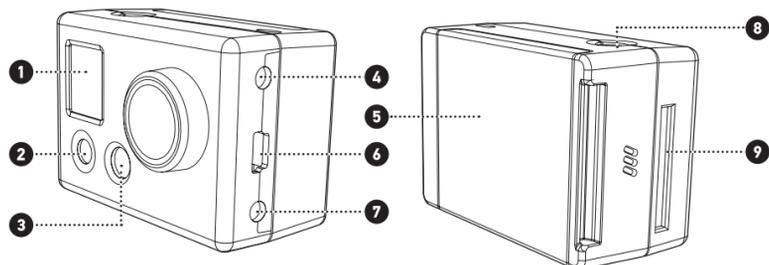


# HD HERO 960 INSTRUCTIONS



1 - Status LCD Screen	4 - HDTV Out Port	7 - Combo TV/Audio Out
2 - Power/Mode Button	5 - Battery Door	8 - Shutter/Select Button
3 - LED Light	6 - USB Port	9 - SD Card Slot

## BASICS OF USING YOUR CAMERA

Free downloadable camera updates may be available at [gopro.com](http://gopro.com). Be sure to insert an SD card into the camera or else you won't be able to record photos or video.

### POWER/MODE BUTTON - Front of Camera

POWER/MODE button turns camera on and off and works as a mode switching button once camera is on.

### SHUTTER BUTTON - Top of Camera

Shutter button starts and stops video recording and photo capture. When in the SET menu of options the shutter button acts as a toggle button for changing settings. See the SETTINGS MENU section of these instructions for more information.

<b>Turn Camera On</b>	Quickly press the POWER/MODE button and camera will turn on. Camera will beep 3 times, indicating the camera is powering on.
<b>Turn Camera Off</b>	Press and hold the POWER/MODE button for 2 seconds. Camera will beep 7 times, indicating the camera is shutting off.
<b>Changing Modes</b>	Once camera is on, quickly pressing the POWER/MODE button will change modes from video mode to self-timer, to photo mode, etc.

The battery ships partially charged. For best initial performance, charge battery before first use. However, NO damage will occur to battery if used prior to charging. See charging section.

## STATUS LCD ICONS

	Photo Mode		Resolution Indicator
	Triple Shot Photo Mode		Delete Last/All Format SD Card
	Video Mode		Battery Meter
	10 Second Timer Mode		Spot Meter Exposure ON
	Number of Files on SD Card		SD Card Not Inserted

### TO SHOOT VIDEO

- Turn on camera by pressing POWER/MODE button.
- The camera will power on in VIDEO mode as the default mode.
- Default resolution is 960p (1280x960). See Settings Menu section to learn about resolutions.
- Press shutter button to begin recording video. Camera will beep once.
- Red LED light on front of the camera will blink while video is recording.
- Press shutter button to stop recording or camera will automatically stop recording when your SD card is full or your battery dies (approx 2.25 hours of battery life on a full charge). Camera will beep 3 times when recording stops and file is saved.

### USING 10 SECOND TIMER

- Press the POWER/MODE button until you see the 10 SECOND TIMER icon.
- Press the SHUTTER button and the camera will automatically shoot a photo in 10 seconds.
- As series of beeps and flashing red LED light will indicate when the photo has been taken.

### TO SHOOT PHOTOS EVERY "X" SECONDS TIME LAPSE MODE

- Press POWER/MODE button until you see the blinking camera icon.
- The default timing is to shoot a PHOTO EVERY "2" SECONDS, automatically.
- Press the SHUTTER button to start taking photos. Press the SHUTTER button again to stop.
- To change the timing to shoot a photo every 2, 5, 10, 30, or 60 seconds, see the SETTINGS MENU section of these instruction.

### TO SHOOT SINGLE SHOT PHOTOS

- Press the POWER/MODE button repeatedly until you see the solid, non blinking camera icon.
- Press SHUTTER button to take a photo.
- A beep will sound and red LED will flash to indicate a photo has been taken.

### TO SHOOT TRIPLE SHOT SEQUENCE PHOTOS

- Press POWER/MODE button until you see the triple shot icon on the front LCD status screen.
- Press the shutter button to shoot 3x photo-sequence in 2 seconds.

## SETTINGS MENU / ADVANCED FEATURES

### ENTERING THE SETTINGS MENU

- Press the POWER/MODE button repeatedly until you see the SET icon.
- Press the SHUTTER button to enter settings menu.
- Press the POWER/MODE button to cycle through options once in settings menu.

### CHOOSING ONE BUTTON MODE ON / OFF

"One Button Mode On" forces the camera to automatically begin recording video or photos once the camera is turned on, depending on which default power up mode the camera is set to (see next instructions). In "One Button Mode On" the camera is either "on and recording", or powered off. This simplifies camera operation when loaning the camera to friends or when you know you only want to shoot in one mode.

The shutter button is disabled in "One Button Mode" and will not start or stop the recording while the camera is on. "One Button Mode" is convenient when you only want to shoot one type of video or photos and prefer to simplify operation of the camera to be either "on and recording" or off with only the power button being used to operate the camera. This is a great "Simple Mode" for loaning the camera to friends.

Symbol on LCD Screen	Function
o n F (default setting)	One Button Mode Off.
o n O	One Button Mode On.

#### To turn "One Button Mode" 'ON':

- Press the SHUTTER button to toggle between SET MENU choices and stop when onO (One Button Mode On) is showing on the screen.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.
- Turn your camera off and then on again and the camera will begin recording in whatever the default power on setting and resolution is set to.
- Press and hold the power button for 3 seconds to stop recording and turn the camera off.

#### To turn "One Button Mode" 'OFF':

- Turn the camera on.
- While the camera is on (and recording), press and hold the shutter button for 3 seconds. Let go.
- The camera's SET menu will appear.
- Press the shutter button to enter the SET menu.
- When onO (One Button Mode On) appears, press the shutter button to toggle the setting to onF (One Button Mode Off).
- Turn the camera off.
- When you turn the camera on again the One Button Mode feature will be turned off.

### CHOOSING DEFAULT MODE AT POWER UP

You can program your camera to turn on in either Video mode, Photo mode, Triple Shot Sequence mode, or Photo Every "X" Seconds mode:

Symbol on LCD Screen	Function
F (default setting)	Video Mode (F means "Filming")
P	Single Shot Photo Mode
3	Triple Shot Photo Mode
PES	Photo Every "X" Seconds Mode

- Press the SHUTTER button to toggle between choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### CHOOSING VIDEO RESOLUTION

Your HD HERO camera shoots the following video resolutions:

Symbol on LCD Screen	Description	Resolution	Frames per Second	Suggested Use
r 1	16:9 Wide Angle Standard Definition Video	WVGA (848x480)	60 NTSC 50 PAL	When smaller file size and highest frame rate is desired
r 2	16:9 HD Video	720p (1280 x 720)	30 NTSC 25 PAL	When mounting on vehicles or gear, when a very wide angle is desired but vertical viewing area is not as important
r 3 (default resolution)	4:3 HD Video Max Overall Viewing Area. Same Width as 720p but 25% Taller	960p (1280 x 960)	30 NTSC 25 PAL	When mounting on your body, helmet, surfboard or chest harness, this mode offers the widest and tallest HD viewing area of all resolutions

NOTE: Above r1, r2, and r3 settings in the SET menu appear as 1, 2, and 3 (no "r") on the bottom left corner of LCD screen when not in the SET menu. See previous "STATUS LCD ICONS" drawing for an example of this.

- Press the SHUTTER button to toggle between choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### CHOOSING EXPOSURE SETTING

Choose between Spot Meter and Center Weighted Average Meter exposure settings depending on the lighting of your environment:

Symbol on LCD Screen	Function
C n t (default setting)	Center weighted average meter is best for normal outdoor and indoor lighting conditions.
S P t	Spot meter is primarily for shooting from inside of a car or other dark space looking out into a brighter outside setting. Spot meter adjusts the exposure for the absolute center of the scene, for example the road ahead instead of the interior of the car.  If you are wanting optimum exposure of the inside of the car, filming mainly the driver for example, choose Cnt center weighted average to expose for the inside of the car.

- Press the SHUTTER button to toggle between choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### UPSIDE DOWN IMAGE CAPTURE

If you need to mount your camera upside down to get the perfect photo or video angle, you can program the camera to save the photo or video upside down so that it appears right side up when you review it on your computer or TV. This eliminates the need to "flip" the photo or video later on your computer.

Symbol on LCD Screen	Function
U P (default setting)	Saves photos and videos in a normal "right side up" orientation.
U P d	Saves photos and videos upside down so that they appear right side up when you review on your computer or TV. The video camera and photo icons will blink quickly on the LCD screen to reminding you that you are saving photos and videos in upside down mode.

- Press the SHUTTER button to toggle between the UP / UPd choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### SETTING VIDEO LIVE FEED ON / OFF

You can set your camera to send a live video signal out the side TV or HDTV ports by toggling the VIDEO LIVE FEED setting on and off. Video Live Feed via the USB port is not supported. When Video Live Feed is set to OFF (LFF) the camera will switch into video / photo playback mode when one of the included TV cables are plugged into the camera. If Video Live Feed is turned on (LFO), the camera will stay in normal camera mode when plugged into a TV and will send a live video signal to the TV. Plugging in the component cable will send an HD video signal out from the camera, and plugging in the composite cable will send a standard definition signal out from the camera. Video Live Feed On allows for plugging the camera into wireless transmitters and TVs for live viewing from the camera. NOTE: If the component cable is used to send live HD video out from the camera, and you begin simultaneously recording HD video to the SD card, the live video feed will be reduced to standard definition as the camera cannot record and transmit HD video at the same time. If you wish to have an HD live video feed from the camera you cannot begin recording HD video to the SD card. If the composite cable is used to send standard definition video out from the camera, then the camera can simultaneously record HD video to the SD card.

Symbol on LCD Screen	Function
L F F (default setting)	Video Live Feed OFF.
L F O	Video Live Feed ON.

- Press the SHUTTER button to toggle between the LFF / LFO choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### CHOOSING ON SCREEN DISPLAY ON / OFF

When the camera sends a live feed video signal out to a wireless transmitter or TV, it will send a battery meter icon and a recording on/off icon via an "On Screen Display" that will appear in the video feed. If you prefer to turn these status icons off, you can do so by toggling the "On Screen Display" setting off.

Symbol on LCD Screen	Function
o S O (default setting)	On Screen Display ON
o S F	On Screen Display OFF

- Press the SHUTTER button to toggle between the oSO / oSF choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### CHOOSING PHOTO EVERY 2, 5, 10, 30, 60 SECONDS TIMING

You can shoot a photo every 2, 5, 10, 30, or 60 seconds, ongoing, with the "Photo every X seconds" mode. When you see P2 (photo every 2 seconds is the default setting), you can press the SHUTTER button to toggle the following options:

Symbol on LCD Screen	Function
P 2 / P 5 / P 10 / P 30 / P 60	Shoots photos in 2 / 5 / 10 / 30 / or 60 second intervals.

- Press the SHUTTER button to toggle between choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

### CHOOSING LED BLINKING ON / OFF

You can set the red LED light to blink while filming or to be off at all times, for stealth:

Symbol on LCD Screen	Function
b L O (default setting)	LED blinking ON.
b L F	LED blinking OFF.

- Press the SHUTTER button to toggle between choices.
- Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

## CHOOSING BEEPING SOUND ON / OFF

You can set the beeping sound to beep or be silent at all times, for stealth:

Symbol on LCD Screen	Function
<i>bPD</i> (default setting)	Beeping sound ON.
<i>bPF</i>	Beeping sound OFF.

1. Press the SHUTTER button to toggle between choices.
2. Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

## CHOOSING NTSC / PAL SETTING

This controls both the video recording frame rate and playback of video from the camera when viewing on a TV.

Select nSC (NTSC) if viewing on a TV in North America. Choose PAL if viewing on a PAL TV (most televisions outside of North America), or if viewing on a PAL TV in any region.

Symbol on LCD Screen	Function
<i>nSC</i> (default setting)	NTSC TV setting for North America. Camera will record in 60 or 30 frames per second depending on which resolution is selected.
<i>PAL</i>	PAL TV setting for most regions outside of North America. Camera will record in 50 or 25 frames per second depending on which resolution is selected.

1. Press the SHUTTER button to toggle between choices.
2. Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

## DELETE LAST FILE SAVED

When "LSt" is on the LCD screen, you can delete the last file saved to the SD card:

Symbol on LCD Screen	Function
<i>LSt</i>	To delete last file saved to camera, press SHUTTER button when LSt is on screen. LSt will start blinking as a warning.
<i>LSt</i> (blinking) TO CHOOSE NO DELETE	"LSt" will blink for 5 seconds. If you do nothing..."LSt" will stop blinking and the file will NOT be deleted. You can press the POWER/MODE button to advance to the next option in the SET menu.
<i>LSt</i> (blinking) TO CHOOSE YES DELETE	If you press the shutter button while LSt is blinking, you will delete the last saved file from the SD card. Red LED on front of camera will blink while card is being formatted.

## DELETE ALL FILES AND FORMAT SD CARD

When "ALL" is on the LCD screen, you can delete all files and format the SD card:

Symbol on LCD Screen	Function
<i>ALL</i>	To delete all files and FORMAT SD card, press SHUTTER button when ALL is on screen. ALL will start blinking as a warning.
<i>ALL</i> (blinking) TO CHOOSE NO FORMAT	"ALL" will blink for 5 seconds. If you do nothing..."ALL" will stop blinking and the SD card will NOT be formatted. You can press the POWER/MODE button to advance to the next option in the SET menu.
<i>ALL</i> (blinking) TO CHOOSE YES FORMAT	If you press the shutter button while ALL is blinking, you will format the SD card, losing all files and data. Red LED on front of camera will blink while card is being formatted. IMPORTANT: this will format your card and all data on the card will be deleted.

## AUTO POWER OFF SETTING

You can program the camera to automatically turn off at 60, 120, 300 seconds, or you can set the camera to OFF to keep the camera on until you manually turn it off.

Symbol on LCD Screen	Function
<i>OFF</i> (default setting)	Camera will only turn off if manually turned off.
<i>60</i>	Camera will turn off 60 seconds after last button press (unless recording video or shooting automatic photos).
<i>120</i>	Camera will turn off 120 seconds (2 minutes) after last button press (unless recording video or shooting automatic photos).
<i>300</i>	Camera will turn off 300 seconds (5 minutes) after last button press (unless recording video or shooting automatic photos).

1. Press the SHUTTER button to toggle between choices.
2. Press the POWER/MODE button to save whichever setting is showing on the screen and continue to the next feature option.

## SETTING THE TIME AND DATE

You can set the time and date on the camera as long as the battery stays in the camera. Once the battery is removed the time and date settings will be lost:

Symbol on LCD Screen	Function
<i>dAt</i>	When you see "dAt" on the screen, press SHUTTER button to set the time and date.
<i>Y09-Y30</i>	Press POWER/MODE button to toggle from Y09 (2009) to Y30 (2030). Press SHUTTER to advance to next date setting.
<i>01-12</i>	Press POWER/MODE button to toggle from 01 (January) to 12 (December). Press SHUTTER to advance to next date setting.
<i>d01-d31</i>	Press POWER/MODE button to toggle from d01 (1st day of month) to d31 (31st day of month). Press SHUTTER to advance to next date setting.
<i>H00-H23</i>	Press POWER/MODE button to toggle from H00 (12 a.m. military time) to H23 (11 p.m. military time). Press SHUTTER to advance to next date setting.
<i>00-59</i>	Press POWER/MODE button to toggle from 00 (zero minutes) to 59 (59 minutes). Press SHUTTER to advance to next date setting.

1. Once you select the "minutes" setting and press the SHUTTER button, you will return to the SEt entrance for the settings menu.

## EXITING THE SETTINGS MENU

When you see ESC on the screen, press the SHUTTER button to exit the SETTINGS MENU.

# CONNECTIVITY / BATTERY CHARGING

## SYSTEM REQUIREMENTS

The HD HERO camera is compatible with Microsoft® XP/VISTA or later, or Mac OSX 10.4 or later. The HD HERO camera can also be plugged into any standard definition or HDTV that has RCA or component (RGB) ports, allowing for high quality playback.

### Windows System Requirements for Full HD 960p and 720p 60 fps Playback:

- Microsoft Windows® XP (Service Pack 2 or later), Vista or Windows 7
- 3.2 GHz Pentium 4 or faster
- Direct X 9.0c or later
- At least 1 GB of system RAM
- Video card with at least 256MB of RAM

### Macintosh System Requirements for Full HD 960p and 720p 60 fps Playback:

- Mac OS® X v10.4.11 or later
- 2.0 GHz Intel Core Duo or faster
- At least 1 GB of system RAM
- Video card with at least 128MB of RAM

If you are having problems achieving smooth playback on your computer, the HD HERO camera can also plug directly into any standard definition or HDTV that has RCA or component (RGB) ports. The HD HERO camera itself provides very smooth playback directly on a TV and when using component (RGB) cables for HD playback, the quality matches that of playing back on a computer.

## USING SD CARDS

The HD HERO camera is compatible with 2GB, 4GB, 8GB, 16GB, and 32GB capacity SD and SDHC cards. While all speed cards work in the camera, GoPro recommends minimum Class 4 speed cards for reliability when shooting HD video. GoPro's own testing has shown improved reliability in high vibration activities with name brand SD and SDHC cards.

To insert the SD card, slide the SD card into the SD card slot on the side of the camera with the SD card label facing the front of the camera. The SD card will click into place once it is inserted past flush with the camera. Use your finger nail to do this.

To remove the SD card, push it further into the camera and it will spring out from the camera far enough so that you can pull it out.

## TRANSFERRING VIDEO AND PHOTOS TO COMPUTER

### On a PC with WINDOWS operating system:

1. Connect the camera to a computer with the included USB cable.
2. Turn on the camera by pressing POWER/MODE button. LCD screen will display "USB".
3. Double click on MY COMPUTER and you will see a "Removable Disk" icon. If you do not see this, close the MY COMPUTER folder and then reopen it and the "Removable Disk" icon should appear.
4. Double click the "Removable Disk" icon.
5. Then double click the "DCIM" folder icon.
6. Then double click the "100GOPRO" icon.
7. The photo and video files will be in the "100GOPRO" folder.
8. Drag your photo and video files to your hard drive or double click a file to view it.

### On a MAC:

1. Simply plug the camera into your MAC with the included USB cable, turn your camera on, and the MAC OS will recognize the camera as an external hard drive.

**IMPORTANT TIP FOR MAC USERS: When deleting files from your SD card you must empty the trash before removing the SD card or unplugging the camera. If you do not empty your trash the photo and video files will not be completely erased from your SD card.**

## CHARGING BATTERY

The LCD will blink a "bAt" message when the battery is low and the camera will save the file, if recording, and turn off. You must now charge your battery.

1. Connect the camera to a computer with the included USB cable.
2. Red LED on front of camera will turn on, indicating the battery is charging.
3. Red LED will turn off once battery is charged.
4. Battery will charge 80% in 2 hours when plugged into computer USB port. 100% charge after 4 hours total charging time.
5. Battery will charge 80% in one hour when using a 1000mAh USB compatible wall or car charger. 100% charge after 2 hours total charging time.

### To charge battery and record video / photos simultaneously

You can charge the camera's battery while simultaneously recording video or photos. Simply plug the camera into any 500mAh or 1000mAh USB-based wall, car, or phone charger to charge the HD HERO camera while recording video or photos. It is best to use a 1 amp (1000mAh) charger for maximum charging performance when also recording video or photos with the camera while charging.

Spare batteries are available at [gopro.com](http://gopro.com) and authorized GoPro resellers.

## REMOVING BATTERY FROM THE CAMERA

The battery is designed to have a very tight fit to maximize reliability in high vibration activities. To remove the battery, squeeze the sides of the battery and pull it out of the camera. It is intentionally not easy to do, but the battery will come out. In most cases it is not necessary to remove the battery. Please note, if you do remove the battery you will lose your time and date settings on the camera. Additional batteries and charging accessories are available at [gopro.com](http://gopro.com).

## CONNECTING CAMERA TO TV OR HDTV

Make sure your camera is set to the correct NTSC or PAL video setting or your camera will not work properly with your TV. This is explained in the SETTINGS MENU section of these instructions.

## STEPS TO REVIEW PHOTOS AND VIDEO ON A TV OR HDTV

1. Make sure your camera is set to LIVE FEED OFF (LFF) in the SET menu. LIVE FEED OFF will allow your camera to playback saved video and photos files on a TV via TV playback.
2. Plug your camera into the RCA or COMPONENT (RGB) ports on your TV or HDTV with the included cables. Icons on the side of the camera indicate which cables to use in which ports.
3. If plugging into an HDTV, use the RCA cables for sound while the COMPONENT (RGB) cables are for the HD video signal.
4. Once plugged in, turn on your camera.
5. The most recent video saved to the SD card will begin playing on the screen.
6. Press POWER/MODE button to advance to the next video. Press the SHUTTER button to return to the previous video.
7. To view photos, press and hold POWER/MODE button for 2 seconds to switch to photo playback mode.
8. Press POWER/MODE button to advance to the next photo.
9. Press the SHUTTER button to return to the previous photo.
10. Press and hold POWER/MODE button for 2 seconds to return to video playback mode, if desired.
11. Unplug camera from the TV and turn camera off when finished reviewing

# TROUBLESHOOTING

## "SoS" MESSAGE ON LCD SCREEN

If you see the "SoS" message on your LCD screen, that means your video file was corrupted during recording for some reason. While SoS is showing on the screen, press ANY BUTTON on the camera and the camera will repair the file.

## "HOT" MESSAGE ON LCD SCREEN

If you see the "HOT" message on your LCD screen, that means that your camera has become too hot and it needs to cool down. Don't worry, no damage has occurred to your camera. Simply let it sit and cool before attempting to use it again. Your camera will not allow itself to overheat, so do not worry as no damage has occurred.

## FCC STATEMENT

Modifications not approved by the party responsible for compliance could void user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off.

**The user is encouraged to try to correct the interference by one or more of the following measures:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.