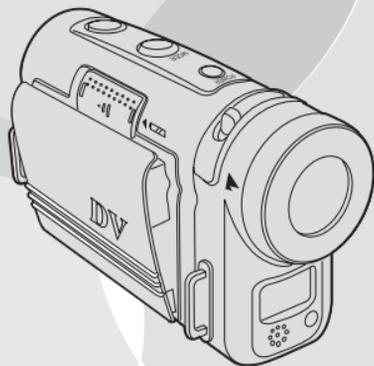


User Guide

This guide shows you how to operate the Take-it MV300 and provides information on basic functions, movie/audio clip recording, still image shooting, playback, and troubleshooting. Before using the DV camera, be sure to read the safety precautions to prevent injuries or damage to users or equipment.



Copyright© 2004 Microtek International, Inc.

All rights reserved

Microtek® is a registered trademarks of Microtek International, Inc. Macintosh® and Apple® are registered trademarks of Apple Computer, Inc. Windows® is a registered trademark of Microsoft Corporation. Adobe® and Acrobat® are registered trademarks of Adobe Systems Incorporated. All other products or name brands are trademarks of their respective holders.

Pictures you may acquire from any of the bundled software and/or pictures, or documents you take a snapshot may be protected under copyright law. The unauthorized use of such materials could be a violation of the rights of the copyright holder.

April 2004

Disclaimer of Warranty

Microtek does not guarantee the content of any written materials or software, and is not liable for losses sustained by the purchaser arising from the use or inability to use these written materials, software or equipment.

Warning

If you take pictures of or use copyrighted material, you may violate copyright laws. Microtek holds no responsibility for the use of Microtek's equipment to violate any such copyright laws.

Microtek Lab, Inc.

16941 Keegan Avenue, Carson, CA 90746

Main: 310-687-5800

Fax: 310-687-5950

<http://www.microtekusa.com>

Microtek International, Inc.

6, Industry East Road 3, Science Based Industrial Park

Hsinchu, 300, Taiwan

Tel: 886-3-5772155

Fax: 886-3-5772598

<http://www.microtek.com>

Federal Communications Commission Interference Statement

This equipment (MV300) 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.

Notes: *A shielded USB interface cable with ferrite core installed on the DV camera connector end must be used with this equipment.*

Caution: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

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.

Responsible Party:

Loi Han

Microtek Lab, Inc.

16941 Keegan Avenue

Carson, CA 90746

USA

Phone: 310-687-5800

Fax: 310-687-5950

Table of Contents

Federal Communications Commission Interference Statement	3
Safety Precautions	6
Introduction	8
DV camera Package	9
DV camera Components	9
Rear View	9
Front/Bottom View	10

Getting Started 11

Attaching the Strap	11
Loading the Battery	11
Charging the Battery	12
Inserting an SD Card	13
Using the LCD Screen	13

Shooting 14

Shooting your First Video	14
Taking your First Still Image	15
Zoom	16
Macro	16
Voice Memo	16

Modes 16

Video Mode	17
Photo Mode	17
Audio Mode	18
Playback Mode	18
USB Mode	19

Downloading Files	19
Webcam Feature	20

Using the Menus 21

Video/Photo Menu	21
Size	21
Quality	22
Drive Mode	23
EV Compensation	23
White Balance	24
Sharpness	25
Voice Memo	25
Color Mode	26
Playback Menu	27
Erase	27
Slide Show	28
Rotate	28
Print	29
Setup Menu	29
Brightness	29
Beep	30
Date	30
Time	31
Date Stamp	31
Video Out	32
Format	32
Reset	33
Copy to SD	33
Frequency	34

Power Saving	34
Language	35
USB Switch	35
File No Reset	36
Music Menu	36
<i>Connecting</i>	37
Connecting to a TV	37
Connecting to a Computer	37
<i>Appendixes</i>	38
Appendix A – Installing Software	38
Appendix B – Maintenance	39
Appendix C – Troubleshooting	40
Appendix D – Menus and Factory Defaults	46
Appendix E – Specifications	47

Safety Precautions

Before you use the DV camera, be sure to read the following safety precautions, which detail the proper operation of the DV camera and its accessories to prevent injuries or damage to users or equipment.



This symbol indicates situations where improper use of the DV camera may result in harm to the DV camera operator.



This symbol indicates situations where improper use of the DV camera may result in damage to the DV camera.

 Children should not be allowed to have access to the DV camera. They could injure themselves with inappropriate use of the DV camera or by becoming entangled in the carrying strap. If a child swallows a DV camera battery, get the child medical attention.

 Subjecting the DV camera to water or any other liquid, or allowing condensation to form, may start a fire or give the user an electrical shock.

- If liquid gets inside the DV camera, turn the DV camera power off by removing the battery or unplugging the power cord (with dry hands).
- Allowing the DV camera to slowly adjust to temperature changes (as in transferring the unit from outdoors to indoors) will help to prevent condensation. Let any condensation evaporate before using the DV camera.

 Exposing the DV camera to too much heat may warp the DV camera casing or damage the batteries. Battery damage may result in fire, burns or electrical shock.

Another source of possible burns is heat from the flash or DV camera itself.

- Touching the flash after it has been used extensively can cause burns.
- The DV camera body itself may burn your hands if the DV camera has been operated for a lengthy period of time.

 Do not drop batteries or let them be banged around. This could damage the casings, causing the batteries to leak.

- If the internal parts or components of the battery come into contact with your eyes or your mouth, flush the affected site with water and get medical help.
- Do not short-circuit the battery terminals, and be sure to cover the terminals before you throw batteries away. If the terminals contact metal, they may overheat and explode, causing a fire.

 Black or bright (red, green, blue, and white) dots may sometimes appear on the LCD screen. These are merely misfiring pixels, and have no effect on the recorded image.

 If you aim the DV camera at the sun, or shoot the flash close to someone's eyes, you may injure your eyesight or that of someone else.

 If you see smoke or smell a burning odor coming from your DV camera, turn the DV camera off. If you continue to operate the DV camera, it could cause a fire or give you an electrical shock.

 Do not clean the DV camera with flammable liquid, as these may cause a fire.

 Do not leave the DV camera in humid or dusty areas. Dust and humidity can cause the DV camera to short circuit, leading to a fire.

 If the DV camera gets anywhere near a strong magnetic field, it may not work correctly, or the pictures taken may be ruined or adversely affected.

 Use a soft, absorbent cloth to clean the surface of your DV camera.

Introduction

Take-it MV300, Microtek's Digital video camera, incorporates the functions of digital camcorder, voice recorder, digital still camera and webcam with super image quality and fantastic audio. It applies the MPEG 4 recording video format to capture images with 640x480 resolution. Equipped with a larger 1.8" color CD screen, you can focus on the images you want and also review the live images as you take the shots. An AV-out cable allows you to vividly view movies and images on a TV set. When connected to a host computer, the Take-it MV300 can also function as a webcam.

Digital video camera

The DV camera can record digital movies in ASF format with 640x480 or 320x240 pixels. Video footage can be stored in the 16 MB internal memory or on optional SD expansion card.

Digital still camera

The DV camera can take digital photographs in JPEG format at resolutions of up to six megapixels. Pictures can be stored in the 16 MB internal memory or on optional SD expansion card.

Digital audio recorder

The DV camera can record digital audio in WAV format. Audio footage can be stored in the 16 MB internal memory or on optional SD expansion card.

Webcam

When connected to a host computer using a USB cable, the DV camera can function as an advanced webcam.

Picture and video player

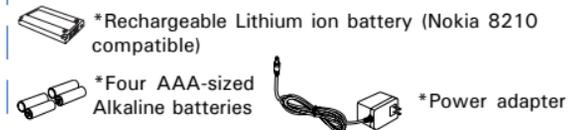
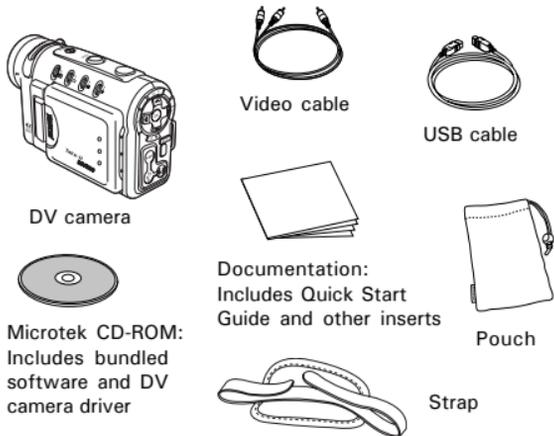
The DV camera features a 1.8-inch TFT LCD screen which can be used to review the pictures and movies stored on internal memory or on SD expansion card.

DV Camera Package

Unpacking the DV Camera

Open your DV camera package and check that you have all of the components listed below.

If any component is missing, call the Microtek Customer Service immediately.

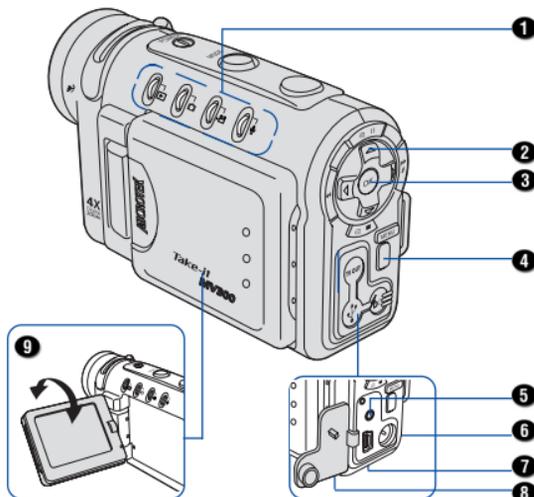


* Power accessories you receive depend on the DV camera purchased.

DV camera Components

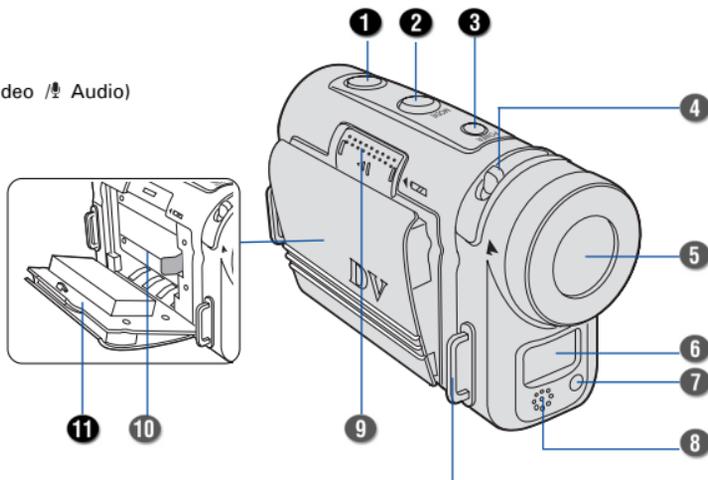
Rear View

1. Mode indicator/Charger LED/READY LEDs
2. Multifunction/4-way arrow button
 - ▲ Up/⏏ Zoom In/|| Pause/Play
 - ▼ Down/⏏ Zoom Out/■ Stop
 - ► Right/▶ Fastforward/⚡ Flash
 - ◀ Left/◀◀ Rewind
3. OK/Pan button
4. MENU button
5. TV-out connector
6. DC-in connector

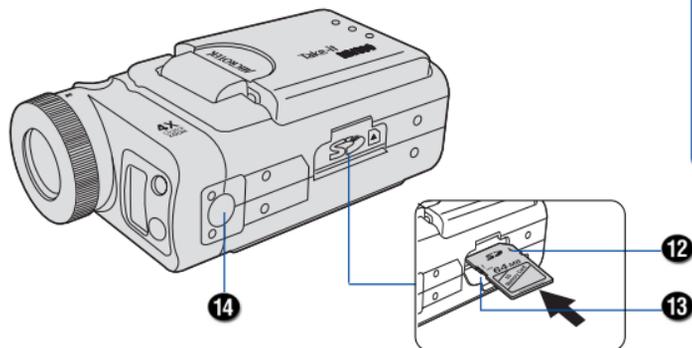


Front /Bottom View

1. Shutter button
2. MODE button (▶ Playback/📷 Photo/📹 Video /🔊 Audio)
3. POWER button
4. Macro-Normal switch (📷/📹)
5. Lens
6. Flash
7. Self-timer indicator
8. Microphone
9. Battery cover slider
10. Battery compartment
11. Battery cover
12. Secure Digital (SD) compartment
13. SD card cover
14. Tripod mount



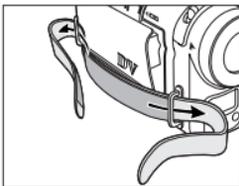
Attach the Strap



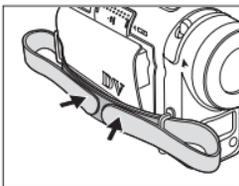
Getting Started

Attaching the Strap

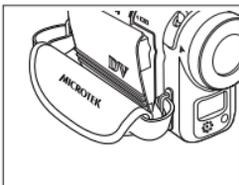
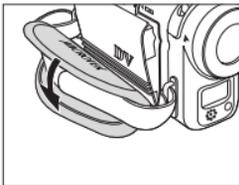
1. Thread the end of the strap through the DV camera strap ring as shown.



2. Fasten the two ends of the strap as shown.

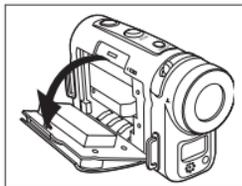


3. Attach the grip belt to the strap as shown.



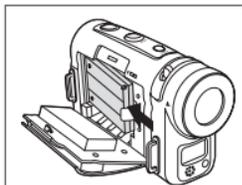
1. Loading the Battery

1. Ensure the DV camera is turned off; then push the sliding battery case indicated by the arrow to open the battery cover.

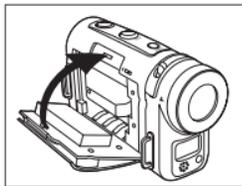


2. Insert the battery into the compartment.

Ensure that the battery is inserted properly with the Mylar pull tab held down.



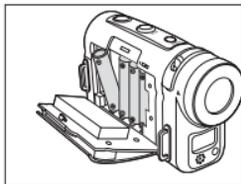
3. Hold the battery in place and close the battery cover securely.



Push the sliding battery case indicated by the arrow to close.



Your DV camera can also use alkaline batteries instead of a single rechargeable Lithium ion battery. Four AAA-sized alkaline batteries should be used in place of the supplied rechargeable Lithium ion battery and should be inserted as shown.

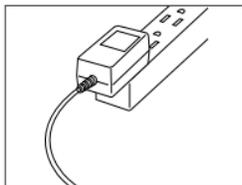


A battery level indicator is displayed in the bottom left hand corner of the LCD display. When the indicator shows that the battery is nearly flat, you should connect the AC adapter or change the battery.

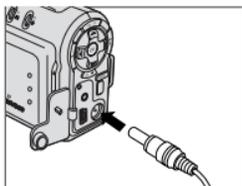
Charging the Battery

Charge the Lithium ion battery using the supplied AC adapter.

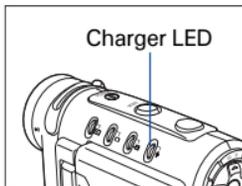
1. Plug the AC adapter into the power source.



2. Ensure that the camera is turned off; then connect the DC plug of the AC adapter to the camera's DC-in connector.



When the camera is connected, the battery starts to charge, and the charger LED (Audio mode indicator) lights up red at the same time. Once the battery is fully charged, the red light will disappear.



Note:

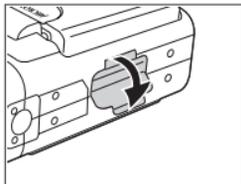
- Use only the AC adapter provided with the DV camera to charge the battery. Using any other adapter may damage the DV camera.
- To minimize the risk of fire and/or explosion, do not use the AC adapter to charge alkaline batteries.

Inserting an SD Card

You can install an SD memory card in your DV camera to increase the memory capacity. Follow the instructions below to install an SD card.

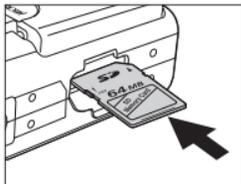
1. Open the SD card compartment door on the bottom of the DV camera.

Ensure that the DV camera is turned off.

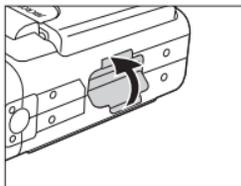


2. Insert the SD card (not included) into the compartment until you hear a "click".

Ensure that the orientation of the SD card matches the SD card marking in the SD compartment.



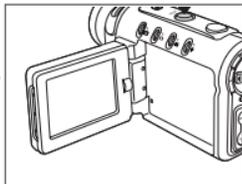
3. Close the SD card compartment door.



Using the LCD Screen

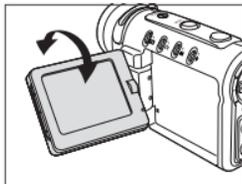
The LCD screen can be used to frame your images during shooting video or still images.

1. Swing to open the LCD screen. The LCD screen can be opened up to 90 degrees.



2. Adjust the viewing angle. The LCD screen moves up to 90 degrees to the viewfinder side and up to 180 degrees to the lens side.

When you adjust the angle of the LCD screen, ensure the LCD screen is fully opened.



3. Close the LCD screen.

When closing the LCD screen, make sure the LCD screen is set in the vertical position.



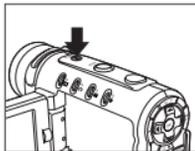
Shooting your First Video

Follow the instructions below to take your first still photograph with your DV camera.

1. Turn on the DV camera by pressing the POWER button for two seconds.

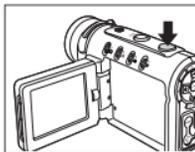
The DV camera should be in Video mode to shoot video. Check for an icon in the top left corner of the screen to confirm this.

2. Use the LCD screen to frame your shot.



3. Press the Shutter button and release to begin recording.

You will be able to see your video on the LCD screen as you record it.



4. Press the Shutter button a second time to stop recording.

When you press the shutter button to stop recording, the footage is automatically saved in **Playback** mode. See *Playback mode* on page 18.

You can change various settings on the DV camera that will affect the quality and appearance of the video footage you record. You can adjust the exposure, size, and resolution of the image, white balance, and other settings. See *Video/Photo Menu* on page 21.

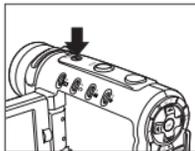
Note: If the DV camera is not in Video mode when you turn it on, see *Video mode* on page 17.

Taking Your First Still Image

Follow the instructions below to take your first still photograph with your DV camera.

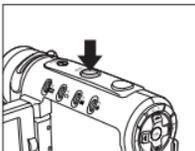
1. Turn on the DV camera by pressing the **POWER** button for two seconds.

The DV camera may start up in Video mode and you will need to select Photo mode to take still pictures.



2. Press the **MODE** button on the top of the DV camera.

The LCD displays a graphic showing four mode options.



3. Press the **▲** button on the rear of the DV camera to select **Photo** mode.

The DV camera changes to **Photo** mode. Check for the **Photo** mode icon in the top left corner of the screen to confirm this.

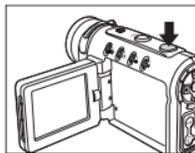


4. Use the LCD screen to compose your still image.



5. Press the **Shutter** button to take the picture.

When you press the shutter you will hear a sound to indicate that the picture has been taken (unless the sound has been disabled), and the captured picture will remain on the screen for two seconds. You can review your picture in **Playback** mode. See **Playback mode** on page 18.



You can change various settings on the DV camera that will affect the quality and appearance of the pictures you take. You can adjust the exposure, size, and resolution of the image, white balance, and other settings. See **Photo Menu** on page 21.

Zoom

The DV camera is equipped with a digital zoom function. You can zoom in on distant images by pressing the **▲** button on the rear of the DV camera. Use the **▼** button to zoom back out.

Macro

The DV is a fixed focus DV camera but there is a manual focusing function that you can adjust to get the best results. Move the Macro-Normal switch all the way to the macro setting when taking pictures of very close subjects. Move the Macro-Normal switch to the other end of the scale when taking pictures of far away subjects.

For most pictures, the Macro-Normal switch should be left in the middle of the range but you should practice taking pictures with different focusing settings to achieve the best results.

When the Macro-Normal switch is in the macro position, an icon will appear on the LCD screen to warn you.

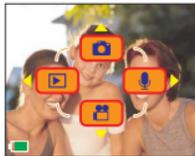
Voice Memo

You can also record a short audio clips when you take a picture. To record an audio clip to go with your still picture:

1. Make sure that the voice memo function is turned on. See Voice memo on page 25 for details on how to do this.
2. Take the picture as normal.
3. Record your short voice memo after you take the picture.

The DV camera can operate in four different modes. Each mode offers different features and functions. In this section you will learn what each mode is for and how to use them.

This section also covers how to use the DV camera as web cam and how to download your pictures, videos, and audio samples from the DV camera to your hard disk.

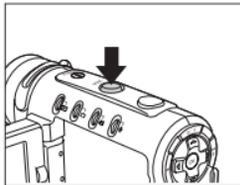


Video mode

Use **Video** mode for recording digital moving images. Video recordings will be in ASF format and will be stored in memory. To select the DV camera to **Video** mode from another mode, you should:

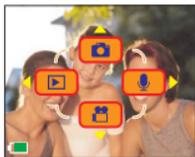
1. Press the **MODE** button on the top of the DV camera.

The LCD displays the 4 mode options.



2. Press the ▼ button on the rear of the DV camera.

The DV camera will switch to **Video** mode.



In **Video** mode you can change various settings that will affect the quality and appearance of the video footage you record. You can adjust size and resolution of the image, white balance and other settings. See *Photo Menu* on page 21.

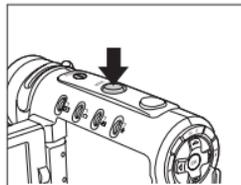
See *Shooting your first video* on page 14 for details on how to shoot video.

Photo mode

Use **Photo** mode for taking still pictures in JPEG format. To select the DV camera to **Photo** mode from another mode:

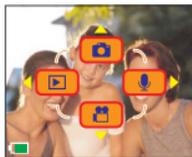
1. Press the **MODE** button on the top of the DV camera.

The LCD displays the 4 mode options.



2. Press the ▲ button on the rear of the DV camera.

The DV camera will switch to **Photo** mode.



In **Photo** mode you can change various settings on the DV camera that will affect the quality and appearance of the pictures you take. You can adjust the exposure

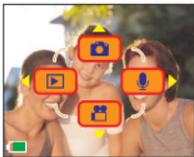
See *Taking your first still image* on page 15 for details on how to take pictures in **Photo** mode.

Audio Mode

Use **Audio** mode for recording digital sounds. To select the DV camera to **Audio** mode from another mode, you should:

1. Press the **MODE** button on the top of the DV camera.

The LCD displays the 4 mode options.



2. Press the **▶** button on the rear of the DV camera.

The DV camera will switch to **Audio** mode.



In **Audio** mode the LCD screen will not display any picture but the microphone icon will appear in the center of the screen to indicate that the DV camera is ready to record sounds.

To begin recording, press the Shutter button.

To end recording, press the Shutter button a second time.

Recordings are made using the internal microphone at the front of the DV camera. Recordings will be stored in memory as WAV files.

Playback Mode

Use **Playback** mode to review all the pictures, movies and sounds that you have stored on the DV camera. To select the DV camera to **Playback** mode:

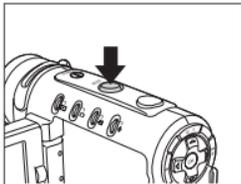
1. Press the **MODE** button on the top of the DV camera.

The LCD screen displays the 4 mode options.

2. Press the **◀** button on the rear of the DV camera.

The DV camera will switch to **Playback** mode.

In **Playback** mode, the LCD screen displays all the files stored in the DV camera memory. Movies and still images are displayed as thumbnails of the image. Audio files are displayed as the microphone icon.



3. Use the 4-way arrow button on the rear of the DV camera to select a file to display, and press the **OK** button to confirm your selection.

The selected file appears on the LCD screen as a single image display.



In this display mode, you can use the </> (◀▶) button to toggle forwards/backwards through all the recordings.

4. Press the ▲ button to start the movie/audio playback.

During the playback, do the following if required:

- Press ▲ (||) to pause movie/audio playback.
- Press ▲ to continue the movie/audio playback.
- Press ◀▶ (◀▶) to advance or rewind the movie playback with a speed. The speed adjustment are made from -4 to +4 in 2-step increments.
- Press ▼ (■) to stop the movie/audio playback.



5. Press the OK button to return to nine-image display.

Playback Zoom

The zoom feature allows you to magnify a captured still image at up to four times the original viewing size.

- Press the ▲ (Ⓚ) button repeatedly to magnify the captured still image; press the ▼ (Ⓚ) button repeatedly to return to the original viewing size.

USB Mode

The DV camera will automatically switch to **USB** mode when it is connected to a USB port using the cable provided. See *Connecting* on page 37 for details on how to connect your DV camera to a computer.

Note: When the camera is connected to a computer with a **USB cable**, it automatically goes into **USB mode**. Other modes cannot be selected using the **Mode** button until the **USB cable** has been disconnected.

Downloading files

In USB mode you can download images, movies, or audio recordings to your hard disk. The DV camera appears as a removable disk on your Windows PC. To access the images on your DV camera:

1. Turn on your DV camera and make sure that it is not set to behave as a webcam. See *USB Switch* on page 35.
2. Connect your DV camera to your computer USB port using the cable provided. See *Connecting to a computer* on page 37.

The first time you connect your DV camera to your computer, the operating system will attempt to load driver software. Windows ME, 2000 and XP will do this automatically but if your computer uses Windows 98 SE, you will have to insert the CD provided and follow the on-screen instructions. See *Installing Software* on page 38.

3. Open Windows Explorer and click on the **My Computer** folder. You will see a list of all your hard disks, optical disks and floppy drives. The DV camera appears as a removable disk and is assigned a drive letter.
4. Double click on the drive letter for the DV camera. A folder named **DCIM** will be displayed. This folder contains the contents of your DV camera memory or the SD card.
5. Double click on the **100_MTDV** folder to display your images, movies and audio files.

Note: You can move, copy, or delete images in the DV camera's memory or SD card in exactly the same way as if they were on an external hard disk drive. If an SD card is inserted in the DV camera, only the contents of the SD card will be displayed. If no SD card is inserted, the contents of the DV camera internal memory will be displayed.

Tip: Before you connect your DV camera to a computer, you may want to copy the contents of the internal DV camera memory to the SD card. See *Copy to SD* on page 33.

Webcam feature

Standard webcam enabled applications such as Microsoft Netmeeting, or Yahoo Messenger will recognize the DV camera as a webcam when it is connected to the USB port on your computer. You can then use the DV camera for video chat.

To use your DV camera as a webcam:

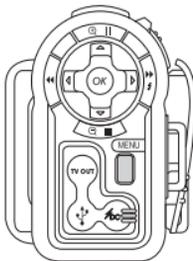
1. Turn on your DV camera and make sure that it is set to behave as a webcam. See *USBSwitch* on page 35.
2. Connect your DV camera to your computer using the USB cable provided. See *Connecting to a computer* on page 37.

The first time you connect your DV camera to a computer as a webcam the operating system will attempt to load driver software. You will need to insert the CD provided and follow the on-screen instructions. See *Installing Software* on page 38.

3. Start a webcam enabled application on your computer. The application will detect that a webcam is connected and the DV camera will behave like a standard web-cam. See the application user guide for more details on how to use a webcam.

Using the Menus

Your DV camera can be configured using four menus. You can access the menus using the menu button on the rear on the DV camera. Navigate through the menu system using the arrow buttons on the rear of the DV camera.



Note: Read this section carefully before making any changes. If you make a mistake and do not know how to correct it, you may have to reset all settings to the factory default. See *Reset* on page 33.

Video/Photo Menu

Use the **Video/Photo** menu to set the size, quality, sharpness, and color properties of pictures. You can also adjust the exposure, white balance, set the shutter mode, and turn the voice memo feature on or off.

The menu will include different options for each mode. If you can't find the option you are looking for, try exiting the menu and checking the DV camera mode.

Size

The image size option can be accessed from either **Photo** mode or **Video** mode. Choosing a bigger image size will mean that more memory is required to store each recorded picture or video. The DV camera can take still pictures as large as 6M (2816x2112 pixels) or as small as VGA (640x480 pixels). There are also two size options available for video. To access the image size option:

1. Turn on the DV camera and make sure that it is in either **Photo** mode or **Video** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the **▲/▼** button on the rear of the DV camera to select the



Size icon.

- Press the ► button to display the **Size** options. In **Video**



mode you can select either VGA size or CIF size. In **Photo** mode you can choose VGA, 1M, 2M, 3M, or 6M.

- Use the ▲/▼ button to select the



image size you require and press the ◀ button to confirm your choice.

- Press the **MENU** button to exit the menu.



Quality

The quality option can be accessed from either **Video** mode or **Photo** mode. Quality can be set to either **Fine**, **Normal** or **Best**. Higher quality images require more memory space and fewer images can be stored on the DV camera.

To access the quality option:

- Turn on the DV camera and make sure that it is in either **Photo** mode or **Video** mode. See *Modes* on page 16.
- Press the **MENU** button at the rear of the DV camera to display the main menu screen.
- Use the ◀/▶ button on the rear of the DV camera to select the **Quality** icon.
- Press the ► button to display the **Quality** options.
- Use the ▲/▼ button to select a quality option, **Fine**, **Normal**, or **Best**.
- Press the ◀ button to confirm your choice
- Press the **MENU** button to exit the menu.



Drive Mode

Use the **Drive Mode** setting to switch between a standard shutter operation, a delayed shutter that allows you to take pictures of yourself, and a multi-shot shutter that allows you to take three pictures in rapid succession every time you press the shutter button. This setting is available only in **Photo** mode.

To access the **Drive Mode** setting:

1. Turn on the DV camera and make sure that it is in either **Photo** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the $\blacktriangle/\blacktriangledown$ button on the rear of the DV camera to select the **Drive Mode** icon.
4. Press the \blacktriangleright button to display the **Drive Mode** options.
5. Use the $\blacktriangle/\blacktriangledown$ button to select the option you require.
6. Press the \blacktriangleleft button to confirm your choice.
7. Press the **MENU** button to exit the menu.



EV Compensation

The DV camera features automatic exposure control, but you can adjust the exposure manually in either **Photo** mode or **Video** mode. In most cases no adjustment is necessary but in some conditions, when shooting into the sun for instance, you may want to make a manual adjustment. To change the exposure setting:

1. Turn on the DV camera and make sure that it is in either **Photo** mode or **Video** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the $\blacktriangle/\blacktriangledown$ button on the rear of the DV camera to select the **Exposure** icon.
4. Press the \blacktriangleright button to display the **EV comp** options.
5. Use the $\blacktriangle/\blacktriangledown$ button to select an exposure compensation option. You can choose to increase or decrease the exposure by one or two stops or set the value to zero.
6. Press the \blacktriangleleft button to confirm your choice.
7. Press the **MENU** button to exit the menu.



White Balance

The white balance setting is used to set the correct color balance under different lighting conditions. Without the correct white balance setting, white objects would look red under artificial lighting, or blue in sunlight.

Your DV camera can automatically set the white balance for you, but you may wish to set it manually for unusual lighting conditions or special effects. The **White Balance** setting can be accessed from either **Photo** mode or **Video** mode. To access the **White Balance** setting:

1. Turn on the DV camera and make sure that it is in either **Photo** mode or **Video** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the **▲/▼** button on the rear of the DV camera to select the **White Balance** icon.
4. Press the **▶** button to display the **White Balance** options.



5. Use the **▲/▼** button to select a **White Balance** option. You can choose to set the **White Balance** setting to **Daylight**, **Cloudy**, **Tungsten**, **Fluorescent**, or **Auto**.



When set to **Auto** the DV camera detects the ambient light and sets **White Balance** automatically.

6. Press the **◀** button to confirm your choice
7. Press the **MENU** button to exit the menu.

Sharpness

Use the **Sharpness** option to sharpen or soften the outlines in your images. Three settings are available, **Normal**, **Sharper**, and **Softer**. This setting is only available in **Photo** mode.

To access the **Sharpness** setting:

1. Turn on the DV camera and make sure that it is in **Photo** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the **▲/▼** button on the rear of the DV camera to select the **Sharpness** icon.
4. Press the **▶** button to display the **Sharpness** options.
5. Use the **▲/▼** button to select the option you require.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Voice Memo

The **Voice Memo** function allows you to add a sound clip to still images. The **Voice Memo** setting can only be accessed from **Photo** mode.

To access the **Voice memo** setting:

1. Turn on the DV camera and make sure that it is in **Photo** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.

The **Voice Memo** icon is not displayed on the screen when you first enter the setup menu screen. Use the 4-way arrow button to scroll through the list of options to find the **Voice Memo** icon.

3. Use the **▲/▼** button on the rear of the DV camera to select the **Voice Memo** icon.
4. Press the **▶** button to display the **Voice Memo** options.
5. Use the **▲/▼** button to select either **On** or **Off**.
6. Press the **◀** button to confirm your choice.



7. Press the **MENU** button to exit the menu.

With the voice memo function turned on, you can record a short audio clip with each photo. After you have taken your photo in the usual way, the voice memo icon appears on the screen. Press the Shutter button to record your audio clip, and press the Shutter button a second time to stop recording.

Color Mode

Use the **Color Mode** setting to change the color of your images or videos. Three settings are available, **Normal**, **Black & White**, and **Classic**. The **Color Mode** setting can be accessed from either **Photo** mode or **Video** mode. To access the **Color Mode** setting:

1. Turn on the DV camera and make sure that it is in either **Photo** mode or **Video** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the **▲/▼** button on the rear of the DV camera to select the **Color Mode** icon.
4. Press the **▶** button to display the **Color Mode** options.
5. Use the **▲/▼** button to select the option you require.
6. Press the **◀** button to confirm your choice.



Choosing the Normal option will produce standard color pictures and video. The Black & White setting produces monochrome style pictures and video. The **Classic** option produces pictures and videos tinted to look like old fashioned sepia photographs.

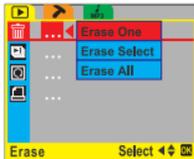
7. Press the **MENU** button to exit the menu.

Playback Menu

Erase

Use the **Erase** function to delete files from the camera or SD card memory. The **Erase** function can be accessed only when your DV camera is in **Playback** mode. To access the **Erase** function:

1. Turn on the DV camera and make sure it is in **Playback** mode. See *Modes* on page 16.
2. Press the **MENU** button at the rear of the DV camera to display the main menu screen.
3. Use the **▲/▼** button on the rear of the DV camera to select the **Erase** icon.
4. Press the **▶** button to display the **Erase** options. Use the **▲/▼** button to select the option you require.



5. Press the **OK** button to confirm your choice.

Using the **Erase One** option will erase just the last file to be selected in Playback mode. Choosing the **Erase Select** option will return you to the **Playback** mode screen where you can use the arrow keys to select a file to delete and press the OK button to confirm your choice. Choosing the **Erase ALL** option will erase all the files on your DV camera and SD card if inserted.

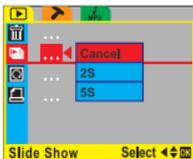
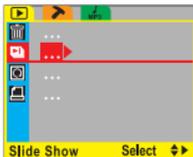


6. Press the **MENU** button to exit the menu.

Slide Show

Use the **Slide Show** function to display all the files stored in your DV camera, one after the other. The **Slide Show** function can only be accessed from **Playback** mode. You can set the delay between files at two or five seconds. To access the **Slide Show** function:

1. Turn on the camera and make sure it is in **Playback** mode. See *Modes* on page 16.
2. Press the **MENU** button on the rear of the DV camera to display the main menu screen.
3. Use the $\blacktriangle/\blacktriangledown$ button on the rear of the DV camera to select the **Slide Show** icon.
4. Press the \blacktriangleright button to display the **Slide Show** options. Use the $\blacktriangle/\blacktriangledown$ button to select the option you require.
5. Press the **OK** button to confirm your choice. Set the delay to either two or five seconds or cancel the slide show and return to **Playback** mode. When you have selected a delay, all files on the DV camera will be displayed, one after the other.
6. Press the **MENU** button to exit the menu.



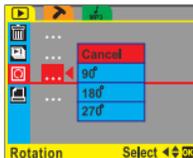
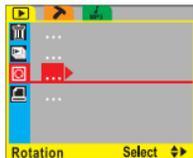
Rotate

Use the rotate function to rotate an image stored on the DV camera. This function will only work for still images and can only be accessed from **Playback** mode. To access the **Rotate** function:

1. Turn on the DV camera and make sure it is in **Playback** mode. See *Modes* on page 16.
2. Press the **MENU** button on the rear of the DV camera to display the main menu screen.
3. Use the $\blacktriangle/\blacktriangledown$ button on the rear of the DV camera to select the **Rotate** icon.
4. Press the \blacktriangleright button to display the **Rotate** options. Use the $\blacktriangle/\blacktriangledown$ button to select the option you require.

You can choose to rotate an image by 90° , 180° , or 270° . The image rotated will be the last one you selected.

5. Press the **MENU** button to exit the menu.



Print

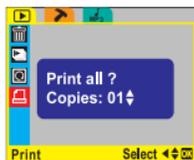
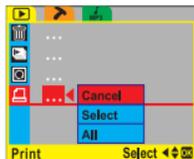
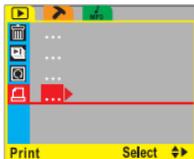
Use the **Print** function to print still images stored on your DV camera. You can print either an individual image or all your images. To access the **Print** function:

1. Turn on the DV camera and make sure it is in **Playback** mode. See *Modes* on page 16.
2. Press the **MENU** button on the rear of the DV camera to display the setup menu screen.
3. Use the **▲/▼** button on the rear of the DV camera to select the **Print** icon.
4. Press the **▶** button to display the **Print** options. Use the **▲/▼** button to select the option you require.
5. Press the **OK** button to confirm your choice.

If you chose to print just a single image, the last image you selected in **Playback** mode will be printed.

If you chose to print all images, all your still images will be printed. Choosing **Cancel** will return you to **Playback** mode without printing any images.

6. Press the **MENU** button to exit the menu.



Setup Menu

Use the **Setup** menu to set various parameters for your DV camera. The **Setup** menu can be accessed from any mode and is always the same.

Brightness

Use the **Brightness** option to set the LCD screen brightness level. There are five levels of brightness available.

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Brightness** option.
4. Press the **▶** button to display the available options.
5. Use the **▲/▼** button to select an option.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Beep

Use the **Beep** option to turn on or off the beep noise made by the DV camera when buttons are pressed. To access the **Beep** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Beep** option.
4. Press the **▶** button to display the available options.
5. Use the **◀/▶** button to select an option.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Date

Use the **Date** option to set the date. To access the **Date** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Date** option.
4. Press the **▶** button to display the submenu.
5. Use the **◀/▶** button to select the field you want to change.
6. Enter a new value in the chosen field using the **▲/▼** button.
7. Press the OK button to confirm your changes and return to the **Setup** menu screen.
8. Press the **MENU** button to exit the menu.



Time

Use the **Time** option to set the time. To access the **Time** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Time** option.
4. Press the **▶** button to display the submenu.
5. Use the **◀/▶** button to select the field you want to change.
6. Enter a new value in the chosen field using the **▲/▼** button.
7. Press the OK button to confirm your changes and return to the **Setup** menu screen.
8. Press the **MENU** button to exit the menu.



Date Stamp

Your DV camera can be set to place a date stamp on each image you take. To turn the **Date Stamp** function on or off:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Date Stamp** option.
4. Press the **▶** button to display the available options.
5. Use the **▲/▼** button to select an option.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Video Out

Use the **Video Out** option to define the type of TV you want to use to display your camera images on. You can set the video output to either PAL or NTSC format. NTSC is a format used in North America and some of Asia. PAL format is used in Europe. If you are unsure which system your TV uses, consult the documentation that came with it. To set the **Video Out** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Video Out** option.
4. Press the **▶** button to display the available options.
5. Use the **▲/▼** button to select an option.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Format

Use the **Format** option to erase all files on the DV camera and SD card.

To access the **Format** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Format** option.
4. Press the **▶** button to display the submenu.
5. Use the **▲/▼** button to select either **OK** or **Cancel** and press the **◀** button to perform the function.



All image files, audio files, and movie files will be deleted.

Note: When you perform a format, all data on the DV camera and SD card will be lost. Make sure you have saved everything you need on your computer hard disk before you perform a format.

Reset

Use the **Reset** option to restore all configurations to factory default settings. To access the **Reset** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the ► button to select the **Setup** menu option at the top.
3. Use the ▲/▼ button to select the **Reset** option.
4. Press the ► button to display the submenu.
5. Use the ▲/▼ button to select either **OK** or **Cancel** and press the ◀ button to perform the function.

When you perform this function, all settings are returned to the original factory configuration and any changes you made will be lost.



Copy to SD

Use the **Copy to SD** function to copy all files stored in the DV camera memory to the SD card. You may need this function if you want to use the SD card in another device to download your movies or images. To access the **Copy to SD** function:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the ► button to select the **Setup** menu option at the top.
3. Use the ▲/▼ button to select the **Copy to SD** option.
4. Press the ► button to display the submenu.
5. Use the ▲/▼ button to select either **OK** or **Cancel** and press the ◀ button to perform the function.

All images stored in the DV camera memory will be copied to the SD card.



Frequency

To avoid flickering images on the LCD screen, you should make sure that the DV camera **Frequency** setting matches the frequency of mains electricity in your country. China and Europe use a 50 Hz system. America and Japan use a 60 Hz system. If you are unsure what frequency your mains supply is, consult your power company.

To access the **Frequency** setting:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Frequency** option.
4. Press the **▶** button to display the available settings.
5. Use the **▲/▼** button to select the required setting.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Power Saving

Turn the **Power Saving** function on to preserve battery life. When the power saving function is used, the DV camera will turn itself off after a few minutes of inactivity. To access the **Power Saving** function:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button once to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Power Saving** option.
4. Press the **▶** button to display the available settings.
5. Use the **▲/▼** button to select the required setting.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Language

Use the **Language** setting to change the language in which the DV camera menus are displayed. Available languages are, traditional Chinese, simplified Chinese, German, French, Spanish and, English. To access the language setting:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **Language** option.
4. Press the **▶** button to display the available settings.
5. Use the **▲/▼** button to select the required setting.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



USB Switch

The DV can be connected to your PC to download your images to the hard disk. It can also be used as a webcam. Use the **USB Switch** setting to switch between **WC** (webcam mode) or **UM** (standard USB mode). To access the **USB Switch** setting:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **USB Switch** option.
4. Press the **▶** button to display the available settings.
5. Use the **▲/▼** button to select the required setting.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



File No Reset

Each picture you take with the DV camera is given a number. The file number is also the name of the file when you download it to your hard disk. To reset the file number to zero, use the **FileNoReset** option. To access the **FileNoReset** option:

1. Turn on the DV camera and press the **MENU** button to display the main menu screen.
2. Press the **▶** button to select the **Setup** menu option at the top.
3. Use the **▲/▼** button to select the **FileNoReset** option.
4. Press the **▶** button to display the available settings.
5. Use the **▲/▼** button to select the required setting.
6. Press the **◀** button to confirm your choice.
7. Press the **MENU** button to exit the menu.



Music menu

Use **Music Menu** to play MP3 files stored on the DV camera. To access the MP3 player function:

1. Turn on the DV camera and make sure it is in **Playback** mode. See *Playback mode* on page 18.
2. Press the **MENU** button to display the main menu screen.
3. Press the **▶** button twice to display the **Music** menu. A music note icon appears on the screen.
4. Press the **OK** button on the rear of the DV camera to display a list of MP3 files stored in the camera.
5. Use the **◀/▶** button on the rear of the DV camera to select the MP3 file to play.
6. Use the **▲** button to play the file.
 - Use the **◀/▶** button to adjust the volume control.
 - Press the **▲** button during playback to pause playback.
 - Press the **▼** button to stop playback.

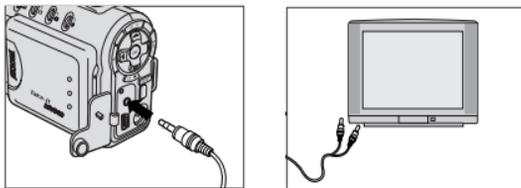
Connecting

You can connect your DV camera to a TV to view either still pictures or video stored on the internal memory or on an SD card.

You can also connect the DV camera to a computer using a USB cable and download movies or images to the hard disk. When the DV is connected to a computer, you can also use it as a web cam.

Connecting to a TV

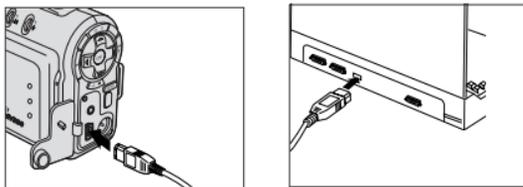
Connect the DV camera to a TV using the supplied video cable as shown below.



When your DV camera is connected to a TV, you can view video or still images on the TV screen. You may need to configure the DV camera to work correctly with your TV. See *Setup Menu* on page 29.

Connecting to a Computer

Connect the DV camera to a computer using the supplied USB cable as shown below.



When the DV camera is connected to your computer, you can download the movies, images and audio samples you have made to your hard disk. You can also use the DV camera as a web cam. See *USB mode* on page 19.

Appendix A - Installing Software

Your DV camera comes complete with a CD-ROM containing drivers and applications. If your computer uses Windows 98SE operating system, you will need to load a driver from the CD-ROM before you can download files from your DV camera to your computer.

If you have Windows ME, 2000, or XP operating system, you can plug the DV camera straight into the USB port on your computer and a driver will install automatically without the CD-ROM.

If you want to use the DV camera as a webcam, you will need to load a driver from CD-ROM whatever your operating system.

To load the application software or drivers from CD-ROM, insert the CD-rom in your PC CD-ROM drive. The installation menu should automatically appear after a few seconds. If it does not appear, use Windows explorer to run the setup.exe file in the root directory on the CD-ROM. Follow the on-screen instructions to complete the procedure.

Appendix B – Maintenance

Always follow the Safety Precautions that came with the DV camera.

- Use a soft cloth, tissue or lint-free cloth to clean the DV camera body.
- Use a lens brush to remove particulate matter from the lens, and then clean the lens with a soft eyeglass lens tissue or cloth.
- Do not use synthetic cleaning solutions or other solvents to clean the DV camera body or lens. If you are unable to remove marks or dirt from the lens, contact Microtek Customer Service.
- Do not rub the LCD screen forcefully or apply excessive pressure to it to avoid scratching the surface.
- Do not use water, detergents, paint thinner or benzene to clean any part of the DV camera, as this may damage the DV camera body or LCD screen.
- Use a lens brush, soft cloth, or eyeglass tissue/cloth to clean the LCD screen.

Appendix C – Troubleshooting

DV Camera Problems

The DV camera does not power on.

- A1: The DV camera is not powered up.
- Press and hold the POWER button for a few moments to see if the READY LED is lit.
- A2: The battery is inserted incorrectly.
- Insert the battery with the correct polarity as marked in the battery compartment.
- A3: The battery has poor electrical contact with the terminals in the battery compartment.
- Clean the battery terminals with a dry cloth, reinsert them, and try to power on the DV camera again.
- A4: Battery power is depleted.
- Recharge the battery if it is rechargeable, or replace the batteries with new ones.
- A5: The incorrect type of battery is being used.
- Replace with four new AAA-size alkaline batteries.
 - Replace with a new Lithium ion battery (Nokia 8210 compatible).
- A6: The battery/SD card cover is open.
- Close the battery/SD cover securely.

The DV camera turns off suddenly.

- A1: Your DV camera has a two-minute time-out setting for saving the battery consumption.
- You can disable the “Power Saving” feature in the DV camera’s Setup mode menu. Press any button to turn the DV camera back on.
- A2: Battery power is depleted.
- Recharge the batteries if they are rechargeable, or replace the batteries with new ones.

The DV camera does not shoot images, movies, or record audio clips.

- A1: The Mode switch is set to the incorrect mode.
- Set the Mode switch to Photo mode (📷) to capture still images.
 - Set the Mode switch to Video/Audio mode (🎥/🎧) to record movie/audio clips.
- A2: There is no available memory left on the SD card.
- Download files to your computer and removes the existing files from the SD card, then you will have more available memory space.
 - Replace with a new SD card.
- A3: The SD card is write-protected.
- Set the write-protected tab on the SD card to the unlocked position.
- A4: The SD card is corrupted or not formatted correctly.
- Reformat the SD card.
 - The SD card may be damaged; contact your dealer.

The subject is not in the LCD screen.

- A1: The Mode switch is set to the incorrect mode.
- Set the Mode switch to Photo mode (📷) or Movie/Audio mode (🎥/🎧).
- A2: The LCD screen is manually switched off.
- Press any button to turn it on.

Digital Zoom does not function.

A: Digital Zoom is disabled when shooting movies.

The date stamp could not be found on the printed image.

A: The "Date Stamp" setting is disabled.

- Enter the Setup mode and enable the "Date Stamp" function.

The time/date stamp on the images or movie/audio clips is incorrect.

A: The date and time are incorrectly set.

- Enter the Setup mode, then set the correct date and time.

Photography Problems

Shots are out of focus and blurry, or photograph quality is not as good as expected.

- A1: The DV camera was moved while a shot was being taken.
- Hold the DV camera firmly when shooting, using a tripod if necessary.
- A2: The subject is not within the DV camera's acceptable focus range.
- For normal shooting, make sure that the subject is at least 3.28 ft. (1 m) away from the DV camera lens.

Photographed subject is too dark or underexposed.

- A1: There is not enough ambient light.
- Turn the flash on.
- A2: Your subject is backlit (i.e., light comes from the back of the subject).
- To improve, choose a positive EV value.
- A3: The White Balance (WB) setting is incorrect.
- Adjust the White Balance setting.
- A4: The subject is too far to be reached by the flash.
- The subject should not be more than 6.56 ft. (2 m) away.

Photographed subject is too bright or overexposed.

- A1: There is not enough distance between the flash and the subject.
- The subject should be within 4.92 to 6.56 ft. (1.5 to 2 m) of the lens when the flash is used.
- A2: The subject is under strong light.
- To improve, choose a negative EV value.
- A3: The light source shines directly into the DV camera lens.
- Change the angle of the DV camera, or move the DV camera away from the light source.
- A4: The flash fires in every shot taken.
- Do not set the flash mode to "Forced flash" or "Forced flash with Red-eye reduction".

The flash does not fire.

- A: The flash mode is set to Flash off.
- Select any flash mode except "Flash off".

Images or Movie/Audio clips cannot be played back.

- A: The Mode switch is set to the incorrect mode.
- Set the Mode switch to Playback mode (⏮).

The DV camera cannot delete images or movie/audio clips.

- A: The SD card is write-protected.
- Set the write-protected tab on the SD card to the unlocked position.

Images or Movie/Audio clips cannot be played back on TV.

- A1: The Mode switch is set to the incorrect mode.
- Set the Mode switch to Playback mode (⏮).
- A2: The "Video Out" setting is set to the incorrect system.
- Enter the Setup mode, set Video Out to "NTSC" or "PAL" depending on your video output system.
- A3: The DV camera is disconnected from the TV set.
- Make sure the video cable is properly connected to both the DV camera and the TV set.

Mac OS cannot find the newly created icon (Take-it, Take-it.SD) on the desktop.

- A1: The “USB Switch” setting is set to the incorrect mode.
- Enter the Setup mode, set USB Switch to “USB Mode”.
- A2: The DV camera is disconnected to the computer.
- Make sure one end of the USB cable is connected to your computer and the other end to your DV camera’s USB connector.
 - Make sure the USB cable is properly connected to both the DV camera and the computer.

The DV camera does not operate in Web Cam mode

- A1: The “USB Switch” setting is set to the incorrect mode.
- Enter the Setup mode, set USB Switch to “Web Cam”.
- A2: The DV camera is disconnected from the computer.
- For Windows Users,
- Make sure one end of the USB cable is connected to your computer and the other end to your DV camera’s USB connector, then turn on the DV camera.
 - Check to see if “Camera Driver” has been installed on your computer.

Go to the Windows Control Panel and double-click “Add/Remove Programs”. If the DV camera driver (for Web Cam) does not appear in the list, you must install the DV camera driver from the Microtek CD-ROM.
 - Check if the DV camera is detected by your system.
 - 1) Right-click the “My Computer” icon and click Properties. The “System Properties” window appears.
 - 2) Click the “Hardware” tab and then click the “Device Manager” button. Expand the “Image Device” tree; the DV camera should be in the list.

For Macintosh Users,

- Make sure one end of the USB cable is connected to your computer and the other end to your DV camera's USB connector, then turn on the DV camera.
- Check to see if "Camera Driver" has been installed on your computer.
- For Mac OS 9.x,
 - 1) Go to the Apple menu and select "Apple System Profiler". The "Apple System Profiler" window appears.
 - 2) Click the "Devices and Volumes" tab; the DV camera related drivers should be in the "USB" tree.

Appendix D - Menu Items and Factory Defaults

Video/Photo Menu	Options	Description
Size	6M, 3M*, 2M, 1M, VGA / *,	Selects the pixel recording size for images
Quality	*,	Adjusts the compression rate for images
Drive Mode**	, ,	Toggles among Self-timer, Normal, and Continuous shooting modes
EV Compensation	-2.0, -1.5, -1.0, -0.5, 0.0*, +0.5, +1.0, +1.5, +2.0	Compensates for extreme differences between background and foreground lighting
White Balance	A*, *, *,	Adjusts the White Balance according to the light conditions for the recording
Sharpness**	-, *, +	Adjusts the image outline for images
Voice Memo**	On, Off*	Records a voice memo for a captured image
Color Mode	*, ,	Toggles among Normal, Black & White, and Classic photo color modes
Playback Menu	Options	Description
Erase	Erase One, Erase Select, Erase All	Erases the recorded images and movie/audio clips
Slide Show	Cancel, 2S, 5S	Plays back the stored images in a continuous slide show
Rotate	Cancel, 90°, 180°, 270°	Rotates pictures up to 270 degrees
Print	Cancel, Select, All	Adds a DPOF print mark on the recording for professional print services to determine which prints are to be printed at a photofinisher
Setup Menu	Options	Description
Brightness		Adjusts the brightness level of the LCD screen
Beep	On*, Off	Adjusts the sound produced by the DV camera
Date	yyyy/mm/dd	Sets the date for the DV camera
Time	00:00:00 (hr/min/sec)	Sets the time for the DV camera
Date Stamp	On, Off*	Stamps the time on the captured images
Video Out	NTSC*, PAL	Selects your video output system
Format	Cancel, OK	Formats the SD card
Reset	Cancel, OK	Resets the function settings to their default configurations
Copy to SD	Cancel, OK	Copies the data stored in internal memory to the SD card
HZ Frequency	50HZ, 60HZ*	Sets the power frequency to accommodate local AC power
Power Saving	On*, Off	Sets the DV camera to power off after two minutes of inactivity
Language	English*, Japanese, Simplified Chinese, Traditional Chinese, German, French, Italian, Spanish	Sets the LCD language
USB Switch	Web Cam, USB Mode*	Toggles between USB Mode and Web Cam modes
File No Reset	Cancel, OK	Resets the file number to zero

* Default setting

** For Photo menu only

Specifications

Image Sensor	3.21 megapixels CMOS	Print Format	DPOF (Digital Print Order Format)
Sensor Size	1/2"	Quality Levels	Best, Fine, Normal
Resolution		Storage Media (External)	SD (SecureDigital) card support
Movie clips	640x480 pixels (10 fps) 320x240 pixels (25 fps)	Storage Included	16 MB internal flash memory
Still image	2816x2112 (interpolated), 2048x1536, 1600x1200, 1280x960, 640x480 pixels	Driver	USB mass storage device driver
Image Ratio (w:h)	4 : 3	I/O Terminals (Connectivity)	USB 1.1, AV output (Video Out)
Lens Aperture	F 3.0	Video Output	NTSC, PAL
Focal Length	f=8.3 mm	Power Saving	2 min.
Digital Zoom	4X	Power Source	Four AAA-sized alkaline batteries, rechargeable Lithium ion battery (Nokia 8210 compatible), or Adapter (5V, 2A)
Playback Zoom	4X	Weight	Approx. 5.7 oz. (165 g)
Focus Range	• Normal: 3.28 ft. (1 m) to infinity • Macro: 0.5 - 0.8 ft. (15 - 25 cm)	Dimensions	4.4" x 2.6" x 2.0" (112 x 67 x 50 mm)
LCD screen	1.8" TFT LCD (270° rotation)	Tripod Mount	Yes
White Balance	Auto, Daylight, Cloudy, Tungsten, Fluorescent	Microphone	Yes
Exposure		Speaker	Yes
Exposure Adjustment	-2.0 EV to +2.0 EV in 1/2 step	Environment	
Exposure Metering	Full-zone Average	Operating Temperature:	32° to 104° F (0° to 40° C)
Shutter Speed	1/15 - 1/4000 sec.	Relative Humidity:	0 to 85%
Sensitivity Equivalent	ISO 100	Storage Temperature:	14° to 140° F (-10° to 60° C)
Flash			
Built-in Flash	Fixed		
Flash Modes	Auto, Auto with Red-eye reduction, Forced flash, Forced flash with Red- eye reduction, Flash off		
Flash Range	4.92 - 6.56 ft. (1.5 - 2.0 m)		
Self-timer	10 sec. delay		
Audio Clip	Unlimited length (maximum length dependent on SD card)		
File Formats	• Still images: JPEG (Exif 2.2) • Movie clips: ASF • Audio clips: WAV		