

Regulatory Model Number CPPB1

Join the GoPro Movement



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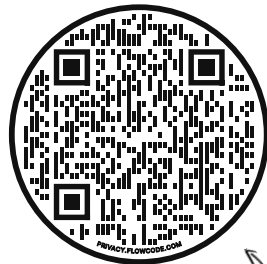
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Check Out the OOB

That's short for "Out-of-Box Experience." It's our mobile-friendly site that will help you get started with your GoPro right out of the box—from set up and recording to automatic highlight videos and saving your media.

gopro.com/OOB

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Meet Regulatory Model Number CPPB1



- 1. Shutter Button 
- 2. Door
- 3. Door Latch
- 4. USB-C Port
- 5. Status Light
- 6. microSD™ Card Slot

- 7. Battery
- 8. Removable Lens
- 9. Heat Sink
(WARNING: To help prevent overheating, the heat sink may get extremely hot when camera is in use.)

Meet Regulatory Model Number CPPB1



- 10. Microphone
- 11. Speaker
- 12. Folding Fingers

- 13. Removable Lens
- 14. Touch Screen
- 15. 1/4-20 Mounting Threads

Learn how to use the accessories that came with your GoPro.
See [Mounting Your GoPro \(page 94\)](#).

Getting Started

SD CARDS

You'll need a microSD card (sold separately) to save your videos and photos. Use a brand-name card that fits these requirements:

- microSD, microSDHC™, or microSDXC™
- Rated Class V30, UHS-3, or higher
- Capacity up to 1TB

For a list of recommended microSD cards, visit gopro.com/microsdcards.

Be sure your hands are clean and dry before handling your SD card. Check the manufacturer's guidelines to see your card's acceptable temperature range and other important information.

Heads Up: SD cards can degrade over time and affect your camera's ability to save your media. Try swapping out an older card for a new one if you're having any problems.

PRO TIP: Keep your SD card in good condition by reformatting it regularly. This will erase all of your media, so be sure to save it first.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Reset > Format SD Card.

To learn how to save your videos and photos, see [Saving Your Media \(starting page 74\)](#).

Getting Started

RECHARGEABLE BATTERY

For maximum performance, be sure to use the battery that came with your new GoPro.

PRO TIP: There's an easy way to check your battery's status and make sure you're using the right one.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > About > Battery Info.



WARNING: Although non-GoPro batteries may fit in your Regulatory Model Number CPPB1, they could greatly limit your camera's performance. Use of non-GoPro batteries will also void your warranty and may cause fire, electric shock, or other safety risks.

For more important information on battery safety and use, see [Battery Information \(page 104\)](#).

Getting Started

SD CARD + BATTERY SETUP

1. Unlock the door latch and flip the door open.



2. With your camera off and battery removed, insert the SD card into the card slot with the label facing the battery compartment.



You can eject the card by pressing it into the slot with your fingernail.

Getting Started

3. Insert the battery.



4. Connect your camera to a USB charger or computer using the included USB-C cable.



It takes about 3 hours for the battery to fully charge. The camera status light will turn off when it's done. To learn more, see [Battery Information \(page 104\)](#).

Getting Started

5. Unplug the cable and shut the door when charging is complete.
Be sure the door latch is closed and locked before using your camera.



NOTE: Your camera's door is removable. Be sure that the door is securely locked and sealed after closing.

Getting Started

UPDATING YOUR CAMERA

You must update your camera before you can use it.

Updating With the GoPro Quik App

1. Download the app to your phone from the Apple® App Store® or Google Play™.
2. Make sure you have Internet access, then turn on your GoPro by pressing the Mode button .
3. Follow the app's on-screen instructions to complete the update.

Updating Manually

1. Visit gopro.com/update.
2. Choose Regulatory Model Number CPPB1 from the list of cameras.
3. Select *Update your camera manually* and follow the instructions.

PRO TIP: The app will check for the latest camera software every time it connects to your GoPro. This helps ensure that you'll always have the latest features and best performance from your GoPro. If new software is available, the app will tell you how to install it.



WARNING: Do not remove your battery or SD card from your GoPro while the update is in progress. Removing your battery or SD card during an update may permanently damage your GoPro.

Get to Know Your GoPro

POWERING ON

Press the Mode button  to turn on your camera.



POWERING OFF

Press and hold the Mode button  for 3 seconds to turn it off.

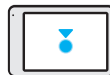


WARNING: Use caution when using your GoPro and its mounts and accessories. Always be aware of your surroundings to avoid injuring yourself and others.

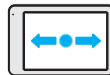
Be sure to follow all local laws including all privacy laws, which may restrict recording in certain areas.

Get to Know Your GoPro

USING THE TOUCH SCREEN



Tap
Select an item to turn it on or off.



Swipe Left or Right
Switch between Video, Photo, and Time Lapse modes.



Swipe Down From the Edge of the Screen
Open the Dashboard when your camera is in landscape orientation.



Swipe Up From the Edge of the Screen
See the last photo or video you captured and access the Media Gallery.



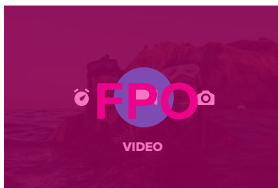
Press and Hold the Capture Screen
Turn on and adjust Exposure Control.

PRO TIP: You can hide your camera's status information and icons on both the front and rear screen by tapping the rear screen. Tap the screen again or press a button to bring it all back.

Get to Know Your GoPro

CAPTURE MODES

Your GoPro has 3 main capture modes.



Using the rear touch screen, swipe left or right to the mode you want.

Video (Default)

Includes a wide variety of resolutions, frame rates, and aspect ratios.

To learn more, see [Recording Video \(page 33\)](#).

Photo

Includes Photo, Burst, and Night Photo presets.

To learn more, see [Taking Photos \(page 38\)](#).

Time Lapse

Includes TimeWarp, Time Lapse, and Night Lapse presets.

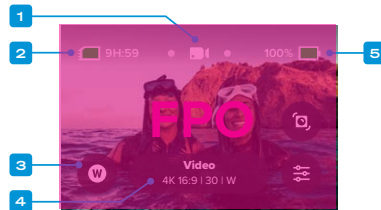
To learn more, see [Capturing Time Lapse \(page 43\)](#).

PRO TIP: With the camera on, you can press the Mode button  to switch modes.

Get to Know Your GoPro

THE TOUCH SCREEN

The rear touch screen gives you access to your camera's capture settings.



1. Current Mode (🌐 indicates that you're in 360 mode)
2. Recording Time/Photos Remaining
3. Customizable On-Screen Shortcuts
4. Capture Settings/Center Button
5. Battery Status

Heads Up: The capture settings are not available when you turn your GoPro to take portrait shots. Be sure to choose the settings you want before rotating your camera.

PRO TIP: Press the Mode button  to quickly jump back to this screen from almost anywhere.

Get to Know Your GoPro

GETTING THE SHOT

1. With your GoPro on, simply press the Shutter button  to start recording.



2. Press the Shutter button  again to stop recording (Video, Time Lapse, and Live Streaming only).

Get to Know Your GoPro

RECORDING WITH QUIKCATURE

QuikCapture is the fastest and easiest way to power on your GoPro and get the shot. All it takes is the push of the Shutter button.

1. With your camera off, press the Shutter button .



2. Press the Shutter button  again to stop recording and turn off your camera.

Heads Up: When using QuikCapture, your camera will start recording with the video settings that you used last.

For more Video options, see [Recording Video \(page 33\)](#).

Turning Off QuikCapture

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

1. Swipe down on the rear screen to access the Dashboard.
2. Tap .

PRO TIP: Since it only turns the camera on when it's recording, QuikCapture is a great way to maximize battery life.

Get to Know Your GoPro

ADDING HIGHLIGHT TAGS

Mark favorite moments in your videos and photos by pressing the Mode button  during recording or playback. This adds a HiLight Tag  that makes those moments easier to find when you're watching your footage, creating a video, or looking for a certain shot.



You can also add HiLight Tags by saying, "GoPro, HiLight" when Voice Control is on and by tapping  when watching your footage with the GoPro Quik app.

PRO TIP: The Quik app looks for HiLight Tags when it creates videos. This helps to ensure that favorite moments are included in your highlight videos.

Get to Know Your GoPro

LOCKING THE SCREEN ORIENTATION

You can easily switch between landscape and portrait shots by rotating your camera. It can even capture photos and videos right-side up when it's mounted upside down.

The orientation is locked in when you press the Shutter button . If your camera tilts during recording, like on a roller coaster, your footage will tilt with it. You'll capture every twist and turn.

You can lock the screen in landscape or portrait orientation. This is especially useful when you're using body and handheld mounts. That's when accidentally shooting in the wrong orientation is most likely to happen.

Swipe down on the rear screen to access the Dashboard.

1. Turn your camera to the orientation you want.
2. Tap  on the Dashboard.

The screen is now locked and will match the orientation of your camera.

Heads Up: Locking the screen in this way will only work when the Orientation is set to All (default) in Preferences.

Setting Landscape Lock

You can also set your GoPro to record only in landscape orientation.

Swipe down on the rear screen to access the Dashboard.

1. Swipe left and tap Preferences > Displays > Orientation.
2. Switch from Auto (default) to Landscape.

Your GoPro will record right-side up whether your camera is right-side up or upside down. You can also lock the orientation on the Dashboard.

Get to Know Your GoPro

NAVIGATING WITH THE BUTTONS

Although your GoPro is waterproof, the touch screen won't work under water. Use the buttons and front screen to swap modes and presets.

1. With the camera on, you can press the Mode button  to switch modes.
2. Hold down the Mode button and press the Shutter button . A menu will appear on the front screen.
3. Press the Mode button to scroll through the presets.
4. Use the Shutter button to select a preset.

Heads Up: The Dashboard and Media Gallery are not available when navigating with the buttons.

Single Lens + 360 Mode

Regulatory Model Number CPPB1 lets you capture standard videos and photos or immersive 360 footage.

SINGLE LENS MODE

Single Lens mode lets you shoot standard videos and photos with either the front (non-touch screen side) or back lens (touch screen side).

1. Tap  to choose the lens you want to use.
2. Press the Shutter button  to start recording.

PRO TIP: Choose Single Lens mode and the back lens to frame and capture awesome selfies.

Single Lens Mode Audio Settings

Single Lens mode features 4 audio settings that let you record stereo sound or use directional audio to prioritize sound from either side of the camera, no matter which lens you're using. Tap (microphone) to choose the best audio for your shot.

You can also set up your GoPro to filter out excessive wind noise.

To learn more, see:

- [Microphones](#)
- [Wind-Noise Reduction](#)

Single Lens + 360 Mode

360 MODE

Use 360 mode to capture amazing spherical footage. View and share it as 360 content or use the the GoPro Quik app to reframe it as standard videos and photos.

1. 360 mode captures everything around you, but you can tap  to choose the lens view that will be shown on the touch screen.
2. Press the Shutter button  to start recording.

360 Mode Audio Settings

360 mode uses all 6 Regulatory Model Number CPPB1 microphones to record amazing audio that's just as immersive as the footage itself. It features 2 audio settings for recording 360 sound or stereo sound. You can also set it up to filter out excessive wind noise.

To learn more, see:

- [360 audio](#)
- [Wind-Noise Reduction](#)

Single Lens + 360 Mode

Tips for Capturing 360 Content

- For the best results, mount your GoPro on an extension pole. When properly mounted, the grip will not appear in your 360 footage.
- Mounting with the extension pole is recommended, but if you're going to take a handheld shot, hold Regulatory Model Number CPPB1 near it's base to minimize how much of your hand gets into your footage.
- Aim one of the lenses directly at your subject. Even through Regulatory Model Number CPPB1 captures everything around you, you'll get better footage if you lock in on your subject.
- Use voice commands, a GoPro remote or the GoPro Quik app to start recording. This will let you start capture remotely so you don't have to move your hand out of the way after pressing the Shutter button.
- Watch your 360 footage on the GoPro Quik app to see your stabilized footage. This will give you the smoothest 360 video possible.
- Use Reframe the GoPro Quik app to turn your 360 content into amazing standard videos and photos. You'll be able to recapture the scene from any angle as many times as you want.

Single Lens + 360 Mode

Horizon Leveling + Horizon Lock

All of your 360 footage can be stabilized during playback using the GoPro Quik app.

- Horizon Leveling keeps the horizon steady for a silky-smooth cinematic footage whether you're getting sideways, flipping through the air, chasing your kids through the park.
- Horizon Lock gives you the ultimate video stabilization. It can change the shakiest shots into rock-steady footage no matter how much your camera twisted, turned, rolled, and flipped during capture.

All of your stabilized footage can be saved as new clips after playback.

Reframing

Reframe your footage with the GoPro Quik app to turn 360 footage into shareable standard videos, change perspectives, play with different capture angles, and get creative. This lets you capture point-of-view footage, selfie shots, and more from the same 360 video. Reframe an epic mountain bike run into an amazing highlight video that captures the run exactly as you saw it while also getting shots of you. Create a video that captures the scene in front of you while also getting your reaction.

Single Lens + 360 Mode

Using Presets + Shortcuts

Each capture mode has presets that make it easy to switch back and forth between the best mode and settings for your shot.

CHANGING PRESETS

1. From the capture screen, tap the center button .
2. Tap the preset that you want from the list. All of the preset's settings will be locked into your camera and ready to go.

CUSTOMIZING PRESETS

You can change the settings in your presets with just a few taps.

1. From the capture screen, tap .
2. Tap the setting that you want to change.
3. Use the slider to scroll through the settings. The on-screen instructions will help explain your options.
For details on settings, see [Tech Specs \(starting page 109\)](#).
4. Scroll down to access the advanced Protune settings.
To learn more, see [Protune \(starting page 124\)](#).
5. Scroll back to the top and tap  to save your changes and return to the presets screen.

Heads Up: You can't delete the preloaded presets, but you can customize them any way you want. You can also create your own custom presets.

To learn more, see [Creating Your Own Presets \(page 30\)](#).

PRO TIP: You can also get to the settings menu by tapping and holding the center button  of the preset that you want to customize.

Using Presets + Shortcuts

RESTORING PRESETS TO THEIR ORIGINAL SETTINGS

Restoring All Presets for a Capture Mode

You can restore all of a capture mode's original preset settings at any time.

1. From the presets screen, tap .
2. Tap  to reset all of the presets back to their original settings.
3. Tap Reset when prompted.

PRO TIP: You can also restore all presets for every mode simultaneously.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Reset > Reset Presets.

Restoring an Individual Preset

You can also restore original settings of individual presets.

1. From the capture screen, tap the center button .
2. Tap the preset that you want to restore from the list.
3. Scroll to the bottom of the settings list and tap  Restore.

Using Presets + Shortcuts

CREATING YOUR OWN PRESETS

The perfect capture settings for a day on the slopes may not be so great when you're recording indoors. Custom presets let you set up and save settings for both shots so you can switch back and forth in no time.

Creating a Preset from Scratch

1. Select the capture mode for your new preset—Video, Photo, or Time Lapse.
2. Tap Create New at the bottom of the list of presets.
3. Tap the settings you'd like to use for your new preset. Tap  when you're finished.
4. Choose an icon and name for your preset.
5. Tap  to save your preset.

Saving Changes to an Existing Preset

1. Go to the capture settings of the preset that you want to modify.
2. Tap the settings to make adjustments to your new preset.
3. Scroll to the bottom of the settings list and tap  Save As .
4. Choose an icon and name for your preset.
5. Tap  to save your preset.

PRO TIP: You may need to fine-tune your presets after trying them out. Tap  to make adjustments.

Using Presets + Shortcuts

DELETING YOUR PRESET

1. Go to your preset's settings.
2. Scroll to the bottom of the settings list and tap  Delete .

HIDING + REORDERING PRESETS

You can manage presets by hiding those you aren't currently using and rearranging your list.

1. From the capture screen, tap the center button  .
2. From the list of presets, tap  in the upper right corner.
3. Tap  next to the preset you want to hide.
4. Tap, hold, and move the presets to reorder them any way you'd like.
5. Tap  to save your changes and return to the presets screen.

Using Presets + Shortcuts

ON-SCREEN SHORTCUTS

On-screen shortcuts give you quick one-tap access to your camera's capture settings. Each mode has its own default shortcuts, but you can change them to the settings that you use most. You can even set up different shortcuts for each preset.

From the Capture Screen

1. From the capture screen, tap and hold the shortcut you want to switch.
2. Scroll through all of the available shortcuts on the right and choose the one you want.

From the Preset Screen

1. Tap the  next to the preset you want to adjust.
2. Scroll down to the On-Screen Shortcuts.
3. Tap where you'd like to put your new shortcut.
4. Scroll through all of the available shortcuts and choose the one you want.

Almost any capture and Protune setting is available as a shortcut.

See [Tech Specs \(starting page 109\)](#) and [Protune \(starting page 124\)](#).

Recording Video

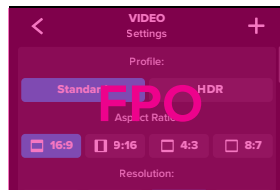
Video mode gives you the flexibility to record in a wide range of resolutions from traditional 1080p video in Single Lens mode all the way up to pro-quality 8K 360 video.

ADJUSTING SETTINGS

You can access the video settings from the capture screen. The settings differ between Single Lens mode and 360 mode.

1. Tap the settings shortcut .
2. Tap the settings that you want for your video.
3. Tap  to save your changes and go back to the capture screen.

Heads Up: Available settings will vary based on the aspect ratio, resolution, and frame rate selected.



To learn more, see:

- [Profile \(page 109\)](#)
- [Aspect Ratio \(Video\) \(page 110\)](#)
- [Video Resolution \(RES\) \(page 111\)](#)
- [Frames per Second \(FPS\) \(page 113\)](#)
- [Digital Lenses \(Video\) \(page 114\)](#)
- [HyperSmooth \(Single Lens Mode Video\) \(page 115\)](#)
- [Horizon Lock \(Single Lens Mode Video\)](#)

Recording Video

CAPTURE SETTINGS

The capture settings are specialized tools that can help you get the perfect shot. You can access them from the capture screen.

1. Tap the settings shortcut .
2. Scroll down to the Capture section.
3. Tap the setting that you want to adjust.
4. Use the slider to make adjustments.
5. Tap  to save your changes.

The video capture settings are:

Duration (Single Lens + 360 Mode)

Choose how long your camera records before automatically stopping.

To learn more, see [Duration Capture \(page 50\)](#).

Scheduled Capture (Single Lens + 360 Mode)

Set your GoPro to automatically turn itself on and start recording.

To learn more, see [Scheduled Capture \(page 53\)](#).

Timer (Single Lens + 360 Mode)

Set up a timer to start recording your video 3 or 10 seconds after you press the Shutter button .

PROTUNE

You can find Protune settings under the Capture settings. Protune gives you manual control of advanced settings, including Color, ISO Limit, Exposure, and microphone settings.

To learn more, see [Protune \(page 124\)](#).

Recording Video

ON-SCREEN SHORTCUTS

The video presets feature different default shortcuts for Single Lens mode and 360 mode. They can be swapped out for any shortcuts you'd prefer.

To learn more, see [Personalizing Your On-Screen Shortcuts \(page 32\)](#).

Digital Lens (Single Lens Mode)

Tap the Digital Lens shortcut to choose the Max SuperView or Max HyperView lens.

Horizon Lock (Single Lens Mode)

Turn on Horizon Lock to give your videos cinematic look of professional productions by keeping the horizon straight and level.

To learn more, see [Horizon Lock / Horizon Leveling \(page 115\)](#).

Timer (360 Mode)

Set up a timer to start recording your video 3 or 10 seconds after you press the Shutter button . This is helpful if you want to move your hand out of the shot before your GoPro starts recording.

Lens Selector (Single Lens + 360 Mode)

Single Lens mode—tap the lens selector to choose the lens that you'll be using for your shot. The view from the selected lens will be shown on your camera's screen.

360 mode—360 video captures everything around you, but you can tap the lens selector to choose which lens view will be shown on your camera's screen.

Recording Video

Settings (Single Lens + 360 Mode)

The Settings shortcut takes you directly to the setting menu, where you'll have access to all of the Single Lens mode video settings and features.

PRO TIP: You can also change your camera settings using the GoPro Quik app.

Taking Photos

Single photo is the default preset for both Single Lens mode and 360 mode. 360 mode also has presets for burst and night photos.

PHOTO PRESETS

Photo (Default—Single Lens + 360 Mode)

Use this preset to capture photos with SuperPhoto image processing.

Burst (360 Mode)

Burst automatically shoots up to 30 photos in 1 second based on lighting conditions.

Night Photo (360 Mode)

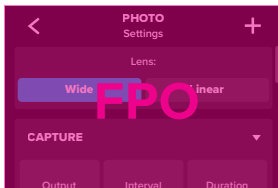
Automatically adjusts your GoPro's shutter speed for dark and low-light shots.

Taking Photos

ADJUSTING SETTINGS

You can access the photo settings from the capture screen. The settings differ between Single Lens mode and 360 mode and the photo mode selected.

1. Tap the settings shortcut .
2. Tap the settings that you want for your video.
3. Tap  to save your changes and go back to the capture screen.



To learn more, see:

- [Output Standard, HDR + Log Video \(page 109\)](#)
- [Digital Lenses \(Photo\) \(page 118\)](#).

Taking Photos

CAPTURE SETTINGS

The capture settings are specialized tools that can help you get the perfect shot. You can access them from the capture screen.

1. Tap the settings shortcut .
2. Scroll down to the Capture section.
3. Tap the setting that you want to adjust.
4. Use the slider to make adjustments.
5. Tap  to save your changes.

The photo capture settings are:

Output (Single Lens Mode)

Set the type of processing for your shot and how the files are saved. Choose Standard, HDR, or RAW Format.

To learn more, see:

- [High Dynamic Range \(HDR\) \(starting page 116\)](#)
- [RAW Format \(Single Lens Mode Photo\) \(page 115\)](#)

Interval (Single Lens + 360 Mode)

Set up Interval Photo and choose how often your GoPro takes a photo—from a 0.5-second to 120-second interval.

To learn more, see [Interval \(Interval Photo\) \(page 117\)](#).

Duration (Single Lens + 360 Mode)

Choose how long your camera automatically captures using its Interval Photo feature before stopping.

To learn more, see [Duration Capture \(page 50\)](#).

Taking Photos

Scheduled Capture (Single Lens + 360 Mode)

Set your GoPro to automatically turn itself on and start recording.

To learn more, see [Scheduled Capture \(page 53\)](#).

Timer (Single Lens + 360 Mode)

Set up a timer to start recording your video 3 or 10 seconds after you press the Shutter button .

Heads Up: The timer for 360 Photo mode is set to 3 seconds by default. This is set up to give you enough time to move your hand out of the shot.

Burst Rate (360 Mode Burst)

Choose how many photos your camera will take in a 1-, 3-, 6-, or 10-second burst.

To learn more, see [Burst Rate \(page 118\)](#).

Shutter (360 Mode Night Photo)

Set how long your camera's shutter stays open for night shots. Choose longer exposures for darker shots.

To learn more, see [Shutter Speed \(page 118\)](#).

PROTUNE

You can find Protune settings under the Capture settings. Protune gives you manual control of advanced settings, including Color, ISO Limit, Exposure, and microphone settings.

To learn more, see [Protune \(starting page 124\)](#).

Taking Photos

ON-SCREEN SHORTCUTS

The photo presets feature different default shortcuts for Single Lens mode and 360 mode. They can be swapped out for any shortcuts you'd prefer.

To learn more, see [Personalizing Your On-Screen Shortcuts \(page 32\)](#).

Digital Lens (Single Lens Mode)

Tap the Digital Lenses shortcut to swap between the SuperView, Wide, and Linear lens.

To learn more, see [Digital Lenses \(Photo\) \(page 118\)](#).

Interval Photo (360 Mode)

Tap this shortcut to set up Interval Photo and choose how often your GoPro takes a photo—from a 0.5-second to 120-second interval.

To learn more, see [Interval \(Interval Photo\) \(page 117\)](#).

Lens Selector (Single Lens + 360 Mode)

Single Lens mode—tap the lens selector to choose the lens that you'll be using for your shot. The view from the selected lens will be shown on your camera's screen.

360 mode—360 photo captures everything around you, but you can tap the lens selector to choose which lens view will be shown on your camera's screen.

Taking Photos

Photo Timer (360 Mode)

Set up a timer to take a photo 3 or 10 seconds after you press the Shutter button . The timer is set to 3 seconds by default. This is set up to give you enough time to move your hand out of the shot.

Settings (Single Lens + 360 Mode)

The Settings shortcut takes you directly to the settings menu where you'll have access to all of the settings and features for the selected preset.

PRO TIP: You can also change your camera settings using the GoPro Quik app.

Capturing Time Lapse

The Time Lapse presets have been set up to make time lapse recording easy whether you're one the move or setting up a great night shot.

TIME LAPSE PRESETS

TimeWarp (Default—Single Lens + 360 Mode)

Lets you capture ultra smooth time lapse footage while you're on the move.

Time Lapse (360 Mode)

Use this preset to capture time lapse video and photos when your camera is mounted and still.

Night Lapse (360 Mode)

Night Lapse was made to capture time lapse video and photos in dark and low-light environments.

Capturing Time Lapse

The Time Lapse presets have been set up to make time lapse recording easy whether you're one the move or setting up a great night shot.

TIME LAPSE PRESETS

TimeWarp (Default—Single Lens + 360 Mode)

Lets you capture ultra smooth time lapse footage while you're on the move.

Time Lapse (360 Mode)

Use this preset to capture time lapse video and photos when your camera is mounted and still.

Night Lapse (360 Mode)

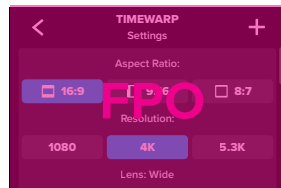
Night Lapse was made to capture time lapse video and photos in dark and low-light environments.

Capturing Time Lapse

ADJUSTING SETTINGS

You can access the time lapse settings from the capture screen. The settings differ between Single Lens mode and 360 mode and the time lapse mode selected.

1. Tap the settings shortcut .
2. Tap the settings that you want for your video.
3. Tap  to save your changes and go back to the capture screen.



To learn more, see:

- [Aspect Ratio \(Video\) \(page 110\)](#)
- [Video Resolution \(RES\) \(page 111\)](#)
- [Digital Lenses \(Photo\) \(page 118\)](#)
- [Format \(360 Mode Time Lapse + Night Lapse\)](#)

Heads Up: All time lapse videos and photos are captured and saved in the standard profile.

Capturing Time Lapse

CAPTURE SETTINGS

The capture settings are specialized tools that can help you get the perfect shot. You can access them from the capture screen.

1. Tap the settings shortcut .
2. Scroll down to the Capture section.
3. Tap the setting that you want to adjust.
4. Use the slider to make adjustments.
5. Tap  to save your changes.

The Time Lapse capture settings are:

Speed (Single Lens + 360 Mode TimeWarp)

Set the speed for your TimeWarp video.

To learn more, see [TimeWarp Video Speed \(page 120\)](#).

Horizon Lock (Single Lens Mode TimeWarp)

Turn on Horizon Lock to give your videos cinematic look of professional productions by keeping the horizon straight and level.

To learn more, see [Horizon Lock / Horizon Leveling \(page 115\)](#).

Duration (Single Lens + 360 Mode)

Choose how long your camera records before automatically stopping.

To learn more, see [Duration Capture \(page 50\)](#).

Scheduled Capture (Single Lens + 360 Mode)

Set your GoPro to automatically turn itself on and start recording.

To learn more, see [Scheduled Capture \(page 53\)](#).

Capturing Time Lapse

Timer (Single Lens + 360 Mode)

Set up a timer to start recording your video 3 or 10 seconds after you press the Shutter button .

Interval (360 Mode Time Lapse)

Choose how often your camera captures a frame of video or takes a photo.

To learn more, see [Time Lapse Interval \(page 121\)](#).

Interval (360 Mode Night Lapse)

Set how often your camera takes a shot in low- and ultra low-light scenes. Choose shorter intervals for scenes with a lot of movement and more light. Use longer intervals in scenes with little or no movement or light.

To learn more, see [Night Lapse Interval \(page 123\)](#).

Shutter (360 Mode Night Lapse)

Set how long your camera's shutter stays open for night shots.

To learn more, see [Shutter Speed \(page 118\)](#).

PROTUNE

You can find Protune settings under the Capture settings. Protune gives you manual control of advanced settings, including white balance, ISO, and more.

Heads Up: Available settings will vary based on the time lapse mode selected.

To learn more, see [Protune \(starting page 124\)](#).

Capturing Time Lapse

ON-SCREEN SHORTCUTS

The time lapse presets feature different default shortcuts for Single Lens mode and 360 mode. They can be swapped out for any shortcuts you'd prefer.

To learn more, see [Personalizing Your On-Screen Shortcuts \(page 32\)](#).

Digital Lens (Single Lens Mode TimeWarp)

Tap the Digital Lenses shortcut to swap between the lens. Available lenses will vary based on the capture mode you're using.

To learn more, see [Digital Lenses \(Photo\) \(page 118\)](#).

Horizon Lock (Single Lens Mode)

Turn on Horizon Lock to give your videos cinematic look of professional productions by keeping the horizon straight and level.

To learn more, see [Horizon Lock / Horizon Leveling \(page 115\)](#).

Lens Selector (Single Lens + 360 Mode)

Single Lens mode—tap the lens selector to choose the lens that you'll be using for your shot. The view from the selected lens will be shown on your camera's screen.

360 mode—360 photo captures everything around you, but you can tap the lens selector to choose which lens view will be shown on your camera's screen.

Capturing Time Lapse

Timer (360 Mode)

Set up a timer to start your time lapse 3 or 10 seconds after you press the Shutter button .

Settings (Single Lens + 360 Mode)

The Settings shortcut takes you directly to setting menu where you'll have access to all of the settings and features for the selected preset.

PRO TIP: You can also change your camera settings using the GoPro Quik app.

Live Streaming + Webcam Mode

SETTING UP A LIVE STREAM

1. Connect to the GoPro Quik app. For details, see [Connecting to the GoPro Quik App](#) (starting page 71).
2. In the app, tap  to control your camera.
3. Tap  and follow the instructions to set up your live stream.

For complete step-by-step instructions, visit gopro.com/live-stream-setup.

USING YOUR GOPRO AS A WEBCAM

Both your GoPro and computer must be set up for webcam mode before you go live. Your camera is in webcam mode by default. Connect your camera to your computer using the included USB-C cable, and then follow the step-by-step setup instructions at gopro.com/webcam.

Regulatory Model Number CPPB1 Power Tools

Your GoPro comes with Power Tools—smart capture settings that extend the capture options beyond simply pressing the shutter button.

INTERVAL PHOTO

Interval Photo makes it easy to capture amazing hands-free shots while you stay immersed in your adventure. Try it when your hands are busy with handlebars, ski poles, tow ropes, and more. You can also attach your camera to a GoPro backpack strap to get a complete series of photos when you're hiking or exploring new locales.

How It Works

Interval Photo snaps photos at fixed intervals while you stay focused on your favorite activities. You can decide how often your GoPro will take a shot—try shorter intervals for quick activities and longer intervals for extended journeys. Later, you can go through the entire series of photos and keep them all or save only the best shots.

Setting Up + Using Interval Photo

1. With your GoPro in Photo mode, tap the  Interval Photo shortcut.
2. Set how often you want your GoPro to take a photo.
3. Press the Shutter button  to start capturing photos. Your GoPro will continue to take photos until you press the Shutter button again to stop.

Regulatory Model Number CPPB1 Power Tools

DURATION CAPTURE

Use duration capture to set how long your GoPro records before it stops. It's available in Video, TimeWarp, Time Lapse, and Night Lapse modes in increments from 15 seconds to 3 hours.

Setting Up + Using Duration Capture

1. Tap the settings shortcut  to go to the settings menu.
2. Tap Duration.
3. Use the slider to choose the duration for your shot.
4. Press the Shutter button  to start recording. Your GoPro will automatically stop after recording for the set duration.

Heads Up: Duration capture sets how long your GoPro will record. The length of your final video will vary based on the mode you're using. TimeWarp and time lapse videos will be shorter than the set duration.

PRO TIP: Choose No Limit to capture footage without a time limit. Press the Shutter button  to stop recording.

Regulatory Model Number CPPB1 Power Tools

SCHEDULED CAPTURE

Scheduled capture lets you set your GoPro to automatically turn itself on and capture a shot up to 24 hours in advance. It's available for all presets.

Setting Up and Using Scheduled Capture

1. Tap the settings shortcut  to go to the settings menu.
2. Tap Scheduled Capture.
3. Set when you want your GoPro to capture the shot.
4. After setting the time, you can turn your GoPro off or continue using your camera's other presets.

Heads Up: Your GoPro will stay on after taking the shot. It will turn itself off after idling for the length of time set in Preferences.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > General > Auto Power Off.

PRO TIP: Use duration capture to choose the shot length when using scheduled capture. Your camera will automatically stop recording after it gets the shot. You'll have to press the Shutter button  to stop recording if you're not using duration capture.

Exposure Control

Your GoPro scans the entire scene to choose the exposure level for your shot. Exposure Control lets you decide if only a section of the shot should be used to set the exposure.

Check out the shot preview on your touch screen. Try Exposure Control if there are sections that are too dark or too light.

SETTING EXPOSURE CONTROL

If you're snowboarding on a sunny day, you might try locking the exposure on your subject's jacket. This will help prevent your shots from being underexposed (too dark) compared to the bright snow.

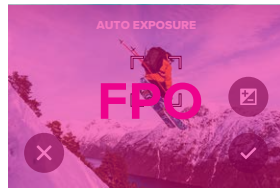
1. Tap and hold anywhere on the touch screen until a set of brackets appears. The exposure will be based on area in the brackets.



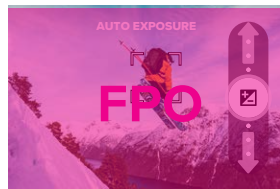
PRO TIP: Tapping and holding the center of the screen will bring up the Spot Meter. This will base the exposure on the center of the screen.

Exposure Control

2. You can change the exposure by dragging the brackets to any other area of the screen.



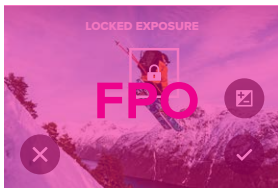
3. Brightness can be fine tuned by tapping . This lets you adjust the Exposure Value Compensation (EV Comp).



Slide up to brighten the image. Slide down to darken it. You can adjust up to 2 stops in either direction.

Exposure Control

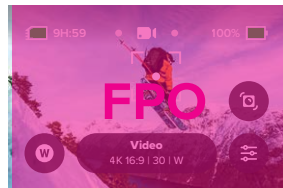
4. Check the screen to see if the exposure looks good. Tap  inside the brackets to lock in the exposure. You can also tap  to cancel any changes.



Exposure Control

TURNING EXPOSURE CONTROL OFF

Tapping the brackets on the capture screen will turn Exposure Control off and reset your camera to full-screen auto exposure.



Heads Up: If the EV Comp was adjusted during Exposure Control, it will return to its default setting when Exposure Control is turned off. For details, see [Exposure Value Compensation \(EV Comp\)](#) (page 129).

Exposure Control

SINGLE LENS EXPOSURE

In 360 mode, your camera will use the full scene (both lenses) to set the exposure. You can, however, set your camera to use only one lens for the exposure. This is especially useful when one lens is blocked or capturing a scene that is significantly darker than the other lens.

1. In 360 mode, tap the settings shortcut  to go to the settings menu.
2. Scroll down to Protune.
3. Tap Single Lens Exposure and use the slider to turn it on.
4. Use the lens selector shortcut  to choose the lens you want to use to set the exposure. The lens view shown on the touch screen will be used. The opposite lens will not be exposed.

Exposure Control

Using Voice Control

Voice Control gives you easy, hands-free control of your GoPro. It's great when you're busy with handlebars, ski poles, and more. Just tell your GoPro what you want it to do.

TURNING VOICE CONTROL ON + OFF

- 1. Swipe down on the rear screen to access the Dashboard.
- 2. Tap  to turn Voice Control on or off.

CAPTURING WITH VOICE CONTROL

With Voice Control on, you can simply tell your GoPro to start capturing.

Command	Description
GoPro, capture	Starts capturing with the mode your camera is set to.
GoPro, stop capture	Stops capture in Video and Time Lapse modes. Photo and Burst modes stop on their own.

PRO TIP: Saying "GoPro, capture" and "GoPro, stop capture" is the hands-free way of pressing the Shutter button . They will start and stop capture using the mode and settings you currently have on your camera.

Using Voice Control

LIST OF VOICE COMMANDS

There are 2 types of voice commands: Action commands and Mode commands.

Using Action Commands

These commands let you switch modes on the fly. If you just recorded a video, you can say, "GoPro, take a photo" to snap a photo without manually switching modes.

Action Command	Description
GoPro, start recording	Starts recording video.
GoPro, HiLight	Adds a HiLight Tag to your video during recording.
GoPro, stop recording	Stops recording video.
GoPro, take a photo	Takes a single photo.
GoPro, shoot burst	Takes burst photos.
GoPro, start time lapse	Starts capturing with the last time lapse mode you used.
GoPro, stop time lapse	Stops capturing time lapse.
GoPro, turn off	Turns your camera off.

Using Voice Control

Using Mode Commands

Use these commands to switch capture modes on the go. Then say, “GoPro, capture” or press the Shutter button  to get the shot.

Mode Command	Description
GoPro, Video mode	Switches your camera to Video mode (does not start recording).
GoPro, Photo mode	Switches your camera to Photo mode (does not take a photo).
GoPro, Time Lapse mode	Switches your camera to Time Lapse photo mode (does not start taking time lapse photos).

PRO TIP: If you’re recording video or time lapse, you must stop recording by pressing the Shutter button  or by saying, “GoPro, stop capture” before trying a new command.

Using Voice Control

SEE A COMPLETE LIST OF COMMANDS ON YOUR CAMERA

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Voice Control > Commands.

CHANGING YOUR VOICE CONTROL LANGUAGE

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Voice Control > Language.

Heads Up: Voice Control may be affected by wind, noise, and your distance from the camera. Keep your camera clean and wipe away any debris for the best performance.

Video Encoding

Your GoPro features a variety of encoding options based on how you use your media.

BIT RATE

Bit rate determines the amount of data used to record a second of video. Choose between standard or high.

- 1. Swipe down on the rear screen to access the Dashboard.
- 2. Swipe left and tap Preferences > Video > Bit Rate.

Bit Rate	Description
Standard (default)	Use a lower bit rate to minimize file sizes.
High	Use higher bit rates up to 120Mbps (5.3K and 4K video) for optimal image quality.

Video Encoding

BIT DEPTH

Choose between capturing 8-bit or 10-bit video. Capable of displaying over 1 billion colors, 10-bit color delivers enhanced color depth, smoother gradations and more realism in your videos, while 8-bit offers smaller file sizes.

- 1. Swipe down on the rear screen to access the Dashboard.
- 2. Swipe left and tap Preferences > Video > Bit Depth.

Bit Depth	Description
8-Bit (default)	Uses 8-bit HEVC encoding on all videos.
10-Bit	Uses 10-bit HEVC encoding on all videos 4K and higher for more post-production flexibility and color depth. All videos under 4K will use 8-bit encoding. Also enables Log Profile with the GP-Log color profile.

Heads Up: Be sure that your devices are capable of playing back 10-bit HEVC content before using this setting. 10-bit encoding is not available for 9:16 aspect ratio footage.

Pairing Your GoPro to Other Devices

BLUETOOTH® CONNECTIVITY

Your GoPro can be paired with a wide variety of Bluetooth devices to help you get the shot you want or enhance your recording. This can include the GoPro Quik app, GoPro remote controls, wireless external microphones, and wireless earbuds that let your GoPro hear your voice commands when it's mounted out of earshot.

Pairing Bluetooth Devices

Make sure that your device is in pairing mode, and then follow these steps on your GoPro:

1. Swipe down on the rear screen to access the Dashboard, and then swipe left to add devices.
2. Tap **+** Add Devices. You GoPro will automatically start searching for compatible devices.
Heads Up: Any currently connected devices will also be shown on this tile. Tap the tile to see a list of paired devices or add a new one.
3. Your GoPro will find all available devices. Tap the one you want to pair.

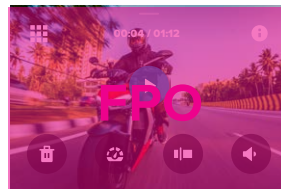
After pairing the first time, your GoPro and the device will wirelessly connect automatically when both are on with Bluetooth on.

Heads Up: Your GoPro's Wireless Connections must be on to pair devices. Follow these steps to turn them on if needed:

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Connections > Wireless Connections.

Playing Back Your Media

Swipe up to see the last video, photo, or burst you took. Swipe left and right to flip through the other files on your SD card.



The Media Gallery includes the following playback options:

-  Pause playback
-  Resume playback
-  See all of the media on your SD card
-  See all of the modes and setting used to capture the shot
-  Delete the file from your SD card
-  Play back in slow motion or normal speed
-  Use a slider to scan through your videos, bursts, and time lapse photos

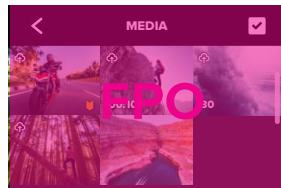
Playing Back Your Media

-  Add/remove HiLight Tag
-  Adjust the playback volume
-  Go to the previous or next photo in a burst or group of continuous photos

Heads Up: The playback options will vary based on the type of media you're viewing.

PRO TIP: Some playback options are not available when you're holding your camera in portrait orientation. Make adjustments to those settings in landscape orientation before rotating your camera.

Playing Back Your Media



USING GALLERY VIEW

Gallery view gives you quick access to all of the videos and photos stored on your SD card.

1. From the playback screen, tap .
2. Swipe up to scroll through your media.
3. Tap a video or photo to see it in full-screen view.
4. Tap  to select files.
5. Tap  to go back to the playback screen.

Heads Up: Gallery view is not available when you're holding your camera in portrait orientation. Also, the more content you have on your SD card, the longer it will take to load.

Playing Back Your Media

DELETING MULTIPLE FILES

1. Tap .
2. Tap all of the files that you want to delete. Tap a file again if you want to de-select it.
3. Tap  to delete the selected files.

VIEWING VIDEOS + PHOTOS ON A MOBILE DEVICE

1. Connect your camera to the GoPro Quik app. For details, see [Connecting to the GoPro Quik App \(starting page 71\)](#).
2. Use the controls on the app to play back, edit, and share your videos and photos.

VIEWING VIDEOS + PHOTOS ON A COMPUTER

To see your media on a computer, you must first save the files to the computer. To learn more, see [Saving Your Media \(starting page 74\)](#).

PRO TIP: Use the GoPro Quik app to grab still photos from videos, create short shareable videos from full-length footage, save media to your phone, and more.

Connecting to the GoPro Quik App

Use the GoPro Quik app to control your GoPro, edit and share videos and photos on the go, grab stills from your videos, and automatically transform your footage into awesome video stories synced with effects and music.

CONNECTING FOR THE FIRST TIME

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

CONNECTING AFTER THE FIRST TIME

After the initial connection, your GoPro and the app should sync when you tap  on the app screen.

You can manually reconnect with the app if needed.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Connections > Wireless Connections.
3. Follow the on-screen instructions in the GoPro Quik app to connect.

Connecting to the GoPro Quik App

SETTING THE CONNECTION SPEED

Your GoPro is set to use the 5GHz Wi-Fi band (the fastest available) when connecting to other mobile devices.

Change the Wi-Fi band to 2.4GHz if your device or region does not support 5GHz.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Connections > Wi-Fi Band.

Automatic Highlight Videos

GET AMAZING HIGHLIGHT VIDEOS SENT TO YOUR PHONE

Have highlight videos of your adventures sent to your phone automatically. All you have to do is subscribe to GoPro and connect your camera to your Wi-Fi network.

1. Subscribe to GoPro at gopro.com/subscription.
2. Set up your GoPro to automatically upload your footage to the cloud. For details, see [Auto Upload \(page 84\)](#).
3. Follow the app's onscreen instructions to complete the setup.
Heads Up: iOS users, be sure to allow notifications so that you'll know when a new highlight video is ready.

Once set up, simply plug in your GoPro to charge while it's connected to your home Wi-Fi network. While it's charging, your footage will be automatically uploaded to the cloud and used to create highlight videos complete with beat-synced music and effects. You'll get a notification on your phone letting you know when your video is ready to watch and share.

FINDING THE BEST SHOTS

Be sure to mark your best shots with HiLight Tags. The GoPro Quik app looks for tags when it creates videos. This helps ensure that favorite moments are included in your stories.

Your GoPro also knows when you face the camera, smile, and more. It automatically tags these shots with data so the app can handpick them for your videos.

To learn more, see [Adding HiLight Tags \(page 6\)](#).

Saving Your Media

AUTO UPLOADING TO THE CLOUD

With a GoPro subscription, you can automatically upload your media to the cloud where you can view, edit, and share it from any device.

1. Subscribe to GoPro at gopro.com/subscribe or through the GoPro Quik app.
2. Connect your camera to the GoPro Quik app. For details, see [Connecting to the GoPro Quik App \(starting page 71\)](#).
3. Tap  on the camera chooser screen.
4. Connect your camera to a power outlet. The upload will start automatically.

After first-time setup, your camera won't need to connect to the app to start Auto Upload.

Heads Up: Your original files remain on your camera even after they've been backed up to the cloud.

SWITCHING TO MANUAL CLOUD UPLOAD

You can also manually upload your media to the cloud at any time. (Your GoPro must be connected to a power outlet, and Auto Upload must be off.)

1. Connect your camera to a power outlet.
2. Swipe down to access the Dashboard.
3. Swipe right and tap Cloud Upload.

Saving Your Media

ACCESSING YOUR CLOUD MEDIA

1. Open the GoPro Quik app on your device.
2. Tap  and select Cloud to view, edit, and share your content.

PRO TIP: Use your cloud media to create video stories with the GoPro Quik app. Simply choose Cloud Media when you start a new story.

TURNING OFF AUTO UPLOAD

You can keep your camera from trying to upload every time it's connected to a power outlet and fully charged.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Connections > GoPro Subscription > Auto Upload.
3. Tap Off.

CHANGING YOUR GOPRO SUBSCRIPTION PREFERENCES

Manage your Auto Upload settings, set up your wireless network, and more.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Connections > GoPro Subscription.

Heads Up: GoPro Subscription will be available in your Preferences after you've signed up.

Saving Your Media

SAVING TO YOUR PHONE WITH A WIRED CONNECTION

Use a wired connection to transfer photos and videos from your GoPro to your phone faster and more reliably.

1. Use the appropriate cable/adaptor (not included) to connect your GoPro to your phone.
2. Start the GoPro Quik app on your phone and follow the on-screen instructions.

Phone	Require Cable or Adapter
Android	Standard USB-C to USB-C
iOS® device with USB-C port	Standard USB-C to USB-C
iOS® device with Lightning port	Standard USB-A to USB-C and Apple® Lightning to USB Camera Adapter

Saving Your Media

SAVING TO A COMPUTER

Copy your media from your SD card to a computer for playback and editing.

1. Remove the SD card from your camera.
2. Insert the card into an SD card reader or adapter.
3. Plug the card reader into your computer's USB port, or insert the adapter into the SD card slot.
4. Copy the files to your computer.

PRO TIP: Low-resolution video (LRV) and thumbnail (THM) files are hidden from view. These files are accessible on Mac® or Windows®.

Mac: Open the folder with the video files and press Command + Shift + . (dot). **Windows:** From the Windows File Explorer, select View > Show > Hidden Items.

Deleting Your Media

AUTO CLEAR (DELETING MEDIA AUTOMATICALLY)

Your camera can be set to automatically delete all of the media from your camera's SD card once it has been safely uploaded to the cloud. This ensures that there's room on your SD card for new photos and videos the next time you use your GoPro.

Auto Upload will also recognize any new photos and videos on your SD card the next time your camera is plugged in for cloud backup. Only the new files will be saved to the cloud and deleted from your SD card.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Auto Upload > Auto Clear.

MANAGE SD CARD (DELETING MEDIA MANUALLY)

This gives you several options for manually deleting media on your SD card. Options are based on whether or not your media has been uploaded and saved to the cloud.

- Delete only the media that has been uploaded and saved to the GoPro cloud, while keeping anything that has not been uploaded.
- Delete all media from your SD card, whether it has been uploaded and save to the GoPro cloud or not.
- Delete the other data on your SD card.

Deleting Your Media

Your GoPro will always verify whether or not you want to delete the media before it permanently deletes it from your SD card.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Manage SD Card.

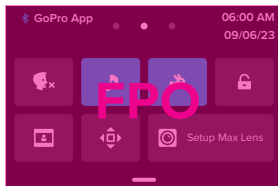
DELETING INDIVIDUAL FILES

You can delete individual files or selected files in the Media Gallery. For details, see [Playing Back Your Media \(starting page 67\)](#).

Setting Your Preferences

USING THE DASHBOARD

With your camera in landscape orientation, swipe down on the rear screen to access the Dashboard.



Dashboard Features

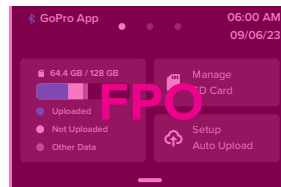
The Dashboard lets you quickly tap the following settings on and off:

- | | | | |
|--|---------------|---|-------------------------------------|
|  | Voice Control |  | Orientation Lock |
|  | Camera Beeps |  | Camera Mode
(Single Lens or 360) |
|  | QuikCapture | | |
|  | Screen Lock | | |

Setting Your Preferences

SD CARD STATUS

With your camera in landscape orientation, swipe down on the rear screen to access the Dashboard, and then swipe right to access your SD card status. From this screen you can manage SD card storage and set up cloud upload with a GoPro subscription.



SD Card Storage

The tile on the left shows your SD card capacity.

- The blue bar shows the amount of media on your SD card that has been uploaded and saved to the GoPro cloud.
- The white bar shows the amount of media on your SD card that hasn't been uploaded to the GoPro cloud.
- The gray bar represents any other data on your SD card that your GoPro doesn't use and recognize (this data is not backed up to the GoPro cloud).

Setting Your Preferences

Manage SD Card

This tile gives you several options for manually deleting files on your SD card. For details, see [Manage SD Card \(page 78\)](#).

Start Upload

Tap here to back up your media to the cloud with a GoPro subscription. There are 3 options available based on your camera's upload and connection status.

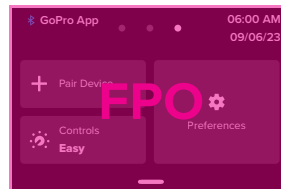
- Setup Auto Upload: Cloud upload has not been set up. Tap to set up cloud upload for your media.
- Start Upload: There is media on your SD card that has not been uploaded. Tap to start uploading your media manually.
- Cloud Upload (in gray): There is no media to upload or your camera is not connected to a network.

For information on uploading to the cloud, see [Auto Upload \(page 84\)](#).

Setting Your Preferences

DEVICES, CONTROLS + PREFERENCES

With your camera in landscape orientation swipe down on the rear screen to access the Dashboard, and then swipe left to add devices, change controls, and access preferences.



Pair Device

Tap to pair new devices with your GoPro. For details, see [Bluetooth Connectivity \(page 66\)](#).

Add Network

Tap to connect your GoPro to a new Wi-Fi network, connect to a different network, or delete a connection.

Preferences

Tap to set up your GoPro exactly the way you want it.

Setting Your Preferences

SET UP AUTO UPLOAD

Auto Upload

Set up and turn on auto upload to the cloud with your GoPro subscription.

Start Upload

Lets you start uploading media to the cloud immediately.

Auto Clear

Automatically clears all media from your SD card after it's been uploaded to the cloud.

WIRELESS CONNECTIONS

Connections

Turn your camera's wireless connections on and off.

Camera Info

See your camera's name and password.

Wi-Fi Band

Choose 5GHz or 2.4GHz as your connection speed. Set 5GHz only if your phone and region support it.

To learn more, see [Setting the Connection Speed \(page 72\)](#).

Reset Connections

Clear all connections to your devices and reset your camera's password. This means you'll have to reconnect each device.

Setting Your Preferences

GENERAL

Beep Volume

Choose High (default), Med, Low, or Mute. The volume you set here can be toggled on or off using the Dashboard.

QuikCapture Default

Choose the video mode your GoPro captures with (Single Lens or 360) when you use QuikCapture.

Default Preset

Set the preset your GoPro captures in when you turn it on using the Mode button . This setting does not affect QuikCapture.

Auto Power Off

Choose 1, 5 (default), 15, or 30 Min, or Never.

LEDs

Set which status lights blink. Choose All On (default), All Off, or Front Off Only.

360 Photo File Extension

Choose whether to save your 360 videos as .36P files (default, compatible with GoPro apps for the better viewing and editing) or .JPG files (not compatible with GoPro apps).

Setting Your Preferences

VIDEO

Bit Rate

Choose Standard to minimize file sizes or High for better image quality, but increased file sizes.

Bit Depth

Choose 10-Bit to use 10-bit HEVC encoding on all videos 4K and higher for more post production flexibility and color depth, while using 8-bit encoding on videos under 4K. Choose 8-Bit to use 8-bit HEVC encoding on all videos.

Anti-Flicker

Choose the regional frame rate for recording and playback on a TV. The right format for your region will help prevent flicker on a TV/HDTV. 60Hz (NTSC) regions include North America, Japan, Taiwan, the Philippines, and parts of South America. 50Hz (PAL) regions include most of Europe and Africa, China, Australia, and India. Be sure check your region to see which setting to use.

VOICE CONTROL

Turn Voice Control on and off. It can also be toggled on or off using the Dashboard.

Language

Choose your Voice Control language.

Commands

See a complete list of voice commands.

To learn more, see [Using Voice Control \(page 60\)](#).

Setting Your Preferences

DISPLAYS

Orientation

Keeps your screen right-side up when you rotate your camera.

To learn more, see [Locking the Screen Orientation \(page 21\)](#).

Screen Saver

Set the rear screen saver to 1, 2 (default), 3, or 5 minutes. Choose Never to leave your screen on.

Heads Up: The camera buttons and Voice Control still work even when the screen is off.

Brightness

Use the slider to adjust your screen's brightness.

Rear Screen Grid

Use a grid on the rear touch screen to frame your shot.

LANGUAGE

Choose the language that appears on the camera.

Setting Your Preferences

DATE + TIME

Use to manually adjust the time and date. Both are automatically updated when you connect your camera to the GoPro app.

Date Format

This is set automatically based on the language that you chose at setup. You can also change it manually here.

Time Zone

Set your camera's time zone.

Daylight Savings Time

Turn daylight savings time on if you are in a region that is currently observing daylight savings time. Your camera's clock will set itself one hour ahead. Turn daylight savings time off when daylight savings time is over to return to standard time.

Setting Your Preferences

ABOUT

GoPro Updates

Update your camera's software to ensure you have the latest features and performance upgrades.

Camera Info

Find your camera's name and serial number, and see which software version your camera is using.

Battery Info

Check your battery's health here. Be sure to use a GoPro Enduro Battery. Using an older GoPro battery or non-GoPro battery could greatly limit your camera's performance.

REGULATORY

See your GoPro's certifications.

RESET

Format SD Card

Reformat your SD card. This will erase all of your media, so be sure to save it first.

Reset Presets

Reset the preloaded presets to their original settings and delete all custom presets.

Reset Camera Tips

See all of the camera tips from the beginning.

Factory Reset

Restore all of your camera's settings and clear all connections.

Important Messages

Problems are rare, but your GoPro will let you know if anything comes up. Here are some of the messages you might see.



CAMERA IS TOO HOT

The Temperature icon appears on the touch screen if your camera becomes too hot and needs to cool down. Your camera was designed to recognize when it's at risk of hitting its thermal limit and will shut down when needed. Simply let it sit and cool before using it again.

Heads Up: The operating ambient temperature range of your Regulatory Model Number CPPB1 is 14° F ~ 95° F (-10° C ~ 35° C) with a charging temperature of 32° F ~ 95° F (0° C ~ 35° C). High temperatures will cause your camera to use more power and drain the battery faster.

PRO TIP: Shooting video at a high resolution and frame rate will also cause your camera to heat up faster, especially in hot environments. Try switching to a lower resolution and frame rate to lower the risk of your GoPro getting too hot.

SD CARD ERROR

Your GoPro can detect a variety of problems with your SD card. Problems can be due to, but not limited to, electrostatic discharge. Restart your camera if this occurs. It will automatically try to repair any damaged files and restore your camera back to full function.

Important Messages



REPAIRING YOUR FILE

Your GoPro will automatically try to fix damaged files. Files can be damaged if your camera loses power while recording or if there's a problem saving the file. The File Repair icon will appear on the touch screen when a repair is in progress. Your camera will let you know when it's finished and if the file was fixed.

MEMORY CARD FULL

Your camera will let you know when your SD card is full. You'll need to move or delete some files if you want to keep recording.

SD CARD RATING

Your camera needs an SD card rated V30, UHS-3, or higher to operate at its best. It will let you know if your card is rated below V30/UHS-3 or if your card has degraded over time and can no longer perform up to its standards.

BATTERY LOW, POWERING OFF

A low-battery message will appear on the touch screen when the battery charge drops below 10%. If the charge runs out while recording video, your camera will stop recording, save the video, and turn itself off.

Resetting Your Camera

RESTARTING YOUR GOPRO

If your camera is not responding, press and hold the Mode button  for 10 seconds. This will restart your camera. There will be no changes to your settings.

RESTORE PRESETS TO THE DEFAULTS

This will reset all of your camera's original preset settings to the defaults.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Reset > Reset Presets.

Heads Up: Restoring your camera's original preset settings to their defaults will delete your custom presets.

RESETTING CONNECTIONS

This will clear your device connections and reset your camera's password. Resetting connections means you'll have to reconnect all of your devices.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Connections > Reset Connections.

RESETTING THE CAMERA TIPS

Want to see the camera tips again? Here's how to see them all from the beginning.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Reset > Reset Camera Tips.

Resetting Your Camera

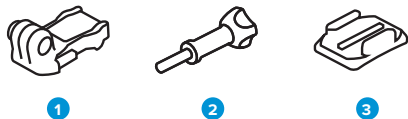
RESTORING FACTORY SETTINGS

This will restore all of your camera's original settings, clear all device connections, and deregister your camera from your GoPro subscription. This is useful if you're giving your camera to a friend and want to completely reset it to its original state.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Reset > Factory Reset.

Heads Up: Restoring the factory settings will not delete any content from your SD card or have any effect on your camera's software.

Mounting Your GoPro



MOUNTING HARDWARE

1. Mounting Buckle
2. Thumb Screw
3. Curved Adhesive Mount

Mounting Your GoPro

USING THE MOUNTING FINGERS

Depending on the mount you're using, you'll either use a mounting buckle or attach your GoPro directly to the mount itself.

See [Using the Adhesive Mounts \(page 97\)](#) for tips on using adhesive mounts.

1. Flip the folding fingers down into the mounting position.
2. Interlock the folding fingers on your camera with the mounting fingers on the buckle.
3. Secure your camera to the mounting buckle with a thumb screw.



Mounting Your GoPro

4. Attach the mounting buckle to the mount.
 - a. Flip up the mounting buckle plug.
 - b. Slide the buckle into the mount until it clicks into place.
 - c. Press the plug back down so that it sits flush with the buckle.



USING 1/4-20 MOUNTS

In addition to the mounting fingers, your GoPro has 1/4-20 mounting threads. This makes it compatible with most standard camera mounts and accessories.



WARNING: Your GoPro could become loose or be dislodged when used with 1/4-20 mounts under extreme conditions. Use the mounting fingers for more secure mounting in extreme conditions.

Mounting Your GoPro

USING THE ADHESIVE MOUNTS

Follow these guidelines when attaching adhesive mounts to helmets, vehicles, and gear:

- Attach mounts at least 24 hours before you use them.
- Only attach the mounts to smooth surfaces. They won't stick properly to porous or textured surfaces.
- Firmly press mounts into place. Be sure the adhesive is in full contact with the surface.
- Only use on clean, dry surfaces. Wax, oil, dirt, or other debris will weaken the bond, and you could lose your camera.
- Attach mounts in dry, room-temperature conditions. They won't stick properly in cold or damp environments or on cold or damp surfaces.
- Check state and local regulations and laws to ensure that attaching a camera to equipment (such as hunting gear) is permitted. Always comply with regulations that restrict the use of consumer electronics or cameras.



WARNING: To avoid injury, do not use a tether when mounting your camera on a helmet. Do not mount the camera directly on skis or snowboards.

For more information about mounts, visit gopro.com.

Mounting Your GoPro



WARNING: Always use a helmet that meets applicable safety standards if you're using a GoPro helmet mount or strap.

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

Replace any helmet that's been subjected to a major impact. No helmet can protect against injury in every accident. Be safe.

USING YOUR GOPRO IN + AROUND WATER

Though it is not designed for use in water, Regulatory Model Number CPPB1 is waterproof to 16ft (5m) with the door locked. You won't need an additional housing to capture surf footage or any other shots on the water.

The touch screen was designed to work when wet, but you may need to wipe it off if it has trouble sensing your commands. Although it will not work under water, you can use the camera's buttons to navigate the menus when you're submerged.

To learn more, see [Navigating with the Buttons](#) (page 22).

Replacing the Lenses

The Regulatory Model Number CPPB1 lenses are designed to be easily replaced if they are scratched or damaged. Be sure to use authentic GoPro Regulatory Model Number CPPB1 Replacement Lenses to ensure a proper fit.

NOTE: Only remove the lens in a dry, dust-free environment. The camera is not waterproof when the lens has been removed.

REMOVING THE LENSES

1. Gently, but firmly press the rubber ring around the lens toward the body of the camera.
2. Turn the lens one quarter turn counter-clockwise.
3. Carefully remove the lens.



Replacing the Lenses

ATTACHING THE NEW LENSES

1. Carefully put the new lens in place. Make sure that the camera's mounting pace is properly lined up with the slots on the back of the lens' mounting plate.
2. Press and rotate the lens one quarter turn in the clockwise direction until it is locked in place. Make sure that the lens is properly installed and sealed before using your camera.



Removing the Door

There might be times when you need to remove your camera's door.

NOTE: Only remove the door in a dry, dust-free environment. The camera is not waterproof when the door is open or removed.

REMOVING THE DOOR

1. Unlock the latch, and then flip the door open.
2. With the door in a horizontal position, gently pull outward until it snaps off.



WARNING: Avoid using your GoPro with the door off. The battery could slide out during use.

Removing the Door

REATTACHING THE DOOR

1. Line the door up with the small silver bar.
2. Press the door tightly into the small silver bar until it snaps into place and is securely attached.



WARNING: Your camera's door is removable. Be sure that the door is securely locked and sealed after closing.

Maintenance

Follow these tips to get the best performance from your camera:

- Your GoPro is waterproof to 33ft (10m)—no housing needed. Be sure the door is closed before using it in or around water, dirt, or sand.
- Before closing the door, be sure the seal is free of debris. Use a cloth to clean the seal if needed.
- Make sure your GoPro is dry and clean before opening the door. Rinse your camera with fresh water and dry it with a cloth if needed.
- If sand or debris hardens around the door, soak your camera in warm tap water for 15 minutes and then rinse thoroughly to remove the debris. Make sure your camera is dry before opening the door.
- For the best audio performance, shake your camera or blow on the mic to remove water and debris from the microphone holes. Do not use compressed air to blow into the mic holes. This could damage the internal waterproof membranes.
- After every use in salt water, rinse your camera with fresh water, and dry it with a soft cloth.
- The lens cover is made from extremely tough strengthened glass, but it can still be scratched or cracked. Keep it clean with a soft, lint-free cloth.
- If debris gets stuck between the lens and trim ring, flush it out with water or air. Do not insert foreign objects around the lens.

Battery Information

MAXIMIZING BATTERY LIFE

Here are some things you can do to maximize battery life:

- Capture video at lower frame rates and resolutions.
- Use the Screensaver and lower the screen Brightness.
- Turn off the front screen.
- Turn off Wireless Connections.
- Use these settings:
 - [Recording with QuikCapture \(page 19\)](#)
 - [Auto Power Off \(page 85\)](#)

RECORDING WHEN PLUGGED INTO A POWER SOURCE

You can use the USB-C cable that came with your camera to shoot videos and photos while your camera is plugged in to a USB-charging adapter, the GoPro Supercharger, or other external power source. This is perfect for capturing long videos and time lapse events.

Be careful not to touch the area near the SD card slot when recording. Disturbing the SD card could interrupt or stop the recording. Your camera will let you know if this happens. Your content will not be damaged or lost as a result of this disturbance, but you may need to restart your camera to continue.

Even though your camera is charging, the battery will not charge during recording. It will start charging when you stop recording. You cannot record while your camera is plugged into a computer.

Battery Information

Heads Up: Because the door is open, your camera is not waterproof when charging.

PRO TIP: Use the USB Pass-Through Door (sold separately) to keep your camera weather resistant and the battery in place when plugged into an external power source.



WARNING: Using a non-GoPro wall charger or power cable could damage your camera battery and could lead to fire or leakage. With the exception of the GoPro Supercharger (sold separately), only use chargers marked Output 5V 1A. If you don't know your charger's voltage and current, use the included USB-C cable to charge your camera with a computer.

BATTERY STORAGE + HANDLING

Your GoPro is full of sensitive components, including the battery. Avoid exposing your camera to very hot or cold temperatures. Extreme temperatures may temporarily shorten battery life or cause your camera to temporarily stop working properly. Avoid dramatic temperature or humidity changes as condensation may form on or within the camera.

Do not dry your camera with an external heat source such as a microwave oven or a hair dryer. Damage to the camera or battery caused by contact with liquid inside the camera is not covered under the warranty.

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

Battery Information

Do not make any unauthorized alterations to your camera. Doing so may compromise safety, regulatory compliance, and performance, and may void the warranty.

Heads Up: Batteries have reduced capacity in cold weather. This affects older batteries even more. If you regularly shoot at low temperatures, replace batteries yearly for optimal performance.

PRO TIP: Fully charge your camera before storing it away to help maximize battery life.



WARNING: Do not drop, disassemble, open, crush, bend, deform, puncture, shred, microwave, incinerate, or paint your camera or battery. Do not insert foreign objects into any opening on the camera, such as the USB-C port. Do not use your camera if it's been damaged—for example, if cracked, punctured, or harmed by water. Disassembling or puncturing the integrated battery can cause an explosion or fire.

Battery Information

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 regions require 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: Only use GoPro replacement batteries, power cables, and battery charging accessories or devices with your camera.

Using an older GoPro battery or non-GoPro battery could greatly limit your camera's performance, will void your warranty, and may cause fire, electric shock or other safety risk.

Troubleshooting

MY GOPRO WON'T POWER ON

Make sure your GoPro is charged. See [SD Card + Battery Setup \(page 10\)](#). If charging the battery doesn't work, try restarting your camera. See [Restarting Your GoPro \(page 92\)](#).

MY GOPRO WON'T RESPOND WHEN I PRESS A BUTTON

See [Restarting Your GoPro \(page 92\)](#).

PLAYBACK ON MY COMPUTER IS CHOPPY

Choppy playback is usually not a problem with the file. If your footage skips, one of these issues is probably the cause:

- The computer doesn't work with HEVC files. Try downloading the latest version of the GoPro Player for Mac® or Windows® for free at gopro.com/apps.
- Your computer doesn't meet the minimum requirements of the software you're using for playback.

I FORGOT MY CAMERA'S USERNAME OR PASSWORD

Swipe down on the rear screen to access the Dashboard, swipe left, and then tap Preferences > Connections > Camera Info.

I DON'T KNOW WHICH SOFTWARE VERSION I HAVE

Swipe down on the rear screen to access the Dashboard, swipe left, and then tap Preferences > About > Camera Info.

I CAN'T FIND MY CAMERA'S SERIAL NUMBER

The serial number is stamped inside the battery compartment of your camera. You can also find it by swiping down on the rear screen to access the Dashboard, swiping left, and then tapping Preferences > About > Camera Info.

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

Tech Specs: Video

PROFILE (SINGLE LENS + 360 MODE VIDEO)

Regulatory Model Number CPPB1 records Single Lens mode video in the standard format while giving you the option to record standard or GP-Log video when shooting 360 content.

Standard

Records footage using the standard video format.

Log

Use Log video to get more detail in your footage. All video recorded with Log encoding will use the GP-Log color profile and must be color corrected in post-production. This gives you more flexibility and control of dynamic range. A Lookup Table (LUT) will be generated to help you with color grading.

Heads Up: Log video will only be available when choose 10-Bit encoding for your videos.

1. Swipe down on the rear screen to access the Dashboard.
2. Swipe left and tap Preferences > Video > Bit Depth.

Tech Specs: Video

ASPECT RATIO (SINGLE LENS MODE VIDEO + TIMEWARP)

Aspect ratio refers to the width and height of an image. Your GoPro captures videos in 4 aspect ratios.

16:9 (Widescreen)

This is the standard format used for HDTV, YouTube, and editing programs. The widescreen format is ideal for capturing dramatic, cinematic footage.

9:16 (Vertical)

This extra-tall format is ideal for watching content on your phone and posting to social media.

4:3 (Tall)

The tall 4:3 format captures more of the scene than the 16:9 widescreen format. It's great for selfies and immersive point-of-view footage.

Tech Specs: Video

VIDEO RESOLUTION (SINGLE LENS + 360 MODE VIDEO)

Video resolution refers to the level of detail in each frame of video. The higher the resolution, the better the image quality.

Single Lens Mode Resolution	Description
4K 16:9	Ultra HD video with 16:9 aspect ratio. Great for tripod and fixed-position shots. Can be used to grab 8MP stills from your video.
4K 9:16	Ultra HD video with an extra-tall 9:16 aspect ratio that's ideal for playback on your phone or posting on social media. Can be used to grab 8MP stills from your video.
4K 4:3	Ultra HD video in the tall 4:3 aspect ratio that's great for capturing immersive body and gear-mounted point-of-view shots.
1080p 16:9	Standard HDTV resolution that's ideal when you want to maximize recording time or plan on playing back your video on older devices.

Tech Specs: Video

360 Mode Resolution	Description
8K	Our highest resolution 360 video captures everything around you in stunning cinematic detail. Lets you create amazing 4K traditional videos using Reframe in the GoPro Quik app.
5.6K	High resolution 360 video that delivers amazing results with smaller file sizes than 8K.
4.8K	Captures 360 video at 60 fps for play back at normal speed or 2x slo-mo.

PRO TIP: Be sure that your phone, computer, or TV can support 8K video before recording.

Tech Specs: Video

FRAME RATE (SINGLE LENS + 360 MODE VIDEO)

Frames rate refers to the number of frames captured in each second of video or frames per second (fps). A higher fps value (60 fps) is better at capturing fast-action shots. You can also use high fps footage for slow motion playback.

High Resolutions + High Frame Rates

Shooting high-resolution or high-fps video when it's warm out can cause your camera to heat up and use more power.

Lack of airflow and connecting to the GoPro Quik app can cause your camera to warm up even more, use even more power, and shorten recording time.

If heat's a problem, try recording shorter videos. Also limit use of features that take a lot of power, such as the GoPro Quik app. The Remote (sold separately) can control your GoPro while using less energy.

Your camera will tell you if it needs to shut down and cool off.

To learn more, see [Important Messages \(page 90\)](#).

Tech Specs: Video

DIGITAL LENSES (SINGLE LENS MODE VIDEO + TIMEWARP)

Digital lenses let you choose how much of the scene is captured by your camera when recording traditional Single Lens mode footage. The different lenses also affect the zoom level and the fisheye effect in your shot.

Digital Lens	Description
Max HyperView (16mm)	The tallest and widest field of view ever on a GoPro. Great for capturing immersive point-of-view footage.
Max SuperView (16mm)	Tall field of view that's great for POV shots with less fisheye effect than Max HyperView.
Wide (16-34mm)	Wide, versatile field of view that's great for everyday shots and selfies.
Linear (19-39mm)	Wide field of view without the fisheye effect. Great for landscape and scenic shots.

Tech Specs: Video

HYPERSMOOTH VIDEO STABILIZATION (SINGLE LENS MODE VIDEO)

HyperSmooth delivers ultra smooth footage by using a 180° field of view as the ultimate video buffer. It lets your camera eliminate almost all bumps and shakes while recording. This makes it perfect for biking, skatings, handheld shots, and more.

HORIZON LOCK (SINGLE LENS MODE VIDEO + TIMEWARP)

Horizon Lock keeps your footage smooth and level even if your camera gets flipped upside down while recording.

With Horizon Lock on, your footage and the live view on the touch screen will be locked into the orientation your camera was in when you pressed the Shutter button. If your camera was in a portrait orientation, your footage will stay in a level portrait orientation no matter how much your camera rotates.

With Horizon Leveling off, your footage and the live view on the touch screen will roll with the rotation of your camera.

PRO TIP: Turn Horizon Lock off for stationary shots and mounted footage where you want to see every twist and turn.

Tech Specs: Photo

ASPECT RATIO (SINGLE LENS MODE PHOTO)

Aspect ratio refers to the width and height of an image. Your GoPro captures photos in the 8:7 aspect ratio. This ultra immersive format is the tallest and widest field of view ever on a GoPro Single Lens camera. The added height makes it perfect for creating extra-tall 9:16 vertical shots or any other size you need for any social media platform.

Photo Editing With the GoPro Quik App

The 8:7 aspect ratio combines with the 27MP photo resolution to give you an extra-large canvas for your creativity. The GoPro Quik app features a variety of tools designed to make editing easy.

- Crop and zoom in on selected portions of your photos without losing the details in your shot.
- Switch digital lens effects to adjust the field of view of your photos.
- Change the aspect ratio of your shots.

Tech Specs: Photo

OUTPUT (SINGLE LENS + 360 MODE PHOTO)

Regulatory Model Number CPPB1 takes standard photos in both Single Lens mode and 360 Photo mode. Single Lens mode also gives you the option to take RAW photos.

Raw Format (Single Lens Mode Photo)

When this setting is turned on, all photos are saved as a .jpg image (for viewing on your camera or sharing with the GoPro Quik app) and a .gpr file.

The .gpr file is based on the Adobe® DNG format. These files can be used in Adobe Camera Raw (ACR), version 9.7 or later. You can also use Adobe Photoshop® Lightroom® CC (2015.7 release or later) and Adobe Photoshop® Lightroom® 6 (version 6.7 or later).

PRO TIP: Photos in .gpr format are saved in the same location and with the same file name as .jpg files. To access the files, insert your SD card into a card reader and locate them with your computer's file explorer.

Tech Specs: Photo

DIGITAL LENSES (SINGLE LENS MODE PHOTO)

Digital lenses let you choose how much of the scene is captured by your camera. They also affect the zoom level and fisheye effect in your shot. There are 3 lens options for photos:

Digital Lens	Description
Max SuperView (16mm)	Extra tall and wide field of view that captures as much as possible within the frame. Great for POV shots.
Wide (16–34mm)	Wide field of view that's great for everyday shots and selfies.
Linear (19–39mm)	Wide field of view without the fisheye effect of Wide.

INTERVAL (SINGLE LENS MODE INTERVAL PHOTO)

Interval sets how often your camera takes a photo while using Interval Photo. You can choose an interval of 0.5, 1, 2, 3, 5, 10, 30, 60, or 120 seconds. You can also choose to turn Interval Photo off.

Heads Up: Some intervals may not be available with the output you select. Your camera will suggest another interval that will work with the output you want.

BURST RATE (360 MODE BURST)

Capture fast-action scenes with one of these high-speed settings:

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

Tech Specs: Photo

SHUTTER SPEED (360 MODE NIGHT + NIGHT LAPSE PHOTO)

Shutter speed lets you decide how long your camera's shutter stays open in Night and Night Lapse Photo modes. Here are your options, plus tips on when to use them:

Speed	Examples
Auto (up to 30 seconds)	Sunrise, sunset, dawn, dusk, twilight, night.
2, 5, 10, or 15 seconds	Dawn, dusk, twilight, traffic at night, Ferris wheel, fireworks, light painting.
20 seconds	Night sky (with light).
30 seconds	Night stars, Milky Way (complete darkness).

PRO TIP: To reduce blur when using Night and Night Lapse photo, mount your camera on a tripod or place it on a stable surface where it won't wobble or shake.

Tech Specs: Time Lapse

TIMEWARP VIDEO SPEED (SINGLE LENS + 360 MODE TIMEWARP)

You can increase TimeWarp video speed up to 30x to turn longer activities into shareable moments.

Use this chart to estimate the length of your videos. For example, recording at 2x speed for 4 minutes will give you about 2 minutes of TimeWarp video.

Speed	Recording Time	Video Length
2x	1 minute	30 seconds
5x	1 minute	10 seconds
10x	5 minutes	30 seconds
15x	5 minutes	20 seconds
30x	5 minutes	10 seconds

Heads Up: Recording times are approximate. The video length may vary depending on the movement in your shot.

Speed	Examples
2x–5x	Driving through a scenic route.
10x	Hiking and exploring.
15x–30x	Running and mountain biking.

PRO TIP: For the best results, leave the speed on the Auto setting when shooting footage that may get bumpy.

Tech Specs: Time Lapse

TIME LAPSE INTERVAL (360 MODE TIME LAPSE)

The Interval sets how often your camera takes a shot in Time Lapse video and Time Lapse photo modes.

Available intervals are 0.5 (default), 1, 2, 5, 10, and 30 seconds; 1, 2, 5, and 30 minutes; and 1 hour.

Interval	Examples
0.5–2 seconds	Surfing, biking, or other sports.
2–3 seconds	Busy street corner.
5–10 seconds	Clouds or outdoor scenes for long durations.
10 seconds–1 minute	Art projects or other lengthy activities.
1 minute–1 hour	Construction work or other activities that take place over a very long period of time.

Tech Specs: Time Lapse

TIME LAPSE VIDEO RECORDING TIME (360 MODE TIME LAPSE)

Use this chart to determine the length of your videos.

Interval	Recording Time	Video Length
0.5 seconds	5 minutes	20 seconds
1 second	5 minutes	10 seconds
2 seconds	10 minutes	10 seconds
5 seconds	1 hour	20 seconds
10 seconds	1 hour	10 seconds
30 seconds	5 hours	20 seconds
1 minute	5 hours	10 seconds
2 minutes	5 hours	5 seconds
5 minutes	10 hours	4 seconds
30 minutes	1 week	10 seconds
1 hour	1 week	5 seconds

PRO TIP: For the best results, mount your camera on a tripod or place it on a stable surface where it won't wobble or shake. Use TimeWarp video to capture time lapse video when you're on the move.

Tech Specs: Time Lapse

NIGHT LAPSE INTERVAL (360 MODE NIGHT LAPSE)

Choose how often your GoPro snaps a shot in Night Lapse mode. Night Lapse intervals are Auto; 4, 5, 10, 15, 20, and 30 seconds; and 1, 2, 5, 30, and 60 minutes.

Auto (default) syncs the Interval with the Shutter setting. If the shutter speed is set to 10 seconds and the Interval is set to Auto, your camera will take a shot every 10 seconds.

Interval	Examples
Auto	Great for all exposures (captures as quickly as possible depending on the Shutter setting).
4–5 seconds	Evening city scene, street lighting, or scenes with movement.
10–15 seconds	Dim lighting with slow scene changes, such as night clouds with a bright moon.
20–30 seconds	Very low light or very slow scene changes, like stars with minimal ambient or street light.

Tech Specs: Protune

Protune unlocks your camera's full creative potential by giving you manual control of advanced settings, including Color, White Balance, and Shutter Speed. It's compatible with professional color correction tools and other editing software.

Here are some things to keep in mind:

- Protune is available for all modes except Looping. Scroll down in the settings menu to see all of the Protune settings.
- Some Protune settings are not available when you use Exposure Control.
- Changes to Protune settings in one preset apply only to that preset. For example, changing the White Balance for Time Lapse does not affect White Balance for Burst photos.

PRO TIP: You can restore all Protune settings to their defaults by tapping  in the settings menu.

Tech Specs: Protune

COLOR

Color lets you adjust the color profile of your videos or photos. Scroll between the options to see a live preview of each setting, and then tap the one you want.

Color Setting	Description
Natural (default)	Captures photos and videos with a true-to-life color profile.
Vibrant	Captures photos and videos with a color-saturated profile.
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.

Tech Specs: Protune

WHITE BALANCE

White Balance lets you adjust the color temperature of videos and photos to optimize for cool or warm lighting conditions. Scroll between the options to see a live preview of each setting, and then tap the one you want.

Options for this setting are Auto (default), 2300K, 2800K, 3200K, 4000K, 4500K, 5000K, 5500K, 6000K, 6500K, and Native. Lower values will give you warmer tones.

You can also choose Auto to let your GoPro set the White Balance or the Native setting to create a minimally color-corrected file that allows for more precise adjustments in post-production.

Tech Specs: Protune

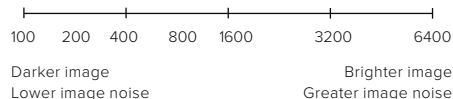
ISO MINIMUM/MAXIMUM

ISO Minimum and ISO Maximum let you set a range for the camera's sensitivity to light and image noise. Image noise refers to the degree of graininess in the shot.

In low light, higher ISO values result in brighter images but with more image noise. Lower values result in darker images with less image noise. Scroll between the options to see a live preview of each setting, and then tap the one you want.

The default for ISO Maximum is 1600 for video and 3200 for photos. The default for ISO Minimum is 100.

ISO Maximum and Minimum can also be set to Auto when recording video. This is especially useful when shooting in environments with fluctuating lighting conditions



Heads Up: For the Video and Photo modes, ISO behavior depends on the Protune Shutter setting. The ISO Maximum that you select is used as the maximum ISO value. The ISO value that is applied might be lower depending on the lighting conditions.

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

Tech Specs: Protune

SHUTTER

The Protune Shutter setting only applies to the Video and Photo modes. This setting determines how long the shutter stays open. Scroll between the options to see a live preview of each setting, and then tap the one you want. The default setting is Auto.

For Photo, the options are Auto, 1/125, 1/250, 1/500, 1/1000, and 1/2000 second.

For Video, the options depend on the fps setting, as shown below.

Shutter	Example 1: 1080p30	Example 2: 1080p60
Auto	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
1/(16xfps)	1/480 sec	1/960 sec

PRO TIP: To reduce the amount of blur in videos and photos when using the Shutter setting, mount your camera on a tripod or other stable surface where it won't wobble or shake.

Tech Specs: Protune

EXPOSURE VALUE COMPENSATION (EV COMP)

Exposure Value Compensation affects the brightness of your photos and videos. Adjusting this setting can improve image quality when shooting scenes with sharply contrasting lighting conditions.

Options for this setting range from -2.0 to +2.0. The default setting is -0.5.

Scroll between the options on the right side of the EV Comp screen to see a live preview of each setting, and then tap the one you want. Higher values result in brighter images.

Heads Up: For Video, this setting is available only if Shutter is set to Auto.

You can also adjust the exposure based on a certain area of your scene. To learn more, see [Exposure Control \(page 56\)](#).

PRO TIP: EV Comp adjusts brightness within the existing ISO setting. If brightness has already reached the ISO setting in a low-light environment, increasing the EV Comp does not have any effect. To continue increasing the brightness, select a higher ISO value.

Tech Specs: Protune

SHARPNESS

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

Scroll between the options to see a live preview of each setting, and then tap the one you want.

PRO TIP: If you plan to increase sharpness during editing, select Low for this setting.

Tech Specs: Protune

RAW AUDIO

This setting creates a separate .wav file for your video, in addition to the standard .mp4 audio track. You can select the level of processing to apply to the RAW audio track.

RAW Setting	Description
Off (default)	No separate .wav file is created.
Low	Applies minimal processing. Ideal if you want to apply audio processing in post-production.
Med	Applies moderate processing based on the Wind-Noise Reduction setting. Ideal if you want to apply your own gain.
High	Applies full audio processing (automatic gain and Wind-Noise Reduction). Ideal if you want processed audio without AAC encoding.

Insert your SD card into a card reader to access the .wav files with your computer. They're saved with the same name and in the same location as the .mp4 files.

Tech Specs: Protune

WIND-NOISE REDUCTION

Regulatory Model Number CPPB1 uses 3 microphones to capture sound while recording video. You can customize how they're used based on conditions where you're shooting and the type of sound you want in your finished video.

Setting	Description
Auto (default)	Automatically filters out excessive wind (and water) noise.
On	Use to filter out excessive wind noise or when your GoPro is mounted on a moving vehicle.
Off	Use when wind will not affect sound quality and you want to ensure that your GoPro is recording in stereo.

Tech Specs: Protune

TIMECODE SYNC

Timecode sync is available through the GoPro Quik app. This lets you sync the date and time on multiple Regulatory Model Number CPPB1 cameras for easier and more precise editing.

1. Add your Regulatory Model Number CPPB1 to the GoPro Quik app.
2. Tap  on the app's Regulatory Model Number CPPB1 control screen.
3. Tap Sync Timecode. This will bring up a QR code.
4. Scan the QR with any Regulatory Model Number CPPB1 using any mode or preset.

Your GoPro will let you know if the sync was successful.

Heads Up: After adding Regulatory Model Number CPPB1 to the app, you can access timecode sync through the app's Regulatory Model Number CPPB1 control screen at any time. You don't have to connect your camera.

Customer Support

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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.

