Dino-Lite Handheld Digital Microscope AM-311

User's Manual

Thank you for choosing Dino-Lite Handheld Digital Microscope!

Dino-Lite Handheld Digital Microscope has a wide scope of applications, such as,

- 1. Skin Check
- 2. Scalp Check

3. Industrial Inspection e.g. Printing Circuit Board(PCB)inspection, electronics device inspection

- 4. Visual Assistance
- 5. Printing Inspection
- 6. Textile Inspection
- 7. Jewelry Inspection
- 8. Science Learning
- 9. etc.

Please read this manual carefully before using Dino-Lite Handheld Digital Microscope.

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Product Specifications

- 1. Resolution : 640*480 VGA.
- 2. Built-in 1 optical lens.
- 3. Magnification power : $10x \sim 200x$.
- 4. Built-in LED light.
- 5. Frame rate : up to 30 FPS
- 6. Interface : USB (PC)

Remarks: The magnification power is the ratio of the real size of the an observe object vs. the image show on a 15'' monitor

Safety Precautions



- 1. Avoid touching the lens with finger to protect the product from electrostatic damage.
- 2. Do not attempt to service this product yourself. Opening the covers may expose you to dangerous voltage points or other risks.
- 3. When hands are wet, do not plug in or remove the adaptor or other connectors.
- 4. Using or storing Dino-Lite Handheld Digital Microscope, do not plug in any other cables, not belong to Dino Digital Microscope.
- 5. Do not use any detergent or volatile solution, which will damage the camera case, painted surfaces & lens. Only use a soft cleaning cloth.
- If the lens is dirty, please use a kens brush on soft cloth to wipe clean. Avoid touching them with your fingers. Exercise care to avoid scratching the lens.
- 7. Without protection, do not put_Dino Digital Microscope outdoor to avoid the lens damaged by high temperature or humidity.
- Using and storing Dino Digital Microscope at Temp: 0°C~ 40°C, Humidity: 45%~85%.
- 9. If water has entered_Dino Digital Microscope device and the inspection stage, immediately turn the power off and remove the USB cable. Do not use dryer neither.
- 10. Using or storing Dino-Lite Handheld Digital Microscope, need to watch all cables to avoid trip over or Dino-Lite Handheld Microscope fall down.
- 11. To avoid electric shock, remove all electricity source before moving PC or

Contents and Name of Parts

- 1. Dino-Lite Handheld Digital Microscope Device
- 2. CD (user's manual included)
- 3. USB Cable $\langle USB2.0 \ / \ 1.1 \ \rangle$ (1.8m)
- 4. Dock



Connecting to PC



System Requirements

- PC's system requirements:
 - ✓ OS: Windows 98se, 2000, XP
 - ✓ CPU: Pentium IV 1.5G, Celeron, AMD Athlon or above
 - ✓ Memory: 128MB
 - ✓ HDD storage space: at least 150MB

- (for driver and application software installation)
- ✓ Graphic card: 16-bit or above
- ✓ CD-ROM driver
- ✓ USB2.0 / 1.1 port

Driver Installation Procedure

Power on PC and place installation CD into CD-ROM driver, do not connect USB Cable from Dino-Lite Handheld Digital Microscope to PC before driver installation.



- Select driver installation, and follow the instructions to complete installation.
- As driver installation completed, and if system asking for re-start, please re-start the Windows OS.

Note: The driver needs to be installed only once for each computer.

Windows XP

- 1. Place the installation CD into CD-ROM driver, the installation program should be started automatically. Otherwise, please execute the AUTORUN.EXE directly from the CD.
- 2. Select "Driver Installation" from Dino-Lite Handheld digital Microscope Installation menu screen as shown.



3. Click "Next" to continue, as shown.



Dino Digital Microscope Setup	×
Choose Destination Location Select folder where setup will install files.	
Setup will install Dino Digital Microscope i	n the following folder.
To install to this folder, click Next. To inst another folder.	all to a different folder, click Browse and select
 Destination Folder 	
C:\Program Files\Dino	Browse
InstallShield	
	< <u>B</u> ack Next> Cancel
Dias Distal Misson and Catur	

Dino Digital Microscope Setup	×
Select Program Folder Please select a program folder.	
Setup will add program icons to the Program F name, or select one from the existing folders lis	older listed below. You may type a new folder t. Click Next to continue.
Program Folder:	
Existing Folders: Accessories Administrative Tools Games IDEUtil Realtek Sound Manager SiS 661FX_760_741_M661FX_M760_M741 Startup	
InstallShield	< Back Next > Cancel

Dino Digital Microscope Setup Start Copying Files Review settings before copying files.	X
Setup has enough information to start co change any settings, click Back. If you copying files.	pying the program files. If you want to review or are satisfied with the settings, click Next to begin
Current Settings:	
Target Directory: C:\Program Files\Dino Program Folder: Dino Digital Microscope	
nstallShield	
	< <u>B</u> ack Next> Cancel

4. When the "Software Installation" warning message appears, click "Continue Anyway".



5. Click "Finish" to complete the installation.



6. Plug USB Cable to Dino-Lite Handheld Digital Microscope to connect with PC, a "Found New Hardware Wizard" will then appear. Click "Next" to continue.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard This wizard helps you install software for: Dino Digital Microscope Image: Straight of the software came with an installation CD or floppy disk, insert it now. What do you want the wizard to do? Install the software automatically [Recommended] Install the software automatically [Recommended] Install from a list or specific location (Advanced) Click Next to continue.
Found New Hardware Wizard Please wait while the wizard searches
Dino Digital Microscope
< Back Next > Cancel
Hardware Installation
Image: Continuing you are installing for this hardware: Dino Digital Microscope has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway STOP Installation



Windows 2000

- 1. Place the installation CD into CD-ROM driver, the installation program should be started automatically. Otherwise, please execute the AUTORUN.EXE directly from the CD.
- 2. Select "Driver Installation" from Dino-Lite Handheld digital Microscope Installation menu screen as shown.



3. Click "Next" to continue, as shown.



Dino Digital Microscope Setup	×
Choose Destination Location	and the second s
Select folder where setup will install files.	
Setup will install Dino Digital Microscope in the followin	g folder.
To install to this folder, click Next. To install to a differe another folder.	nt folder, click Browse and select
Destination Folder	
C:\Program Files\Dino	Browse
InstallShield	
< <u>E</u>	ack Next >

Dino Digital Microscope Setup	x
Select Program Folder	and the second se
Please select a program folder.	
Setup will add program icons to the Program Fo name, or select one from the existing folders list	lder listed below. You may type a new folder .: Click Next to continue.
Program Folder:	
Dino Digital Microscope	
Existing Folders: Accessories Administrative Tools IDE Util Realtek Sound Manager SiS 661FX_760_741_M661FX_M760_M741 Startup	
InstallShield	
	< Back Next > Cancel
Dino Diaital Microscope Setup	Y
Start Conving Files	A
Review settings before copying files.	
Setup has enough information to start copying change any settings, click Back. If you are sa copying files.	the program files. If you want to review or tisfied with the settings, click Next to begin
Current Settings:	
Target Directory:	A
Program Folder: Dino Digital Microscope	
	F
InstallShield	

4. When the "Digital Signature Not Found" warning message appears, click "Yes" to continue the installation.



5. Click "Finish" to complete the installation.



6. Plug USB Cable to Dino-Lite Handheld Digital Microscope to connect with PC

Found New Hardware	
Dino Digital M Installing	icroscope
Digital Signature Not Fou	nd 🔀
	The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested. The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows. Dino Digital Microscope If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available. Do you want to continue the installation?
	Yes No More Info

Windows 98se

- 1. Place the installation CD into CD-ROM driver, the installation program should be started automatically. Otherwise, please execute the AUTORUN.EXE directly from the CD.
- 2. Select "Driver Installation" from Dino-Lite Handheld digital Microscope Installation menu screen as shown.



3. Click "Next" to continue, as shown.



ino Digital Microscope Setup Choose Destination Location	×
Select folder where setup will inst	all files.
Setup will install Dino Digital Micro	oscope in the following folder.
To install to this folder, click Next. another folder.	To install to a different folder, click Browse and select
- Destination Folder	
C:\Program Files\Dino	B <u>r</u> owse
stallShield	
	< Back Next > Cancel

Dino Digital Microscope Setup
Select Program Folder Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folder: Dino Digital Microscope
Existing Folders: Accessories Dnline Services Realtek Sound Manager SIS 661FX_760_741_M661FX_M760_M741 StartUp System Commander
InstallShield Cancel

Dino Digital Microscope Setup		×
Start Copying Files Review settings before copying files.		
Setup has enough information to start copying change any settings, click Back. If you are sat copying files.	the program files. If you want to isfied with the settings, click Ne	o review or ext to begin
Current Settings:		
Target Directory: C:\Program Files\Dino Program Folder: Dino Digital Microscope		* * *
InstallShield	< Back	Cancel

4. Click "Finish" to complete the installation.



5. Plug USB Cable to Dino-Lite Handheld Digital Microscope to connect with PC







his device.		
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	- 32 Floppy (A:)	
	Partion I (L:)	
	W Dino (D:)	
•		
	Win2000	
	Win98	
	WinME	
	WinXP	
	🕀 🧰 Menu	
	🛄 User Menu	
	Printers	



6. When the following message appears, please insert the Windows 98 Second Edition CD-ROM.







Connecting Procedure

The following procedure will show you how to properly connect Dino-Lite Handheld Digital Microscope with your PC.

Connect USB Cable on Microscope Device to PC USB port.



Operate Dino-Lite Handheld Digital

Microscope

The following procedure will show you how to operate Dino Digital Microscope.

- 1. To have up-right image, suggest placing Dino-Lite Handheld Digital Microscope as shown.
- 2. Put the to-be-observed object near the Dino-Lite Handheld Digital Microscope.



3. Adjust the focus: Use the thumb to rotate the area A as shown.



4. The magnification power will be higher if Dino-Lite Handheld Digital Microscope is closer to the observed object.

Remark: Can also use Video Setting function of DinoCapture for image adjustment. (Please refer to page 25)

5. When the object is located at the top of the front cap, there are two focus positions, each with different magnification power, can be found by rotating the focus knob.

DinoCapture Application Software

Note: Before start DinoCapture, please make sure Dino-Lite Handheld Digital Microscope has been connected to PC via USB.

Click DinoCapture, the DinoCapture main screen will be shown as below.



The right hand side display the real-time image under the microscope. If Dino-Lite Handheld Digital Microscope has not been found while opening the DinoCapture, the message will be prompted as below.



Tool Bar Description



Take Picture



Take Video



Take Time Lapsed Video

J Save as



Picture / Video Folder

Picture / Video folder is on the left side of the program, which contains the thumbnails of picture or video captured by the program.

The file in the folder will not be automatically deleted when leaving the program. But it is still suggested to save the picture or video and keep the folder clean for file security and program's performance concern.

Thumbnail Notation

Grey shadow -- The picture or video has not yet been saved.



Orange shadow -- The picture or video has been saved.



Blue frame -- The picture or video is selected. The selected picture or video can thus be opened, be saved, be copied , be shared, be mailed or be deleted.



Take Picture

The picture can be taken either by clicking the icon on Tool Bar or by selecting "Picture" under Capture Menu.



Take Video

The Video can be taken either by clicking the ¹ icon on Tool Bar or by selecting "Video" under Capture Menu.



Take Time Lapsed Video

The Time Lapsed Video can be taken either by clicking the icon on Tool Bar or by selecting "Frames" under Capture Menu.



Save Picture or Video

The file can be saved as "jpg" or "bmp", by either clicking in the Tool Bar or by selecting "Save as" under the File Menu . The selected file in the folder will then be saved as prompted below.



Mail

Click "Mail" : The file name is same as system's.

The selected file can be mailed by clicking \square in the Tool Bar, or by selecting "Mail" under the File Menu.

🕩 New	Mess	age -	Unicode	e (UTF-8)			
Eile	<u>E</u> dit	⊻iew	Insert	Format	Tools	<u>M</u> essage	Help	- 🥂
📑 Send		X Cut	Сору	Paste	LIND OF	S Che	c k	>>
🛐 To:								
🛐 Cc:								
Subject:								
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Share

Click "share" in the File Menu.

Save As						? 🔀
Save jn:	🗀 DinoShare		~	G 🕫	• 📰 🔊	
My Recent Documents	💼 aaa.jpg					
My Documents						
My Computer	File <u>n</u> ame:	I			~	<u>S</u> ave
My Network	Save as <u>t</u> ype:	JPEG Files (*.ipg)			~	Cancel

Full Screen Display: 📓

The real time display can be enlarged to full screen by clicking M on the upper right corner of the window.

To return from full screen mode, please click "Esc".

Menu Function List

1. File Menu

Open	To open the selected picture or video.
Save As	To save the selected picture or video.
Share	Save the picture or video file to DinoShare folder, under the
	Shared Document.
Mail	To mail the selected picture or video.
	The picture will be mailed in JPG format automatically.
Delete	To delete the selected picture or video.

Delete All – To delete all the files in selected folder, picture or video.

On display thumbnail picture, click mouse right key, the functions showed are same as file's.



2. Setting



Audio Setting

The user can select the quality of audio file to be recorded.

Select Sou	nd Format 🛛 🔀
<u>N</u> ame: [[untitled]	Save As <u>R</u> emove
<u>F</u> ormat:	PCM 💌
<u>A</u> ttributes:	11.025 kHz, 8 Bit, Mono 10 kb/sec 💌
	OK Cancel

Video Setting

The user can set the parameter of video. Note: The resolution setting is not useful.

leo Source			1
roperty Page	Capture Source		
Image Adjust			
Brightness	•	()	+
Saturation	•	()	+
Sharpness	•	()	+
Gamma			CRT 🔽 LCD
Environment-			
	 AWB 	🔿 DayLigh	it
	🔿 Tungsten	O Fluoresc	cent
		CRotate Canv	as
🗹 Flicker	◯ 50HZ	🗹 Flip Hori	zontal
	📀 60HZ	🔽 Flip Vert	ical
Still Image : V0	A To Other Resol	ution	Caus All
📀 640 x 480) 🔿 102	24 x 768	5 ave All
🔘 800 x 600) 🔿 128	30 x 960	Load Default
			And

Video Compression Setting

The user can select the compressor for video recording. Note: The video quality may be varied with different compressor.



Video Thumbnail Auto-play

The thumbnail auto play can be switched on or Off. If thumbnail auto play is enabled, the video will play when cursor move over.

16

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in the Tool Bar.

3. Capture

The picture, video and frame functions in Capture have the same

10

functions as the buttons of



4. Help

User can use "Program Updates" in Help to download the most updated DinoCapture from AnMo web site <u>www.anmo.com.tw</u>



Open The Picture

The opened picture can be displayed in full screen by clicking Mathematical To return from full screen mode, just click the mouse left key.



Function Description



E Previous Picture



Next Picture



Share the Picture by sending the file to DinoShare under the

Shared Document





Open The Video Or Time Lapsed Video



Function Description



Q&A

Q1. Why the object cannot be found on the display of digital microscope?

A: a. Please check all the connection of all necessary cable and adapter. Dino-Lite Handheld Digital Microscope User's Manual

- Q2. Why cannot work, when connect to PC?
- A: a. Check driver installation is completed.b. The USB cable is connected to Dino-Lite Handheld Microscope and PC USB port.
- Q3. How to install driver?
- A: a. Do not connect USB cable to Dino-Lite Handheld Microscope before driver installation.
 - b. Place installation CD into CD-Rom driver, select "driver installation".
- Q4. If USB cable connected to Dino-Lite Handheld Digital Microscope before driver installation?
- A: Remove USB cable from Dino-Lite Handheld Digital Microscope for 5 sec., and then plug it back to Dino-Lite Handheld Digital Microscope.
- Q5. How to connect "DinoCapture" ?
- A: Complete driver installation, connect USB cable to Dino-Lite Handheld Digital Microscope, and then Execute "DinoCapture" application procedure.
- Q6. How to uninstall driver ?
- A: Remove USB cable from Dino-Lite Handheld Digital Microscope, execute "uninstall" in application procedure "Dino Digital Microscope".
- Q7. When connecting to PC, why the picture is slow or unsmooth?
- A: a. Probably your PC's configuration is not sufficient enough. Please check the system requirements as mentioned in this User's Manual.
 - b. Probably your PC's CPU or memory is overloaded by executing too many application software. Try to shut down other application and restart your system to release the memory.
 - c. Probably your system has being attacked by virus, which may dramatically degrade your system's performance.
- Q8. What should we do, if Dino-Lite Handheld Digital Microscope is not working normally?
- A: Please reset the system by disconnecting all the cables from Dino-Lite Handheld Digital Microscope. Wait for about 5 sec., re-connecting the cables to restart.

Copyright

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Windows 98se, Windows 2000 and Windows XP are Microsoft company's trademark.

Certification

CE, FCC





Limited Liability

The manufacturer, importer, and the dealer cannot be held responsible for accidental damage, including personal injury or any other damage, due to inappropriate usage of the product.

Information in the user manual is written for the current specification of the product. The manufacturer of Dino Digital Microscope continues to provide additional functions and apply new technology to it. All specifications may be changed without notice to individual users.