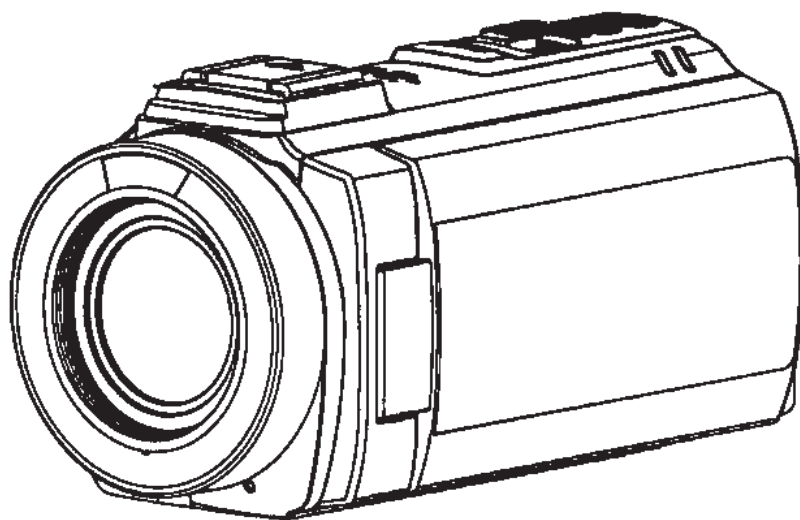


# User's Manual



In order to avoid improper operation caused unnecessary loss, please read carefully before using this product instruction for use, And please keep this product instruction for use, for future reference.

**FULL HD Video Camcorder**

**RoHS FC CE **

## **Preface**

Thanks for purchasing our digital camera. Please read the user manual prior to using the camera and keep the manual in good manner for future use.

Instructions stated in this user manual are the latest information at the time when the manual was made. Display or illustration used in the manual are purposed to show camera operation directly and comprehensively. Since the products can be from different batches of production and development, the display or illustration might be slightly different as what you have in the hand.

## **Instruction**

Please use the camera as per procedures below:

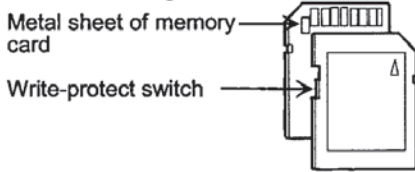


**⚠ Attention:** Please format the memory card through this camera if it is new or was used by other digital camera/video. Please backup the data by floppy disk, hard-disk before format.

## **Use Tips**

The camera supports SD memory card and MMC card (multimedia memory card).

SD memory has write-protect switch, which is designed to protect data being deleted or formatted.



Push the switch on SD card to the bottom, data will be protected. Push the switch on SD card to the top, write-protect is canceled. Push the switch on SD card to the top before shooting photos.

#### Instructions of Memory Card

- Please format the memory card if it is new or has unidentified data or photos made by other camera.
- Please switch off power before insert or remove the memory card.
- Performance of memory card can be weakened after repeated use. Please replace with new memory card if the performance is down.
- As a precision electronic unit, do not fold, drop or squeeze the memory card.
- Do not put the memory card at high electric field or magnetic environment, such as near speaker or TV receiver.
- Do not use or put the memory card in superheated or supercooled environment.
- Please keep the memory card clean, and keep it away from

any liquid. Use soft fabric to clean the memory card if it has contact with liquid.

- Please put the memory card in the card sleeve when not in use.
- Please be aware of that it is normal when the memory card be warming after long-time use.
- Do not use memory card which was used by other digital camera or video. Please format it with this camera before using it.
- Do not use memory card which was formatted by other digital video or card reader.
- Data can be damaged if the memory card suffers the situations as below:
  - Incorrect use.
  - Switch off power or remove the memory card when recording, deleting (formatting) or reading the card.
- Recommend to copy important data by other medias, such as floppy disk, hard-disk .

#### Camera Maintenance

Keep the camera at dry and dark place when not in use, and get the battery out.

- Wear the wrist strap when use the camera to prevent accident falling.
- Use proper protective casing to prevent shot and display scratch.
- To clean the shot surface, please blew dust away then wipe the shot lightly with fabric or paper special for optical device. Shot cleanser can be used if necessary. Do not use

- organic solvent to clean the camera.
- Do not touch the shot with finger.

### System Requirements

Please read the system requirements before use the camera. It is strongly suggested to use the better computer system for the camera to get the best effect.

See lowest system requirements:

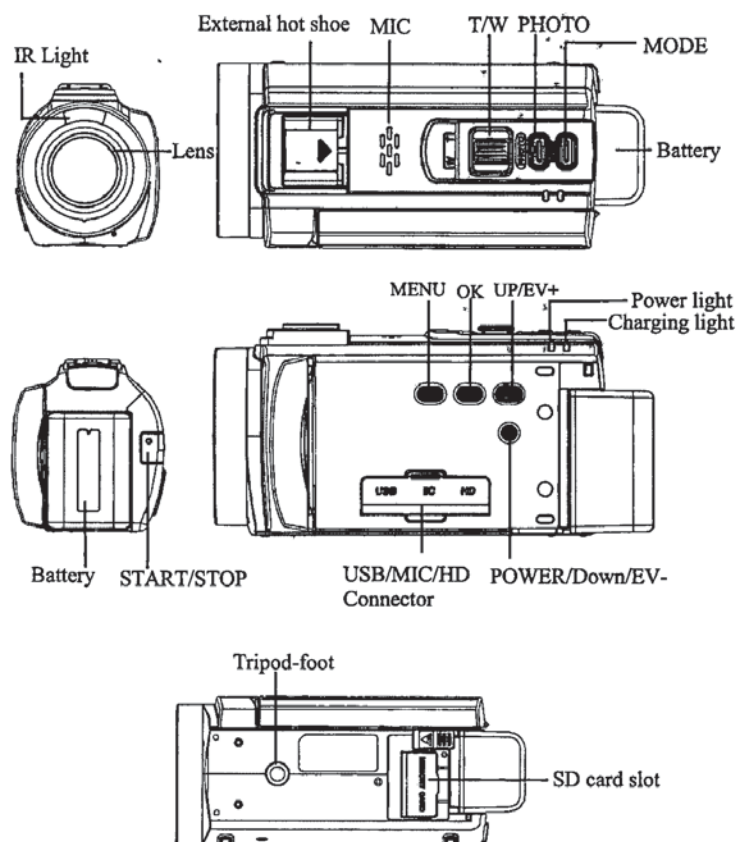
System requirement	
Operating system	Microsoft Windows 7 2000, XP, VISTA
CPU	Above Intel PIII667 or same performance CPU
Internal memory	Above 128MB
Audio card, graphic card	Support DirectX8 or higher version
Hard-disk	Above 1GB space
Others	One standard USB 1.1 or USB 2.0 port

### Function & Feature

The camera has multiple functions and features:

- Digital video (1080P)
- Digital camera (36Mega pixels)
- Mass storage (Removable disk)
- 16X powerful zoom
- Remote control(optional)
- 3.0 inch touch screen
- IR light(optional)
- External hot shoe(optional)
- Motion Detection
- Time Lapse Recording
- Time Lapse Photo
- Slow Motion

## Appearance



## Functions of Keys & Indicators

Key/indicator lights	Function
POWER/Direction key-Down	On / Off ; Menu selection. Move photo (zoom in photo). EV-
Direction key-Up	Menu selection. Move photo (zoom in photo). EV+
OK key	Turn on/off the IR light(video mode), pause/continue playing(when playing a video), confirm(other circumstances)
MENU	Open and exit the menu. Stop playing video;
START/STOP	Start/stop the video.
MODE	Switch over working mode (video/photo/playback).
PHOTO	Photo shooting
T	Zoom in focus or photo (playback mode), turn up the sound(Playback mode) .
W	Zoom out focus or photo (playback mode), turn down the sound(Playback mode) .
Indicator light(Power & Charging)	The blue light is working status indicator light.
	The red light is charging indicator light; the red light will be on when connected with a charger. The red light will go off

	when the battery is full.
External hot shoe	Installing an External Camera Accessories Connector.

## Come to Use

### Place Battery

Original rechargeable lithium battery. Switch off power before replacing battery.

Press electric lock, the battery will be popped up and to be get out manually. Place the charged battery in battery box, push it up until the battery is electric locked and the placement is well done.

### Place SD/MMC card

Open SD slot cap, insert the SD/MMC card (with its metal sheet to outwards) in the slot as per guidance besides the slot. Press SD/MMC card to get it out.

Attention: • Power off camera before replace memory card



- Insert the card as correct direction. Do not insert the card with too strong force to protect the card or camera units being damaged. If the insert is not smooth, please check the insert direction.
- Memory card needs to be formatted for first time use or if the card was used by other camera.

## Turn over Screen

Turn over LCD outwards to user.

## Switch on

Press power for two seconds to switch on the camera.

## Switch-over Mode

Press MODE key to switch Photo/Video and playback modes. Under playback mode, press Mode key to enter system setting interface, and press this button again to go back to photo/video mode.

## Normal Video/Photo

After the camera is turned on, press START/STOP button to start recording a video and press the button again to finish the video. Press PHOTO button to take photos.

## Motion Detection

Under photo/video interface, press Menu button to enter the setting interface, under "Video" item, choose "Motion Detection", press OK button, and the icon of motion detection will be displayed in the upper right corner of the preview interface, then press START/STOP button, the camera will start recording when it detects something moving. If there is nothing moving in the lens range, the camera will delay recording for twenty seconds, then enter the standby state. The camera will not restart recording until it detects there are something moving again.



### Time Lapse Recording

Under photo/video interface, press Menu button to enter the setting interface, under "Video" item, choose "Time Lapse Recording" and press OK button, the icon of time lapse recording will be displayed in the upper right corner of the preview interface. Then press START/STOP button, after five seconds countdown, the camera will turn off the display and enter the time-lapse recording state. It will record the time-lapse video according to the time-lapse recording time setting and interval setting. To save power during time-lapse recording, the camera display turns off. The working status is displayed by the indicator light. The camera will not exit the time-lapse recording mode until it is turned back on.



### Time Lapse Photo

Time lapse photo is a function that photos are taken according to the shooting interval setting.

Under photo/video interface, press Menu button to enter the setting interface, under "Video" item, choose "Time Lapse Photo" and press OK button, then press START/STOP button to take photos. Countdown five seconds later, the camera will turn off the display to enter the timed photo mode. The camera will take photos according to the time-lapse recording time setting and interval setting. To save power during photo shooting, the camera's display will turn off. The working status is displayed by the indicator light. The camera will not exit the time-lapse photo mode until it is turned back on.



### Slow Motion

Slow-motion photography is a function for capturing fast moving objects and vividly showing the details of the motion state of the object.

Under photo/video interface, press Menu button to enter the setting interface, under "Video" item, choose "Slow Motion" and press OK button, then press START/STOP button, the camera will start recording. Press the START/STOP button

again to finish recording, and under playback mode, you can press START/STOP button to play the video of slow motion. The sound will not be recorded during slow motion recording.



### HD Output

To output the photos, video to high definition TV, insert the camera HD port with TV HD community port, and connect HD input port with TV input port. Please be sure to stop video playing before connect or disconnect HD.

### Switch off

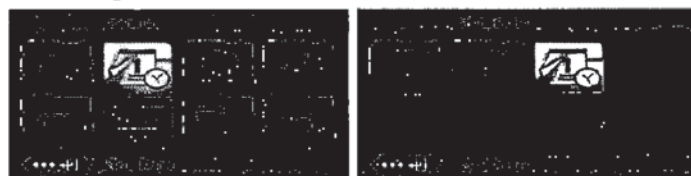
Under switch-on status, press power button until the camera is off.

Under idle mode, if no operation is done in the time beyond auto off time, the camera will be switched off automatically for energy saving.

### Date & Time Setting

Under photo/video mode, press Mode key twice to open the system menu setting, press T button to select "Date&Time" setting, the selected item is highlighted, press OK to enter the setting interface. Press T button to choose the last submenu,

press W/T button and Up/Down key to adjust the date and time, Press OK to save the setting, or press Menu to cancel the setting. Under "Date&Time" setting, you can choose that the date stamp is on or off.



### Advanced Operation

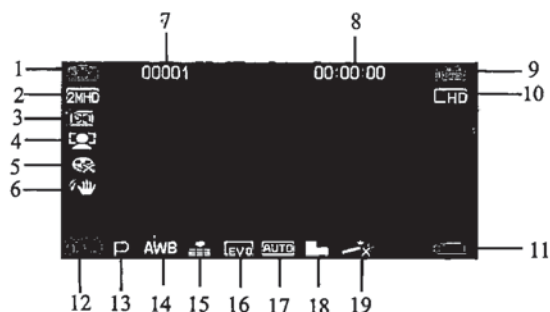
#### Video/Photo Mode

The camera enters into Video/photo mode automatically after switching on, press recording to start video, press Recording again to stop video. Press PHOTO key to take photos. Press Mode key to switch modes, Press T or W key to have digital zoom.

Self-timer : Press Photo key for time delay, photo shooting starts after 2s, 5s or 10s.

IR light: Press OK key to switch on or off the IR light. (IR light can't be used under Playback mode)

Display information under Video/Photo mode:



No	Icon name	Description
1	Photo mode	Press shutter to make photo shooting under Photo mode
2	Resolution	Photo resolution
3	SD card	Indicate that the current storage is the SD card
4	Face Detect	Automatically detect and track faces in images
5	Smile Capture	Smile capture function is on/off
6	Anti shake	Prevent camera shake from affecting image clarity
7	Available number of photos	Space for photo shooting
8	Recording time	The current available recording time
9	Video mode	Press Video to start video
10	Video quality	Quality of current video

11	Power volume	Current battery status
12	Menu	Menu button
13	P	Mode set
14	AWB	Automatic white balance
15	Image quality	Quality of current image
16	Exposure	Current exposure
17	ISO	Automatically adjust the ISO value.
18	Sharpness	Current sharpness
19	Effect	Current effect

#### ◆ System Menu Settings:

Under photo/video mode, press Mode key twice to open system menu(the interface shown below), press W/T button or Up/Down key to select submenu, press OK key to enter into submenu. Press W/T button or UP/DOWN button to set. Then press OK to save the setting, or press MENU button to cancel the setting. Selected menu will be highlighted after selection.



▲ System Menu

#### ◆ Video and Photo Menu setting

Under video/photo mode, press MENU button to enter the

video/photo menu setting. The methods of video and photo menu setting are as same as that of System menu setting.



▲ Photo/video menu

**Attention:**

- Please hold the camera stably when photo shooting. To make photo with best quality, it is better to put the camera on support like tripod.
- BUSY light be on after use shutter for photo, do not move the camera at the moment until the BUSY light is off, to ensure no unsharp photos.



#### ◆ Playback

1. Under photo/video mode, press mode key to enter playback interface, press MENU key to playback menu settings (the interface shown below), video files can be deleted or protected, and photo files can be deleted, protected, rotated, and played as a slide show. Press Up/Down or W/T to select the menu, press OK to get in submenu. After setting is complete, press OK to save the setting, or press MENU button to cancel the setting. Selected menu will be highlighted after selection.

2. After choosing a Video, press START/STOP button to play

the video. Press it again to stop playing. Playing timer will be displayed at the top right corner on screen.

When viewing a photo, press W/T key to zoom in/out the photo.

#### Download photo/video to computer

Connect the camera with computer, skip to "My Computer" to check the new removable disk, the photo or video made by the camera are saved under DCIM, user can copy the data from this file to computer.

**Attention:** Do not disconnect the camera with computer when downloading files. To prevent data loss, do not insert or remove the memory card in the camera when USB connecting with computer.



#### Specification

Movie Size	1920×1080 HD; 1280×720 HD; 640×480;
Resolution ratio of image	36M(7936×4480 HD); 24M(5600×4200); 20M(5200×3900); 16M(4608×3456); 12M(4000×3000); 10M(3648×2736); 7M-Wide(3648×2048 HD); 5M(2592×1944); 3M(2048×1536); 2M-Wide(1920×1080 HD);

Memory card	Supports SD memory card and MMC card (4GB to 128GB)
File format	JPG, AVI
Self-timer	2s/5s/10s
Digital zoom	16×
White balance	Auto/Daylight/Cloudy/Fluorescent/Tungsten
Exposure compensation	-3.0 ~ +3.0
USB port	USB2.0
Display	3.0 inch IPS LCD (16: 9)
Power	Rechargeable lithium battery
Menu language	Multi-Languages
Focal distance	f=8.15mm
Aperture	F/3.0
Auto Off	1minutes/3minutes/5minutes/No shutdown
Operating system requirements	Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10, Mac 10.2

Attention: Product specification is the latest information at the time when this use manual is made. No further notice will be made for any variation. Specific operating methods are subject

to the real camera that you purchased.

### Frequent Asked Questions

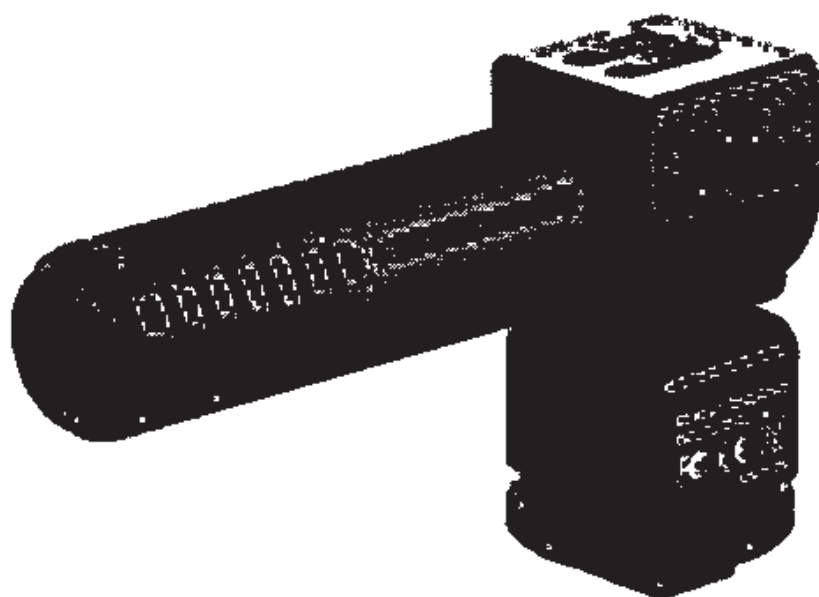
The camera fails to work after battery placement	The power may be too low, new battery is needed.
	Battery package may be not removed.
	Battery may be placed reversely. Ensure correct placement of battery.
Shutter is not working to make video or photo.	Memory card may be full. Please save the data with other memory card.
	SD card may have write-protect. Get out SD card and unlock the write-protect switch.
Unsharp photos	May be caused by shaking hands when photo shooting. Please hold the camera stably or use other supports like tripod. Do not shake the camera when photo shooting.
Dark photos or videos	Shooting environment may be too dark. Please make the shooting at bright place, or use light to brighten the shooting place.
Auto off	Battery may have too low power. Please change new battery.
	To save energy, the camera will be off automatically if not in use for 3m (5m or 10m, subject to the setting).

File can not be deleted in the camera.	SD card has write-protect. Get out SD card and unlock the write-protect switch. Or file protection function of the camera is activated, which can be switched off in the menu.
The video camera crashes or shows blurred screen	SD card format error, please format the SD card within the video camera or on the computer before use it.

NO: HDV-2054LTRM 210506

# Stereo Microphone

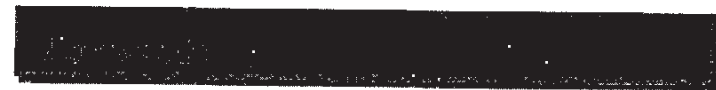
## User's Manual



**To Record Every Wonderful Moment**

Adopts X-Y stereo pickup technology, clear and stable sound image localization

**RoHS** **FC** **CE** 



Thank you for choosing our stereo camera recording microphone product. This product is specially designed for photography, interview and other recording applications it is compatible with the mainstream camera/DSLR, and is easy to install and use. It is an ideal choice for photography/interview. Please read this manual carefully to make sure the operation is correct and better play the advantages of the microphone.



- Adopt X-Y stereo pickup technology, clear and stable sound image localization
- Built-in+20dB and-10dB sensitivity switch satisfies different recording occasions
- Built-in low cut filter switch for effective ambient low frequency noise reduction
- RFI shielding technology can effectively reduce the interference of mobile phone signal
- Low power warning function remind you to replace the battery timely
- Built-in a rechargeable battery, the battery charging interface is Mini\_USB, the charger



can be charged.

- Shock proof design effectively reduces the mechanical noise
- Using standard shoe connector, secure and easy for installation
- Using standard 3.5mm mini stereo connector for signal output

## Specification

Transducer Principle: Back Electret  
Condenser

Polar Pattern:

Stereo/Omnidirectional×2

Sensitivity:  $-42\text{dB} \pm 3\text{dB}$   
( $0\text{dB} = 1\text{V/Pa}$  at 1 kHz)

Frequency response:

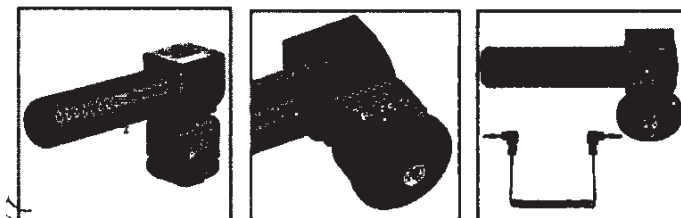
30Hz-16KHz

Low cut: 80Hz 10dB/octave

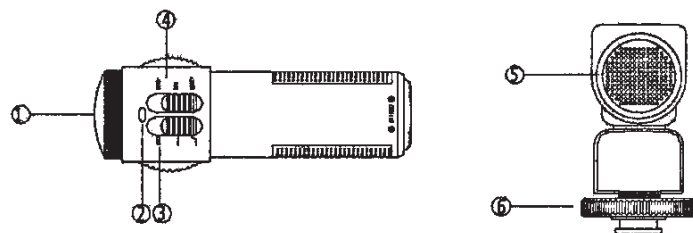
Max.SPL: 120dB (THD  $\leq 1.0\%$  at 1KHz)

Output impedance:  $\leq 200\Omega$

Power Requirement: 3.7V



## Operation Instruction



1. Power indicator: After the power is turned on, the white LED lights up continuously to

indicate that it is in working state. When the power is low, the light is red, indicating that the battery needs to be charged. (Note: When the battery is low, the battery can still be used for 1-2 hours.) The blue light indicates that the battery is being charged. When the blue light is off, it indicates the battery is fully charged.

2. Power / low cut switch: "OFF" is power off, when the switch is pushed to "-" position, the unit is turned on. when the switch is pushed to "—" position, the unit is turned on and the low-cut function is turned on as well.

3. Pickup sensitivity switch: "0dB" is normal pickup status, " - 10dB" is pick up sensitivity attenuation, it is suitable for short distance vocal pick up. " + 20dB" is pickup sensitivity gain, it is suitable for long distance vocal

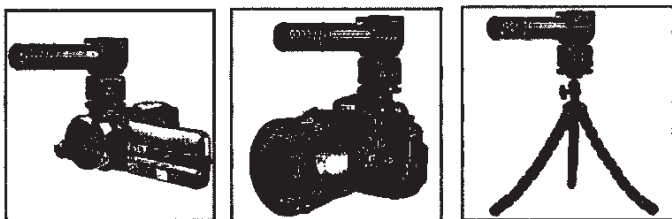
pickup.

4. Pickup: pickup toward the sound direction, to get the best pickup

5. Hot Shoe connector: to mount on the camera, DSLR or bracket.

6.USB interface: for microphone charging.

### Wide-angle microphone



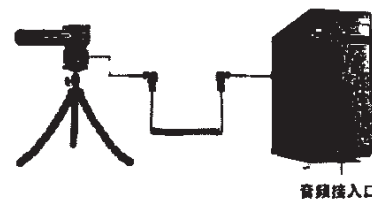
1. When the microphone is mounted on the camera or DSLR, screw the hot shoe connector to the hot shoe holder of the device and fasten it clockwise ,when the hot shoe is occupied or used by other device,please mount the bottom standard connecting nut on the microphone tripod

2. Plug the Ø3.5 connector into the microphone socket (attention:should be inserted completely).

3. Windscreen:filter the impact of airflow to ensure the quality of vocal pick up.

### Wide-angle microphone

Connect the microphone to the computer by connect cable, Plug the Ø3.5 connector into the computer's MIC interface, the microphone can be used as Web-Microphone.





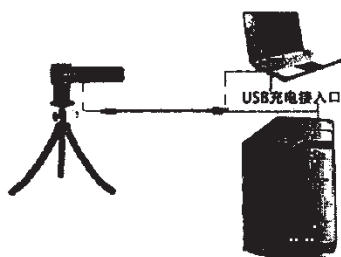
Note: Tripods need to be purchased separately.

#### Reference information

1. This microphone charging interface uses Mini\_USB. When the microphone needs to be charged, please use the charger equipped with the machine to charge.

2. Before using for the first time, please perform 3-5 normal charge and discharge cycles to improve the battery's working efficiency and service life.

**Recommendation:** To extend the life of the battery (microphone life), please charge after the power consumption is completed.



1. The sensitivity of condenser microphone is high, do not fall from high place or apply strong shock.

2. When the condenser microphone is not used, please store it in dry and clean place. To avoid affecting the sensitivity and timbre, please don't store or use it in the place under high temperature/humidity or strong magnetic field.

3. When stop using the condenser microphone, please turn the power switch off to save the battery power.

4. When the microphone is fully charged, it should not be charged for more time.

5. In the recording process, switching mode switch settings may produce noise.



When the white light is always on, the microphone is in working state. If the red LED is always on, it indicates that the battery is low, and it can still be used normally for 1-2 hours, but it needs to be charged in time. The blue light is on when charging, and it will be off when the battery is fully charged.



- |                |     |
|----------------|-----|
| 1. Microphone  | 1pc |
| 2. Windscreen  | 1pc |
| 3. User manual | 1pc |
| 4. Cable       | 1pc |