

1. Preface

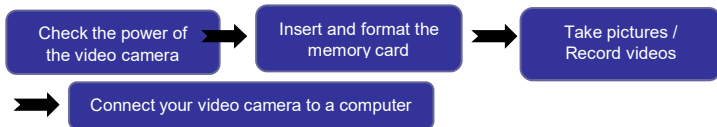
Thank you for purchasing this digital video camera. Before use, please read this manual carefully. Keep this manual in a safe place for future reference.

The latest information at the time of compiling this manual is used for reference for the content of this manual. The screen displays, illustrations and other information adopted in this manual are to visually elaborate the operation of the video camera.

Depending on different technology development and production batches, it may be slightly different from the digital cameras you actually use.

2. Notes

Please operate the video camera by following the below procedures.

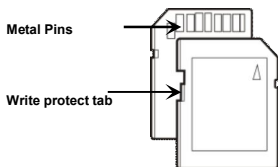


Note: Before using new card or cards used in other cameras/video cameras, you must format the card with this camera. Make sure that you save or transfer the important data to soft disk, hard disk or other medias before formatting the card.

3. Operation Notice

The video camera uses SD cards (4G-128G) .

SD card includes write protect switch which will prevent image files from been erased or formatted.



Sliding the tab downward to protect existing data;sliding the tab upward to erase writing protection.When taking pictures,please slide the tab upward.

Usage Instructions for SD card

- Before using a new memory card or card with data unidentified by the video camera or pictures took by other video camera, please make sure the card been formatted.
- Before inserting or pulling out the card ,please keep the power of the video camera off.
- After being used multiple times and the performance of the card is reduced,which requires replacement of a new card.
- The memory card is a precision electronic device. Do not bend the memory card, and avoid falling or heavy pressure.
- Do not place the card near strong magnetic fields such as televisions, stereos, etc.
- Do not use or place the card in extreme hot or cold environments.
- Keep the card clean and avoid any contact with any liquid. If it is in contact with a liquid, wipe the liquid with a soft cloth.
- Put the card into the card sleeve ,when it is not used.
- Please note that the card will become hot after long use. This is fully normal.
- Do not use the card used in other digital video camera or digital camera.Please keep the card formatted by the video camera firstly before the card is used in it .
- Do not use the card that was formatted on other video camera or card reader.
- The recorded data may be damaged in the following circumstances :
 - the memory card is not used properly;
 - turn the power off or remove the card during recording ,deleting(formatting),or reading.
- It is suggested that save the important data on soft disk and hard disk.

4. Features

The video camera includes several features and functions :

- Digital video camera(4K/24fps)
- Digital camera(30 million pixels)
- 3.0 " HD touch screen
- Mass Storage (removable disk)
- 16x zoom
- Thermal night vision
- Remote control
- External hot shoe
- Recording while charging is supported
- Support HDOUT
- Support external MIC
- Support WIFI(preview,playback,a key to share)
- Support interval video and interval photography (That is time-lapse photography.Time-lapse photography is a capture technique to compress times.When a group of photos or videos are taken ,the photos are connected in series and the videos are pumped.Then the process of a few minutes,hours,even days or years is compressed into a shorter period of time to play.The slow-changing process of a object or scene is compressed into a shorter time,presenting a fantastic and wonderful sight that is normally invisible to eyes.)
- Support slow-motion recording
- Support motion-detecting recording

5.Appearance Description



6.Buttons and Indicators

Buttons/ Indicators	Functions
POWER (OK)	1.Power on and off 2.It functions as confirmation in menus 3.It functions as stop or play in playback 4.When power is on, press it will turn on the infrared light/fill light, and then press it again will turn off
T/W	T : zoom in(When selecting the mode, press it to move to the right) W : zoom out(When selecting the mode, press it to move to the left)
PHOTO	1.Taking photos 2.Press it to pause when recording video
Indicator light (BUSY/ CHG)	1.BUSY:working indicator light. 2.CHG:charging indicator light(the indicator light will be on when connected with a charger.It will turn off when the power is full.)
START/STOP	Start or stop recording videos.
UP	1.In the menu mode and playback mode is stands upward 2.It stands VE+ when taking pictures or recording videos 3.Long press it to open WIFI shortcut key,and then long press again to shut it off.
Down	1.In the menu mode and playback mode is stands downward 2.It stands VE - when taking pictures or recording videos
MENU	Enter or exit the menus
MODE	Switch the mode interfaces
Hot shoe	For the installation of the connector of external microphone
MIC	External microphone interface
HD	TV interface
USB	USB interface

7.Getting started

7.1 Battery installation

Rechargeable external lithium battery with high capacity is used in the video

camera.

Install the battery in the right place of the battery slot correctly.

7.2 SD card installation

As indicated aside the card slot,insert the SD card into the the card slot with the metal pins towards inside.(The camera is turned on after the SD card is installed)
Remove the card by pressing down.(The camera will turn off automatically when SD card is removed out)

Notes:

- Turn off the power before replacing card.
- Insert card in the right direction.Do not insert the card too hard to damage the card or camera components.If the card is not inserted,please check whether the direction is right or not.
- Format the card when the card is first used or used in other video cameras.



(In power on, double-click MENU button, enter the system settings, then press DOWN button to find the “Format SD-card” menu, Click on the "POWER(OK) "button, you will see “format card? All data will be deleted. (yes or no)”.Or you can format the SD card on your computer).

7.3 Open Monitor

(1)The camera will be turned on by opening the LCD monitor.

(2)When the power is off, press the “POWER” button for 1 second and the camera will turn on.

7.4 System menu setup

Double click the “MENU” button to open the main menu, press “UP / DOWN” button to select main menu, and press “OK” to enter into sub-menu. In the sub-menu, press “Menu” button to return to main menu,press it again will return to the start desktop.

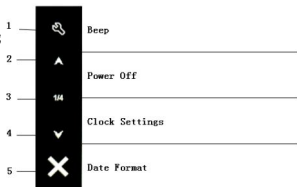
1.Photo/Video setting menu.click this icon to enter the setting

2.UP

3.Current page/Total pages

4.DOWN

5.EXIT



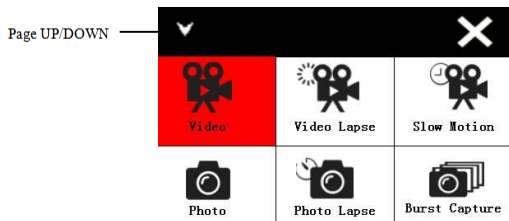
The menu selected will have a red triangle in the top right corner.

Main menu	Sub-menu	Description
Beep	On / Off	Open / Close button sound
Power Off	3min / 5min	auto off in 3min/5min at idle status
Clock Settings	××Y××M××D ××:××:××	Set date and time
Date Format	None YYYY MM DD MM DD YYYY DD MM YYYY	Set date format
Stamp	On / Off	Set whether the photo and recorded video shows a timestamp
Language	English/Espanol and so on, total 17 languages	Set language
Flicker	50Hz /60Hz	Set the frequency at which the lights flicker
LCD Power Save	Off/1min/2min/3min/5min	Set the time to auto off the screen at idle status
Reset Setup	YES / NO	Delete all Settings. Please operate carefully!!
Format SD-Card	YES / NO	Format SD-Card
SD-Card INFO		SD card information
Show icon	On / Off	Set up the screen icon
QR code	Android / IOS	Download mobile phone APP to connect the camera
FW Version		Version information

7.5 Functions of the camera

Enter the video mode automatically after the camera is turned on. The modes can be switched by pressing MODE button (or click the icon in the upper left corner of the display screen and you will find the pop-up menu).

Switch modes as following :

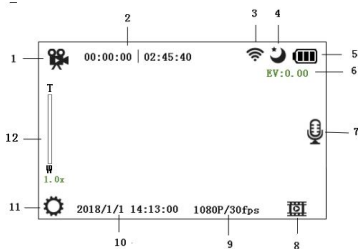


Select UP and DOWN by pressing the arrow buttons; select LEFT or RIGHT by pressing W/T buttons or directly click on the icon on the touch screen.

Modes can be switched in Video/ Video Lapse/Slow Motion /photo/Photo Lapse/ Burst Capture/ video playback / photo playback / motion detection.

(1)Video Mode

- 1.Record Mode is the current mode.
Click it to pop up mode selection interface
- 2.Recording time and remaining time
- 3.WIFI connected
- 4.IR fill lamp is on
- 5.Current charge status
- 6.Exposure of current video
- 7.Click it to turn on/off the recording sound
- 8.Click it to playback videos directly
- 9.Resolution of current video
- 10.Current system time
- 11.Click it for direct setting
- 12.Digital zoom



Recording videos: Short press “Video Start/Stop” button or click the center of the display screen to start recording; repress or click the center of the display screen to stop recording. Press “PHOTO” button to pause recording during recording videos and press again to continue recording.

“MENU” button: press it or click Icon 11 to enter menu. You can set the following menu: Movie Resolution / Movie Quality / Movie Clip Time / Enable Motion Detection / Sound Record / Scene / Exposure Metering / Exposure / White Balance / ISO Sensitivity / Contrast / Saturation / Sharpness / Gamma.

“UP” button: Short press to +EV; long press to open/close WIFI.

“DOWN” button: Short press to -EV.

“T / W” button: zoom in / zoom out

IR fill light: In the standby state, short press POWER button to turn on IR/LED Video light and short press again to turn off the IR/Fill light (IR light is not available in playback mode).

(2) Video Lapse Mode

1.Record Mode is the current mode.

Click it to pop up mode selection interface

2.Recording time and remaining time

3.WIFI connected

4.IR fill lamp is on

5.Current charge status

6.Exposure of current video

7.Click it to turn on/off the recording sound
(No sound in current mode recording)

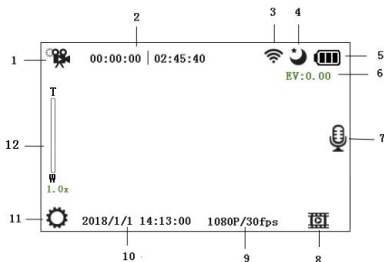
8.Click it to playback videos directly

9.Resolution of current video

10.Current system time

11.Click it for direct setting

12.Digital zoom



(3) Slow Motion Mode

1.Record Mode is the current mode.

Click it to pop up mode selection interface

2.Recording time and remaining time

3.WIFI connected

4.IR fill lamp is on

5.Current charge status

6.Exposure of current video

7.Click it to turn on/off the recording sound
(No sound in current mode recording)

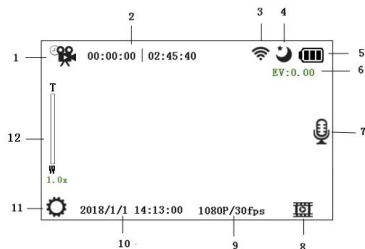
8.Click it to playback videos directly

9.Resolution of current video

10.Current system time

11.Click it for direct setting

12.Digital zoom



(4) Photo Mode:

1.Photo Mode is the current mode.

Click it to pop up mode selection interface

2.Number of current photos and remaining photos

3.IR fill lamp is on

4.Current charge status

5.Exposure of current photo

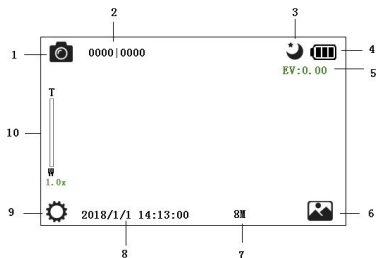
6.Click it to playback photos directly

7.Resolution of current photo

8.Current system time

9.Click it for direct setting

10.Digital zoom



“Photo”: Press it to take photos.

“T/W”: Press T to zoom in;press W to zoom out.

IR fill light: In the standby state ,short press POWER button to turn on IR/fill light and short press again to turn off the IR/Fill light.

“Mode”:Press MODE button or click Icon 1 to select modes.

“Menu”: Press MENU button or click Icon 9 to enter menu.

“UP”: Short press to +EV; it stands UPWARD in the menu.

“DOWN”: Short press to -EV;it stands DOWNWARD in the menu.

(5) Photo Lapse Mode:

1.Interval Photo Mode is the current mode.

Click it to pop up mode selection interface

2.Number of current photos and remaining photos

3.IR fill lamp is on

4.Current charge status

5.Exposure of current photo

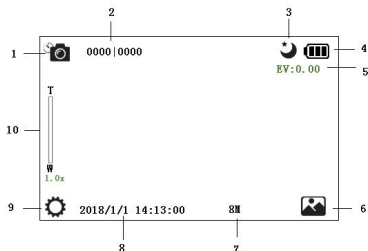
6.Click it to playback photos directly

7.Resolution of current photo

8.Current system time

9.Click it for direct setting

10.Digital zoom



(6) Burst Capture Mode (only support maximum 8M)

1.Continuous shoot Mode is the current mode.

Click it to pop up mode selection interface

2.Number of current photos and remaining photos

3.IR fill lamp is on

4.Current charge status

5.Exposure of current photo

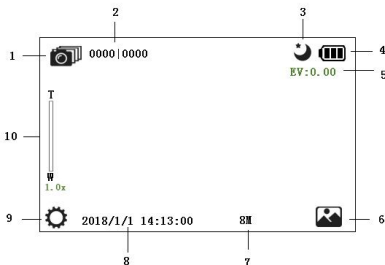
6.Click it to playback photos directly

7.Resolution of current photo

8.Current system time

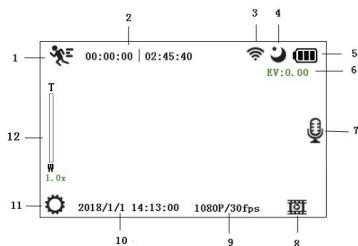
9.Click it for direct setting

10.Digital zoom



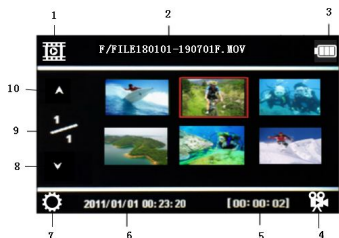
(7) Motion Detection Recording:

1. Record Mode is the current mode.
Click it to pop up mode selection interface
2. Recording time and remaining time
3. WIFI connected
4. IR fill lamp is on
5. Current charge status
6. Exposure of current video
7. Click it to turn on/off the recording sound
8. Click it to playback videos directly
9. Resolution of current video
10. Current system time
11. Click it for direct setting
12. Digital zoom



(8) Video Playback:

1. Video Playback is the current mode.
Click it to pop up mode selection interface
2. File and name of the current video selected
3. Current charge status
4. Click it to return to record Mode
5. Current system time
6. Click it to set menus
7. Click it to page down
8. Current page/total pages
9. Click it to page up



File selection: Press UP and DOWN to select upward and downward; press W/T buttons to select videos left or right to playback.

Play: Press OK to play video when the file is elected; press OK to pause playing; press UP and DOWN to fast forward/fast backward; press MODE button to exit playing.

Mode: Press MODE button to select modes.

Menu: Press MENU button to enter menu. Setting the volume, erasing files, protecting files on menus.

(9) Photos Playback:

1.Photo Playback is the current mode.

Click it to pop up mode selection interface

2.File and name of the current photo selected

3.Current charge status

4.Click it to return to Photo Mode

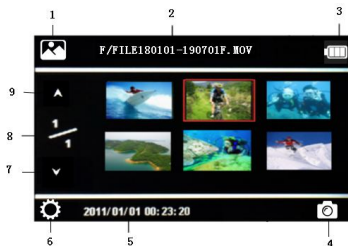
5.Current system time

6.Click it to set menus

7.Click it to page down

8.Current page/total pages

9.Click it to page up



8. WIFI:

(1)WIFI can be found by scanning the QR code and downloading related APP as following:



Android



IOS

(2)Please scan the Android QR code above to download Android APP.Then it will be shown as following:

Firstly,turn on the camera,then press “UP” button 3 seconds to select WIFI.The WIFI name and pass code will show on the screen (WiFi is not available in photo mode) .

SSID:xxxxxxxx
Passcode:xxxxxxxxxx

Disconnecting WIFI: When connected to WIFI, press “UP” button for 3 seconds, disconnect the WIFI, and the camera will return to normal condition.

Note: When a recorded video is played on the phone, whether online or downloaded to the phone, the playback may not flow smoothly or the image may disappear within seconds. This is because the running memory of the phone is smaller or its running speed is slower. Please choose the player with large memory and faster running speed.

9. Remote Control



ps:

1. When you use the remote, you need to place it in front of the camera.
2. After installing the wide angle lens, the remote control will cannot work.
3. The remote control should be within 8 meters.

pull out the insulating paper

10. MIC INPUT

When an external HS microphone is needed, plug the external microphone into the MIC interface of video camera to record video or audio for better audio effects.

11. HD OUTPUT

When the video and sound of the video camera are needed to output to the HD TV, insert the public port of the HD cable into the HD interface of the video camera, and connect the HD input port to the HD input interface of the HDTV. Please stop recording / playing videos before accessing / unplugging the HD cable. (switch TV signal into HD mode)

12. Power OFF

Long press POWER button to turn off the video camera.

When the video camera is free, it will turn off automatically without operation in more than 1 minute (or 3 minutes, or 5 minutes, as set.) so to save power.

13. Infrared lamp night vision

When the light is insufficient, press OK button to turn on the function of night vision. The video camera can normally be used to record videos and take photos with night vision.

Note: Turning on the infrared lamp will increase the loss of battery.

14. Connect to a computer

Connect the video camera to the USB port on the computer with the USB cable; insert the USB and the camera will automatically turn on; press UP and DOWN to select the removable hard disk or PCAM or camera; then press OK to confirm entry.

When the camera is connected to computer, a removable disk will be added to the window of MY COMPUTER. The recorded videos can be stored in the "Normal\ F" directory on the removable disk and then can be copied to the hard disk of the computer from the "Normal\ F" directory.



Note: Do not disconnect the USB connection while downloading files. Do not plug memory card when USB is connected so to avoid data loss.

15. Camera maintenance

After using, keep the camera in a dry and dark place and remove the battery.

- When using, keep wristband always covered with so to avoid sliding.
- Use proper protective case to avoid scrubbing lens and display screen.
- Use proper protector to avoid the lens and screen to be scrubbed.
- Blow dust and sands off the lens surface, then wipe gently with cloth or paper suitable

for cleaning optics.If necessary, please use lens cleaner. Do not use organic solvents to clean the video camera.

- Do not touch the lens surface with fingers.

Specification

Image sensor	CMOS
Picture Resolution	30M,24M,20M,14M,12M,8M,5M, 3M,2M,1.2M,VGA,
Memory	SD (4GB--128GB)
Fill light	IR night vision
IR-CUT	Support IR—CUT
Files format	JPEG, MOV
Recording resolution	4K/24FPS,2.7K/30FPS,2K/30FPS/1080P/120FPS,1080P/60FPS,1080P/30FPS,720P/240FPS,720P/120FPS,720P/60FPS,720P/30FPS,480P/30FPS
Self-timer	OFF/2seconds/5seconds/10seconds/15seconds/30seconds
Digital zoom	16X
Whit balance	Auto/Daylight/Cloudy/Fluorescent /Fluorescent 1/Fluorescent2/Incandesc
Exposure compensation	-2.0 ~ +2.0
USB interface	USB2.0
ISO	ISO100/ISO200/ISO400/ISO800/ISO1600/ISO3200
Power supply	Lithium rechargeable battery
Language	supports multiple languages
Shooting range	f=7.36mm
Aperture	F3.2
Auto off	30seconds / 1minut/2minut/3minuts/5minut/OFF

Operating system requirements	Windows 98, 98SE, ME, 2000, XP, Vista, win7, win10
Dimension	126mm × 58mm × 57 mm
Net weight	295g (with battery)

Note: Specifications are based on the latest information when the manual is drafted. They are subject to change without prior notice, please refer to the actual camera.

Troubleshooting

The camera does not turn on when battery installed.	The power is low, please replace it with new battery.
	The package of the battery is not removed.
	Battery counter - attired. Make sure the battery is installed correctly.
Shutter button does not respond when taking picture or recording.	The card is full. Please save the files on other storage devices.
The picture is blurry.	Hands shake during taking pictures. Hold the video camera steadily, or hold with tripod. Make sure the video camera is not shaking during taking pictures.
The picture is too dark.	The light is insufficient. Please move to places with sufficient light or increase the brightness of the light by lamps.
The video camera shuts off automatically	The power is low, please replace it with new battery.
	To save power, the video camera will turn off automatically without operation in more than 1 minute (or 3 minutes, or 5 minutes, as set.)
Files cannot be erased.	The file-protection function is on. Turn off this function on the menu.
It is unable to charge.	When the charging indicating red lamp blinks, the battery is not well installed or contacted. Please re-install the battery until the indicator lights constantly (indicator will be off when battery is full).
	When indicator is off, the charger is not well plugged in. Please check if the charger is connected properly or not.

Warning:

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

NOTE:

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.

FCC Statement:

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.

In normal use, the wifi module away from the human body at least 5mm