

Vega X1

Extreme



Operation Instruction

Please read this manual carefully before you use this unit, and keep it well for further checking.

(Important) Legal Mumbo Jumbo

FCC Verification

NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment 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 the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT NOTE: Prohibition against eavesdropping

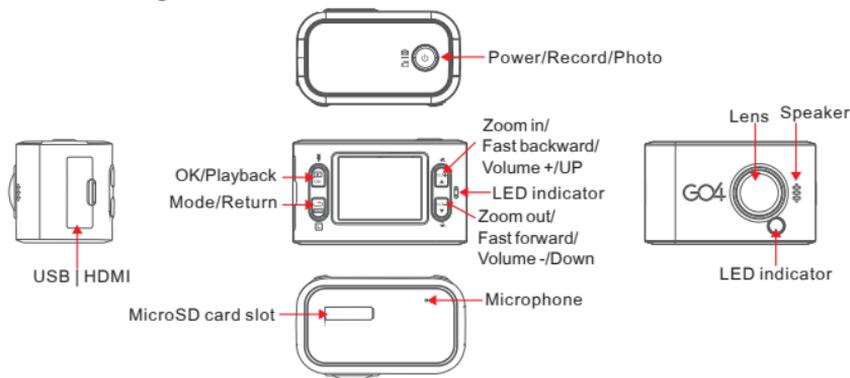
Except for the operations of law enforcement officers conducted under lawful authority, no person shall use, either directly or indirectly, a device operated pursuant to the provisions of this Part for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

Contents

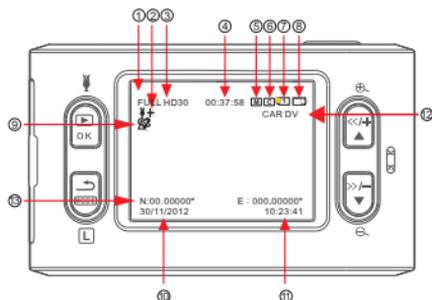
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Introduction

Product Layout



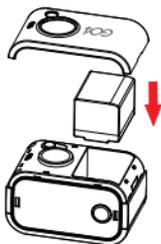
Screen Icons



- 1 Mute recording
- 2 Recording mode
- 3 Recording resolution
- 4 Remaining time of memory
(in recording, it will show recorded time)
- 5 Motion detection symbol
- 6 Cycle recording symbol
- 7 Current storage memory card
(1 means internal memory; 2 means card)
- 8 Battery indicator
- 9 GPS symbol
- 10 Date indicator(Day/month/year)
- 11 Time indicator (hour/min./sec.)
- 12 Car plate number
- 13 GPS coordinate

Getting Started

Install batteries



Charging

Connect the USB cable to camera USB port, insert the charger to socket and wait for 2-3 hours. During charging, the LED is yellow. When the battery is full, yellow LED will turn off.

Insert Micro SD Card

Hold the camera; make sure buttons are upward; Confirm the Micro SD Card direction and the side with words towards to display screen; Push Micro SD Card into card slot gently, and pay attention to the directions. If insert the card wrongly, it will get stuck; When fully insert the card, it will remind you with sound; Press the card and take the card out, this will release the lock, and card will be pop out. Please take out the Micro SD Card gently for the spring is very powerful.



MicroSD Card

Setup your DVR menu

Connect your camera to TV or display screen through LCD or HDMI cable, enter into menu by pressing button. The best steps are:

- Select the video resolution.
- Set up the video mode(Auto/Sunny/Cloudy/Rainy/Snowy) .
- Format your SD Card.
- Set up time and date(If you have GPS, time will be updated automatically, but you need to select the time zone you located).
- Select the video split option for your video.
- Set the recording Quality.

Micro SD Card

Select Micro SD Card

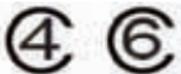
Your camera supports max memory is up to 32GB.

1 GB can store 7-30 minutes video. For more information about image and quality please refer to details below.

We recommend using 8GB card minimum. 16GB or 32GB card will be better for full HD recording.

To ensure the card transfer speed, we highly recommend using a class 4 or higher card.

Find out these icons



Charging

You can charge your camera by **USB port left side**

- Plug mini- USB to USB adaptor, and the other end to your camera USB interface.
- Plug USB adaptor to your power socket.

Do not connect this camera to any power source that is not 5V. It is safe to connect it to your computer or the wall charger in the package.

Charging via computer

It is not enough for currency (5V 500mA) via computer USB Port, although the battery is small, but it is very strong, so need more power. With our charger (5V 1000mA), you can get it worked perfectly.

Charging status indicator

When the camera is charging, the yellow LED on right side will light on, when it is fully charged, this LED will off;

It need about 2.5 hours to be fully charged if you use the attached USB charger; But if you charge via computer with the USB cable, it will take more time;

Button definitions

[Power / Record/ Photo]

- Power on: press this button and hold it down for 2 seconds to power on.
- Power off: in preview mode, press this button and hold it down for 2 seconds.
- Record: in record mode, press this button, it will start recording.
- Stop Recording: when recording, press this button to stop.
- Photo: in photo mode, press this button to take a photo. Snapshot: during play backing, press to take a snapshot.

OK Button

- Change to playback mode
In record preview mode, press to enter video playback.
In photo mode, press to enter photo playback.
Photo slide view: during photo play backing, press to make slide view.
- In playback
Start playback.
Pause playback.
Resume normal playbacks in fast forward or fast backward.
- Confirm in menu settings
- Mute recording
while recording, press OK button to turn off microphone.

Mode Button

- Mode change
in preview mode, press and change between the recording mode, photo mode, and setting mode.
- Delete or copy file
in 6 blocks preview mode, hold this button, to delete or copy file.
- Return to original mode
in 6 blocks preview mode, press this button to switch to record mode or photo mode.
- Quit playback
while playing video, press to exit playing and get back to 6 blocks preview mode.
- Exit menu
in setting mode, press to exit.
- File protect
in recording, press to protect this video file. This file will not be erased by normal cycle recording.

▲ and ▼

- Digital zoom
While in recording mode, no matter preview or recording mode, press [<</+ / ▲] to zoom in and [>> / - / ▼] to zoom no zoom function for 1920*1280 and 1280*720@50 resolution.
- Photo zoom
In photo mode, press [<</+ / ▲] to zoom in and [>> / - / ▼] to zoom out.

LED Definitions

- **Left/Right navigation**
In 6 blocks playback mode, press this button to choose file.
- **Fast forward and fast backward**
In play backing, hold [>>/- / ▼] to make fast forward; hold [<</+ / ▲] to fast backward. You can choose between 4x/8x/16x three different speeds.
- **Volume ▲ / ▼**
While playback video, press this button to adjust the volume. You can choose the volume between off, 1, 2, and 3.
- **Menu select**
In setting mode, press this button to select function or select between main page and second page.

LED definitions

- **Blue**
Blue means the device is idle now, and it is waiting for your instructions. If it is flashing, means it is low power now.
- **Red**
Flashing red means it is recording now. It is red, but no flashing.
It means the card is full now.
- **Green**
Flashing green means it is searching for satellite signal.
Green but no flash means satellite signal is ready.
- **Yellow**
Battery is under charging now. If the yellow LED turns off, the battery is full now.

About Recording Quality

Resolution and quality will affect badly how many you can record, please read these data carefully:

Video Quality

Resolution	L	M	H
720p	4007kbps	6270kbps	8334kbps
	(30 min/GB)	(20 min/GB)	(15 min/GB)
1080p	8109kbps	10284kbps	12361kbps
	(15 min/GB)	(11 min/GB)	(9min/GB)

Photo quality

Photo quality	Photo resolution	Size
3.5M	2560 x 1440	900 photos/GB
3M	2403 x 1296	1000 photos/GB
2M	1920 x 1080	1500 photos/GB
0.9M	1280 x 720	3500 photos/GB

File Playback

You have 3 ways to playback files. It depends on your requirement and what devices you have.

Playback using the LCD screens

You can enter into the video or photo file list when you press OK key on Video monitoring or photographing interface, select the file you want, and press OK to play, you can press left or right key to adjust the voice, press for about 2 seconds to fast forward or rewind operation, convenient for operation!

- In recording preview mode, press OK to switch to video playback Mode(It shows six blocks videos), select the file that you want to play and press OK to play.
- When playing files, press [▲] / [▼] key to adjust the volume.
- When playing files, press [▲] / [▼] key longer to fast forward or rewind files; to stop it, press OK shortly, then continue to play files;
- During play backing, press Mode button shortly, can go back to file list; When Play is paused, press OK key to resume; Press Mode Key to select other mode.

Playback via Mini HDMI

This Mini- HDMI port is a good interface, you can connect it to HD TV or Display screen. You need a HDTV or High Resolution Display screen with HDMI input.

- Connect HDMI Cable to Mini HDMI port of your camera.
- Set up your TV or Display screen to the corresponding channel.

Video File information

Container: MP4

Compression: MPEG-4 AVC (Advanced Video Codec)

Audio Bitrate: 128kbps

Audio Channels: 2 (stereo)

Sample Rate: 48KHz

Playback on a computer

You can transfer data from the microSD card onto a computer for the highest quality playback possible.

There are two options for downloading data to a computer:

USB Cable

- Connect this camera to your computer using the USB cable. The microSD card's contents will be detected by the computer, and will be accessible in the same way as a USB flash drive.

Remember: It will be charged when connecting to computer.

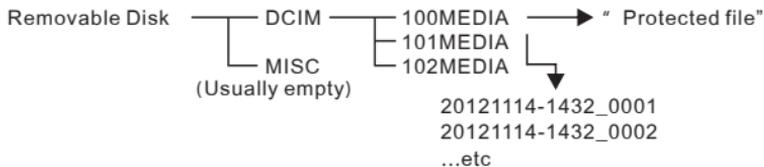
Removing the microSD card

At the bottom of this camera, push the microSD card out.

Use your card reader and connect to your computer.

If your card reader do not support microSD card, maybe you need a microSD-to-SD adapter.

Folder Structure



File protection

This device is always thoughtful for you. To avoid some important files to be deleted carelessly or recovered, you can press the [mode] button during recording, and then this video will be saved to 100MEDIA folder of micro SD card automatically. These video files will be locked and won't be deleted during cycled recording.

Please note: the total protected files can be up to 30 files. After that, the old video will be overwritten. Please copy or delete the files in your computer.

G-Sensor

When there is crash occurred, it can detect the collision direction by the change of XYZ axis, and lock the recording file, and then this file will not be deleted from cycle recording. If you device is on preview mode but not recording, then according to sensitive set up, device will record automatically and protect the current file.

Microphone

When you are recording, if you don't want your conversation be recorded, what will you do? It's easy, press the [OK] button, the mute icon on screen will remind you that microphone is closed! Of course you can set it closed by System set up menu.

GPS

GPS is the best accessory for this device, it can add GPS position coordinates for your video, and show the speed when you are driving. Share your video with location tag to YouTube, it is really a very interesting and amazing.

Moive Recovery

when the recorder is shut down unexpectly,the system can save the interrupted video when power on again.

Setup Your License Plate Number

- Connect the camera to computer via USB cable.
- Create new folder and name it SYS on root of your card.



- In this SYS folder, create a new txt file, and name it ID.TXT.



- Type your car license no. in this txt file (max 15 character).



Delete and Copy files

- Choose "save as..." and select code as "Unicode".



- Unplug the USB storage from your computer and plug out USB cable, and turn off the device normally. When you restart, the numbers you just input will be added to your video as a stamp on the right-up corner.

Delete and Copy files

To make you to manage your files conveniently, you can choose 2 cards(built in card and extended card) to copy from each other, and you can delete the files that you don't need now to make sure there is enough storage for further recording. In file listing, hold [mode] button, you will see menu. Do it as we guide, it is so easy and simple for operation.

Please kindly note: Files copying means that copy files from the current card to another card! If you want to copy files from built in card to extended card, please make sure after you insert the extended card, enter into system menu and select current memory to be built in card, then select files to start copying.

When using the copy function, you need to wait a moment, and make sure your battery have enough power.

Video Setup

RESOLUTION	1920 1080P30	It is 1920 1080 resolution at about 30fps, it works fine with NTSC TV system(USA, Canada, Japan, etc).
	1920 1080P25	It is 1920 1080 resolution at about 25fps, it works fine with PAL TV system(for Europe, Australia, China etc).
	1280 720P60	It is 1280 720 resolution at about 60fps, it works fine with NTSC TV system.
	1280 720P50	It is 1920 1080 resolution at about 50fps, it works fine with PAL TV system.
	1280 720P30	It is 1280 720 resolution at about 30fps, it works fine with NTSC TV system.
	1280 720P25	It is 1920 1080 resolution at about 25fps, it works fine with PAL TV system.
	848 480P60	It is 848 480 resolution at about 60fps, it works fine with NTSC TV system.
	848 480P50	It is 848 480 resolution at about 50fps, it works fine with PAL TV system.
	320 240P120	It is 320 240 resolution at about 120fps, it works fine with NTSC TV system.

RECORD SCENE	AUTO	You can choose different record scenes to get perfect video. If you are not sure of that, just let it be [Auto].
	NIGHT SCENE	Useful under low light condition
	SUNNY	For shooting in natural daylight on a clear day. For "white light" (approximately 5600 K)
	CLOUDY	Suited to shooting on an overcast day, where the light appears slightly blue (approximately 6500 K)
	RAINY	Suited when raining
	SAND SNOW	Suited under snowy conditions
QUALITY	H	The best recording quality possible, approximately 8Mbps for 720p and 12Mbps for 1080p. This does require a lot of storage space.
	M	A middle-ground data rate, approximately 6Mbps for 720p and 10Mbps for 1080p.
	L	The lowest data rate, approximately 4Mbps for 720p and 8Mbps for 1080p. This will maximize your recording time at the expense of quality.
ANTI-GLARE	ON/OFF	When your car's light shed on the car plate in front of you, most of the time, you cannot see the plate no., just because it is too bright. Try this.
SPLIT MODE	OFF	The max file size is about 3.6G
	1/5/10/15 /30/45MIN	This is to set the file segment, so it will be much easier to share the file or upload.
RECORD LOOP	OFF	The camera will record until the storage is full and it will beep.
	1/5/10/15 /30/45MIN	It will show your choice automatic in according of your card storage.

VIDEO ROTATION	AUTO	[Auto]: the device will rotate automatically, no need to worry about whether you record in the right direction
	OFF	[Yes]: it will rotate right away.
	ON	[No]: it will not rotate anyway.
PHOTO SIZE	3.5M	2560 x 1440
	3M	2403 x 1296
	2M	1920 x 1080
	0.9M	1280 x 720
CAPTURE SCENE	AUTO	You can choose different capture scenes to get perfect video. If you are not sure of that, just let it be [Auto], and this little camera will set automatically.
	SUNSET	Better effect in sunset
	PORTRAIT	Better for a portrait
	LANDSCAPE	If you take landscapes, this is better
	SPORTS	To take fast sports photos, this will help.
	NIGHT	At low light condition, you need this.
	SPOTLIGHT	Under fluorescent condition, get the right color.
	WATER	Some improvement in water recording
SAND SNOW	Under very bright snow condition, it will help.	
SELF CAPTURE	OFF	If you like take photo of yourself, this setting is just for you. Default is OFF.
	5/10/20/30/60S	Set the timer you need and enjoy the moment.
INTERVAL CAPTURE	OFF	OFF
	1/2/5/10/30/60S	The device will take a photo between the set intervals.

CONTINUE CAPTURE	OFF	Though video is always the best choice, but you can also try this.
	3/5/10/20 PHOTOS	The device will take the [set] numbers of photos at a shot.
WHITE BALANCE	AUTO	The color balance is automatically adjusted by the camera.
	INCANDESCENT	For filming under artificial lights (tungsten bulbs and equivalent) and for light that appears slightly orange (approximately 3000 K)
	SUNNY	For shooting in natural daylight on a clear day. For "white light" (approximately 5600 K)
	CLOUDY	Suited to shooting on an overcast day, where the light appears slightly blue (approximately 6500 K)
	FLUORESCENT	For shooting under artificial light from fluorescent lights, which are typically slightly green (approximately 4500 K)
DIGITAL EFFECT	OFF / ART / SEPIA / NEGATIVE / BLACK & WHITE / VIVID	To get a different style of your video, try the digital effects.
ISO	AUTO	To the correct ISO setting most of the time, you can choose [Auto]
	100/200/400/800/1600	Choose the different setting to get different ISO exposure.
AE BIAS	EV-2.0-----+2.0	You can see the different just in the video preview mode.
CONTRAST	STANDARD, HARD, AND SOFT	Contrast mean: dark becomes darker, and white becomes whiter. It can be useful if you need to see the car plate number in front of you.

System Setup

SHARPNESS	STANDARD, HARD, AND SOFT	Sharpness means the object shape inside the video clear or not. Hard means the shape becomes clearer. It is useful for a Car DVR to identify the face.
MOTION DETECTION	OFF	Motion detection is OFF
	ON	If the device detects some object moves in front of the lens, it will start recording.
G-SENSOR	OFF	This is to set the G-Sensor off. This device will not be activated from it and will not protect this file.
	1-----6	Change this to set the XYZ axis sensitivity. 1 means very sensitive.
GPS SWITCH	ON	If you turn on GPS, the GPS coordinators will show on your vide.
	OFF	Turn GPS off. The green LED will turn off.
TIME ZONE	-12-----+12	The satellite time is GMT time. So you need to set your time zone to get the correct time in your country. For example, Russia is [+4]
STAMP SPEED	25-----170	When the real speed is bigger than what you set in the menu, the GPS coordinator stamp will hide in the video.

System Setup

CAR ID	ON/OFF	This is to input your car plate number or any characters you like in to the video.
QUICK RECORD	OFF/ON	If [Quick Record] is ON, just press the power button, it will record immediately.
CAR MODE	OFF/ON	When you connect this device to car power via a car adaptor, it will power on the device and start recording. After you turn off your engine, the device will power off in 30 seconds.

STORAGE SELECT	INTERNAL MEMORY	Select the current file storage. This camera has a built-in memory.
	SD CARD	Change the storage to SD card.
GPS OSD	GPS/SPEED	GPS coordinators and speed will show in the video.
	OFF	GPS coordinators and speed will not show in the video.
	GPS	GPS will show in the video.
TIME STAMP	SPEED	Speed will show in the video.
	ON	Date & Time will show in the video.
REC LED	OFF	Date & Time will not show in the video.
	ON/OFF	You can turn off the LED in the front panel.
LCD OFF	OFF	The screen will not enter into power-save mod. You know the screen will drain the battery power.
	30S/1/2/3/5MIN	The screen will turn off after the set timer.
POWER OFF	OFF	The camera will not turn off automatically.
	30S/1/2/3/5MIN	The device will be powered OFF in set time if there is no operation.
MICROPHONE	ON	It will record video and sound.
	OFF	It will not record sound anyhow.
VOLUME	OFF	All of the sound will be turned off, including button sound, playback sound, and the beep sound.
	1---3	This is to set all of the device sound. [3]means it is very loud.
FLICKER	50HZ	If the voltage in your country is 220V, please select [50Hz]
	60HZ	If the voltage in your country is 110V, please select [60Hz]

TV TYPE	NTSC	Records at approximately 30 frames per second, for playback on NTSC systems. (USA, Japan)
	PAL	Records at 25 frames per second, for playback on PAL systems (Australia, Europe)
TIME AND DATE	SET TIME AND DATE	You will enter an interface to set it. The default is day / month / year.
FORMAT	NO, YES	Format SD or the internal memory. Please make sure before you do it. This will delete all of the data in the current storage.
DEFAULT SETTING	NO, YES	This will restore all of the settings to factory default.
FIRMWARE	FIRMWARE VERSION	This shows the firmware version. If you need technical support, this information is useful.
LANGUAGES	SELECT CURRENT LANGUAGE	You can select up to 10 languages: English / /Español/Deutsch/ Italiano/日本語 /한국어/Français/ <input checked="" type="checkbox"/> 体中文/繁体中文

FAQ

Q: It won't turn on!

A: Try turning it on and off again.

Has the camera been left on/recording for a while? Is it charged?

If not, check out "You got the Power: Charging the Battery".

Also, try to charge from a computer's USB socket.

Q: I can't play back footage on my computer.

A: Try using a different program, such as KMPLAYER Media Player

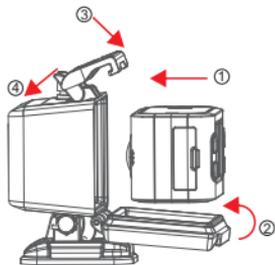
It works with a huge range of operating systems. You may need to drag and drop the file onto the KMPLAYER window if the default file association isn't right.

Q: The audio sounds distorted/weird/too loud.

A: This can often happen if you attach the it to a vehicle, skateboard, bicycle or anything else which vibrates when in use. Try it with microphone off directly. Try using a different mounting option. Try attaching the camera to your clothing using the hook& loop patches-cloth usually muffles vibrations and might improve the audio quality. Finally, remember that in certain situations you're just not going to be able to get any decent audio-for example, when the background noise level is simply too high. It sucks but sometimes there's nothing that can be done: Physics is a harsh mistress.

What's in the package?

Waterproof Case



Power/Record/Photo



What's in the package?



Quick Release Mount



1 Curved
+ 1 Flat Surface
Adhesive Mount



The Frame



Head Strap



Vented Helmet Strap



Handlebar
/Seatpost Mount



Surfboard Mounts



90 Joint



Tripod Mount



Waterproof Case



Car Window Mount



Camera



USB Cable



User Manual

Specification

Chipset	Ambarella A2S70
Image Sensor	1/2.7" 2M Sensor
Video Resolution	1920x1080(30/25fps) 1280x720(60/50fps) WVGA(60/50fps) QVGA(120fps)
Video Record Format	.mp4
Photo Resolution	0.9/2/3/3.5M
Photo Record Format	JPG
Lens Specs	F/NO=2.8 f=2.8
Lens Angle	720P: 120 ; 1080P: 170
Lens Digital Zoom	Yes
LCD Size	1.5"
LCD Resolution	480x240
GPS (Int./Ext.)	EXT
G-Sensor	Yes
Built-in Memory Size	512MB
Storage Card	MicroSD up to 32GB
Microphone/Speaker	Yes
Other Input/Output Ports	USB, HDMI
Battery Capacity	90mAh
Charge Port	USB
Body Dimensions	65.2*39.3*39mm
Weight	75g
Bracket Type	Window holder

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Wearable Action Video Camera



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