HERO 5
BLACK

USER MANUAL

facebook.com/GoPro

youtube.com/GoPro

twitter.com/GoPro

instagram.com/GoPro

To download this user manual in a different language, visit **gopro.com/help**.

Pour télécharger ce manuel de l'utilisateur dans une autre langue, rendez-vous sur **gopro.com/help**.

Wenn Sie dieses Benutzerhandbuch in einer anderen Sprache herunterladen möchten, besuchen Sie **gopro.com/help**.

Per scaricare questo manuale utente in un'altra lingua, visita **gopro.com/help**.

Para descargar este manual de usuario en otro idioma, visite **gopro.com/help**.

Para baixar este manual do usuário em outro idioma, acesse **gopro.com/help**.

このユーザーマニュアルの他言語版をダウンロードするには、**gopro.com/help**にアクセスしてください。

若要下載其他語言版本的使用說明書，請前往：**gopro.com/help**。
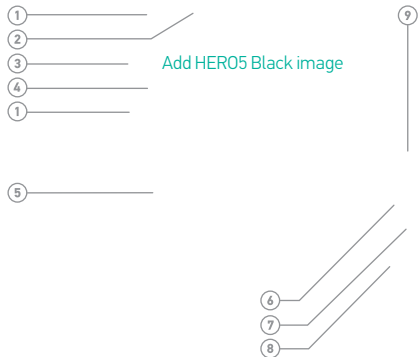
如需下载本用户手册的其他语言版本，请访问 **gopro.com/help**。

Чтобы загрузить это руководство пользователя на другом языке, посетите страницу **gopro.com/help**.

Add HERO5 Black image

1. Shutter Button [⊙]
2. Camera Status Screen
3. Mode Button [⊙]

4. USB-C Port
   (supports composite A/V
   cable/ 3.5mm stereo mic
   adapter, not included)
5. Micro HDMI Port
   (cable not included)
6. Audio Alert [bottom]

Add HERO5 Black image
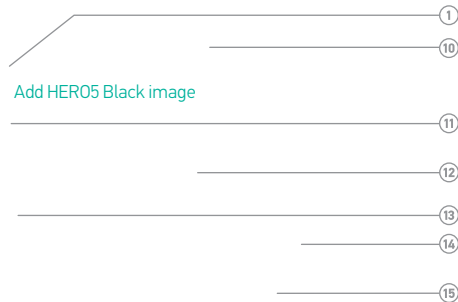
7. Battery [bottom]
8. microSD Card Slot [bottom]
9. Camera Status Light [front,
   back, bottom]
10. Touch Display
11. Microphone

CHARGING THE BATTERY
For the best experience with your new camera, we
recommend fully charging the battery before first use.

1. Press the button on the bottom door, then slide it open.

Add HERO5 Black image

2. Insert the battery, then close the door.
3. Press the button on the side door, then slide it open.

Add HERO5 Black image

4. Connect the camera to a computer or other USB charging adapter
   using the included cable. The camera status light turns on during
   charging and turns off when charging is complete.

   When charging with a computer, be sure that the computer is
   connected to a power source. If the camera status light does not
   turn on, use a different USB port. The battery charges to 100% in
   about X hours.

   *Note: When using GoPro's USB-compatible Wall or Auto Charger (both sold separately), the battery
   charges to 100% in about two hours.*

   You can also charge the battery outside of the camera using the
   Dual Battery Charger for HERO5 Black (sold separately).

For more information, see *Battery Information* (page 91).

⚠️ **WARNING: Use caution when using your GoPro as part of your
active lifestyle. Always be aware of your surroundings to avoid
injury to yourself and others.**

**Abide by all local laws when using your GoPro and related
mounts and accessories, including all privacy laws, which may
restrict recording in certain areas.**

INSERTING + REMOVING MEMORY CARDS
Insert the SD card with the label facing the battery.
To remove the card, press it in with your fingernail until it pops out.

Use brand name memory cards (sold separately) that meet these requirements:

- microSD, microSDHC, or microSDXC
- Class 10 or UHS-I rating*
- Capacity up to 128GB

Add HERO5 Black image
show card being inserted

For a list of the recommended microSD cards, visit **gopro.com/help**.

If the memory card becomes full during recording, your camera automatically saves the video, then powers off.

NOTICE: Use care when handling memory cards. Avoid liquids, dust and debris. As a precaution, power off the camera before inserting or removing the card. Check manufacturer guidelines regarding use in acceptable temperature ranges.

The RAW Audio setting in Protune requires a microSD card with a UHS-I or higher rating.

UPDATING YOUR CAMERA SOFTWARE
To get the latest features and best performance from your GoPro, make sure your camera is always using the most current software.

1. Download these apps:

   - Capture app from the Apple App Store or Google Play

   - Quik for desktop from **gopro.com/apps**

2. Connect your camera to your smartphone/tablet or computer. The app automatically notifies you when camera updates are available and provides instructions for updating.

PRO TIP: To see your current software version, swipe down from the main screen, then tap Preferences > About This GoPro.

Add HERO5 Black image

POWERING ON + OFF

To Power On:
Press the **Mode** button. The camera beeps several times while the camera status lights flash. When the camera status screen displays information, your camera is on.

To Power Off:
Press and hold the **Mode** button for two seconds. The camera beeps several times while the camera status lights flash.

PRO TIP: You can also power the camera on and off with voice commands. For details, see *Controlling Your Camera with Your Voice* (page 32).

CHANGING MODES WITH THE MODE BUTTON
The **Mode** button lets you quickly cycle through the capture modes that you used most recently. For example, if you previously selected Video, Night Photo, and Time Lapse Video in each of the three modes, pressing the Mode button cycles through those capture modes.

Note that Burst photo always appears in this cycle. So, you can capture fast-moving action like kids jumping into a pool or a mountain bike jump without having to change your capture mode ahead of time.

PRO TIP: You can also change modes using voice commands. For details, see *Controlling Your Camera with Your Voice* (page 32).

DEFAULT MODES AND SETTINGS

🐢	QuikCapture	On
icon	Wireless	Off

Video Mode

📹	Video	1080p60, Wide Field of View (FOV)
icon	Video + Photo	1080p30, Wide FOV
icon	Looping Video	1080p60, Wide FOV

Photo Mode

📷	Photo	12MP, Wide FOV
🗐	Burst Photos	12MP, 30 photos/second, Wide FOV
icon	Night Photo	12MP, Wide FOV

Time Lapse Mode

icon	Time Lapse Video	4K, 0.5 sec interval, Wide FOV
icon	Time Lapse Photos	0.5 sec interval, Wide FOV
icon	Night Lapse Photos	12MP, Continuous interval, Wide FOV

CAMERA STATUS SCREEN

The camera status screen on the front of the camera contains the following information about modes and settings:

1. Camera Mode
2. Resolution/fps (frames per second) /FOV (field of view)
3. Number of Files Captured
4. Remaining Storage
5. Battery Status

Note: The icons that appear on the camera status screen vary by mode.
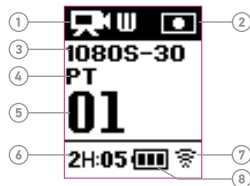
TOUCH DISPLAY
The touch display on the back of the camera contains the following information about modes and settings: ADD SCREEN SHOT WITH CALLOUTS

1. Wireless Status
2. GPS Status
3. Time Remaining/Photos Taken
4. Battery Status
5. Camera Mode
6. Settings
7. Advanced Settings

Note: The settings that appear on the touch display vary by mode.

TOUCH DISPLAY GESTURES
Use these gestures to navigate the touch display:
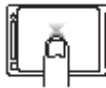
Tap
Selects an item, turns a setting on/off.
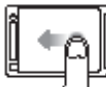
Swipe Left
Accesses advanced settings (if available) for the current mode.
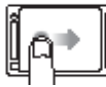
Swipe Right
Displays your content.

Swipe Down
From the main screen, opens the Connect and Preferences menus. Otherwise, returns to the main screen.

show map of camera menus:

-Video
  Resolution
  FPS
  FOV
  EIS [More]
  Low Light [More]
  Manual Audio Control
  [More]
  Protune [More]
  Auto Exposure
-Video+Photo
  Resolution
  FPS
  FOV
  Interval
  Auto Exposure
-Looping
  Resolution
  FPS
  FOV
  Interval
  Auto Exposure
-Photo
  FOV
  Wide Dynamic Range
[More]
  Protune [More]
  Raw Photo [More]
  Auto Exposure

-Burst Photos
  FOV
  Rate
  Protune [More]
  Auto Exposure
-Night Photo
  Shutter
  FOV
  Protune [More]
  Auto Exposure
-Time Lapse Video
  Resolution
  FOV
  Interval
  Auto Exposure
-Time Lapse Photos
  Interval
  FOV
  Protune [More]
  Auto Exposure
-Night Photof
  Shutter
  Interval
  FOV
  Protune [More]
  Auto Exposure

QuikCapture is the fastest way to capture video or time lapse content with HERO5 Black. Because the camera is powered on only when it is capturing, you also conserve battery power.

Note: QuikCapture is disabled when the camera is connected to a GoPro remote or the Capture app.

CAPTURING VIDEO WITH QUIKCAPTURE

1. With the camera powered off, press the **Shutter** button.

IMAGE OF CAMERA WITH ARROW POINTING TO SHUTTER

Your camera powers on, beeps several times, and automatically begins capturing video. The camera status lights blink while the camera is recording.

2. To stop recording, press the **Shutter** button [⦿] again.

The camera stops recording, beeps several times, and automatically powers off.

To capture other types of video, see *Capturing Video and Photos* (page 22).

PRO TIP: Videos captured at lower resolutions such as 720p30 fps are are easier to share and upload to the web.

CAPTURING TIME LAPSE PHOTOS WITH QUIKCAPTURE

1. With the camera powered off, press and hold the **Shutter** button until capture begins.

IMAGE OF CAMERA WITH ARROW POINTING TO SHUTTER AND A VISUAL ELEMENT INDICATING 3 SECONDS

Your camera powers on, beeps several times, and automatically begins capturing time lapse photos. The camera status lights blink once for each photo captured.

2. To stop recording, press the **Shutter** button [⦿] again.

The camera stops recording, beeps several times, and automatically powers off to maximize battery life.

TURNING QUIKCAPTURE OFF

QuikCapture is on by default, but you can turn it off, if needed.

1. From the main screen, swipe down.

2. Tap Preferences > QuikCapture.

3. Tap Off.

CAPTURING VIDEO AND PHOTOS

1. If needed, select a different mode:
   a. Tap the icon in the lower left corner of the touch display.
   b. Tap one of the mode icons at the top of the screen.
   c. Tap a capture mode in the list below it.
2. If needed, select different settings. For details, see XXXX.
3. Press the **Shutter** button. The camera beeps and the camera status lights flash while the camera is capturing.
4. To stop capturing video or time lapse, press the **Shutter** button. The camera beeps and the camera status lights flash quickly.

PRO TIP: You can also record video using voice commands. For details, see *Controlling Your Camera with Your Voice* (page 32).

Add HERO5 Black image

ADDING HILIGHT TAGS
You can mark specific moments in your video during recording or playback with HiLight Tags. HiLight Tags make it easy to find the best highlights to share.

You can add tags with your camera, the Capture app, or the Smart Remote (sold separately).

To Add a HiLight Tag with Your Camera:
While recording or playing back video, press the **Mode** button.

PRO TIP: You can also add HiLight Tags using voice commands. For details, see *Controlling Your Camera with Your Voice* (page 32).

You can play back your content on the camera's touch display, your computer, TV, or smartphone/tablet.

You can also play back content by inserting the microSD card directly into a device, such as a computer or compatible TV. With this method, playback resolution depends on the resolution of the device and its ability to play back that resolution.

VIEWING VIDEOS AND PHOTOS ON YOUR HERO5 BLACK

1. Swipe right to open the gallery.

2. Swipe up to scroll through the thumbnails.
   Note: For photo series (Burst, Time Lapse, Night Lapse and Continuous photos), the thumbnail displays the first photo in the series.

3. Tap a video or photo to open it in full-screen view.

4. To return to the thumbnails screen, tap [ICON].

5. To exit the gallery, swipe down.

CREATING SHORT CLIPS FROM A VIDEO
Video trimming lets you create short clips of your favorite shots from your video files. Clips are saved as new files that can be shared and used during editing in the Capture app or Quik for desktop.

1. Swipe right to open the gallery, then tap the video that contains the clip that you want to save.

2. Tap [▶] to begin playing the video.

3. When you reach the point where you want to start clipping, tap [▐▐].

4. Tap [✂]. By default, the duration of the clip is 5 seconds.

5. To save a longer clip, tap 5 SEC, then tap the length of the clip that you want (15 or 30 seconds).

6. Tap the screen, then tap PREVIEW to review the clip before saving it.

7. To adjust the starting point of the clip, tap -1. To adjust the ending point, tap +1.
   Note: If you adjust the starting or ending points, the duration of the clip remains the same.

8. Tap [CHECK MARK ICON]. The clip is saved as a separate video file and your original video file is unchanged.

PRO TIP: After you create clips from a video, you can delete the original file to save space on your microSD card.

SAVING A VIDEO FRAME AS A STILL PHOTO

1. Swipe right to open the gallery, then tap the video that contains the clip that you want to save.
2. Tap [▶] to begin playing the video.
3. When you reach the frame that you want to save, tap [❚❚].
4. Tap [PHOTO ICON].
5. If needed, slide the bar at the bottom of the screen to select the frame.
6. Tap [CHECK MARK ICON]. The frame is saved as a photo and your original video file is unchanged.

VIEWING VIDEOS AND PHOTOS ON A COMPUTER
To play back your video and photos on a computer, you must first transfer these files to a computer. For details, see *Offloading Files* (page 30).

VIEWING CONTENT ON A MOBILE DEVICE

1. Connect your camera to Capture. For details, see *Connecting to the Capture App* (page 29).
2. Use the controls on the app to play back your footage on your smartphone/tablet.

PRO TIP: While playing back your video, you can add HiLight Tags to mark the best moments. On the camera, press the **Mode** button to add a tag. In the Capture app or Quik for desktop, tap the HiLight Tag icon.

/ Playing Back Your Content

VIEWING VIDEOS AND PHOTOS ON YOUR TV
Playing back videos and photos on your TV/HDTV requires a micro HDMI, composite or combo cable (all sold separately).

1. Use a micro HDMI cable, composite cable, or combo cable to connect the HDMI port on the camera to a TV/HDTV.
2. Select the input on your TV that corresponds to the TV port into which you plugged the cable.
3. Power on the camera.
4. Use the **Mode** button to navigate files.
5. Use the **Shutter** button to open a file in full-screen view.
6. When a file is selected, use [LEFT ARROW] and [LEFT ARROW] to see more media files on your memory card.

Note: HDMI playback depends on the resolution of the device, and is certified up to 1080p.

/ Connecting to the Capture App

The Capture app lets you control your camera remotely using a smartphone or tablet. Features include full camera control, live preview, playback and sharing of content, and camera software updates.

1. Download Capture to your mobile device from the Apple® App Store or Google Play.
2. Follow the app's on-screen instructions to connect your camera.

PRO TIP: To turn on your camera's Wi-Fi and Bluetooth after pairing it with another device, swipe down from the main screen, then tap Connect. Within this menu, tap Connections.

OFFLOADING FILES TO THE CLOUD
With GoPro Plus, you can upload your content to the cloud and then view, edit, and share it from any of your devices. Use the Quik or Splice app to edit content from the cloud on your mobile device and share it with your friends.

1. Subscribe to GoPro Plus:
   a. Download Capture to your mobile device from the Apple App Store or Google Play.
   b. Follow the on-screen instructions to connect your camera to the app.
   c. If this is the first time you are connecting to the app, follow the on-screen instructions to subscribe to GoPro Plus. Otherwise, tap [CLOUD ICON] next to the image of your camera and follow the instructions.
2. Connect your camera to a power outlet. When the battery is charged, automatic upload to the cloud begins.
3. To access your content from the cloud, connect to the Capture app and tap [CLOUD ICON] next to the image of your camera.
4. Download the desired content to your phone, then use the Quik or Splic app to edit and share.

OFFLOADING FILES TO A COMPUTER
To play back your video and photos on a computer, you must first transfer these files to a computer.

1. Download and install Quik for desktop from **gopro.com/apps**.
2. Connect the camera to your computer using the included USB cable.

PRO TIP: To offload files to a computer using a card reader (sold separately), connect the card reader to your computer, then insert the microSD card. You can then transfer files to your computer or delete selected files on your card.

/ Controlling Your GoPro with Your Voice

You can control your HERO5 Black with your voice using a set of specific commands (see list below).

Note: Voice Control performance may be impacted by distance, wind, and noisy conditions. Keep the product clean and clear of debris..

SELECTING YOUR VOICE CONTROL LANGUAGE

1. From the main screen, swipe down.

2. Tap Preferences > Language (in the Voice Control section).

3. Tap a language.

USING VOICE CONTROL

Voice Control works best if you are within XX feet (Xm) of your GoPro.

1. From the main screen, swipe down.

2. Tap [ICON].

3. Say a command from *List of Voice Commands* (page 33).

PRO TIP: You can also turn on Voice Control from the Preferences menu. Tap Preferences > On Camera Voice Control, then select On.

LIST OF VOICE COMMANDS

Two types of commands are available with Voice Control: action commands and mode commands. Your camera does not need to be in a specific mode to capture video or photos. You can use the action commands from any mode.

Action Command	Description
GoPro turn on	Powers on the camera
GoPro start video	Captures video
GoPro HiLight	Adds a HiLight Tag to video
That was sick	Adds a HiLight Tag to video
GoPro stop video	Stops capturing video
GoPro take a photo	Captures a single photo
GoPro shoot burst	Captures burst photos
GoPro start time lapse	Captures time lapse photos
GoPro stop time lapse	Stops capturing time lapse photos
GoPro turn off	Powers off the camera

Mode Command	Description
GoPro Video mode	Changes the camera mode to Video (does *not* capture video)
GoPro Photo mode	Changes the camera mode to Photo mode (does *not* capture photos)
GoPro Burst mode	Changes the camera mode to Burst mode (does *not* capture burst photos)
GoPro Time Lapse mode	Changes the camera mode to Time Lapse (does *not* capture time lapse photos)

For the most updated list of commands, visit **gopro.com/help**.

Video mode contains three capture modes: Video, Video + Photo, and Looping. Each capture mode has its own settings.

VIDEO

The video capture mode includes these settings:

- [ICON] *Resolution, FPS, and FOV* (page 38)
- [ICON] *Video Stabilization* (page 4)
- [ICON] *Auto Low Light* (page 46)
- [ICON] *Audio Filter* (page 47)
- [ICON] *Protune* (page 66)

VIDEO + PHOTO

With Video + Photo, you can capture photos at set intervals while you record video. Available settings:

- [ICON] *Resolution, FPS, and FOV* (page 38)
- [ICON] *Interval (Video)* (page 44)

LOOPING VIDEO

Looping lets you continuously record and save only the moments that you want to save. Available in 2.7K, 1440p, 1080p, 960p, and 720p.

- [ICON] *Resolution, FPS, and FOV* (page 38)

- [ICON] *Interval (Video)* (page 44)

RESOLUTION, FPS, AND FOV

Video resolution refers to the number of horizontal lines in the video. For example, 720p means that the video has 720 horizontal lines, each with a width of 1280 pixels. Higher numbers of lines and pixels result in greater detail and clarity. So, a video with resolution of 2.7K is considered higher quality than 720p because it consists of 2704 lines, each with a width of 1520 pixels.

Frames per second (fps) refers to the number of video frames that are captured in each second.

The field of view (FOV) refers to how much of the scene (measured in degrees) can be captured through the camera lens. Wide FOV captures the largest amount of the scene, while Narrow FOV captures the least.

HERO5 Black includes the video resolutions, fps, and FOVs listed below. The default resolution is 1080p60 Wide.

show diagram of different resolutions: https://www.google.com/search?q=video+resolution&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj0y9Kr5sXLAhVI6WMKHXpDCzYQ_AUIBygB&biw=1446&bih=861#imgrc=ILj8vs_NzPDeOM%3A

Represent FOV and FPS "best use" visually (use same images as in QSG)

Video Resolution	FPS (NTSC/PAL)	FOV	Screen Resolution
4K	30/25	Wide	3840x2160, 16:9
4K	24/24	Wide, SuperView	3840x2160, 16:9
2.7K	60/50 48/48 24/24	Wide, Medium, Linear	2704x1520, 16:9
2.7K	30/25	SuperView, Wide, Medium, Linear	2704x1520, 16:9
2.7K 4:3	30/25	Wide	2704x2028, 4:3
1440p	80/80 60/50 48/48 30/25 24/24	Wide	1920x1440, 4:3

Video Resolution	FPS (NTSC/PAL)	FOV	Screen Resolution
1080p	120/120	Wide, Narrow	1920x1080, 16:9
	90/90	Wide	1920x1080, 16:9
	80/80	SuperView	1920x1080, 16:9
	60/50 48/48 30/25 24/24	SuperView, Wide, Medium, Linear, Narrow	1920x1080, 16:9
960p	120/120 60/50	Wide	1280x960, 16:9
720p	240/240	Narrow	1280x720, 16:9
720p	120/120 60/50	SuperView, Wide, Medium, Narrow	1280x720, 16:9

Video Resolution	FPS (NTSC/PAL)	FOV	Screen Resolution
720p	100/100	SuperView	1280x720, 16:9
720p	30/25	Wide, Medium, Narrow	1280x720, 16:9
480p	240/240	Wide	848x480, 16:9

PRO TIP: Videos captured at lower resolutions such as 720p30 fps are supported by more mobile devices and are easier to share and upload to the web.

Video Resolution	Best Use
4K	Stunning high-resolution video with professional low-light performance. 8MP stills available from video. Recommended for tripod or fixed position shots.
2.7K	16:9 resolution video downscales to provide stunning, cinema-quality results for professional productions.
1440p	Recommended for body-mounted shots. Larger viewing area and high frame rate yield the smoothest, most immersive results for high-action capture.
1080p	Great for all shots. High resolution and frame rate yield stunning results.

Video Resolution	Best Use
960p	Use for body-mounted shots and when slow motion is desired.* Provides large viewing area and smooth results for high action capture.
720p	Good for handheld shots and when slow motion is desired.*
WVGA	Good when super slow motion is desired and standard definition is acceptable.

PRO TIP: To open more settings for the current mode, swipe left on the touch display.

FOV	Best Use
SuperView (S)	SuperView delivers the world's most immersive field of view. Good for body- or gear-mounted shots. More vertical 4:3 content is automatically stretched to full-screen 16:9 for stunning widescreen playback on your computer or TV.
Wide	Largest field of view, increased image stability. Good for action shots where you want to capture as much as possible within the frame.
Medium	Mid-range field of view, moderate image stability.
Narrow	Smallest field of view, reduced image stability. Reduced distortion. Good for capturing content at a distance.

PRO TIP: Easily create GoPro-style videos using Quik for desktop. Learn more and download this free software to your computer at **gopro.com/apps**.

ICON **VIDEO STABILIZATION**

This setting results in smoother video footage, so is useful for activities involving motion or vibration. The options for this setting are On (default) and Off.

Video Stabilization is not available for 4K or frame rates higher than 60 fps. For Wide FOV, the image is cropped 10%. This setting is not available for Video + Photo or Looping video.

ICON **INTERVAL (VIDEO)**

The Interval setting determines the amount of time that passes between each captured frame.

Time Lapse Video Intervals
Available intervals for Time Lapse Video range from 0.5 seconds (default) to 60 seconds.

Interval	Examples
0.5-2 seconds	Surfing, biking or other sport
2 seconds	Busy street corner
5-10 seconds	Sunset
10-60 seconds	Lengthy activities, such as construction projects

Video + Photo Intervals
Available photo intervals for Video + Photo range from 5-60 seconds. The quality of the photo depends on the selected video resolution and FOV.

Looping Video Intervals
Available intervals for Looping are 5, 20, 60, and 120 minutes. For example, if you select a 5-minute interval, only the previous 5 minutes are saved when you stop recording. If you record for 5 minutes and do not press the **Shutter** button to stop recording and save, the camera begins a new 5-minute interval by recording over your previous 5 minutes of footage.

You can also select max video as the interval. With this option, the camera records until the memory card is full, then overwrites the content.

AUTO LOW LIGHT

Auto Low Light allows you to shoot in low-light environments or when quickly transitioning in and out of low-light conditions. The camera automatically adjusts fps to achieve the optimal exposure and best results.

The options for this setting are On (default) and Off. Auto Low Light is available for frame rates higher than 30fps and when the Shutter setting in Protune is not set to Auto.

ICON **MANUAL AUDIO CONTROL**

By default, this setting is off and your camera automatically switches between recording in stereo and filtering wind noise to achieve the best audio balance. When this setting is on, you can manually select which of these two filters to apply.

For example, you might want to turn on this setting and select Wind Only if you are recording outdoors on a windy day. You might select Stereo Only f you are recording in a club or theater where audio is a priority and wind is not a factor.

This option is not available for Video + Photo or Looping video.

PT **PROTUNE**

Within Video mode, Protune is available only for the Video capture mode. For details about Protune settings, see *Protune* (page 66).

Photo mode contains three capture modes: Photo, Night, and Burst. Each capture mode has its own settings.

PHOTO
This capture mode takes either single or continuous photos. These settings are available for Photo:

- [ICON] *Field of View (FOV) (Photos)* (page 50)
- [ICON] *Wide Dynamic Range (WDR)* (page 51)
- [ICON] *Protune* (page 66)
- [ICON] *Raw Photo* (page 51)

NIGHT
Night captures photos in dim light. The shutter remains open longer to let in more light in dark environments. These settings are available for Night photo:

- [ICON] *Shutter (Night Photo)* (page 53)
- [ICON] *Field of View (FOV) (Photos)* (page 50)
- [ICON] *Protune* (page 66)

BURST
Burst captures up to 30 photos in 1 second, so it is perfect for capturing fast-moving activities. These settings are available for Burst:

- [ICON] *Rate* (page 52)
- [ICON] *Field of View (FOV) (Photos)* (page 50)
- [ICON] *Protune* (page 66)

icon **FIELD OF VIEW (FOV) (PHOTOS)**

Your camera includes several FOV options for photos. All photos are captured at 12MP.

FOV	Description
Wide	Largest field of view, increased image stability. Good for action shots to capture as much as possible within the frame.
Medium	Mid-range field of view, moderate image stability.
Linear	Mid-range field of view that removes the fisheye distortion. Good for capturing aerial footage or any other shot where you want to remove the distortion.
Narrow	Smallest field of view, reduced image stability. Reduced distortion. Good for capturing content at a distance.

icon **WIDE DYNAMIC RANGE (WDR)**

Wide Dynamic Range improves the level of detail in the dark and bright areas of an image. The result is a photo that is properly exposed for both of these extremes. This setting is especially useful for scenes that are backlit or that have large bright regions.

WDR is available only for the Photo catpure mode and only when Raw Photo is turned off. The options for this setting are Off (default) and On.

icon **RAW PHOTO**

Photos from your GoPro are saved as .jpg files. With Raw Photo, you can also save them as .dng files to give you more control during editing.

Raw Photo is available only for the Photo capture mode and only when Wide Dynamic Range is turned off. The options for this setting are Off (default) and On.

icon **RATE**

This setting applies only to Burst. Available rates:

- 30 photos in 1, 2, 3, or 6 seconds
- 10 photos in 1, 2, or 3 seconds
- 5 photos in 1 second
- 3 photos in 1 second

S **SHUTTER (NIGHT PHOTO)**

Within Photo mode, this setting applies only to Night Photo. Shutter lets you determine the amount of time that the shutter is open. The default option is Auto.

Use this table to help you select the most appropriate setting for your activity:

Settings	Examples
Auto (up to 2 sec)	Sunrise, sunset, dawn, dusk, twilight, night
2 sec, 5 sec, 10 sec	Dawn, dusk, twilight, traffic at night, Ferris wheel, fireworks, light painting
20 sec	Night sky (with light)
30 sec	Night stars, Milky Way (complete darkness)

PRO TIP: For best results when using the Shutter setting, mount your camera on a tripod or other stable surface to reduce the amount of blur in your video or photos.

PT **PROTUNE**

Within Photo mode, Protune is available for all capture modes (Photo, Night, and Burst). For details about Protune settings, see *Protune* (page 66).

TIME LAPSE CAPTURE MODES AND SETTINGS

Time Lapse mode contains three capture modes: Time Lapse Video, Time Lapse Photos, and Night Lapse. Each capture mode has its own settings.

Time Lapse Video Settings

- [ICON] *Resolution, FPS, and FOV* (page 38)
- [ICON] *Interval (Time Lapse)* (page 57)

Time Lapse Photos Settings

- [ICON] *Interval (Time Lapse)* (page 57)
- [ICON] *Field of View (FOV) (Time Lapse Photos)* (page 60)
- [ICON] *Protune* (page 66)

Night Lapse Photo Settings

- [VIDEO ICON?] *Time Lapse Video Resolution and FOV* (page 56)
- [ICON] *Shutter (Time Lapse)* (page 61)
- [ICON] *Field of View (FOV) (Time Lapse Photos)* (page 60)
- [ICON] *Protune* (page 66)

TIME LAPSE VIDEO RESOLUTION AND FOV
In the Time Lapse mode, resolution and FOV apply only to Time Lapse Video.

Video resolution refers to the number of horizontal lines in the video. For example, 720p means that the video has 720 horizontal lines, each with a width of 1280 pixels. Higher numbers of lines and pixels result in greater detail and clarity. So, a video with resolution of 2.7K is considered higher quality than 720p because it consists of 2704 lines, each with a width of 1520 pixels.

The field of view (FOV) refers to how much of the scene (measured in degrees) can be captured through the camera lens. Wide FOV captures the largest amount of the scene, while Narrow FOV captures the least.

Available resolutions for Time Lapse Video are 4K, 2.7K 4:3, and 1080p. (Frames per second do not apply to this capture mode.)

ICON **INTERVALS (TIME LAPSE)**

The Interval setting determines the amount of time that passes between each captured frame.

Time Lapse Video Intervals
Available intervals for Time Lapse Video range from 0.5 seconds (default) to 60 seconds.

Interval	Examples
0.5-2 seconds	Surfing, biking or other sport
2 seconds	Busy street corner
5-10 seconds	Sunset
10-60 seconds	Lengthy activities, such as construction projects

Time Lapse Photo Intervals

Available intervals for time lapse photos range from 0.5 seconds (default) to 60 seconds.

Interval	Examples
0.5-2 seconds	Surfing, biking or other sport
2 seconds	Busy street corner
5-10 seconds	Sunset
10-60 seconds	Lengthy activities, such as construction projects

Night Lapse Photo Interval

Interval determines the rate at which photos are captured. Night Lapse intervals range from 4 seconds to 60 minutes.

Continuous (default) causes the Interval to match the Shutter setting. For example, if Shutter is set to 10 seconds and Interval is set to Continuous, your camera captures a photo every 10 seconds.

icon **FIELD OF VIEW (FOV) FOR TIME LAPSE**

Your camera includes several FOV options for time lapse and night lapse photos. Photos are captured at 12MP.

FOV	Description
Wide	Largest field of view, increased image stability. Good for action shots to capture as much as possible within the frame.
Medium	Mid-range field of view, moderate image stability.
Linear	Mid-range field of view that removes the fisheye distortion. Good for capturing aerial footage or any other shot where you want to remove the distortion.
Narrow	Smallest field of view, reduced image stability. Reduced distortion. Good for capturing content at a distance.

S **SHUTTER (TIME LAPSE)**

Within Time Lapse mode, this setting applies only to Night Lapse. Shutter lets you determine the amount of time that the shutter is open. The default option is Auto.

Use this table to help you select the most appropriate setting for your activity:

Settings	Examples
Auto (up to 2 sec)	Sunrise, sunset, dawn, dusk, twilight, night
2 sec, 5 sec, 10 sec	Dawn, dusk, twilight, traffic at night, Ferris wheel, fireworks, light painting
20 sec	Night sky (with light)
30 sec	Night stars, Milky Way (complete darkness)

PRO TIP: For best results when using the Shutter setting, mount your camera on a tripod or other stable surface to reduce the amount of blur in your video or photos.

PT **PROTUNE**

Within Time Lapse mode, Protune is available for Time Lapse photos and Night Lapse. For details about Protune settings, see *Protune* (page 66).

By default, your camera uses the entire image to determine the appropriate exposure level. However, Exposure Select lets you select an object or area of view that you want the camera to use when determining exposure.

When you change this setting, the touch display immediately shows you the effect on your image. Changes that you make to this setting in one mode are applied to all other modes.

SELECTING AN OBJECT FOR EXPOSURE

With this option, the camera bases exposure on a specific object. That exposure level remains until you cancel it.

For example, suppose you are snowboarding on a sunny day. By manually setting the exposure level based on your subject's jacket, the images that you capture throughout the day are based on the jacket. So, they are less likely to be underexposed compared to the bright snow.

1. Press the touch display until a square outline shrinks to the middle of the screen.
2. Drag the square to the area that you want to use to set the exposure level.
3. Tap Exposure: Unlocked to change it to Exposure: Locked, and then tap [check icon] in the lower right corner.

SELECTING AN AREA OF VIEW FOR EXPOSURE

With this option, the camera always bases exposure on the area of the touch display that you select, regardless of the objects that the camera is capturing.

Suppose your camera is mounted on your dashboard. You might want to select the upper part of the touch display so that the exposure is not based on the dashboard.

1. Press the touch display until a square outline shrinks to the middle of the screen.
2. Drag the square to the area that you want to use to set the exposure level.
3. Tap [check icon] in the lower right corner.

CANCELLING EXPOSURE SELECT

When you cancel the exposure setting that you previously set, the camera returns to using the entire image to determine the correct level of exposure.

1. Press the touch display until a square outline shrinks to the middle of the screen.
2. Tap X in the lower left corner.

PRO TIP: For advanced exposure settings, see *Exposure Value Compensation* (page 73).

PROTUNE BENEFITS

Protune unlocks the camera's full potential, yielding stunning image quality and cinema-caliber video and photos optimized for professional productions. Protune gives content creators more flexibility and workflow efficiency than ever before.

Protune is compatible with professional color correction tools, Quik for desktop and other video and photo editing software.

Protune enables manual control of color, white balance, shutter spped and more for advanced control and customization of your video footage and photos.

PROTUNE

The options for this setting are Off (default) and On. When Protune is on, *PT* appears on the camera screens. Protune is not available for Video + Photo, Looping, or Time Lapse Video. Protune is available for all video and photo resolutions.

Changes that you make to Protune settings in one capture mode apply only to that capture mode. For example, changing the White Balance for Night Photo does not affect that setting for Burst photos.

COLOR

Color allows you to adjust the color profile of your video footage or photos. When you change this setting, the touch display immediately shows you the effect on your image.

Color Setting	Resulting Color Profile
GoPro Color (default)	Provides GoPro color-corrected profile (same great color as when Protune is turned off).
Flat	Provides neutral color profile that can be color-corrected to better match footage captured with other equipment, offering more flexibility in post-production. Due to its long curve, Flat captures more details in shadows and highlights.

WHITE BALANCE

White Balance lets you adjust the color temperature of videos and photos to optimize for cool or warm lighting conditions. When you change this setting, the touch display immediately shows you the effect on your image.

Options for this setting range from 3000K to 6500K. Lower values result in warmer tones.

You can also select Native to create a minimally color-corrected file from the image sensor that allows for more precise adjustments in post-production.

ICON **ISO LIMIT**

ISO Limit applies only to Video. This setting determines the camera's sensitivity to light in low-light environments, and creates a balance between brightness and resulting image noise. Image noise refers to the degree of graininess in the image.

In low light, higher ISO values result in brighter images, but with greater image noise. Lower values result in lower image noise, but darker images. [can we replace the previous 2 sentences with a visual instead of text? horizontal line with 100 on the left side and 6400 on the right side. Left side says "Darker image and lower image noise." Right side says "Brighter image and greater image noise."]

ISO Limit behavior depends on the Shutter setting:

• Shutter set to Auto: The ISO Limit that you select is used as the maximum ISO value. The ISO value that is applied might be lower, depending on the lighting conditions. Available ISO modes are 6400, 3200, 1600, 800, 400.

• Shutter *not* set to Auto: The ISO Limit that you select is either used as the maximum ISO value (if you select Max as the ISO Mode) or is locked at that value (if you select Lock as the ISO Mode). Available ISO modes are 6400, 3200, 1600, 800, 400, 200, and 100.

S SHUTTER

The Shutter setting in Protune applies only to Video and determines the amount of time that the shutter is open.

The options available for this setting depend on the FPS setting, as noted below. The default setting is Auto.

Settings	Example 1: 1080p30	Example 2: 1080p60
Auto (up to 2 sec)	Auto	Auto
1/FPS	1/30 sec	1/60 sec
1/(2xFPS)	1/60 sec	1/120 sec
1/(4xFPS)	1/120 sec	1/240 sec
1/(8xFPS)	1/240 sec	1/480 sec

PRO TIP: For best results when using the Shutter setting, mount your camera on a tripod or other stable surface to reduce the amount of blur in your video or photos.

icon ISO MODE

ISO Mode applies only to the Video capture mode and determines how the ISO Limit setting is interpreted. ISO Mode is enabled when Shutter is *not* set to Auto.

Setting	Description
Max	Uses the current ISO Limit setting as the maximum ISO value. The ISO value that is applied might be lower, depending on the lighting conditions.
Lock	Uses the current ISO Limit setting as the ISO value. This value does not change in response to the lighting conditions.

ISO⬇ ISO MINIMUM   **ISO⬆ ISO MAXIMUM**

ISO Minimum and Maximum apply only to photos and let you set a range for the camera's sensitivity in low-light environments. ISO settings create a balance between brightness and resulting image noise. Image noise refers to the degree of graininess in the image.

Higher values result in brighter images with greater image noise. Lower values result in darker images with lower image noise.

Note: ISO Minimum is not available for Time Lapse photos when the interval is set to 0.5 or 1 second.

PRO TIP: To lock the ISO at a specific value, set ISO Minimum and ISO Maximum to the same values.

⊡ EXPOSURE VALUE COMPENSATION (EV COMP)

Exposure Value Compensation affects the brightness of your video or photo. Adjusting this setting can improve image quality when shooting in environments with contrasting lighting conditions.

Options for this setting range from -2.0 to +2.0. The default setting is 0.

When you change this setting, the touch display immediately shows you the effect on your image. Higher values result in brighter images.

This setting is available only if Shutter is set to Auto.

PRO TIP: Exposure Value Compensation adjusts brightness within the existing ISO Limit. If brightness has already reached the ISO Limit in a low-light environment, increasing the Exposure Value Compensation does not have any effect.

▨ SHARPNESS

Sharpness controls the quality of details captured in your video footage or photos. Options for this setting are High (default), Medium, and Low.

PRO TIP: If you plan to increase sharpness during editing, turn this setting off.

▦ RAW AUDIO

This setting applies only to the Video capture mode and creates a raw audio track for your video. You can select the level of processing to apply to the track.

Note: This setting requires a microSD card with a UHS-I or higher rating.

Option	Description
Low	Applies minimal processing
Med	Applies processing based on the Manual Audio Control setting (wind and/or stereo).
High	Applies full audio processing (automatic gain and AAC encoding).

RESET

This option resets all Protune settings to their default values.

/ Connecting to an Audio Accessory

An accessory microphone or other component can provide enhanced audio for your captured video.

1. Connect the audio accessory to your camera's USB-C port.
2. From the camera's main screen, swipe down.
3. Tap Connect > Wired.
4. Tap an option:

Option	Description
Standard	Camera supplies power to the microphone and no audio boost
Standard+	Camera supplies power to the microphone and a 20dB boost in audio
Non-Powered	Camera supplies no microphone power and no audio boost
Non-Powered+	Camera provides no microphone power and a 20dB boost in audio
Line In	Use for audio equipment other than a microphone (mixing board, guitar preamplifier, karaoke machine, etc.)

From changing the beep volume to turning off the status lights, you can set up your camera to work the way that you want.

icon **DATE and TIME**

The date and time are automatically updated when you connect your camera to the Capture app or Quik for desktop. However, you can manually change these settings, if needed.

Note: If the battery is removed from the camera for an extended period of time, you must reset the date and time (automatically or manually).

icon **BEEP VOLUME**

Sets the volume of your GoPro's alerts.

icon **LED**

Sets which status lights blink. The options are All On (default), All Off, and Front Off.

icon **DEFAULT MODE**

Sets the mode that your GoPro defaults to when powering up. The options are Video (default), Time Lapse Video, Video + Photo, Looping, Photo, Night, Burst, Time Lapse Photo, and Night Lapse Photo.

Note: This setting does not affect QuikCapture.

icon **AUTO OFF**

Powers off your GoPro after a period of inactivity to save battery life. The options are 5 minutes (default), 15 minutes, 30 minutes, and Never.

icon **SCREENSAVER**

Turns off the touch display after a period of inactivity to save battery life. The options are 1 minute (default), 2 minutes, 3 minutes, and Never.

icon **BRIGHTNESS**

Adjusts the brightness level of the touch display. The options are 10% to 100% (default).

icon **AUTO-ROTATION**

This setting determines the orientation of your video or photos to help you prevent upside down footage.

Setting	Description
Auto	(Auto Image Rotation) Camera automatically selects Up or Down, based on the orientation of the camera when recording begins. Ensures that your resulting image is always right-side up.
Up (default)	Camera is always assumed to be right-side up.
Down	Camera is always assumed to be upside down.

icon **DIVE HOUSING SENSITIVITY**

Increases the touch display's level of sensitivity. The options are Off (default) and On. Turn this setting on when using your GoPro with Super Suit.

icon **GPS**

Captures the location where your video and photos were taken.

icon **LANGUAGE**

Sets the language that appears on the camera.

Note: If you connect your HERO5 Black to a GoPro remote control (sold separately), only English is available on the remote.

icon **VIDEO FORMAT**

Sets the regional frame rates that your camera uses for recording and playing back video on a TV/HDTV.

Setting	Description
NTSC	Select this option to play back your video on an NTSC TV (most televisions in North America)
PAL	Select this option to play back your video on a PAL TV (most televisions outside of North America)

PREVENTING ACCIDENTAL INPUT
Turn this setting on to prevent accidental input on the touch display.

1. From the main screen, swipe down.
2. Tap [LOCK ICON] to lock the screen. To turn off this setting, tap the icon again.

MICROSD CARD MESSAGES

NO SD	No card present. The camera requires a microSD, microSDHC or microSDXC card (sold separately) to capture videos and photos.
FULL	The card is full. Delete some files or insert a different card.
SD ERR	The camera is unable to read the card formatting. Reformat the card in the camera.

PRO TIP: Reformat your microSD card on a regular basis to ensure that the card remains in good condition.

FILE REPAIR ICON

If your last video file was corrupted during recording, the camera displays the File Repair icon while it tries to repair the file. When this process is finished, press any button to continue using the camera.

TEMPERATURE ICON

The Temperature icon appears on the camera status screen when the camera becomes too hot and needs to cool down. Simply let it sit and cool before attempting to use it again. Your camera was designed to identify conditions of overheating and is designed to respond accordingly.

RESETTING THE CAMERA'S NAME AND PASSWORD
Follow the steps below if you forgot your camera's name and password.

1. From the main screen, swipe down.

2. Tap Connect > Reset Connections, and then tap Reset.

Note: If your camera is not responding but you do not want to lose your settings, press and hold the Mode button for 8 seconds.

RESETTING ALL SETTINGS TO THE DEFAULTS
This option resets all of your camera settings to the defaults, except Date, Time, and your camera's username and password.

1. From the main screen, swipe down.

2. Tap Preferences > Camera Defaults, and then tap Reset.

Note: If your camera is not responding but you do not want to lose your settings, press and hold the Mode button for 8 seconds.

RESTORING FACTORY SETTINGS
Follow the steps below to reset all settings and the camera's password. This option is useful if you are reselling your camera and want to remove all customization.

1. From the main screen, swipe down.

2. Tap Preferences > Factory Reset, and then tap Next.

ATTACHING YOUR CAMERA TO MOUNTS
To attach your camera to a mount, you need The Frame (for HERO5 Black) and a mounting buckle and/or thumb screw, depending on the mount you are using.

The Frame   Mounting Buckle   Thumb Screw   Complete Unit
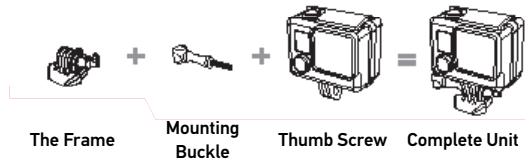
CURVED + FLAT ADHESIVE MOUNTS
The Curved + Flat Adhesive Mounts make it easy to attach the camera to curved and flat surfaces of helmets, vehicles, and gear. With the mounting buckle, the frame can be clicked on and off the secured adhesive mounts.

Curved Adhesive Mount   Flat Adhesive Mount
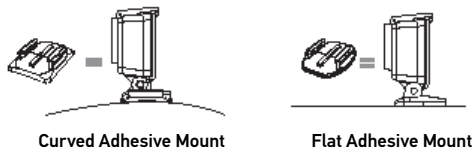
MOUNTING GUIDELINES
Follow these guidelines when attaching adhesive mounts:

- Attach the adhesive mounts at least 24 hours before use.
- Adhesive mounts must be mounted only on smooth surfaces. Porous or textured surfaces do not enable a proper bond. When applying the mount, firmly press it into place and ensure full contact over the entire surface.
- Apply adhesive mounts to clean surfaces only. Wax, oil, dirt or other debris reduce adhesion, which can result in a weak bond and risk of losing the camera should the connection fail.
- Attach adhesive mounts in room temperature conditions. Adhesives do not bond properly if applied in cold or damp environments to cold or damp surfaces.
- Check state and local regulations and laws to ensure that attaching a camera to equipment (such as hunting equipment) is permitted. Always comply wtih regulations that restrict the use of consumer electronics or cameras.

⚠ WARNING: To avoid injury, do not use a tether when mounting the camera on a helmet.

For more information about mounts, visit **gopro.com**.

⚠️ **WARNING: If using your camera with a GoPro mount or strap intended for use with a helmet, always select a helmet that meets the applicable safety standard.**

Choose the right helmet for your particular sport or activity and make sure that it is the right fit and size for you. Inspect your helmet to ensure that it is in good condition, and follow the helmet manufacturer's instructions on safe helmet use.

Any helmet that has sustained a major impact should be replaced. No helmet can protect against injury in every accident.

In some situations, such as charging the camera within The Frame or connecting audio or HDMI accessories or the Karma drone, it might be more convenient to access the ports if the side door is removed.

⚠️ **WARNING: Remove the side door only when you are using the camera in a dry, dust-free environment. When the door is open or removed, the camera is not waterproof. Never operate the camera with the battery door open.**

REMOVING THE SIDE DOOR
Slide the door open, then pull it off of the camera.

[IMAGE of removing]

REATTACHING THE SIDE DOOR
Extend the tab on the door, then press the door onto the small silver bar.

[IMAGE of reattaching]

CLEANING THE LENS
To clean the lens, wipe it with a soft, lint-free cloth. If debris becomes lodged between the lens and the trim ring, flush it out with water or air. Do not insert foreign objects around the lens.

REMOVABLE PROTECTIVE LENS INFO
INFO

MAXIMIZING BATTERY LIFE
The battery icon on the camera screen blinks when the battery drops below 10%. If the battery reaches 0% while recording, the camera saves the file and powers off.

To maximize battery life, follow these guidelines when possible:

• Turn off wireless

• Capture video at lower frame rates and resolutions

• Turn off Protune

• Use these settings:

  • *QuikCapture* (page 20)

  • *Adjusting the Touch Display Brightness* (page 81)

  • *Screensaver* (page 77)

RECORDING WHILE CHARGING
You can capture video and photos while the camera is plugged in to a USB charging adapter, or the GoPro Wall Charger or Auto Charger with the included USB cable. (You cannot record while charging the camera through a computer.) When you stop recording, charging resumes.

Note: Because the side door is open, the camera is not waterproof during charging.

WARNING: Using a wall charger other than a GoPro Wall Charger can damage the GoPro camera battery and could result in fire or leakage. Only use chargers marked: Output 5V 1A. If you do not know the voltage and current of your charger, use the included USB cable to charge the camera from your computer.

BATTERY STORAGE AND HANDLING

The camera contains sensitive components, including the battery. Avoid exposing your camera and battery to very cold or very hot temperatures. Low or high temperature conditions may temporarily shorten the battery life or cause the camera to temporarily stop working properly. Avoid dramatic changes in temperature or humidity when using the camera, as condensation may form on or within the camera.

The camera housing protects the camera and battery from water damage. For more information, see *Camera Housing*. Do not turn on your camera if it is wet. If your camera is already on, turn it off and remove the battery immediately. Allow the camera to dry thoroughly before using it again. Do not dry the camera or battery with an external heat source such as a microwave oven or hair dryer. Damage to the camera or battery caused by contact with liquid is not covered under the warranty.

Do not store your battery with metal objects, such as coins, keys or necklaces. If the battery terminals come in contact with metal objects, this may cause a fire.

WARNING: Only use manufacturer-recommended replacement batteries for your camera.

BATTERY DISPOSAL

Most rechargeable lithium-ion batteries are classified as non-hazardous waste and are safe for disposal in the normal municipal waste stream. Many localities have laws in place requiring battery recycling. Check your local laws to make sure that you can dispose of rechargeable batteries in your regular trash. To safely dispose of lithium-ion batteries, protect terminals from exposure to other metal with packing, masking or electrical tape so they do not cause a fire while being transported.

Lithium-ion batteries, however, do contain recyclable materials and are accepted for recycling by the Rechargeable Battery Recycling Corporation's (RBRC) Battery Recycling Program. We encourage you to visit Call2Recycle at call2recycle.org or call 1-800-BATTERY in North America to find a convenient recycling location.

Never dispose of a battery in a fire because it may explode.

WARNING: Do not drop, disassemble, open, crush, bend, deform, puncture, shred, microwave, incinerate or paint the camera or battery. Do not insert foreign objects into the battery opening on the camera. Do not use the camera or the battery if it has been damaged—for example, if cracked, punctured or harmed by water. Disassembling or puncturing the battery can cause an explosion or fire.

MY GOPRO WON'T POWER ON
Make sure your GoPro is charged. To charge your camera, use the included USB cable and a computer. You can also use a charging device manufactured by GoPro (sold separately).

MY GOPRO WON'T RESPOND WHEN I PRESS A BUTTON
Press and hold the **Mode** button for 8 seconds to reset your camera. This reset saves all of your content and settings, and powers off your camera.

MY PLAYBACK IS CHOPPY
Choppy playback is typically not a problem with the file. If your footage skips, one of these situations is likely the cause:

• Using an incompatible video player. Not all video players support the H.264 codec. For best results, download the latest version of Quik for desktop for free at **gopro.com/apps**.

• The computer does not meet the minimum requirements for HD playback. The higher the resolution and frame rate of your video, the harder the computer has to work to play it back. Make sure that your computer meets the minimum requirements for the playback software.

 If your computer does not meet the minimum requirements, record at 720p30 with Protune off, and make sure that all other programs on your computer are closed.

 If your computer does not meet the minimum requirements, record at 720p30 with Protune off, and make sure that all other programs on your computer are closed.

• Playing content directly from your camera over a USB connection. Transfer the file to the computer to play back.

I FORGOT MY CAMERA'S USERNAME OR PASSWORD
See *Resetting the Camera's Name and Password* (page 84).

I DON'T KNOW WHAT SOFTWARE VERSION I HAVE
From the main screen, swipe down. Then tap Preferences > About This GoPro. The Version Number displays the software version that you are running.

I CAN'T FIND MY CAMERA'S SERIAL NUMBER
The camera's serial number is listed in several places:

• In Preferences > About This GoPro

• On the inside of the battery bay (remove the battery to see it)

• On your camera's microSD card (in the version.txt file in the MSC folder)

For more answers to commonly asked questions, see **gopro.com/help**.

/ Customer Support

GoPro is dedicated to providing the best possible service. To reach GoPro Customer Support, visit **gopro.com/help**.

/ Trademarks

GoPro, HERO, Protune, and SuperView are trademarks or registered trademarks of GoPro, Inc. in the U.S. and internationally. Other names and marks are the property of their respective owners.

/ Regulatory Information

To see the complete list of country certifications, refer to the Important Product + Safety Instructions included with your camera or visit **gopro.com/help**.

CE | HDMI