About the GL2 Workshop

This workshop is required to check out the advanced, broadcast quality, digital video (DV) cameras from the Digital Aquarium. The workshop reviews the reservation process and the camera kit checkout policies. In the workshop we cover how the camera controls work and how the camera can operate in full-auto or full-manual mode. In this workshop you will also be certified to checkout the video tripods and various microphones, including lavaliere, hand-held, shotgun and boom mics. Once you have completed the camera workshop, you are free to checkout a camera at your leisure. However, due to the small supply of cameras, you will need to reserve a camera for a specific date. Cameras may be reserved twice per 30 days by an individual student. You MUST present a valid student ID at the time of checkout, there will be NO exceptions. To create an equitable and reliable system for people reserving cameras, camera checkout times are as follows:

Monday 12 pm – Wednesday 12 pm
Wednesday 12 pm – Friday 12 pm
Friday 12 pm – Monday 12 pm

Any camera equipment returned late, regardless of reason, will result in a one-month suspension of all equipment check out privileges. Equipment more than four hours late, or a second incident of tardiness, will result in a semester long suspension of equipment privileges. In the event of theft of the camera, a police report must be filed immediately in order to validate the insurance policy. In the event of intentional damage or damage due to neglect or theft without a police report, YOU will be responsible for a $2,000.00 Canon GL2. Your transcripts will be held by the Registrar until all equipment issues are resolved. So user beware! These cameras are not toys and should be treated with respect! Please note the following:

Do not leave unattended, even if it is on the tripod
Do not touch the lens
Do not clean the lens with anything other than lens paper
Do not remove the protective lens filter
Do not disassemble the camera
Do not leave the camera in sunlight or in a car
Do not drop the camera
Do not shoot into the sun or other bright lights
Do not submerge the camera in water
Do not use in the rain, or on a beach or near a pool
Do not use for any illegal activities
GL2 Kit Contents

You are responsible for every part of the kit. Lose or break anything, and you will pay to replace it and may face suspension of your checkout privileges.

1. Canon Gl2
2. BP-915 Battery Pack
3. CA-920 Compact Power Adapter
4. DC-920 DC Coupler
5. SS-650 Shoulder Strap
6. WL-D77 Wireless Controller
7. S-150 S-Video Cable
8. USB Cable (not shown in picture above)
9. Lens Cleaning Paper
10. SDC-8M 8MB SD Memory Card (not shown in picture above)
11. Lens Hood
12. Lens Cap
GL2 Camera Elements

Front View

Back View

Inside View
Camera Settings: There are 7 modes of operation for the Camera

You must select one mode in order to record at all.

Mode 1-Rectangle
Mode 1 is intended for point and shoot work. All adjustments are made automatically and cannot be adjusted at all. All you control is the zoom.

Mode 2-A
Mode 2 is the same as Mode 1, except you are now allowed to manually control focus.

Mode 3-Tv
Mode 3 gives user priority to shutter speed. Here the user may select from 11 shutter speed values from 1/1500 to 1/15000 of a second. The longer the shutter is open, the longer the film is exposed to the light. So if you select a shutter speed value of 1/60th, you will pick up more detail in darkness, but will wash out your image in bright light. If you make an incorrect exposure selection, a warning will flash until you make a correct selection. But if the selection is incorrect on purpose, simply ignore the warning.

Mode 4-Av
Mode 4 gives user priority in aperture selection. There are 12 f-stops to choose from ranging from f/1.6 to f/11. f/1.6 opens the iris all the way up, while f/11 closes the iris down to a narrow point. The larger the iris, the more light is let in. The smaller the iris, the less light. A large setting of f/1.6 is ideal for shooting in darkness, while f/11 is ideal for a bright day. F-stop selection also governs the depth of field for the camera. f/11 gives a greater depth of field than f/1.6. Again, incorrect settings will cause the selection to flash, but they can be ignored.

Mode 5-M
Mode 5 is the manual selection for the camera. In manual, the user can select the shutter speed, aperture, and gain. The gain is a digital amplification of light done by the GL2. There are 6 gain values from 0 to +18 dB. The higher the setting, the more “light” is added. Also, a bar will appear with a triangle above it and a square in it. The triangle will not move, and indicates ideal shooting selections for the camera. Line up the square with the bar, and you will capture the image as it appears. Veer left or right, and the image will be either lighter or darker than it is. Left being darker, and right being lighter.

Mode 6
Mode 6 is an automatic setting for bright surroundings like the beach or snow. The image can be adjusted by the exposure toggle.

Mode 7
Mode 7 is designed for people under spotlights or other wise highlighted by bright light. It is an automatic setting that cuts down on glare. The image can be adjusted by the exposure toggle.

Basic Recording

Zoom
All zooming is done with the automatic zoom paddle. There is no zoom ring on the lens for manual zooming. W gives you a wider image, while T zooms in for a tighter close up.

Focus
The default setting is for auto-focus. In all modes except Mode 1, pressing the Focus A/M will give the user control of focus. Focus is then governed by adjustments made with the focus ring. Pressing it again will return you to automatic focus mode.
ND Filter
The Neutral density filter button will apply an electronic ND filter to your image. A ND filter reduces glare and cuts down on image trails on very bright days. Use this if the iris is already at its smallest setting, but you are still getting motion blur.

White Balance
In all modes, white balance is automatically set. However, if the image does not appear correct, either bluish or reddish, you can adjust the white balance in all modes except Mode 1. To do this, press the Select button, in the viewfinder, 3 selections will appear as you press the button, “rabbit ears”, a sun, and a light bulb. The “rabbit ears” are for manual white balancing, the sun has white balance settings for outdoors, the light settings for indoor shooting. If neither the sun nor the light bulb correct the problem, then select the rabbit ears. Now zoom into a white object lit by the light you are shooting in. Acquire focus, then press the “rabbit ear” button next to the select button. The “rabbit ears” will flash while the camera accesses the correct white balance, and will then return to a steady image when done. During this time, do not move the camera. Leave it focused and zoomed in to the white object.

Steady Shot
Next to the white balance button is the steady shot button. This can be turned on or off in all modes except Mode 1. The steady shot option stabilizes subtle hand shaking that would otherwise rock the camera back and forth.

Photo
The photo mode for the camera has two options, frame and normal. Frame will record a single frame of an image to your tape, while normal will capture a still image for as long as you want it to. To take a picture in frame mode, frame your image, then press and hold the photo button. A small circle will appear in the viewfinder, turn green once the photo has been taken, you can then release the photo button. To take a picture in normal mode, follow the same procedure as frame mode, except once you get the green circle and release, a seconds timer appears counting the length of the image. Pressing the photo button again, ends the frame.

D. E. On/Off
Selecting D. Effect will give a list of digital effects options such as black and white, sepia filter, slim, stretch, etc. Once you have selected the effect, exit the menu, and use the D. E. On/Off button to turn your selected effect on or off. All Digital Effects are permanently recorded to your tape, so there is no turning them on or off for recorded material. Default is off.
The menu button brings up the GL2’s internal menu. The menu is displayed in the viewfinder. With the scroll wheel beneath the menu button, you can scroll through the menu list. To select an option, simply press the scroll button in to activate the option, then scroll through the options available, pressing the scroll button in again once you find what you are looking for. There are 4 options of note in the menu:

1. Zebra
2. D. Zoom
3. Tally Lamp
4. Audio Mode

**Zebra**
Turning zebra on will create a zebra pattern over an part of you image that is hot (overly lit). To eliminate hot images from your shot, you will need to adjust the lighting, or the settings of the camera. Once you have done this return to the menu to turn zebra off. Using zebra is not necessary for recreational shooting. Default is off.

**D. Zoom**
D. Zoom turns digital zooming on or off. A digital zoom gives you greater zoom distance, but the image becomes distorted as it is interpreted rather than actually captured as the case would be with a telephoto lens. Use D. Zoom only if you are a great distance from something and can not get any closer. Default is off.

**Tally Lamp**
Tally lamp will turn the tally light on or off. The tally light is the red light that comes on when you are recording. The benefit of turning the tally light off is capturing people when they do not think you’re recording. Default is on.

**Audio Mode**
Sound mode determines the sample rate of the audio recorded. The two options are 12 and 16 bit. 16 bit produces higher quality sound. Default is 16 bit.
VCR FUNCTION

The VCR option allows for playback of your recorded video. Set the main toggle to VCR, and lift the control hood on the GL2’s handle to expose the play, pause, rewind, fast-forward, stop, and record buttons.

DESCRIPTIONS OF CAMERA FEATURES

High Resolution Color Viewfinder

A high-resolution color viewfinder enhances your shooting experience with the GL2. The 0.44-inch viewfinder has approximately 180,000 pixels. Increasing the GL2’s usability is a 2.5-inch (6.4 cm) color LCD screen with approximately 200,000 pixels. Designed for shooting and playback functions, the screen will rotate 270 degrees so you can adjust the LCD screen to virtually any viewing angle. Your subject can even watch his or her performance as the video is being recorded. The screen folds neatly against the camera body when not in use. The screen can be used to display essential camera and tape function menus and indicators.

Low Power Consumption

The GL2 has been designed to consume as little power as possible and comes with power saving features such as auto off features (activated after about 5 minutes of inactivity) to further extend battery power for field and remote work.
**Easy Menu System**

The GL2 has two main menus, a camera menu and a VCR menu. Both menus are simple toggle and select systems that allow for rapid adjustment of key camera controls things such as audio input levels, tally lamp on/off and activation of zebra pattern.

**Digital Effects**

The GL2 offers you a variety of scene transition effects, producing smooth, professional looking dissolve and wipe transitions between scenes as you record. Effects include: Black & White (which removes color from the video images), Sepia, Art, Mirror, Mosaic, Trail and Strobe, for flavor.

**Digital Faders**

When you start recording, the scene gradually fades in from a black screen. When you stop recording, it gradually fades out.

**Time Code**

The GL2 records a time code signal along with the video signal. This time code accurately identifies every point on the DV tape by hour, minute, second and frame. This will prove immensely beneficial if you are editing your footage on your personal computer or a professional video editing system.

**Data Code**

The DV standard calls for the automatic recording of date and time, shutter speed, exposure settings and other key camera data on the tape as you shoot. The GL2 does not permanently superimpose this data over your video, however. Instead, this data remains hidden until you select it for display during playback or editing. You can turn the display on or off at will, and you can decide which data you want to display.

**Wireless remote control**

The GL2’s full-function wireless remote control will work at distances up to 16 feet (4.9m). The remote can start and stop recordings, zoom the lens, handle all playback (VCR) functions, control audio and video dubbing functions, and more.

**LANC**

The LANC terminal on the GL2 permits easy connection of compatible edit controllers.
BP-945 Lithium-Ion Battery Pack

An optional accessory for the XL1S, the BP-945 can deliver over two hours of recording time using the color viewfinder. An optional accessory for the GL2, the BP-945 can deliver up to three-and-a-half hours of recording time using the viewfinder only or up to 200 minutes when the LCD screen is used.

BP-930 Lithium Ion Battery Pack

Record for up to 90 minutes with the compact BP-930. The BP-930, an optional power pack, will deliver up to 135 minutes of power when using the viewfinder only or up to 130 minutes when using the LCD screen. This is the standard charger and power source for the GL2. It will charge one battery at a time.

CB-910 Car Battery Adapter

The CB-910 powers the camera or charges the battery by plugging into a car’s cigarette lighter socket.

4-pin to 4-pin IEEE 1394 cable

Allows the connection of a digital video camcorder to a computer or another digital video camcorder.

6-pin to 4-pin IEEE 1394 cable

Allows the connection of a digital video camcorder to a computer or another digital video camcorder.

AV Cable C-150

Connects mono audio and video to TV/VCR (RCA to RCA).

Shoulder Strap SS-600

For More Information

Canon Product Specs:
www.canondv.com

Official Canon GL2 PDF Manual
http://gdlp01.c-wss.com/gds/0900000646/GL2IM-EN.pdf