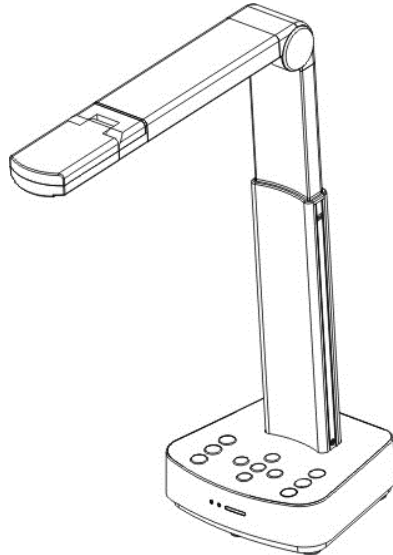


DC-W80 Document Camera

User Manual - English



[Important]

To download the latest versions of the Quick Start Guide, multilingual user manual, software, driver, etc., please visit Lumens

<https://www.MyLumens.com/support>

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Copyright Information

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In order to keep improving the product, Lumens Digital Optics Inc. hereby reserves the right to make changes to product specifications without prior notice. The information in this file is subject to change without prior notice.

To fully explain or describe how this product should be used, this manual may refer to names of other products or companies without any intention of infringement.

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Chapter 1 Safety Instructions

Always follow these safety instructions when setting up and using the DC-W80 Document Camera:

1 Operation

- 1.1 Please use the product in the recommended operating environment, away from water or source of heat
- 1.2 **Do not place product in tilted position or unstable trolley, stand or table.**
- 1.3 Please clean the dust on the power plug prior to usage. Do not insert the product's power plug into a multiplug to prevent sparks or a fire.
- 1.4 Do not block the slots and openings in the case of DC-W80 Document Camera. They provide ventilation and prevent the DC-W80 Document Camera from overheating.
- 1.5 Do not open or remove covers, otherwise it may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
- 1.6 Unplug the DC-W80 Document Camera from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
 - If the power cords are damaged or frayed.
 - If liquid is spilled into the product or the product has been exposed to rain or water.

2 Installation

- 2.1 For security considerations, please make sure the standard hanging rack you bought is in line with UL or CE safety approvals and installed by technician personnel approved by agents.

3 Storage

- 3.1 Do not place the product where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
- 3.2 Unplug the product during thunderstorms or if it is not going to be used for an extended period.
- 3.3 Do not place the product or accessories on top of vibrating equipment or heated objects.



4 Cleaning

- 4.1 Disconnect all the cables prior to cleaning and wipe the surface with a dry cloth. Do not use alcohol or volatile solvents for cleaning.

5 Batteries (for products or accessories with batteries)

- 5.1 When replacing batteries, please only use similar or the same type of batteries.
- 5.2 When disposing of batteries or products, please adhere to the relevant instructions in your country or region for disposing of batteries or products.

■ Precautions

	This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock. Do not remove the cover (or back). No user-serviceable parts inside. Refer servicing to licensed service personnel.		This symbol indicates that there are important operating and maintenance instructions in this User Manual with this unit.
--	---	--	---

■ FCC Warning

Note: This equipment 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.

Notice :

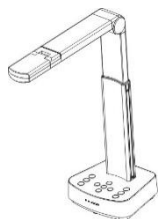
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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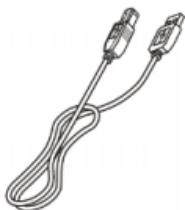
English - 4

Chapter 2 Package Contents

DC-W80



USB cable (USB 2.0)

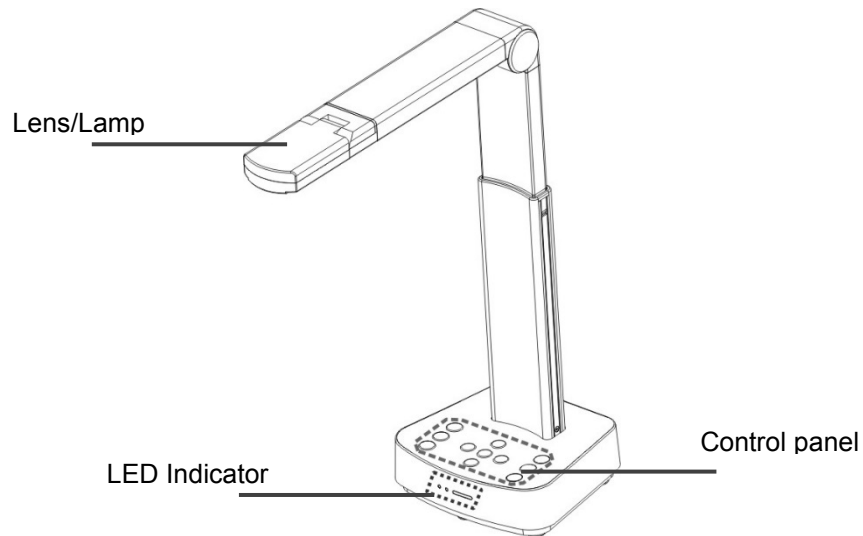


Quick Installation Guide

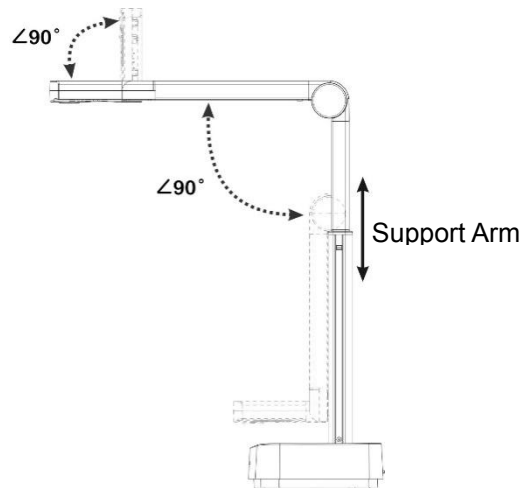


Chapter 3 Product Overview

3.1 Overview

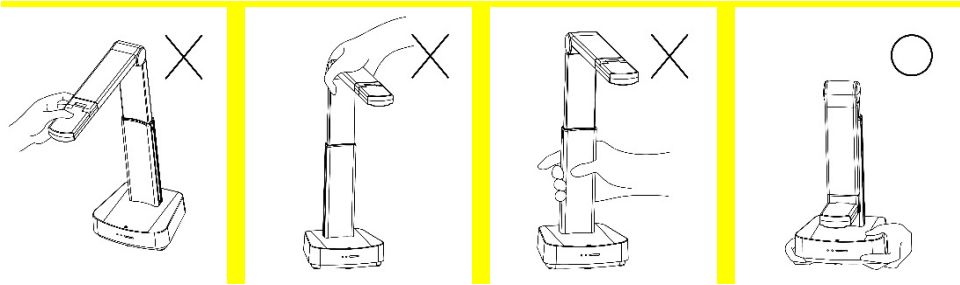


3.2 Extension angle



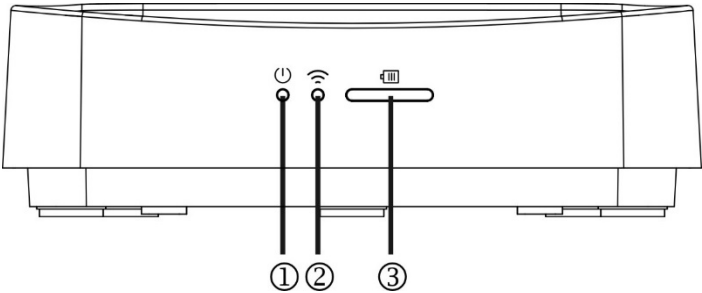
< **Caution** > Please only operate in the extended angles as illustrated.
Improper usage may damage the machine.

3.3 Precautions for installation

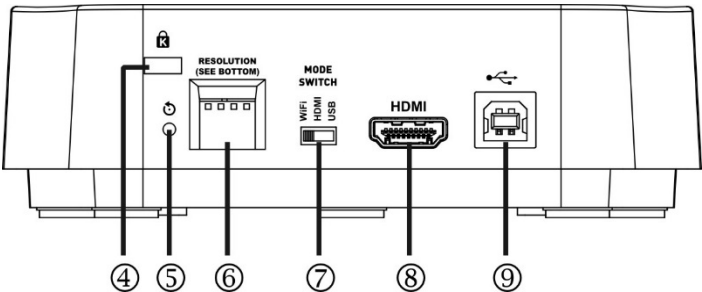


3.4 I/O functions Introduction

Front View





Back View







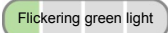


NO.	Item	Function Descriptions
1	Power LED Indicator	Display the status of the machine. Please refer to 3.4 Description of LED indicator
2	Wi-Fi LED Indicator	Display the status of the Wi-Fi. Please refer to 3.4 Description of LED indicator
3	Battery LED Indicator	Display the status of the battery. Please refer to 3.4 Description of LED indicator
4	Kensington safety	Lock hole of safety lock

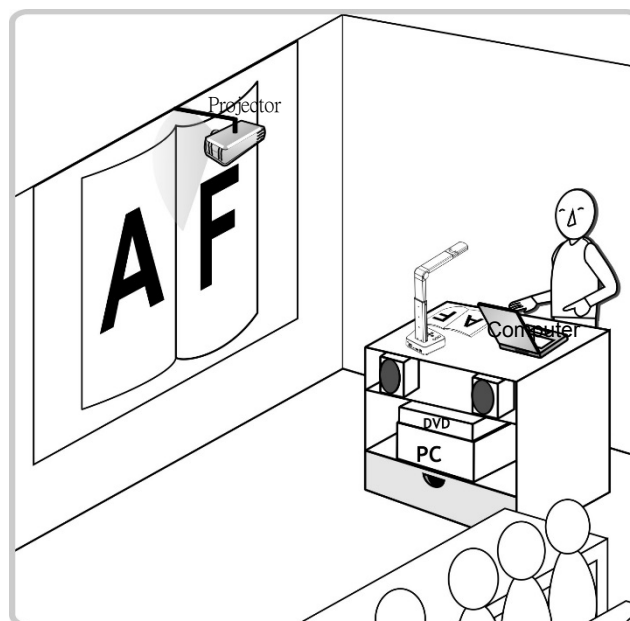
NO.	Item	Function Descriptions
	lock	
5	Reset Button	Press the button for initialization to reset to original factory settings.
6	DIP Switch Setting	Adjust the resolution setting. The default is 1920*1080/30 fps. To switch the setting, please refer to Chapter 9 DIP Switch Setting
7	Mode Switch Button	Switch Modes: Wi-Fi / HDMI / USB
8	HDMI output port	Connect to HDMI output signal source
9	USB Type-B port	The USB port is for connecting to the USB port of the computer which provides USB signal images and power

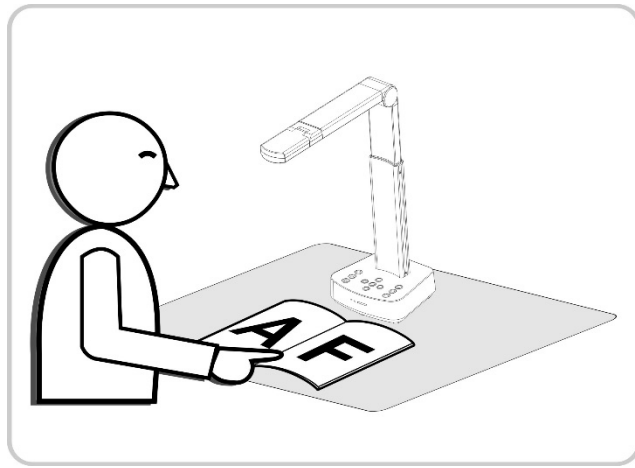
3.5 Description of LED indicator

Name	Indicator Status
Power 	Flickering blue light: Startup in progress, initialization Blue light stays lit: Startup completed Flickering red light: A startup failure or error has occurred
Wi-Fi 	Blue light stays lit: Switched to the Wi-Fi Mode and the startup is completed No Light: In another operating mode

<p>Battery </p>	<p>Indicator light is green After connecting the USB cable and the flickering indicator light will indicate that it is charging</p> <p>Press “Battery Check”  button to display the battery level</p> <div data-bbox="587 280 1149 560"> <div> ⇒ Battery level ≥ 75%</div> <div> ⇒ Battery level 50% ~ 75%</div> <div> ⇒ Battery level 25% ~ 50%</div> <div> ⇒ Battery level 3% ~ 25%</div> <div> ⇒ Battery level < 3%</div> </div>
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3.6 Relative position of the presenter and document

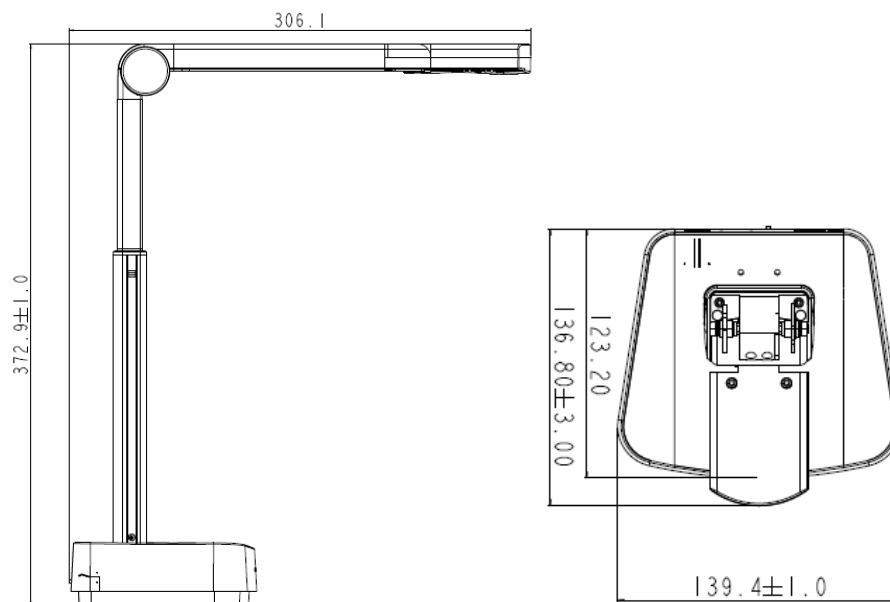




Chapter 4 Installation and Connections

4.1 Machine Size

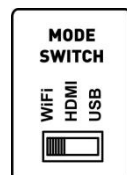
- Length x Width x Height: Extended - 306 x 140 x 373 mm
Closed - 137 x 140 x 270 mm
- Weight: 1.35 kg



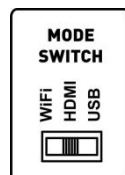
4.2 Installation and setup

- Please set up the DIP switch setting first. Refer to [Chapter 9 DIP Switch Setting](#).
- Please confirm that the product is switched to the desired mode (Wi-Fi/HDMI/USB)

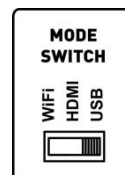
Wi-Fi Mode



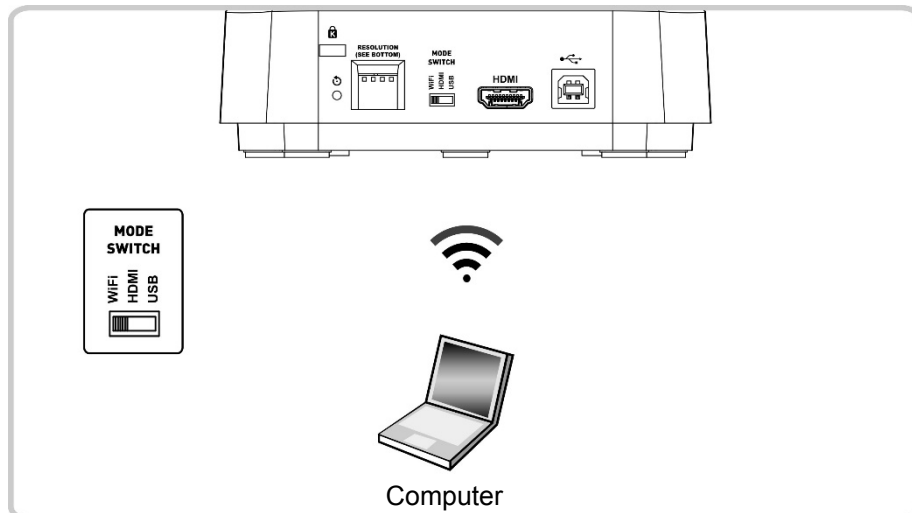
HDMI Mode



USB Mode

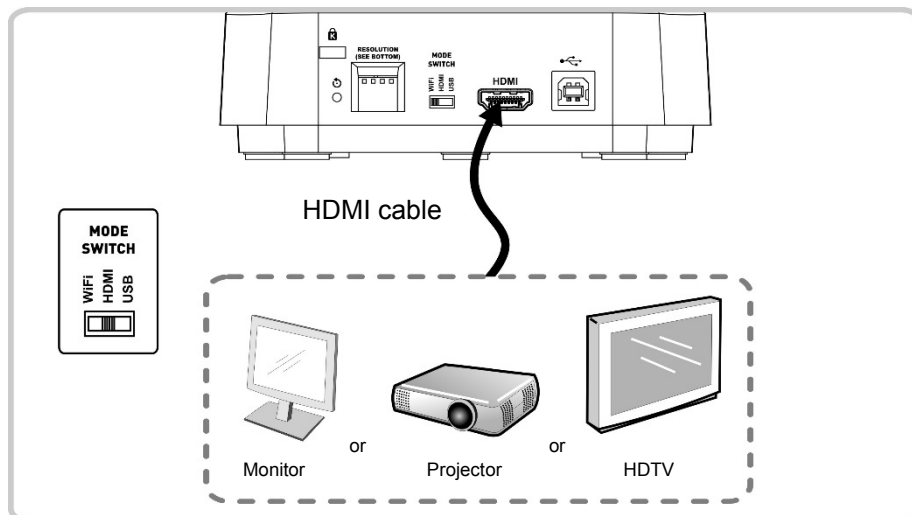


4.3 Connecting to a computer and use Lumens™ software (Wi-Fi mode)

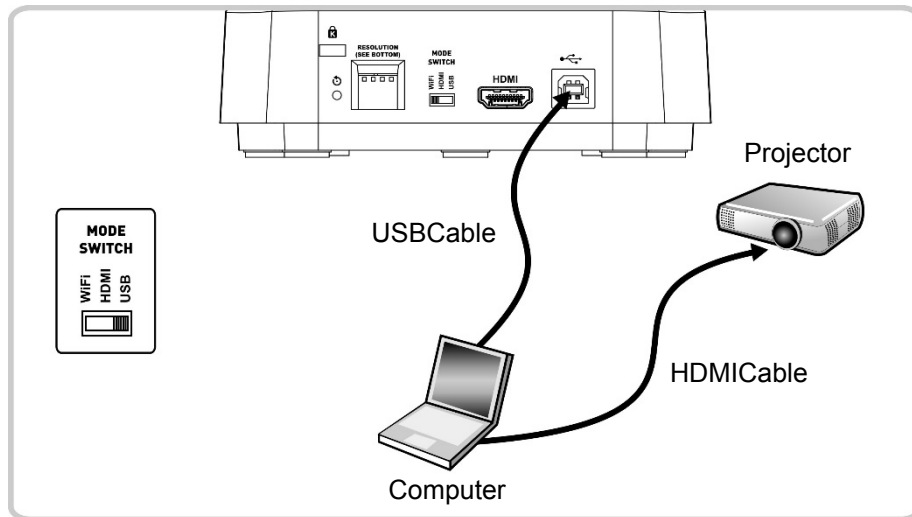


※Please download the relevant software from Lumens website. For more information on the connection method, please refer to [Chapter 8 Wi-Fi Connection Setting](#).

4.4 Connect to a projector, monitor or HDTV (HDMI mode)



4.5 Connecting to a computer and use Lumens™ software (USB Mode)



※Please download the relevant software from Lumens website.

4.6 Installing Application Software

The application software installed on the computer enables you to:

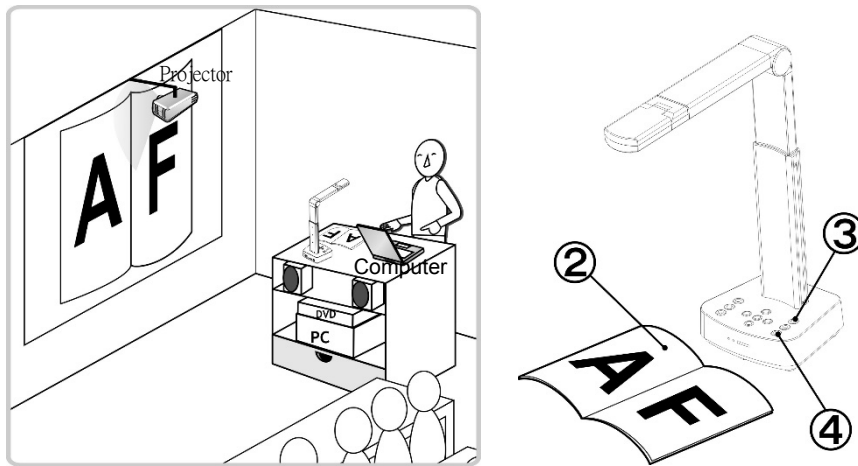
- Control DC-W80.
- Capture and record images.
- Annotate the image, highlight important details and save it.
- Support the full screen function.



<Note> Please download the relevant software from the Lumens website. For installation steps and software operation, please refer to the [Ladibug™ software user manual](#).

4.6.1 System Requirements

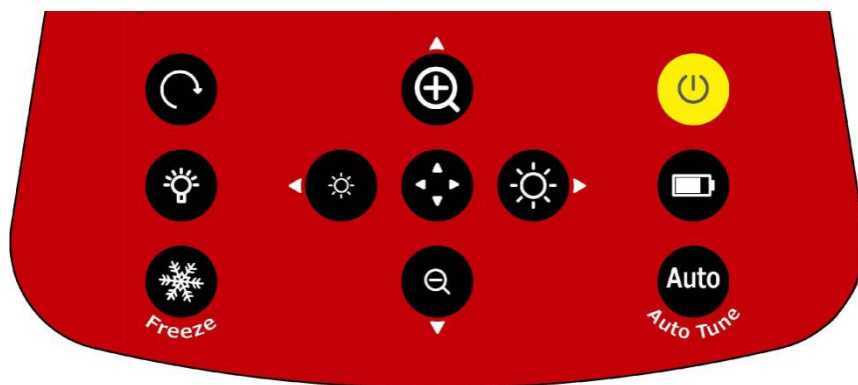
- Windows System: Windows 7 or later
- Chrome system
- Mac System: Mac OS X 10.12 and above

Chapter 5 Start Using



1. Charge for a recommended 10.5 hours prior to first-time operation. The device is fully charged when all the power bars are full and the green light is constant on.
2. Place an object to be displayed under the camera.
3. Turn on the power  and adjust the operation mode according to the connection method.
4. Adjust the support arm and lens to the appropriate positions.
5. Press [AUTO TUNE]  button to optimize the image.
6. You are ready to teach/present.

Chapter 6 Introductions to Control Panel Buttons




Icon	Function Descriptions
	Turn on and off ※Press and hold for 10 seconds to forcibly turn off the system
	Battery level check
Auto Tune	Automatically adjust the image to have the best brightness and focusing performance
	Left, right, up, down buttons, used for moving in a direction at the partial enlarged mode
	Enable/Disable the partial enlarged mode
	Adjust the brightness of the image
	Zoom in/out images
	Rotate image: 0° / 180° /Vertical flip/Horizontal flip / 90° / 270°
	LED lamp mode toggle switch: off / brightness 1 / brightness 2 / brightness 3 Brightness 3 is the brightest state
Freeze	Freeze the current image to remain temporarily on the screen. Press again to defreeze


Freeze	
--------	--

Chapter 7 Descriptions of Major Functions


7.1 I would like to automatically adjust the image to have the best brightness and focusing performance

- Press [Auto Tune]  for the best brightness and focusing performance.

7.2 I would like to freeze the live image

- Press  FREEZE to freeze the current image on the screen. Press again to lift the freeze.



7.3 I would like to turn on/off the lamp

- The default state of the lamp is **off**, press  to turn it on or off. There are three levels of brightness.


7.4 I would like to zoom in/out images

- Press  to zoom in the image.
- Press  to zoom out the image.



7.5 I would like to adjust the brightness

- Press  to make it brighter.
- Press  to make it darker.

7.6 I would like to rotate the image

- Press  to rotate the image. (The sequence of switching is:
0°/180°/Vertical flip/Horizontal flip/90°/270°)

7.7 I would like to enlarge a part of the image

1. Press  to activate the partial enlarged mode.
2. Press [▲], [▼], [◀], or [▶] to move and view the partial enlarged images.
3. Press  to exit the partial enlarged mode.

Chapter 8 Wi-Fi Connection Setting

8.1 Network connection

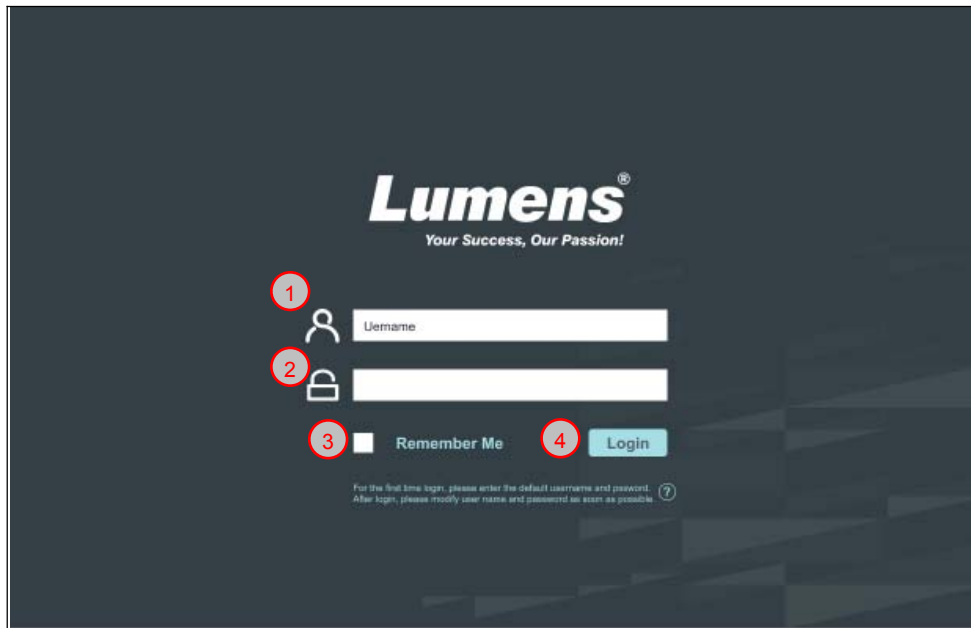
- 8.1.1 Switch to the Wi-Fi mode and the Wi-Fi LED indicator will be displayed in blue.
- 8.1.2 Open the wireless network list on the computer.
- 8.1.3 Select the [DC-W80_5G_XXXXXX] (XXXXXX: last 6-digits of the MAC address) in the network list, and input the password for connection (default: 88889999) to start the connection.

8.2 Log in to the web page

- 8.2.1 Open the web browser and enter the default IP address [192.168.0.1] in the address bar.
- 8.2.2 Enter the login account [**admin**] and default password [**9999**], and click Login.
- 8.2.3 After the login, you can do the live preview and configure the settings on the web page.
 - ※ For a first-time login, please refer to [8.3.5 System Information](#) to change the default password

8.3 Web Page Menu Function Description

8.3.1 Login Screen



No	Item	Function Descriptions
1	User Login Account	Enter user login account (default: admin)
2	User Password	Enter user password (default: 9999)
3	Remember user account and password	Save user login account and password to the browser. When you log in next time, there is no need to re-enter them
4	Login	Log into the administrator screen on the website

8.3.2 Live Viewing

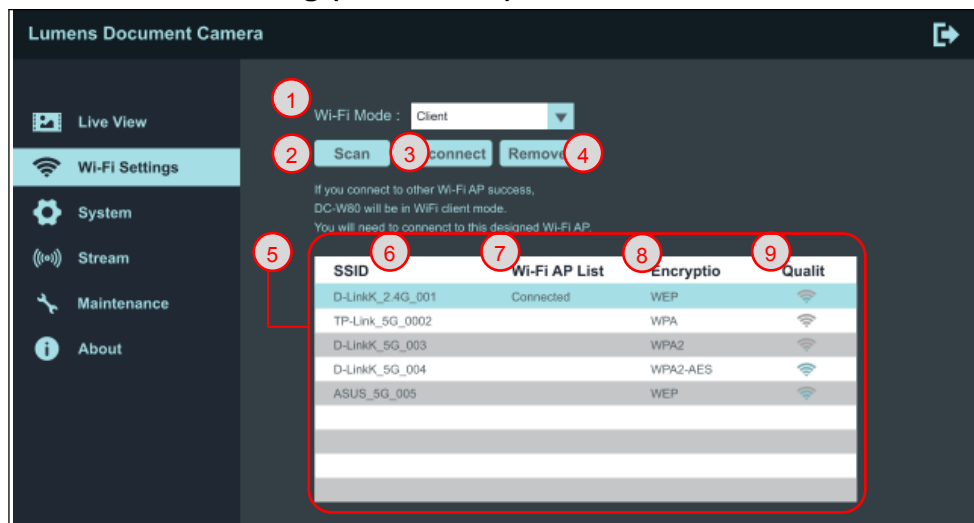


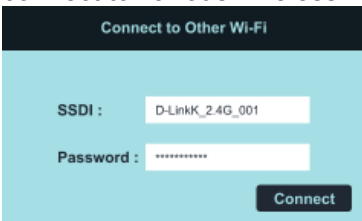
No	Item	Function Descriptions
1	Preview window	Display the screen currently captured by DC-W80
2	Automatic Image Optimization	Automatically adjust the image to have the best brightness and focusing performance
3	Freeze the image	Freeze the current image on the screen
4	Lamp mode toggle switch	Click lamp mode toggle switch: off / brightness 1 / brightness 2 / brightness 3
5	Rotate the image	Rotate the image: 0° / 90° / 180° / 270° / Flip / Mirror
6	Image Mode toggle switch	Select Photo/Text/Gray Mode
7	Logout	Log out of the web page

8.3.3 Wi-Fi Setting (Access Point Mode)

No	Item	Function Descriptions
1	Wi-Fi Mode	Select Access Point or Client Mode
2	Wi-Fi 5G/2.4G	Switch between 5G / 2.4G under Wi-Fi Access Point mode
3	Device Name	Device name of wireless network
4	Hide Device Name	After hiding the device is initiated, other equipment cannot find this device
5	Channel	Select the channel based on different regions
6	Security	Wi-Fi encryption setting
7	Password	Connect the Wi-Fi SSID password
8	Show Password	Show the Wi-Fi SSID password
9	Edit	Click to enter edit mode to change the wireless network setting

8.3.4 Wi-Fi Setting (Client Mode)



No	Item	Function Descriptions
1	Wi-Fi Mode	Select Access Point or Client Mode
2	Scan	Scan nearby wireless network devices
3	Disconnection	Disconnect from current wireless network device
4	Remove	Remove the selected wireless network device from the list
5	List of Wi-Fi Wireless Network Device Names	Click the wireless device and the following image will be displayed. Enter the password to connect to various wireless network devices 
6	Device Name	Device name of wireless network
7	Connection Status	Display the wireless network device to which DC-W80 is currently connecting. If connected, the corresponding field of said wireless device will display "Connected", otherwise it would stay blank
8	Encryption	The current encryption setting of the wireless network device

9	Signal Status	Show the degree of the Wi-Fi signal
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8.3.5 System Information

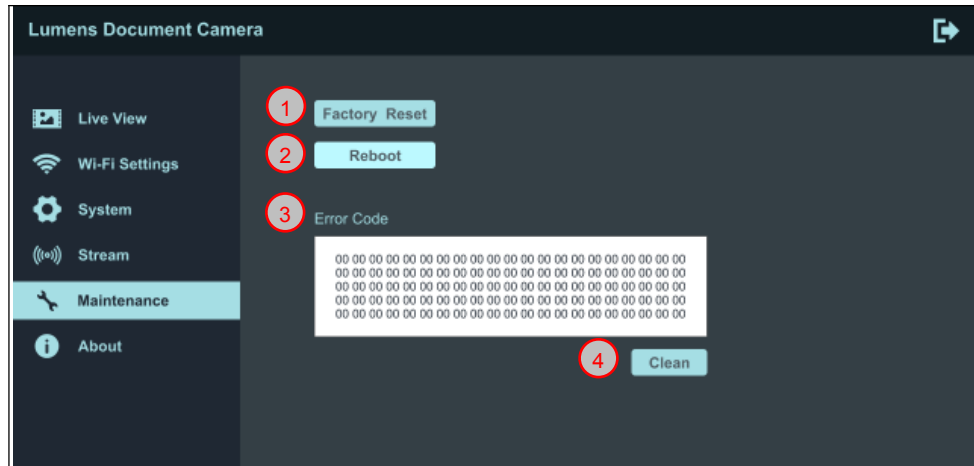
No	Item	Function Descriptions
1	Device and Account	The web page login setting of this DC-W80 device. Click edit to enter edit mode and change the device name, the user account, and the password.
2	IP address	The network setting of this DC-W80 device. When the DHCP function is closed, click edit to enter edit mode and change the network setting.

8.3.6 Streaming Parameter



No	Item	Function Descriptions
1	RTSP Streaming Setting	The RTSP streaming setting of this DC-W80 device
2	Resolution	Show or set the RTSP output resolution and fps
3	Bit Rate (kbps)	Show or set the RTSP Bit rate (0 ~ 20000)
4	Port Number	Set the RTSP port (0 ~ 10000)
5	Unicast/Multicast	Set unicast / multicast
6	Audio Setting	Turn on/off RTSP audio
7	RTSP URL	Show current RTSP URL connection
8	Edit	Click edit to enter edit mode and change the RTSP streaming setting

8.3.7 Maintenance



No	Item	Function Descriptions
1	Reset to the default value	Select the reset button to resume the factory default setting as the web page setting
2	Reboot	Click the reboot button and reboot the device
3	Event Logs	In the event of an error, an error code log will be established
4	Clean	If an error code appears, the user may try to click the Clean button to confirm if the error will repeat itself.

8.3.8 About

Lumens Document Camera

Live View

Wi-Fi Settings

System

Stream

Maintenance

About

Information

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1

Manufacturer: Lumens Digital Optical Inc.

Model Name: DC-WB0

Firmware Version: 1.0.1

MAC Address: XX-XX-XX-XX-XX-XX

Serial Number: SSSSSSSSSS

Get Help ?

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No	Item	Function Descriptions
1	Related Information	Display information about the manufacturing of this device

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English - 27

Chapter 9 DIP Switch Setting

9.1 Description of DIP

DIP	Function Descriptions
DIP1 & DIP2	Output Resolution
DIP3	OFF (Normal mode): 30/25 fps, applicable to general scene ON (High-speed mode): 60/50 fps, applicable to support rapidly changing scene (Only applicable to 1080P)
DIP4	OFF: 60Hz ON: 50Hz

9.2 Resolution Switch

Resolution	60Hz	50Hz
1920 x 1080	Off On (Default Values)	Off On
3840 x 2160	Off On	Off On
1280 x 720	Off On	Off On
1024 x 768	Off On	Off On

Chapter 10 Troubleshooting

This chapter describes problems you may encounter while using DC-W80. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact your distributor or the service center.

No.	Problems	Solutions
1	Boot without power signal	Please press the battery level check button to confirm there is still power. Refer to 3.4 Description of LED indicator in this manual. If there is no power left, please charge the device by connecting the USB cable.
2	There is no image output from DC-W80	1. Check the power. 2. Check all cable connections. Refer to Chapter 4 Installation and Connections in this manual. 3. Check if DIP switch is properly set. Please refer to Chapter 9 DIP Switch Setting for related settings.
3	Unable to focus	Probably the document is too close. Press [ZOOM -] on the control panel . Or pull the document away from the lens. And then press [Auto Focus] button.
4	When the device is turned on, the LED floodlight is off.	The default setting of the LED floodlight is "OFF", please use the control panel to set the LED floodlight as "ON".
5	Ladibug™ and other applications cannot be used simultaneously	Ladibug™ and other applications cannot be used simultaneously. Only one application can be executed at a time. Please close the currently running applications and then execute the application to be used.
6	The output image is too bright, too dark, or vague.	Press [AUTO TUNE] button to automatically adjust the image to have the best brightness and focusing performance.
7	The operating steps in the manual are not applicable to the machine.	The operating steps in the manual may be not applicable to the machine due to improvement in functions. Please confirm the firmware of your machine and go to check for any updated version on the Lumens

		website. https://www.mylumens.com/support
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Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information

Manufacturer : Lumens Digital Optics Inc.

Product Name : DC-W80

Model Number : 4K Document Camera

Responsible Party – U.S. Contact Information

Supplier : Lumens Integration, Inc.

4116 Clipper Court, Fremont, CA 94538, United States

e-mail : support@mylumens.com

FCC Compliance Statement

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body