

EUT:PC Camera

FCC ID:H52PT-6005

PURETEK INDUSTRIAL CO., LTD.

USER'S MANUAL

FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

I

ATTN: Please be advised that this video conference kit, FCC ID: H52PT-6005, is certified for use by the Federal Communications Commission only for the PC camera, model no.: PT-6005.
The user should disregard any information about Video Capture Card in this user's manual.

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Introduction

This video conference kit can be applied in many areas such as remote monitoring, Internet broadcasting, home security, video mail.

There are two versions of the camera, one supporting NTSC video system, and the other PAL video system. Both versions incorporate CMOS sensors and are analog cameras.

The camera connects directly to the capture card that snaps into a PCI slot on your system board. It has programmable frame rate of up to 30 frames per second.

The camera features analog output that enables it to be easily used with other video devices (i.e. TV, VCR etc.).

Package Checklist

The package contains the following items:

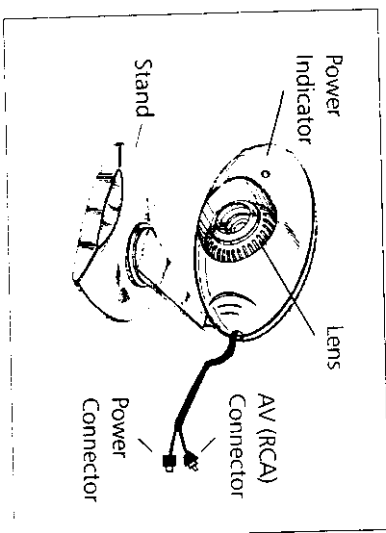
- PC camera
- One CD containing video conference software and driver for your capture card
- User's manual

If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

System Requirements

- Pentium Processor 100MHz or higher
- At least 10MB free HDD space
- 8MB of memory
- Microsoft Windows 95
- VGA card (High color) supporting DirectDraw
- Microsoft Windows 95 compatible sound card
- 4X CD-ROM driver or higher
- An empty PCI slot

Take a Look at Your Camera



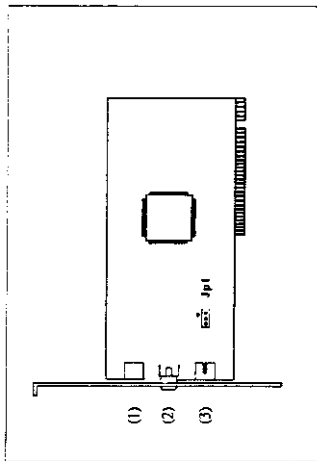
Features

- Power Indicator lights when the power is on.
- Lens should be used to adjust the focus.
- AV Connector transfers the composite signal from your camera to the capture card.
- The design of PC camera stand allows you to rotate the camera 360°.

- The PC camera head can be turned into different positions to obtain the desired angle.
- There are two versions of the camera, one supporting NTSC video system, and the other PAL video system. Please refer to pages 22 and 23 of this manual for more details on setup.
- The Power and AV connectors connect to the capture card or power adaptor/TV. For more details on installation procedures, please see the next chapter.
- When using your camera together with your PC, please note that the capture card must be installed into your PC.
- Low power consumption.

Using your CMOS camera is not much different from using a standard camera. To get a better image quality, avoid direct strong light source.

Take a Look at Your Capture Card



1. S-Video Input Connector (optional)
2. Composite Video (AV) Connector
3. Power Output Connector DC 5/12V

Features

- Designed for PCI 2.1 standard interface
- High quality 32-bit video
- Fast image data transfer
- Default power supply: 12V

Please note that Jumper JP1 is used to select between 12V and 5V. For more details, please refer to page 8 of this manual.



Warning

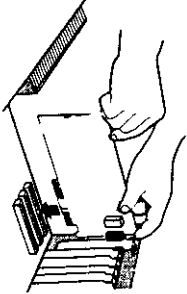
If you use this capture card with a PC camera from another manufacturer, make sure Jumper JP1 is set to match the voltage of that particular PC camera you are using. Serious damage may occur if you run your PC camera with the wrong voltage setting.

Installations

Please note that you should install the capture card before using the camera with your PC.

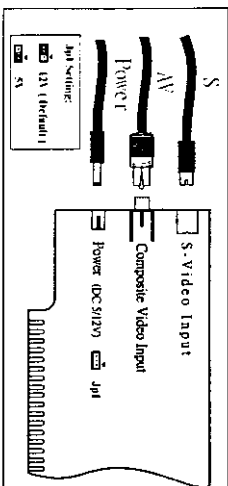
Hardware Installations

1. Make sure that your computer is switched off. Unplug the power cord from the wall socket. Also turn off all other peripherals you may have attached to your computer.
2. Remove your computer's cover. Please refer to your computer system manual for specific instructions.
3. Select a free PCI slot. Remove the cover from the slot. Keep the screw. You will be using it in the next step.



4. Carefully slide the capture card into the chosen slot. Press firmly on the top of the card to seat it. Fasten the capture card to your system with the screw you removed in the previous step. Replace the computer's cover.

Connecting Your PC Camera

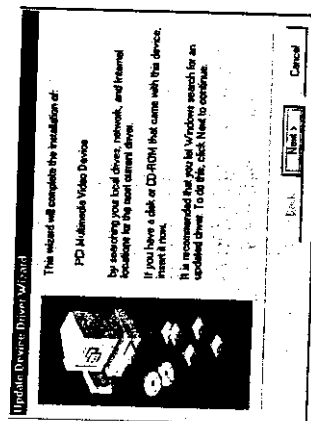


1. The AV (RCA) connector on your PC camera should be connected to the composite video input connector on the capture card.
2. Attach the power plug to the power connector on your capture card.

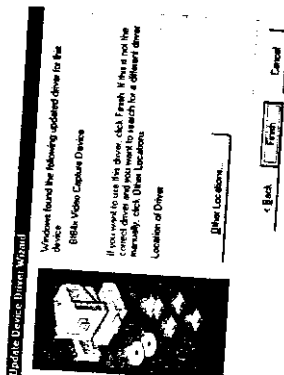
3. If you are using a device that is equipped with an S-video cable jack, use that cable instead of the AV cable and plug it into the S-video input connector on the capture card.

BT84X Capture Card Driver Installation

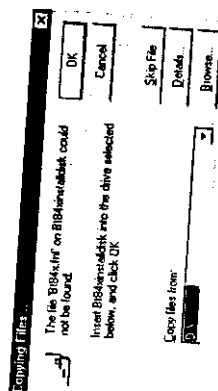
1. Power on your system. As Windows 95 starts, it will detect the new device (BT84X Video Capture Device) and a dialog box will appear asking you to locate the driver. Place the CD containing the driver into your CD-ROM drive.



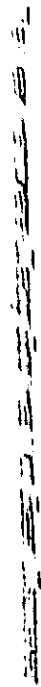
2. The following screen will appear. Click the Finish button.



3. You will be prompted to insert the installation disk.
4. Select Browse to specify the location of the driver, e.g. D:\.



5. Once the files have been copied to your hard drive, the installation is complete. Restart your system.



1. Place your cursor on the My Computer icon. Click the right mouse button.
2. Select Properties to pop up the System Properties dialog box.
3. In the System Properties dialog box click the Device Manager tab.
4. Double click the Other Devices icon. Select PCI Multimedia Video Device and click the Remove button.
5. Click the Refresh button and restart your computer.
6. When restarted, your system will detect PCI Multimedia Device. Please follow the steps described on the previous page to complete the driver installation.

After having installed your capture card driver, you are ready to install your application software.

Microsoft NetMeeting

Microsoft NetMeeting gives people around the world a whole new way of talking, meeting, working and sharing over the Internet. It allows you to call anyone using the Internet or intranet, talk to that person, see the person, use the Whiteboard to sketch in an online meeting and a lot more.



NetMeeting 2.1 cannot work in Windows 3.1 as well as a version of Windows 98 lower than Beta 3.

Installing NetMeeting

There are two ways to complete the software installation, one provided by AutoRun, the other by Setup.exe.

AutoRun Setup Mode

1. Place the CD into your CD ROM drive. AutoRun Setup will be initialized when running Windows 95 and the screen similar to the one shown on the next page will appear. Click the Install Microsoft NetMeeting 2.1 for Windows 95 button.

Microsoft NetMeeting 2.1
Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.

MICROSOFT NETMEETING 2.1
END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE
IMPORTANT! READ CAREFULLY: The Microsoft End-User License Agreement ("EULA") is a legal agreement between you (the individual or a single entity) and Microsoft Corporation for the Microsoft software product(s) identified on the title page of this software package, printed materials, and "online" documentation associated with the SOFTWARE PRODUCT. By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of the EULA. If you do not agree to the terms of the EULA, do not install or use the SOFTWARE PRODUCT. If the SOFTWARE PRODUCT Do you accept all of the terms of the preceding License Agreement? If you choose No, Install will close. To install you must accept this agreement.

Yes No

2. The following dialog box will appear. Click Yes to continue.

Microsoft NetMeeting 2.1

? This will install Microsoft NetMeeting. Do you wish to continue?

Yes No

3. A dialog box containing End-User License Agreement will appear. To proceed with installation, you must select Yes.

Microsoft NetMeeting 2.1
Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.

MICROSOFT NETMEETING 2.1
END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE
IMPORTANT! READ CAREFULLY: The Microsoft End-User License Agreement ("EULA") is a legal agreement between you (the individual or a single entity) and Microsoft Corporation for the Microsoft software product(s) identified on the title page of this software package, printed materials, and "online" documentation associated with the SOFTWARE PRODUCT. By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of the EULA. If you do not agree to the terms of the EULA, do not install or use the SOFTWARE PRODUCT. If the SOFTWARE PRODUCT Do you accept all of the terms of the preceding License Agreement? If you choose No, Install will close. To install you must accept this agreement.

Yes No

4. A dialog box will appear asking you to specify the directory in which to install the Microsoft NetMeeting (e.g. C:\Program Files\NetMeeting).

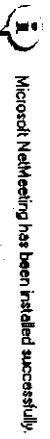
Microsoft NetMeeting 2.1

Please enter the directory in which to install the Microsoft NetMeeting files:

C:\Program Files\NetMeeting
Browse...
OK Cancel

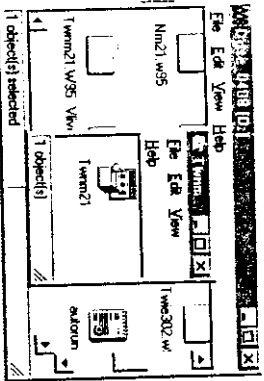
5. Click OK to complete the installation.

Microsoft NetMeeting 2.1



Setup.exe

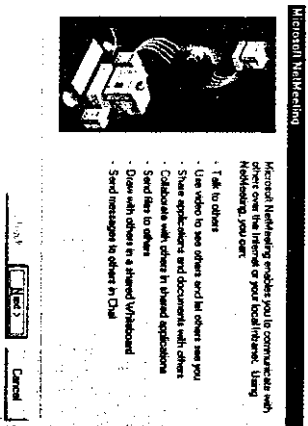
1. In the My Computer dialog box select the drive containing the CD. Then double click the Twmm21.w95 folder to open the dialog box containing Twmm21.exe. Double click Twmm21.exe.



2. Follow the procedures described under the heading AutoRun Setup Mode.

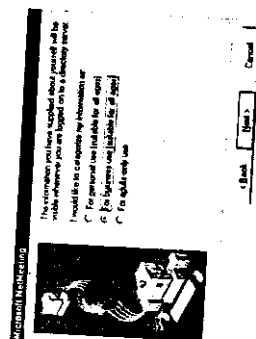
NetMeeting

When running the Microsoft NetMeeting for the first time, the following screen will appear. Click Next.

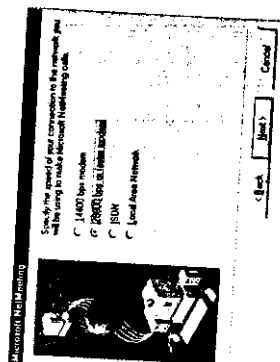


1. The screen shown on the next page allows you to set the directory server.

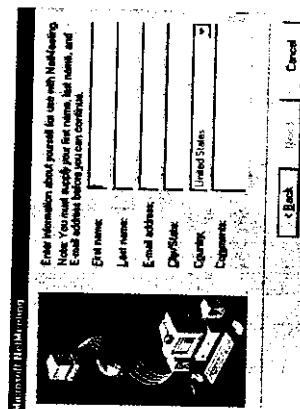
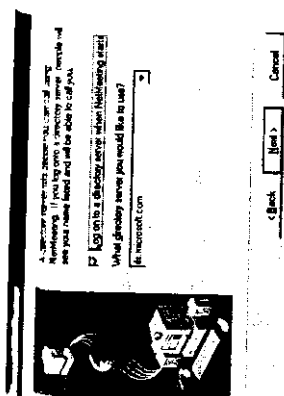
3. The screen below allows you to categorize the information you have just specified.



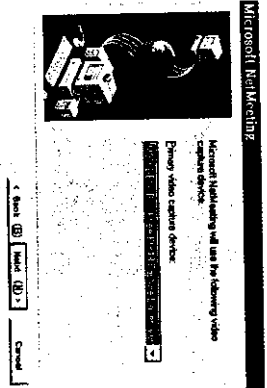
4. Specify the speed of your connection to the network you will be using.



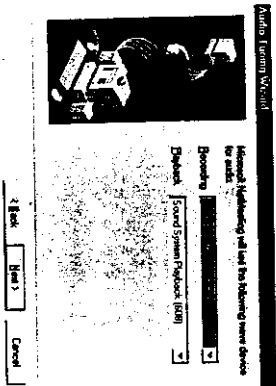
2. The following screen prompts you to enter information about yourself.



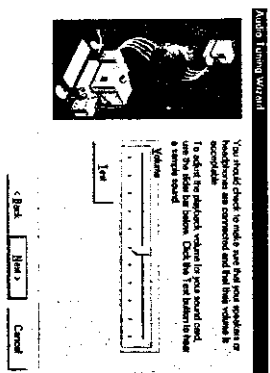
5. Specify the primary capture device, then click Next.



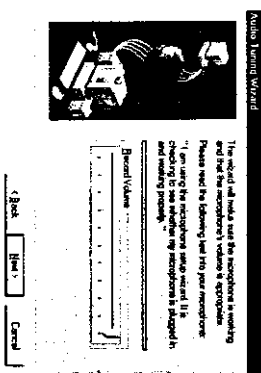
6. The following screen allows you to specify which wave device NetMeeting will use for audio.



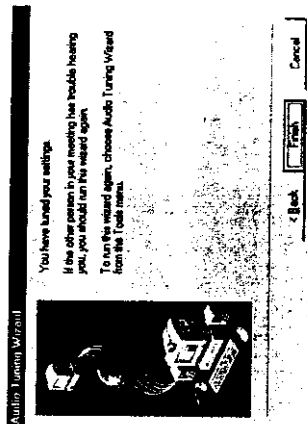
7. The following allows you to adjust and test the playback volume for your sound card.



8. The Microphone Wizard will check whether your microphone is working.



9. You have completely tuned your settings. Click the Finish button.



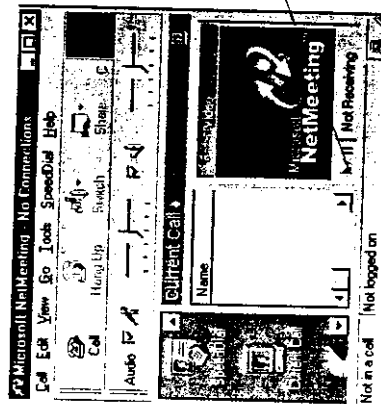
Setting Video Standard

The Video Source dialog box allows you to select the appropriate video source (i.e. NTSC or PAL). To display the Video Source dialog box, please follow the descriptions below.

Select the Current Call icon to display the My Video window. Click the bottom of the My Video window to display video.



Please note that only when video has been displayed in the My Video window you will be able to make adjustments in the Video Source dialog box.

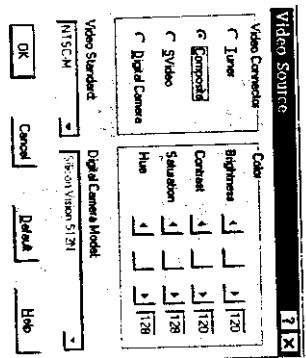


Choosing Between NTSC and PAL Standards

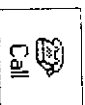
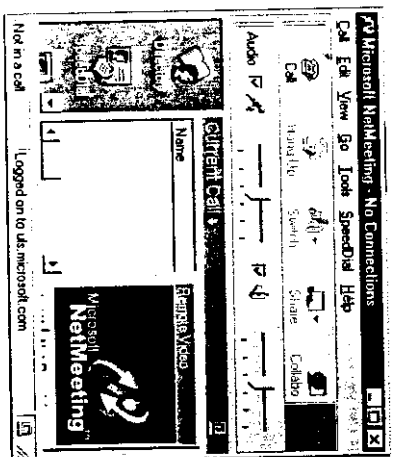
On the Tools menu, click Options. Select Video and the Source button will be displayed. Click Source. Now you can make changes in the Video Source dialog box.

Set the Video Standard option to match the video format used in your country and the type of the PC camera you have, i.e. NTSC or PAL. If your camera is NTSC, please select the NTSC-M option. For PAL cameras, please select the PAL-B,D,G,H,I option.

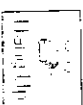
When using PC cameras and/or VCRs from different manufacturers, please refer to their specifications before making any adjustments.



Navigating in NetMeeting



Call

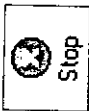


Hang Up

On the toolbar, click this icon to display the New Call dialog box. Specify the e-mail name, computer name,... of the person you would like to call.

At the end of a call, click the Hang Up icon.

Click the Stop Placing Call icon to discontinue a call before you connect.



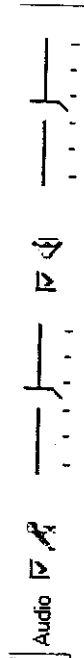
On the toolbar, click the Refresh button to display all the people in the selected category who are currently logged on to the directory server.



Click to display the Add SpeedDial dialog box. Fill in the SpeedDial information and save in your SpeedDial list.

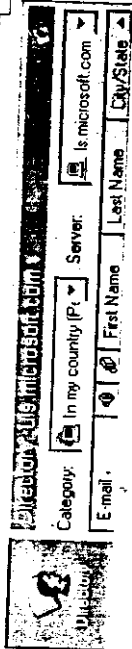


Use this button to send mail.



Microphone - On the Audio toolbar, drag the microphone slider to adjust your microphone volume.

Speaker - On the Audio toolbar, drag the speaker slider to adjust your speaker volume.



Category - The Category option in the Directory allows you to specify your category, e.g. Personal, Business, All.

Server - In the Directory, click a different server in the Server list.

Allows you to display the SpeedDial list. In the SpeedDial list double-click the name of the person you want to call.



Click the Current Call icon to view the list of contacts you want to have available for quick calling.



Allows you to view the names of your callers, your responses to calls (accepted or ignored), and the time each call was received. Call a person in the History list by double-clicking the person's name.



Using NetMeeting

Accepting a Call

When someone calls you, a dialog box appears near the taskbar. Click the Accept button to accept the call. To reject the incoming call, click the Ignore button.

If you wish to stay logged on to the directory server but not be available for calls, pull down the Call menu and click the Do Not Disturb option.

Hosting a Meeting

At the agreed meeting time, click the Call menu, then select the Host Meeting option.

Shared Applications

If you wish to share an application with someone, when you are in a call, start the application you want to share. On the NetMeeting toolbar, click the Share button, then the name of the application. Other people joining the meeting can see your application but cannot work in it.

To allow others to work in your shared application, click Collaborate on the NetMeeting toolbar.

Whiteboard

Everybody who wants to work in your application must also click Collaborate. Each participant can take control of the application at a time by clicking in the window of the shared application.

This option allows the online meeting participants to type and draw simultaneously and see results.

Chat

The Chat option enables you to send typed messages. If you wish to start Chat, click the Chat button while in Current Call. All participants of the current meeting can now view and use Chat.

File Transfer

To send a file to everyone in the meeting, select the File Transfer option from the Tools menu and then click Send File.

In Windows 95, to determine your computer's IP address, click the Start button, then click Run. In the Open box type **windowsipcfg**. Click OK and the IP Configuration dialog box containing your IP Address will be displayed.

NetMeeting - Answers to Frequently Asked Questions

- To preview your video image, select Detach My Video from the View menu.
- If you have already installed Microsoft NetMeeting Beta Version, make sure you uninstall it before installing NetMeeting 2.1.
- To make adjustments in the Video Source dialog box (brightness, saturation, etc.), you must display video in the My Video window first.
- Since the software is using the TCP/IP protocol, when having a meeting, it is only possible to establish video/audio contact with one person.
- If you experience poor sound audio while using full-duplex sound, you may want to disable it.
 1. Click Options on the Tools menu to display the Options dialog box.
 2. On the Audio tab, clear the Enable full duplex audio so I can speak while receiving audio check box. Your computer will now be using half-duplex sound.

Adjusting Video Quality

The following chapter explains how to make changes to your video quality.

Display Mode

Preview - Simulated data transfer.

Overlay - Video data is directly transferred to the video buffer and video is displayed instantly.

Using Overlay Display Mode

1. You must install DirectDraw 5.0. It is available from the following website:

<http://www.microsoft.com/msdownload/directx/dx/enduser5.0/default.htm>

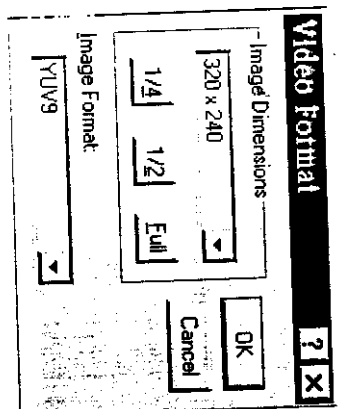
For more information on DirectDraw 5.0, please visit the following:

<http://www.microsoft.com/directx/default.asp> (Homepage of DirectX).

2. The device driver for your VGA card must support DirectDraw. You can find out whether your VGA card driver supports DirectDraw by clicking on the Control Panel icon, clicking Display and selecting the Settings tab. Choose the Advanced Properties button to display the Advanced Display Properties dialog box. On the Adapter tab you find the piece of information you require.

If Direct Draw is not supported, you must update your VGA card driver. You may wish to contact your VGA card manufacturer for the latest update. Or you may want to visit the website <http://www.microsoft.com/directx/pavilion/hardware/videcardlist.htm> to verify which VGA card drivers have been included in DirectX 5.0. If the device driver for your VGA card has been included in DirectX 5.0, upon installing DirectX 5.0, your VGA card will be automatically detected and the device driver updated.

Video Format

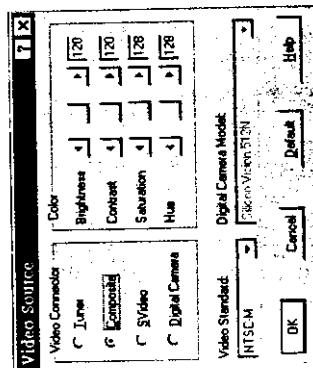


The Video Format dialog box allows you to make changes to Image Dimensions and Image Format.

Image Dimensions - Set this option to achieve the desirable size of the image. You can choose 1/4, 1/2 or Full image.

Image Format - We recommend this option to be set to 15 bit RGB or YUV9.

Video Source



Note for NetMeeting Users Only - Select the Current Call icon to display the My Video window. Click the button at the bottom of the My Video window to display video.

On the Tools menu, click options. Select Video and the Source button will be displayed. Click Source. Now you can make changes in the Video Source dialog box.

Please note that only when video has been displayed

Note

in the My Video window you will be able to make adjustments in the Video Source dialog box. See also page 22.

Video Connector - This option should be set to Composite (AV) Video Connector.

Video Standard - Set the Video Standard option to match the video format used in your country and the type of the PC camera you have, i.e. NTSC or PAL. If your camera is NTSC, please select the NTSC-M option. For PAL cameras, please select the PAL-B,D,G,H,I option. Please also see page 23 of this manual.

Color - This option allows you to adjust Brightness, Contrast, Saturation and/or Hue.

Frequently Asked Questions

Q: What are the Hardware / Software requirements for video conferencing?

A: System Requirements

- Pentium Processor 100MHz or higher
- At least 10MB free HDD space
- 8MB of memory
- Microsoft Windows 95 (with Dial-Up Networking installed)

Audio Requirements

- Sound card with supporting drivers, Windows 95 compatible
- Audio send/receive device: microphone/earphone or speakers
- Full-Duplex audio capability (recommended, not necessary)

Video Requirements

- Windows 95 compatible video capture card
- Video source (VCR, camera,...) compatible with Windows 95 and your capture card

The conference will work over a modem connection of 14.4K bps, but a 33.6K bps connection is recommended.

When using your modem to establish a point-to-point connection with another modem, make sure both modems are using the same protocol (for example, V.90, V.80 or Rockwell VRPI).

Q: What is Full-Duplex? What is the difference between full and half-duplex?

A: Full-duplex is very much like talking on the phone today, each side can speak whenever it wants and the other side will hear. Half-duplex is when only one side at a time can speak and be heard.

Q: What are the ways to contact another user?

- A:**
- Via Intranet to another computer
 - Connect to Internet via a modem/ISDN, ...
 - Modem-to-modem directly (point-to-point)

With any of these ways, make sure you are using the adequate software.

Q: I do not see myself in the Self View window.

A: • Your window appears to be a blank blue window

1. Please make sure the AV and power connectors are connected properly to your capture card.
 2. Make sure the Video Connector option in the Video Source dialog box is set to Composite. For more information, please see pages 33 and 34 of this manual.
- If your images overlap, make sure the Video Standard option in the Video Source dialog box matches the video format supported in your country (and also supported by your camera) . For more information, please see pages 22 and 23 of this manual.
 - If you experience poor video quality, set the Color Palette option in the Display Properties dialog box to High Color 16 bit or higher.

Composite Video Input Formats

The device driver supports several composite video input formats. The table below shows the different video formats and some countries in which each format is used.

Format	Country
NTSC-M	U.S. and many other countries
NTSC-Japan	Japan
PAL-B, G, H	Western/Central Europe, others
PAL-D	China
PAL-I	U.K., Ireland, South Africa
PAL-M	Brazil
PAL-N	Paraguay, Uruguay
SECAM	Eastern Europe, France, Middle East