

actionCam



Quick Guide / User Information

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

(Important)

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 one permitted direct 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.

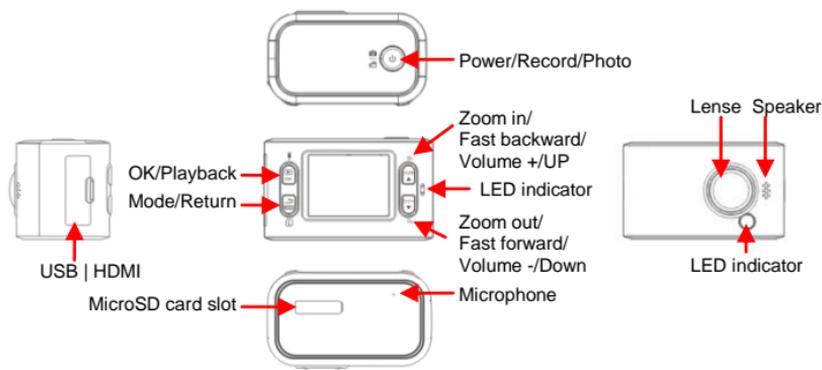
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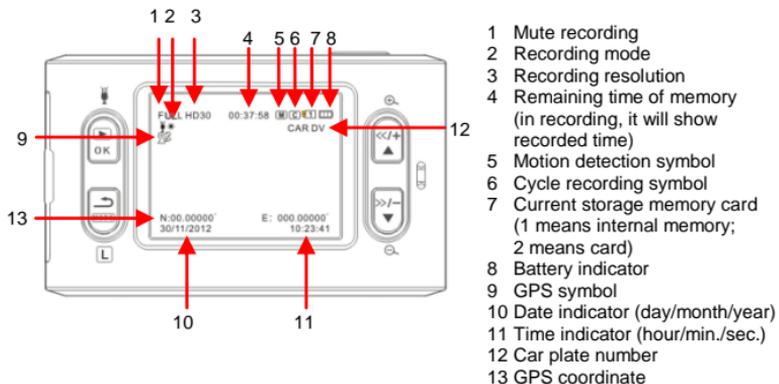
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Introduction

Brief Introduction



Screen Icons



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 power full, the LED light will turn off automatic.

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 opposite, it will get stuck; when totally insert the card, with a "tick" 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.



Setup your Cam

Press the menu button twice to get into menu, the step is:

- Select the video resolution.
- Set up the video mode (Auto/Sunny/Cloudy/Rainy/Snowy).
- Format your SD Card.
- Set up time and date (if with GPS, time update automatic, time zone location by manual).
- Select the video split option for your video.
- Set the recording Quality.

Micro SD Card

Select Micro SD Card

The memory maximum up to 32 GB.

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

Minimum memory 8GB is recommended, 16GB or 32GB 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.
Non-5V power not allowed to connect to camera.

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.
- **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**
It means the device is ready and wait for your instruction. 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.

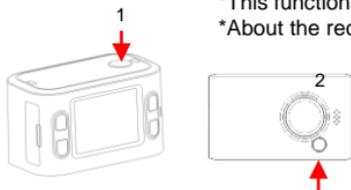
How to Record and Take a Photo?

How to record?

- Record
After the camera is powered on, press power button to start. The red LED is blinking now.
- Quick Record
Before the camera is powered on, hold the power button for 2 seconds, it will power on and start recording. The red LED is blinking now.

*This function need to set up in the menu.

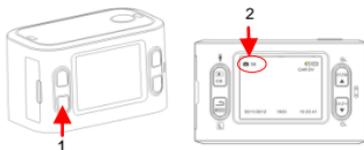
*About the rec LED, you can turn it off in the menu.



How to take a photo?

After the camera is powered on, you can press [mode] button to switch to photo mode. Press the power button, it will take a photo.

*You can choose 0.9/2/3/3.5M definition. You can set it in the menu. After you set the definition, it will show on the screen.



Record Quality

Resolution and quality decide the capacity of recording. Please read it 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
12M	4000 x 3000	250 photos/GB
8M	3200 x 2400	375 photos/GB
5M	2592 x 1944	600 photos/GB
4M	2592 x 1728	750 photos/GB
3M	2048 x 1536	1000 photos/GB

Basic operations

How to make it?

1. Use your computer to create a ".txt" in your SD card
 - a) Make a new folder [SYS] under the root of your SD card.
 - b) Make a new.txt file under folder [SYS].
 - c) Input your car plate No.
 - d) Choose "save as...", and select Code to be [UNICODE]
 - e) Name it "ID".
2. Insert this SD card into your device
Power on the device, the device will update and show your "car plate no." in the video now.

How to turn it off?

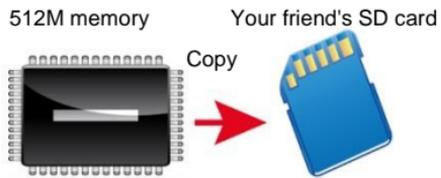
In the menu, choose [Car ID] to [OFF].

Please check this file structure for reference.



Copy video file from default card A to card B

1. Copy video file from card to internal memory
Select the video file, hold [mode/return] button, and select [copy].
The video file will be copied from card to internal memory;
2. Push out card A and insert card B
3. Copy from internal memory to card B
 - a) In menu, change [storage] to [internal memory]
 - b) Select the video file, hold [mode/return] and select [copy]. The video file will be copied from internal memory to card B;



File protection

1. How to protect it?

a) From G-Sensor

If the G-Sensor detected movement, it will start recording and protect this video file. There will be [L] on the screen. This video will not be erased by normal cycle recording.

b) Manual

During recording, press [Mode/Return] button, your file will be locked from being deleted.

2. How to delete protected video

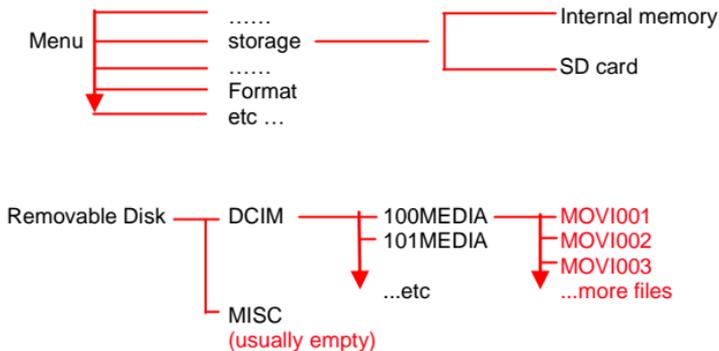
a) On device

Select the storage to be [internal memory], choose [format];

b) On computer

Select video files and choose [delete] from computer.

File structure



Note:

1) 100MEDIA folder is for emergency video file. It will store 30files.

When it comes the 31st file, this file will replace the 1st file.

2) 101MEDIA is for normal file.

Mute recording



If you don't want to record your voice, just press the [OK] Button.

There will be a mute icon on the screen.
It will stop to record any sound now.

Settings

Video settings

01/04	
RESOLUTION	1920X1080P30
REC SCENE	AUTO
QUALITY	H
ANTI-GLARE	OFF
SPLIT MODE	5 MIN.
OK SET	MODE EXIT

Resolution

You can choose among 1920×1080P30, 1920×1080P25, 1280×720P60, 1280×720P50, 1280×720P30, 1280×720P25, 848×480P60, 848×480P50, and 320 × 240P120.

Between 30fps and 25fps, which one should I choose? If you have PAL TV system in your country, please set it in 30fps. Please select 25fps if your country TV system is NTSC. Then the frames will be smooth in your local system.

REC scene

You can choose among Auto/Night/Sunny/Cloudy/Rainy/Snowy to get a better video quality.

Quality

You can choose among H, M, L. For bitrate information, please check below.

Resolution	Quality	Bitrate Mbit/s
1920x1080P30 25	H	12
	M	10
	L	8
1280x720P30 25	H	8
	M	6
	L	4
848x480P65 50	H	8
	M	6
	L	4
320x240P120	H	8
	M	6
	L	4

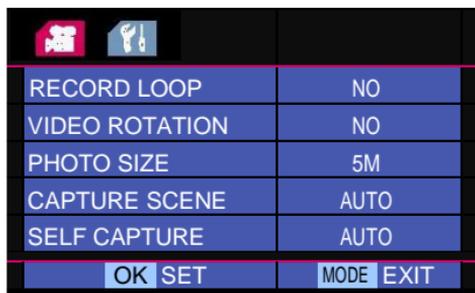
Anti-glare

To see the car plate of the front car much clearer, try to turn it on.

Split mode

This is to set the file segment, so it will be much easier to share the file or upload. You can choose among 1min/5min/10min/15min/30min/45min/OFF.

Please note if you turn on the [Record Loop], then [split mode] will not work.



RECORD LOOP	NO
VIDEO ROTATION	NO
PHOTO SIZE	5M
CAPTURE SCENE	AUTO
SELF CAPTURE	AUTO
OK SET	MODE EXIT

Record loop

This is to set the loop recording on and set each file segment. There will be no gap between different video segments. You can choose between 1min/5min/NO. The older stored files will overwrite.

Video Rotation

Choose between [Auto],[Yes],[No]. [Auto] means the device will rotate automatically. The g-sensor inside will sense the movement of the device. Please make sure that you don't rotate the device after recording already started. Only use it before recording. [Yes]: it will rotate right away. [No]: it will not rotate anyway.

Photo Size

You can choose from 3M/4M/5M/8M and 12
The default is 5M.

12M	4000 x 3000
8M	3200 x 2400
5M	2592 x 1944
4M	2592 x 1728
3M	2048 x 1536

Capture scene

This is to set the photo scene to get better photos.

You can choose among [Auto], [Sunset], [Portrait], [Landscape], [Sports], [Night], [Spotlight], [Water], [Sand Snow].

Self-timer / photo mode

Here is a time for the self-timer can be set. To switch on, choose between 5, 10, 20, 30 or 60 seconds. If you press the record button, it will automatically take a picture after this time.

Interval / Photo mode

You can choose between 1, 2, 5, 10, 30, 60 seconds and OFF. Always after the set time, the camera makes an automatic image. The self-timer is hereby repealed or determined by the time set here.

Image sequence

Define the number of images in self-timer - or in interval mode will be added automatically

White balance

You can choose from Incandescent, Sunny, Cloudy, Fluorescent and Auto.

 	03/04
INTERVAL CAP	OFF
CONTINUE CAP	OFF
WHITE BALANCE	AUTO
DIGITAL EFFECT	OFF
AE ISO	AUTO
OK SET	MODE EXIT

Digital Effect

To get a different style of your video, try the digital effects.

You can choose Art, Sepia, Negative, Black & White, Vivid, OFF.

AE ISO

Change the ISO for photos and videos. You can choose among 100, 200, 400, 800, 1600 and Auto. For photos, if you set a higher ISO, the shutter will be faster. It is useful in dark circumstance. For videos, please just leave [Auto], otherwise you may get strange videos.

AE BIAS

This is to set the EV level of the video. You can set it before recording or during recording. So it will be very useful when you find something too dark or too bright. You can choose from -2 to +2.

Contrast

To set the contrast, you can choose Standard, Hard, and Soft.

Sharpness

To set the sharpness, you can choose Standard, Hard, and Soft.

 		03/04
AE BIAS	EV.0.0	
CONTRAST	STANDARD	
SHARPNESS	STANDARD	
MOTION DETECT	OFF	
GSENSOR	OFF	
GPS SWITCH	ON	
TIME ZONE	+01	
STAMP SPEED	120	
OK SET	MODE EXIT	

Motion detection

Turn on, the device will record the object movement, last one minute.

G-sensor

This is to change the sensitivity of the G-sensor. You can choose from 1 to 6 and OFF. 1 means it is very sensitive. Normal setting for G-Sensor can be 3

GPS switch

This is to turn ON/OFF the GPS. It will affect the GPS icon on the screen. If your device doesn't have GPS, please put this option to OFF.

NOTE:

**GPS MODULE AND THE ANALYSIS SOFTWARE IS OPTIONAL
AVAILABLE ON WWW.A-RIVAL.DE
PLEASE NOTE THAT THE CABLE WITH GPS MODULE MUST BE
INSERTED IN THE CAR CHARGER. THE GPS MODULE IS OTHERWISE
NOT SUPPLIED WITH POWER AND MAY NOT BE RECOGNIZED FROM
THE CAMERA.**

Time zone

If you buy this device with GPS, it will sync the satellite time automatically. But the satellite time is GMT time. So you need to set your time zone to get the correct time in your country.

Stamp speed

When the real speed is beyond what you set in the menu, the GPS coordinator stamp will hide in the video. the default is 120KPH.you can change it with 5KPH interval.

System settings

Car ID

Input your car plate number into video. Please refer to page [Car plate stamp] for operation.

 	01/03
CAR ID	ON
QUICK RECORD	OFF
CAR MODE	ON
STORAGE SELECT	INTERNAL CARD
GPS OSD	GPS/SPEED
OK SET	MODE EXIT

QUICK RECORD

You can choose between ON and OFF. The record will start automatically after switch on the camera.

Car mode

You can choose ON and OFF. If 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. If set to [OFF], the device will only being charged. You may need a specified cable to support auto power on and recording

Storage selection

You can select between internal memory and SD card. If you don't put in your SD card, the video file will be recorded to internal memory. On the screen, it will show card 1. If you push your card in, the storage will change to SD card automatically, and it will show card 2 on the screen.

GPS OSD

You can choose among GPS/Speed, GPS, and Speed. Default is GPS/Speed, so it will show GPS coordinator and speed information.

 		02/03
TIME STAMP	ON	
REC LED	ON	
LCD OFF	OFF	
POWER OFF	3 MIN.	
MICROPHONE	ON	
OK SET		MODE EXIT

Time Stamp

You choose ON and OFF. If it is ON, it will date in Month/Date/Year mode and time on the video.

REC LED

You can choose between ON and OFF. If you set ON, the LED on frontside will flash while recording.

LCD OFF

The screen will enter into power-save mode after the set time. You can choose between 30sec, 1min, 2min, 3min, 5min, and OFF.

Power OFF

The device will be powered OFF in set time if there is no operation. You can choose between 30sec, 1min, 2min, 3min, 5min, and OFF.

Microphone

Switch the internal microphone ON or OFF.

 		03/03
VOLUME	2	
FLICKER	50HZ	
TV TYPE	NTSC	
TIME AND DATE	18.12.2012 11:07	
FORMAT	NO	
OK SET		MODE EXIT

Volume

You can turn the beep volume from 1 to 3 and OFF. [3] means maximum.

Flicker

It is a setting of your light frequency. Choose between 60Hz and 50Hz.

TV type

If you want to watch video on TV, select the right TV type between NTSC and PAL. In Germany select PAL, pls.

Time and date

Set the correct time and date of your device. If you have built-in GPS, it will sync with satellite after it finish the searching.

Format

This is to format the SD card or the internal memory. If you insert the SD card, please make sure which one to format; if just internal memory, it will format your internal memory.



DEFAULT SETTING	NO
FIRMWARE	107AB165/21207
LANGUAGE	ENGLISH
OK SET	MODE EXIT

Default setting

This will restore all of the settings to factory default. If you find strange thing happen, try this.

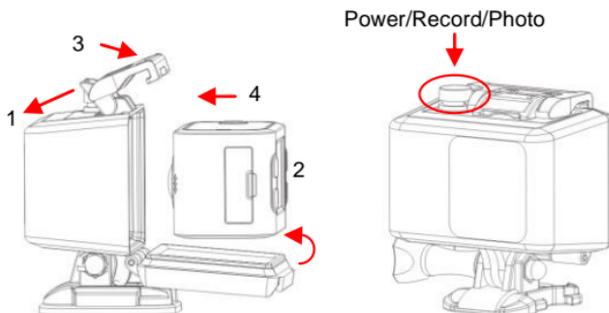
Firmware

It tells the firmware version and product information. Better to help your check the quality problems.

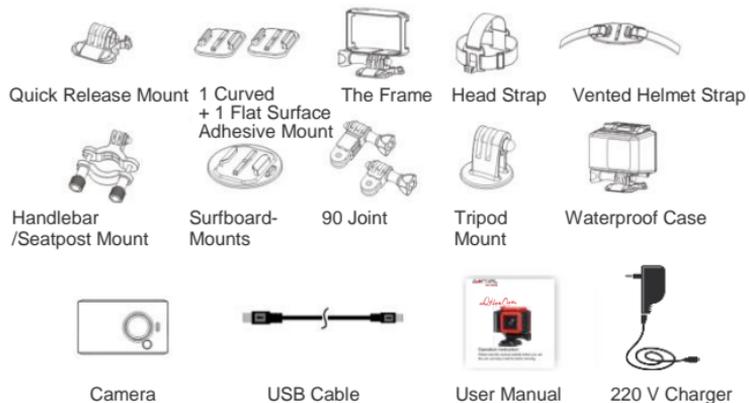
Languages

Change between different languages. Now it supports:
German, Spain, France, Italian, Russian, Dutch, Portuguese, Polish, English

How to install the camera in the waterproof case



What's in the package?



Specification

Chipset	Ambarella A2S70
Image Sensor	1/2.5" 5M Sensor
Video Resolution	1920x1080 (30/25fps) 1280x720 (60/50fps) WVGA (60/50fps) QVGA (120fps)
Video Record Format	.mp4
Photo Resolution	3M/4M/5M/8M/12M
Photo Record Format	.JPG
Lens Specs	F/NO=2.8 f=2.8
Lens Angle	140°
Lens Digital Zoom	Yes
LCD Size	Ca. 3,8 cm / 1.5"
LCD Resolution	480 x 240
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	900mAh
Charge Port	USB
Body Dimensions	Ca.65.2*39.3*39mm
Weight	Ca. 80g

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.

Guarantee

Please keep the proof of purchase for this device for the entire duration of the guarantee period, as it must be produced in the event of any claim.

You (as the end user) receive a 36-month guarantee from the date of sale. The article has been manufactured using the most modern production methods and subjected to strict quality controls.

Please contact only the **manufacturer (not the dealer where you purchased it) in the event of any defects during the guarantee period.**

Hotline: +49 (0)511 - 123 83 506 or: support@first-servicecenter.de

The guarantee does not cover damage caused by improper use or external influence (water, falling, sunlight, breakage or impact).

Userinformation/Contact

If your device has a defect or you have problems with it, please contact our Service & Support Centre.

If you need to send your device to us, please attend to the following points:

1. Use only the **original packaging**
2. Add a **detailed error description**
3. Add your **full name and address**
and a copy of your purchase receipt
4. Stamp and send the package to us (**sufficient postage**)

Address of our Service Center:

First Service Center
Kleine Düwelstr. 21
DE-30171 Hannover/Germany