

FCC Compliance and Advisory Statement.

LABELLING REQUIREMENTS (Part15,Section15.19(a)(3))

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 operations.

INFORMATION TO THE USER (Part 15. Section15.105(b)) **INFORMATION TO THE USER**

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 more of the following measures:

- 1) Reorient or relocate the receiving antenna.**
- 2) Increase the separation between the equipment and the receiver.**
- 3) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.**
- 4) Consult the dealer or an experienced radio/TV technician for help.**

WARNING(Part 15, Section 15.21)

Any changes or modifications not expressly approved by the Jun telecom Inc. could void the user's authority to operate the equipment.

Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

Canadian DOC Statement.

Suggested text for the notice indicating compliance with this Standard:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canada.

INDEX

1. Product introduction	2
1.1 Description	2
1.2 Required system conditions	2
1.3 Components	3
2. Precautions	4
2.1 Warnings at installation	4
2.2 safety instruction	4
3. CD Installation introduction	5
3.1 CD S/W Installation	5
3.2 Driver recognition on Windows 2000/XP	10
3.3 Driver recognition on Windows 98/98SE/ME	13
3.4 Remove software and driver	14
4. WebCAMeye Light Usage	15
4.1 Name	15
4.2 Focus adjustment	16
4.3 Adhesion of the magnetic panel	17
4.4 Set up the options	18
5. WebCAMeye Light S/W Usage	19
5.1 WebCAMeye Usage instruction	19
5.2 EyeImage Usage instruction	26
5.3 EyeChat Usage instruction	27
6. FAQ	31

1. Product introduction

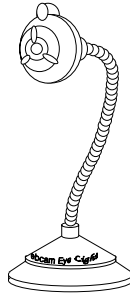
1.1 Description

Item	Description	Remark
Sensor	VGA(640 480) 1/4 inch CMOS Sensor	
Pixels	320,000	
Minimum illumination	1.9Lux	
Lens	F=2.8mm, f=4.5mm, 4 element	
View angle	53°	
Focal range	2cm ~ ∞	
window size	VGA(640 480),CIF(352 288), SIF(320 240),QCIF(176 144), QSIF(160 120)	
Format	RGB24, I420	
Frame per second	30FPS(QSIF), 30FPS(QCIF), 30FPS(SIF), 30FPS(CIF), 15FPS(VGA)	
Signal/Noise rate	>45dB	
Dynamic range	60dB	
Compress format	ISO/IEC 10918-1(JPEG)	
Automatic Control	Automatic Exposure, Auto white balance, Auto COMS reset level control, Automatic Gain Control and auto/manual Histogram Equalization	
Interface	USB 1.1	

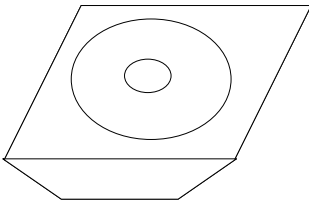
1.2 Required system conditions

Item	Required System conditions	Remark
O/S	windows 98, windows 98SE, windows ME, windows 2000, windows XP	
CPU	Above the Pentium II 250MHz	
MEMORY	Above 128M	
HDD	100M space (in case of installing the software)	
VGA	Above the 800 600 24bit	
USB	IBM PC or compatible with USB port	

1.3 Components



A



B



C

- | | |
|--------------------------------|------|
| A. WebCAMeye Light Main Body | 1 ea |
| B. Installation CD | 1 ea |
| C. Magnetic panel for adhesion | 1 ea |

2. Precautions

2.1 Warning on installation

- Must install the driver of CD before you connect the PC camera to the computer.
- Must install the PC camera on the plain surface firmly with magnetic panel in order for the camera not to be come off.
- Must get rid of dust and humidity on the surface which you install the PC camera.
- The problem can be caused if you use expended USB cable to connect PC & PC camera.
- Please be careful not to pull excessively the USB cable of PC camera since it can damage (the cable).
- Please don ' t turn flexible wire of PC camera

2.2 Safty instructions

- Please install the PC camera away from children's hands.
- Please tie up the connecting cable of PC and PC camera short to prevent anyone being entangled by the cable.
- Please disconnect the PC camera in case of long term disuse of camera.
- Please not turn iris too much since it can damage lens or takes the lens out of the body.
- Please use soft cloth when you clean up the camera.
- Please don't disassemble the camera.
- Please contact with MTP for A/S or for any further information.

3. CD Installation instructions

3.1 CD s/w installation

You should install the software of CD before you connect WebCAMeye Light to your computer.

1. The bottom menu will appear automatically when you insert the CD. (In case that it does not appear automatically, you should operate Setup.exe on CD.)

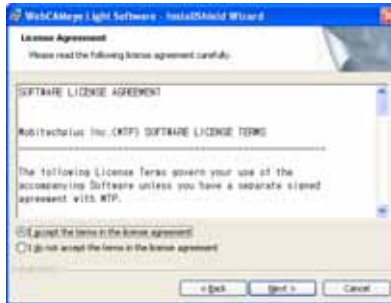


2. The install program will be executed when you click “Software Install” button. (You may also execute the program operating Setup.exe inside of software folder of CD.)



- In case that you have used other PC camera, you should get rid of its driver before you install webCAMeye Light PC camera driver.

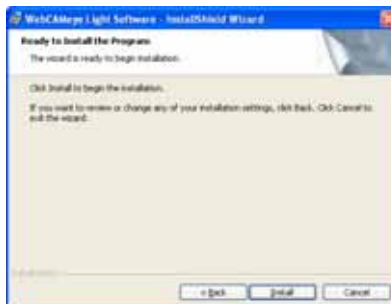
3. Please click the “Next” button.



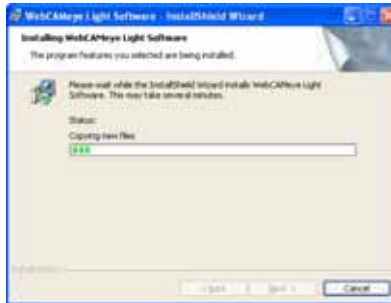
4. Please accept the use contract and click the “Next” button.



5. Please set up installation folder and click the “Next” button.



6. Please click the “Install” button.



7. Please click the “Finish” button when the installation is completed and appear the bottom page.



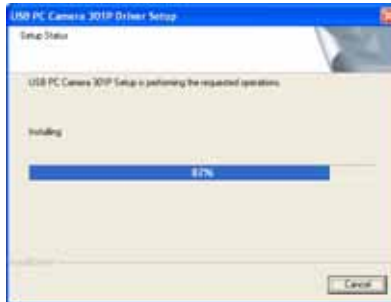
8. Then the first page will be appeared as bottom.



9. Please click the “Driver Install” button.



10. Please click the “Next” button.



11. Please click the “Continue Anyway” button when the bottom page appear while installation. (it will not always appear depending on the OS.)

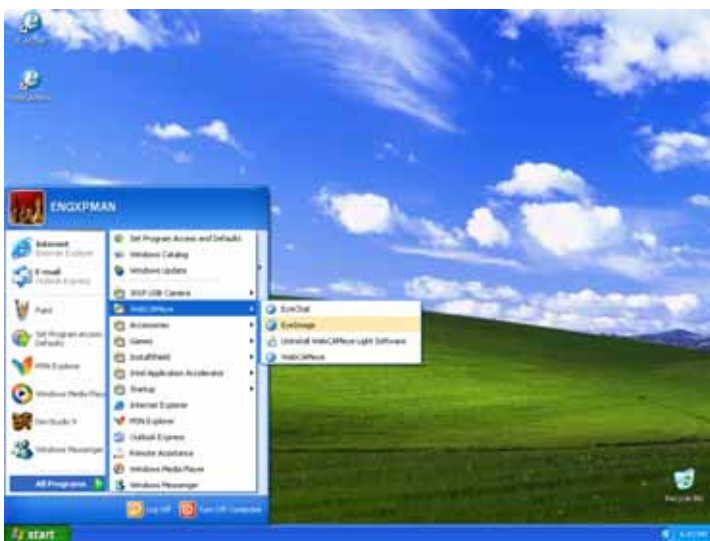


• Above “windows logo test” warning normally appear when they didn’t request certifying to Microsoft but it has no relation to using our product.

12. The bottom page will appear when the installation is fully completed. Please click the “Finish” to reboot.



13. You will find that the program is installed on Start Menu and on Desktop after rebooting. (WebCAMeye and 301P USB Camera will be added on Start Menu)



- All the introduction pages has been standardized to window XP but it is compatible for other OS following same procedure.

3.2 Driver recognition on windows 2000/XP

1. Connect the WebCAMEye Light to spare USB port of PC. The bottom page will appear on the recognition procedure.



2. Please install and click “Next” button.



3. In case that the bottom page can appear while installing, please click “Continue Anyway” button.



- Above “windows logo test” warning normally appear when they didn't request certifying to Microsoft but it has no relation to using our product.

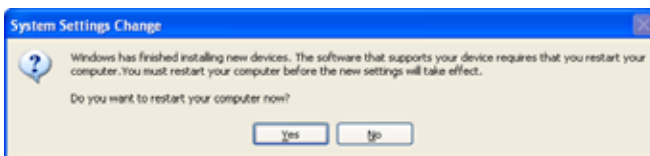
4. It will install continuously.



5. The bottom page will appear after the installation is completed.



6. Please click the "Finish" button.



7. when the above page is appear, please click "Yes" and reboot.

8. Please check if the PC camera is recognized on Imaging Devices of Device Manager.



- Introduction pages are all of window XP but it will be installed in the same procedure on Window 2000

- Method of open Device Manager for Windows XP:
Start Menu Control Panel Switch to Classic View System Hardware Device Manager

- Method of open Device Manager for Windows 2000:
Start Menu Settings Control Panel System Hardware Device Manager

3.3 Driver recognition on windows 98/98SE/ME

1. Connect the WebCAMeye Light to spare USB port of PC. Recognition procedure will be completed automatically.

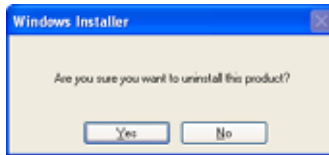


2. Please check if the PC camera is recognized on Imaging Device of Device Manager.

- Introduction pages are all of window ME but it will be installed in the same procedure on window 98/98SE
- Method of open Device Manager for windows 98/98SE/ME:
Start Menu Settings Control Panel System
Device Manage

3.4 Remove software and Driver.

1. If you want to remove the software, select “Uninstall webCAMEye Light Software” of webCAMEye on Start Menu and click “Yes” button.

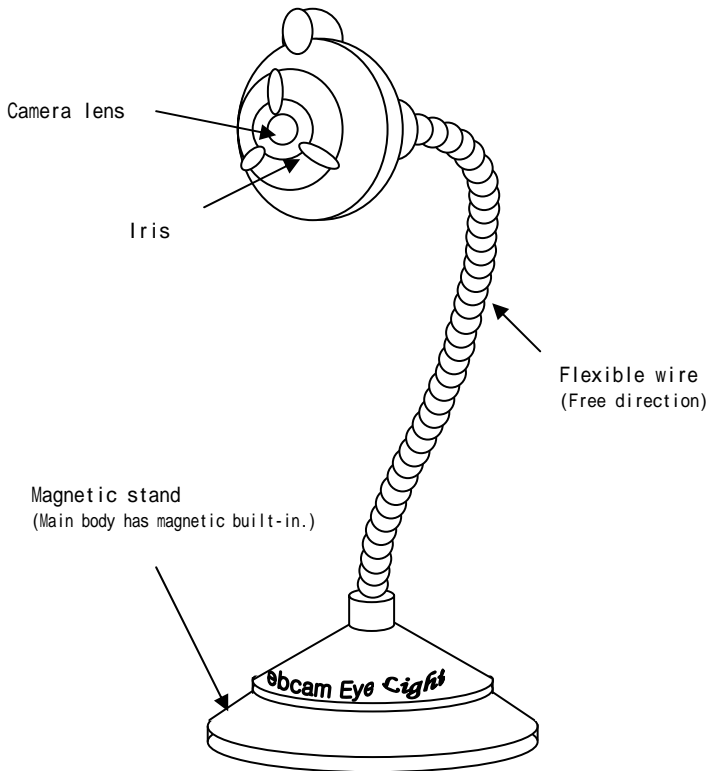


2. If you want to remove the driver, select “Uninstall” of 301P USB Camera on the Starting Menu and click “YES” button.



4. WebCAMeye Light usage

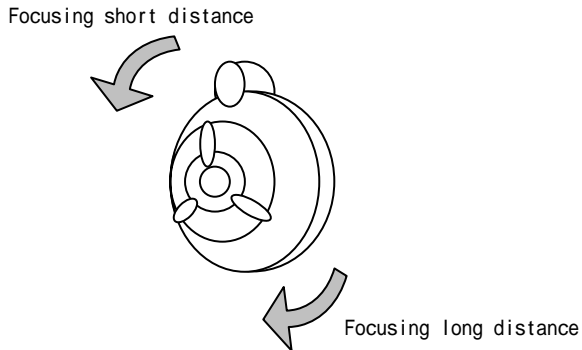
4.1 Name



4.2 Focus adjustment.

The image should be focused adjusting the Iris by hand for WebCAMEye Light. So the image can be out of focus because of the PC camera location. In that case, please adjust the focus as following instructions;

- A . Turn the iris to the right: Focusing the image of long distance.
- B . Turn the iris to the left: Focusing the image of short distance.



You should be careful not to turn the iris too much, which can cause the extracting the lens from the body. In case that the lens is taken out, dirt can enter between sensor and lens so you should insert lens turning it to the opposite direction.

4.3 Adhesion of the magnetic panel.

WebCAMEye Light has magnetic panel built-in on its bottom. So you are supposed to place the WebCAMEye Light on normal computer metal case or place it on the enclosed magnetic panel that is placed at the desired spot.

The followings are some examples of adhering the magnetic panel;

A. Place it on the metal case of computer.



B. Place it on the monitor



C. Place it on the lap top



4.4 Set up the options

WebCAMeye Light setup page is as bottom;

(Example : Camera Setup menu of WebCAMeye S/W setup button.)



- Brightness Adjust Brightness. (1 ~ 40 Default : 20)
- Contrast Adjust Contrast. (1 ~ 40 Default : 20)
- Gamma Adjust Gamma. (1 ~ 5 Default : 4)
- Hue Adjust Hue. (1 ~ 36 Default : 18)
- Saturation Adjust Saturation. (1 ~ 100 Default : 50)
- Sharpness Adjust Sharpness. (1 ~ 5 Default : 3)
- Red Adjust Red color grade. (Manual/Auto Default : Auto)
- Green Adjust Green color grade. (Manual/Auto Default : Auto)
- Blue Adjust Blue color grade. (Manual/Auto Default : Auto)
- Exposure Adjust Exposure. (Manual/Auto Default : Auto)
- USB Bandwidth Adjust USB Bandwidth. (Manual/Auto Default : Auto)
- Vertical Flip Display vertical symmetry video (Check/Uncheck : Unchecked)
- Color Enable Display color video. (Check/Uncheck : Checked)
- Mirror Flip Display horizontal symmetry video(Check/Uncheck : unchecked)
- Backlight comp Make the video brighten at darkness (Check/Uncheck : Unchecked)
- Flicker off Don't remove AC frequency of the electric light
- Flicker 50Hz Remove the 50Hz AC frequency of Europe or Japan.
- Flicker 60Hz Remove the 60Hz AC frequency of Korea or USA.
- Reset Restore the factory value.
- Save Save the user's setting value.
- Restore Restore the user's setting value.

If the back light Comp is selected, the image printing speed will be reduced.

5. WebCAMeye Light S/W Usage

5.1 WebCAMeye Usage instruction

This software is developed mainly for PC camera and is valid for showing the present image taken by PC camera, saving function of the photos and the video image as well as sending the photos by e-mail and connecting the EyeImage and Eyechat.

A. Viewer function.

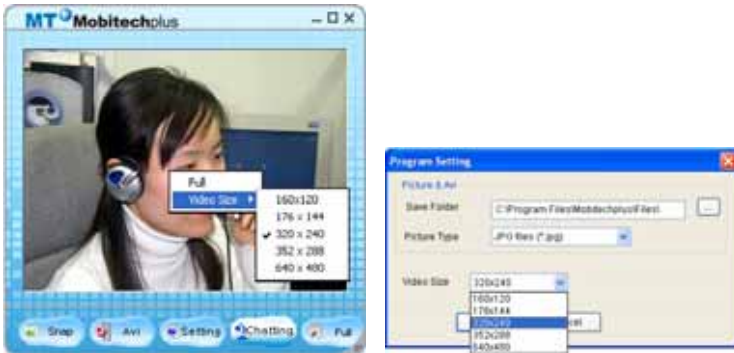
Show the present image on the screen and adjust the resolution and set up the camera.



WebCAMeye

- Adjust the resolution.

There are two ways to adjust the resolution. One is to press the right button of mouse placed on the screen and the other is to adjust it in the program setup dialog of set up button.



- Adjust screen size freely.

Except the resolution adjustment, window size is supposed to be adjusted by pulling the corner of screen to ideal size.



Size adjustment corner.

- Full screen display.

You can display the image data to through the full screen. It is useful to enlarge images or for surveillance monitor.



- The full screen image will be quite unnatural at low resolution.
- The image speed can be slow down since the full screen image requires higher system capacity.

- Camera setup and Program environment setup.

If you press “Setup” button, there are two menus; Camera setup and Program Setup.



Camera setup



Program setup

- Please refer to the index 4.4 set up the options to set up the camera.
- You can setup the saving folder, setup the image format and setup the resolution.

B. Photographing function.

If you press “Photo” button on webCAMeye, small sub-window will appear as follows.



- Photo: You can save the photo to BMP or JPG file.
(It is possible to select at the program set up box.)
- Edit: Connect the selected photo to the imaging program.
(BMP file will be operated by EyeImage and JPG file follows the ordinary windows image program.)
- Delete: Send the selected photo to the recycle bin.
- Mail: Attach the selected photo to the e-mail.

You must setup mail program to send it by e- mail.

C. AVI file function.

If you press “AVI” button on webCAMeye, small sub-window will be appear.



- Record: Save the video by AVI file.
(If you want to stop the recording, press “Save” button.)
- Play: Play the selected AVI file.
- Delete: Send the selected AVI file to the recycle bin.

D. Connecting related programs

- Chat

You can chat person-to-person operating the EyeChat program without opening the start menu.

- Connect to EyeImage program

You should click "Edit" button after you select thumb nail on photo sub-window or you should do double clicks the selected thumb nail.

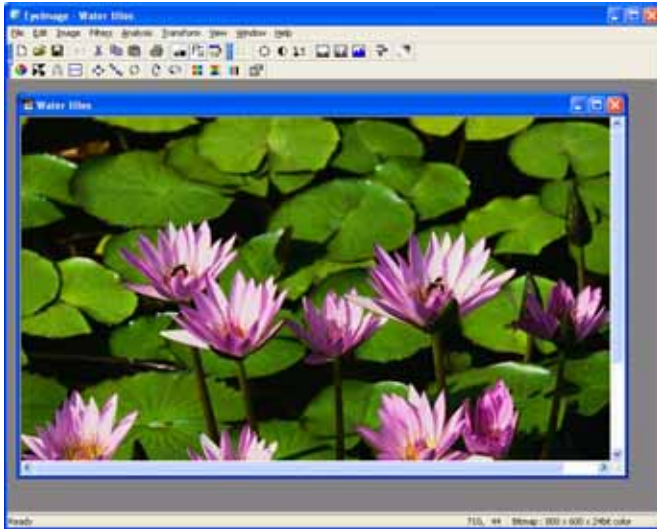
EyeImage does not support JPG file.

Please be noted that the ordinary window image program will be operated when you press "Edit" button after select JPG file or do the double click on JPG file. (ex : MS Paint)

- You can find all the necessary information of usage of all the programs in webCAMeye software. Please refer to the information when you use the programs.

5.2 EyeImage Usage instruction

EyeImage is an image processing base tool. It's function is similar to filter function of the Photoshop. It provides various functions like reversing images, adjusting image size and distorting colors.



A. Applied functions.

- RGB, HSI, YIQ, CMYK and etc. Conversion
- Wavelet Transform (Walsh, Haar 2, Daubechies 4)
- Fast DCT (Zonal Coding)
- Arithmetic Operation(+, -, /, *, Darkest, Lightest, Average, Difference, OR)
- Geometric Operation (Translation, Rotation, Scaling, Mirror, Flip)
- Morphological Operation (Erosion, Dilation, Opening, Closing)
- Analysis (Sum, MSE, RMSE, PSNR, Std Dev., Min/Max, SSD, SAD, MAD, ...)
- Blur, Sharpen, Emboss, Edge Detect Filter
- Variable Histogram (Equalize, Stretch, Color)
- Image Information (File name, size, using color, Bitmap header info.)
- 3 image format (BMP, RAW, PGM)

EyeImage does not support JPG file.

5.3 EyeChat Usage instruction

Eyechat program that is developed for P2P video chatting is a chatting program for chatters to communicate watching each other using PC camera. It is regarded as total chatting software providing Text and file exchanges and vocal conversation at the same time.

A. Remote connection

They can connect each other pressing connect button If they know IP address of each other. It will be easier to connect each other if they save their IP address at the connecting dialog to connect.

The below window is the connected EyeChat screen.



EyeChat

- Add new name on the list

If you press “Connect” button on EyeChat, the below page will appear.



- Please enter conversation partner at Connect information.
Name : Partner's name
IP address : Computer network partner's IP address
Port No. : Port Number of the partner
 - Partner's data will be registered to the Connect List when you press “Add” button.
- Amend the Connect List.
 - Please click the name of Connect list.
 - Then revise necessary part of the connect information
 - It will be revised when you press “Amend” button
 - Delete partner of the Connecting List
 - Please select a name of connect list to delete.
 - Then the name will be removed when you press “Delete” button.
 - Delete all
 - Please press “delete all” to delete all.
 - Connecting.

It will be connected when you press “Connect” button after selecting the desired name of the Connect list. However it will be connected only when the desired person is also operating EyeChat.

Port number is always 7070. Please don't use 7070 port at other software.

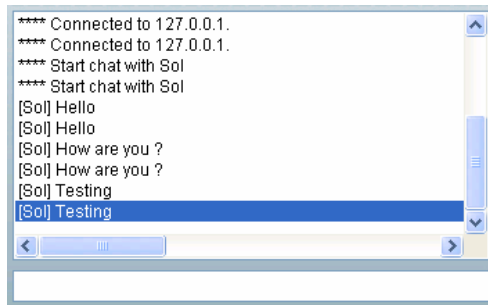
B. Data Sending

- Video and audio Sending

Video and audio check boxes should be checked to send your picture and vocal data. Likewise your conversation partner's ones also should be checked for you to receive his picture and voice.

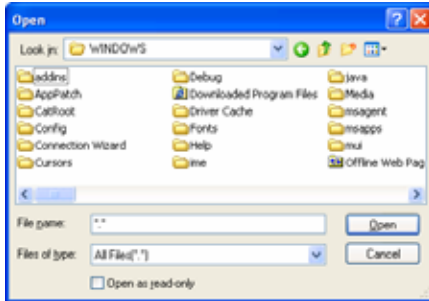
- Text Sending

You should write text on the text control and press “Enter” then your text with your ID will appear on the conversation control of your partner. Likewise the text of your partner will appear on your conversation control.

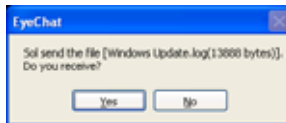


- File Sending

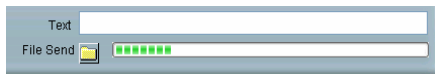
If you press “File Send” button, the below window will appear to select the file to send.



When you select the file, the below window will appear on your partner’s side.



The partner should press “Yes” button to receive the file



- It is possible to enjoy video chatting while sending files.
- Please refrain from sending files over 60M.

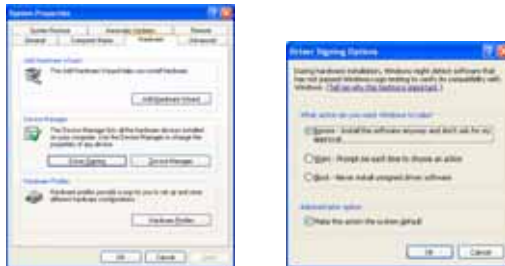
FAQ

Q What can I do if I don't have window CD even though it requires to insert window CD.

A window CD is necessary. You should prepare installed window CD like windows 98, windows 98SE or windows ME to complete the installation properly.

Q The Hardware certificate warning dialog appears at installing on Window 2000 and window XP

A When you install it on window 2000 or on XP the warning message "windows logo test" can appear. It is recommended to ignore it and continue to complete the installation. In case that you don't want to see this message, please follow as the below screen.



Q Can not see the screen at video chatting site.

A Please check the setup conditions of Camera and resolution menu. You should check the camera whether it recognizes image without problem and adjust the resolution properly.

Automatic connection will be failed if there is any error caused at the automatic installation. In this case, you are required to do download and install the chatting program of the site manually.

Q The screen is invisible.

A First of all, you should check if the PC camera is properly connected to PC through USB port. If everything is ok, please refer to the below mentioned procedure;

Windows98/98SE/ME	Start	Settings	Control Panel	System	Device Manger	
Windows2000	Start	Settings	Control Panel	System	Hardware	Device Manager
WindowsXP	Start	Control Panel	Switch to Classic View	System	Hardware	Device Manager

1. In case that driver is installed at the imaging device.
 - a. You should open the imaging device to check if the camera name is properly displayed.
 - b. Please check if there is yellow exclamation mark.
 - c. If there is yellow exclamation mark, please remove the driver and reinstall it.
2. In case that driver is not installed at the imaging device and other unknown device is installed
 - a. Please remove the unknown device or others.
 - b. Then remove the driver and reinstall it.
3. In case that imaging device is not displayed.
 - a. Please Check if Universal Serial Controller is at Device Manager.
 - b. In case that it is not installed.
You should turn on USB device at BIOS.
 - c. In case that it is installed, Please try to use another port.
If it still doesn't work even though you try above mentioned instructions, PC camera may be out of order. Please contact with the distributor or head office of MTP

- In case that you have used other PC camera, you should get rid of its driver before you install webCAMEye Light PC camera driver.

- A/S
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