

GARMIN[®]
VIRB[®] X/XE



Owner's Manual

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Introduction

⚠ WARNING

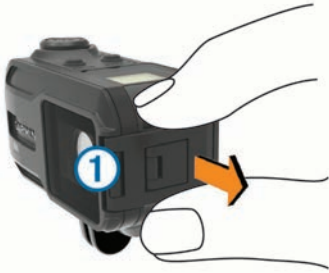
See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

It is your responsibility to use the device in a safe manner. Garmin® will not be responsible for any property damage, injuries or deaths resulting from any use of this device in any activities.

Opening the Front Cover

You must open the front cover to install the battery, memory card, and anti-fog desiccant pack.

- 1 Grip the top and bottom of the latch ① and pull to open the latch.



- 2 Open the front cover.

Installing a Memory Card

You must install a microSD™ memory card to use your device. For optimal performance, use a class 10 or better memory card.

- 1 Open the front cover.
- 2 Insert the memory card ① into the memory card slot with the contacts facing the lens.



- 3 Press in the card until it clicks.
- 4 Close and latch the front cover.

Installing the Desiccant Pack

⚠ WARNING

Do not eat desiccant packs. Desiccant packs contain silica, which may cause irritation in your digestive system. Desiccant packs are harmful if swallowed by an infant or pet due to choking hazard.

You should install an anti-fog desiccant pack for optimal performance and fog resistance.

- 1 Open the front cover.
- 2 Insert the desiccant pack into the desiccant tray ①.



- 3 Insert the desiccant tray into the desiccant slot.
- 4 Close and latch the front cover.

The indicator dot on the desiccant pack turns pink when the desiccant pack becomes saturated. Heat the desiccant pack at 85°C (185°F) for 60 minutes to dry the desiccant pack for reuse.

Installing the Battery

⚠ WARNING

This product contains a lithium-ion battery. To prevent the possibility of personal injury or product damage caused by battery exposure to extreme heat, store the device out of direct sunlight.

- 1 Open the front cover.
- 2 Locate the metal contacts on the end of the lithium-ion battery.
- 3 Insert the battery ① into the compartment, contacts first.



- 4 Press the battery into place.
- 5 Close and latch the front cover.

Charging the Battery

NOTICE

To prevent corrosion, thoroughly clean and dry the contacts and the surrounding area on the side of the device before charging or connecting to a computer. Refer to the cleaning instructions in the appendix.

Do not attempt to use the device to charge a battery that was not provided by Garmin. Attempting to charge a battery that was not provided by Garmin can damage the device and void the warranty.

- 1 Plug the USB cable into a USB port on your computer.
- 2 Align the charger posts with the contacts on the side of the device, and press the charger ① until it clicks.



3 Charge the battery completely.

Saving Energy While Charging the Device

You can turn off the device screen and all other features while charging.

- 1 Connect your device to an external power source.
- 2 Hold **POWER** for 4 to 5 seconds.
The screen turns off, and the device goes into a low power, battery charging mode.
- 3 Charge the device completely.

Attaching the Device to the Mount

NOTICE

To prevent product loss or damage, do not use the adhesive mounting base when the temperature is below -15°C (5°F).

The permanent mounting adhesive is extremely difficult to remove after it is installed.

Before you can install the adhesive mounting base onto a surface, the ambient temperature must be from 21° to 38°C (from 70° to 100°F).

Your device includes an assortment of mounting bases and arms, which can be used in many configurations. These instructions provide an example of one possible configuration. You can also purchase additional mounts for your device, such as wearable mounts, vehicle mounts, or a tripod mount. Go to www.garmin.com/VIRB for more information.

NOTE: By default, the device should be mounted with the screen facing up to record correctly oriented video. You can adjust the settings to record with the screen facing down (*Inverting the Camera Orientation*, page 8).

- 1 Thoroughly clean and dry the mounting surface using water or alcohol.
The mounting surface must be free of dirt, debris, wax, or coatings.
- 2 Remove the film from the adhesive mounting base ①, and press the base firmly onto the mounting surface.
You can use either the flat base or the curved base, depending on the contour of the mounting surface.



- 3 Allow the base to bond to the mounting surface for at least 24 hours.
- 4 Insert the adapter ② into the base.
The lever ③ must be in the open position.
- 5 Snap the lever to the closed position to lock the adapter into the base.
The lever should be flush with the base.
- 6 Insert the camera mount ④ into the top of the adapter.

- The device should be horizontal for the proper aspect ratio when recording video.
- 7 Insert a thumbscrew ⑤ into the larger opening of the joint, and tighten the thumbscrew to lock the angle of the joint.
NOTE: The metal fitting indicates the smaller opening of the joint.
 - 8 If necessary, insert the included hex wrench into the end of the thumbscrew to adjust the tightness of the joint.

Keys



①	MENU △	Select to scroll through sensor status screens, data screens, and menu items. Hold to open the menu.
②	POWER ▽	Select to scroll through sensor status screens, data screens, and menu items. Hold to turn the device on or off.
③	OK Ⓜ	Select to choose menu options or to take a photo.
④	Recording switch	Move the switch to start or stop recording video.

Turning On the Device

Select **POWER**.

Turning Off the Device

NOTICE

To prevent loss of data, always turn off the device before removing the battery.

NOTE: You cannot turn off the device while recording video.

- 1 If necessary, move the recording switch backward to stop recording video.
- 2 Hold **POWER**.

The device saves your data and turns off.

If you need to remove the battery, wait until the screen and the recording light turns off before removing the battery.

Turning the Device On and Off Using the Recording Switch

You can use the recording switch to turn the device on and off in recording mode. This feature allows you to start recording quickly, while automatically turning off the device to conserve battery power when you are not recording.

NOTE: The device does not turn off using the recording switch unless you use the recording switch to turn on the device.

- 1 With the device turned off, move the recording switch forward.
The device turns on and starts recording video.
- 2 When you are finished recording, move the recording switch backward.
The device stops recording and turns off.

Home Screen Overview

The home screen provides at-a-glance details about the remaining memory card space and current settings of your device.



①	Displays the sensor status and remaining battery capacity. Includes ANT+® sensors, Bluetooth®, Wi-Fi®, and GPS.
②	Displays the remaining memory card space for video recording.
③	Displays the remaining memory card space for photos.
④	Displays the field of view, video resolution, and frame rate.
⑤	Displays the photo mode.

Viewing the Sensor Screens

The sensor screens display G-Metrix™ data from built-in sensors, and data from paired ANT+ sensors. The sensor status screen displays the connection status for ANT+ sensors, Wi-Fi connection, and Bluetooth devices.

- From the home screen, select to view the sensor status screen.
- From the home screen, select to view the sensor data screens.

Status Bar Icons

Icons appear at the top of the home screen. A flashing icon means the device is searching for a signal. A solid icon means the signal was found or the sensor is connected.

GPS	GPS status
	Wi-Fi technology status
	Bluetooth technology status
	ANT+ sensor status
	Battery level

Sensor Status Icons

Icons appear on the sensor status screen. A flashing icon means the device is searching for a signal. A solid icon means the signal was found or the sensor is connected.

	Heart rate status
	Speed and cadence status
	Power status
	Temperature status
	Headset and audio status
	OBD-II status

Video

Recording a Video

NOTE: If the battery power becomes very low while recording video, the device automatically stops recording, saves the video, and safely turns off.

- Move the recording switch forward to start recording video.

If the device is off, it turns on automatically. The device starts recording video immediately, and the red light turns on.



The screen displays the elapsed recording time ①, available recording time ②, and video mode ③.

- Move the recording switch backward to stop recording video.

The video is saved on the memory card as an .mp4 file. The track log for the video and sensor data is saved on the memory card as a .fit file.

Video Settings

NOTICE

To prevent damage to the device in wet conditions, you must disable the Video Out setting when the device is not connected to a USB cable.

Hold **MENU**, and select **Video**.

Mode: Sets the video shooting mode ([Video Modes, page 3](#)).

NOTE: Additional settings vary based on the selected mode.

Resolution: Sets the height of the video, in pixels.

Interval: Sets the time interval for time-lapse mode.

FPS: Sets the frame rate in frames per second (fps).

Field of View: Sets the zoom level ([Field of View Settings, page 4](#)).

Playback: Sets the speed for slow-motion playback.

Lens Correct: Corrects wide-angle barrel distortion and reduces the field of view.

Enables automatic adjustment for low light.

Stabilizer: Turns on image stabilization to reduce shaky video.

NOTE: Image stabilization is available for the VIRB XE device only.

Loop: Enables loop recording and sets the number of minutes of video to store when recording a video loop ([Recording a Video Loop, page 5](#)).

Auto Record: Enables automatic recording when the device is in motion ([Recording Video Automatically, page 4](#)).

Video Out: Enables composite video output ([Outputting Composite Video, page 5](#)).

Pro Settings: Enables advanced video and photo settings ([Pro Settings, page 4](#)).

NOTE: Pro settings are available for the VIRB XE device only.

Video Modes

You can change the video mode to change the resolution, aspect ratio, frame rate, and speed of recorded video. The resolution is the width and height of the video, in pixels. The aspect ratio is the ratio of the video width to the video height. Standard widescreen televisions use a 16:9 aspect ratio, and standard full-screen televisions use a 4:3 aspect ratio. The frame rate is expressed in frames per second (fps). The playback speed indicates the speed of action in the video compared to real time.

Hold **MENU**, and select **Video > Mode**.

Tall: Enables you to capture a large, vertical viewing area using a 4:3 aspect ratio. This mode is particularly useful for close-up action shots and when using a chest mount.

HD Video: Enables you to capture high-speed action shots. 1080p works well as a default setting when you need high-resolution shots.

VIRB XE Video Mode Specifications

Mode	Resolution (pixels)	Aspect Ratio	NTSC Frame Rate (fps)	PAL Frame Rate (fps)	Field of View (fov)	Speed
Tall	1440p (1920x1440)	4:3	30, 24	25, 24	Wide	1x
	960p (1280x960)	4:3	100, 60, 48	100, 50, 48	Wide	1x
HD Video	1080p (1920x1080)	16:9	60, 48, 30, 24	50, 48, 25, 24	Wide, zoom, ultra zoom	1x
	720p (1280x720)	16:9	120, 60, 30	100, 50, 25	Wide, zoom, ultra zoom	1x
Slow-Mo	720p (1280x720)	16:9	120	100	Wide, zoom, ultra zoom	1x, 1/4x, 1/2x
	480p (848x480)	16:9	240	240	Wide	1x, 1/8x, 1/4x, 1/2x
Timelapse	1080p (1920x1080)	16:9	30	25	Wide, zoom, ultra zoom	Varies

VIRB X Video Mode Specifications

Mode	Resolution (pixels)	Aspect Ratio	NTSC Frame Rate (fps)	PAL Frame Rate (fps)	Field of View (fov)	Speed
Tall	960p (1280x960)	4:3	30	25	Wide	1x
HD Video	1080p (1920x1080)	16:9	30	25	Wide, zoom, ultra zoom	1x
	720p (1280x720)	16:9	60, 30	50, 25	Wide, zoom, ultra zoom	1x
Slow-Mo	720p (1280x720)	16:9	60	50	Wide, zoom, ultra zoom	1x, 1/2x
	480p (848x480)	16:9	120	100	Wide	1x, 1/4x, 1/2x
Timelapse	1080p (1920x1080)	16:9	30	25	Wide, zoom, ultra zoom	Varies

Field of View Settings

You can change the field of view when Lens Correct is set to Off.

Hold **MENU**, and select **Video > Field of View**.

Wide: Captures a wide view of your surroundings. Use this option for open areas, close-range video, and to capture as much of your viewing area as possible.

Zoom: Captures a tighter view. Use this option for medium-range video.

Ultra-Zoom: Captures a very focused view. Use this option for long-range video and closed or covered surroundings.

Setting the Video Format

You can set the video standard for your region. The video standard affects the available video frame rate options (FPS).

- 1 Hold **MENU**.
- 2 Select **System > Format**.
- 3 Select **NTSC** or **PAL**.

Pro Settings

Hold **MENU**, and select **Video > Pro Settings > Status**.

TIP: While on the home screen, you can select  to view the current pro settings.

NOTE: Pro settings are available for the VIRB XE device only.

Color: Sets the color palette. You can use the Vivid option for a more vibrant color palette, or the Flat option for a more neutral color palette.

White Bal.: Adjusts the color tone based on your surroundings. The device can automatically adjust the white balance, or you can manually adjust the white balance. You can use the 2800K option for incandescent light, the 4000K option for fluorescent light, the 5000K option for daylight, the 6500K option for sunny conditions, or the 7500K option for cloudy conditions.

Sharpness: Sets the level of sharpness. You can use the High option for a sharper look, the Medium option for moderate sharpness, or the Low option for a softer look.

ISO Limit: Sets the level of sensitivity and image noise. Higher ISO values have more visible noise or grain. Higher ISO

Slow-Mo: Enables you to capture slow-motion playback in 720p HD or widescreen standard definition.

Timelapse: This high-resolution mode enables you to capture slow-moving or long-term action that is ready for playback or sharing immediately ([Recording a Time-Lapse Video](#), page 4).

values are best for use in low light environments or indoors. Lower ISO values are best for use in sunlight. You can use the 6400 option for brighter video in low light, the 1600 option for moderate brightness in low light, or the 400 option for darker video in low light.

EV Bias: Sets the exposure bias. Exposure bias affects the level of brightness.

EV Lock: Enables or disables exposure lock. You can enable exposure lock to ensure consistent light sensitivity in your video capture. When recording a time-lapse video, this helps eliminate stray frames with slightly brighter or darker images.

Recording Video Automatically

You can set the device to record video automatically when the device is moving. This feature allows you to conserve space on your memory card by recording only the important parts of your activity.

- 1 Hold **MENU**.
- 2 Select **Video > Auto Record > When Moving**.

The device records video when you are moving and stops recording when you are still.

This feature automatically enables GPS in the system settings.

Recording a Time-Lapse Video

Time-lapse mode captures individual video frames at longer intervals and creates a video that plays much faster than real time. You can use time-lapse mode to record movements, changes, or events that take place over a long period of time.

Time-lapse videos play at 30 frames per second. The length of the video depends on the amount of time between video frames. For example, if frames are recorded at a one-second interval, each second of video covers 30 seconds of real time. If frames are recorded at a 60-second interval, each second of video covers 30 minutes of real time.

- 1 Hold **MENU**.
- 2 Select **Video > Mode > Timelapse**.
- 3 Select a time interval.

- 4 For the best results, mount the device so it does not move while recording.
- 5 Record a video.

Recording a Video Loop

Loop recording allows you to record video continuously but save only the most recent video footage. You can select the number of minutes of video to save. This enables you to save storage space when you want to capture key moments but do not want to save all footage of an activity. This feature is useful when using the device as a driving recorder.

The saved video loop is split into multiple files of equal length. This allows you to delete unwanted portions of the video easily.

- 1 Hold **MENU**.
- 2 Select **Video > Loop**.
- 3 Select the number of minutes of video to save.
- 4 Start recording video.
- 5 When finished, stop recording.

The most recent footage is saved on the memory card, up to the number of minutes selected in step 3.

Connecting a Cabled External Microphone or Audio Source

Before you can connect an external microphone, you must purchase the VIRB rugged combo cable accessory. Go to <http://virb.garmin.com/products/rugged-combo-cable-virbx-xe>. You must also have an external microphone or audio source with a 3.5 mm connector.

When you enable and connect an external microphone, the device records audio from the external microphone instead of the built-in microphone.

- 1 Hold **MENU**.
- 2 Select **System > Microphone > External** to enable the external microphone.
- 3 Align the charger posts on the accessory cable with the contacts on the side of the device, and press the accessory cable until it clicks.
- 4 Connect the microphone to the **MIC IN** connector on the accessory cable.

To stop using the external microphone, you must disconnect the accessory cable from the device. You can select **System > Microphone > Internal** to enable the built-in microphone.

Live Viewfinder

Outputting Composite Video

Before you can output composite video, you must purchase the VIRB rugged combo cable accessory. Go to <http://virb.garmin.com/products/rugged-combo-cable-virbx-xe>. You must also have an RCA composite video cable.

You can display composite video on an external display.

- 1 Hold **MENU**.
- 2 Select **Video > Video Out** to enable composite video output.
- 3 Align the charger posts on the accessory cable with the contacts on the side of the device, and press the accessory cable until it clicks.
- 4 Connect an RCA composite video cable to the **VID OUT** connector of the accessory cable and to an available port on your external display.

Photos

Taking a Photo

Your device provides several methods for taking a photo using the default settings. You can change the photo mode to capture single, burst, or time lapse photos by holding **MENU** and selecting **Photos > Mode**.

- While on the home screen or sensor screens, select the  key to take a single photo.
- While on the home screen or sensor screens, hold the  key to take multiple photos in burst-on-demand mode.

The device continues taking photos the entire time you hold .

- While recording a video, select the  key to capture a photo at the same resolution as the video recording.

Photos taken while recording a video always use single photo capture. Photo timelapse or burst settings are ignored while recording video.

Photo Settings

Hold **MENU**, and select **Photos**.

Mode: Sets the shooting mode (*Photo Modes*, page 5).

NOTE: Additional settings vary based on the selected mode.

Start Time: Sets the start time for extended time-lapse mode. You can start shooting now, or set a custom start time.

Duration: Sets the duration for extended time-lapse mode. You can shoot continuously, or set a custom duration.

Interval: Sets the time interval for burst mode, time-lapse mode, and extended time-lapse mode. For time-lapse mode, you can choose a preset interval or set a custom interval.

Field of View: Sets the zoom level.

Self Timer: Sets the timer to delay taking a photo.

Lens Correct: Corrects wide-angle barrel distortion and reduces the field of view.

Date Stamp: Adds a date stamp to your photo.

Photo Modes

Hold **MENU**, and select **Photos > Mode**.

Single: Enables you to take a single photo using automatic exposure.

Burst: Enables you to rapidly take three, five, or ten images in one second. This mode is ideal for capturing photos of people or objects in motion.

NOTE: The VIRB XE device provides additional burst intervals.

Timelapse: Enables you to capture a series of photos at set time intervals.

Ext. Timelapse: Enables you to capture a series of photos over an extended duration. The VIRB X/XE device turns off between image captures, allowing the device to maximize battery life.

Taking a Delayed Photo

You can delay taking a photo using the self timer. This allows you to join or adjust a shot before the photo is taken.

- 1 Hold .
- 2 Select **Photos > Self Timer**.
- 3 Select a delay time.
- 4 While on the home screen, select the  key.

The countdown timer displays the remaining time until the photo is taken, in seconds.

Taking Time-Lapse Photos

You can use the time-lapse or extended time-lapse mode to take a series of photos at a set time interval.

- 1 Hold **MENU**.
- 2 Select **Photos > Mode**.
- 3 Select **Timelapse** or **Ext. Timelapse**.
- 4 If using extended time-lapse mode, select a start time and duration for the shoot.
- 5 Select a time interval between photos.
- 6 While on the home screen, select the  key.



The device takes a series of photos at the selected interval. The screen displays the remaining number of photos the device can take ①, the number of photos the device has taken ②, the elapsed time ③, and the time in seconds until the next photo is taken ④.

- 7 Select  to stop taking photos.

G-Metrix

Your VIRB X/XE device contains built-in GPS, G-force, and orientation sensors. Your device can also wirelessly connect to external ANT+ sensors and other Garmin devices to capture even more performance data. You can use the free Garmin VIRB mobile app or VIRB Edit software application to overlay gauges, graphs, and more. You can then play back your recorded video to show your speed, acceleration, heart rate, and other sensor data in real time.

G-Metrix Overlays

Your device can record these types of data.

- Speed
- Pace
- Altitude
- G-force
- Orientation
- Hang time
- Distance
- Grade
- Pitch
- Roll
- Bearing (when moving)
- GPS location (coordinates)
- Track shape and position
- Lap times
- Lap count
- Heart rate (when connected to a compatible heart rate monitor)
- Cadence (when connected to a compatible bicycle cadence sensor)

- Power output in watts (when connected to a compatible power meter)
- Temperature (when connected to a compatible temperature sensor)
- Automotive data (when connected to a compatible OBD-II device)

ANT+ Sensors

Your device can be used with wireless ANT+ sensors. For more information about compatibility and purchasing optional sensors, go to <http://buy.garmin.com>.

Pairing Your ANT+ Sensors

When you pair a compatible ANT+ sensor with your device, the sensor data is included in the G-Metrix overlays and in the .fit file.

- 1 Put on the heart rate monitor or install the sensor.
- 2 Bring the device within 3 m (10 ft.) of the sensor.
- 3 Hold **MENU**.
- 4 Select **Sensors > Add New**.
- 5 Select an option:
 - Select **Search All**.
 - Select your sensor type.
- 6 Select the sensor to pair.

After the sensor is paired with your device, the sensor status changes to Connected.

While on the home screen, you can select  to view sensor data.

Tips for Pairing ANT+ Accessories with Your Garmin Device

- Verify that the ANT+ accessory is compatible with your Garmin device.
- Before you pair the ANT+ accessory with your Garmin device, move 10 m (32.9 ft.) away from other ANT+ accessories.
- Bring the Garmin device within range 3 m (10 ft.) of the ANT+ accessory.
- After you pair the first time, your Garmin device automatically recognizes the ANT+ accessory each time it is activated. This process occurs automatically when you turn on the Garmin device and only takes a few seconds when the accessories are activated and functioning correctly.
- When paired, your Garmin device receives data from only your accessory, and you can go near other accessories.

Removing Paired ANT+ Sensors

- 1 Hold **MENU**.
- 2 Select **Sensors**.
- 3 Select a sensor.
- 4 Select **Remove > Yes**.

Bluetooth Devices

Connecting a Wireless External Microphone

You can connect a Bluetooth hands-free device with your VIRB X/XE device.

- 1 Hold **MENU**.
- 2 Select **Bluetooth > Status** to turn on Bluetooth wireless technology.
- 3 Select **Add New**.
- 4 Select the wireless device to pair.

After the wireless device is paired, the device status changes to Connected.

Connecting an OBD-II Device

Your VIRB X/XE device can pair with a compatible Bluetooth ELM327 on-board diagnostics (OBD-II) device to record automotive data from your OBD-II compliant vehicle.

- 1 Install your ELM327 compatible OBD-II device in the OBD-II port of your vehicle.
TIP: See the owner's manual for your vehicle to locate the OBD-II port.
- 2 If necessary, enable pairing mode on your OBD-II device.
TIP: See the owner's manual for your OBD-II device to enable pairing mode.
- 3 From the VIRB X/XE device, hold **MENU**.
- 4 Select **Bluetooth > Status** to turn on Bluetooth wireless technology.
- 5 Select **Add New**.
- 6 Select the OBD-II device to pair.
TIP: If your OBD-II device does not appear in the list, confirm that it is still in pairing mode and search again.
After the OBD-II device is paired, the device status changes to Connected.

Removing Paired Bluetooth Devices

- 1 Hold **MENU**.
- 2 Select **Bluetooth**.
- 3 Select a wireless device.
- 4 Select **Forget > Yes**.

Applications

Operating the Device Using Your Mobile Device

The free Garmin VIRB app lets you remotely view and control photo and video recording using a compatible mobile device. You can view playback of recorded clips and photos, as well as create, edit, and share videos on social media. Go to <http://virb.garmin.com/virb-app> for more information.

- 1 Install the Garmin VIRB app from the application store on your mobile device.
- 2 On your VIRB device, hold **MENU**, and select **Wi-Fi > Status** to turn on Wi-Fi wireless technology.
- 3 On your mobile device, start the Garmin VIRB app.
- 4 Follow the on-screen instructions.

Wi-Fi Modes

Hold **MENU**, and select **Wi-Fi**.

Multi-Cam: Enables you to create or join a wireless network for multiple cameras.

Mobile App: Enables you to operate the device using your mobile device.

Join: Enables you to connect to a wireless network.

Wireless Settings

You can change the wireless host settings for your device.

Hold **MENU**, and select **Wi-Fi > Edit**.

SSID: Sets the SSID, which identifies your VIRB device on other devices.

Password: Sets the password used to connect to your VIRB device.

VIRB Edit

The VIRB Edit application provides easy access to these tools and services for your device.

- Review and edit recorded videos
- Add G-Metrix gauges, graphs, and more
- Add titles and transitions
- Multi-camera support
- Update software and features

The VIRB Edit application is available for Windows® and Mac® computers. Go to <http://virb.garmin.com/virb-edit> for more information.

Remote Control

You can start recording, stop recording, and take pictures on your VIRB device using another compatible Garmin device with ANT+ wireless technology, such as the VIRB remote control accessory or the fēnix® 3 watch. You can also use your VIRB device to control other VIRB devices.

Controlling the Device Remotely

- 1 On your VIRB device, hold **MENU**.
- 2 Select **Remote > On**.
- 3 Select **Yes** if you have more than one VIRB device.
- 4 If necessary, select **VIRB Type > Main VIRB**.
- 5 Select an option:
 - On the remote control device, launch the VIRB app or feature. See the owner's manual for the device for more information.
 - On the remote control accessory, follow the pairing instructions in the accessory manual.
- 6 On your VIRB device, select **Remote Wake Up** to keep the device in a lower-power state (optional).
NOTE: The Remote Wake Up setting allows your remote control to turn the device on, start recording, stop recording, and turn the device off. While in a lower-power state, the VIRB device appears to be off, but it continues to slowly reduce battery life.

Controlling Multiple VIRB Devices Remotely

When controlling multiple VIRB devices with ANT+ wireless technology, you must choose a main VIRB device. This device controls all of your other VIRB devices.

When you use a remote control device with multiple VIRB devices, the remote control device controls only the main VIRB device. The main VIRB device passes commands received from the remote control device to the other VIRB devices.

- 1 On all of your VIRB devices, hold **MENU**, and select **Remote > On**.
- 2 On your main VIRB device, select **VIRB Type > Main VIRB**.
- 3 On each of your other VIRB devices, select **VIRB Type > Extended VIRB**.

The recording switch on your main VIRB device starts and stops recording video on all of your VIRB devices. Selecting the  key on your main VIRB device takes a photo from all of your VIRB devices.

- 4 On the remote control accessory, follow the pairing instructions in the accessory manual.

Device Information

System Settings

NOTICE

To prevent damage to the device in wet conditions, you must disable the external microphone setting when the device is not connected to a USB cable.

Hold **MENU**, and select **System**.

GPS: Enables the device to receive GPS satellite signals.

NOTE: The GPS setting must be set to On to enable Auto Record.

NOTE: Your device records GPS position data at all times when GPS is on. This data is not collected by Garmin.

Orientation: Sets the camera to capture correctly oriented video and photos with the screen facing up or down ([Inverting the Camera Orientation](#), page 8).

Microphone: Enables the internal or external microphone.

TIP: If wind noise is an issue when recording video, you can select Off to record video without audio.

Record Light: Turns the recording light on or off.

Tones: Turns audible tones on or off.

Time/Date: Sets the time and date formats.

Units: Sets the units of measure.

Language: Sets the on-screen text language.

Format: Sets the video standard ([Setting the Video Format](#), page 4).

Auto Off: Turns off the device automatically when the device has not been used for five minutes.

Reset Settings: Restores the default device settings.

About: Displays important software information and your unit ID.

Inverting the Camera Orientation

You can change the camera orientation of your device to easily access the keys during an activity. Some mounting configurations require you to change the camera orientation. For example, if using a chest mount while cycling, you can mount the camera upside down and tilt it upward to compensate for forward lean.

1 Hold **MENU**.

2 Select **System** > **Orientation**.

3 Select an option:

- To automatically adjust the camera orientation, select **Auto**.

NOTE: After recording starts, the camera orientation is set and cannot be automatically adjusted.

- To manually adjust the camera orientation with the screen facing upward, select **This Side Up**.
- To manually adjust the camera orientation with the screen facing downward, select **This Side Dn**.

Time and Date Settings

Hold **MENU**, and select **System** > **Time/Date**.

Time Format: Sets the device to show time in a 12-hour or a 24-hour format.

Date Format: Sets the device to show dates in a MM/DD/YY or a DD/MM/YY format.

Time: Sets the time manually or automatically based on your GPS position.

Time Zone: Sets the time zone for the device. When you set the time automatically, the time zone is set based on your GPS position.

Day. Saving: Indicates whether daylight saving time is observed in your region. The Automatic option sets daylight saving automatically based on your GPS position.

Erasing Your Memory Card

NOTICE

Erased data cannot be restored.

You can erase all photos, videos, and other data on the memory card installed in your device.

1 Hold **MENU**.

2 Select **Card** > **Erase**.

Device Care

NOTICE

Avoid chemical cleaners, solvents, and insect repellents that can damage plastic components and finishes.

Do not store the device where prolonged exposure to extreme temperatures can occur, because it can cause permanent damage.

Cleaning the Device

NOTICE

Do not use a dry cloth to clean the lens. Use of a dry cloth may damage the fog-resistant coating on the lens.

1 Wipe the outer casing of the device with a soft, non-scratch cloth dampened with water or alcohol.

2 Open the front cover, and wipe the lens and lens cover with a soft, non-scratch cloth dampened with water or alcohol.

NOTE: Do not damage or lose the O-ring gasket.

3 Wipe the device dry.

Connecting the Device to Your Computer

Before you can connect the device to your computer, you may need to remove optional mount accessories.

1 Plug the USB cable into a USB port on your computer.

2 Align the charger posts with the contacts on the side of the device, and press the charger ① until it clicks.



Your device and memory card appear as removable drives in My Computer on Windows computers and as mounted volumes on Mac computers.

File Types

The device supports these file types.

- .jpeg photo files.
- .mp4 video files.
- .fit files.

Specifications

Battery type	Rechargeable lithium-ion battery
Battery life	Up to 2 hr.

Operating temperature range	From -20° to 45°C (from -4° to 113°F)
Charging temperature range	From 0° to 45°C (from 32° to 113°F)
Storage temperature range	From -40° to 85°C (from -40° to 185°F)
Radio frequency/protocol	2.4 GHz ANT+ wireless communications protocol Wi-Fi IEEE 802.11b/g/n at 2.4 GHz 2.4 GHz Bluetooth 4.0
Waterproof	50 m

Troubleshooting

My device does not turn on

- Verify the battery is installed correctly (*Installing the Battery, page 1*).
- Fully charge the battery (*Charging the Battery, page 1*).

My device display is hard to see

The device has a reflective display that maximizes battery life and is readable in direct sunlight. The display does not have a backlight and requires ambient light for visibility. If the display looks dark or hard to see, you should increase the ambient light or go to a brighter area.

Some data is missing from G-Metrix

Some G-Metrix data requires you to enable or pair sensors.

- Enable GPS (*System Settings, page 8*), and go to an area with a clear view of the sky.
Location, speed, distance, and altitude data require a GPS signal.
- Connect additional ANT+ sensors (*Pairing Your ANT+ Sensors, page 6*).
Some data is available only when a compatible ANT+ sensor is connected.

My video recordings do not look smooth

- If video recordings appear shaky, hold **MENU**, and select **Video > Stabilizer** to enable image stabilization.
- If video recordings stutter or skip frames, install a Class 10 or better microSD memory card (*Installing a Memory Card, page 1*).
The device requires a Class 10 or better memory card to record smooth high-definition video.

My device turns off when I stop recording video

If you turn on the device by moving the recording switch forward, the device turns off when you move the recording switch backward. This allows you to maximize battery life by turning off the device when it is not recording (*Turning the Device On and Off Using the Recording Switch, page 2*).

Extending the Battery Life

- Disable Wi-Fi.
- Enable **Auto Off** in the system settings (*System Settings, page 8*).
- Turn the device on and off using the recording switch (*Turning the Device On and Off Using the Recording Switch, page 2*).
- Use automatic recording (*Video Settings, page 3*).
- Disable ANT+ and Wi-Fi **Remote Wake Up** when not in use.

Getting More Information

You can find more information about this product on the Garmin website.

- Go to www.garmin.com/outdoor.
- Go to <http://buy.garmin.com>, or contact your Garmin dealer for information about optional accessories and replacement parts.

Appendix

Software License Agreement

BY USING THE DEVICE, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin Ltd. and its subsidiaries ("Garmin") grant you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin and/or its third-party providers.

You acknowledge that the Software is the property of Garmin and/or its third-party providers and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software, for which source code is not provided, are valuable trade secrets of Garmin and/or its third-party providers and that the Software in source code form remains a valuable trade secret of Garmin and/or its third-party providers. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America or the export control laws of any other applicable country.

Symbol Definitions

These symbols may appear on the device or accessory labels.

	WEEE disposal and recycling symbol. The WEEE symbol is attached to the product in compliance with the EU directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE). It is intended to deter the improper disposal of this product and to promote reuse and recycling.
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