



Action Camera

Waterproof up to 60m
Full HD video 4K
12MP camera
WiFi

Warning

- 1.It is a high-precision product, please do not fall or crash.
- 2.Please do not expose the unit to strong magnetic objects, such as magnet and eletrical motor.
- 3.Never leave the products to high temperatures and direct sunlight.
- 4.Please choose branded Micro SD card. Neutral cards are not quaranteed to work normally.
- 5.Please do not place Micro SD card near strong magnetic objects to avoid data loss.
- 6.While it is charging,keep the product out of children's reach.
- 7.Keep the devices in cool,dry, and insulated places.

Preface

This product is a high-definition digital motion video recording device tailored to market demand. It has a variety of industry-leading features,including: digital video recording, photo shooting, audio recording, and perfect for vehicle data recording, outdoor sports, home security, deep-water probing, aerial photo,etc, allowing you to film at anytime anywhere. And it has a variety of patents.

Multipurpose

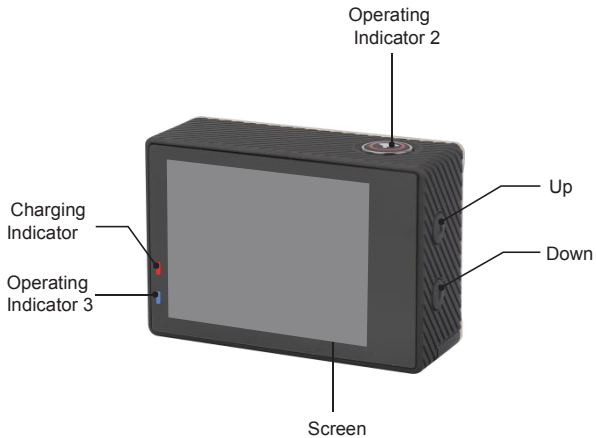


Product Features

- 1.Full high definition screen that displays fascinating videos recorded
- 2.Ambarella A12S75 solution
- 3.12-megapixel photo shooting with 166 degree wide angle lens
- 4.Wireless wifi transmission
- 5.Car DVR recorder function
- 6.HDMI HD output,Support FPV mode
- 7.Support storage cards up to 64GB maximum
- 8.Multiple video recording formats:4K /1080P /720P
- 9.Support MP4 video recording format
- 10. Support Bluetooth function

Product Schematic







Waterproof cover Schematic



Accessories



Waterproof case



Bicycle stand



Base 1



Base 2



Fixed base



Switch support 1



Switch support 2



Switch support 3



adapter



Charger



Helmet base



Ribbon



3M adhesive tape



Wire rope&Ribbon



USB cable



Wiper



back cover



User manual

Operation

1.Inserting Micro SD Card

Note: Please choose branded Micro SD card and format it on computer ,before use. Neutral cards are not guaranteed to work normally.

2. Installing and removing battery

A.The battery door has been locked when the lock catch is in the "LOCK", push the lock catch to " ↓ ",then to " ► ", the battery door will be open again.

B. Correctly install battery into camera as indicated by +/- symbols and direction of arrows marked on battery until it's in place.

C.About battery power: please refer to the symbol: Full power mode "  " low power mode "  ".

D.Remove battery: Open the battery cap and take battery out.

Note: Please push the lock catch to the position of "LOCK" before use the device in case that battery looses or falls in the process of using.

3.Battery Charging

A.Camera can charge by either connecting it to computer or power adapter.

B.Charging camera on vehicle by connecting it to car charger.

C.Camera can record video while charging(switch into Vehicle-mounted Mode in "menu").

D.Charging can be done even when it's powered off.

4.Power mode

Press and hold power for 3-5 seconds to turn it on/off.

5.Mode Switching

Switching between video recording/photo shooting/playback/menu by pressing "Power On-Off" button.

6.WIFI Control

Before use WIFI Control function, please install GoAction software to your mobile phone or tablet PC.

Note: Android phone downloads APP in Google Play. IOS phone downloads APP in Apple Store.

Connection Steps:

1.After switching camera on, press the WIFI button for 2 seconds and turn on/off WIFI function.(WIFI icon will be display or disappear at the top right of the screen.) When turning on WIFI function, camera will reset. Wifi icon become green after resetting and wait for 5 seconds.(It expresses that WIFI can be connected normally now.)

2.Open the WIFI connection of mobile phone to search for the camera device: AMBA A12—XXXX from the available wireless networks. (Password is 1234567890.)

3.Open the installation of GoAction software

7. Start the camera, shift to setting menu, find "Bluetooth Pair", then press "OK" button,the camera will display "Bluetooth Pair Start", at the same time, press any key on the remote control, it will flash blue light. On the camera screen, it displays "Bluetooth Pair", after around 20 seconds, you could see " Bluetooth Pair Success!", that means connect successfully, then back to normal mode.

7. Start the camera, shift to setting menu, find "Bluetooth Pair", then press "OK" button,the camera will display "Bluetooth Pair Start", at the same time, press any key on the remote control, it will flash blue light. On the camera

screen, it displays "Bluetooth Pair", after around 20 seconds, you could see " Bluetooth Pair Success!", that means connect successfully, then back to normal mode.

8. How to record videos and configure recording setting

8-1. Video Recording

Switch to recording mode and there will be an "📹" icon in the upper left corner of the screen.

Press OK to start recording and the "📹" icon will start to flash. Press "OK" again if you want to stop and disappear

8-2. Photo Shooting& Setting

Switch the camera on and press "Mode" to select "Photo shooting Mode", there will be an "📷" icon in the upper left corner of display screen and the camera is in photo shooting mode. Press "OK" to take photos.

8-3. Burst Mode& Setting

Switch the camera on and press "Mode" to select "Photo shooting Mode", there will be an "📷" icon in the upper left corner of display screen and the camera is in photo shooting mode. Press "OK" to take photos.

8-4. File Storage& Playing

Switch the camera to the "Playback Mode" ("📺" is shown on the top left corner of video preview mode, and "📷" is shown on the top left corner of photo preview mode.), select files by using the UP and DOWN arrows, then replay and stop video or review photos by pressing the shooting button. You can also replay by mobile phones via WIFI.

Note: When camera crashes for malfunction, you can detach battery and install again, it will go back to normal

Specifications

Image Sensor	Type	1/2.3" CMOS 12.40MP (Sony IMX117)
	Effective Pixels	Approx. 12.40 Mega Pixels (4072 * 3046)
	Output Pixels	Approx. 12.40 Mega Pixels
Lens	Focal Length	Lens f= 3mm
	F No.	F= 2.8
	F.O.V(D)	166°(H=120° V=89°)
LCD Display		2" 960*240 dots matrix TFT LCD
Viewfinder	Optical	No

	Viewfinder	
Focusing	Type	Fixed
Exposure	Control	Programmed AE
	Compensation	$\pm 2\text{EV}$ (0.33 EV steps)
	ISO Equivalent	Auto, 100, 200, 400, 800, 1600
LED	Modes	No
White Balance		Auto / Incandescent /D4000/D5000/Daylight / Cloudy /D9000/D10000/ Flash / Fluorescent/Water / Outdoor

Video resolution	4K/30P	NTSC: 4K 3840x2160 30P 16:9 3840x2160 25P SuperView 2160P 2880x2160 30P 4:3 2.7K 2704x2028 30P 4:3 2704x1520 30P SuperView 2.7K 2704x1520 30P 16:9 2.5K 2560x1440 60P/30P 16:9 1440P: 1920x1440 60P/30P 4:3 1080P: 1920x1080 120P/100P/60P/30P 16:9 1920x1080 60P/30 SuperView 960P: 1280x960 120P/60P/30P 4:3 720P: 1280x720 240P/200P/120P/60P/30P 16:9 1280x720 120P/30P SuperView PAL: 4K 3840x2160 25P 16:9 3840x2160 25P SuperView 2160P 2880x2160 25P 4:3 2.7K 2704x2028 25P 4:3 2704x1520 25P SuperView 2.7K 2704x1520 25P 16:9 2.5K 2560x1440 50P/25P 16:9 1440P: 1920x1440 50P/25P 4:3 1080P: 1920*1080 100P/50P/25P 16:9 1920*1080 50P/25P SuperView 960P: 1280x1080 100P/50P/25P 4:3 720P: 1280x720 200P/100P/50P/25P 16:9 1280x720 100P/25P SuperView
Audio		Mic and Speaker (Mono) Equipped
Bluetooth		Bluetooth is about 12 meters from the maximum
Photo size	Media	Internal memory: no internal memory External memory: supporting SDHC Card up to 64GB

	File Format	Photo : JPEG Audio : PCM 48KHZ 16bit Video : H.264 High Profile Level 4.2 MP4
	Image Size 12Mp	16M (4608x3456 4:3) 14M (4254x3264 4:3) 12M (4000x3000 4:3) 8.3M (3840x2160 16:9) 5M (2560x1920 4:3) 3M (2048x1536 4:3)
Video Output		HDMI: Support NTSC 1920X1080P60,PAL1920X1080P50 output With CEC Composite: NTSC/PAL
Time Lapse Function		OFF / 2 Seconds / 3 Seconds / 5 Seconds / 10 Seconds / 30 Seconds / 60 Seconds
Photo Functions		Self Timer : OFF / 2 Seconds / 3 Seconds / 5 Seconds / 10 Seconds / 30 Seconds / 60 Seconds Burst Rate : OFF / 3 P/s / 5 P/s / 10 P/s Auto Shoot : OFF / 3 Seconds / 5 Seconds / 10 Seconds / 30 Seconds / 60 Seconds
Function option	Video Quality	S.Fine / Fine / Normal
	Photo Quality	S.Fine / Fine / Normal

Video Quality:	Off/ Date / Time / Dt_Tm
Photo Quality:	Off/ Date / Time / Dt_Tm
Default Mode	Video / Photo
Quick Capture	ON / OFF
EIS	On / OFF
Motion Detection	Off / Low / Medium / High
Long Exposure	Off / 1/30 seconds / 1 second / 2 seconds / 5 Seconds / 10 Seconds / 30 Seconds / 60 Seconds
Dual Streams	On / OFF
Loop Record	OFF /1 Min./ 2 Min. / 3 Min. / 5 Min.
Car DV:	ON / OFF
Delay Off :	Off / 5 Sec / 10 Sec / 20 Sec / 30 Sec / 60 Sec
TV Mode :	NTSC / PAL
Light Freq. :	50HZ / 60HZ
OSD :	ON / OFF

Screen_Off :	OFF / 30 Seconds / 1 Min. / 3 Min. / 5 Min.
Auto Shutdown :	OFF / 3 Min. / 5 Min. / 10 Min.
Status LED:	ON / 1 / 2 / 3 / 4
WiFi LED:	ON / OFF
TV OUT :	ON / OFF
Beep	ON / OFF
Mic Volume :	OFF / 50% / 60% / 70% / 80% / 90% / 100%
Metering:	Center/Multi /Spot
Effect Mode	Normal /Art / Sepia / Negative / BW/VIVID/70Film
Sharpness :	Strong / Noraml / Soft
Scene Mode :	Normal / Flashi/Night/Sports/Landscape/Portrait/Sunset
ISO :	Auto / 100 / 200 / 400 / 800 / 1600
EV : 0.0	EV : -2.0 / -1.7 / -1.3 / -1.0 / -0.7 / -0.3 / 0.0 / +0.3 / +0.7 / +1.0 / +1.3 / +1.7 / +2.0

	Time Setup	set-up time
	Date Format	Y/M/D,D/M/Y,M/D/Y
	Bluetooth Pair	Select Bluetooth Pair
	WiFi:	ON / OFF
	WiFi SSID :	AMBA_A12_XXXXXX
	WiFi Password :	1234567890
	Format	YES/NO
	Default Setting	YES/NO
	Version :	A12-VX.X
Language		English / Simple Chinese/ Traditional Chinese/ Russian / German / Italian / French/ Korean / Japanese / Portuguese / Spanish / Arabic / Polish
Interface		USB 2.0 : Recharging/File Transfer
Power Source		Li-ion rechargeable Battery 1050mAh
Accessories		Car power adaptor, Mount, USB Cable, HDMI Cable, AV Cable

Dimensions (W*H*D)	L: 61mm, W:42mm, H:23 mm(with lens part will be 33mm)
Weight	about 78.5g(With battery)
Support	Mass Storage Driver Windows XP(Service pack 2) or later Mac OS X 10.4.11 or later
System Requirements	
For Windows	*PC with processor better than Pentium 4 3.2GHz *Windows XP(Service pack 2) or later *Minimum 1 GB System RAM *Minimum 256 MB RAM Video Card *USB port, CD-ROM drive *1024*768 pixels, 32-bit color display compatible monitor

FCC STATEMENT :

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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

NOTE: This equipment 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.

RF warning statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.