini-jack (unbalanced)
  –29 dBV (16 Ω load, Max volume) / 100 Ω

- REMOTE Terminal: ∅ 2.5 mm stereo sub-mini jack, input only

Power/Others

- Power Supply (rated)
  7.4 V DC (battery pack), 8.4 V DC (AC adapter)

  Power Consumption♦
  Recording video configuration: 3840x2160, 150 Mbps, 50.00P, autofocus activated, screen backlight [Normal]
  Using only the LCD screen: 7.9 W
  Using only the viewfinder: 7.3 W

- Operating Temperature♦: 0 – 40 °C

- Dimensions♦ [W x H x D] (excluding the grip belt)
  Camcorder only: 135 x 97 x 214 mm
  Camcorder with the lens hood attached: 150 x 97 x 267 mm

- Weight♦
  Camcorder body only (including the grip belt): 1,140 g
  Typical recording configuration*: 1,355 g
  * Camcorder with lens hood, BP-828 battery pack and one SD card.

CA-946 AC Adapter

- **Rated Input:** 100 – 240 V AC, 50/60 Hz
- **Rated Output:** 65 VA (100 V AC) - 85 VA (240 V AC)
- **Operating Temperature**♦: 0 – 40 °C
- **Dimensions**♦: 73 x 40 x 139 mm
- **Weight**♦: 465 g

BP-828 Battery Pack

- **Battery Type**
  Rechargeable lithium ion battery, compatible with Intelligent System
- **Nominal Voltage:** 7.4 V DC
- **Nominal Capacity:** 2,670 mAh
- **Rated Capacity (minimum):** 19 Wh / 2,550 mAh
- **Operating Temperature**♦: 0 – 40 °C
- **Dimensions**♦: 30.7 x 55.7 x 40.2 mm
- **Weight**♦: 121 g

Weight and dimensions are approximate. Errors and omissions excepted.

Reference Tables

Charging Times

Charging times are approximate and vary according to charging conditions and initial charge of the battery pack.

Battery pack→ Charging conditions↓	BP-820	BP-828
Using the camcorder and supplied CA-946 AC adpater	230 min.	350 min.
Using the CG-800E Battery Charger	190 min.	260 min.

Approximate Recording Time on an SD Card

Approximate times, for reference only, based on a single recording that continues until the card is full.

Resolution	SD card capacity				
	8 GB	16 GB	32 GB	64 GB	128 GB
3840x2160 (150 Mbps)	5 min.	10 min.	25 min.	55 min.	1 h. 50 min.
1920x1080 (35 Mbps)	25 min.	55 min.	1 h. 55 min.	4 h.	8 h. 5 min.
1920x1080 (17 Mbps)	55 min.	2 h.	4 h. 5 min.	8 h. 15 min.	16 h. 35 min.
1280x720 (8 Mbps)	2 h.	4 h. 15 min.	8 h. 40 min.	17 h. 35 min.	35 h. 20 min.
1280x720 (4 Mbps)	4 h. 5 min.	8 h. 35 min.	17 h. 25 min.	35 h. 15 min.	70 h. 45 min.

Approximate Recording Times with a Fully Charged Battery Pack

The usage times in the following tables are approximate and were measured under the following conditions. Actual times may vary.
- Only the LCD screen was used.
- "Typical recording" times measure recording times with repeated operations such as start/stop recording, zooming and turning on/off the camcorder.

The effective usage time of the battery pack may decrease when using a bright screen setting, when recording in cold surroundings, etc.

Video configuration		Usage conditions	Battery pack	
Resolution (bit rate)	Frame rate		BP-820 (optional)	BP-828 (supplied)
3840x2160 (150 Mbps)	50.00P	Recording (maximum)	85 min.	130 min.
		Recording (typical)	40 min.	65 min.
		Playback	120 min.	185 min.
	25.00P	Recording (maximum)	105 min.	155 min.
		Recording (typical)	50 min.	75 min.
		Playback	140 min.	215 min.
1920x1080 (35 Mbps)	50.00P	Recording (maximum)	95 min.	145 min.
		Recording (typical)	45 min.	70 min.
		Playback	145 min.	225 min.
	25.00P	Recording (maximum)	115 min.	170 min.
		Recording (typical)	55 min.	85 min.
		Playback	155 min.	235 min.

Video configuration		Usage conditions	Battery pack	
Resolution (bit rate)	Frame rate		BP-820 (optional)	BP-828 (supplied)
1280x720 (8 Mbps)	50.00P	Recording (maximum)	100 min.	150 min.
		Recording (typical)	45 min.	75 min.
		Playback	155 min.	235 min.
1280x720 (4 Mbps)	25.00P	Recording (maximum)	115 min.	175 min.
		Recording (typical)	55 min.	85 min.
		Playback	155 min.	240 min.