



USER MANUAL



一、Product Specification

DDR	Built-in 64M
FLASH	3.16-inch IPS high-definition screen
LCD resolution	640x320 pixels
External port	USB 5V/1A Max support 32G Class10 TF card
Speaker	2.5mm digital 720P rear view lens port Monophonic 15*10mm speaker
MIC	4015 Standard Omnidirectional Microphone
Features:	
Front camera	6-glass/F2.0 aperture/170° wide angle
Inside camera (optional)	VGA 120°
GPS tracker	NO
AV OUT	NO
Rear camera	5.5 cable/2.5mm port
Photo	Support
Lens rotates	Adjust manually
WDR	Support
HDR	Support
Reversing visual	Support
Video format	AVI
Image format	JPG
Compression format	H.264
Battery	150mAh polymer lithium battery
Language	support multi-language
G-sensor	Support

Motion Detection	Support
Delay shutdown	Support
Loop recording	Support, Do not leak seconds
Sound record	Support
Fill light for night vision	Support (Open manually)
Parking monitoring	Support
Front camera	Max 1680x960 (30f/s)
In-car camera resolution	HD640x480 (25f/s)
Camera resolution	Max support 3M
Working Environment	
Operating temperature	-40°C ~ 70°C
Operating humidity	15-65%RH
Storage temperature	-40°C ~ 70°C

【】 Power button, short press to turn on/off screen, long press to switch on/off the device.
【】 Menu / camera / playback button
Press 【OK】 key to stop recording, press 【M】 to enter photo mode, press 【OK】 to take photo. In the camera mode, press 【M】 to enter playback mode, press 【OK】 key to playback. Lock function: In case of video recording, short press 【M】 for a key lock function to protect the current video file, and this file will not be covered by the cycle video. In video mode, long press 【M】 to enter video menu settings as follows:

Recorder Menu			
1	Resolution	1080P FHD/720P/VGA	
2	Loop recording	Off/1minutes/2minutes/3minutes	
3	High dynamic range HDR	on/ off	Improved image quality, Better visual effect
4	Exposure compensation	-3, -2, -1, 0, 1, 2, 3	
5	Motion detection	on/ off	In standby mode, it will automatically record while a objective moves
6	Sound record	on/ off	Turn on/off sound record
7	Time stamp	on/ off	
8	Car number	on/ off	
9	G-sensor	High/Medium/Low Sensitivity	When car occur collision accident, it will lock current video and can't be covered
10	Parking monitor	on/ off	unattended surveillance
11	Date/time	Adjustment Years months date/hours Minutes seconds	
12	Automatic shut-down	Off/3minutes/5minutes/10 minutes	
13	keypad tone	on/ off	
14	OSD language	Support multilingual	Choose a language
15	Light source frequency	50HZ/60HZ	Choose the Light source frequency
16	format	Confirm/ cancel	format TF card
17	Screen saver	Off/30seconds/1minute/2minutes	
18	Default setting	Confirm/ cancel	
19	version	Machine software version number	

In photo mode, long press 【M】 to enter photo menu settings as follows:

1	Shooting method	Single shooting/2 seconds timer / 5 seconds timer / 10 seconds timer
2	Resolution	1M/2M/3M
3	Continuous shooting	on/ off
4	Picture quality	High quality/standard/economy
5	Acutance	Strong/standard/soft
6	White balance	Automatic/sunlight/cloudy/tungsten lamp/fluorescent lamp
7	ISO	Automatic/100/200/400
8	Exposure compensation	-3, -2, -1, 0, 1, 2, 3
9	Time stamp	Off Date

【】 Down key, short press 【】 to select function at the Menu interface, short press button to turn on/off sound record at the shooting interface.
【】 Up key, short press 【】 to select function at the Menu interface; 2. In case of video recording, short press OK button to pause, then short press 【】 button to switch front-inside view image (require inside view lens); 3. long press 【】 button to switch front-rear view image; 4. In case of front-rear view image, short press OK button to pause, then short press 【】 button to switch front-rear view image (require rear view lens).
【OK】 Confirm button, short press to confirm in the menu interface, short press to video record on/off in the video mode.

Rear view lens (optional):
In case of video recording, 4 pin plug of rear view lens insert AV-in hole of device, there's a rear view image in top right of the screen, that means connected successfully, short press OK button to pause, long press 【】 button to switch front-rear view image, When hang up "R" gear, it will show full image of rear view.

Note: This device can only support dual cameras to video record at the same time. Instead of 3 channels camera, that is front-inside camera or front-rear camera; if installed a rearview camera and choose front-inside view mode, it will automatically indicate full image of car reversing visual when you hang up "R" gear, but won't effect front-inside video record, also will automatically switch back front-inside view after cancel "R" gear.
As for system update to support 3 channels camera to video record at the same time, please prevail in kind and we're sorry for no further notice.

Reset key 【RESET】
If the recorder crashes and accidental operation is not a normal fault, press 【RESET】 to shutdown the device, then press 【OK】 to reboot the device.

Installation Notes

- Please test the rear view camera firstly, if it works well then install (package without rear view lens can be ignored).
- Turn off the car engine.
- The TF card insert the recorder slot.
【Note】 Please use the high-speed TF card (Class10 above), capacity of not less than 4GB, TF card maximum support 32GB.
- The recorder via a bracket fixed to the front windshield of the car.
- Insert the car charger into the car cigarette lighter.
【Note】 When wiring, extend the charging line along the edge of the car door frame and carpet under the car laying.
- Install the rear camera at the rear of the vehicle, and pay attention to the up and down direction. Wiring can be buried along the edge of the car roof laying. 【Note】 There are two ways to install the rear camera:
A. Absorbed on the glass above and behind the car, hands-on self-installation (Reversing visual function can not be achieved, only real-time recording rear video).
B. To find a professional installation staff installed in the license plate above the camera at the same time need to connect the power reversing lights (Reversing visual function can be achieved).
- Adjust the lens position to ensure the best viewing angle.
- Start the engine and check that the machine is operating properly.

Features

- Use the automatic recording function.
Start the car engine, the recorder automatically starts to open the recording function. Close the car engine, The recorder automatically saves the contents of the log and shuts down, recorded video segments are stored on the TF card. When the TF card is full, the recorder will overwrite the oldest recorded image preferentially.
【Note】
a. Time segment of record can be set 1/2/3 minutes in the menu.
b. The video individually saved in the folder named "DCIMA" and "DCIMB" in TF card (package include rear view lens).
- Use motion detection.
In standby mode, enter the menu screen open the motion detection mode. When the lens is sensitive to the peripheral area of a moving object, the state machine into the camera, recording 30 seconds after the system stops recording. To exit the motion detection mode, in standby mode to enter the menu screen close motion detection mode.
- G-sensor.
The built-in gravity sensor (G-sensor). If serious vehicle collision, the recorder will lock the first 5 seconds and 10 seconds after the image date when the accident occurred while the bottom left of the display screen displays a lock icon, locked images will be saved as a special file, the file will not be overwritten cycle.
(note) Gravity sensor (G-Sensor) sensitivity adjustment support may actually need to change setting in the setup menu according to their image.

5. The device has a key lock feature that will need to retain an image without being locked loop overwritten. In the video mode, short press 【M】 key logger will then lock the entire video image.

6. In shooting mode, Press the 【M】 key to enter the menu setting, find the date/time menu, short press the 【OK】 button to confirm and return to the setup menu settings, press the 【M】 key to exit the menu setting.
【note】 In order to effectively record the date and time traffic safety accident forensics, before using the menu setting.

7. File playback
In the playback mode, press the {OK} key to play back. To exit playback mode, press MODE button again.

8. Reversing visual function
First, you must connect the DVR with car charger, rear-view camera connect the reversing lights. Insert the car charger, machine will automatically start recording status, screen switch R position in the recording mode automatically switches to the rear-view camera, display reverse image. After reversing visual machine automatically return to video mode.
Reminder: Please test the rearview camera is normal before installation.

9. Parking monitor (To achieve unattended surveillance video)
To achieve this function must be connected to the machine in the case of electricity, in the main menu to open the motion detection and parking monitoring function, in the standby state of the vehicle under vibration or moving objects in front, the recorder according to G-sensor to sense automatically start the machine and automatically locks the video for 30 seconds, and automatically save the video file, the video 30 seconds after 5 seconds without the operation will automatically shut down.
【note】 This function is only used when stopping. Please turn off the motion detection and stop monitoring function during normal driving.

FAQ	
Machine appears "file error" message	Settings menu -> Restore factory settings and format the memory card, the general problem is TF card
The screen appears horizontal stripes interference	Please select the correct power supply frequency 50HZ(PAL)
How to properly turn on the 24-hour parking monitoring function	While in normal driving, please do not open, it is easily lead to automatic shutdown or crash, after parking is required to open, configure the buck line or mobile power please

Night shooting screen is not clear enough	Recorder shooting depends on the outside strong light source (such as streetlights or car light)
The machine always reverts to the default date and time	Shutdown in the first case full of electricity, you can use car charger or mobile power supply to add power
What is the reason for video file leak seconds	(Turn off motion detection/ Turn on the loop recording function) With a certain choice of their own genuine card C10 high-speed card
Why during recording, the machine automatically shut down suddenly	Please turn off the parking monitoring function first/ Ambient temperature exceeds 70°C will cause automatic shutdown
【Note】 Practice proof	Most of the problems sources from the memory card, a small part cause of power cord

FCC Caution:

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.

Any 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.

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