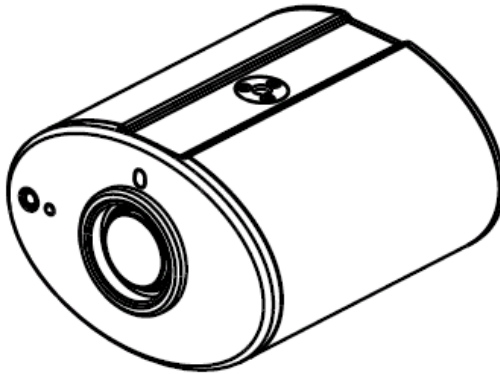


## CL510 Ceiling Document Camera

### User Manual - English



#### [Important]

To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens  
<http://www.lumens.com.tw/goto.htm>

# Table of Contents

<b>Copyright Information</b> .....	<b>4</b>
<b>Chapter 1 Safety Instructions</b> .....	<b>5</b>
Precautions .....	5
FCC Warning.....	6
FDA Warning.....	6
EN55022 (CE Radiation) Warning .....	6
EN60825 (Laser) Warning .....	6
Caution.....	6
<b>Chapter 2 Package Contents</b> .....	<b>7</b>
<b>Chapter 3 Product Overview</b> .....	<b>8</b>
3.1 Relative position of the presenter and document .....	8
<b>Chapter 4 Start Using</b> .....	<b>9</b>
<b>Chapter 5 Remote Control and Setting Menu</b> .....	<b>10</b>
5.1 Functions of Remote Control .....	10
5.2 Setting Menu .....	11
<b>Chapter 6 Descriptions of major functions</b> .....	<b>17</b>
6.1 I would like to automatically adjust the image to have best brightness and focusing performance (Auto Tune) .....	17
6.2 I would like to make text clearer and photos more colorful.....	17
6.3 I would like to zoom in/out images.....	17
6.4 I would like to adjust the focal length .....	17
6.5 I would like to adjust the brightness .....	17
6.6 I would like to enable or disable the laser mark.....	18
6.7 I would like to freeze images.....	18
6.8 I would like to capture images.....	18

6.9	I would like to record videos.....	19
6.10	I would like to view captured/recorded images .....	19
6.11	I would like to delete the captured/recorded images .....	20
6.12	I would like to automatically delete the stored images whenever the device is turned off (Auto Erase).....	20
6.13	I would like to use the MASK and Spotlight function.....	20
6.14	I would like to enlarge a part of the image (PAN) .....	21
6.15	I would like to play the slides (Slide Show).....	21
6.16	I would like to compare images (compare live images with stored images (PIP)) .....	22
6.17	I would like to reduce the image noise (Projector Type) .....	22
6.18	I would like to set the time for CL510.....	23
6.19	I would like to resume the factory default settings (Factory Reset) ....	25
6.20	Computer-related functions.....	25
6.21	I would like to use the network remote control function .....	28
<b>Chapter 7</b>	<b>DIP Switch Settings .....</b>	<b>37</b>
<b>Chapter 8</b>	<b>Troubleshooting.....</b>	<b>38</b>
<b>Appendix 1</b>	<b>.....</b>	<b>42</b>

# Copyright Information

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# Chapter 1 Safety Instructions

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Always follow these safety instructions when setting up and using the Ceiling Camera:





1. Use attachments only as recommended.
2. Use the type of power source indicated on the Ceiling Camera. If you are not sure of the type of power available, consult your distributor or local electricity company for advice.
3. Always take the following precautions when handling the plug. Failure to do so may result in sparks or fire.
  - Ensure the plug is free of dust before inserting it into a socket.
  - Ensure that the plug is inserted into the socket securely.
4. Do not overload wall sockets, extensions cords or multi-way plug boards as this may cause fire or electric shock.
5. Do not place the Ceiling Camera where the cord can be stepped on as this may result in fraying or damage to the cord or the plug.
6. Do not block the slots and openings in the Ceiling Camera case. They provide ventilation and prevent the Ceiling Camera from overheating. Do not place the Ceiling Camera on the soft surface of sofas, carpets or others.
7. Never push any kind of objects through cabinet slots. Never allow any kind of liquid to spill into the Ceiling Camera.
8. Except as specifically instructed in this User Manual, do not attempt to operate this product by yourself. Opening or removing covers may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
9. Unplug the Ceiling Camera during thunderstorms or if it is not going to be used for an extended period. Do not place the Ceiling Camera or remote control on top of vibrating equipment or heated objects such as a car, etc.
10. Unplug the Ceiling Camera from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
  - If the power cable or plug becomes damaged or frayed.
  - If liquid is spilled into the Ceiling Camera or it has been exposed to rain or water.

**<Note> Using an incorrect battery type in the remote control may result in breakdown. Follow your country's instructions on how to dispose of used batteries.**

## ■ Precautions

**Warning: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.**

If the Ceiling Camera will not be used for an extended time, unplug it from the power socket.

	<table border="1"> <tr><td>Caution</td></tr> <tr><td>Electric Shock</td></tr> </table>	Caution	Electric Shock	
Caution				
Electric Shock				
To reduce the risk of electric shock, do not remove the cover. No user-serviceable parts inside. Refer servicing to licensed service personnel.				
	This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock.			
		This symbol indicates that there are important operating and maintenance instructions on this unit in the User Manual.		

■ **FCC Warning**

This Ceiling Camera has been tested and found to comply with the limits for a Class A digital device, pursuant to Article 15-J of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

■ **FDA Warning**


This Device Complies with DHHS Radiation Rules, 21CFR Chapter 1, Subchapter J.

■ **EN55022 (CE Radiation) Warning**

This product is intended for use in a commercial, industrial, or educational environment. It is not intended for residential use.

This is a Class A product. In a residential environment it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

■ **EN60825 (Laser) Warning**

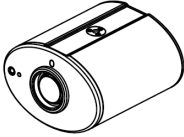
	Laser Radiation Do Not Stare Into Beam Class 2 Laser Product
--	--

■ **Caution**

Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type. Dispose batteries according to manufacture’s instructions.

# Chapter 2 Package Contents

CL510



Quick Start Guide

(For download of other language versions, please visit Lumens website)



Instruction for Installation



Instructions for Software Download and Installation



Remote Control



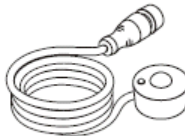
USB Cable



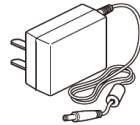
VGA Cable



IR extender

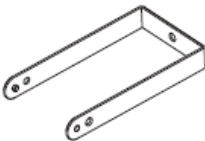


Power Adapter



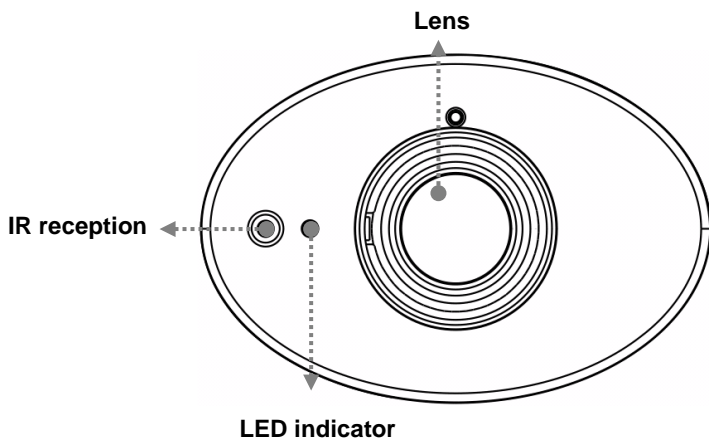
Appearance may vary depending on country/region

Ceiling Mount / Hanger

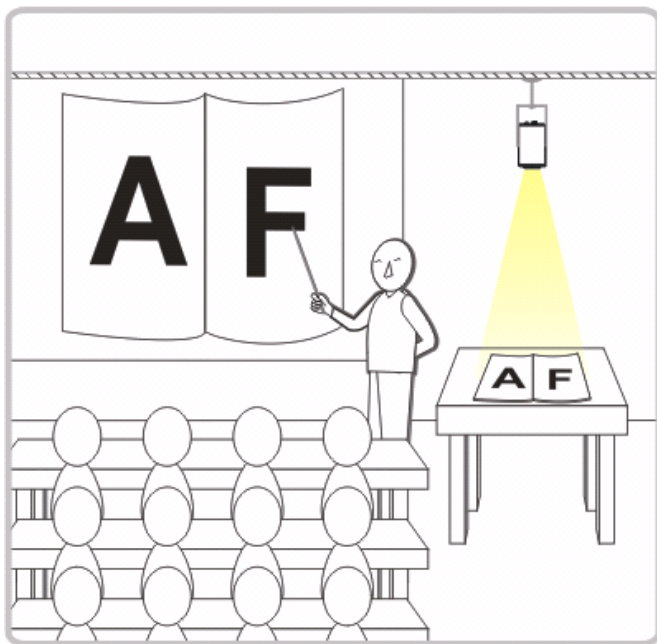


# Chapter 3 Product Overview

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## 3.1 Relative position of the presenter and document





# Chapter 4 Start Using


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1. Place an object to be displayed under the camera.
  2. Press [POWER]  on the **Remote Control** to power on.
  3. Press [AUTO TUNE]  button on the **Remote Control** to optimize the image. You are ready to teach/present.
- When using the **Remote Control**, aim at the remote sensor on the CL510, and press the power button.
  - When the power is on, the LED indicator will light red. If the indicator does not light up, please contact your distributor.

# Chapter 5 Remote Control and Setting Menu

## 5.1 Functions of Remote Control

<Remark> The below functions are listed alphabetically.

Name	Function Descriptions
	Turn on and off the Document Camera.
◀, ▶, ▲, ▼	Move up, down, left or right to select the needed function.
AF	Automatically adjust the focal length of image.
AUTO TUNE	Automatically adjust the image to have the best brightness and focusing performance.
BRT+/-	Manually adjust the brightness of the image.
CAPTURE	Capture the image to the internal memory.
DEL	Delete the image stored in the internal memory.
ENTER	Enter/Activate functions.
FREEZE	Freeze the current image to temporarily stay on the screen. Press again to defreeze.
LASER	Enable/Disable the laser mark.
MASK	Enter Mask/Spotlight mode.
MENU	Activate the setting menu/exit the menu.
PAN	Enable/Disable the Partial Enlarged mode.
PHOTO/TEXT	Select the image mode (Photo/Text/Gray)
PIP	Image comparison (to compare live images with stored image files).
PLAYBACK	Read files stored in the internal memory.
RECORD	Record motion images. Press [Record] to record images to the internal memory and press [Record] again to stop recording.
ROTATE	Rotate the image by 0°/90°/180°/270°.
SLIDE SHOW	Show the photos or videos stored in the internal memory in slide mode.
ZOOM +/-	Increase or decrease the image size.

## 5.2 Setting Menu

### 5.2.1 Main Menu:

<Remark> Press [**Menu**] on the **Remote Control** to enter the setting menu; The **bold underlined** values in the following table are defaults.

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Display	Auto Tune	<u>Enter</u>	Automatically adjust the image to have the best brightness and focusing performance.
	Auto Focus	<u>Enter</u>	Automatically adjust the focal length of image.
	Focus	0~ <u>A</u> ~Max	Use the left and right arrow keys to adjust focal length on an object.
	Brightness	0~ <u>A</u> ~Max	Use the left and right arrow keys to adjust the brightness.
	Rotate	1. <u>0°</u> 2. 90° 3. 180° 4. 270°	Rotate the image by 0°/90°/180°/270°.
	Mode	<u>Normal</u> /Slide/ Film	Use the left and right arrow keys to select the image mode.
	Photo/Text	<u>Photo</u> /Text/Gray	Use the left and right arrow keys to select the photo/text/gray mode.
	Digital Zoom	On/ <u>Off</u>	Use the left and right arrow keys to turn on/off <b>digital zoom</b> .
Storage	Slide Show	<u>Enter</u>	Press [ENTER] to show the photos or videos stored in the USB disk (priority) or internal memory in Slide mode.
	Delay	1. 0.5 Sec 2. <u>1 Sec</u> 3. 3 Sec 4. 5 Sec 5. 10 Sec 6. Manual	Use the left and right arrow keys to select the delay time. Select manual mode to switch images manually.
	Image Quality	1. High 2. <u>Medium</u> 3. Low	Use the left and right arrow keys to select the image quality for the captured images and recorded videos.

	<b>Copy To USB Disk</b>	Yes/ <u>No</u>	Press [ENTER] to immediately copy the data in internal memory to the USB disk.
	<b>Delete All</b>	Yes/ <u>No</u>	Use the left and right arrow keys to select, press [ENTER] to confirm the deletion of all images from the USB disk (priority) or internal memory.
	<b>Format</b>	Yes/ <u>No</u>	Use the left and right arrow keys to select, and then press [ENTER] to format the USB disk (priority) or internal memory.
	<b>Auto Erase</b>	On/ <u>Off</u>	Use the left and right arrow keys to turn on/off the auto erase function. When “On” is selected, the stored images will automatically be deleted when the device is turned off.
<b>Setting</b>	<b>Capture</b>	1. <u>Single</u> 2. Continuous Capture 3. Disable	Use the left and right arrow keys to select the capture mode. (Single/Continuous/Disable)
	<b>Capture Time</b>	1. <u>1 hr</u> 2. 2 hr 3. 4 hr 4. 8 hr 5. 24 hr 6. 48 hr 7. 72 hr	Use the left and right arrow keys to select the capture time. <b>&lt;Note&gt; It only works when the capture mode is set to [Continuous].</b>
	<b>Capture Interval</b>	1. <u>5 Sec</u> 2. 10 Sec 3. 30 Sec 4. 1 min 5. 2 min 6. 5 min	Use the left and right arrow keys to select the capture interval. <b>&lt;Note&gt; It only works when the capture mode is set to [Continuous].</b>
	<b>Auto Exposure</b>	<u>On/Off</u>	Regardless of outside environment, the machine will adjust the brightness to the optimal condition. Use the left and right arrow keys to select.
	<b>White Balance</b>	<u>Enter</u>	Regardless of outside light or color, the machine will adjust the color to the optimal condition; Press [ENTER] to activate.

	<b>Projector Type</b>	DLP/ <u>LCD</u>	Use the left and right arrow keys to select the projector type and reduce image noise.
<b>Advanced</b>	<b>Ethernet</b>	<u>Enter</u>	Press [ENTER] to show the Ethernet window. For details, please refer to <a href="#">5.2.5 Ethernet Setting Menu</a> .
	<b>Language</b>	<ol style="list-style-type: none"> <li>1. <u>English</u></li> <li>2. 繁體中文</li> <li>3. Deutsch</li> <li>4. Français</li> <li>5. Español</li> <li>6. Русский</li> <li>7. Nederlands</li> <li>8. Suomi</li> <li>9. Polski</li> <li>10. Italiano</li> <li>11. Português</li> <li>12. Svenska</li> <li>13. ČESKY</li> <li>14. 简体中文</li> </ol>	<u>English</u> Traditional Chinese German French Spanish Russian Dutch Finnish Polish Italian Portuguese Swedish Czech Simplified Chinese Use the left and right arrow keys in the Language option to select the preferred language.
	<b>Lock Down</b>	On/ <u>Off</u>	Use the left and right arrow keys to turn on/off the lock down function. You can set the password when [On] is selected.
	<b>Date &amp; Time</b>	<u>Enter</u>	Press [ENTER] to show the Date & Time window. For details, please refer to <a href="#">5.2.4 Date &amp; Time Setting Menu</a> .
	<b>Power Frequency</b>	50Hz/ <b>60Hz</b>	Set the applicable power frequency depending on different regions. Please refer to <a href="#">Appendix 1</a> for applicable frequency.
	<b>Preset Load</b>	Yes/ <u>No</u>	Read the value of the current image mode. Use the left and right arrow keys to select, and then confirm by pressing [ENTER].
	<b>Preset Save</b>	Yes/ <u>No</u>	Store the value of the current image mode. Use the left and right arrow keys to select, and then confirm by pressing [ENTER].

	<b>Factory Reset</b>	Yes/ <b>No</b>	Use the left and right arrow keys to select, and then confirm by pressing [ENTER] to restore the factory defaults.
--	----------------------	----------------	--

### 5.2.2 MASK Mode Setting Menu

2 <sup>nd</sup> Level Major Items	3 <sup>rd</sup> Level Minor Items	4 <sup>th</sup> Level Adjustment Values	Function Descriptions
Mask Mode	Transparency	0~ <u>4</u> ~6	Adjust the transparency of the mask using left and right arrow keys.
	Step	Large/ <b>Medium</b> / Small	Select the step distance of the mask using left and right arrow keys.
	V Size	0~ <u>A</u> ~Max	Adjust the vertical height of the mask using left and right arrow keys.
	H Size	0~ <u>A</u> ~Max	Adjust the horizontal length of the mask using left and right arrow keys.
	Spotlight	<b>Enter</b>	Press [ENTER] to enter the Spotlight mode.

### 5.2.3 Spotlight Mode Setting Menu

2 <sup>nd</sup> Level Major Items	3 <sup>rd</sup> Level Minor Items	4 <sup>th</sup> Level Adjustment Values	Function Descriptions
Spotlight Mode	Transparency	0~ <u>4</u> ~6	Adjust the transparency of the border in the Spotlight mode using left and right arrow keys.
	Step	Large/ <b>Medium</b> / Small	Select the step distance of the spotlight zone using left and right arrow keys.
	V Size	0~ <u>A</u> ~Max	Adjust the height of the spotlight zone using left and right arrow keys.
	H Size	0~ <u>A</u> ~Max	Adjust the width of the spotlight zone using left and right arrow keys.
	Live	<b>Enter</b>	Press [ENTER] to return to live image.

## 5.2.4 Date & Time Setting Menu

2 <sup>nd</sup> Level Major Items	3 <sup>rd</sup> Level Minor Items	4 <sup>th</sup> Level Adjustment Values	Function Descriptions
Date & Time	Year	00~36	Press [ENTER] to modify the values using left and right arrow keys.
	Month	01~12	Press [ENTER] to modify the values using left and right arrow keys.
	Date	01~31	Press [ENTER] to modify the values using left and right arrow keys.
	Hour	00~23	Press [ENTER] to modify the values using left and right arrow keys.
	Minute	00~59	Press [ENTER] to modify the values using left and right arrow keys.

## 5.2.5 Ethernet Setting Menu

2 <sup>nd</sup> Level Major Items	3 <sup>rd</sup> Level Minor Items	4 <sup>th</sup> Level Adjustment Values	Function Descriptions
Ethernet	DHCP	<u>On</u> /Off	Enable/Disable <b>DHCP</b> using left and right arrow keys.
	IP Address	<u>192.168.100.150</u>	Press [ENTER] to modify the values using left and right arrow keys.
	Netmask	<u>255.255.255.0</u>	Press [ENTER] to modify the values using left and right arrow keys.
	Geteway	<u>192.168.100.254</u>	Press [ENTER] to modify the values using left and right arrow keys.

## 5.2.6 Annotation Tools

After the mouse is connected, right click the mouse to start the tools.  
 <Note> When the setting menu is activated, the tools cannot be used.

- Annotation tools thumbnails



- Main Menu



- Free-hand drawing tool menu



Icon	Description
	Display/Close the Annotation tools menu
	Display/Close the Free-hand drawing tools menu
	Select the line width
	Select pen color
	Clear all
	Free-hand drawing tool
	Draw a line
	Draw a rectangle
	Draw a polygon
	Draw an ellipse
	Eraser (Clear marks of free-hand drawing tool)



# Chapter 6 Descriptions of major functions

---

## 6.1 I would like to automatically adjust the image to have best brightness and focusing performance (Auto Tune)

1. Press [Auto tune] on the **Remote Control** to adjust automatically.

## 6.2 I would like to make text clearer and photos more colorful

The default of [Photo/Text] is Photo (**Photo mode**), and press the **[Photo/Text]** button on the **Remote Control** to change the setting.

- [Photo] (default): For viewing photos or text with photos, making photos more colorful.
- [Text]: For viewing text files, making the text clearer.
- [Gray]: For viewing black & white photos which will make the grayscale differentiation distinct.

## 6.3 I would like to zoom in/out images

1. Press [ZOOM +] on the **Remote Control** to zoom in images.
2. Press [ZOOM -] on the **Remote Control** to zoom out images.

## 6.4 I would like to adjust the focal length

### 6.4.1 Auto focus

1. Press [AF] on the **Remote Control** to adjust automatically.

### 6.4.2 Manual focus

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Display] menu.
3. Press [▼] to [Focus].
4. Press [▶] or [◀] to adjust focal length.
5. Press [MENU] to exit.

## 6.5 I would like to adjust the brightness

1. Press [BRT +] on the **Remote Control** to brighten the display.
2. Press [BRT -] on the **Remote Control** to dim the display.

## 6.6 I would like to enable or disable the laser mark

1. Press the [LASER] on the **Remote Control** to enable/disable the laser mark.

## 6.7 I would like to freeze images

1. Press [FREEZE] on the **Remote Control** to freeze the current image on the screen.

## 6.8 I would like to capture images

### 6.8.1 Capturing and saving images

1. Press [CAPTURE] on the **Remote Control** to capture and save images.
  - You cannot capture images when the capture mode is set to [Disable]. If it is set to [Continuous], you can capture images continuously. Press [CAPTURE] to start capturing continuously, or press [CAPTURE] again to exit.
  - To change the quality of captured images, please refer to [6.8.2 Setting the quality of captured images](#).
  - To change the settings of captured images, please refer to [6.8.3 Setting continuous capture](#).

### 6.8.2 Setting the quality of captured images

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Storage] menu.
3. Press [▼] to find [Image Quality].
4. Press [▶] or [◀] to select among [High/Normal/Low].
5. Press [MENU] to exit.

### 6.8.3 Setting continuous capture

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Setting] menu.
3. Press [▼] to find [Capture].
4. Press [▶] or [◀] to select [Continuous].
5. Press [▼] to the [Capture Mode].
6. Press [▶] or [◀] to select [Photo].

7. Press [▼] to find [Capture Time]; Press [▶] or [◀] to select capture time.
8. Press [▼] to find [Capture Interval]; Press [▶] or [◀] to select interval time.
9. Press [MENU] to exit.

## 6.9 I would like to record videos

### 6.9.1 Recording motion images

**<Note> You may not be able to capture or record images when [Capture] mode is set to [Disable].**

1. Press [RECORD] on the **Remote Control** to start recording videos.
2. Press [RECORD] again to stop recording.

### 6.9.2 Setting the image quality

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Storage] menu.
3. Press [▼] to find [Image Quality].
4. Press [▶] or [◀] to select among [High/Normal/Low].
5. Press [MENU] to exit.

### 6.9.3 Playing videos

- For playing videos, please refer to [6.10 I would like to view captured/recorded images](#).

## 6.10 I would like to view captured/recorded images

1. Press [PLAYBACK] on the **remote control** to show the thumbnails of all stored files.
2. Press [▲] or [▼] or [◀] or [▶] to select the thumbnail you want you browse.
3. Press [ENTER] for the full-screen display of the image.
4. Press [▶] or [◀] to select different video files.
5. Press [MENU] to exit.

## 6.11 I would like to delete the captured/recorded images

1. Press [PLAYBACK] on the **Remote Control**.
2. Press [▲], [▼], [◀], or [▶] to select the file you want to delete.
3. Press [DEL] to display a [Delete File] window.
4. Press [▶] or [◀] to select [Yes] (The default value is No).
5. Press [ENTER] to delete the selected file.
6. Press [MENU] to exit.

## 6.12 I would like to automatically delete the stored images whenever the device is turned off (Auto Erase)

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Storage] menu.
3. Press [▲] or [▼] to [Auto Erase].
4. Press [▶] or [◀] to select [On].
5. Press [MENU] to exit.

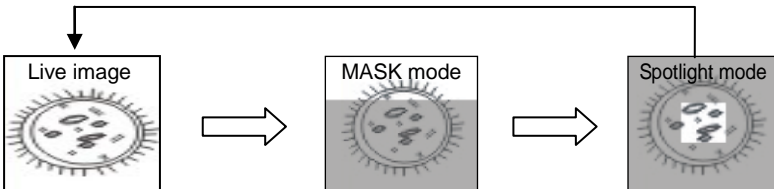
**<Remark> All captured photos will be deleted automatically when the device is turned off.**

## 6.13 I would like to use the MASK and Spotlight function

### 6.13.1 I would like to use the MASK or Spotlight mode

Use Remote control:

1. Press [MASK] to enter the Mask mode, and press [▲], [▼], [◀], or [▶] to move the mask position.
2. Press [MASK] again to enter the Spotlight mode, and press [▲], [▼], [◀], or [▶] to move the zone position.
3. Press [MASK] again to exit and return to the live image screen.



## 6.13.2 I would like to set the size of Mask/Spotlight function

In Mask/Spotlight mode, use the **remote control**:

1. Press [MENU] to enter the image OSD menu.
2. Press [▲] or [▼] to select the item to be modified [Transparency/Step/V Size/H Size]. (**For details, please refer to [5.2 Setting Menu.](#)**)
3. Press [◀] or [▶] to perform the modification.
4. Press [MENU] to exit the image OSD menu and return to the Mask mode.

## 6.14 I would like to enlarge a part of the image (PAN)

Use **Remote control**:

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

## 6.15 I would like to play the slides (Slide Show)

### 6.15.1 Setting delay time

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Storage] menu.
3. Press [▼] to find [Delay].
4. Press [▶] or [◀] to select the delay time among [0.5 Sec/1 Sec/3 Sec/5 Sec/10 Sec/Manual].
5. Press [MENU] to exit.

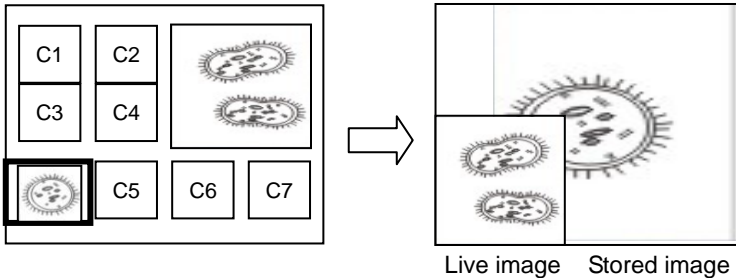
### 6.15.2 Activate/Stop the slide show

**<Note> Upper Limit: The maximum size of single photo is 7 MB.**

1. Press [SLIDE SHOW] on the **Remote Control** to start playing.
2. Press [ENTER] to pause playing.
3. Press [ENTER] again to continue playing.
4. Press [SLIDE SHOW] again to stop playing.

## 6.16 I would like to compare images (compare live images with stored images (PIP))

This function will compare and contrast a live image with a stored image.

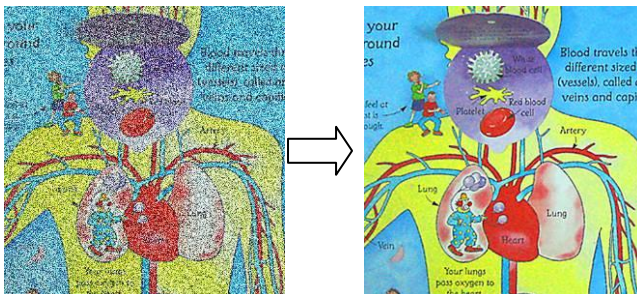


### Remote control:

1. Press [PIP] to enter the photo selection screen.
2. Press [▲], [▼], [◀], or [▶] to select the file to be compared.
3. Press [ENTER] to activate image comparison.
4. Press [▲], [▼], [◀], or [▶] to move the live image.
5. Press [PLAYBACK] to return to image thumbnails and compare it with other images.
6. Press [MENU] to exit.

## 6.17 I would like to reduce the image noise (Projector Type)

1. This function enables Document Camera to automatically clear image noise. The noise is especially obvious when Document Camera is connected to a DLP projector. You can set the DLP projector to improve the image quality.
2. If there is special noise when VGA out is connected, please set DLP option to improve the image quality.



- 2.1. Press [MENU] on the **Remote Control** to enter the setting menu.
- 2.2. Press [▶] or [◀] to the [Setting] menu.
- 2.3. Press [▼] to enter [Projector Type].
- 2.4. Press [▶] or [◀] to select [**LCD/DLP**].
- 2.5. Press [MENU] to exit.

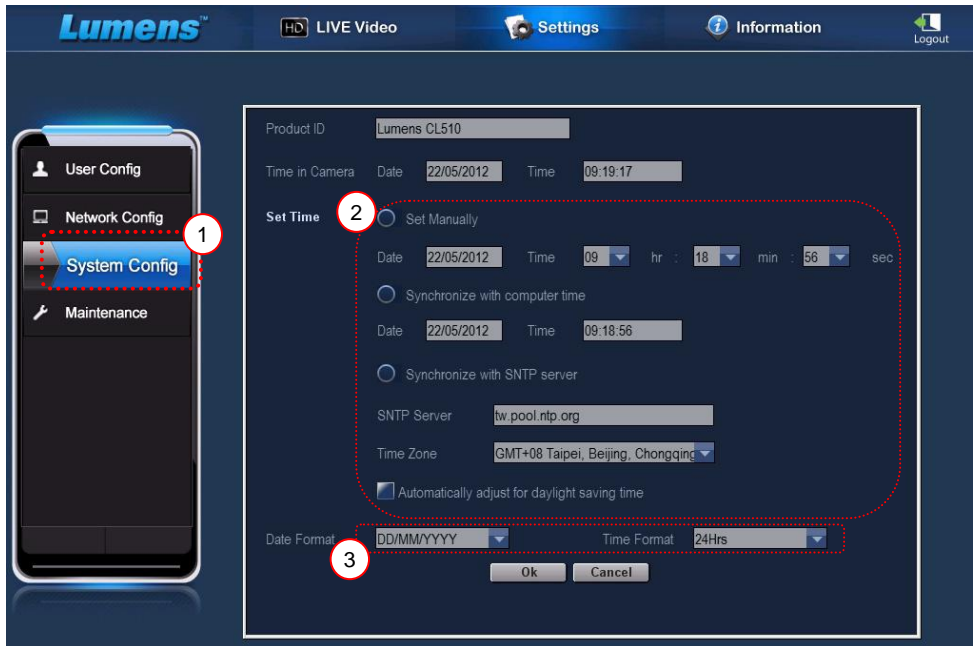
## 6.18 I would like to set the time for CL510

### 6.18.1 Remote control

1. Press [MENU] on the **Remote Control** to enter the setting menu. (Refer to [5.2.4 Date & Time Setting Menu of 5.2 Setting Menu.](#))
2. Press [▶] or [◀] to select [Advanced] menu.
3. Press [▼] to the [Date & Time].
4. Press [ENTER] to open the date & time OSD menu.
5. Press [▲] or [▼] to the item to be set [Year/Month/Day/Hour/Minute].
6. Press [▲] or [▼] to modify the value.
7. Press [▶] or [◀] to move to the next item.
8. Press [MENU] to exit the item you have set.
9. Repeat steps 5 through 9 until you have completed the modifications.
10. Press [MENU] to exit OSD menu.

## 6.18.2 To use web remote control

<Remark> For more information about the website login page, please refer to [6.21.1 I would like to view the live images or use the control keys.](#)



1. Click [Settings].
2. Click [System Config].
3. Set the date and time.

<Remark> **Set Manually:** Set the date and time manually.

**Synchronize with Computer Time:** Synchronize time with the PC.

**Synchronize with SNTP Server:** Synchronize time with SNTP server.

**Synchronize Server:** Set SNTP Server. (Default recommended)

**Time Zone:** Set the Time Zone.

**Automatically adjust for daylight saving time:** Automatically adjust for daylight saving time.

4. Select formats of date and time.
5. Click [OK] to conform and submit.



## 6.19 I would like to resume the factory default settings (Factory Reset)

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to select [Advanced] menu.
3. Press [▼] to select [Factory Reset].
4. Press [▶] or [◀] to select [Yes].
5. Press [ENTER] to activate.

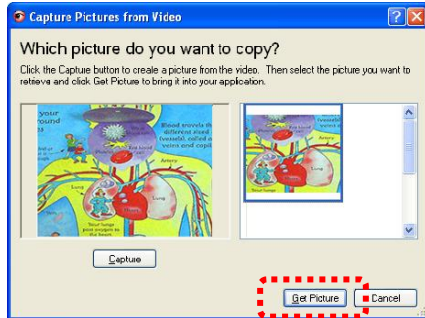
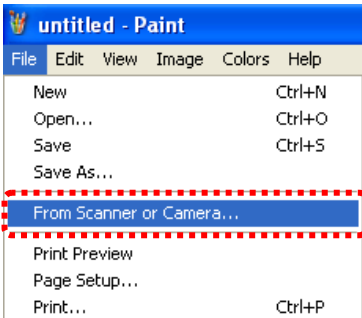
## 6.20 Computer-related functions

Confirm if the device has been connected to the computer prior to use.

### 6.20.1 I would like to insert a photo in MS-Paint

<Remark> Support *Windows XP Operation System* only.

1. Click [File/From Scanner or Camera] in MS-Paint as shown in the bottom left figure.

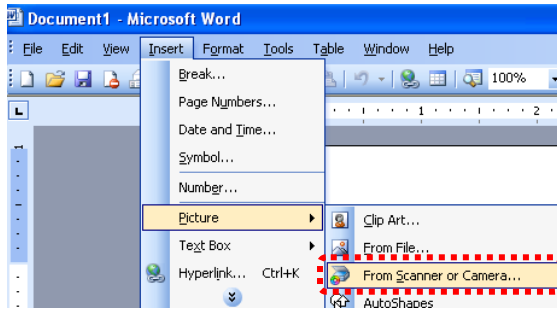


2. Click [Get Picture] to finish. Please refer to the top right figure.

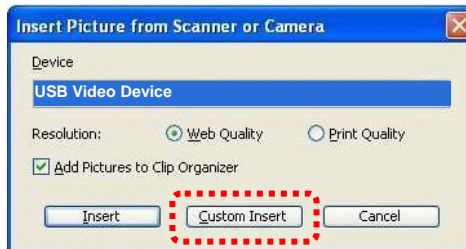
### 6.20.2 I would like to insert a photo in MS-Word

<Remark> Support *Windows XP Operation System* only.

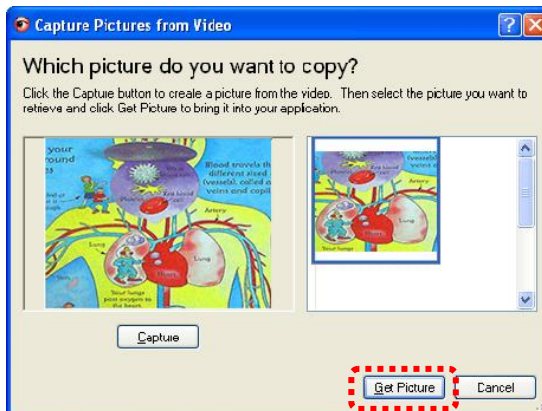
1. Click [Insert/Image/From Scanner or Camera] in *MS-Word*.



2. Select [USB Video Device] and click [Custom Insert].



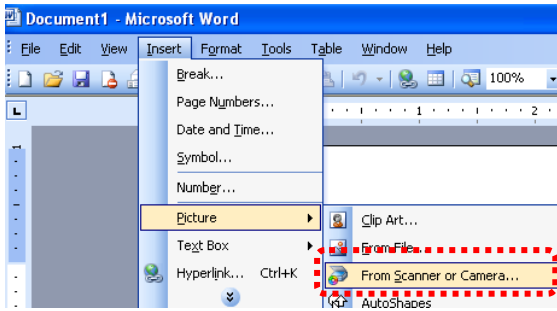
3. Click [Get Picture] to finish.



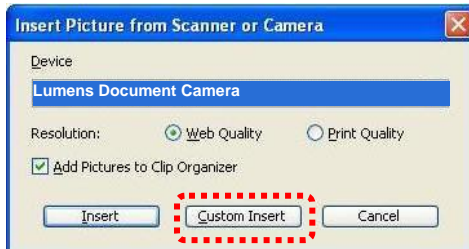
### 6.20.3 I would like to change the setting of the CL510 and then capture a photo in MS-Word

<Remark> For *Windows Office 2003* or later versions, please use the function with *OneNote*.

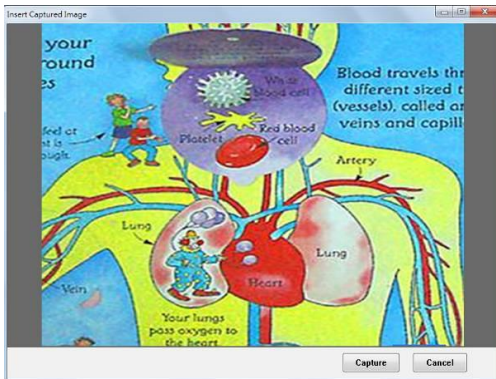
1. Click [Insert/Image/From Scanner or Camera] in *MS-Word*.



2. Select [Lumens Document Camera] and click [Custom Insert].



3. A window showing a live image (see below) will be displayed.



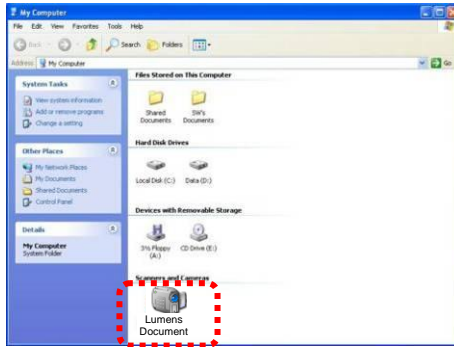
4. Press [Capture] to capture images in **MS-Word**.

5. Press [Cancel] to exit.

#### 6.20.4 I would like to set the CL510 as a PC Camera

<Remark> For Windows XP, please set by system name (USB video device)

Open [My Computer] and click [Lumens Document Camera] to open a live image.



## 6.21 I would like to use the network remote control function

- Network has a longer distance for controlling than USB and RS232 interface do. Each function of CL510 could be controlled and used by the browser (IE 8.0) on the computer for users.
- To ensure a normal operation, please use IE 8.0.

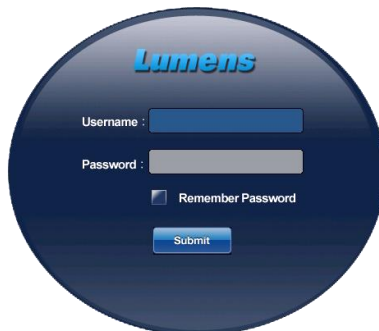
### 6.21.1 I would like to view the live images or use the control keys

#### 6.21.1.1 Login to the CL510 network control page

1. Open the web browser (Internet Explorer) and enter the **IP address : PORT number**.  
(Sample: <http://192.168.100.150:80/>)

<Remark> To check IP address, please refer to [6.21.1.2 I would like to check the network settings](#).

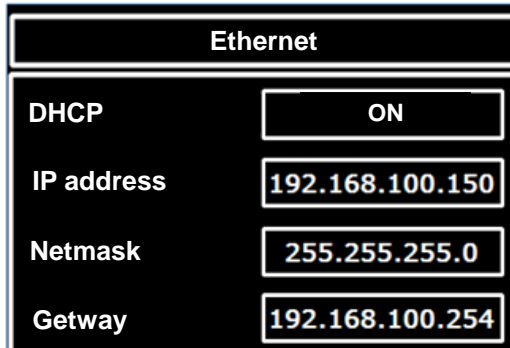
2. Enter the account [admin].
3. Enter the password (default password is [9999]), and then click [OK].



### 6.21.1.2 I would like to check the network settings

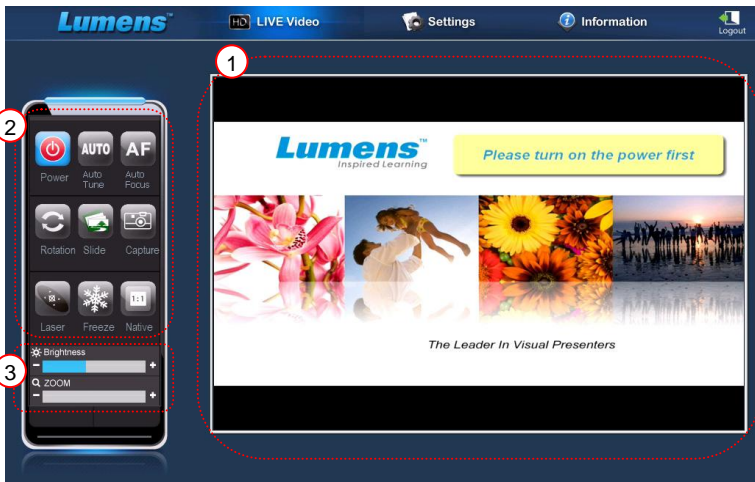
DHCP is enabled by default. Please follow the steps below to check the IP address.

1. Press [MENU] on the **Remote Control** to enter the setting menu.
2. Press [▶] or [◀] to the [Advanced] menu.
3. Press [▲] or [▼] to the [Ethernet].
4. Press [ENTER] to open the Ethernet OSD menu.
5. Press [MENU] to exit OSD menu.



### 6.21.1.3 View the live image

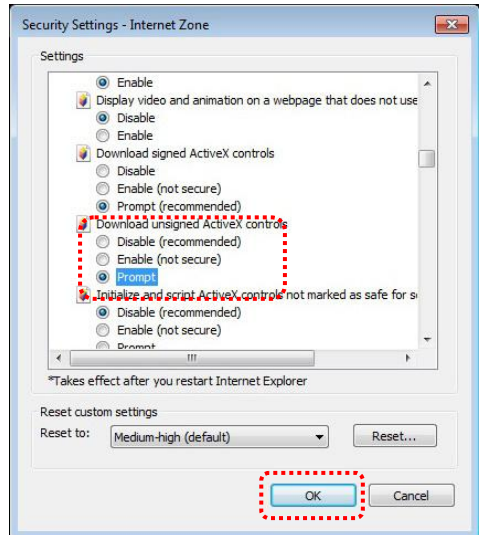
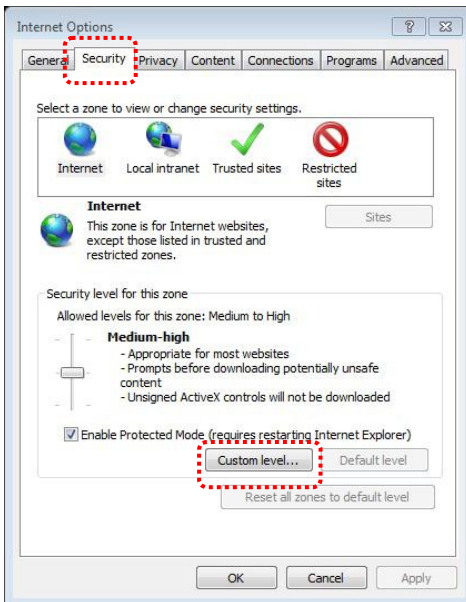
#### A. Use IE browser



Please modify web page security setting and install ActiveX controls according to the instructions on the screen when using the system for the first time

## 1. Modify web page security settings:

- Open the web page → click [Tools] in function bar → [Internet Options] → [Security] → [Custom Level] → select [Download Unsigned ActiveX Controls] and set to [Prompt] → [OK]



- Restart your IE browser
- ## 2. Install ActiveX controls:
- Follow the instructions on the screen and click [Install ActiveX Controls]
  - Accept the security warning and click “Install”.
  - Software security alert, click “Unblock”.
  - The installation is completed.
- ## 3. View the live image.
- ## 4. The control method of control keys is the same as that of the remote control. The button will be gray and disabled for users whose permission is view-only.
- ## 5. Change the size and brightness of live image.

**<Remark> For more information about user permissions, please refer to [6.21.2 I would like to add or modify the user account.](#)**

## B. Using VLC

**<Remark> It is recommended that you download the VLC software**

and view with it when the number of users is more than four.  
Besides, all users must be in the same domain.

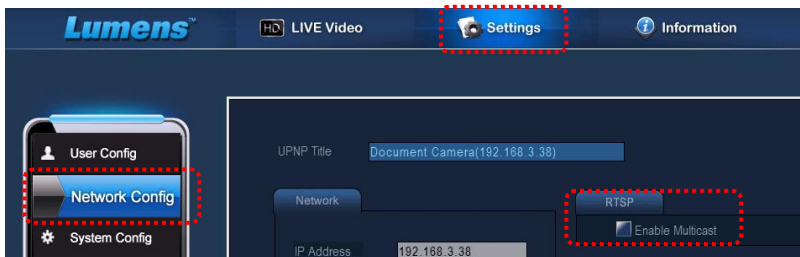
VLC is only provided for viewing, no control keys are available.

1. Activate VLC player.
2. Select “Media → Enable the network streaming”.
3. Enter “rtsp://A:B@IP:8557/h264” in “Please enter a network URL” on the “Network” Page.
  - **A: Account Name**
  - **B: Password**
  - **IP: For the IP address of the Document Camera, please refer to [6.21.1.2 I would like to check the network settings](#) for method of checking the IP address**
  - **Example: rtsp://admin:9999@192.168.100.150:8557/h264**
4. Press “Play” to preview.

### C. Multicast

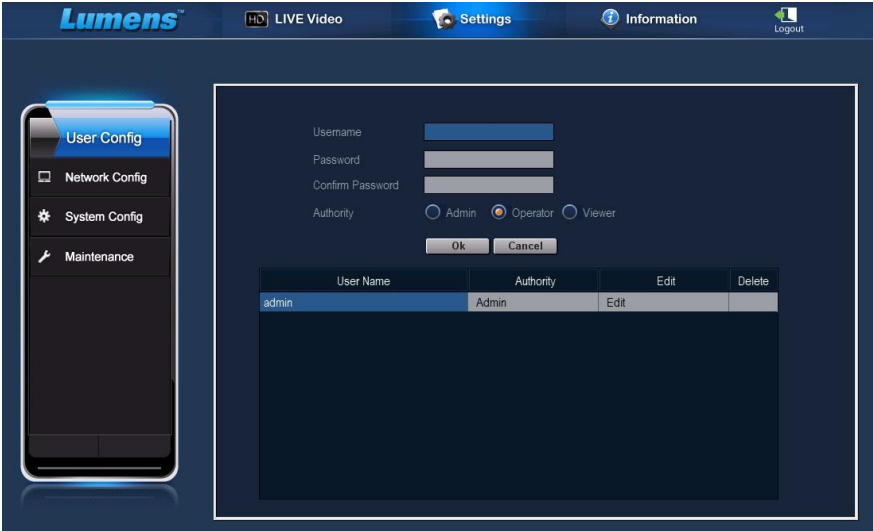
<Remark> Please select this setting when the number of users online to watch the live image simultaneously is more than 4.  
Besides, all users must be in the same domain.

1. Log in to CL510 web control screen



2. Click [Settings] on the top
  3. Click [Network Config]
  4. Select [Enable Multicast]
  5. Press “Confirm”
  6. Please click [LIVE Video] or turn on **VLC Player** to watch the live image.
- <Remark> After the use, please reset to cancel [Enable Multicast].

## 6.21.2 I would like to add or modify the user account



<Remark> Reference for User Permissions

User Type	Admin	Operator	Viewer
Applications	IE or VLC	IE or VLC	IE or VLC
Operation of LIVE Video	Y	Y	N
View images	Y	Y	Y
Settings	Y	N	N
File List management	Y	N	N

### 6.21.2.1 I would like to add the user account

1. Click [Settings].
2. Click [User Config].
3. Enter the username in the [User Name].
4. Enter the new password in the [Password].
5. Enter the password in the [Confirm Password] again.
6. Set the permissions in the [Authority].
7. Click [OK] to conform and submit.



### 6.21.2.2 I would like to delete the user account

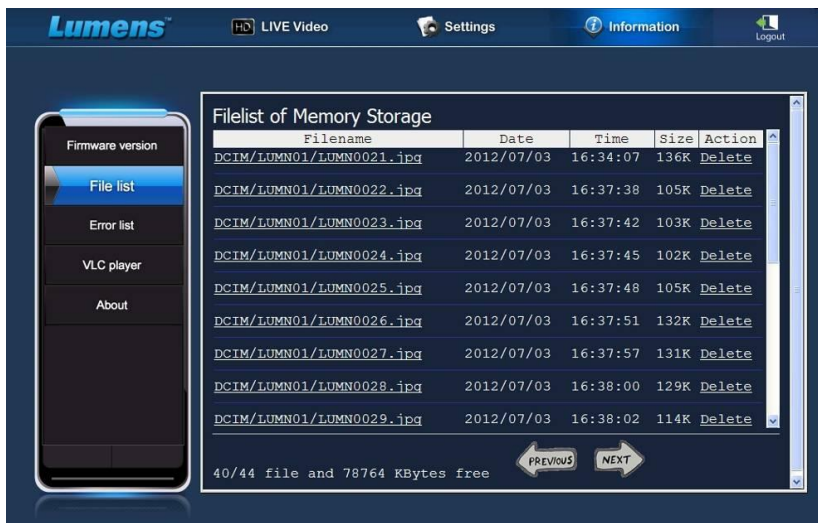
1. Click Username.
2. Click [Delete] field to delete the user.

### 6.21.2.3 I would like to modify the user password and permissions

1. Click Username.
2. Enter the old password in the [Old Password].
3. Enter the new password in the [Password].
4. Enter the password in the [Confirm Password] again.
5. Set the permissions in the [Authority].
6. Click [OK] to conform and submit.

### 6.21.3 I want to manage saved image files

1. Click [Information].
2. Click [File list].



#### 6.21.3.1 View image files

1. Click the file name to open the saved image file.

#### 6.21.3.2 Delete image files

1. Select the file to be deleted and click [Delete]. Press [YES]

to confirm.

## 6.21.4 Firmware version



1. Product ID: Product Name
2. Software Version: Current Firmware Version
3. Video Player Version: Current Video Player Version
4. GUI Version: Current GUI version

## 6.21.5 Upgrade Firmware Version

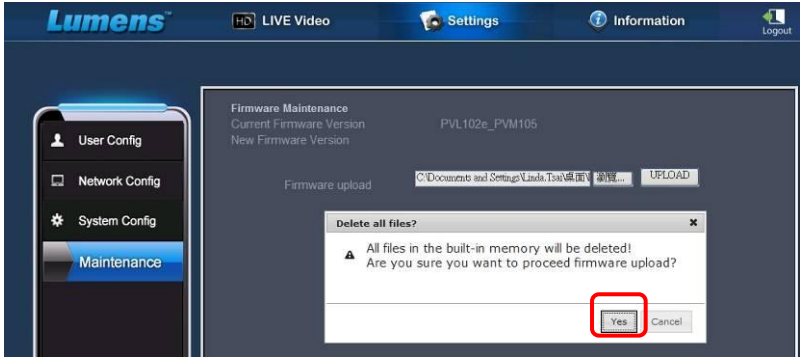


<Remark> Please download the latest firmware version from the [Lumens website](#).

1. Click [Settings].
2. Click [Maintenance].
3. Click “View” in the [Firmware upload] field, and select the firmware

files to upgrade.

4. Click [UPLOAD] to start upgrading.
5. When the firmware files are uploaded, all files in the built-in memory will be deleted. If you want to store the files, click “Cancel” to cancel upgrading. You should proceed upgrading only after the file back-up is completed. If the files don't need to be stored, click “Yes” to start upgrading.

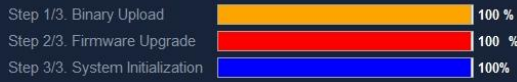


6. When the upgrading procedure processes to “Step 3/3”, please follow the instruction on the screen to login the Administrator Account.
7. When the installation is completed, please close the IE Browser, and then open IE Browser again to start network connection.

**Firmware Maintenance**

Current Firmware Version  
New Firmware Version

PVL102e\_PVM105  
PVL102f\_PVM105

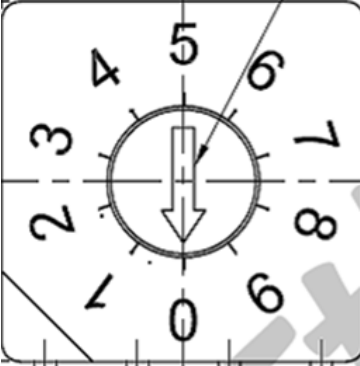


*Please restart the web browser.*

# Chapter 7 DIP Switch Settings

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<Note> You should unplug and reconnect the power cord, and then restart the CL510 for all DIP switch settings to take effect.

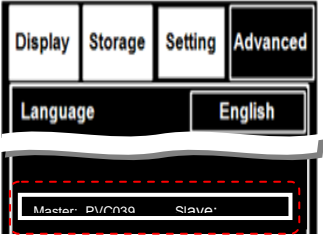


Output Mode	Position of DIP Switch
Default (XGA)	0
SXGA	1
WXGA	2
UXGA	3
1080P	4

# Chapter 8 Troubleshooting

This chapter describes problems you may encounter while using CL510. 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.	<b>Boot without power signal</b>	Make sure you have plugged in the power cord.
2.	<b>There is no image output from CL510</b>	<ol style="list-style-type: none"><li>1. Check the power.</li><li>2. Check the settings for the source of the projector. For the appropriate input selection of the projector, refer to the projectors user manual.</li><li>3. Check if DIP Switch is properly set. Refer to <a href="#">Chapter 7 DIP Switch Settings</a> for related settings.</li></ol>
3.	<b>Unable to focus</b>	<ol style="list-style-type: none"><li>1. Probably the document is too close. Press [ZOOM -] on the <b>Remote Control</b>. Or pull away the distance between document and lens, then press [AUTO TUNE].</li><li>2. Please confirm if there is any fingerprint or stain on the lens. Try to use [AUTO TUNE] to focus after cleaning the lens.</li></ol>
4.	<b>The image is incomplete</b>	Check the Auto Image setting of your projector. Please refer to the user manual of the projector or check for the DIP SWITCH settings.
5.	<b>Forget the password for turning on</b>	Please contact your distributor or the service center.
6.	<b>Lumens Document Camera, Ladibug™ and other applications cannot be used simultaneously</b>	<b>Lumens Document Camera, Lumens™</b> and other applications cannot be executed simultaneously. Only one application can be executed at a time. Please close the currently running applications and then execute the application to be used.
7.	<b>CL510 fails to store images or react</b>	<ol style="list-style-type: none"><li>1. Check to see if the stored data have reached the maximum size of the USB device (priority) or internal memory.</li><li>2. Please make sure if the Capture function is set to Continuous mode or the time for capture is set to be long. For the related setting, refer to <a href="#">6.8 I would like to capture images of Chapter 6 Descriptions of major functions.</a></li></ol>

8.	<b>The images outputted from CL510 are too bright, dark or vague</b>	Press [AUTO TUNE] to automatically adjust to the optimal brightness and focal length.
9.	<b>Unable to record images</b>	<ol style="list-style-type: none"> <li>1. Check to see if the stored data have reached the maximum size of the USB disk (priority) or internal memory.</li> <li>2. Please confirm the rotation angle. You may not be able to record when the image is rotated by 90°/270°.</li> </ol>
10.	<b>The operating steps in the manual are not applicable to the machine</b>	<p>The operating steps in the manual may be not applicable to the machine due to improvement in functions. Check to see if the Firmware version of your machine is up-to-date.</p> <ol style="list-style-type: none"> <li>1 Please go to Lumens official website to check whether the latest version is available for update. <a href="http://www.lumens.com.tw">http://www.lumens.com.tw</a></li> <li>2 The steps to check the FW version are as below: <ol style="list-style-type: none"> <li>2.1 Press [MENU] on the <b>Remote Control</b> to enter the setting menu.</li> <li>2.2 Press [▶] or [◀] to select [Advanced] menu.</li> </ol> </li> </ol>  <p>If you are not sure whether it is the latest version, please consult your distributor for advice. <a href="http://www.lumens.com.tw/en/Request_form.php">http://www.lumens.com.tw/en/Request_form.php</a></p>
11.	<b>Unable to login to the network control page</b>	<p>If DHCP is enabled, the IP address may not be updated. Please follow the steps below:</p> <ol style="list-style-type: none"> <li>1 Press [MENU] on the <b>Remote Control</b> to enter the setting menu.</li> <li>2 Press [▶] or [◀] to the [Advanced] menu.</li> <li>3 Press [▲] or [▼] to the [Ethernet].</li> <li>4 Press [ENTER] to open the Ethernet OSD menu.</li> <li>5 Press [▼] to find [Dynamic Host Configuration Protocol].</li> <li>6 Press [ENTER] to modify it.</li> <li>7 Press [▲] or [▼] to select [On].</li> <li>8 Press [MENU] to exit the Ethernet OSD menu.</li> </ol>

		9 Repeat steps 3 ~ 4 and check IP address.
12.	The output image is not clear with water ripples	Please refer to the <a href="#">Appendix 1</a> in the manual to confirm the applicable power frequency, and reset it according to the instruction in <a href="#">5.2 Setting Menu</a> .
13.	The live image does not display after you login to the website	<ol style="list-style-type: none"> <li>1. Please install the <b>ActiveX</b> control according to the instruction on the screen</li> <li>2. If the instruction for installing the <b>ActiveX</b> control does not appear, please follow the following steps to confirm and remove the old version of <b>ActiveX</b> control components, and then re-install the <b>ActiveX</b> control components. <ol style="list-style-type: none"> <li>2.1. <b>Remove the components (Browser IE 8.0/IE 9.0):</b> Open the IE browser, activate [Tool] → [Manage Add-ons] → in the drop-down menu of [Display] at the left side, select [All add-ons]. Then, after selecting “GFFMpeg Class” and “GoDB Class”, right-click the mouse to open the menu, and click [More Info (R)]. Click the [Remove] button at the bottom left, and then press the [Close] button at the bottom right to complete the removal of components.</li> <li>2.2. <b>Remove the components (Browser IE 7.0):</b> Open the IE browser, activate [Tool] → [Manage Add-ons] → [Enable/Disable Add-ons] → in the drop-down menu of [Display], select [Add-ons that have been used by Internet Explorer]. Then, after selecting “GFFMpeg Class” and “GoDB Class”, press the [Delete] button at the lower right corner.</li> <li>2.3. <b>After reloading the website, please follow the instruction on the screen.</b></li> </ol> </li> </ol>



14. **Q: A warning message (“Windows has blocked this software because it can't verify the publisher.”) appears when installing the ActiveX controls as shown in the figure below:**



**A:** Please follow the steps below to modify security settings and re-install ActiveX control components again:

1. Setup steps: Open the web page -> click **[Tools]** in function bar -> **[Internet Options]** -> **[Security]** -> **[Custom Level]** -> select **[Download Unsigned ActiveX Controls]** and set to **[Prompt]** -> **[OK]**
2. Exit the “Internet Option” setup screen, restart your IE browser, and install control components according to the instructions on the screen.

# Appendix 1

Power frequency for each country in the world

Region or Country		Frequency	Region or Country		Frequency	Region or Country		Frequency
Chinese	English		Chinese	English		Chinese	English	
阿富汗	Afghanistan	50	大陸	China	50	關島	Guam	60
阿爾及利亞	Algeria	50	哥倫比亞	Colombia	60	石榴島	Grenada	50
安哥拉	Angola	50	剛果	Congo	50	瓜地馬拉	Guatemala	60
安地瓜	Antigua	50	哥斯大黎加	Costa Rica	60	幾內亞	Guinea	50
阿根廷	Argentina	50	古巴	Cuba	60	蓋亞納	Gayana	50
澳洲	Australia	50	塞浦路斯	Cyprus	50	海地	Haiti	60
奧地利	Austria	50	捷克	Czechoslovakia	50	夏威夷	Hawaii	60
亞述爾	Azores	50	達荷美	Dahomey	50	宏都拉斯	Honduras	60
巴哈馬	Bahamas	60	丹麥	Denmark	50	香港	Hong Kong	50
巴林	Bahrain	60	多明尼加	Dominican	60	匈牙利	Hungary	50
孟加拉	Bangladesh	50	杜拜	Dubai	50	冰島	Ice land	50
巴貝多	Babados	50	厄瓜多爾	Ecuador	60	印度	India	50
比利時	Belgium	50	埃及	Egypt	50	印尼	Indonesin	50
百慕達	Bermuda	60	薩爾瓦多	El Salvador	60	伊朗	Iran	50
玻利維亞	Bolivia	50	赤道幾內亞	Equatorial Guinea	50	伊拉克	Iraq	50
波札那	Botswana	50	衣索匹亞	Ethiopia	50	愛爾蘭	Ireland	50
巴西	Brazil	50 60	法羅群島	Faeroe Island	50	曼島	Isle of Man	50
保加利亞	Bulgaria	50	斐濟	Fiji	50	以色列	Israel	50
緬甸	Burma	50	芬蘭	Finland	50	義大利	Italy	50
蒲隆地	Burundi	50	法國	France	50	象牙海岸	Ivory Coast	50
高棉	Cambodia	50	蓋亞那	French Guiana	50	牙買加	Jamaica	50
喀麥隆	Cameroon	50	加彭	Gabon	50	日本	Japan	50 60
加拿大	Canada	60	甘比亞	Gambia	50	約旦	Jordan	50
康那利群島	Canary Island	50	德國	Germany	50	肯亞	Kenya	50
中非共和國	Central Africa Rep.	50	迦納	Ghana	50	韓國	Korea	60
錫蘭	Ceylon	50	直布羅陀	Gibraltar	50	科威特	Kuwait	50
查德	Chad	50	大不列顛	Great Britain	50	黎巴嫩	Lebanon	50
海峽群島	Channel Island	50	希臘	Greece	50	賴索托	Lesotho	50
智利	Chile	50	格陵蘭	Greenland	50	賴比瑞亞	Liberia	60

Region or Country		Frequency	Region or Country		Frequency	Region or Country		Frequency
Chinese	English		Chinese	English		Chinese	English	
利比亞	Libya	50	阿曼	Oman	50	敘利亞	Syria	50
盧森堡	Luxembourg	50	巴基斯坦	Pakistan	50	大溪地	Tahiti	60
澳門	Macao	50	巴拿馬	Panama	60	中華民國	R.O.C. Taiwan	60
馬得拉群島	Madeiral	50	巴拉圭	Paraguay	50	坦尚尼亞	Tanzania	50
馬約卡島	Majokca Island	50	秘魯	Peru	60	泰國	Thailand	50
馬拉加西	Malagasy	50	菲律賓	Philippines	60	多哥共和國	Togo Rep.of	50
馬拉威	Malawi	50	波蘭	Poland	50	東加	Tonga	50
馬來西亞	Malaysia	50	葡萄牙	Portugal	"	千里達	Trinidad	60
馬利	Mali Rep.	50	波多黎各	Puerto Rico	60	他巴哥	Tobago	60
馬爾他	Malta	50	科托	Qatar	50	突尼西亞	Tunisia	50
馬丁尼克島	Martinique	50	羅德西亞	Rhodesia	50	土耳其	Turkey	50
茅里塔尼亞	Mauritania	50	羅馬尼亞	Romania	50	烏干達	Uganda	50
模里西斯	Mauritius	50	盧安達	Rwanda	50	美國	USA.	60
墨西哥	Mexico	60	沙烏地阿拉伯	Saudi Arabia	50 60	蘇聯	USSR	50
摩那哥	Monaco	50	蘇格蘭	Scotland	50	英國	United Kingdom	50
蒙特色納島	Montserrat	60	塞內加爾	Senegal	50	上伏塔	Upper Volta	50
摩洛哥	Morocco	50	獅子山	Sierra Leone	50	烏拉圭	Uruguay	50
莫桑鼻克	Mozambique	50	新加坡	Singapore	50	委內瑞拉	Venezuela	60
尼泊爾	Nepal	50	索馬利亞	Somalia	50	越南	Viet-Nam	50
荷蘭	Netherlands	50	南非共和國	South Africa Rep.	50	維爾京群島	Virgin Island	60
新蘇格蘭	New Caledonia	50	西班牙	Spain	50	西薩摩亞	Western Samoa	50
紐西蘭	New Zealand	50	斯里蘭卡	Sri Lanka	50	葉門亞丁	Yeman(Aden)	50
尼加拉瓜	Nicaragua	60	蘇丹	Sudan	50	葉門阿拉伯	Yemen(Arab)	50
尼日	Niger	50	蘇利南	Surinam	60	南斯拉夫	Yugoslavia	50
奈及利亞	Nigeria	50	史瓦濟蘭	Swaziland	50	薩伊共和國	Zaire Rep. of	50
挪威	Norway	50	瑞典	Sweden	50	尚比亞	Zambia	50
琉球	Okinawa	60	瑞士	Switzerland	50			

# Touchboards

205 Westwood Ave, Long Branch, NJ 07740  
 Phone: 866-94 BOARDS (26273) / (732)-222-1511  
 Fax: (732)-222-7088 | E-mail: sales@touchboards.com