

# SPYPEN™

## SPYPEN LUXO



## User's Manual

## 1. Introduction

Congratulations on purchasing the **SPYPEN LUXO**. Using the latest innovations in technology the **SPYPEN LUXO** offers fun, affordable and easy to use digital imaging.

Although you probably want to get started right away, please take a few minutes to read this guide and familiarise yourself with your new **SPYPEN LUXO**. Your new **SPYPEN LUXO** will take 26 High Resolution or 107 Low Resolution, which you upload to your PC (Personal Computer) running Windows® 98 , 98SE, Windows® Me and Window® 2000 or Macintosh® running OS 8.6 - 9.2 via the USB (Universal Serial Bus) port.

You can also use your **SPYPEN LUXO** to capture not only snaps of your family and friends, but also video clips of them in action.

Your **SPYPEN LUXO** can also be used as a Web Cam. If you have an internet connection and microphone (not supplied) you can chat face-to-face with friends and colleagues, conferencing in real time.

Please note that your images are stored on your **SPYPEN LUXO**'s internal memory. When you have taken your images, the **SPYPEN LUXO** will wait for 30 seconds and then automatically switch to Stand-by mode, which draws a constant trickle of power from the battery. When the LCD display blinks, all stored images must have been uploaded and saved as otherwise they will be lost.

## 2. Table of Contents

1.	Introduction		2
2.	Table of Contents		3
3.	System Requirements		5
4.	Package Contents		5
5.	Software Installation		6
	For Windows® Users:		
	5.1 How to install the <b>Digital Camera Manager</b> Software		6
	5.2 How to install ArcSoft® Software		7
	5.3 How to install Microsoft® NetMeeting™		8
	5.4 How to install Adobe® Acrobat® Reader		9
	For Macintosh® Users:		
	5.5 How to install the <b>Digital Camera Driver</b> Software		10
	5.6 How to install ArcSoft® Software		11
	5.7 How to install Cu-SeeMe™		12
	5.8 How to install Adobe® Acrobat® Reader		12
6.	Battery Installation		13
7.	Getting to Know Your <b>SPYPEN LUXO</b>		13
	7.1 Shutter Button		13
	7.2 Viewfinder		14
	7.3 LCD Display		14
	7.4 Mode Button		14
	7.5 Power		14
8.	Getting Started		15
	8.1 Switching the <b>SPYPEN LUXO</b> On		15
	8.2 Taking an Image		15
	8.3 Continuous Mode		16
	8.4 Self-Timer Mode		16
	8.5 Clear the Stored Images		16
	8.6 Changing the Image Resolution		16
9.	Connecting your <b>SPYPEN LUXO</b> to your Computer		17

10. Uploading Images to Your Computer		18
For Windows® Users:	<b>PC</b>	
10.1 Running the <b>Digital Camera Manager</b>		18
10.2 Quick Reference		18
10.3 Uploading Images		19
10.4 Creating & Uploading Movie Clips		20
10.5 Creating Live Movie Clips	<b>MAC</b>	21
For Macintosh® Users:		
10.6 Uploading Images and Movie Clips		23
11. How to Use Other Software	<b>PC</b>	24
For Windows® Users:		
11.1 How to use PhotoStudio®		24
11.2 How to use ArcSoft PhotoFantasy™ 2000		24
11.3 How to use ArcSoft PhotoPrinter® 2000		26
11.4 How to use ArcSoft VideoImpression™ 1.6		27
11.5 How to use Microsoft™ NetMeeting®		28
11.6 How to use Adobe® Acrobat® Reader	<b>MAC</b>	28
For Macintosh® Users:		
11.7 How to use PhotoStudio®		29
11.8 How to use ArcSoft PhotoFantasy™ 2000		29
11.9 How to use ArcSoft PhotoPrinter® 2000		30
11.10 How to use ArcSoft VideoImpression™ 1.5		31
11.11 How to use Cu-SeeMe™		32
11.12 How to use Adobe® Acrobat® Reader		32
12. Customer Support		33
13. ArcSoft WorldWide Customer Support		33
14. Troubleshooting		34
15. Battery Guidance		36
16. Technical Specifications		37
17. FCC Notice		38

## 3. System Requirements

PC

### For Windows® Users

- Compatible with Microsoft® Windows® 98, 98SE, Me and 2000
- Pentium® II 333MHz or equivalent processor
- 128MB RAM or higher
- USB Port
- 200MB free disk space
- CD-ROM Drive
- Colour Monitor with High Colour (16-bit) graphic capability or higher
- Standard mouse and keyboard

MAC

### For Macintosh® Users

- PowerPC® Processor
- Mac® OS Version 8.6 ~ 9.2
- USB Port
- 32MB RAM
- 150MB Free disk space
- Colour Monitor with High Colour (16-bit) graphic capability or higher
- CD-ROM Drive
- Standard mouse and keyboard

## 4. Package Contents



**SPYPEN LUXO**



User's Manual



**SPYPEN LUXO** CD-ROM includes  
**Digital Camera Manager,**  
PhotoStudio® 2000 (PC & Mac),  
ArcSoft PhotoFantasy™ 2000 (PC & Mac),  
ArcSoft PhotoPrinter® 2000 (PC & Mac),  
ArcSoft VideoImpression™ 1.6 (PC) & 1.5 (Mac),  
Microsoft® NetMeeting™ (PC),  
Acrobat Reader (PC & Mac),  
Cu-SeeMe™ (Mac)



USB Cable



Neck Strap

## 5. Software Installation

PC

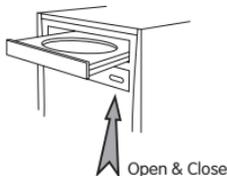
*For Windows® Users:*

### 5.1 How to Install Digital Camera Manager

#### 5.1.1 How to Install Digital Camera Manager

"Digital Camera Manager" should be installed first.

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. An installation wizard will automatically launch.
3. Click "Digital Camera Manager" icon.
4. Follow the instructions presented on the screen to complete the installation.
5. Click "OK" to restart your computer and wait for your PC to restart automatically.



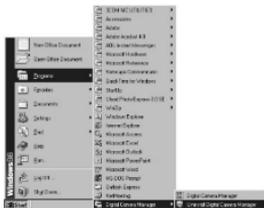
#### Notes:

If the setup screen doesn't appear after loading the CD, then you can manually start it by double-clicking the "My Computer" icon on your desktop, then double-clicking the icon for the CD-ROM drive. When the CD-ROM window opens, double-click the "digital camera" icon.



#### 5.1.2 How to Uninstall Digital Camera Driver

To uninstall Digital Camera Manager, click the "Start Menu" on your Windows® desktop, choose Digital Camera Manager folder under Program and choose "Uninstall Digital Camera Manager". Follow the onscreen instructions.



#### Notes:

Uninstalling your Digital Camera Manager does not delete your album folders and therefore all images transferred into your default or created albums will be preserved. You will be able to access these folders on your system desktop.

## 5.2 How to Install ArcSoft® Software Introduction to the Software

---

PC

### **PhotoStudio® 2000**

PhotoStudio® 2000 is a full-featured, easy-to-use digital image-editing program that provides a complete set of photo editing and retouching tools, plus a wide selection of special effects and enhancements. Its powerful features include a wide variety of input and output options, layers, multiple undo and redo functions, image management tools, editable text, multiple file format support and a lot more.

### **ArcSoft PhotoFantasy™ 2000**

ArcSoft PhotoFantasy™ is an image entertainment application that enables users to create “photo fantasies” by combining their personal photos with a wide variety of fantasy backgrounds. Users can get their own images from digital cameras, scanners, disk drives and Photo CDs, and seamlessly combine them with just a few clicks of the mouse. The fantasy backgrounds include fictional characters, classic works of art, Olympic heroes, 50’s funnies, bathing beauties, muscle men and a lot more.

### **ArcSoft PhotoPrinter® 2000**

ArcSoft PhotoPrinter® is an easy-to-use printing utility that enables the user to layout and print multiple images in different sizes quickly and easily on a single sheet of paper. The program offers a large selection of printing templates, including Kodak Digital Science Inkjet Photo Paper Templates and Avery-brand paper products. It also includes commonly used image-editing tools and a wide selection of templates for frames, edges and backgrounds for enhancing images.

### **ArcSoft VideoImpression™ 1.6**

ArcSoft VideoImpression™ is an easy-to-use video and image editing software program. The program enables users to create and edit new videos using existing video and image files - making desktop video presentations for home, business, and the Web. Visit <http://www.arcsoft.com> for all your FAQ’s, tips and technical support see Section 13 for more details.

### 5.2.1 How to Install ArcSoft® Software

1. Re-insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. An installation wizard will automatically launch.
3. Click the "ArcSoft® Software" icon.
4. Select the language for the installation and click "OK".
5. Follow the on-screen prompts.
6. Select the software you want or you do not want installed by clicking on the tick boxes next to the software title. Click "Next >" to continue.
7. Follow the instructions presented on the screen to complete the installation.



#### Note:

Don't worry if you made a mistake and want to add in ArcSoft® titles you did not tick. Re-insert the CD-ROM and follow steps 1 - 6 ticking only the software you want to add.

### 5.3 How to install Microsoft® NetMeeting™

NetMeeting™ provides the most complete conferencing solution for the Internet and corporate intranet. Powerful features let you communicate with both audio and video, collaborate on virtually any Windows-based application, exchange graphics on an electronic whiteboard, transfer files, use the text-based chat program, and much more. Using your PC and the Internet, you can now hold face-to-face conversations with friends and family around the world.

#### To install the Microsoft® NetMeeting™:

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. An installation wizard will automatically launch.
3. Click the "Microsoft® NetMeeting™" icon.
4. Follow the instructions presented on the screen to complete the installation.
5. You will have a choice during installation to place a desktop icon on your desktop for easy access directly to the software.



6. For further installation details, please visit the following website:  
<http://www.microsoft.com/windows/netmeeting>



**Note:**

- You need to enter your name, your e-mail address and country details during installation.
- You need to adjust the playback volume and your record volume.

## 5.4 How to install Adobe® Acrobat® Reader

PC

Adobe® Acrobat® Reader lets you view and print Adobe Portable Document format (PDF) files on all major computer platforms, as well as fill in and submit Adobe PDF forms online.

### To install the Adobe® Acrobat® Reader:

1. Re-insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
  2. An installation wizard will automatically launch.
  3. Click the "Adobe® Acrobat® Reader" icon.
  4. Follow the instructions presented on the screen to complete the installation.
- Visit <http://www.adobe.com/> for all your FAQ's, tips and technical support.





### For Macintosh® Users:

You are now able to enhance the resolution of your taken images by using the **Digital Camera Driver**. The images can be converted to higher resolution automatically by using a driver named "WWL Mac Installer". Or you can use the "**Digital Camera Driver**" if you want the resolution remain unchanged.

## 5.5 How to Install Digital Camera Driver Software



### Note:

Macintosh® users may only choose one type of driver at a time to install (**Digital Camera Driver** without enhancement or with enhancement). The driver cannot run properly if both drivers are installed.



### 5.5.1 How to Install Digital Camera Driver (without enhancement):

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "Digital Camera".
3. Double click the "Digital Camera Installer" icon.
4. Click "Continue".
5. Please disconnect all USB camera before continuing.
6. Choose a folder to install "STV0680 Capture" Plug-in file and click "Choose" to confirm. Locate the "STV0680 Capture" Plug-ins file in Hard Disk if you have not install any Photo-retouching software.
7. If you already installed PhotoStudio® 2000 and you want to use it as a default software to retrieve the images from **SPYPEN LUXO**, go to "Plug-ins" folder in the "PhotoStudio® 2000" folder and click "Select".
8. Click "Quit" to finish the installation.
9. A folder named "STV0680 Camera Snapshots" will appear in your Hard Disk after your **SPYPEN LUXO** is connected to your Mac via the USB cable for collecting images and movies.



### 5.5.2 How to Uninstall Digital Camera Driver (without enhancement):

To uninstall the **Digital Camera Driver** (without enhancement), you have to remove 3 files located in different folders and restart your Mac. The 3 files are listed below.

"STV0680 Camera" in Control Panel Folder

"STV0680 Downloader" in Extensions Folder in the System Folder

"STV0680 Capture" in Plug-ins Folder in the PhotoStudio® 2000



## 5.6 How to Install ArcSoft® Software

### 5.6.1 How to Install PhotoStudio® 2000

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "Digital Camera".
3. Double click the "PhotoStudio® 2000 Installer" icon in English folder.
4. Follow the instructions presented on the screen to complete the installation.



### 5.6.2 How to Install ArcSoft PhotoFantasy™ 2000

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "Digital Camera".
3. Double click the "PhotoFantasy™ 2000" icon in English folder.
4. Follow the instructions presented on the screen to complete the installation.



### 5.6.3 How to Install ArcSoft PhotoPrinter™ 2000

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "Digital Camera".
3. Double click the "PhotoPrinter™ 2000" icon in English folder.
4. Follow the instructions presented on the screen to complete the installation.



### 5.6.4 How to Install ArcSoft VideoImpression™ 1.5

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "Digital Camera".
3. Double click the "VideoImp™ 1.5 installer" icon in English folder.
4. Follow the instructions presented on the screen to complete the installation.

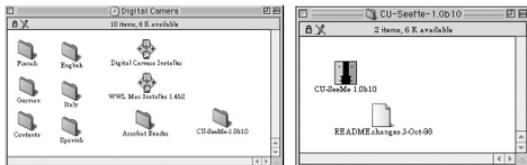




## 5.7 How to Install Cu-SeeMe™

Cu-SeeMe™ started the craze for videochat on the Internet and it's still the most popular, full-featured software for seeing, hearing and sharing. It can be used over the Internet or any TCP/IP network. With Cu-SeeMe™, you can make new friends, expand your professional and social networks, find people with similar interests, watch informative and entertaining cybercast events, and much more.

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "**Digital Camera**".
3. Double click the "Cu-SeeMe™ 1.0b10" folder, followed by the "Cu-SeeMe™ 1.0b10" icon.
4. Follow the instructions presented on the screen to complete the installation.



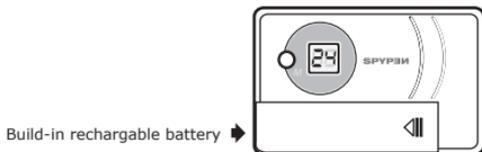
## 5.8 How to Install Adobe® Acrobat® Reader

1. Insert the CD-ROM disc into the CD-ROM drive and close the CD-ROM drawer.
2. Double click the CD-ROM icon "**Digital Camera**".
3. Double click the "Acrobat® Reader" folder and "English Reader Installer" icon.
4. Follow the instructions presented on the screen to complete the installation.



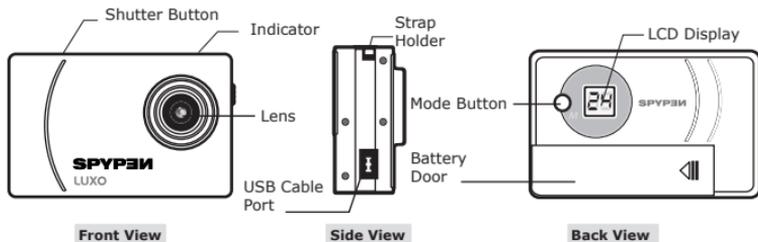
## 6. Battery Installation

The re-chargeable battery has been pre-installed. User are not recommended to change the re-chargeable battery. Please contact your customer support for service. Simply connect your **SPYPEN LUXO** to your computer with the USB cable supplied to recharge your battery. Please make sure the re-chargeable battery is charged for minimum of 3 hours before use for the first time.



## 7. Getting to Know Your SPYPEN LUXO

Refer to the picture below for a quick overview for your **SPYPEN LUXO**.



### 7.1 Shutter Button

The Shutter Button has 5 functions. Although these are covered in more detail later in this manual, please find below a brief description.

#### 7.1.1 Still Image

To take an image, aim the **SPYPEN LUXO** by looking through the viewfinder and press the Shutter Button once. A beep means you have taken an image. (see page 15)

#### 7.1.2 Movie Clip

To take a movie clip, press and hold the Shutter Button to start taking continuous images when in the Continuous  Mode. (see page 16)

#### 7.1.3 Self-Timer

To start the 10 second Self-Timer, simply press the Shutter Button when the **SPYPEN LUXO** is in the Self-Timer  Mode. (see page 16)

### 7.1.4 Clear Memory

To clear all images that you have taken, simply press the Shutter Button when you are in the Clear **CL** mode. (see page 16)

### 7.1.5 Change Resolution

The Shutter Button can be used to switch between Hi-Res and Low-Res settings. To do this, the memory must first be cleared, and the resolution option selected. (see page 16)

## 7.2 Viewfinder

The viewfinder is the window you look through when you aim the **SPYPEN LUXO**. Make sure you centre the subject in the viewfinder before taking an image.

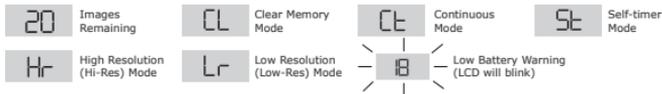


#### Important Note:

Due to the very small size of the viewfinder, ensure your **SPYPEN LUXO** is perfectly parallel to the subject you wish to take an images of. We recommended images are taken at a minimum distance of 2 metres from the subject.

## 7.3 LCD Display

By default, the 2 digit LCD screen displays the number of images remaining that can be taken before the **SPYPEN LUXO**'s memory is filled. It is also used in conjunction with the Mode Button to access and display the **SPYPEN LUXO** settings.



## 7.4 Mode Button

The Mode Button has 2 primary functions:

### 7.4.1 Turning your **SPYPEN LUXO** On from the Stand-by Mode

When your **SPYPEN LUXO** is in Stand-by Mode, press the Mode button to reactivate.

### 7.4.2 Cycling Through the Operating Modes

You can also use the Mode Button to cycle through the operating modes of your **SPYPEN LUXO**. (For more details, see 8 Getting Started)

## 7.5 Power

### 7.5.1 Stand-by Mode

After a period of 30 seconds inactivity, the **SPYPEN LUXO** will switch to Stand-by Mode automatically and the LCD will go blank. All images taken will not be lost as they are stored in the **SPYPEN LUXO**'s memory.



#### Important Note:

It is important to note that any images stored in your **SPYPEN LUXO**'s memory will be lost if the battery is totally drained or removed (and the USB cable is not connected to your **SPYPEN LUXO** to your powered on PC or Mac). Please make sure you wanted images are uploaded to your PC or Mac via the USB cable before changing or installing batteries.

### 7.5.2 Low Battery

If the LCD display begins to blink  or is displayed, these are warnings that there is not enough power left in your battery to fully operate your **SPYPEN LUXO**.

 **Important Note:**  
You must upload any stored images as soon as possible.

 **Important Note:**  
To use as a web-cam, you will require Internet access. To talk and listen, your computer will require a sound card, speakers and microphone (not supplied).

## 8. Getting Started

### 8.1 Switching the SPYPEN LUXO On

Your **SPYPEN LUXO** will automatically switch on when you insert new batteries or connect your **SPYPEN LUXO** to your PC or Mac via USB port. Press the Mode Button to turn on your **SPYPEN LUXO** when your **SPYPEN LUXO** is in Stand-by Mode. The LCD will indicate the  mode for high resolution and it will also display the number of images which may be taken.

### 8.2 Taking an Image

Press the Shutter Button to take an image. The **SPYPEN LUXO** will beep. A high pitched beep indicates that the image was taken successfully and the counter will count down. The LCD screen displays the number of available images remaining.

- A low beep indicates insufficient light to take an image or the lens cover has not been slide opened.
- A series of beeps indicates that the **SPYPEN LUXO** is full.

By pressing the Mode Button you can cycle through additional features as displayed on the LCD. When a given mode is displayed it can be accessed by pressing the Shutter Button (see section 7.1). If an option is not confirmed within 5 seconds the display will revert to show the number of available images that can be taken.



### 8.3 Continuous Mode (see 10.4 Creating and Uploading Movie Clips)

To create a movie clip:

1. Press the Mode Button until the  appears on the LCD.
2. Press and hold the Shutter Button within 5 seconds to start taking continuous images. When you are in Low-Res mode, the **SPYPEN LUXO** will allow you to take 80 images. In Continuous Mode, the counter will rapidly decrease accompanied by a series of rapid beeps as each image is taken. If the Shutter Button is not pressed within 5 seconds the **SPYPEN LUXO** will revert to the normal image taking mode.



#### Important Note:

During the Continuous Mode the **SPYPEN LUXO** will allow images to be taken with insufficient light.

### 8.4 Self-Timer Mode

To use the self-timer feature, press the Mode Button until  appears in the LCD then press the Shutter Button to start a 10 second self-timer. The **SPYPEN LUXO** will issue a short beep every second and then a long beep just prior to a further short beep which indicates that the image has been successfully taken. It is a good idea to use the stand for this.



#### Important Note:

The Self-Timer Mode cannot be selected when the **SPYPEN LUXO** is full.

### 8.5 Clearing the Stored Images

When you wish to clear the memory of your **SPYPEN LUXO**, press the Mode Button until  appears on the LCD. Pressing the Shutter Button once will cause the **SPYPEN LUXO** to beep and the  start flashing. Pressing the Shutter Button again within 5 seconds will clear all the images stored and reset the image counter.



#### Important Note:

- Individual images cannot be cleared
- All images will be lost when the memory is cleared. Please make sure you upload your wanted images before clearing your **SPYPEN LUXO**'s memory.

### 8.6 Changing the Image Resolution

Image resolution can be changed whenever you need.

1. Cycle through the Mode options by pressing the Mode Button.
2. Press the Shutter Button once to change to the alternative resolution.

#### For Example:

Changing from Hi-Res Mode to Low-Res Mode:-

 →  →  →  →  Press the Shutter Button to Confirm

Changing from Low-Res Mode to Hi-Res Mode:-

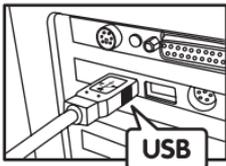
 →  →  →  →  Press the Shutter Button to Confirm

## 9. Connecting your **SPYPEN LUXO** to Your Computer

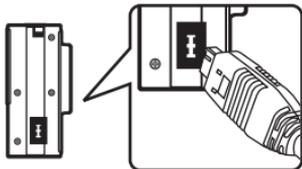
The USB cable allows you to upload images from the **SPYPEN LUXO** to your PC or Mac. One end of the cable connects to the USB port on the side of the **SPYPEN LUXO** and the other end connects to your PC's or Mac's USB port. When your **SPYPEN LUXO** is connected to your PC or Mac, it will draw power from the PC in order to preserve your battery life.

The USB port can be found on the front or back panel of your PC or Mac. Look for this  symbol next to the connection port. (Also see your PC or Mac operating manual for the location of your USB connection port.)

When you first connect your **SPYPEN LUXO** to your PC, a message appears on screen saying "New Hardware Found" and "Building Driver Information Database". After this, you can start to upload images!



USB Series "A" Plug connects to your PC or Mac



USB Series "A" Plug connects to your **SPYPEN LUXO**

# 10. Uploading Images to Your Computer

PC

For Windows® Users:

## 10.1 Running the Digital Camera Manager

- Select the **Digital Camera Manager** icon from the **Digital Camera Manager** program group on the Windows Start Menu or double-click the **Digital Camera Manager** short-cut icon on the desktop.
- You can now start to upload your images from your **SPYPEN LUXO** by following the steps in Section 10.3:



shortcut icon on desktop

Digital Camera Manager



## 10.2 Quick Reference



DSC Mode  
(Digital Still Camera)



Create New Folder



Adjust Frame Rate



Live Video Mode



Save Still Image(s)/  
Capture snap shot  
(In Live Video Mode)



Send E-mail



Capture Still Image(s)  
(In DSC Mode)



Save Video/  
Start or Stop Recording (In  
Live Video Mode)



Delete Image(s)/  
Movie Clips(s)



Adjust Resolution  
(In Live Video Mode)



Adjust Colour

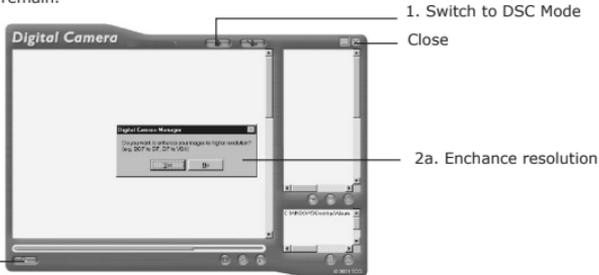


Delete Album



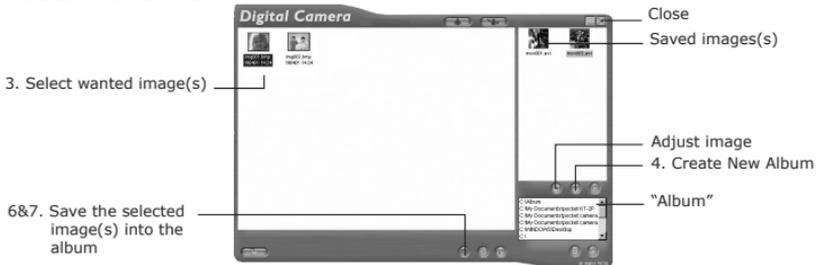
### Important Notes:

You can use the **Digital Camera Manager** to upload images taken by your **SPYPEN LUXO** at any time whether or not the **SPYPEN LUXO** is full. Connect your **SPYPEN LUXO** to your PC via the USB cable. Plugging the USB connector into the **SPYPEN LUXO** will cause it to reset and issue a double beep but all stored images will remain.



### 10.3 Uploading Images

1. Switch the interface to DSC (Digital Still Camera) Mode by clicking the  button.
2. Click  to capture all images stored in your **SPYEN LUXO**. A window will appear and ask if you want to convert all stored images to higher resolution. (for images only) Select "Yes" or "No".



3. Select wanted image(s)
- 6&7. Save the selected image(s) into the album
3. All uploaded images will be shown on the left panel.
4. During your **Digital Camera Manager** installation a folder called "Album" has been automatically created in the bottom right section of the **Digital Camera Manager**. Highlight the file called "C:/Windows/Desktop/Album" in the bottom right hand corner. You can alternatively click  to create a new album to hold your images. Name the album folder and save it to wherever you want in your PC.
5. If you have already created an album folder and you want to save image(s) in, click on the album.
6. TO SAVE ONE IMAGE
  - To save 1 particular image and put in the selected album, select the image by clicking the image once and click the  Save Image Button.
  - The selected image will appear on the right panel and it will be saved to the album you created and or highlighted.
7. TO SAVE ALL IMAGES
  - To save all images taken and put in the album, select all the images by holding the CTRL button down on keyboard with the mouse click on each image and click the  button.
  - All the selected images will appear on the right panel and they will be saved to the album you created and highlighted.
8. To Adjust an Image  
You can adjust an image (brightness, contrast, etc.) by highlighting the image and clicking the  button.
9. To retrieve images saved in an album, simply double-click the album and the images stored in the album will be shown on the top right panel.
10. Double click on the image you want to view to bring it up full size on screen.

## 10.4 Creating and Uploading Movie Clips

Create your very own digital movies using **Digital Camera Manager**. Low resolution supports 80 frames of video. High Resolution supports 20 frames of video.

- When the **SPYPEN LUXO** is full, attach it to your PC via USB and run the **Digital Camera Manager**.
- You can now start to create your own movie clips by following these steps:



1. Switch the interface to DSC (Digital Still Camera) Mode by clicking the  button. Click  to capture all images stored in your **SPYPEN LUXO**. All uploaded images will be shown on the left panel.
2. During your **Digital Camera Manager** installation a folder called "Album" has been automatically created in the bottom right section of the **Digital Camera Manager**. Highlight the file called "C:/Windows/Desktop/Album" in the bottom right hand corner. You can alternatively click  to create a new album to hold your images. Name the album folder and save it to wherever you want in your PC.
3. If you have already created an album folder and you want to save image(s) in, double click the album.
4. Click the  button to create a movie clip (.avi file) with all the selected images by holding the CTRL key on your keyboard with the mouse click on each image.
5. Select the video compression format. "Full Frames (Uncompressed)" format is recommended.
6. The movie clip created will appear on the right panel and it will be saved to the album you created and highlighted.
7. To retrieve movie clips saved in an album, simply double-click the album and the movie clips stored in the album will be shown on the top right panel.
8. Double click on the movie clip(.avi file) to open and watch your movie clip. Your movie clip will play back in Windows® Media Player.



### Important Notes:

Your images are also retrievable from your desktop by clicking on the folder called "Album".



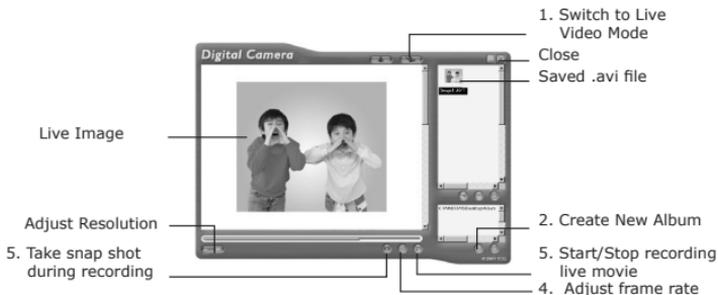
### Tip:

To quickly highlight all images hold down the CTRL and SHIFT key together and with the mouse click on the end images of every row of images. This will quickly highlight every image in every row. Creating movie clip with both low and high resolution will cause error.

## 10.5 Creating Live Movie Clips

You can now create live digital movies using **Digital Camera Manager**.

- Make sure your **SPYPEN LUXO** is connected to your PC via USB and run the **Digital Camera Manager**.
- **Warning! Live Video Mode will erase all images stored in your SPYPEN LUXO. Make sure you upload all wanted images before you switch the Digital Camera Manager to Live Video Mode.**
- You can now start to create your live movie clips by following these steps:



1. Switch the interface to Live Video Mode by clicking the  button.
2. During your **Digital Camera Manager** installation a folder called "Album" has been automatically created in the bottom right section of the **Digital Camera Manager**. Highlight the file called "C:/Windows/Desktop/Album" in the bottom right hand corner. You can alternatively click  to create a new album to hold your images. Name the album and save it to wherever you want in your PC.
3. If you have already created an album and you want to save image(s) in, double click the album.
4. Click the  button to adjust the frame rate and the  button to adjust the resolution (size) of the movie clip.
5. Click  to start record the live images and click  again to stop recording. You can also take a snap shot during recording by clicking the  button. The movie clip and snap shot created will appear on the right panel and it will be saved to the album you created.

### To adjust frame rate:

You can adjust the frame rate (number of frame per second) by pressing the  Frame Rate Button.

1. Click the  button.
2. Enter the frame rate you want for your movie clip.

For example:-

- 80 frames at 10 frames per second = 8 sec. movie clip
- 80 frames at 5 frames per second = 16 sec. movie clip

Enter the number of seconds you want for the video clip to run at. (frames per second)



Adjust resolution

Adjust the frame rate

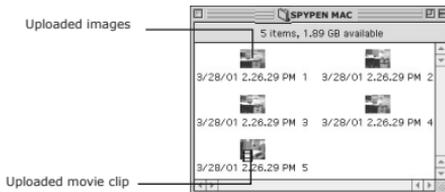
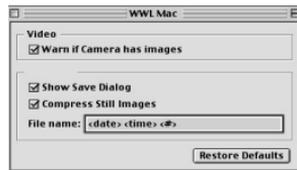
### To adjust resolution:

You can adjust resolution for the movie clip by pressing the  Adjust Resolution Button.



**For Macintosh® Users:****10.6 Uploading Images and Video Clips**

1. Connect your **SPYPEN LUXO** to your Mac via USB cable.
2. A window will pop up and ask you to name the pictures (images). File name format is default as <Date> <Time> <No. of image>. You can change the name by going to double clicking the "STV0680 Camera" or "SPYPEN MAC" icon in the Control Panel.
3. Click "Save"
4. Your Mac will ask you if you want to empty your **SPYPEN LUXO**.
  - If you click "Yes", images stored in your **SPYPEN LUXO** will be deleted.
  - If you click "No", images stored in your **SPYPEN LUXO** will be retained.
5. Individual images and video clips will be uploaded to your "STV0680 Camera Snapshots" or "WWL Mac Snapshots" folder.





### Using the images stored in your SPYPEN LUXO:-

3. Double click on "Get Photo 1" and click "Acquire". Select "STV0680 Camera" as the source. The capture interface will show up.
4. To capture image(s), highlight the wanted image(s) and click "Capture".  
The captured images will be shown in the window. Select the image you want and click "Capture".
5. The selected image will shown within the "mask" on the selected template. You can play with the image by using the function icons.

### Using live images:-

6. You can also capture a live shot when your **SPYPEN LUXO** is connected to your PC by the following steps:
  7. Click "Get Fantasy" to select the template in the existing library and then click "OK" to confirm.

 **Important! Make sure the "Digital Camera" CD-ROM is in the CD-ROM Drive.**

8. Click the "Camera front icon" on the top to start the live shot mode. A Video for Windows Driver Options window will pop up. Select "STV0680 Camera" and click "OK".

9. Click the "Round icon" on the top to start live shooting. The image captured will be shown within the "mask" on the selected template. Click the "Camera Back icon" to capture the live shot you want.

10. You can resize, rotate or reposition the images by using the function icons shown on the right hand side or reposition the image using your mouse and dragging the image.



- For further help on how to use ArcSoft PhotoFantasy™ 2000, go to "Help" to access the Help Topics.  
Visit <http://www.arcsoft.com> for all your FAQ's, tips and technical support. See Section 13 for more details.

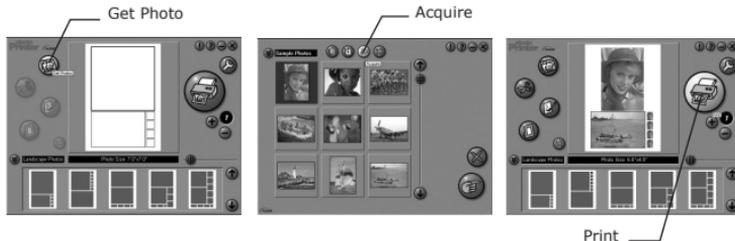


### 11.3 How to use ArcSoft PhotoPrinter® 2000

PC

- Select the "PhotoPrinter™ 2000" icon from the "ArcSoft Camera Suite" program group on the Windows® Start Menu.
- Choose the "Page Layout". The selected page layout will on shown.
- Click "Get Photo" and then "Acquire". Select "STV0680 Camera" as source. The capture interface will show up. To capture 1 image, select the wanted image and click "Capture".
- The captured images will be shown on the photo library panel. Select the image you want and click "OK".
- The selected image will be shown on the chosen template. Click "Print" when finish placing the images.
- For further help on how to use ArcSoft PhotoPrinter® 2000, click the "?" on the top right hand corner to access the Help Topics.

Visit <http://www.arcsoft.com> for all your FAQ's, tips and technical support. See Section 13 for more details.



## 11.4 How to use ArcSoft VideoImpression™ 1.6

Lets make a video!

Follow these basic steps to make your first video.

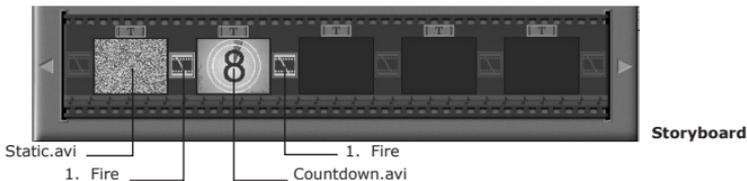
Step 1 Click on new Icon.

Step 2 Using the  selector button select video templates.

Step 3 Double click on the Static.avi screen in the video template selection and a copy will appear in the first large frame on the storyboard on the bottom.

Step 4 Double click on the small frame directly right of the large frame. A new template will appear at the top called "special effects". Double click on the "1. Fire" special effect which will now drop into the special effect frame you highlighted.

Step 5 Double click on the next right large frame and repeat step 3 using a video template and double click template 5. Countdown.avi. Repeat step 4.



Adding an existing video.

Step 6 To add a video you have already made double click on the next large frame in the story board to the right. Click on the "Get" icon and select a video you had made and filed in the folder called "album" click on Get, with the selector click on the down arrow and select desktop and then double click on "Album" folder and select a file ending with mov (video file) the video will appear in the video templates. Double click on the video and it will appear just like other video templates in the storyboard. Now go to step 10.

Alternatively you can produce a live video.

Ensure your **SPYPEN LUXO** is connected to the computer via the USB cable. Click on the capture icon.

Step 7 And press the  record icon. Wait for the video link to go live and now you're recording, press the ESC key on your keyboard to end the video.

Step 8 Press the "Save" icon and name your file, and then press "save". Video impression will ask you where you want to place your video. Select "video template".

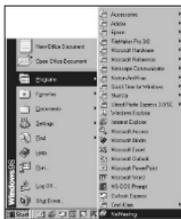
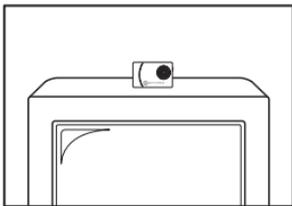
Step 9 Select the "album" icon and your video clip you have just produced will appear in the video templates. Double click on your video, your video will now drop into the storyboard.

Running the video.

Step 10 Select the "play movie" icon  which will assemble your video together. Press the  play icon to watch your completed video. Watch to see how the special effects merge between the frames on the story board. Now you try to make your own and also try the audio template.

## 11.5 How to use Microsoft® NetMeeting™

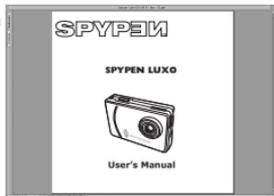
1. Connect your **SPYPEN LUXO** to the USB cable on one end.
2. Connect your USB cable to an available USB port on your PC on the other end.
3. Put your **SPYPEN LUXO** on top of your PC monitor or another flat surface.
4. Connect your microphone (not included) to your audio card's external microphone connector.
5. Double click the "NetMeeting" icon on the desktop or select the "NetMeeting" icon from the Windows Start Menu.
6. Type in the IP address, computer name or telephone number for the person you want to call and press the "Place Call" button.  
To find your own IP address, go to "Start" and click "Run". Type in "winipcfg" and click "OK", IP configuration window will appear and you can see your IP address.
7. If you need further help on how to use Microsoft® NetMeeting™, select the "Help" under the manual bar and choose the topic you need. Or you can visit the following website:  
<http://www.microsoft.com/windows/netmeeting>



## 11.6 How to use Adobe® Acrobat® Reader

Adobe® Acrobat® Reader enables you to view document in .pdf format.

For more details go to [www.adobe.com/acrobat](http://www.adobe.com/acrobat).



## 11.7 How to use PhotoStudio® 2000

### For Macintosh® Users



1. Before you use PhotoStudio® 2000, make sure the "STV0680 Capture"/"WWL Mac Import" is placed in the Plug-ins folder in the PhotoStudio folder.
2. Double click the "PhotoStudio®" icon from the PhotoStudio® You can now start to download your stored images from your **SPYPEN LUXO** by the following steps:
  3. Go to "File" and then select "STV0680 Capture"/"USB Camera Import". The capture interface will show up.
    - To capture 1 image, select the wanted image and click "Import". Click "Close" to leave the capture interface.
    - To capture all images, click "Select All" and then click "Import". Click "Close" to leave the capture interface.You can now edit your image(s) with PhotoStudio's features.
  4. For further help on how to use PhotoStudio® 2000, go to "Help" to access the Help Topics.  
Visit <http://www.arcsoft.com> for all your FAQ's, tips and technical support. See Section 13 for more details.



STV0680 Capture  
Import file with  
enhancement



WWL MAC Import  
Import file without  
enhancement



## 11.8 How to use ArcSoft PhotoFantasy™ 2000

1. Double click the "PhotoFantasy™" icon from the PhotoFantasy™.
2. Click "Get Fantasy" to select the template in the existing library and then click "OK" to confirm.



**Important!** Make sure the "Digital Camera" CD-ROM is in the CD-ROM Drive.

3. Double click on "Get Photo 1" and click "Add". Find the image you want which you have already saved in your hard disk and click "Open". The selected images will be shown on the left hand side. Click "OK".



- The selected image will shown within the "mask" on the selected template. You can resize, rotate or reposition the image by using the function icons show in the right hand side or reposition the image using your mouse and dragging the image.
- For further help on how to use ArcSoft PhotoFantasy™ 2000, go to "?" at the top right hand corner to access the Help Topics.

Visit <http://www.arcsoft.com> for all your FAQ's, tips and technical support. See Section 13 for more details.



"Mask"



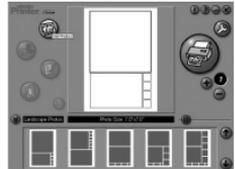
## 11.9 How to use ArcSoft PhotoPrinter® 2000

- Double click the "PhotoPrinter" icon from the PhotoPrinter.

 **Important!** Make sure the "Digital Camera" CD-ROM is in the CD-ROM Drive.

- Choose the "Page Layout". The selected page layout will on shown on the right panel.
- Click "Get Photo" and then "add photo". Find the image you want which you have already saved in your hard disk and click "Open".
- The selected images will be shown on the photo library panel. Select the image you want and click "OK".
- The selected image will be shown on the chosen template. Click "Print" when finish placing the images.
- For further help on how to use ArcSoft PhotoPrinter® 2000, click the "?" on the top right hand corner to access the Help Topics.

Visit <http://www.arcsoft.com> for all your FAQ's, tips and technical support. See Section 13 for more details.



## 11.10 How to use ArcSoft VideoImpression™ 1.5



Lets make a video!

Follow these basic steps to make your first video.

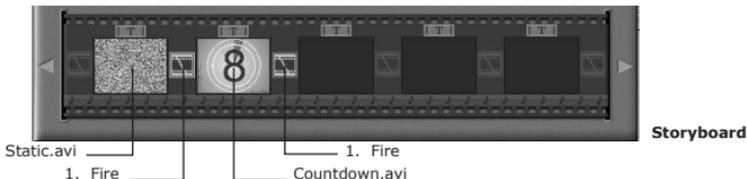
Step 1 Click on new Icon.

Step 2 Using the  selector button select video templates.

Step 3 Double click on the Static.avi screen in the video template selection and a copy will appear in the first large frame on the storyboard on the bottom.

Step 4 Double click on the small frame directly right of the large frame. A new template will appear at the top called "special effects" Double click on the "1. Fire" special effect which will now drop into the special effect frame you highlighted.

Step 5 Double click on the next right large frame and repeat step 3 using a video template and double click template 5. Countdown.avi. Repeat step 4.



Adding an existing video.

Step 6 To add a video you have already made double click on the next large frame in the story board to the right. Click on the "Get" icon and select a video you had made and filed in the folder called "album" click on Get, with the selector click on the down arrow and select desktop and then double click on "Album" folder and select a file ending with mov (video file) the video will appear in the video templates. Double click on the video and it will appear just like other video templates in the storyboard. Now go to step 10.

Alternatively you can produce a live video.

Ensure your **SPYPEN LUXO** is connected to the computer via the USB cable. Click on the capture icon.

Step 7 And press the  record icon. Wait for the video link to go live and now you're recording, press the ESC key on your keyboard to end the video.

Step 8 Press the "Save" icon and name your file, and then press "save". Video impression will ask you where you want to place your video. Select "video template".

Step 9 Select the "album" icon and your video clip you have just produced will appear in the video templates. Double click on your video, your video will now drop into the storyboard.

Running the video.

Step 10 Select the "play movie" icon  which will assemble your video together. Press the  play icon to watch your completed video. Watch to see how the special effects merge between the frames on the story board. Now you try to make your own and also try the audio template.

## 11.11 How to use CU-SeeMe™

**Warning!** Using CU-SeeMe™ will erase all images stored in your **SPYPEN LUXO**. Make sure you upload all wanted images before using CU-SeeMe™.

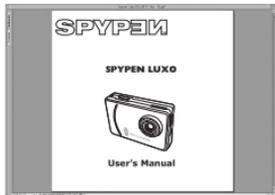
1. Connect your **SPYPEN LUXO** to the USB cable on one end.
2. Connect your USB cable to an available USB port on your Mac on the other end.
3. Put your **SPYPEN LUXO** next to your Mac monitor or another flat surface.
4. Connect your microphone (not included) to your audio card's external microphone connector.
5. Double click the "CU-SeeMe™" icon from the CU-SeeMe™ folder.
6. Go to "Edit" and then "Preference". Edit your settings, e.g. video title, connection settings, etc.
7. Go to "Conference" and click "Connect". Type in the Hostname and IP address for the person you want to call and press "Connect".
8. To find your own IP address, go to "Control Panel" and then "File Sharing". You will be able to see your IP address under the "Start/Stop" partition.
9. For further help on how to use CU-SeeMe™, you can visit the following website: <http://www.cuseeme.com>



## 11.12 How to use Adobe® Acrobat® Reader

Adobe® Acrobat® Reader enables you to view document in.pdf format

For more details go to [www.adobe.com/acrobat](http://www.adobe.com/acrobat)



## 12. Customer Support

### **plawa-feinwerktechnik GmbH & Co. KG**

Bleichereistr. 18  
73066 Uhingen - Germany  
Helpline: +49 (7161) 93872-0 (English, Deutsch)  
Website: [www.spypen.com](http://www.spypen.com), [www.plawa.de](http://www.plawa.de)  
Email: [support@plawa.de](mailto:support@plawa.de)

## 13. ArcSoft WorldWide Customer Support

### **For Japan**

ArcSoft Japan Support Centre (Tokyo)  
Tel: +81-03-3834-5256  
Fax: +81-03-5816-4730  
Web: <http://www.mds2000.co.jp/arcsoft>  
E-mail: [japan@arcsoft.com](mailto:japan@arcsoft.com) and  
[support@mds2000.com](mailto:support@mds2000.com)

### **For China**

ArcSoft China Support Centre (Beijing)  
Tel: 8610-6849-1368  
Fax: 8610-6849-1367  
E-mail: [china@arcsoft.com](mailto:china@arcsoft.com)

### **For Oceania**

ArcSoft Australian Support Centre  
(Baulkham Hills, New South Wales)  
Tel: 61 (2) 9899-5888  
Fax: 61 (2) 9899-5728  
E-mail: [support@supportgroup.com.au](mailto:support@supportgroup.com.au)

### **For North America**

ArcSoft HQ Support Centre  
(Fremont California, CA)  
Tel: 1-800-762-8657 (toll free number)  
Fax: 1-510-440-1270  
E-mail: [support@arcsoft.com](mailto:support@arcsoft.com)

### **For North America**

ArcSoft HQ Support Centre  
(Fremont California, CA)  
Tel: 1-800-762-8657 (toll free number)  
Fax: 1-510-440-1270  
E-mail: [support@arcsoft.com](mailto:support@arcsoft.com)

### **For Europe/Middle East/Africa & Rest of the World**

ArcSoft Europe Support Centre (Ireland)  
Tel: +353-(0) 61-702087  
Fax: +353-(0) 61-702001  
E-mail: [europe@arcsoft.com](mailto:europe@arcsoft.com)

Visit [www.arcsoft.com](http://www.arcsoft.com) or go to Start -> Programs -> ArcSoft Camera Suite -> Web Services for tips, technical support and frequently asked questions (FAQ's).

## 14. Troubleshooting

The troubleshooting guide is designed to help you. If problems continue, please contact your local customer support hot-line. See your registration card for helpline contact details.

**For Windows® Users:**

**PC**

Symptom	Solution	Problem
I receive an error message when I am installing the <b>Digital Camera Manager</b> .	<b>Digital Camera Manager</b> does not load.	Shut down all other applications and attempt to re-install the driver, or download the updated driver from <a href="http://www.spypen.com">www.spypen.com</a> and install the updated driver. Check the USB controller in your BIOS if they are activated. If these does not work contact your national Customer Support representative.
<b>Digital Camera Manager</b> folder is not found in the Programs menu after I have installed the driver.	The installer for the <b>Digital Camera Manager</b> requires the <b>SPYPEN LUXO</b> be connected to the PC (via the USB) after the software has been installed & the PC restarted.	Install the software, restart your PC, and finally, connect the <b>SPYPEN LUXO</b> to the PC via the USB port, then the software folder will appear in the Program menu.
All the images I have taken do not appear on the <b>SPYPEN LUXO</b> .	You have lost power to your <b>SPYPEN LUXO</b> by either: Insufficient battery power	Upload all images to your PC as soon as possible. (please refer to Battery Guidance section in User's Manual.)
	Removing the battery without being connected to your PC (turned on) via the USB cable.	If you need to change batteries, and retain the images in your <b>SPYPEN LUXO</b> 's memory, ensure you are connected to a PC which is turned on via the USB cable, which will then draw power from the PC whilst you insert fresh batteries.
I cannot upload images to the PC	Connection failure	Check all cables connections are secured.
LCD display is flashing.	Battery power is too low to continue taking images.	Upload saved images immediately, then replace battery.
I cannot run the <b>Digital Camera Manager</b> .	Conflict with another camera driver capture device.	If you have any other camera installed on your computer, remove the camera and it's driver completely from your system to avoid conflict with another camera or capture device.
Black corner appears on the images taken.	Lost corner of images.	Make sure you slide the lens cover to the desired position.
I hear a low "beep" when trying to take an image.	Insufficient light.	Take your images in better light condition. Check your lens cover is open.
I cannot access any PhotoFantasy's templates.	No CD in CD-ROM drive.	Put <b>SPYPEN LUXO</b> CD in CD ROM drive.
My CD Installation wizard does not work.	The auto installation file is switched to off. The CD ROM is disconnected.	Go to the computer desktop. Right click on "My Computer". Click "Properties". Select "Device Manager". Double click on "CD-ROM", double click on "CD-R" (normally the manufacturer's name). Click on "Settings". Ensure "Auto insert notification" is ticked and the "disconnect" is ticked. If you change the settings the computer will ask you to restart your PC. Click "Yes".

**Please also refer to the help files & User Guides that accompany the enclosed applications. For further information and support, please visit our website: <http://www.spypen.com>**



Symptom	Solution	Problem
I receive an error message when I am installing the <b>Digital Camera Manager</b> .	<b>Digital Camera Manager</b> does not load.	Shut down all other applications and attempt to re-install the driver, or download the updated driver from <a href="http://www.spypen.com">www.spypen.com</a> and install the updated driver.
"STV0680 Capture"/"WWL Mac Import" plug-in file and STV0680 Camera Snapshots/"WWL Mac" folder is not found in the Programs menu after I have installed the driver.	The installer for the <b>Digital Camera Manager</b> requires the <b>SPYPEN LUXO</b> be connected to the Mac (via the USB) after the software has been installed & the Mac restarted.	Install the software, restart your Mac, and finally, connect the <b>SPYPEN LUXO</b> to the Mac via the USB port, then the plug-in file and folder will appear in the Hard disk.
All the images I have taken do not appear on the <b>SPYPEN LUXO</b> .	You have lost power to your <b>SPYPEN LUXO</b> by either:  Insufficient battery power	Upload all images to your Mac as soon as possible. (please refer to Battery Guidance section in User's Manual.)
	Removing the battery without being connected to your Mac (turned on) via the USB cable.	If you need to change batteries, and retain the images in your <b>SPYPEN LUXO</b> 's memory, ensure you are connected to a Mac which is turned on via the USB cable, which will then draw power from the Mac whilst you insert fresh batteries.
I cannot upload images to the Mac	Connection failure	Check all cables connections are secured.
LCD display is flashing.	Battery power is too low to continue taking images.	Upload saved images immediately, then replace battery.
I cannot run the <b>Digital Camera Manager</b> .	Conflict with another camera driver capture device.	If you have any other camera installed on your computer, remove the camera and it's driver completely from your system to avoid conflict with another camera or capture device.
Black corner appears on the images taken.	Lost corner of images.	Make sure you slide the lens cover to the desired position.
I hear a low "beep" when trying to take an image.	Insufficient light.	Take your images in better light condition.
		Check your lens cover is open.
I cannot access any PhotoFantasy's templates.	No CD in CD-ROM drive.	Put <b>SPYPEN LUXO</b> CD in the CD-ROM drive.

**Please also refer to the help files & User Guides that accompany the enclosed applications. For further information and support, please visit our website: <http://www.spypen.com>**

## 15. Battery Guidance

### **WARNINGS!**

- Batteries should be replaced by an adult.
- Non-rechargeable batteries are not to be recharged.
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with the correct polarity.
- Exhausted batteries are to be removed from the camera.
- The supply terminals are not to be short-circuited.
- Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries.
- Do not dispose the batteries in fire.
- Batteries are to be removed from the camera when not in use.
- Do not use rechargeable batteries.
- These instructions should be retained for future reference.

## 16. Technical Specifications

### VGA Camera Version

- Memory: 8 Mbyte SDRAM
- Image Performance for Video on Web-cam: QCIF - 20 fps
- Still Image: High Resolution - 640 x 480 pixel (Software enhanced to 1.3 Megapixel for PC only)  
Low Resolution - 320 x 240 pixel (Software enhanced to 640 x 480 pixel for PC only)
- Storable Images: High Resolution - 26 images  
Low Resolution - 107 images
- Video Clip: unlimited when connected to the computer via video capture software
- File Format: For Windows® Users (Still/Video Image - BMP/AVI format)  
For Macintosh® Users (Still/Video Image - BMP or PICT/AVI or MOV format)
- Interface: USB
- External Connector: USB
- Auto Power Off: 30 seconds after inactivity
- Power Supply: USB Port, 2 x AAA Batteries built-in rechargeable battery
- Operating System: For Windows® Users: Microsoft® Windows® 98, 98SE, Me, 2000 or XP  
For Macintosh® Users: Mac™ OS Version 8.6 ~ 9.2

This **SPYPEN LUXO** should only be operated within the following environmental conditions:

- 41-104° Fahrenheit; 5-40° Celsius
- 20% - 85% relative humidity, non-condensing



### Camera Cautions

- Never immerse any part of the **SPYPEN LUXO** or its components into any fluid or liquid.
- Disconnect the **SPYPEN LUXO** from your PC or Mac before cleaning it.
- Remove dust or stains with a soft cloth dampened with water or neutral detergent.
- Do not place hot items on the surface of the **SPYPEN LUXO**.
- Do not attempt to open or disassemble the **SPYPEN LUXO**. This will affect any warranty claim.

## 17. FCC Notice

This device complies with Part 15 of 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.

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

NOTE: This equipment has been tested and found to comply with the limits for 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 needed.
- Consult the dealer or an experienced radio/TV technician for help. Shielded cable must be used with this unit to ensure compliance with the Class B FCC limits.