

PART 1

Digital Camcorder Basics

Making great digital movies requires knowing some of the basics about digital video cameras. Electronics stores tend to advertise features with exciting statistics, hoping marketing hype will reel you in to the store and convert you from gawker to DV camcorder owner. This part of the book will help direct you toward important camcorder features, while ignoring the features that just don't matter.

Basics related to use of tripods, extending battery life, and a few important camcorder features are also covered here. While the onscreen menu system found on each camcorder varies by manufacturer, the features covered are found on camcorders of all budget ranges.

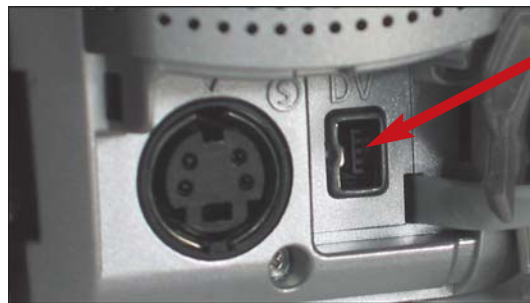
This part of the book should help you make a decision about which type of camcorder will suit your needs, if you don't currently own a DV camcorder. While each feature is numbered, the features described aren't necessarily in declining order of importance.

Hardware Connectors



Start

Identifying “Can’t Live Without” Camcorder Features



1 FireWire
receptacle

2 Analog
connector



3 LCD
viewfinder

4 Electronic
Image
Stabilizing

- 1** **FireWire** is a must for transferring digital video from the camera to the computer.
- 2** **Analog connectors** are used to transfer old footage from a VCR or Hi8 camcorder to your computer.
- 3** **LCD viewfinders** help in framing your shot. A bigger LCD makes viewing what you record easier.
- 4** The **Electronic Image Stabilizing** feature (Sony calls this Steadyshot) keeps the picture from jumping around when recording with the camcorder in your hand.

INTRODUCTION

Camcorders offer more features than most users ever use. This task helps you identify features you need.

TIP

Bigger Isn't Better

While a bigger LCD screen does make monitoring what you record easier, it also drains the battery more quickly. This is an important consideration when planning to use a camcorder away from an available power outlet.

HINT

Out with the Old

If you don't have any old videos, having an analog connector on your camcorder isn't necessary. However, it will save you money on buying other hardware if you do have a collection of old media that you want to import.



5
Optical
zoom

6 Accessory
shoe



7 Still Camera
Mode



8

- 5** **Optical Zoom** is important for capturing distance shots or closing in on nearby action.
- 6** An **accessory shoe**, sometimes called a hot shoe, is ideal for adding an outboard light or microphone to the camera.
- 7** **Still Camera Mode** won't take pictures as well as a digital still camera, but works as a great substitute when no other option exists.
- 8** A **remote**, for controlling recording when you aren't standing next to the camcorder.



TIP

When to Zoom

Using zoom to close in on something while the camcorder is recording isn't recommended—it might make viewers ill. Instead, zoom the shot with recording paused, and then start recording only after achieving the desired shot in the viewfinder.

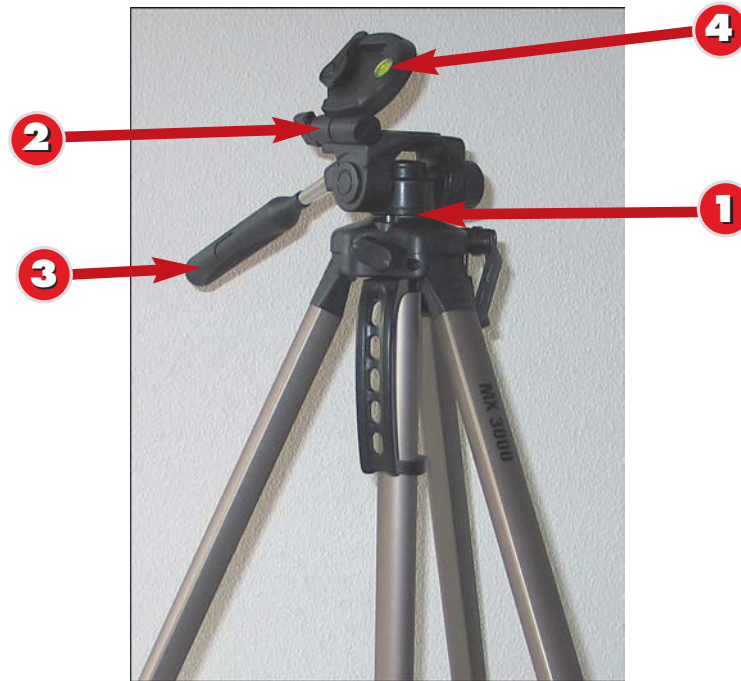
TIP

Two Ways to Take Stills

Most digital camcorders offer two methods for taking still images. When recording to tape, the camcorder will freeze on an image for a few seconds, often allowing the audio track to continue recording. When recording to the flash memory card, the camcorder takes a still picture just like a digital still camera would.

Start

Picking the Right Tripod



- 1** Smooth panning via a fluid head is a must for following action without jerky camera movement. Panning should function both horizontally and vertically.
- 2** Tilt is an additional feature of the tripod head designed for composing shots at angles ranging from horizontal to 90 degrees.
- 3** Pan handles are standard on most tripods, assisting in the production of smooth movements when following action.
- 4** Level the tripod using onboard leveling bubbles.

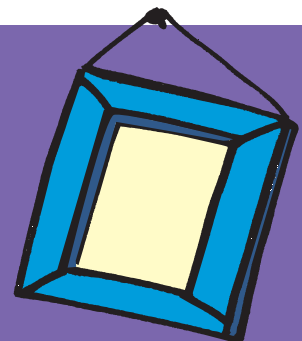
INTRODUCTION

A tripod is the most important DV camcorder feature not built in to the camcorder. No matter how steady your hand may be, putting the camcorder on a tripod will improve the appearance of your video drastically.

TIP

More Leveling Bubbles

Better tripods provide individual leveling bubbles for the leg portion of the tripod, as well as for the head portion where the camcorder actually rests. Using both bubbles will help you achieve more accurate camcorder positioning.





6

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7

8



- 5** Hang additional weight from the center weight hook to counter the weight of your camcorder and prevent tipping.
- 6** Telescoping legs compact for easy carrying while expanding to achieve optimum height for camcorder positioning. Look at two features here, maximum height and closed length.
- 7** Adjustable no-slip rubber feet increase stability on any surface.
- 8** Quick release plates make switching from tripod to handheld recording faster.

End

HINT

Tripod Not Found

When no tripod is available, stabilize your body against a tree, building, or any other stationary object. Use both hands on the camera to help prevent shaky images.

HINT

Affordable Stability

Tripods are manufactured using a variety of materials, including aluminum, carbon fiber, and alloy steel. Find the perfect trade-off between durability of the tripod and the resulting weight by testing models at the store.

Using the Zoom Feature

Start



1



2 Open

3 Turn On



4

- 1 Mount the camcorder on your tripod.
- 2 Open the LCD display.
- 3 Power on the camcorder in camera mode.
- 4 Frame the subject you want to record in the viewfinder.

INTRODUCTION

While getting the camcorder physically close to whatever you are recording is always the best option for great video quality, there are times this isn't possible. Fortunately, camcorders include a zoom feature to bring far away objects closer to the viewer.

TIP

Use a Tripod When Zooming

Zoom magnifies the image the camcorder is capturing. It also magnifies any shaking of the camera or sudden movements. To keep zoomed images looking their best, use a tripod when zooming.



5
Press



6



7
Press



8

- 5 Zoom in to the maximum optical zoom by pushing the zoom button toward the T to get a close up.
- 6 Notice the image quality.
- 7 Zoom in further using digital zoom by pushing the zoom in button toward the T again.
- 8 Notice the extremely grainy quality of the image, which doesn't translate to movies anyone will want to watch.

End

CAUTION

Digital Zoom Beware

Digital zoom numbers represent how large the camera can increase the size of individual pixels in an image. This doesn't actually get you a close-up shot of the subject you are trying to record. Using digital zoom can result in grainy looking video if you try to zoom in on something from too far away, as evidenced in the examples.



Start

Using the DV Camcorder LCD



1



2



Connect

3



4

- 1 Monitoring recording with the LCD viewfinder approximates the shot composition of your final movie.
- 2 Use the onboard speaker, in conjunction with the LCD for instantaneous feedback about image and sound quality.
- 3 Connect the camcorder to a TV via the AV jack and then adjust brightness on the LCD monitor for a more accurate view of what the camcorder is seeing.
- 4 Flip the LCD around to monitor the recording when you are the movie subject.

End

INTRODUCTION

The DV camcorder LCD viewfinder is a versatile tool for creating great-looking movies. Using the LCD during both recording and playback helps achieve more accurate results.

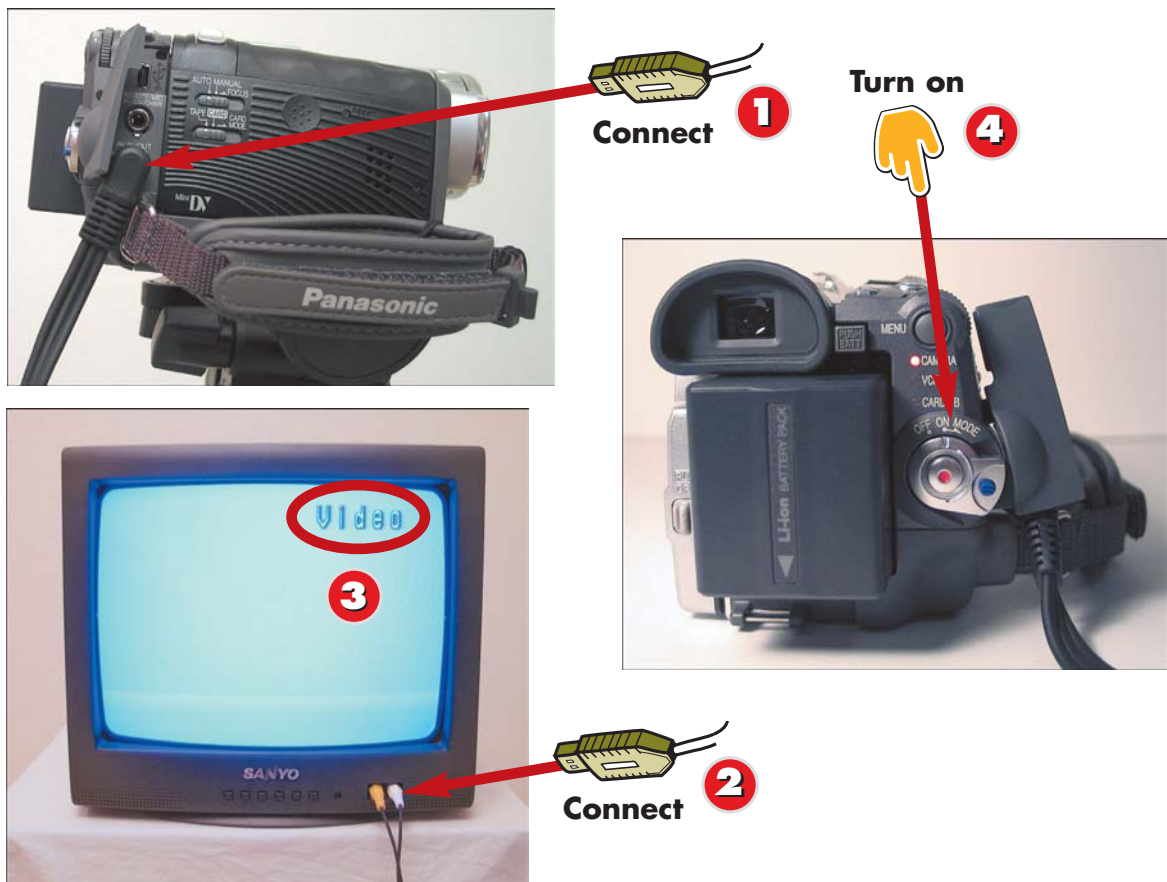
TIP

Hoodman Camcorder Hoods

Glare from the sun can render the LCD viewfinder almost useless. Hoodman Camcorder hoods (hoodmanusa.com) attach to the LCD via a hook and latch system, shading the viewfinder from excessive glare.

Using an External Monitor

Start

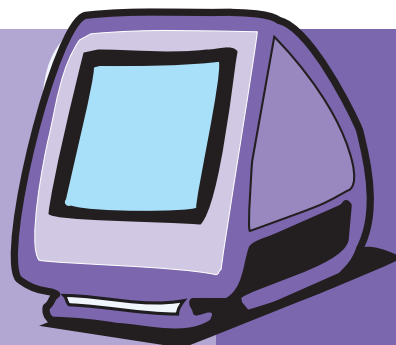


- 1** Connect the mini-plug side of the A/V cable included with your camcorder to the A/V In/Out connection on the camcorder.
- 2** Connect the RCA plug side of the A/V cable to the TV, connect the yellow plug to the video in, and optionally connect one of the audio plugs to the audio in.
- 3** Power on the TV and switch it to the Video channel to monitor camcorder output.
- 4** Turn on the camcorder to start monitoring output on the TV.

End

INTRODUCTION

The LCD screens included with most camcorders are too small to achieve an accurate sense of what is being recorded. Using a small TV to monitor video recording results in better-looking videos because you can actually see what is being recorded.



Extending Battery Life

Start



- 1** Close the LCD viewfinder whenever you aren't monitoring recording. The LCD screen is the single biggest drain on a camcorder battery.
- 2** Plug in your camcorder when transferring video to your computer or playing back video on a TV to ensure the battery doesn't die in the middle of viewing or transfer.
- 3** Carry a power inverter in your car, which converts the cigarette lighter in your car to a conventional outlet, to recharge during down time.

End

INTRODUCTION

When you are capturing video, whether it's a sporting event, family gathering, or an amateur movie shoot, if the battery dies the movie is over. There are several ways to extend battery life.

TIP

Carry a Spare

Even if you minimize battery use, there are times when one battery won't be enough. Backup batteries typically last longer than the factory model and they insure you won't run out of juice early.

Start

CCDs Matter

1 One-CCD Camcorder



2 3-CCD Camcorder



3 One-CCD Camcorder



4 Three-CCD Camcorder



- 1 An image taken outdoors with a one-CCD camcorder.
- 2 The same image taken outdoors with a three-CCD camcorder.
- 3 Image taken indoors in low light with a one-CCD camcorder.
- 4 The same image using a three-CCD camcorder.

End

INTRODUCTION

Charged-coupled devices (CCDs) are what a DV camcorder uses to capture images. One-CCD camcorders capture images by interpreting RGB (red, green, and blue) colors with one chip. Three-CCD cameras capture image data by assigning one color to each chip, resulting in more accurate color information. If you can afford a three-CCD camera, get one.

TIP

Panasonic Three-CCD Camcorders

Until March 2004, three-CCD camcorders were generally priced in a range of \$1200 or more. Panasonic recently released three models, the PV-GS70, PV-GS120, and PV-GS200, starting at \$699. This makes better quality video affordable for many more home movie makers.