User’s Manual
English

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Thank you for purchasing this digital video camera. Please read these operating instructions carefully in order to use the digital video camera correctly. Keep the instructions in a safe place after reading so that you can refer to them later.

Precautions

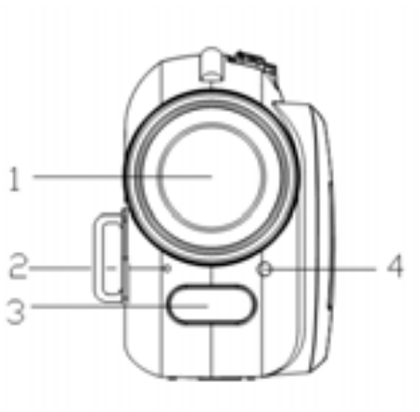
Before using the video camera, please ensure that you read and understand the safety precautions described below.

• Do not try to open the case of the video camera or attempt to modify this video camera in any way. Maintenance and repairs should be carried out only by authorized service providers.

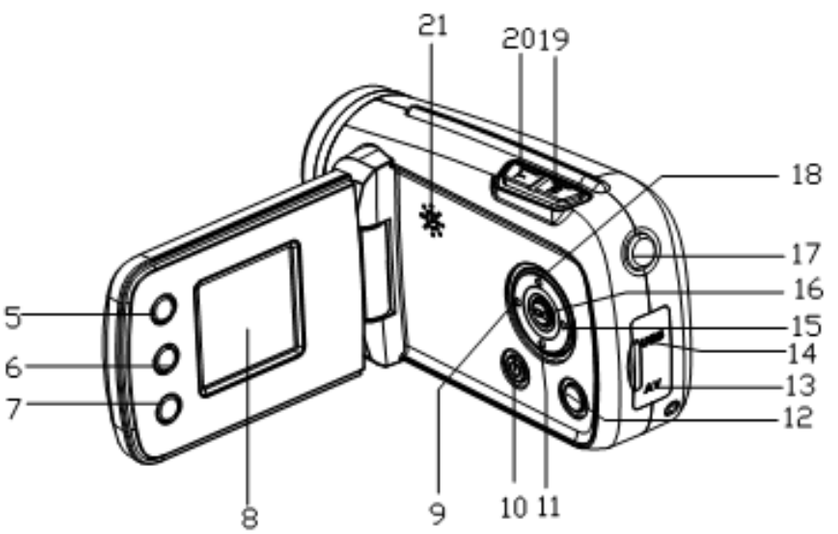
• Keep the video camera away from water and other liquids. Do not use the video camera with wet hands. Never use the video camera in the rain or snow. Moisture creates danger of electric shock.

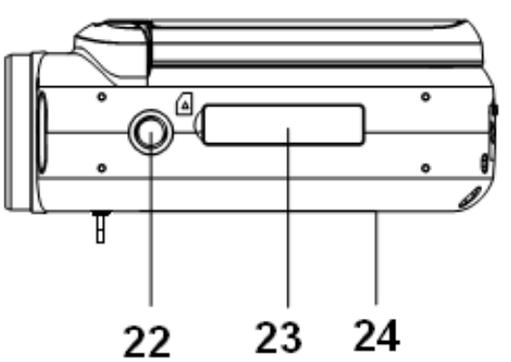
• Use only the recommended power accessories. Use of power sources not expressly recommended for this equipment may lead to overheating, distortion of the equipment, fire, electrical shock or other hazards.

1.Parts of the video camera



1: Lens
2: Microphone
3: Compensating lamp
4: Self-Timer LED
5: Delete
6: Playback
7: Mode
8: TFT LCD Screen
9: Left /Self-Timer
10: Power
11: Down button
12: Menu
13: AV Out jack
14: USB jack
15: Right /LED on or off
16: OK
17: Shutter
18: Up /Display
19: W/Zoom out button
20: T/Zoom in button
21: Speaker
22: Tripod socket
23: Card slot
24: Battery cover





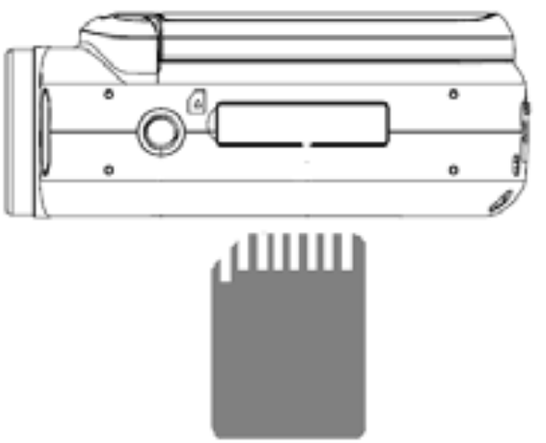
2.Preparing for use

Installing the Battery

1. Open the video camera battery door.
2. Insert three AAA-size batteries with the positive (+) and negative (-) poles matching the directions indicated on the battery cover.
3. Close the battery door.



Inserting the Memory Card



This camera has an internal memory, it can take a few pictures and video clips; please use a SD or MMC or SDHC card for more picture storage. Turn off the camera before inserting or removing the memory card. Be sure to orient the card correctly when inserting it. Never try to force the memory card into the slot when you feel resistance. The memory card has a write protect switch, which is used to protect data from accidental deletion. Therefore,

whenever you want to record, format or delete files in the SD card, disable the write protection beforehand.

1. Turn off the video camera.
2. Find the rubber at the bottom of the video camera , and then uncover the rubber where you will see the SD card slot.
3. Insert the memory card as illustrated.

- **Never insert any other object which is not a SD/MMC/SDHC card into the camera's SD card slot.**
- **Never remove the SD card from the camera while the camera is powered on.**

Format the memory card

All data will be deleted including protected files. Be sure to download important files to your computer before formatting.

1:Turn the power on, press the **MENU** button to display the menu, and then press the **RIGHT** button to select [setup] .

2: Press the **UP** or **DOWN** button to select **[Format..]** then press the **OK** or **RIGHT** button to launch the submenu.

3: Press the **UP** or **DOWN** button to select the item [YES] and then press the **OK** button to erase all data.

Setting the Language

When using the video camera for the first time after purchasing it, be sure to choose a language before using the video camera.

1: Turn the power on, press the **MENU** button to display the menu, and then press the **RIGHT** button to select [setup] .

2: Press the **UP** or **DOWN** button to select **[Language]** then press the **OK** or **RIGHT** button to launch the submenu.

3: Press the **UP** or **DOWN** button to select the desired language and then press the **OK** button to confirm the setting.

4: Press the **MENU** button to close the menu.

Setting the date and time



1: Turn the power on, press the **MENU** button to display the menu, and then press the **RIGHT** button to select [setup] .

2: Press the **UP** or **DOWN** button to select [**Date&Time]** then press the **OK** or **RIGHT** button to launch the submenu.

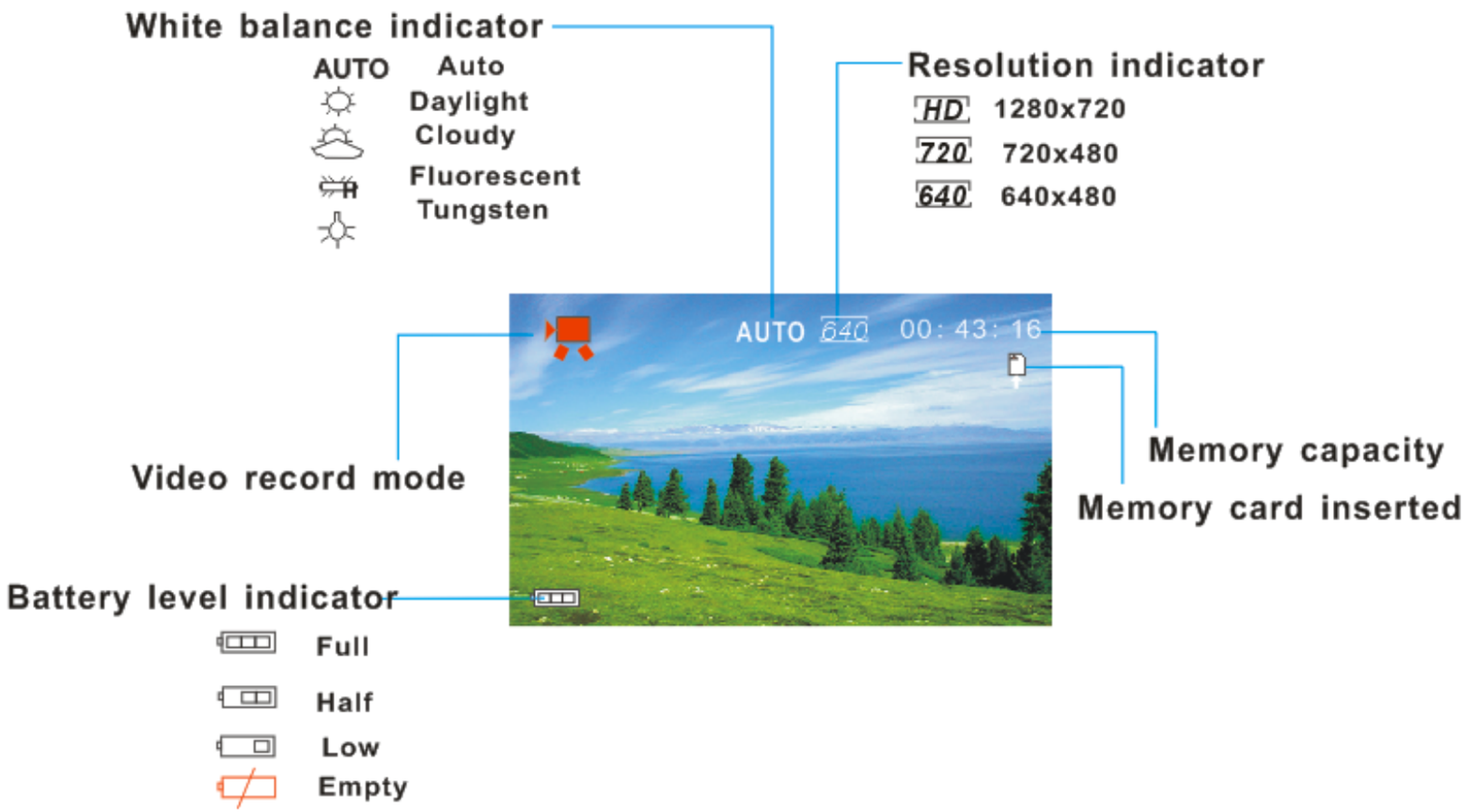
3: Press the **UP** or **DOWN** button to change the highlighted value. Press the **LEFT** or **RIGHT** button to move the cursor between settings.

4: Press the **OK** button to confirm the setting.

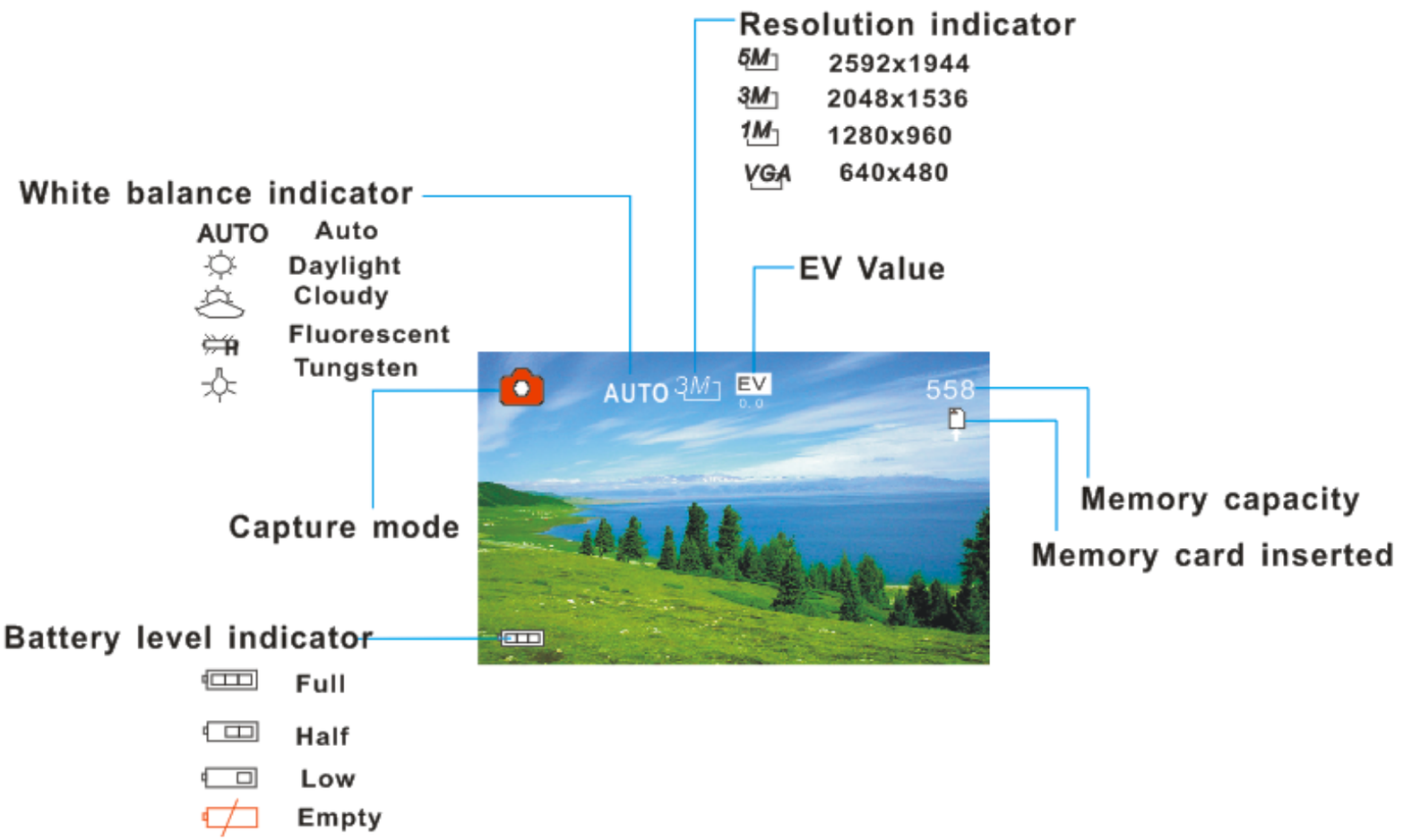
5: Press the **MENU** button to close the menu.

Monitor screen display

A. When shooting movies



B. When shooting still images



C: When recording audio file



D. When playing back



3.Using this video camera

Turning the Camera On and Off

1. Open the LCD panel.
2. To turn on the camera, press hold the **POWER** button, the LCD screen turns on.
3. Press the **POWER** button again will turn the camera off.

To save battery power, the video camera automatically turns off after a period of idle time. Press the **POWER** button to power the camera back on. You can change the power-off time by setting the function [Power Save] in the Setup menu.

Change the mode

There are three record modes in this video camera.

1: Press the **POWER** button to turn on the camera, and the camera get into the default video mode.

2: Press the **MODE** button to change the record mode. Each time the **MODE** button is pressed the mode icon is changed.

Display	Title	Description
	Capture mode	For taking still photos.
	Video mode	For recording movie clips.
	Audio mode	For recording audio files.

- **If you want to preview the record files you can press the PLAYBACK button to set the video camera to playback mode.**
- **When the video camera is in playback mode  you must press the PLAYBACK button to change it to record mode first before you can use the MODE button to change mode.**

Recording video clip

1: Turn the video camera on and its default mode is video record mode.

2: Press the **SHUTTER** button to start recording. Press the **UP** button to pause and press it again to continue.

3: Press the **SHUTTER** button again to end the recording. If the memory is full the video camera will stop recording automatically.

- **The LCD monitor displays the recorded time.**
- **When light is insufficient press the RIGHT/ LED ON or OFF button to turn on the compensating lamp and when light is enough press the LED ON/OFF button to turn off the compensating lamp .**

Taking still images

1. Turn on the video camera.
2. Press the **MODE** button to set the video camera to capture mode, the icon appears on the LCD screen.
3. Use the LCD screen to frame your subject.
4. Hold the video camera steady and then press the **SHUTTER** button completely down to take a picture.

- **The number displayed on the screen is automatically decreased by one. For example, if the screen displays 018 when the camera is power on , after one photo has been captured, 017 will appear. If the memory is full, “Memory Full” will appear on screen.**
- **When light is insufficient press the RIGHT/ LED ON or OFF button to turn on the compensating lamp and when light is enough press the RIGHT/ LED ON or OFF button to turn off the compensating lamp .**
- **Make sure your fingers do not cover the lens.**
- **Do not take the memory card or battery out when the video camera is saving the image, otherwise the image will not be saved completely.**

Using the Self-timer and Burst snapshot

Use the self-timer to set a delay from the time the shutter button is pressed to the time the image is shot. Use the burst snapshot to take pictures continuously.

1: Turn the power on, and set the video camera to the Capture mode.

2: Press the **LEFT** button to change the self-timer mode: each time the **LEFT** button is pressed the icon on the top left corner is changed.

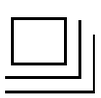
Off: Take photos without delay.



2 seconds: The shutter release will delay for 2 seconds.



10 Seconds: The shutter release will delay for 10 seconds.


Burst snapshot: Press the **SHUTTER** button once to take three pictures continuously

3: Press the **SHUTTER** button to take picture.

- **You can also set the self-timer and burst snapshot by the capture menu. See the details on page 20.**

Using the Zoom Function

This video camera has a digital zoom function that allows you to zoom in or zoom out on subjects. The digital zoom enlarges or shrinks the image using a software process.

1: Turn the video camera on and set it to capture mode or video record mode.

2: Press the **W** or **T** button to compose the image.

W: zoom out for a wide-angle shot.

T : zoom in for a telephoto shot.

- **When the zoom button is pressed, the value of magnification appears on the LCD monitor.**

Recording audio

1: Turn the video camera on and set it to audio record mode.

2: Press the **SHUTTER** button to start recording. Press the **UP** button to pause and press it again to continue.

3: Press the **SHUTTER** again to end the recording. If the memory is full the video camera will stop recording automatically.

- **On the center of the LCD monitor displays the recorded time.**
- **There is no menu in audio record mode.**

4.Using the menu in record mode

When a menu is displayed, the **UP, DOWN, LEFT, RIGHT** and **OK** buttons are used to make the desired setting. The audio record mode doesn’t have a menu.

Menu in capture mode



1: Turn on the video camera and set it to capture mode.

2: Press the **MENU** button to display the menu.

3: Use the **UP** or **DOWN** button to select an item.

4: Press the **OK** or **RIGHT** button to enter the submenu.

5: Use the **UP** or **DOWN** button to select the desired item.

6: Press the **OK** button to confirm the setting.

7: Press the **MENU** button to close the menu.

Capture menu list

Menu item	Function
Resolution	There are four options for choice: [2592x1944]/[2048x1536]/[1280X960]/[640X480]
Quality	Select a lower image quality to decrease the image size in order to capture more images. There are three options for choice:[Super Fine] /[Fine] /[Normal].
Metering	Change the metering method to change the brightness of the picture. [Center]: The exposure will be calculated based on light in the center area and this is suitable for general use. [Multi]: The exposure will be calculated based on the average light. [Spot]: Only the spot in the center of the LCD screen will be metered for light.
White Balance	Adjust the white balance to suit different light sources. There five items for option: [Auto]/ [Daylight]/ [Cloudy] /

	[Fluorescent] / [Tungsten].
Exposure	Set the exposure value manually to compensate for unusual lighting conditions such as indirect indoor lighting, dark backgrounds, and strong backlighting. The exposure value range is –2.0 to 2.0.
Driver Mode	Use this item to set the camera to different mode: Off/ 2 Self-timer / 10 Self-timer / Burst
Effect	Use this function to change the image's color tone: Normal/ B&W/ Sepia / Negative/ Red/ Green/ Blue.
Date Stamp	This function can be used to add a date to your pictures as you take them. There are three items for option: [Off]: Neither date nor time is added to the image. [Date]: Add date to the image. [Date & Time]:Add date and time to the image.

Menu in video mode



1: In video record mode press the **MENU** button to display the menu.

2: Use the **UP** or **DOWN** button to select an item.

3: Press the **OK** or **RIGHT** button to enter the submenu.

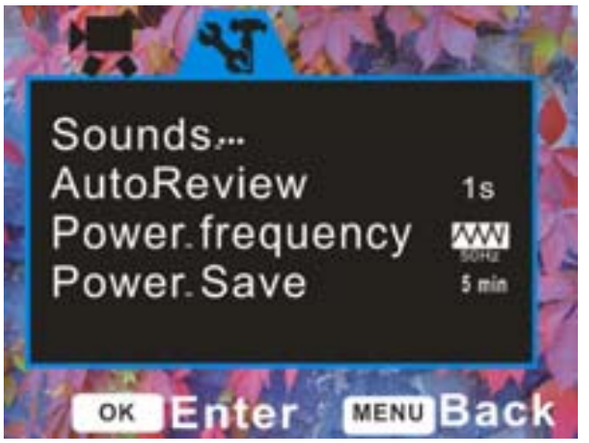
4: Use the **UP** or **DOWN** button to select the desired item.

5: Press the **OK** button to confirm the setting.

6: Press the **MENU** button to close the menu.

Menu item	Function
Movie Size	Select small movie size to record longer time. There are three items for option: 1280x720/720x480/640x480.
Frame Rate	Select low frame rate to record longer time. There are two items for option: High/ Low.
Metering	See the details on page 19.
White Balance	See the details on page 19.

Setup menu



You can set the system items in setup menu.

1: Power on and press the **MENU** button to display the menu.

2: Press the **RIGHT** button to select [Setup].

3: Use the **UP** or **DOWN** button to select an item.

4: Press the **OK** or **RIGHT** button to enter the submenu.

5: Use the **UP** or **DOWN** button to select the desired item.

6: Press the **OK** button to confirm the setting.

7: Press the **MENU** button to close the menu.

Menu item	Function
Sounds	There are four items for option: [Shutter]: Set the shutter sound on or off by pressing the **RIGHT** button. [Start-up]: Set the start-up sound. Press the **RIGHT** button to change the sound. There are four options: [None] / [1]/ [2] / [3].

	[Beep]: Set the operation sound on or off by pressing the **RIGHT** button. [Volume]: Adjust the sound volume. You can change it by pressing the **RIGHT** button.
Auto Review	Adjust the review time after taking a picture. There are three items for option: [Off]/ [1sec.]/ [3 sec.].
Power frequency	Light Frequency should be set to either 60Hz or 50Hz depending on your region. [50HZ] / [60HZ].
Power save	To save power, the camera is turned off automatically after a period of time. There are four options: [1min.] / [3min.] / [5min.] /[Off].
Date &Time	Refer to page 8.
Language	Refer to page 7.
TV Out	TV Out should be set to either NTSC or PAL depending on your region. [NTSC] /[PAL].
USB	You can use this camera as a PC camera or removable disk. [PCCAM]: Use as a PC camera; [MSDC]: Use as a removable disk.

Start-up Image	You can use your favorite picture as the start-up image. [Off]: No start-up image. [System]: Use the default image as the start-up image. [My image]: Use your favorite image as the start-up image.
Format	See the details on page 7.
Reset all	To reset the entire menu and button operation settings to initial default. [Yes]/ [No].

5. Playback

Playback still image

1: Turn the camera on, and then press the **PLAYBACK** button to set the camera to playback mode.

The latest recorded file appears on the LCD screen. If there are no images stored, a message [No File] appears.

2: Press the **LEFT** or **RIGHT** button to preview the previous or next image.

Playing back movie clips

1: Press the **LEFT** or **RIGHT** button to select the movie clips you want to playback in playback mode.

2: Press the **SHUTTER** button to start playing. Press the **MENU** button to end playing. Press the **UP** button to pause it and press it again to continue. Press the **RIGHT** button to fast forward and press the **LEFT** button to fast rewind.

Playing back audio files

1: Press the **LEFT** or **RIGHT** button to select the audio file you want to playback.

2: Press the **SHUTTER** button to start playing. Press the **MENU** button to end playing. Press the **UP** button to pause it and press it again to continue. Press the **RIGHT** button to fast forward and press the **LEFT** button to fast rewind.

Other functions in playback mode

Viewing Thumbnails

Press the **W** button to view the files in thumbnail mode. Use the **UP/DOWN/LEFT/RIGHT** button to select a file. Press the **OK or T** button to view the file in full screen.

Lock files

1: Press the **MENU** button in playback mode.

2: Press the **UP** or **DOWN** button to select the item [Lock].

3: Press the **OK** or **RIGHT** button to enter the submenu.

4: Use the **UP or DOWN** button to select the item: [Lock/Unlock one]: Lock /Unlock current file. [Lock All]: Lock all files. [Unlock all]: Unlock all files.

5: Press the **OK** button to confirm the setting.

6: Press the **MENU** button to close the menu.

• If the file has been locked the icon will display on the LCD screen. The locked file can not be deleted.

Delete files

1: Press the **MENU** button in playback mode.

2: Press the **UP** or **DOWN** button to select the item [Delete].

3: Press the **OK** button to enter the submenu.[One]: Delete current file. [All]: Delete all files except locked files.

4: Use the **UP** or **DOWN** button to select the item.

5: Press the **OK** button to confirm the setting. A dialog box will appear. Using **UP** or **DOWN** button to select the item [Yes].

6: Press the **OK** button to delete the current file or all files.

Hot key: Press the DELETE button next to the LCD to delete file quickly.

Play a slide show

1: Press the **MENU** button in playback mode.

2: Press the **UP** or **DOWN** button to select the item [Slide Show].

3: Press the **OK** button to enter the submenu.

[Start]: Select this item to prepare for slide showing after setting the slide show mode.

[Interval]: Set the interval time by pressing the **LEFT** or **RIGHT** button. The range of interval time is 1 second to 10 seconds.

[Repeat]: Press the **LEFT** or **RIGHT** button to select [Yes] or [No].

4: Use the **UP or DOWN** button to select [Start].

5: Press the **OK** button start slide show.

6: Press the **MENU** button to end slide show.

• **Only still images can be shown in slideshow mode.**

Effect

1: Press the **MENU** button in playback mode.

2: Press the **UP** or **DOWN** button to select the item [Effect].

3: Press the **OK** or **RIGHT** button to enter the submenu:

[B&W]/ [Sepia]/ [Negative] / [Red]/ [Green] / [Blue] / [Binarize] /[Sunset] / [Warm] / [Cold]/ [Contrast].

4: Use the **UP or DOWN** button to select an effect.

5: Press the **OK** button to apply the setting.

Rotate the image

1: Select an image you want to rotate in playback mode.

2: Press the **MENU** button to display the menu.

3: Press the **UP** or **DOWN** button to select the item [Rotate].

4: Press the **OK** or **RIGHT** button to launch the submenu:

Rotate: Each time the **OK** button is pressed the image will rotate 90°.

Save: Select this item to save the rotated image.

Back: Select this item to close the submenu.

Resize

1: Select an image you want to resize in playback mode.

2: Press the **MENU** button to display the menu.

3: Press the **UP** or **DOWN** button to select the item [Resize].

4: Press the **OK** or **RIGHT** button to launch the submenu: 2048x1536/ 1280x960/ 640x480.

5: Press the **UP** or **DOWN** button to select the item.

6: Press the **OK** button to save the resized image.

• **The image can only be resized to smaller size.**

Add voice memo to image



1: Select an image you want to add voice memo in playback mode.

2: Press the **MENU** button to display the menu.

3: Press the **UP** or **DOWN** button to select the item [voice memo].

4: Press the **OK** or **RIGHT** button to display the dialog box as illustrated.

5: Select the item [Add] and then press the **OK** button to start recording voice memo.

6: Press the **SHUTTER** button to end the recording.

• If you want to cancel the voice memo please select [Delete] when the dialog box appears, and then press the OK button to delete the memo.

Set the image as the start-up image

1: Select an image of your choice in playback mode.

2: Press the **MENU** button to display the menu.

3: Press the **UP** or **DOWN** button to select the item [Start-up Image].

4: Press the **OK** or **RIGHT** button to launch the submenu: Set/ Cancel.

5: Press the **UP** or **DOWN** button to select the item [Set].

6: Press the **OK** button to confirm the setting.

7: Set the item [Start-up Image] in the setup menu to [My image] mode.

See the details on page 23. And then the video camera will use the image you selected as the start-up image.

Printing images

1: Select an image you want to print in playback mode.

2: Press the **MENU** button to display the menu.

3: Press the **UP** or **DOWN** button to select the item [Print…].

4: Connect the device to a printer which includes print photo from a camera directly.

5: Press the **OK** button to print the image.

6. Making connections

Connecting the Camera to a TV

Connect the video camera and the TV via the supplied cable. Then power on the TV and video camera. The video camera’s LCD screen turns black, and the TV screen now performs as the camera LCD screen.

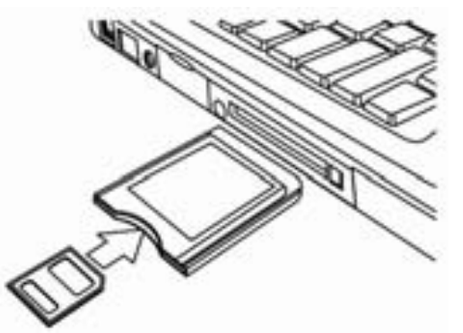
1. Connect the video camera to a TV via the TV-out cable (supplied) .
2. Turn on the TV and the video camera, and then set the TV to “AV” mode.
3. When the video camera is set to record mode, you can preview the subjects you want to record on the TV screen.
4. When the video camera is set to Playback mode, you can review all the pictures, video and audio clips stored in the video camera on the TV.

Connecting the Camera to a PC

There are two ways to download files from the video camera's memory card to a computer:

- By inserting the memory card into a card reader
- By connecting the camera to a computer using the supplied USB cable.

Using a Card Reader



1: Eject the memory card from the video camera and insert it into a card reader that is connected to a computer.

2: Open [My Computer] or [Windows Explorer] and double-click the removable disk icon that represents the memory card.

3: Copy images from the card into a directory of your choice on the computer’s hard disk.

Connecting the Camera to a PC with the USB Cable

1: Set the USB mode under Setup menu to [MSDC] mode.

2: Connect the camera with a PC by a USB cable

3: Double click the icon “my computer” on the desktop of PC

4: Double click “” icon.

5: Double click “DCIM” file folder.

6: Double click “100MEDIA” file folder.

7: Copy all the files to your PC.

Note: Do not take out the SD card or the batteries when you are copying the files to PC; otherwise the files would be destroyed or lost.

7. Software Installation

Installing the Software

The bundled software CD has the drivers and software that come with video camera.

Insert the CD into your CD-ROM drive. The autorun menu appears:



The following software is listed:

• Install Driver: Installs software for PC camera

• Arcsoft Mediaimpression: Installs software for pictures and video clips.

• User Manual: Open the Manual folder.

Note:

Arcsoft MediaImpression only includes Windows XP and Windows

Vista, Windows 7 platforms.

Click the items in the autorun menu to install the software.

If the autorun menu does not appear automatically, open the CD-ROM in [My Computer] or [Windows Explorer] and double-click the file named [autorun.exe] to start the program. You can also click [Run] in the Windows Startup menu, enter "D:\autorun.exe" (where D is your CD-ROM drive letter) in the text box, and click [OK].

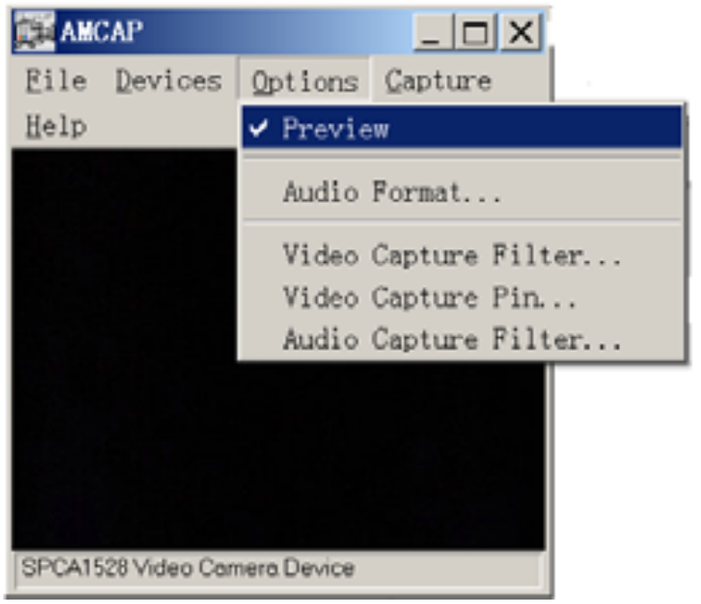
Install Driver

1: Click [Install Driver].

2: Follow the on-screen instructions to install the drivers.

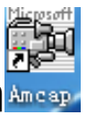
3: When the installation is finished it will create an icon 

on the desktop.

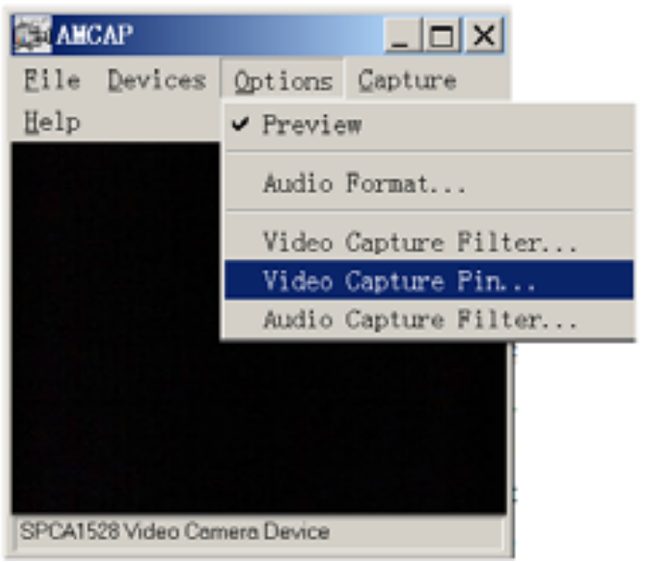


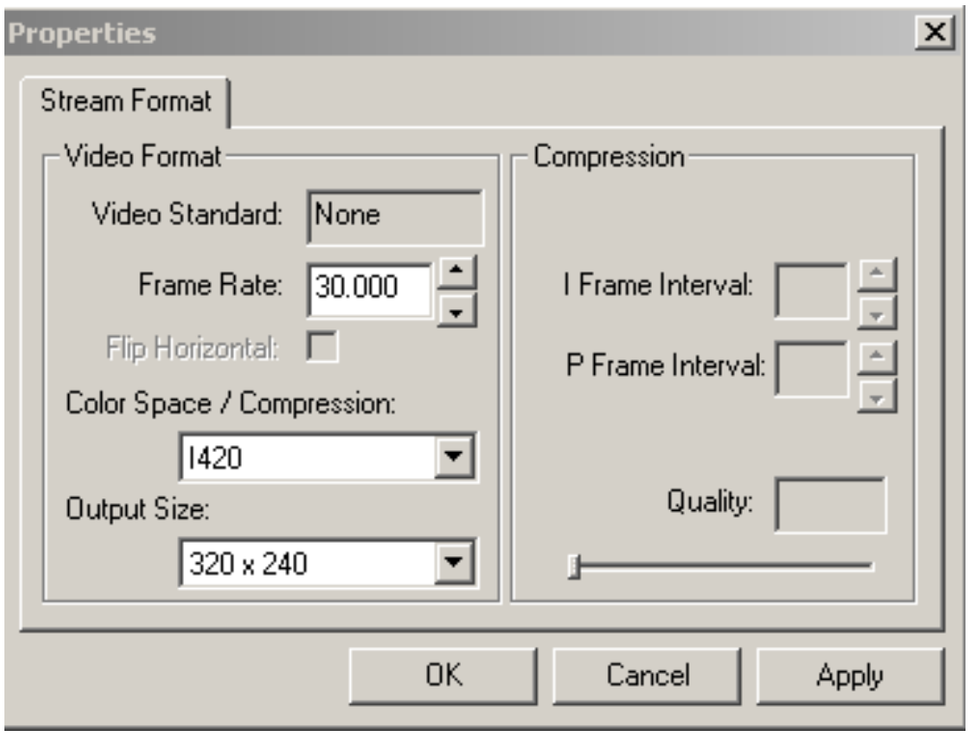
How to use the PC Camera function

Please install the camera **driver** first. Connect the camera to the computer via the USB jack. Power on the camera, the LCD screen displays “PC CAM” or “MSDC”. Press the MODE button to set it to “PC CAM” mode.

Double click the icon 

to run the program. If it is the first time you use this function please select the item < Preview> as in the illustration, and then you can use it as the pc camera function. If you want to change the imaging size, select <Video Capture Pin> to change the Output Size.





8. Troubleshooting

Power does not turn on.	
1. Battery is inserted in the wrong direction.	★Reload battery in the correct direction.
2. Battery is insufficient to power on.	★ Replace or recharge the

	battery.
The camera does not take pictures.	
1. Memory is full.	★Insert a new memory card.
2. Memory card is not formatted correctly.	★Format the memory card again or use a new card.
Image is blurry or out of focus.	
1. The video camera was moving when the image was captured.	★Hold the video camera steady when shooting picture.
Image is not displayed on the LCD monitor.	
1. A memory card with images recorded with another camera is loaded.	★ Please reformat the card.
Recorded images are not saved in memory.	

1. The video camera was turned off before the images are saved in memory.	★ If the battery low indicator appears on the LCD monitor, replace the battery immediately.

9. Technical Specifications

Sensor	1.3MegaPixels CMOS
Display	1.44" TFT Color LCD
Focus range	150cm ~ infinity
Aperture	F3.0, Fixed Focus
Shutter	Electronic Shutter: 1/1024~ 1/2sec.
Resolution	Still Image:5M(2592X1944);3M(2048X1536); 1 M(1280X960); VGA(640X480) Video:1280x720, 720x480, 640x480
Sensitivity	Auto
White balance	Auto / Daylight / Cloudy / Fluorescent / Tungsten
Exposure control	-2EV to +2EV in 0.3 steps
Burst	Included
Photo effect	Normal / B&W / Sepia / Negative / Red/ Green/ Blue
Self-timer	2/ 10 sec.

Storage	Internal memory: 32MB Flash External memory: SD / SDHC (support up to 8GB) MMC (support up to 4 GB)
TV system	NTSC / PAL
Power Supply	3 AAA (alkaline/ 1.5V) batteries
Ambient temperature	Operating: 0° C to 40° C Storage: -20 to 60° C
Microphone	Built-in
Speaker	Built-in
Dimension	Camera Body : 97X58X38(mm)
Weight	Camera Body w/o battery: Approx 95g

Attention: The product design and specifications are subject to change without prior notice.

System requirement：Windows 98/2000/ME/XP/Vista/Win7

CPU: Pentium III 800MHz and upper

Memory：64 MB and upper memory Disk space：At least 128 MB space free