Safety Caution

Notice:

- ■1.The electronomagnetic field of specific frequency may affect the audio and video of this product.
- 2.If the static or electromagnet lead to the failure of the data transfer.please break the connectionor restart the application program and reconnect the communication cable(USB etc.).
- 3.Please do not put this product in an air-tight place like bookcase or closet in case of the electric shock or fire caused bv excess heat

■ 4.Please do not put the product near fire.

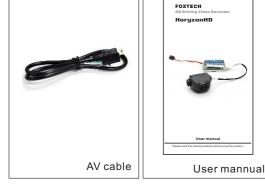
- ■5.lease keep the mainboard module at least 5cm from
- other electronic equipments on your plane to avoid inter-interference.

Precautions for using this recorder

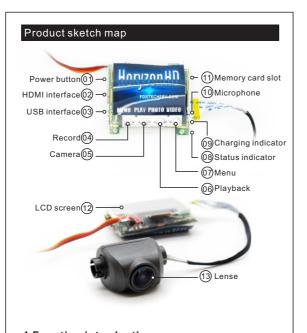
- 1.Please check the recording first before starting to record
- ■2.Please be noted that this product is not dustproof or waterproof.
- 3.Please do not touch the lense with dirty hands.
- 4.Please keep the product from water.If there is water getting inside, the product might be damaged and cannot be repaired
- in some situations
- 5.Please do not hold the product face toward the sun or other strong light, which may cause failure







(02)



1.Function introduction Power button

1.Press the power button then it will enter the standby mode in a few seconds. 2.Press the power button again then it will be turned off in 2 seconds

Menu button M

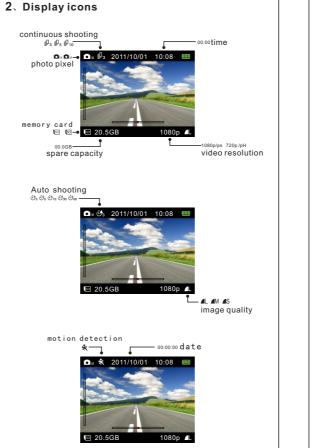
playback mode

Playback button 🕨

1.In standby mode, press and hold down this button for 3 seconds to enter the menu setting state. 2.In menu setting status, short press this button can browse the taps while long press it for 3 seconds can go back to the parent menu, and continue the long press to

3.In playback mode, short press this button will stop playback video. Wihle browsing the files, short press this (03)

button can enter the Action menu and long press canl exit



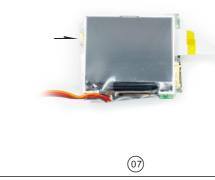
(05)

2.Insert and take out memory card



- a. Insert the card with the side with golden contacts down, then jog the card until it clicks. b. When taking out the memory card, jog the card until it
- clicks, then the card will pop out.

Notice: Please do not take out the memory card while in recording, photo taking or USB mode, otherwise the card or the files in it could be damaged.



3.Turn on/off 🕕

- a.Press the power button to turn it on, it will enter the standby mode in a few seconds.
- b.After you are finished using the device, long press the power button for about 2 seconds to turn it of

4.Installing the device

- a.Install the holder into the slot on the back of the device.
- b.Invert the device and fix the holder on the windshield or other spots with a capacious view and can be direct mounted
- c.Both the angle of the holder and the lense are adjustable

Video recording

1.Normal recording mode

- a.Press the Video button to start recording.The red icon on the screen shows it is recording and the redord time shows on the bottom of the screen.
- b.The record files will be saved in sections as the time pre-set in video sections in the video menu, for example, if the setting is 15 minutes a section, then the system will create a new record file and keep recording when the recording time reaches 15 minutes. The files will be named after the number of the order they are created.
- c.The video section setting cannot be closed or removed. Two sequential files are connected seamlessly without losing a single frame, which can keep the video smooth and intact

2.Timelapse recording

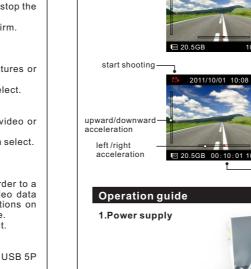
a. When the timelapse recording is started, the icon will be shown on the standby screen

(08)

1.In standby mode, short press will enter playback status 2.While playing back, press this button to play or stop the video 3.In menu setting status, press this button to confirm. Camera button 🗖 1.In standby mode, press this button to take pictures or increase the digital zoom. 2.In menu setting mode, press this button to up select. Video button 🕒 1.In standby mode, press this button to record video or reduce the digital zoom 2.In menu setting mode, press this button to down select. HDMI interface 1. The interface is C-TYPE. Connecting the recorder to a HD display device with a special cable, the video data can be transferred to the device and the operations on the pictures and videos can be done on the device 2.Support 1920x1080,1440x108,1280x720 output. Multi-functional USB interface 1.The interface is compatible with standard MINI USB 5P cable, using to connect PC. 2.Output AV and input auto power supply. Charging indicator 1. Recharging the indicator turns red, after full the Green indicator on 2.If no external power imput, the charging indicator will not shine. Status indicator

1.In standby mode, the blue indicator on. 2.While recording the blue indicator flashes rapidly. 3.While taking photoes, the blue indicator flashes slowly.

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timelapse recording 2월 1월 1월 1월 199

(06)







- b. Press the Video button to start timelapse recording. The red icon shows it is recording. The screen does not show record time in this mode.Press the Video button again to stop recording
- 😤 : 1 frame per second
- 🚓 : 10 frames per second
- 🚓 : 30 frames per second
- 📸 : 60 frames per second
- c. This function is designed for recording slow-moving scene, such as flowers blooming, plants growing,etc.The record files in this condition take up less storage space. If the record files are to be played back, make sure a specialized play software is available for playback frame by frame or slow playback.
- d. Before using this function, make sure the Motion detection in system menu is closed.

3.Motion detection

- a.When the motion detection is started, the icon will be shown on the standby screen. Press Video button to record, and the icon will keep flashing, ready for trigger event.
- b.When a trigger event is detected, it will start recording. The red Video icon will be shown on the screen.
- c.Record time will not be shown in this mode.If the moving object stays still for 30 minutes, it will stop recording and go back to detecting mode, waiting for next trigger. Press the Video button again can stop the motion detection recording and go back to the standby mode
- d.According to the moving object's ratio in the visual field, there are three levels of trigger sensitivity to select

High sensitivity: It will be triggered to record the moment a distant and small moving object is detected.

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Secondary sensitivity: Starting to record when an average sized moving object in a moderate distance is detected

Least sensitivity: Starting to record when a close and small moving object is detected.

e.Make sure the device is fixed and stable when using this function, or it will be affected and fail to detect the motion of the object properly when the car rocks. f. When the Motion detection and the Timelapse recording are both functioning, press the Video button can only start Motion detect recording

4.Loop recording

- a Loop recording functions in the Regular recording mode. The recorder can keep recording without changing the memory card.
- b.When the memory card is full, it will delete the earliest video files automatically and keep recording.
- c.Rules for automatically files deletion

• The protected files will not be deleted. (This should be set manually in Playback/Photo/Protection)

• The earliest files will be deleted first. It deletes one file each time

• For example: FILE0001.MP4

FILE0002.MP4...FILE0059.MP4.When the memory card is full, the system will delete FILE0001 first and create FILE0060.MP4 and then keep recording. If the room is still not enough for recording, it will delete FILE002.MP4 until the spared recording time is long enough for one section.Then FILE0061.MP4 will be created and thus, loop recording.



展开尺寸: 420X285mm 折叠尺寸: 142.5X84mm

• If the time of the old file is longer than the video section, then the whole file will get deleted.

d.When it is Timelapse recording or Motion recording, if the memory card is full then it will stop recording or loop recording.

5.Video menu settinas

Items	Menu setting	Function description
Resolution	1080p	16:9 Full HD 1920X1080P 30fps
	1080ps	4:3 Full HD 1440X1080P 30fps
	720pH	16:9 Full HD 1280X720P 60fps
	720p	16:9 Full HD 1280x720p 30fps
Video Quality	A L	Maximum
	M	Medium
	∎S	Minimum
Metering mode		Average metering
	•	Central weighted metering
Video sectioning	5 min/ 10 min/ 15 min/ 20 min/ 30 min	When in continiou recording, the video file will b saved in sections as the tim set here.
Time stamp	On / Off	When enabling this setting, the date and time will be shown on the up left corner of the screen.

Close l sec./frame Set the space of time for capturin Timelapse 10 sec./frame 1 frame video 30 sec./frame recording 0sec./frame When enabling this function, it can recycling memory space and loop record.When the Loop recording memory card is full, the system will delete the earliest file On / Off automatically and continue recording. When enabling this setting, it will record the video and Microphone On / Off sound synchronously.

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1. Normal photo mode

Photo taking

Press Camera button to take pictures. The icon will be shown on the screen while shooting

2. Continuous capture mode

When enabling this function, the related icon will be shown on the screen. Press Camera button and it will take photoes continuously as the setting in the menu.

3. Auto shooting

When enabling this function, the related icon will be shown on the screen. Press Camera button and it will take photoes as the pre-set intervals.

4. Motion detecting shooting

a. When enabling Motion detecting function, the related icon will be shown on the screen. Press Camera button to start motion detecting photo taking.

With the icon keeps flashing, it will start shooting the moment it is triggered.

- b.When it is triggered by the detected object, it will start shooting. The red camera icon will be shown on the screen
- c.If the object stands still for 30 seconds, it will stop shooting and keep detecting until next triggering. Press Camera button again can stop Motion detecting shooting and go back to the standby mode
- d.Make sure the device is fixed and stable when using this function, or it will be affected and fail to detect the motion properly when the car rocks.

Notice: When the Motion detection, Continuous shooting and Auto shooting are all open, press the Camera button can only start Motion detecting shootina

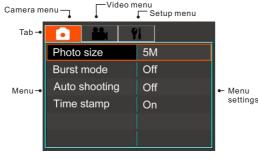
5.Camera setting menu

ltems	Setting	Function description
Pixel	D _{5M}	Photo pixel:2592x1944
	Озм	Photo pixel:2048x1536
	₽ ₃	Shoot 3 photoes at one hit
Continuous shooting	₽ ₅	Shoot 5 photoes at one hit
	<u>₽</u> 10	Shoot 10 photoes at one hit
Auto shooting	Ċ ⁴ 3	Shoot 1 photo every 3

	Ÿ₅	Shoot 1 photo every 5 seconds
Auto shooting	Ů ¹⁰	Shoot 1 photo every 10 seconds
	Ċ [¶] 30	Shoot 1 photo every 30 seconds
	Ů ⁶⁰	Shoot 1 photo every 60 seconds
Time stamp	On / Off	When enabling this setting , the date and time will be shown on the up left of the photoes.

1.Main Menu settings

a. In standby mode, long press the Menu button and the Main Menu interface will pop out.



b.Shortly press Menu button to browse Camera, Video and Setup tabs

c.Press Camera button and Video button to select items.Press Confirm button to enter set state.Press Camera button and Video button to set and press Confirm button to confirm and go back.

(14)

5M Photo size Off Burst mode Auto shooting Off Time stamp On

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	11
Video size	1080p
Quality	_ L
Metering mode	l IIII
Video section	15 Minutes
Time stamp	On
Time lapse	Off

	1
Language	English
Date	2011-01-01
Time	00:00
Auto screen off	Off
Auto power off	Off
Motion Detection	Off

(15)

Items	Menu setting	Function description
Language	English	Set English as the system language
Language	Simplified Chinese	Set the system language as Simplified Chinese
	Traditional Chinese	Set the system language as Traditional Chinese
Date	2011/01/01	Set the date
Time	00:00	Set the time in 24-hour time system
Auto screen off	Off/ 30s/ 60s/ 120s	Set the time for auto screen off. When there is no button operation within certain time, the screen will be off automatically to save power. Press any key to turn it on.
Auto power off	Off/ 30s/ 60s/ 120s/ 300s	Set the time for auto power off. When there is no operation within certain time,it will shut down automatically.
Motion detecting	High/Medium/ Low	Set the detecting sensitivity
Light source frequency	50Hz/60Hz	Set according to the power grid frequency to avoid the interference while working under a fluorescent lamp. If it is working under the nature light, then this setting can be passed over.
Video output	NTSC/PAL	Set the format if you are outputing the video to TV.Select the right format accoding to state video system.
Formatting		Format the memory card
Restore factory defaults		Reset all the settings to the default
Upgrade		Upgrade programs

Upgrade programs

- a.Please make sure the battery power is sufficient or there is external power supply.
- b. Please copy the upgraded files to the memory card(Please do not change the name of the files). Then insert the memory card
- into the card slot. c.Turn on the recorder and enter Setup menu> Upgrade.Press Confirm to enter Upgrade
- interface, then select Yes and press Confirm to start upgrading. d. After it finishes upgrading, the system will restart

automatically.

Output vidoes and photoes to HD TV

- a.Connect the device with the HD TV set through an
- HDMI cable (not included in this product).
- b.Make sure there is HDMI sign on the HDMI cable. c.A transfer line is needed to transfer the HDMI C TYPE
- to HDMIATYPE when connecting to the HDMI interface of HD TV set.

Connecting to PC

- a.Connect the device to PC
- b.When the screen shows the Connecting to PC interface, press up/down button to select YES.Connect the device to PC as a removable disk.Operations like Playback,Copy,Delete and so on can be done on the computer.

Solutions for common problems

(17)	

Video recording/Photo taking

- 1.Cannot record video or take photoes a.Please check if the memory is full, if it is, delete the unnecessary videos and photoes.
- b.Please check the settings in the menu.Make sure the Timelapse recording and Motion detecting are set right.
- c.Please check if the Continuous shooting and Auto shooting are set right.
- 2.Stop in the middle of the recording a.Please check if the memory card is Micro SD card or
- Micro SDHC card that the device supports. b.To ensure normal recording, Micro SD card or Micro SDHC card must be high speed.
- c. The transmission grade of the card should be Class 4 at least.
- d.In car mode, please mount the device and fix it levelly before connecting the auto power.If the power is connected first, it will start recording before the device is placed properly. The record file will be protected and leaves less room for recording. When the memory card is full, the loop recording will stop. 3. Fuzzy picture
- a.Please check if there is any dirt or fingerprint on the lense.Wipe the lense gently with a dry and soft cloth if the it turns dirty.

About playback

- 1.Cannot playback a. Please check if the memory card is inserted properly. b.If there is no file stored in the memory card, it can not
- play back. c.If the name of the file has been changed, it can not play back.
- d.If the file has been modified, it can not play back. 2.White dots in the picture
- a.lf recording in dark place, the dust particles may reflect light and cause the white dots in the picture. b.Please check if there is any dust on the lense.

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Specifications

Items	Contents	
Image sensor	1/3.2 CMOS	
Lense	Fixed focus, f=2.7mm, angle of view=140° Up and down adjustment angle= 90°	
Exposure control	Auto exposure	
White balance	Auto white balance	
Photo	Format: JPEG Pixel: 2592×1944	
Video	H.264 video compression Size 16:9 1920×1080 (30fps) 4:3 1440×1080 (30fps) 16:9 1280×720 (60fps) /1280×720 (30fps) Video section (5min/10min/15min/30min) Bitrate (8Mbps, 12Mbps, 15Mbps)	
Storage	High speed Micro SD(TF card) Maximun support 32GB	
LCD glass screen	2.0"TFTLCD Pixel: 960×240	
Multifunction interface	AV out, USB(Compatible with standard MINI USB plug), DC input, Universal serial data input, Mono audio channel, USB 2.0 high-speed communication, HDMI output, C-TYPE interface, data format HDMI 1.2	
Dimensions	About 52.8 × 43 × 16mm length/width/thickness (not including the Lense)	
Weight	About 38 g (without av out cable plugged)	
Operation temperature	-10℃-40℃	