

# **Installation Manual**

## **Defender G-lens 321/323/324/326 webcam**

## Defender G-lens 321/323/324/326 webcam

*Thank you for choosing our Defender webcam! The quality of this digital product is guaranteed by our cutting-edge technologies. With high definition and high-speed data transmission features the Defender G-lens webcam will make communication with friends and relatives more comfortable while reducing the distance between you.*

System requirements:

- CPU from 1 GHz
- Windows XP/Vista/ Windows 7
- Graphics card compatible with Direct X 9.0 VGA
- Free USB port
- Audio card
- Free 500 Mb of space on hard drive
- USB 2.0 interface (500 mA)

### Installation of G-lens webcam software for Windows XP Installation of the device driver from CD

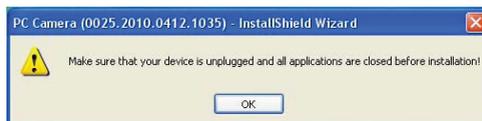
1. Insert the CD from the webcam kit into the CD drive. If your operating system has the autorun support feature enabled, the installation program will be launched automatically. If your operating system has the autorun support feature disabled, open the CD contents and run the autorun.exe file using the explorer.

2. In the popup window of the installation program select Install driver.

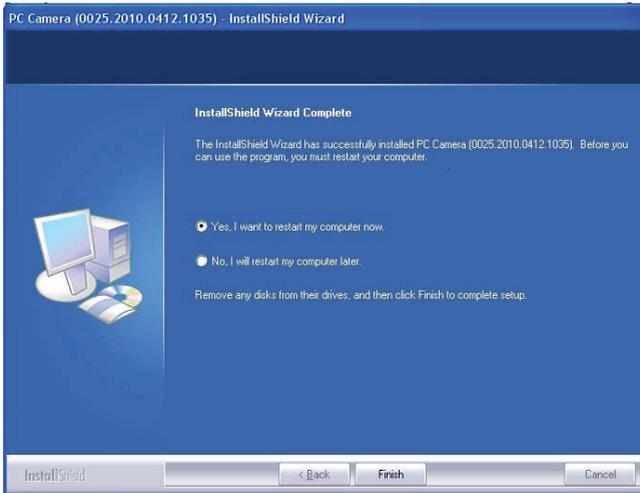
3. In the next popup window select the model of your webcam.

4. The following window will alert you that the webcam should be disabled and all launched programs should be closed.

Press OK.



5. After installation is finished, the webcam installation completion windows will popup.



Connect your webcam. At the right bottom of the screen New equipment found icon will popup.

6. New Equipment Wizard window will popup.

Press Next.

7. The automatic installation of drivers will start.

8. After installation is finished, press Done.

## **How to find your webcam in the Devices Manager**

In case of successful installation the Devices Manager will have a PC Camera device listed in the Image Processing Devices section.

### **The Devices Manager window can be opened in two ways:**

1. Press Start (at the left bottom of the screen or on the keyboard). Then select My Computer or Computer, press the right mouse button and select Properties. In the popup window select Devices Manager.
2. Press Start. Then select My Computer or Computer, press the right

mouse button and select Management. In the popup window select Devices Manager.

How to disable the digital signature verification feature

1. Press Start (at the left bottom of the screen or on the keyboard). Then select My Computer or Computer, press the right mouse button and select Properties. Open the Equipment tab and press Signature of drivers.

2. The Parameters of driver signature window will popup.

Check boxes Skip-install software and not prompt for approvals and Use the action as the system one by default.

3. When you're finished, press OK in opened windows and confirm the restart of computer.

Note: In some cases, depending on the software and computer configuration a different layout of windows and other operations procedure are possible. If user rights are restricted, we recommend contacting the computer administrator or use the computer administrator account.

### **Manual installation of the driver**

1. Download the driver for manual installation and unzip it (depending on the archive, ZIP or RAR archive manager may be required) to the PAC7302 folder located in the system root disk.

If you have previously installed the driver from the setup disk, the folder with drivers will be located as specified below:

System disk:\Program Files\Common Files\PAC7302 (for 32-bit operating systems).

We recommend copying the PAC7302 folder to the system root disk or any other disk available in the system. Depending on the operating system settings the above path may appear unavailable. Refer to operating system sections in the documents which describe how to make hidden and system files available.

2. Launch the Devices Manager (see the launching procedure above) and connect your webcam.

3. The Equipment Wizard window will open.

Press Next.

In case the window does not open:

1) right click on USB Device or Unknown device (as situation requires) and select Properties.

2) in the popup window select the Driver tab, then select Refresh.

3) in the popup New equipment wizard window select Installation from the specified location.

4) In the popup window press Browse. The following window will appear:  
Select the folder where you have previously unzipped the driver to and press OK.

5. Installation of the driver will launch.

6. After installation is finished, press Done.

7. In case of successful installation the Devices Manager will have a PC Camera device listed in the Image Processing Devices section.

8. After installation is finished, restart the computer.

Note: In some cases, depending on the software and computer configuration a different layout of windows and other operations procedure are possible. If user rights are restricted, we recommend contacting the computer administrator or use the computer administrator account.

## **Installation of G-lens webcam software for Windows Vista**

### **Installation of the device driver from CD**

1. Insert the CD from the webcam kit into the CD drive. If your operating system has the autorun support feature enabled, the installation program will be launched automatically.

2. In case your operating system has the autorun support feature disabled, open the CD contents and run the autorun.exe file using the explorer.

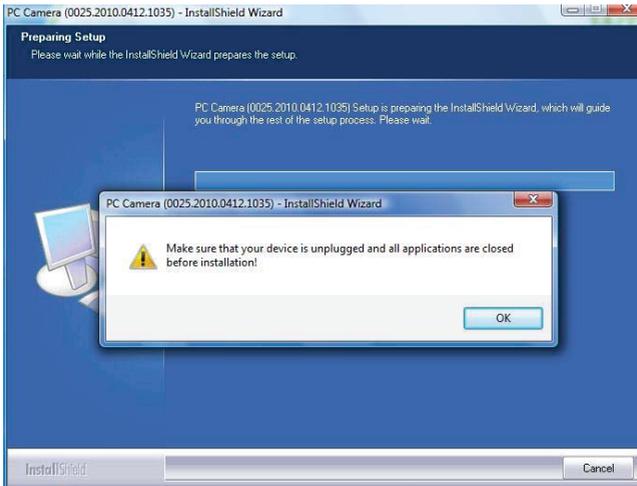
Select Run autorun.exe.

3. In the popup window of the installation program select Install driver.

4. In the next popup window select the model of your webcam.

5. Select the Enable button in the User accounts control window.

6. The window alerting you that the webcam should be disabled and all launched programs should be closed will open.



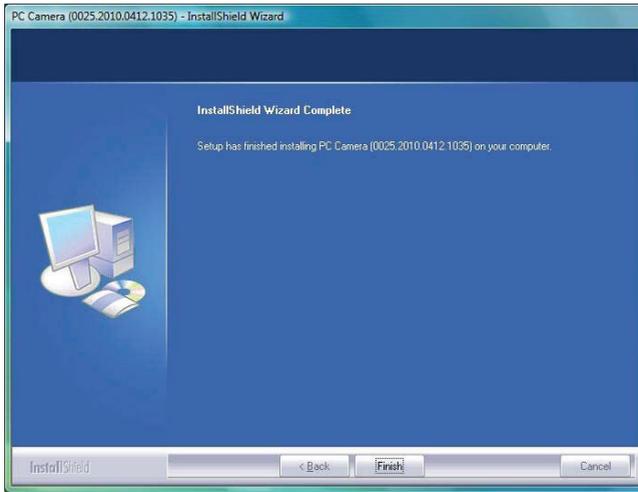
Press OK.

7. The Windows Safety window will popup.

Press Install.

8. Wait until the installation completion window appears:

9. Connect your webcam. At the right bottom of the screen the Software installation icon (the end icon located on the left in the icons row) will appear.



10. Make sure the Devices Manager in the Image Processing Devices section has a PC Camera device listed.

Press Finish in the installation completion window.

### How to find your webcam in the Devices Manager

The Devices Manager window can be opened in two ways:

1. Press Start  (at the left bottom of the screen or on the keypad).

Then right click on My Computer or Computer and select Properties. In the popup window select Devices Manager.

2. Press Start  (at the left bottom of the screen or on the keypad).

Then right click on My Computer or Computer and select Management. In the popup window select Devices Manager.

The following message may appear when launching the Devices Manager

Note: In some cases, depending on the software and computer configuration a different layout of windows and other operations procedure are possible. If user rights are restricted, we recommend contacting the computer administrator or use the computer administrator account.

## **Manual installation of the driver**

1. Download the driver for manual installation and unzip it (depending on the archive and operating system settings, ZIP or RAR archive manager may be required).

We recommend copying the PAC7302 folder to the system root disk or any other disk available in the system.

2. Connect your webcam to the computer. Select Find and install the driver (recommended).

3. The drivers search window will popup. Press Browse and specify the folder where you posted your unzipped drivers to:

Press OK.

Press Install this driver in any case.

4. The New equipment installation window will popup. After the driver has been installed select Close in the popup window:

Restart your computer.

5. In case of successful installation the Devices Manager will have a PC Camera device listed in the Image Processing Devices section.

In that case press Start.

Note: In some cases, depending on the software and computer configuration a different layout of windows and other operations procedure are possible. If user rights are restricted, we recommend contacting the computer administrator or use the computer administrator account.

## What is User Account Control (UAC)

User Account Control (UAC) is the Windows Vista feature which allows preventing unauthorized changes in the operating systems. User account control provides security by requesting administrator's authorization or password before performing potentially dangerous operations or changing parameters which can affect other users' or operating system's work.

The appeared UAC message should be attentively read, and one should make sure the name of the operation (program) performed corresponds to the one which is actually performed (launched). By verifying such operations before launch, the user account control helps prevent installation of malicious software and spyware including attempts of such programs to make unauthorized changes in the operating system.

In case an authorization or password is required to complete the task, the user account control feature will display a warning message in one of the following forms:

- Windows requires your permission to continue: – your permission is required to launch a Windows feature or program which can potentially affect the work of other users of this PC. Check the operation name to make sure this is the feature or program which needs to be launched;
- The program requires your permission to continue: your permission is required to launch a non-Windows program. It has a valid digital signature which contains its name and publisher which allows confirming the program authenticity. Make sure this is the program which needs to be launched:
- Unrecognized program attempts to get access to this computer: unrecognized program is a program which doesn't have a valid digital signature from the publisher which allows confirming the program authenticity. It doesn't necessarily imply danger since many old licensed programs lack signatures. However, such programs need additional attention, and they can be launched only provided they are received from

a reliable source such as original CD or publisher's web-site;

- The program has been blocked: the program the launch of which is blocked by the administrator on purpose. To launch it, it is necessary to contact the administrator and request him/her to unblock the program.

## **Read in full:**

### **How to disable the user account control feature**

**Var.1.** Disabling the user account control using the control panel

1. Press Start → Control panel → User accounts → Enabling or disabling the user account control (UAC);
2. Enter the administrator password if there is a relevant request;
3. Clear a tick box Use the user account control (UAC) to protect your computer feature → OK;
4. After restarting your PC user account control will be disabled.

**Var.2.** Disabling user account control using the System configuration tools wizard

1. Log into the system as Administrator.
2. Press the Windows button + R;
3. In the Open field of the Run window enter msconfig → OK;
4. In the System configuration window open the Service tab;
5. In the scrollable list find the Disable user account control (UAC) tool → Start;
6. After restarting your computer user account control will be disabled.

**Var.3.** Disabling user account control using the registry editor

1. Press Start.
2. In the Start searching line enter regedit;
3. Under the Programs title right click on regedit.exe;

4. From the shortcut menu select Run as Administrator;
5. Enter the administrator password if there is a relevant request;
6. In the popup Registry editor window find the  
[HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\  
CurrentVersion\Policies\System] section;  
Find REG\_DWORD - EnableLUA parameter;  
Set it to 0.

**Var.4.** Disabling user account control using the Windows commands processor

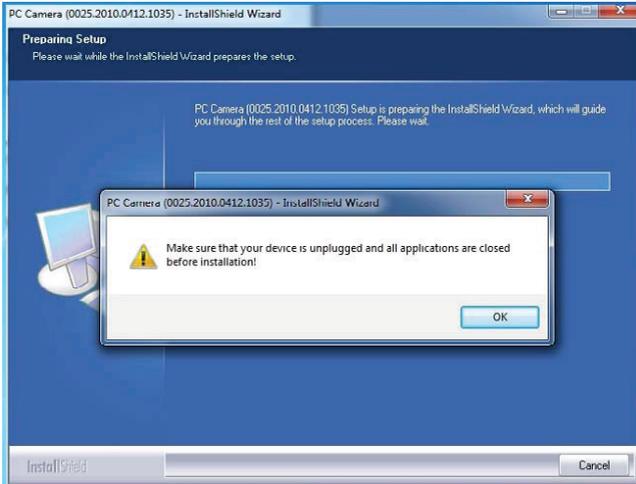
1. Press Start.
2. In the Start searching line enter cmd;
3. Under the Programs title right click on cmd.exe;
4. From the shortcut menu select Run as Administrator;
5. Enter the administrator password if there is a relevant request;
6. When prompted, enter  
REG ADD HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\  
System /v EnableLUA /t REG\_DWORD /d 0 /f command
7. Press Enter.

## Installation of G-lens webcam software for Windows 7

### Installation of the device driver from CD

1. Insert the CD from the webcam kit into the CD drive.  
If your operating system has the autorun support feature enabled, the installation program will be launched automatically. In case your operating system has the autorun support feature disabled, open the CD contents and run the autorun.exe file using the explorer.
2. In the popup window of the installation program select Install driver.

3. In the next popup window select the model of your webcam. Press Yes in the User accounts control window.
4. The following window alerting you that the webcam should be disabled and all launched programs should be closed will open:



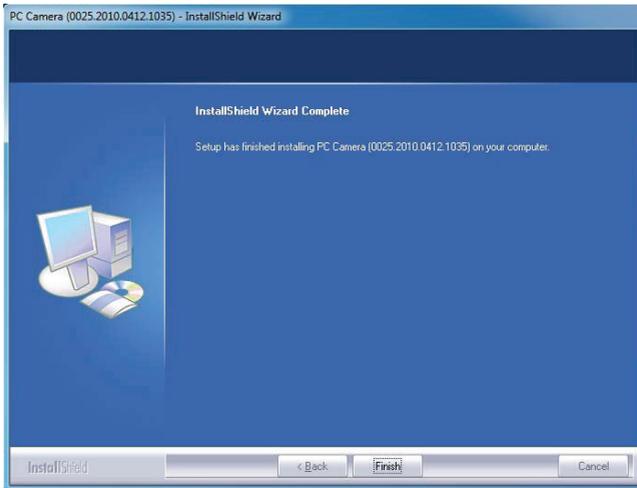
Press OK.

5. The Windows Safety window will popup.

Press Install.

6. Wait until the installation completion window appears:

Connect your webcam. At the right bottom of the screen the Installing the software icon will popup.



7. In case of successful installation the Devices Manager will have a PC Camera device listed in the Image Processing Devices section. Press Finish in the installation completion window.

### How to find your webcam in the Devices Manager

The Devices Manager window can be opened in two ways:

1. Press Start  (at the left bottom of the screen or on the keyboard).

Then right click on My Computer or Computer and select Properties. In the popup window select Devices Manager.

2. Press Start  (at the left bottom of the screen or on the keyboard).

Then right click on My Computer or Computer and select Management. In the popup window select Devices Manager.

## How to disable the digital signature verification feature

There are two ways.

The first way: when booting the computer press F8 at the moment of BIOS operation completion and before the operating system starts loading. In the popup window select the Disabling the driver digital signature verification option.

The second way:



1. Press Start  (at the left bottom of the screen or on the keyboard). Then in the Search for files and programs window enter gpedit.msc and press Enter.
  2. The Local group policy editor window will open. Select: User configuration - Administrative templates - System - Driver installation - Device driver digital signature. Double click or right click this item and select Edit:
  3. In the popup window select the Disable item. Press Apply and OK.
- If you select Enable, you can additionally set the way the system should respond to the driver without digital signature.
4. After confirmation restart the computer.

Note: In some cases, depending on the software and computer configuration a different layout of windows and other operations procedure are possible. If user rights are restricted, we recommend contacting the computer administrator or use the computer administrator account.

## Manual installation of the driver

1. Download the driver for manual installation and unzip it (depending on the archive ZIP or RAR archive manager may be required) to the folder. We recommend posting the folder in the system root disk.

2. If you have previously installed the driver from the setup disk, the folder with drivers will be located as specified below:

System disk:\Program Files (x86)\Common Files\PAC7302 (for 64-bit operating systems)

System disk:\Program Files\Common Files\PAC7302 (for 32-bit operating systems).

We recommend copying the PAC7302 folder to the System root disk or any other disk available in the system.

3. Launch the Devices Manager (see the launching procedure above) and connect your webcam.

4. Right click on the Unknown device icon and select Properties. In the popup window select the Driver tab, then select Refresh.

5. Select Search for drivers on this computer.

6. Press Browse.

Select the folder which the driver was unzipped to for manual installation and press OK.

7. Select Install this driver in any case. Wait until the installation completion window appears.

8. When the driver is installed press Close in the popup window.

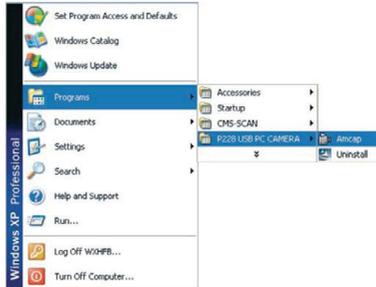
9. In the Image Processing Devices section the Devices Manager will have a PC Camera device listed.

After installation is finished, restart the computer.

Note: In some cases, depending on the computer configuration and software, a different layout of windows and other operations procedure are possible. If user rights are restricted, we recommend contacting the computer administrator or use the computer administrator account.

## Webcam operation

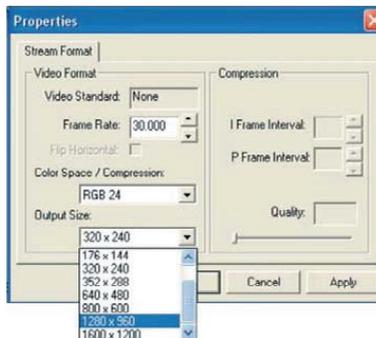
1. To start working with the webcam press Start, then select Programs - Amcap as shown on the figure below.



2. The program window will appear on the screen. You will see the picture displayed by the webcam.



3. From the Options upper menu select Video Capture Pin... to set the required image definition.



## Additional settings

By selecting Video Capture Filter you can setup an image using additional settings.

The screenshot shows the 'Properties' dialog box in AMCAP. The 'Image Control' tab is active, showing sliders for Brightness, Contrast, Hue, Saturation, Sharpness, and Zoom. The 'Face Tracking' tab is also visible, showing 'Face Tracking' and 'In/Out Door' options. The 'Effect Frame' tab is also visible, showing 'Effect Frame' and 'Flicker' options. Callouts provide detailed explanations for these settings:

- Image Control:** Brightness, Contrast, Hue, Saturation, Sharpness, and Zoom.
- Face Tracking:** Face Tracking - Face tracking function. Your face will be always in the center irrespective of your movements.
- Effect Frame:** Effect Frame - allows using special effects and photo frames.
- In/Out Door:** In/Out Door - choose artificial (Indoor) or natural (Outdoor) lighting for optimum white balance.
- Flicker:** Flicker - adjustment of flicker frequency that corresponds to the artificial lighting. Choose 50 Hz frequency to avoid flickering (for Russia and CIS).
- Zoom:** Zoom allows bringing the subject closer. Digital zoom (zoom) allows bringing the subject closer.
- Steam Property:** Steam Property - adjust image in accordance with lighting conditions. Adjust Brightness and Contrast to the required level.

You can select 10 frames and special effects.

The screenshot shows the 'Properties' dialog box in AMCAP with the 'Effect Frame' tab selected. The 'Effect' list includes: Monitor, Green Mono, Gray Scale, Red Mono, Emboss, Find Edge, Mosaic, Solarize, Sepia, Bathroom, Sketch, Yashua, DistortH, DistortV, and Monitor. The 'Frame' list is empty. Callouts point to the 'Effect' and 'Frame' lists:

- Effect:** Effect
- Frame:** Frame

### **How to make a picture?**

From the Capture upper menu select the Snap Shot option and take a picture. The picture taken will appear on the screen. Go to the File menu and save your picture in the required directory.

### **How to record a video?**

From the Capture upper menu select the Start Capture option and recording will begin. Select Stop Capture to stop recording. Go to the File menu and save your video in the required directory.

### **Backlight feature**

(only in the G-lens 321 model)

The backlight can be switched on and off using the toggle button on the webcam back.

## **Using Skype with the webcam**

Launch Skype only from the developer website <http://www.skype.com/intl/ru/home>.

After Skype is installed, restart the computer. For getting Skype technical support contact its developer.

1. To access settings, launch the Skype window, select Tools and Settings...
2. Go to Audio settings and specify the microphone: Microphone (USB audio device). In case there is only one device in the system, the item to be selected can be unavailable.
3. Go to Video settings and specify as follows in the Select webcam window: PC Camera. If there is only one device in the system, the item to be selected can be unavailable.

## **ATTENTION !!!**

When used for a long period of time, the webcam can heat up.

In case of excessive heat turn the webcam off for a while.

Do not use the webcam in hot (over 40°C, direct sunlight), cold (below 10°C), dusty or humid premises (over 90 % of humidity, moisture condensation).

Do not drop the webcam.

Make sure the lens doesn't contact solid objects, do not touch the lens with hands; to remove dust use the optics care products. Never use solvents such as alcohol, acetone etc., as well as acid containing liquids.

Avoid ingress of moisture and liquids on the surface and inside the webcam.

In case of outside temperature fluctuations (by over 7°C) do not turn on the webcam during two hours.

To transmit video signal on the Internet or on any other IP networks, relevant software is required, and it should be configured according to the documents on operating a specific webcam.

### **Cases non-covered by the limited warranty**

The limited warranty does not cover User Manuals, any third-party software as well as settings added during installation, assembly, purchase, any other stage of delivery or added otherwise by the use.

Furthermore, the limited warranty does not cover:

- ordinary wear and tear;
- software;

- defects caused through careless use;
- defects or damage caused through improper use of the product, including use which contradicts the Manual;
- defects or suspected defects caused by using or connecting the product to any product, software or service that are non-compatible with the webcam, as well as by using the product for purposes other than intended;
- defects caused through mechanical damage of wire, webcam body, unsealing the body, using the equipment which is not designed therefor, as well as in case of breakup traces;
- if the product has been broken up, modified or repaired by anyone except for the service center, if it has been repaired with the use of unauthorized parts or if the product serial number is destroyed, changed or can not be read, provided that this fact is determined at the discretion of Defender;
- if the product has been exposed to moisture, humidity or extreme temperature or external exposures or sudden changes of environmental conditions, corrosion, oxidation, in case liquids have been spilled on it or it has been affected by chemicals or food has been dropped on it.
- the warranty does not cover the outcome of third parties actions.
- this warranty does not cover damages which occurred as a result of circumstances beyond one's reasonable control, such as: natural disasters, industrial disasters, acts of terrorism, explosions etc.

## Troubleshooting

| Technical problem   | Troubleshooting technique   |
|---|---|
| Device malfunction (does not work on other computers).  | Contact service center of the device manufacturer.  |
| USB port of the computer does not work.   | Contact specialist technician to troubleshoot the problem.  |
| Poor contact between the USB device socket and USB port of the computer (mechanical damage of the socket elements, socket contact oxidation/greasing etc.).   | Contact specialist technician to troubleshoot the problem.  |
| The USB device socket is inserted incorrectly (some USB devices have irregular socket which allows connecting the USB device incorrectly).  | Make sure the socket contacts match together and connect/insert the USB socket correctly.   |
| The computer USB port power does not allow the device to work properly (voltage deviation from +5 V, USB port current specification does not correspond to the device - standard current specification 100 mA or 500 mA). | Contact specialist technician to troubleshoot the problem.  |
| The computer USB port does not support the USB 2.0/1.1 specification.   | Contact specialist technician to troubleshoot the problem.  |
| Software program  | Troubleshooting technique   |
| Essential features of the operating system are blocked by the Anti-virus/firewall installed, computer system administrator.   | Use the documents on the Anti-virus/firewall installed, operating system or contact the computer system administrator.  |
| The webcam software alerts on unavailability of the webcam device, though the webcam is in the Devices Manager list and there are no any errors in this Manager.  | <ol style="list-style-type: none"> <li>1. Only one program can work with the webcam. Such problem can occur in case of the shared access. Close the unnecessary program.</li> <li>2. Such problem can occur due to technical malfunction of the webcam. In this case, please contact the service center.</li> </ol> |
| The operating system is damaged.  | Use the operating system recovery tools or reinstall the operating system.  |
| The drivers of the computer chipset / extension USB-board are not installed.  | Contact the computer / computer system board supplier to get upgraded drivers of the chipset / extension USB-board.   |
| For DOS: USB-keyboard/mouse support (if any) and other USB-devices support is disabled, USB-ports in BIOS (if any in this system) are disabled.:  | Refer to the documents on the computer system board/ computer BIOS.   |