TomTom Action Camera Reference Guide

1.0



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Welcome

This Reference Guide explains everything you need to know about your new TomTom Action Camera. Your camera lets you easily record your action adventures:

- Record videos.
- Automatically tag action shots using action metrics, or manually tag your video.
- Easily create videos from your video tags using the TomTom Mobile Camera app or TomTom MyCamera computer program.
- Use your smartphone to quickly and easily publish your edited videos online, within moments of the action.
- Take single photos or burst photos.

If you just want to read the basics about your camera, we recommend that you read the <u>Camera Quick</u> Start. This covers all parts of the camera system, including the mobile app and the desktop app.

To collect, edit and share your videos and photos on the move, download the TomTom Mobile Camera app from tomtom.com/app.

To collect, edit and share your videos and photos from your computer, download TomTom MyCamera program from tomtom.com/app.

Important: Before using the Camera app on your smartphone, you need to link your camera to your MySports account using a computer. This needs to be done only once.

To quickly get to know your Action Camera, go to:

- About your camera
- Using the universal mount
- Recording a video
- Taking single photos
- Settings

Tip: There are also frequently asked questions (FAQs) at tomtom.com/support. Select your product model from the list or enter a search term.

We hope you enjoy reading about and, most importantly, having fun with your new Action Camera!

CAMERA

Camera Quick Start

What's in the box

- Camera
- IPX7 lens cover
- 2000 mAh Battery stick
- Adhesive mount
- Universal disc x 2
- Disc adapter
- Optional bicycle mount
- Optional remote control
- Optional IPX8 waterproof lens cap
- Optional power cable

Charging your camera

You can charge your Action Camera in the following two ways:

Charging the battery stick using a USB socket

Important: If you remove the battery stick be extra careful not to let dirt or water enter the camera or the battery stick. Only remove the battery stick in clean and dry conditions.

Press the battery stick release button as shown below (button 3).



Turn the battery stick to remove it from your camera.



Insert the battery stick USB connector into your computer's USB socket or a standard USB wall-charger.

Tip: While the battery stick is charging, the LEDs show the charge level and one LED flashes.

To see the power level of the battery stick, remove the USB connector from the USB charging socket, then press the START button. The LEDs light up to show the power level.

When the battery stick is charged, insert the battery stick into the camera and turn it until it locks.

Charging the camera using the optional power cable

Open the connector cap on the back of the battery stick.

NOTE TO GERRY: we need to replace this image with a cleaner one :-)



Tip: You don't have to remove the battery stick from the camera.

Connect the power cable to the battery stick connector and to a USB socket.

Inserting a memory card

The photos you take and the videos you record are stored on a micro-SD memory that is located in the battery stick.

Inserting a micro-SD memory card into the battery stick

Important: If you remove the battery stick be extra careful not to let dirt or water enter the camera or the battery stick. Only remove the battery stick in clean and dry conditions.

Press the battery stick release button as shown below (button 3).



Turn the battery stick to remove it from your camera.



Insert the micro-SD memory card into the memory card slot in the battery stick. NOTE TO GERRY: we need to replace this image with a cleaner one :-)



Insert the battery stick into the camera and turn it until it locks.

Setting up

Note: The language you choose will be used for all text on the screen. You can always change the language later in Language and Units in the **Settings** menu.

When you first switch on your Action Camera, you have to answer a few questions to set it up. Answer the questions by pressing the button to move up, down, left or right on the screen.

Tip: You do not need to connect you camera to the internet or to the mobile application to set it up for first use.

Using the universal camera mount

Hi, Claire-

We can use:

Universal Mount

Bike Mount

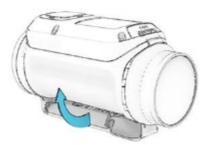
Adhesive discs (FYI: used with Universal Mount)

You can mount your camera in many places, for example on your helmet or on the handlebars using the optional bike mount. Once mounted you can move your camera in the following ways:

- You can lift it up and down by 90 degrees, known as the pitch.
- You can twist it around by 360 degrees, know as yaw.
- You can roll the whole camera by 100 degrees to the left or right.







Using a disc adapter to mount your camera

The disc adapter kit lets you mount your camera on a helmet or other flat or slightly curved surface. The kit contains 2 adhesive discs and a universal adapter.



1. Attach the adhesive disc to your chosen surface. Firmly press it into place to ensure full contact over its entire surface.

Follow these tips to make sure that the adhesive disc is secure:

- Apply the adhesive disc only to a clean and dry surface. Wax, oil, dirt and moisture reduce adhesion, which can result in a weak bond.
- Attach the adhesive disc in dry, room-temperature conditions. The adhesive disc won't be secure if you attach it in damp and cold conditions.
- Attach the adhesive disc only to a smooth and hard surface. The adhesive disc won't securely attach to porous, textured or soft surfaces.
- When you attach the adhesive disc, Regularly check the security of the adhesive disc.

2. Attach the universal disc adapter to the adhesive disc by first fully opening the mount.



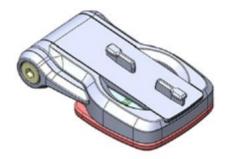
3. Push the mount onto the disc at any yaw angle until you hear a click.



4. Fold down the camera platform to any angle between 90 degrees to horizontal and fully closed. This locks the mount to the disc.



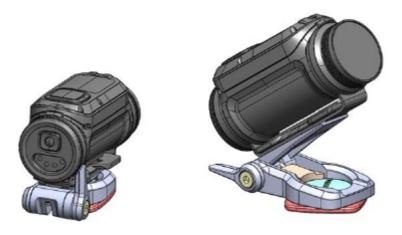
5. Push down the lever to lock the mount.



6. Mount the camera on the camera platform.



7. Set the desired angle of shot. Explain pitch, yaw and roll here? You can see from amlibu app what you are focusing on/pointing on.



Note: To remove the mount, reverse the above instructions.

Switching on and off



Switching on your Action Camera

Press the START button (button 2) at the back of the camera for 2 seconds to switch your camera on. If no SD card is inserted into the battery stick, you are asked to insert one so that the camera can switch on.

If the camera is in standby mode, press the control button to wake up the camera.

Switching off your Action Camera

Press the STOP button (button 1) at the front of the camera for 2 seconds to switch off the camera.

Recording



Start recording

When your camera is switched on or in standby mode, press the START button (button 2) to start recording in your currently selected mode, for example video recording or photo burst. When you camera is recording, red LEDs in the START and STOP buttons flash.

Press the START button again to tag your video.

Stop recording

Press the STOP button (button 1) to stop recording and go back to standby mode.

Tagging a video



During recording, you can add a tag to your video.

You can add a tag when something exciting or memorable happens such as reaching a fast speed, or crashing. Or you could tag a beautiful view or the highest peak on a walk. You can easily create videos from your video tags using the TomTom Mobile Camera app or TomTom MyCamera computer program.

Automatic tags can be added to your video using action metrics, for example speed, crashes and jumps.

To add a tag manually, press the START button (button 2).

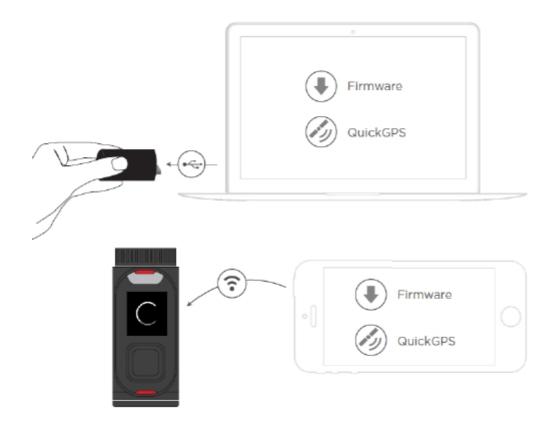
Your camera

Getting started

Before you start making videos, it's a good idea to charge your camera, download any software updates and download QuickGPSfix.

Note: QuickGPSfix helps your camera get a GPS fix and find your location guickly.

- 1. Download TomTom MySports Connect from tomtom.com/getstarted/sports and install it on your computer. TomTom MySports Connect is available for free.
- 2. Place your camera in the desk dock and connect the dock to your computer. Follow the instructions that TomTom MySports Connect gives you.



After your camera is charged, you can recording a video.

Tip: Your camera is fully charged when the battery animation stops moving and shows a full battery.

You should connect your camera to your computer regularly to charge it, upload videos and photos, download software updates and download QuickGPSfix information.

Battery life

When the battery is fully charged, your camera can be used for up to XX hours of activities that need GPS reception, such as running and cycling. The battery is used more quickly if you use the backlight on your camera frequently or all the time, or connect the camera to sensors, such as the Heart Rate Monitor or Cadence Sensor.

The following tips will help your camera go longer on a battery charge:

- Turn off night mode and touch the screen to turn on the back light only when you need it.
- Turn off sensors that you are not using. Your camera keeps searching for sensors even if you are not using a sensor.

TomTom MySports app

Important: Before using the MySports app on your smartphone, you need to link your camera to your MySports account using a computer. This needs to be done only once.

You can download the TomTom MySports app for free from your usual app store or by going to tomtom.com/app.

To learn more, go to TomTom MySports mobile app in this guide.

Pairing your camera with your phone

To learn more, go to Phone in this guide.

About your camera

Your Action Camera is a modular construction that is easily disassembled so you can swap parts, for example to install a new battery stick or replace the lens cover.



- 1. Battery stick.
- 2. Power indicator.
- 3. USB connector.
- 4. Control button to move up, down, left or right to other screens on your camera display:
 - Move up or down to select items in a menu.
 - Move right to select an item and open the menu for that item.
 - Move left to exit a menu.
 - To select an option in a menu, make sure it is highlighted when you leave the menu. Your camera remembers the option you highlighted.
 - If an option in a menu switches on and off, move right to change the setting.

Note: The control button is disabled when you use the camera deep underwater.

- 5. Screen.
- 6. STOP button.
- 7. Lens cover. The camera is waterproof with the standard IPX7 lens cover. If you want to use the camera underwater to depths down to 50 m, install the optional IPX8 lens cover.

- 8. Camera mount.
- 9. Lens.
- 10. START button
- 11. Connector for optional power cable.

What's on the screen

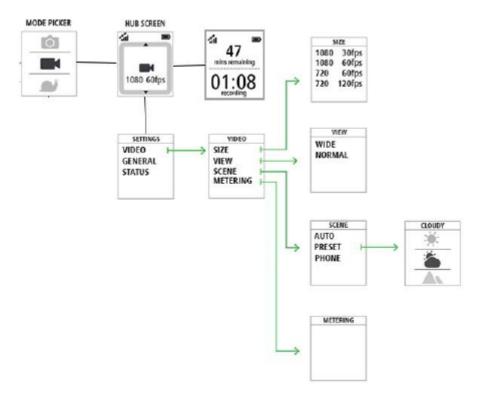
The camera screen lets you select the type of video or photos you want to record, and let's you change the settings for each video and photo mode. You move to other screens using the control button:

- Move up or down to select items in a menu.
- Move right to select an item and open the menu for that item.
- Move left to exit a menu.
- To select an option in a menu, make sure it is highlighted when you leave the menu. Your camera remembers the option you highlighted.
- If an option in a menu switches on and off, move right to change the setting.

Note: The control button is disabled when you use the camera deep underwater.

You can see the following screens:

Camera Status screen	The Camera Status screen is shown when you are not recording videos or photos. This screen shows the mode and the specific settings you have selected.
Mode screen	The Mode screen lets you choose the mode you want use. The modes are Photo, Video, Slow Motion, Time Lapse, and Cinematic.
Recording screen	The Recording screen is shown when you are recording a video or taking photos. The screen shows you the remaining time you can still record, and the time you have already recorded, or the number of photos taken.
Settings screen	The Settings screen lets you changes the settings for the selected mode and the general settings for the camera. Selecting Status will shown you the status of the camera.
Video and Photo settings	For each Video and Photo mode you can set different settings to customize the video or photo. For example, you can set the frame rate, the lens angle, and the scene.
General settings	The <u>General settings</u> set the options for the camera, for example Language, Units and Sound.



Icons on the Hub screen

The following icons can be shown along the top of the Hub and Recording screens:



This symbol shows the strength of GPS reception. While your camera is looking for GPS satellites, the satellite images flashes.



The heart symbol shows that your camera is connected to a Heart Rate Monitor. When your camera is trying to connect to the Heart Rate Monitor, the heart flashes.



The chainring symbol shows that your camera is connected to a Cadence Sensor. When your camera is trying to connect to the Cadence Sensor, the chainring flashes.



This symbols shows that a memory card is inserted.



This symbol shows the battery status.

Charging your camera

You can charge your Action Camera in the following two ways:

Charging the battery stick using a USB socket

Important: If you remove the battery stick be extra careful not to let dirt or water enter the camera or the battery stick. Only remove the battery stick in clean and dry conditions.

Press the battery stick release button as shown below (button 3).



Turn the battery stick to remove it from your camera.



Insert the battery stick USB connector into your computer's USB socket or a standard USB wall-charger.

Tip: While the battery stick is charging, the LEDs show the charge level and one LED flashes.

To see the power level of the battery stick, remove the USB connector from the USB charging socket, then press the START button. The LEDs light up to show the power level.

When the battery stick is charged, insert the battery stick into the camera and turn it until it locks.

Charging the camera using the optional power cable

Open the connector cap on the back of the battery stick.

NOTE TO GERRY: we need to replace this image with a cleaner one :-)



Tip: You don't have to remove the battery stick from the camera.

Connect the power cable to the battery stick connector and to a USB socket.

Inserting a memory card

The photos you take and the videos you record are stored on a micro-SD memory that is located in the battery stick.

Inserting a micro-SD memory card into the battery stick

Important: If you remove the battery stick be extra careful not to let dirt or water enter the camera or the battery stick. Only remove the battery stick in clean and dry conditions.

Press the battery stick release button as shown below (button 3).



Turn the battery stick to remove it from your camera.



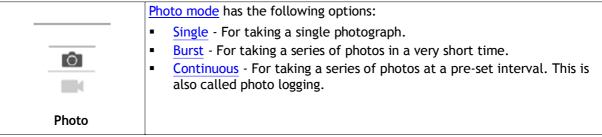
Insert the micro-SD memory card into the memory card slot in the battery stick. NOTE TO GERRY: we need to replace this image with a cleaner one :-)



Insert the battery stick into the camera and turn it until it locks.

Camera modes

The camera has the following photo and video modes:



0	Normal high-quality <u>video mode</u> . You can set the video quality to 1080p or 720p, and the frame rate to 30 fps or 60 fps.
	*** ADD LINKS TO GLOSSARY HERE for 1080p etc ****
Video	
	In SLOW MO or slow motion mode, the camera records at a multiple of the normal frame rate (2x, 4x, 8x), but stores the video with the normal frame rate (30 fps) for playback, which results in slow motion video. Audio and sensor data are also recorded in the slow motion mode. The available slow motion rate depends on the video resolution you choose.
Slow Mo	
Timelapse	When in TIMELAPSE MODE, the camera records a time-lapse video directly as a video recording at the currently set resolution and at the normal frame rate. You can choose the interval between recording. Time-lapse recording stops when the battery level is low, when the memory card is full or when you press the STOP button. No audio is recorded during a time-lapse video, but sensor information is recorded.
	CINEMATIC is the highest resolution mode, capturing video at 4K or 2.7K. For normal use, you should find that 1080p offers sufficiently high quality video.
Cinematic	

Camera status

FOR REVIEWERS: What about certification info? as per below for the Fitness watch?

To see certification information on your watch, move down from the clock screen to open the **Settings** menu.

Select Standards and then move right to scroll through the certification information.

From the Camera Status screen, move down to open the **SETTINGS** screen. Select **STATUS** then move right.

The status screen shows the following information:

- Battery the battery power left on your camera. Charge the battery stick if the power is low.
- Storage the amount of free space available on your camera.
 If you are running out of space, connect your camera to your computer. TomTom MySports Connect transfers the videos and photos to your computer.
- QuickGPS the status of the QuickGPSfix information on your camera.
 QuickGPSfix helps your camera find your precise location quickly so that you can start your activity. To update the QuickGPSfix information on your camera, connect your camera to your computer. TomTom MySports Connect automatically updates QuickGPSfix on your camera.
 QuickGPSfix information is valid for three days after you download it.

These symbols are used to show the status of QuickGPSfix:

J

QuickGPSfix on your camera is up-to-date.



QuickGPSfix on your camera is out-of-date. If the QuickGPSfix information on your camera is out-of-date, your camera still works as usual. It may, however, take longer to get a GPS fix when you want to start an activity.



or

If you see this icon, you are using a very old version of the software and should update your camera as soon as possible.

- Version the software version number of your camera. You may need this information if you contact Customer Support. Every time you connect your camera to your computer, TomTom MySports Connect checks if a software update is available for your camera.
- Serial number The serial number of your Action Camera.

Sensors built in to your camera

Your Action Camera has the following sensors built-in to the camera:

- 3D accelerometer
- Rate-gyro
- Compass
- GPS
- Barometer
- Temperature

The sensors are used for action metrics to show you full details of your activities on your videos and photos. The data is stored with your videos and photos.

You can also use <u>peripheral sensors</u>, for example a heart-rate monitor, to enhance your action metrics.

An optional external mono microphone can also be connected to your camera.

Switching on and off

Your Action Camera can be on, off, or in standby. You can only switch the camera on and off using the buttons on the camera.

Switching on your Action Camera

Press the START button at the back of the camera for 2 seconds to switch your camera on. If no SD card is inserted into the battery stick, you are asked to insert one so that the camera can switch on.

The camera stays on for any of the following conditions:

- 1. The camera is recording a video or you are taking photos.
- 2. You are using the screen to set-up the camera.
- 3. You are operating the camera from your mobile phone using Wi-Fi or Bluetooth.

Switching off your Action Camera

Press the STOP button (button 1) at the front of the camera for 2 seconds to switch off the camera.

The camera can also be off in any of the following conditions:

- 1. No battery is installed in the camera.
- 2. The battery is empty. If the camera is in on or in standby mode, it will switch itself off if the battery level becomes too low.

Standby

To save power the camera automatically switches to standby after a few minutes if it's not being used. You can wake up the camera by pressing the control button or by using Bluetooth to connect to the camera from your smartphone.

Resetting your camera

You can reset your Action Camera in the following ways:

- Soft reset Switches the camera off and then back on.
- Hard reset Clears the camera memory and settings.
- Factory reset Returns your camera to the original factory settings.

Soft reset

A soft reset is performed each time you disconnect your camera from a wall charger or computer.

To perform a soft reset on your camera, follow these steps:

- 1. Connect your camera to a wall charger or computer.
 - Wait until your camera shows a battery symbol.
 - If you are using a computer, wait until MySports Connect finishes updating your camera.
- 2. Disconnect your camera from the wall charger or computer.

 The software on your camera restarts. This performs a soft reset on your camera.

Hard reset

The hard reset allows you to reinstall the software on your camera without deleting any personal data and settings.

To perform a hard reset on your camera, follow these steps:

- 1. Connect your camera to your computer and wait until MySports Connect finishes updating your camera.
- 2. On your camera, move DOWN but keep the button pressed.*
- 3. Disconnect the USB cable from your computer.*
- 4. Keep pressing the button until your camera shows a camera connected with a computer and tomtom.com/reset.
- 5. Release the button and connect camera to your computer.
- 6. Click **Update** in MySports Connect.

Factory reset

Important: When you perform a factory reset in MySports Connect, all personal data and settings, including your export settings for MySports Connect, are deleted from your camera. This action cannot be undone.

You should only use a factory reset as a last resort to restore your camera or if you really want to remove all your data and settings.

A factory reset reinstalls the software on your camera and this removes the following:

- Your activities.
- Your settings on the camera.
- Your settings for uploading activities in MySports Connect.

Important: When you perform a factory reset, do not disconnect your camera before MySports Connect has finished restoring your camera. This takes several minutes. Check any messages shown in MySports Connect and on your camera before you disconnect your camera.

To perform a factory reset on your camera, follow these steps:

- 1. Connect your camera to your computer and wait until MySports Connect finishes updating your camera.
- 2. Expand **SETTINGS** in MySports Connect.
- Click FACTORY RESET at the bottom of MySports Connect.
 MySports Connect downloads the latest version of the software for your camera.
- 4. Keep your camera connected when the window for MySports Connect closes. MySports Connect installs the software on your camera.
- 5. Keep your camera connected when the window for MySports Connect opens again.
- 6. Follow the instructions in MySports Connect to setup your camera.

Note: The settings for exporting and uploading activities in MySports Connect are stored on your camera. If you had set up your camera to transfer activities to additional sports websites or file formats, you need to set these up again on the UPLOAD & EXPORT tab.

Receiving updates

Firmware Updates

The camera may find a new firmware version on the <u>microSD card</u> after the battery stick is re-inserted.

Caring for your camera

It is recommended that you clean your camera once a week if you use it frequently.

- Wipe the camera with a damp cloth as needed. Use mild soap to remove oil or dirt.
 - **Important:** Do not clean the lens or lens cover with a normal cloth. Use only a cloth and spray specifically made for cleaning camera lenses.
- Clean the lens cover and the lens using a cloth and spray specifically made for cleaning camera lenses.
- Do not expose your camera to strong chemicals such as gasoline, cleaning solvents, acetone, alcohol, or insect repellents. Chemicals can damage the camera's seals, case, and finish.
- After using your camera in water, rinse your camera with tap water and dry it with a soft cloth.

Important: If you remove the battery stick be extra careful not to let dirt or water enter the camera or the battery stick. Only remove the battery stick in clean and dry conditions.

Using peripherals

Using the universal camera mount

Hi, Claire-

We can use:

Universal Mount

Bike Mount

Adhesive discs (FYI: used with Universal Mount)

You can mount your camera in many places, for example on your helmet or on the handlebars using the optional bike mount. Once mounted you can move your camera in the following ways:

- You can lift it up and down by 90 degrees, known as the pitch.
- You can twist it around by 360 degrees, know as yaw.
- You can roll the whole camera by 100 degrees to the left or right.







Using a disc adapter to mount your camera

The disc adapter kit lets you mount your camera on a helmet or other flat or slightly curved surface. The kit contains 2 adhesive discs and a universal adapter.



1. Attach the adhesive disc to your chosen surface. Firmly press it into place to ensure full contact over its entire surface.

Follow these tips to make sure that the adhesive disc is secure:

- Apply the adhesive disc only to a clean and dry surface. Wax, oil, dirt and moisture reduce adhesion, which can result in a weak bond.
- Attach the adhesive disc in dry, room-temperature conditions. The adhesive disc won't be secure if you attach it in damp and cold conditions.
- Attach the adhesive disc only to a smooth and hard surface. The adhesive disc won't securely attach to porous, textured or soft surfaces.
- When you attach the adhesive disc, Regularly check the security of the adhesive disc.

2. Attach the universal disc adapter to the adhesive disc by first fully opening the mount.



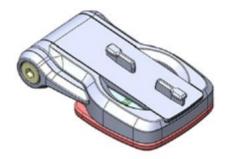
3. Push the mount onto the disc at any yaw angle until you hear a click.



4. Fold down the camera platform to any angle between 90 degrees to horizontal and fully closed. This locks the mount to the disc.



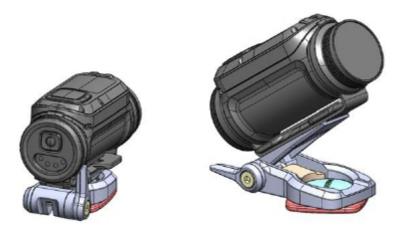
5. Push down the lever to lock the mount.



6. Mount the camera on the camera platform.



7. Set the desired angle of shot. Explain pitch, yaw and roll here? You can see from amlibu app what you are focusing on/pointing on.



Note: To remove the mount, reverse the above instructions.

Using the optional remote control

The remote control can be used to start and stop recording, and to manually tag your video. Use the remote control when you can't easily or safely reach your camera.



You can hold the remote control in your hand, or you can attach it to a place you can easily reach.

Note: The remote uses Bluetooth Smart to connect to your camera and can only be used with one camera at a time.

Connecting the remote control

- 1. From the Camera Status screen on your camera, move down to open the SETTINGS screen.
- 2. Select **GENERAL**, then move right.
- 3. Select **CONNECT**, then move right.
- 4. Select **REMOTE**, then move right.
- 5. Move up or down to turn it on.

Note: When connecting the camera to the remote control for the first time, any button press on the remote control tells the camera that the remote control is out there and ready for connection.

Tip: The Viewfinder of the Mobile App also has remote control features - see MOBILE APP.

The remote control can control up to 50 cameras simultaneously from up to 180m in optimal conditions. It has a small LCD screen which mirrors what is shown on the Camera Status screen.

The remote control can only be used with one camera at a time. If you want to connect your remote control to a different camera, repeat the instructions above with the remote control in range of the new camera.

Note: To change settings on the camera using the remote control, the camera needs to be in Wi-Fi mode.

Changing the battery in the remote control ***THIS SECTION WAS MADE UP BY CLAIRE!!!***

The remote control uses a button cell CR2032 battery.

To change the battery do the following:

- 1. Using a small flat-head screwdriver, gently lever the back off the remote control.
- 2. Gently lever out the round battery cell.
- 3. Replace the battery with a new one.
- 4. Replace the cover and snap it back into place on the remote control.

Using the remote control to record a movie

**** INSERT IMAGE HERE WITH CALLOUTS FOR START/TAG/STOP BUTTONS ***

Press the START button to start recording. The LED blinks red when the camera is recording.

Press the START button to tag any exciting moments.

To wake up the remote, press the START button for 2 seconds until the LED blinks twice in green.

Squeeze the remote, ie. press the STOP button to stop recording. The LED stops flashing red.

Remote control straps and mounts

The remote control is supplied a strap which will fit both around your bare wrist and around a winter coat during snow sports. Other straps are available, as well as mounts for handlebars and dashboards.

Tip: The remote control is waterproof to a depth of 3 m.

WHY IS THERE A CHARGING CABLE FOR THE REMOTE IF IT USES BATTERIES?

Using lens covers

The camera is waterproof with the standard IPX7 lens cover (black and white). If you want to use the camera underwater to depths down to 50 m, fit the optional IPX8 lens cover (black).

Note: When using the IPX8 lens cover, the microphone and barometer are concealed and hence don't work with this lens cover.

To remove the lens cover, press the release button (button 4 below) and turn the lens cover.



To fit a lens cover, put the lens cover on the camera lens and turn it until it locks.

Important: Store the lens cover in its storage bag when you are not using it.

Important: To prevent damage to the camera lens, never use the camera without a lens cover.

Important: Do not clean the lens or lens cover with a normal cloth. Use only a cloth and spray specifically made for cleaning camera lenses.

Adding sensors

About sensors

Sensors are used by your Action Camera to record data simultaneously with your video, audio or photos. This makes it easier for you to find the highlights in the video when reviewing it and adds context like your GPS trace or a speed graph.

There are two types of sensors for your camera - built-in sensors and external sensors.

Built-in sensors

For more information about built-in sensors, see <u>Sensors in your camera</u>.

External sensors

External sensors are external devices that you can link to your camera to provide extra information about your activity.

You can attach an external <u>heart rate monitor</u> using a Bluetooth Smart (BLE) connection. This sensor measures your heart rate during your sport or activity. The external TomTom Heart Rate Monitor is available as an accessory.

Your camera tries to connect to external sensors when recording starts and/or when you look at a Metrics screen. When recording stops, or the Metrics screen is closed, the connection to the sensor is dropped.

Note: Your camera stores a .GPX and a .KML file for each recorded video. These files make it easy for you to access sensor data directly using a computer. See Using KML and GPX file data - Camera.

The heart rate monitor

To use the external TomTom Heart Rate Monitor with your camera, do the following:

1. Attach the monitor to the strap.



2. Attach the strap around your chest, so the monitor sits just above the base of your chest bone. Make sure the monitor is the right way up so that the word 'TomTom' is the right way up for someone standing in front of you.



Tip: Wet the sensors on the inside of the strap before placing it around your chest. This makes it easier for the monitor to pick up your heartbeat.

- 3. From the Camera Status screen on your camera, move down to open the **SETTINGS** screen.
- 4. Select GENERAL then select CONNECT.
- 5. Select **SENSORS** then move right.
- 6. Select **HEART**, then move right to turn it on.
- 7. When you begin an activity, your camera connects to the monitor and you see a heart icon at the top of the screen.



When your camera is trying to connect to the monitor, the heart flashes.

The first time your camera tries to connect to your monitor, if it finds more than one monitor, your camera doesn't know which monitor to connect to. Move to a place where there are no other monitors within range of your camera.

When you have connected to your monitor once, your camera always reconnects to your monitor.

You can also use the external Heart Rate Monitor with other Bluetooth® Smart Ready devices and apps. See the documentation that comes with your product or app for more information.

To change the CR2032 battery on the monitor, use a coin to open the back of the monitor. The battery must be recycled or disposed of according to local laws and regulations.

Note: The TomTom Heart Rate Monitor is not waterproof.

Recording videos

About recording videos

You can use your Action Camera to take videos in the following modes:

- Video Use this mode to record normal high-quality videos.
- Slow Mo This mode records slow-motion videos at high-qulaity.
- Timelapse This mode creates videos from time-lapse recordings taken at set intervals.
- Cinematic Very high quality video mode for the video specialist.

Use the control button to select the mode.

About video modes

The different video modes allow you to select a mode that's perfect to record your sports activity.

Video Mode Summary

The following table shows the settings options available for each video mode:

Mode	Resolution	Capture rate	Playback	Field of view
Video	1080p	30 fps	30 fps	Wide or Normal
Video	1080p	60 fps	60 fps	Wide or Normal
Video	720p	60 fps	60 fps	Wide or Normal
Video	720p	120 fps	120 fps	Wide or Normal
SlowMo (x2)	1080p	60 fps	30 fps	Wide or Normal
SlowMo (x4)	720p	120 fps	30 fps	Wide or Normal
SlowMo (x6)	WVGA	180 fps	30 fps	Wide
Timelapse	1080p	1 per sec 1 every 5 sec 1 every 10 sec 1 every 15 sec 1 every 30 sec 1 every 60 sec	30 fps	Wide
Cinematic	4k	15 fps	15 fps	Wide
Cinematic	2.7k	30 fps	30 fps	Wide

Videos are recorded using h.264 encoding and audio is recorded using AAC encoding (at 128kbps). The output is stored as an MP4 file.

Sensor data is stored with your videos.

Normal

In normal mode, the camera records and stores video at the same frame-rate, in either 1080p or 720p resolution, at up to 120 fps. Audio, GPS and sensor data are recorded. Automatic tagging can be used, and you can manually tag your video.

Slow motion

A slow motion video is recorded at a multiple of the normal frame rate, for example 2x, 4x, or 6x, but the video is stored with the normal frame rate of 30 fps for playback. Audio, GPS and sensor data are recorded. Automatic tagging can be used, and you can manually tag your video.

Timelapse

This camera records a time-lapse video directly as a video recording, using the currently set resolution and at the "normal" frame rate. You can choose the interval.

A time lapse video does not have audio recording. GPS data is recorded, but sensor data will not be recorded. You can manually tag your video.

Cinematic

The Cinematic mode allows you record videos at very high resolutions of 4k and 2.7k.

Recording a video

1. Go left from the Hub screen and select the mode for the type of video you want to record. Go right back to the Hub screen.

Tip: To change settings for the selected mode, move down from the Hub screen to Settings, then move left to the settings for that mode.

- 2. Aim the camera at the subject.
- 3. Press the START button to start recording.

Tip: You can press the START button at any time to manually tag your video.

4. Press the STOP button to stop the recording.

Taking photos

About photo modes

You can use your Action Camera to take photos in the following modes:

- Single A single photo is taken.
- Burst A series of photos are taken in a very short time.
- Continuous A series of photos are taken at a pre-set interval (also called photo logging).

Photo Mode Summary

Mode	Resolution	Capture rate	Field of view
Single	16MP	1 per sec	Wide
Burst	16MP	5 per sec 10 per sec	Wide
Burst	8MP	5 per sec 10 per sec	Wide
Continuous	16MP	1 per sec 1 every 5 sec 1 every 10 sec 1 every 15 sec 1 every 30 sec 1 every 60 sec	Wide

Photos are saved in the JPEG/Exif format.

Taking single photos

1. Go left from the Hub screen and select Photo. Go right back to the Hub screen.

Tip: To change settings for the selected mode, move down from the Hub screen to Settings, then move left to the settings for that mode.

- 2. Aim the camera at the subject.
- 3. Press the START button to take a photo.

Taking burst photos

1. Go left from the Hub screen and select Photo. Go right back to the Hub screen.

Tip: To change settings for the selected mode, move down from the Hub screen to Settings, then move left to the settings for that mode.

- 2. Aim the camera at the subject.
- 3. Press the START button to take a photo burst.

The screen shows the number of photos taken.

Taking continuous photos

1. Go left from the Hub screen and select **Photo**. Go right back to the Hub screen.

Tip: To change settings for the selected mode, move down from the Hub screen to Settings, then move left to the settings for that mode.

- 2. Aim the camera at the subject.
- 3. Press the START button to take continuous photos.

The screen shows the number of photos taken.

4. Press STOP to stop taking photos.

Settings

About settings

To change settings that you use frequently like WHAT, move WHERE from the Camera Status screen.

To access other settings that you may need to change less frequently, use the Settings menu. These settings determine the overall behaviour of your camera, and are used to adjust the mode settings for each photo and video mode.

From the Camera Status screen, move down to open the **Settings** menu. The Settings menu has the following items:

- Video or Photo Use these settings to adjust the <u>mode settings for the Photo or Video mode</u> you have selected.
- General These settings determine the overall behaviour of your camera
- Status This screen shows you the general status of your camera.

Important: You can also change a large range of settings using the TomTom Mobile Camera App on your smartphone.

Photo and video settings

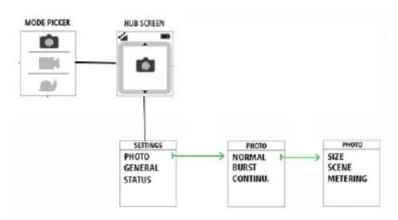
Each video and photo mode has its own settings.

Photo

Use the photo settings to select a photo mode. Once a mode has been chosen, you can then select settings for that photo mode.

From the Camera Status screen, move down to the **SETTINGS** screen and select, for example **PHOTO**. Move right to select a mode, for example **BURST**, then select the settings you want to change.

THIS IMAGE WILL NOT BE USED IN THE FINAL BOOK AND IS INCLUDED FOR AUTHOR and REVIEWER REFERENCE ONLY!



Normal settings

Size	■ 16 MP
Scene	AutoPreset: Sun, Cloudy, Mountain
Metering	•

Burst settings

Size	■ 16 MP	
------	---------	--

	■ 8 MP
Burst	■ 5 per sec
	5 per sec10 per sec
Scene	- Auto
	Preset: Sun, Cloudy, Mountain
Metering	•

Continuous settings

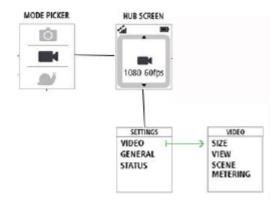
Size	■ 16 MP
Interval	■ 1s, 5s, 10s, 15s, 30s, 60s
Scene	Auto Claude Mauricia
	Preset: Sun, Cloudy, Mountain
Metering	

Video

Each video mode has its own settings.

From the Camera Status screen, move down to the **SETTINGS** screen and select the mode settings, for example **VIDEO**. Move right, then select the settings you want to change.

THIS IMAGE WILL NOT BE USED IN THE FINAL BOOK AND IS INCLUDED FOR AUTHOR and REVIEWER REFERENCE ONLY!



Video settings

Video sectings	
Size	■ 1080p at 30 fps
	■ 1080p at 60 fps
	■ 720p at 60 fps
	■ 720p at 120 fps
View	■ Wide
	■ Normal
Scene	Auto
	Preset: Sun, Cloudy, Mountain
Metering	•
	· · · · · · · · · · · · · · · · · · ·

Slo Mo settings

Size	■ 1080p at 2x speed
	■ 720p at 4x speed
	■ WVGA at 6x speed

View	■ Wide
	■ Normal
Scene	- Auto
	Preset: Sun, Cloudy, Mountain
Metering	•
Cinematic settings	5
Size	■ 4k at 15 fps
	■ 2.7k at 30 fps
	■ WVGA at 6x speed
Scene	■ Auto
	Preset: Sun, Cloudy, Mountain
Metering	•
Timelapse setting	S
Size	■ 4k
	- 1080
Interval	■ 1s, 5s, 10s, 15s, 30s, 60s
Scene	- Auto
	Preset: Sun, Cloudy, Mountain
Metering	•

General settings

These settings determine the overall behaviour of your camera.

Connect

From the hub screen on your camera, move right then move down to open the **Settings** screen. Select **General** then select **Connect**.

Use these settings to connect your camera to your smartphone, a remote control or external heart or bicycle cadence sensors.

Flight Mode

From the Camera Status screen on your camera, move down to open the **SETTINGS** screen. Select **GENERAL** then select **FLIGHT MODE**.

Move up or down to switch on flight or airplane mode.

To switch flight mode off, move up or down again.

Tip: When airplane mode or flight mode is switched on, an airplane icon is shown on the Camera Status screen and all Bluetooth low energy (also known as BLE or Bluetooth® Smart) connectivity is disabled.

Options

From the Camera Status screen on your camera, move down to open the **SETTINGS** screen. Select **GENERAL** then select **OPTIONS**.

Use these settings to select the general options for your camera, such as language and units.

Language

Select LANGUAGE to set the language used for menus and messages on your camera.

Units

Select UNITS to set the units to KM (metric) or Miles (imperial).

REVIEW QUESTION: NO nautical miles for this release?

Sound

Select **SOUND** to switch the buzzer sound on the camera **ON** or **OFF**.

When the camera is out of your sight, for example when mounted on your helmet, the buzzer tells you when the camera has started and stopped recording, when the power is switched on or off, and if a camera notification arrives.

You may wish to turn the buzzer off if you need silence when recording, for example, when riding through a landscape with wildlife.

Note: This setting does not control the audio recordings made while videoing.

Light

Select LIGHT to switch the LED lights on the camera ON or OFF.

Tip: Switching the LEDs off will save battery power.

Reset

Select **RESET** to reset your camera to the factory settings.

Note: A reset does not delete your photos and videos stored on the memory card.

Storage

Using the STORAGE settings you can delete items from the memory card and format the memory card.

Deleting the last file

- 1. From the Camera Status screen on your camera, move down to open the SETTINGS screen.
- 2. Select GENERAL then select STORAGE.
- 3. Select **DELETE LAST**.

This selection deletes only the last file that was stored on the memory card.

Deleting all photos and videos

- 1. From the Camera Status screen on your camera, move down to open the **SETTINGS** screen.
- 2. Select GENERAL then select STORAGE.
- 3. Select DELETE ALL.

This selection deletes all the photos and videos you made with your Action Camera from the memory card.

Formatting the memory card

- 1. From the Camera Status screen on your camera, move down to open the **SETTINGS** screen.
- 2. Select GENERAL then select STORAGE.
- 3. Select FORMAT SD.

This selection formats your memory card.

Important: Formatting a memory card deletes all files stored on the memory card.

Tip: When a memory card is formatted by the camera, the volume name is chosen by the camera, for example "TOMTOMCAM" and you cannot change the name.

Glossary of Terms

G

Glossary Term

Wi-Fi - 802.11n, Wi-Fi is in Wi-Fi Direct (or as a fallback ad-hoc) mode. Range will be minimum 10 meters and bandwidth will be at minimum 10Mbps.

Bluetooth

720p

1080p

Burst

Camera

Frames per second (fps)

Photo

Video

Addendum

How TomTom uses your information

Information regarding the use of personal information can be found at tomtom.com/privacy.

FCC information for the user



THE DEVICE COMPLIES WITH PART 15 OF THE FCC RULES

Federal Communications Commission (FCC) Statement

This equipment radiates radio frequency energy and if not used properly - that is, in strict accordance with the instructions in this manual - may cause interference to radio communications and television reception.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC ID: S4L4LB00, S4L4LBA2 IC: 5767A-4LB00, 5767A-4LBA2

The transmitters within this device must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement for the CAMERA:

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless device employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. *Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

A minimum separation distance of 1.2 cm must be maintained between the user's body and the device, including the antenna during body-worn operation to comply with the RF exposure requirements in Europe.

FCC Country Code Selection

The Country Code Selection feature is disabled for TomTom Action Cameras marketed in the US or Canada. Per FCC regulations, all WiFi products marketed in US must be fixed to US operation channels only.

Responsible party in North America

TomTom, Inc., 24 New England Executive Park, Suite 410, Burlington, MA 01803

Tel: 866 486-6866 option 1 (1-866-4-TomTom)

Emissions information for Canada

Operation is subject to the following two conditions:

This device may not cause interference.

This device must accept any interference, including interference that may cause undesired operation of the device.

Operation is subject to the condition that this device does not cause harmful interference.

This Class B digital apparatus complies with Canadian ICES-003. CAN ICES-3(B)/NMB-3(B).

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. ICES-003 CAN ICES-3(B)/NMB-3(B).

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

this device may not cause interference, and

this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

l'appareil ne doit pas produire de brouillage, et

l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter, except tested built-in radios. The County Code Selection feature is disabled for products marketed in the US/ Canada.

Cet appareil et son antenne ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur, exception faites des radios intégrées qui ont été testées. La fonction de sélection de l'indicatif du pays est désactivée pour les produits commercialisés aux États-Unis et au Canada.

IMPORTANT NOTE:

IC Radiation Exposure Statement for the CAMERA

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations pour la caméra

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.

Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

Battery and Environmental information

This product uses a lithium polymer battery that is not user accessible or user replaceable. Do not open the case or (attempt to) remove the battery. Substances in the product and/or battery may be harmful to the environment or your health if disposed of improperly. The battery contained in the product must be recycled or disposed of properly according to the local laws and regulations and always kept separate from household waste.



CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

WEEE directive

The wheelie bin symbol on the product or its packaging indicates that this product shall not be treated as household waste. In line with EU Directive 2012/19/EU for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling. By doing this you will help conserve the environment.



R&TTE directive

Hereby, TomTom declares that TomTom products and accessories are in compliance with the essential requirements and other relevant provisions of the EU Directive 1999/5/EC. The declaration of conformity can be found here: tomtom.com/legal.



Battery operating temperatures

Operating temperatures for camera battery: $-20^{\circ}C$ ($-4^{\circ}F$) to $40^{\circ}C$ ($104^{\circ}F$). Do not expose to temperatures beyond this.

Regulatory Compliance Mark



This product displays the Regulatory Compliance Mark (RCM) to show that it complies with relevant Australian regulations.

Notice for New Zealand

This product displays R-NZ to show it complies with relevant New Zealand regulations.

Notice for Singapore IDA

This product displays the Singapore IDA licence number show it complies with relevant Singapore regulations.

Complies with IDA Standards Licence No. DA106024

Customer support contact

Australia: 1300 135 604 New Zealand: 0800 450 973

Model names

Camera: 4LB00, Battery Stick: 4LB02, Remote Control: 4LBA2

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