



Group Videoconferencing Systems

Video Made Easy

HD5000 Series

Multimedia Workgroup Conferencing System

Installation & Setup Guide

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CAUTION To comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules, the HD5000 system must be installed in computer equipment certified to comply with Class A limits. All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Safety Information



Do not open the HD5000 unit. There are no user-servicable parts inside. Opening the unit voids the warranty and can also cause injury. Please refer servicing to Emblaze VCON-trained service personnel.

When you use a HD5000 system, observe the following safety guidelines:



DANGER The internal areas of the computer and auxiliary equipment are sources of voltage that, if not handled properly, constitute danger of bodily harm.

DO NOT operate the computer with any of its covers (including main cover, bezels, filler brackets, front-panel inserts, and so on) removed.

INCORRECT replacement of the battery can cause an explosion. Replace only with the same or equivalent-type of battery recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

1. Make sure that the power is turned off and all equipment are disconnected from the power supply before making all equipment connections.
2. Make sure the monitor and attached accessories (PTZ camera, VCR, document camera, and so on) are electrically rated to operate with the AC power available in your location.
3. To help avoid possible damage to the system cards, wait 5 seconds after turning off the system before disconnecting a device from the computer.
4. To help prevent electric shock, plug the computer's and accessories' power cables into properly grounded power sources. These cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a three-wire cable with properly grounded plugs.
5. Make sure that nothing rests on the computer system's cables and that the cables are not located where they can be stepped on or tripped over.
6. Do not install this equipment near water, or in an otherwise wet or damp environment.
7. Do not run the equipment in an environment with ambient temperature higher than 35°C or lower than 10°C.

8. Keep food and liquids away from the system or accessories.
9. Keep the computer away from radiators and heat sources. Also, do not block cooling vents. Avoid placing loose papers underneath the computer, and do not place the computer in a closed-in wall unit or on a bed, sofa, or rug.
10. Do not install or operate this equipment if chemical gas leakage is expected in the area.

FCC Warning

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC rules.

The FCC Wants You to Know

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

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.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

R&TTE Declaration of Conformity

Issued according to ISO/IEC Guide 22 and EN45014 under the sole responsibility of the Manufacturer

We:

Manufacturer's Name: Emblaze VCON Limited
Manufacturer's Address: PO Box 12747
22 Maskit Street, Herzliya 46733
ISRAEL

hereby declare entirely on our own responsibility that the products:

Product Name: HD5000 BASIC MODEL NTSC
HD5000 BASIC MODEL PAL
HD5000 DATA IN MODEL NTSC
HD5000 DATA IN MODEL PAL

and all its associated peripherals manufactured by Emblaze VCON Ltd., to which this declaration relates is in conformity with the essential requirements specified in Article 3.1 (a) and 3.1 (b) of:

Directive 89/336/EEC (EMC Directive).

Directive 73/23/EEC (Low Voltage Directive – LVD).

Directive 99/05/EEC (Radio Equipment and Telecommunications Terminal Equipment Directive).

In accordance with the following Harmonized Standards-

The above products have successfully passed the following compliance standards tests:

EMC: EN50081-1 : EN 55022: 1998, Class A
EN 55024: 1998
EN61000-3-2 : Harmonics
EN61000-3-3 : Flickers
EN61000-4-2 : ESD : Contact Discharge $\pm 4\text{Kv}$ Air Discharge $\pm 8\text{Kv}$
EN61000-4-3 : Radiated immunity - 6V/m (27MHz-1000MHz)
EN61000-4-4 : Electrical Fast Transient and Burst $\pm 1.0\text{kV}$, 5KHz
EN61000-4-5 : Surges DM $\pm 1.0\text{kV}$ CM $\pm 2.0\text{kV}$
EN61000-4-6 : Current injection immunity - 10Vrms
EN61000-4-8 : Magnetic field : 1Amp/m
EN61000-4-11: Voltage dips immunity
FCC Part 15, Class A

Safety / Low Voltage: EN 60950: 2000
IEC 60950: 1999
UL 60950: 2000
CSA 22.2 60950: 2000

Supplementary Information:

The product has been tested in a typical configuration. Technical file held by:

Emblaze VCON Limited
PO Box 12747
22 Maskit Street, Herzliya 46733
ISRAEL

USA

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

Canada

This Class A digital apparatus complies with Canadian ICES-003

Regulatory Notice To European Customers

The "CE" mark is affixed to this product to demonstrate conformance to the R&TTE Directive 99/05/EEC (Radio Equipment and Telecommunications Terminal Equipment Directive).

The product has been tested in a typical configuration.

Technical File held by Emblaze VCON Ltd. For a copy of the original signed declaration (in full conformance with EN45014). Please contact Emblaze VCON Tech Support at techsup@emblaze-vcon.com

About this Installation & Setup Guide

This guide explains how to set up the Emblaze VCON HD5000 series videoconferencing system.

The following chapter summary briefly describes this guide's contents:

- | | |
|-------------------|--|
| Chapter 1 | Welcome to HD5000
Introduction to this Installation & Setup Guide. |
| Chapter 2 | Connecting the HD5000
Procedures for connecting the standard equipment and accessories to the HD5000 system. |
| Chapter 3 | Enabling MXM Management of the HD5000
Instructions for adding Media Xchange Manager® (MXM) management to your new HD5000. |
| Chapter 4 | Starting the HD5000
Procedures for starting HD5000. |
| Chapter 5 | Setting Up the HD5000 Configuration
Instructions for accessing and defining the various configuration settings of your HD5000. |
| Chapter 6 | Troubleshooting
Help in solving possible problems that you may encounter with the HD5000 system. |
| Appendix A | The Remote Control
Description and layout of the remote control unit. |

Emblaze VCON Technical Support

This Installation & Setup Guide was designed to help you set up the HD5000 system easily so that you can enjoy its many features.

If a situation occurs that is not covered by the supplied documentation, contact your local Emblaze VCON distributor, and request assistance from their Emblaze VCON-trained technical support department. Please describe the problem, device, and PC operating system (if applicable), and any other relevant details.

Also, you may access the Technical Support section of the Emblaze VCON website (<http://www.emblaze-vcon.com/support/index.shtml>) in order to check its knowledge base or initiate other customer support processes:

Page	Type of support
Support Notes	Troubleshoot or receive technical information about specific Emblaze VCON products.
Downloads	Download a new software release or a free product evaluation.
Demo Numbers	Test your videoconferencing system.
License Key Requests	Request a permanent license key for your organization's MXM(s).

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1 **WELCOME TO HD5000**

Emblaze VCON's HD5000 is a workgroup conferencing system that combines the versatility of a PC-based solution with high-quality videoconferencing. Utilizing the newest H.264 video standard, and clear, crisp audio, the HD5000 brings users face-to-face with other people and organizations.

The HD5000 incorporates advanced data conferencing capabilities, allowing you to turn any videoconference into a fully interactive workgroup meeting easily.

As a PC-based multi-media workstation, the HD5000 can be utilized even when it's not in a videoconference. In a small conference room with a single monitor, or a large training room with dual plasma displays, the HD5000's computer can perform auxiliary functions. During meetings, the HD5000 can display presentations or DVD videos on a large monitor. Additionally, the HD5000 can connect to laptops for data sharing, file sharing, or DVD playing.

1.1 **HD5000 Model Configurations**

The HD5000 series includes the following model configurations:

HD 5000 Standard

The standard HD5000 includes the basic system pre-installed in a PC, camera, microphone, wireless keyboard, and remote control. Monitors may be ordered from Emblaze VCON as an option or purchased separately.

Laptop Data Plug-in Option

The standard HD5000 plus a data sharing kit, for connecting any laptop or PC to the HD5000 to present data or share applications.

The data sharing kit includes a data card, a tabletop pod, and a VGA cable.

1.2 Monitor Configurations

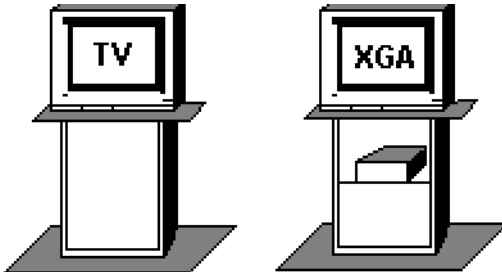
The HD5000 display configurations range from single monitor to dual monitor, making them flexible and expandable, and provide you with the investment protection you require:

Single Monitor



This configuration contains one large XGA monitor, on which local and remote video, the HD5000 application screen, and shared data applications are displayed.

Dual Monitor



This configuration contains one large XGA monitor and one TV monitor. The XGA monitor displays the HD5000 application and shared data applications. The TV monitor displays the local and remote video.

1.3 HD5000 Components

All the components required for connecting and installing the HD5000 system are supplied along with comprehensive documentation and fully featured software to make your videoconferences more productive.

The standard HD5000 components are:

- Computer
- Pan/Tilt/Zoom (PTZ) camera
- Infrared wireless keyboard and receiver
- Remote control unit
- Tabletop microphone

A range of optional accessories can also be provided to enhance the abilities of HD5000:

- XGA monitor
- TV monitor
- Multimedia speakers
- Cart
- Emblaze VCON VoiceFinder™
- Document camera
- Second PTZ camera



In conjunction with technological developments and Emblaze VCON's objective to provide a state-of-the-art system, components are subject to change. A component may look different than its illustrated counterpart.

HD5000 System Computer

The HD5000's standard computer unit contains the video card, audio card, software for operating the videoconferencing system, and various connectors located on the rear panel for connecting the other components and accessories. The computer's operating system is Microsoft Windows XP Professional.

Pan/Tilt/Zoom Camera

The Pan/Tilt/Zoom (PTZ) camera is controlled by the wireless keyboard through the system software. You can pan, tilt and zoom the camera in a wide range of directions during videoconferences.

Up to six pre-set positions can be set for instant recall through the HD5000 application.

Connectors located on the rear of the Camera Unit enable connectivity through the system cables to the main computer.



Wireless Keyboard, Remote Control and Receiver

The infrared wireless keyboard and remote control provide remote control of the HD5000 system. They work in conjunction with an infrared receiver, which must be located close to or on the XGA monitor.

When you use the keyboard or remote control, point it at the keyboard receiver from a distance of up to 6 meters.

For more details about the remote control and its functions, see [“The Remote Control”](#) on page 59.



Wireless Keyboard



Keyboard Receiver

Tabletop Microphone

The HD5000 includes a tabletop microphone specifically designed for videoconferencing in a conference room or training room environment.

The supplied tabletop microphone is a high-performance audio input device. Its working range covers more than 6 meters (20 feet). The microphone transfers the full range of speaker audio.

The microphone is equipped with a 20-foot (6.1 m) cable which provides greater flexibility for placement within the room.



Optional Accessories Supplied by Emblaze VCON

The following optional accessories can be connected to the HD5000:

XGA monitor For viewing remote and local video in single display mode, or viewing the application and data applications in dual display mode.

CRT, LCD, and Plasma monitors may be used with the HD5000.

TV monitor(s) For viewing remote and local video in dual monitor configurations.

Cart As an option, the HD5000 may be supplied with an elegant mobile wooden cabinet that is specially designed to house the system components. A monitor sits on top of the cart, and two shelves are provided for the computer and other accessories.

VoiceFinder™ During a group discussion, the VoiceFinder locates voices, then positions and focuses the camera on the person currently speaking. Its streamlined structure contains four high-quality microphones and advanced technology for intelligent tracking.



Document camera or Second PTZ camera

Increases the video capabilities of the HD5000. The second camera may typically be a document camera or another PTZ camera. For example, a document camera can show a placed document on the monitor during a videoconference session to both the local and remote users.

Speakers

A three-piece computer audio system that delivers a high level of power and accuracy. The system consists of two speakers and a subwoofer.

2 CONNECTING THE HD5000

The HD5000 system installation process includes the following stages:

- Unpacking the items from the shipping package
- Connecting the supplied standard and optional equipment

2.1 Package Contents

When you open the HD5000 system shipping package(s) for the first time, check that the following items are included in accordance with the supplied product. If any of the items (according to your Customer Order) are missing or damaged, contact your Emblaze VCON distributor immediately.

HD5000 Components

Component	Included
Pentium IV computer with pre-installed HD5000	✓
Pan/Tilt/Zoom (PTZ) camera unit	✓
Infrared wireless keyboard & receiver	✓
Tabletop microphone & cable	✓
Remote Control Unit	✓
Power cable	✓
LAN cable (RJ-45)	✓
Video/audio crossbar adapter	✓
Video output adapter	✓
S-Video cable (4-pin, mini-DIN)	✓
Composite video cable (RCA-RCA)	✓
Component (YPbPr) video cable	✓
Camera control cable (D-9 - Mini-DIN)	✓
Audio cable to TV and XGA (stereo-dual RCA)	✓

Component	Included
USB repeater cable	✓ (Basic only)
Data Sharing card	Opt (Laptop plug-in)
Tabletop pod	Opt (Laptop plug-in)
VGA cable for Data option (shielded, DB-15)	Opt (Laptop plug-in)
Rescue CD-ROM, including operating system	✓
HD5000 Installation & Setup Guide	✓
Limited Warranty/registration card	✓
XGA Monitor	Opt
TV Monitor	Opt
Set of PC multimedia speakers	Opt
Rollabout cabinet & keys	Opt
VoiceFinder™	Opt

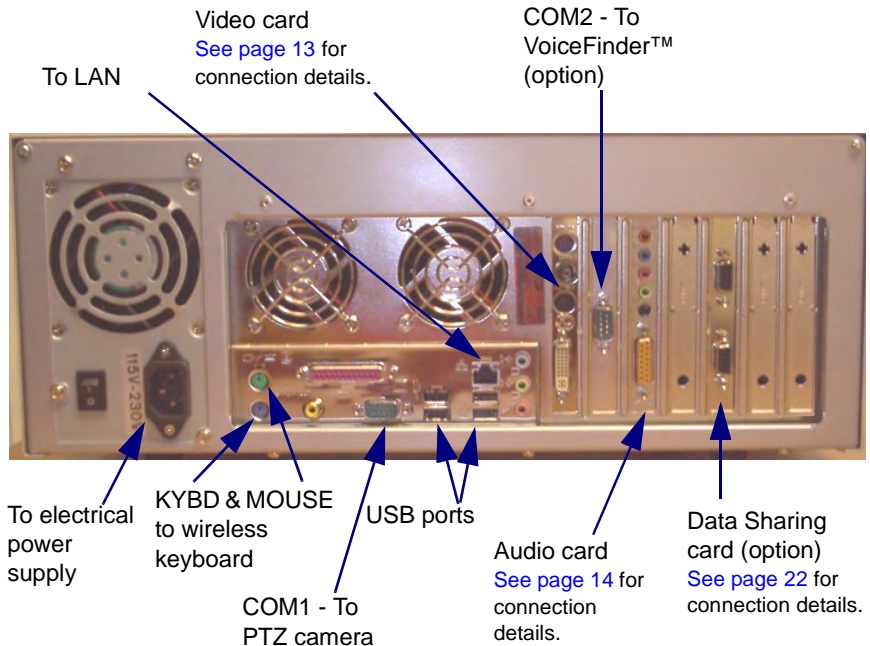
2.2 Connecting Your Equipment

This section describes the connection of the standard equipment supplied with the HD5000 system.



CAUTION For all components and accessories, make sure that the power is turned off and the item is disconnected from its power supply before making all connections.

The following figure illustrates the rear side of the HD5000 computer unit. *t*



This section contains instructions for connecting the following standard and optional components to the HD5000.

- Video Card
- Audio Card
- Wireless Keyboard
- XGA Monitor in Single Monitor Mode (option)
- XGA and TV Monitors in Dual Monitor Mode (option)
- Main PTZ Camera
- Tabletop Microphone
- LAN Cable
- Laptop Plug-in (option)
- Document Camera (option)
- VoiceFinder™(option)
- Power Supply

Video Card Connections

Connect the Video Card to peripheral equipment as follows:

Video In

Receives video from the primary camera.

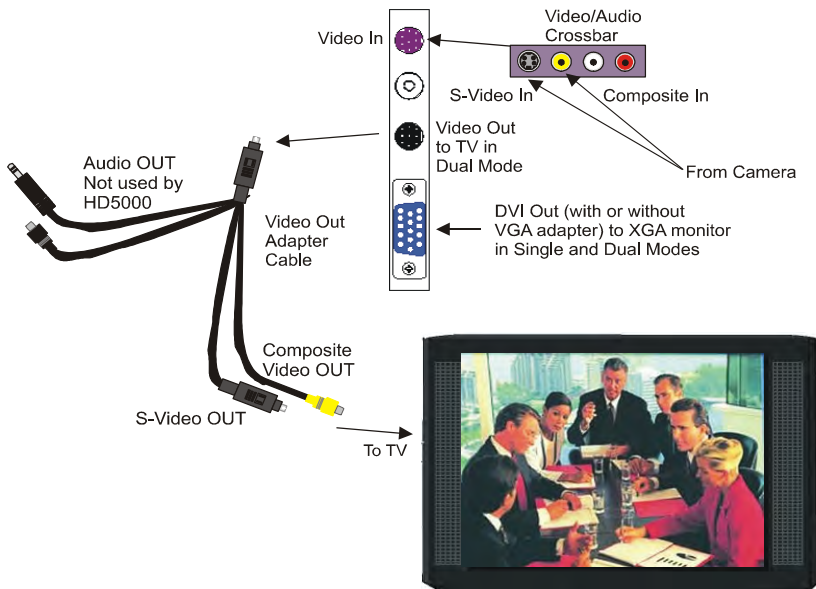
You can connect the video/audio crossbar between the Video In connector and the camera. This device works as a video adapter, sending S-Video or Composite video to the Video Card.

Video Out

In a Dual Display Mode configuration, you can connect the Video Out Adapter cable between the Video In connector and the S-video or Composite video connection to the TV monitor.

DVI Out

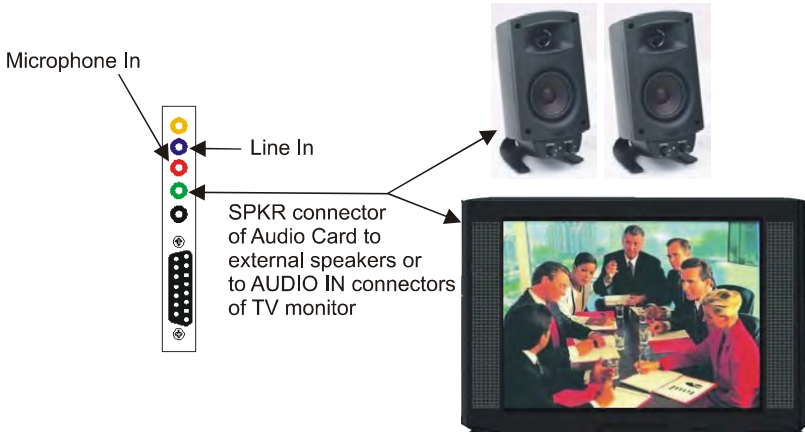
In a Single Display Mode configuration, connect to the XGA monitor.



Audio Connections

Connect the Audio Card to peripheral equipment as follows:

- Microphone In** Insert the cable from the microphone into here.
- Line In** Connect to an auxiliary RCA audio source.
- Spkr** Connect to speakers or to the **AUDIO IN** connectors of the TV monitor.

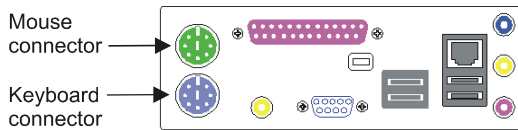


Connecting the Wireless Keyboard



CAUTION Make sure that the computer is turned off.

1. Locate the box containing the Wireless Keyboard and take out the following two items:
 - Infrared (IR) Receiver
 - Wireless Keyboard
2. Place the IR receiver on top of your XGA monitor, while enabling direct-line view with the wireless keyboard and the remote control.
3. Connect the two cables to the PS/2 mini-DIN mouse port and the keyboard connector on the computer's rear panel. Place the Wireless Keyboard on your conference table, preferably at an operating distance of no more than 6 meters away from the keyboard receiver.



Connecting an XGA Monitor in Single Monitor Mode



CAUTION Make sure that the computer and the XGA monitor are turned off.

If you are using a plasma/LCD monitor, **DO NOT** disable the Windows Display Screen Saver (preset to ON). Plasma monitors are extremely susceptible to screen burn, which is permanent and cannot be removed.

➤ To connect an XGA monitor to the HD5000 system

- Connect a VGA cable between the DVI Out connector of the Video Card and the DVI input on the rear of the XGA Monitor. If the monitor does not support DVI input, attach the VGA adapter to the Video Card DVI output connector.



Connecting XGA and TV Monitors in Dual Monitor Mode

Dual Monitor mode comprises one XGA monitor (for connection instructions, see “[Connecting an XGA Monitor in Single Monitor Mode](#)” on page 16) and one TV monitor. The XGA monitor displays the HD5000 application and shared data applications. The TV monitor displays the local and remote video.



CAUTION Make sure that the computer and the TV monitor are turned off.

If you are using a plasma/LCD monitor, DO NOT disable the Windows Display Screen Saver (preset to ON). Plasma monitors are extremely susceptible to screen burn, which is permanent and cannot be removed.

➤ To connect the XGA and TV monitors to the HD5000 system in Dual Monitor mode

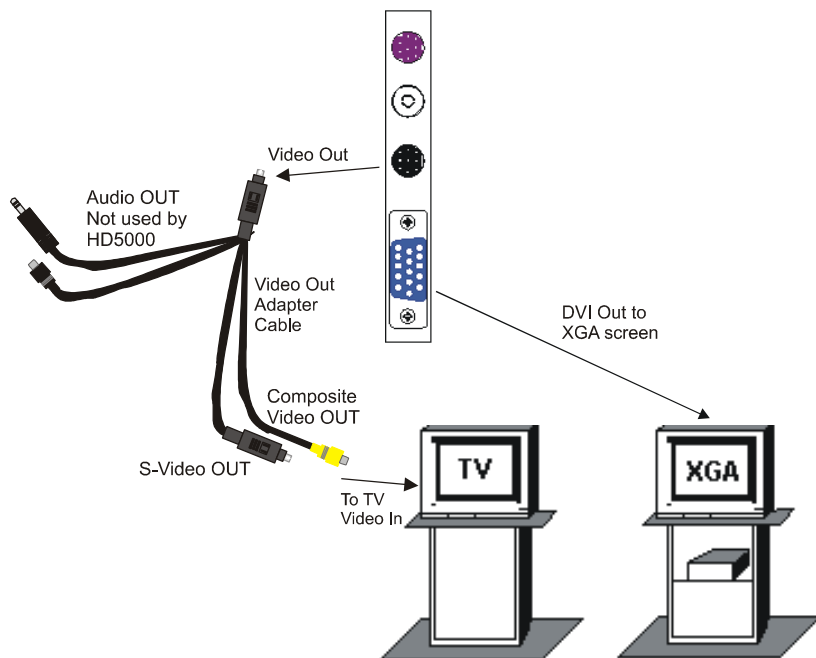
1. Connect the Video Out Adapter cable between the TV’s Video In connector and the video card’s Video Out connector. .



If the TV monitor supports both S-Video and Composite Video, we recommend that you connect the S-Video because it displays higher quality video.

2. Connect a VGA cable between the DVI Out connector of the Video Card and the DVI input on the rear of the XGA Monitor. If the monitor does not support DVI input, attach the VGA adapter to the Video Card DVI output connector.

See the illustration on the following page.



Connecting a TV Monitor in Dual Monitor Mode

Connecting the Main PTZ Camera



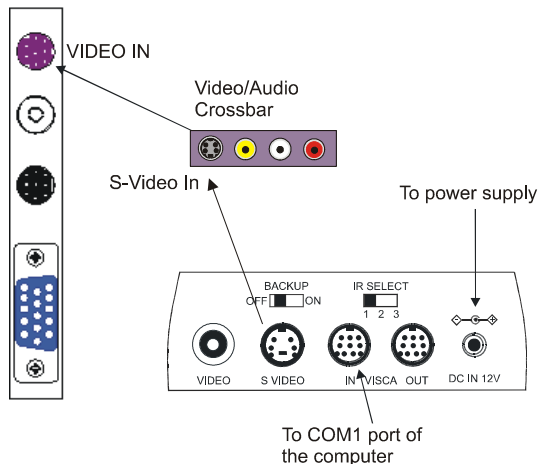
CAUTION Make sure that the computer and the camera are turned off.

➤ To connect the main Pan/Tilt/Zoom camera to the HD5000 computer

1. Connect the supplied S-Video + Camera Control cables between the **S-VIDEO** connectors of the video card and the camera, respectively.
2. Connect the camera control cable between the camera's **VISCA IN** connector on the camera and the **COM1** serial port on the rear panel of the HD5000 computer (see the illustration below).
3. Connect the power cable between the power supply and the camera's DC IN connector.



- If your camera is Sony EVI-D100, check that the IR Select switch on the rear of the camera is set to:
 - **1** if you're using an S-Video connection
 - **2** if you're using a Composite Video connection.
- Verify the settings of the DIP switches on the bottom of the camera:
 - **IR OUT** must be set to OFF.
 - **MODE** must be set to ON.

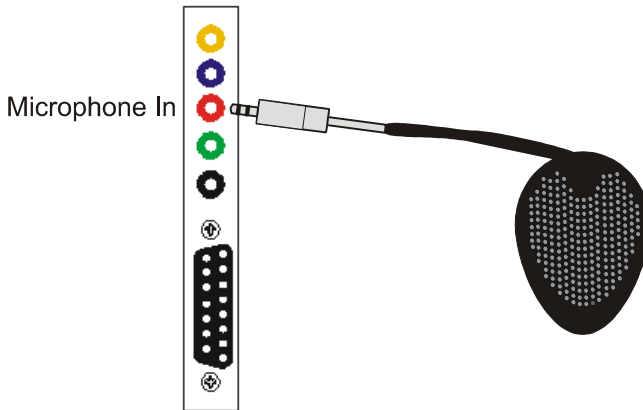


Connecting the Tabletop Microphone

The microphone picks up voices up to 8 feet (2.44 m) away from a meeting participant. The center of a conference table is the ideal location for the microphone.

► **To connect the tabletop microphone**

1. Connect the microphone's 3.5mm jack to the red **Microphone In** connector on the sound card located on the rear panel of the computer.
2. Place the microphone on your conference table with the cable stretching toward the HD5000 system.

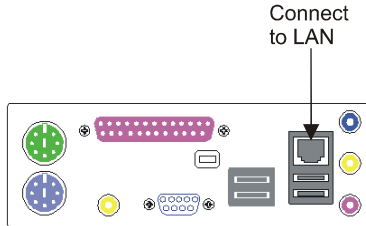


Connecting to your LAN

LAN support on the HD5000 system is built on-board directly onto the motherboard of the computer. The computer provides a standard RJ-45 interface for 10-Base-T, and 100-Base-T, and 1000-Base-T networks.

► To connect the HD5000 system to your LAN

- Connect the LAN cable between the RJ-45 connector on the rear of the computer and the outlet to your LAN.



Connecting and Setting Up the Laptop Plug-in

As an option, HD5000 supports the connection of a laptop computer or another PC for displaying data applications, such as presentations, during conferences. After the connections, this laptop/PC's interface may be viewed on the HD5000's XGA monitor and sent to the remote side during a conference.

This option includes a Data Sharing card and a tabletop pod. The laptop/PC is connected to the pod, the pod is connected to the Data Sharing card, which is installed in its reserved PCI slot of the HD5000 computer.



IMPORTANT *If you've purchased this option after initial installation of the HD5000*

To avoid voiding the HD5000's warranty, you must send the HD5000's serial number to Emblaze VCON Technical Support. To locate the Emblaze VCON office nearest you, go to the Locations page on Emblaze VCON's website (<http://www.emblaze-vcon.com/about/locations.shtml>).

Only after receiving written approval in the form of e-mail or letter should you proceed with the installation procedure below.

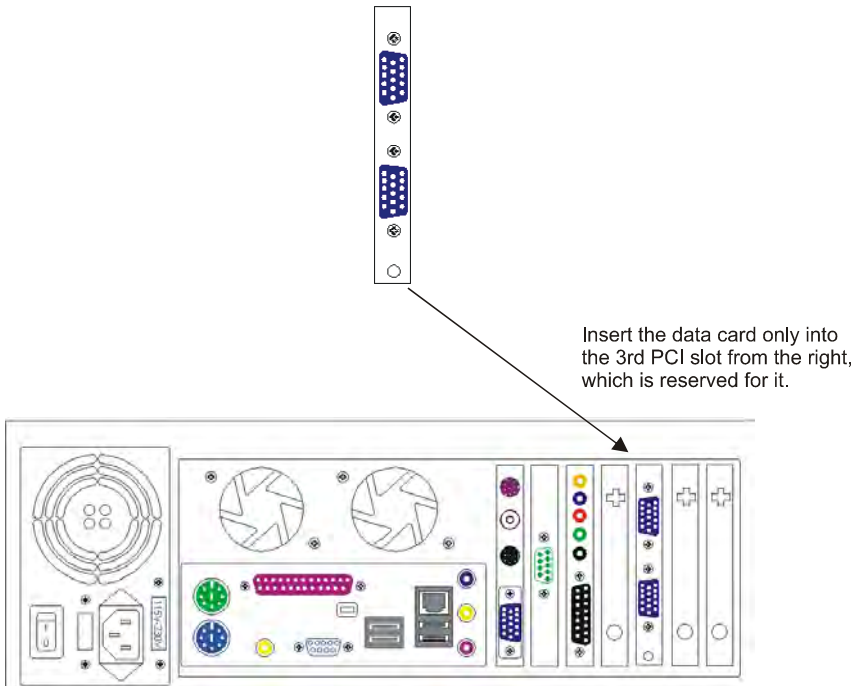
➤ **To install the Data Sharing card**



DANGER Before installing the Data Sharing card, turn off the computer and all attached equipment. Disconnect them from the power supply.

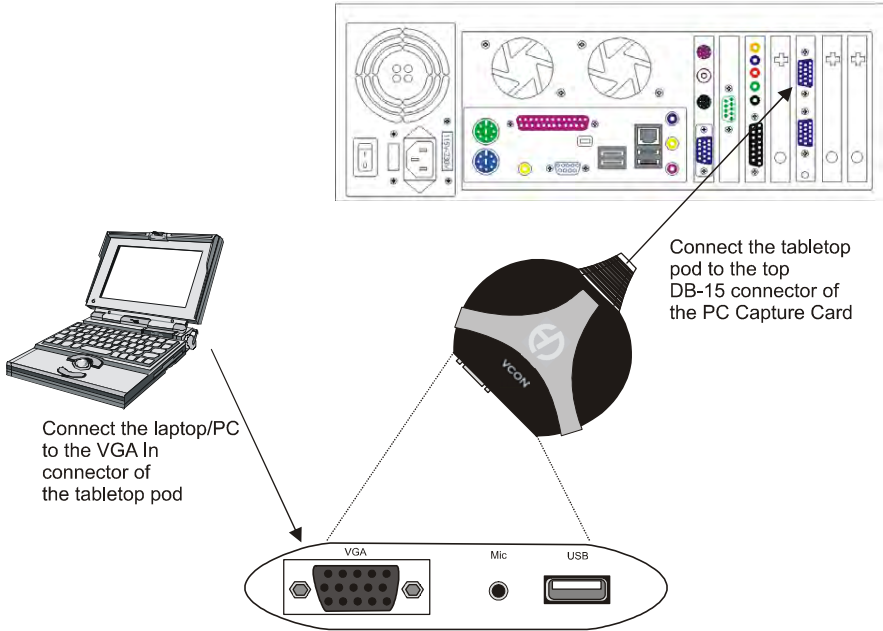
1. Remove the HD5000 computer's cover.
2. Insert the Data Sharing card into the third PCI slot from the right side of the rear panel (see the illustration on the next page), and secure it by tightening the slot's retaining screw.
3. Replace the computer's cover.
4. Turn the HD5000 computer on. During startup, the Found New Hardware Wizard appears.
5. Select **Install from a list or specific location (Advanced)** and then click **Next**.
6. Select the **Search for the best driver in these locations** and **Search removable media** options and then click **Next**.

7. Install the Data Sharing Card disc to the DVD drive. Wait while the system copies drivers to the computer.
8. If you receive a message that the software you're installing "has not passed Windows Logo testing...", click **Continue Anyway**.
9. Insert the compact disc labeled "Install Disk" into your CD-ROM drive and click **OK**.
10. Browse to the *W2KDrv* file and click **OK** to copy it.
11. When the Wizard notifies you that installation is complete, click **Finish**.



➤ **To connect a laptop or PC to the Data Sharing card**

1. Connect the shielded VGA cable between the laptop/PC to the VGA connector of the tabletop pod.
2. Connect the pod to the upper DB-15 connector of the Data Sharing card.



Connecting a Document Camera

As an option, the HD5000 system supports the use of a document camera as a source for displaying documents and illustrations during videoconferences.



CAUTION Make sure that the computer and the camera are turned off.

► To connect a document camera to the video card

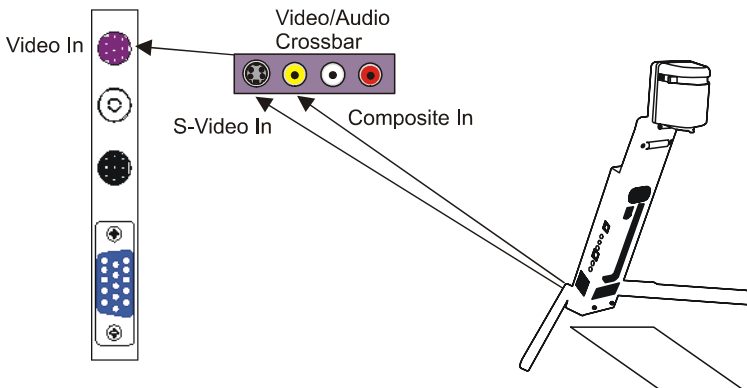
1. Connect the camera cable with the yellow connector between the OUTPUT/VIDEO connector of the camera and the Composite connector of the video/audio crossbar.



If you want higher quality viewing from your document camera, you can also connect it to the S-Video connector of the crossbar. Use the S-Video cable that is supplied in the HD5000 package.

2. Verify that the camera is connected to a power supply.

For specific instructions on installing and operating the document camera, see its accompanying user's guide.



Connecting the VoiceFinder

VoiceFinder™ is an optional add-on device for the HD5000, providing almost hands-free communication. VoiceFinder locates participants' voices during a conference and then positions and focuses the camera on the person currently speaking.

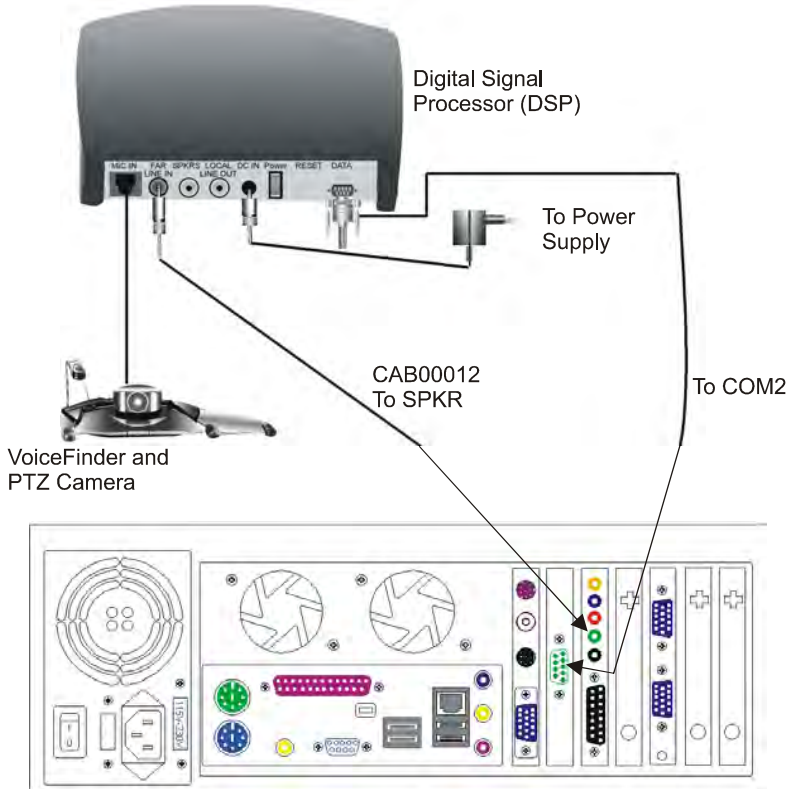


For instructions on assembling the VoiceFinder, see the *VoiceFinder™ Installation Guide*.

► To install VoiceFinder

1. Place VoiceFinder on top of the television monitor. Insert the VTOP camera into the pins of the base. Make sure that VoiceFinder is stable and as horizontal as possible.
2. Position the DSP unit near the HD5000.
3. Connect the RS232 cable (9-pin) between **DATA** on the DSP unit and the COM2 port on the HD5000 computer.
4. One of the cable sets in the HD5000 package (CAB00012) has three cables with a mini stereo jack on one end, and RCA on the other.
 - Connect the RCA connector to **FAR LINE IN** on the DSP unit.
 - Connect the mini stereo jack to **SPKRS** on the audio card of the HD5000 computer.
5. Connect the power supply between **DC IN** on the DSP unit and the power outlet on the wall.
6. Press the power switch on the back of the DSP unit. The red light on the front of the unit turns on.

See the illustration on the following page.



Connecting the VoiceFinder

Connecting the HD5000 to the Power Supply

After you completed all the HD5000's components connections, you can connect the HD5000 to a 115 Vac or 230 Vac power supply, depending on the local electricity grid.

► **To connect the HD5000 to a power supply**

1. Next to the power socket on the rear panel of the unit, change the voltage setting to 115 Vac or 230 Vac if necessary.



CAUTION The factory default setting corresponds to the voltage of the electricity supply of your region. As a precaution, check that the setting is correct before inserting the power cable into the power socket.

2. Insert the power cable into the power socket on the rear panel.
3. Insert the plug into the power supply.

3 ***ENABLING MXM MANAGEMENT OF THE HD5000***

HD5000 was set up in the factory without enabling Emblaze VCON Media Xchange Manager® (MXM) management.

If you want your system to be managed by an MXM installed within your organization, run the MXM Enable utility that's included with the system.

Likewise, you can disable MXM management with this tool.

► **To enable or disable MXM management**

1. In the Windows Desktop, click **Start** and then **Run**.
2. Browse to the *Program Files/HD5000* folder and then double-click *MXM_Enable.exe*.
3. In the Run dialog box, click **OK** to run the program.
4. The question, “**Will your system be managed by a VCON Media Xchange Manager® (MXM)?**” appears. Click **Yes** to enable or **No** to disable the MXM management.

4 STARTING THE HD5000

To start the HD5000, press the Power button on the front of the computer. Following the Windows startup, the HD5000 application opens automatically. However, this process proceeds in accordance with the type of configuration:

- Media Xchange Manager® (MXM) managed
- Stand-alone or registered with another gatekeeper.

4.1 Media Xchange Manager® (MXM) Managed

If the HD5000 is managed by Emblaze VCON's Media Xchange Manager® (MXM), you have to log in when you start your system. You can make this login process automatic.

During the HD5000 startup, the MXM Login dialog box appears.

► To log in to an MXM

1. Enter the name of your computer as listed in the MXM database and the MXM Administrator.

2. Enter the password required to log in. If you do not supply this password, the login request is rejected.

3. Enter the IP address of the MXM. If you do not know it, ask your system administrator.



5. Click to complete the login.

4. Select if you want to log into the same MXM with the same login name and password every time you run HD5000.

- If the MXM automatically registers your computer, the HD5000 application opens.
- If a message appears stating that startup cannot proceed until login is granted, contact your system administrator and wait to receive permission.

After login is granted, the HD5000 application opens.

4.2 *Stand-alone or Registered with Another Gatekeeper*

If your HD5000 is registered with a non-Emblaze VCON Gatekeeper or not registered with any management system, the videoconferencing application's main screen opens several seconds after the Windows startup.



5 SETTING UP THE HD5000 CONFIGURATION

After installing HD5000, you have to set up the system configuration, according to your particular specifications, in the system's Settings dialog boxes. The **Settings** button provides access to these dialog boxes.

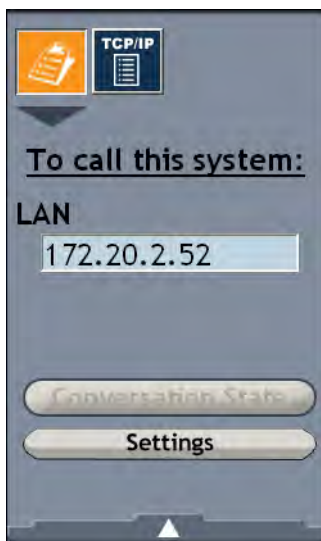
5.1 Accessing the System Settings

You can change and view the system's Settings after installation or at a later opportunity:

► **To open the Settings dialog boxes**



1. In the Main View, click the Settings button.
2. In the Settings pulldown, click **Settings**.



3. Click the relevant tab.
4. Change the required information or options. For definitions, see "[Settings Definitions](#)" in the next section.
5. Click **Apply** to implement changes. To exit, click **Close**.

5.2 Settings Definitions

The system's Settings include properties and options for the following:

- General Options** Settings for accepting incoming calls and other system preferences. [See page 35.](#)
- User** Identification of the HD5000 end point. [See page 36.](#)
- Directory** Configuration of the HD5000's registration in an online directory. [See page 37.](#)
- Security** Enabling access to management of the HD5000 from a remote location through a web browser. [See page 38.](#)
- Broadcast** Default configuration for transmitting broadcasts to Participants and public viewers. [See page 41.](#)
- Calls General** Setting the configuration properties for handling the HD5000 conferences.
- Forward** Set destinations for forwarding incoming calls. [See page 43.](#)
- LAN Basic** Identification configuration of the HD5000 on the local network. [See page 45.](#)
- LAN Advanced** Enabling the use of H.323 mechanisms and other advanced IP features. [See page 46.](#)
- Login** User Name and password for logging into an MXM. [See page 47.](#)
- Audio** Audio hardware and software configuration of the HD5000. [See page 48.](#)
- Camera** Pan/Tilt/Zoom (PTZ) camera configuration of the HD5000 (if applicable). [See page 49.](#)
- Video** Configuration for displaying video on the HD5000. [See page 50.](#)

General Options

The **General Options** settings contains options for accepting incoming calls and other system preferences. Set them according to your configuration requirements.



Software Version

Version number of this HD5000 application.

Show Tool Tips

Select to display tool tips when the pointer pauses over a command icon.

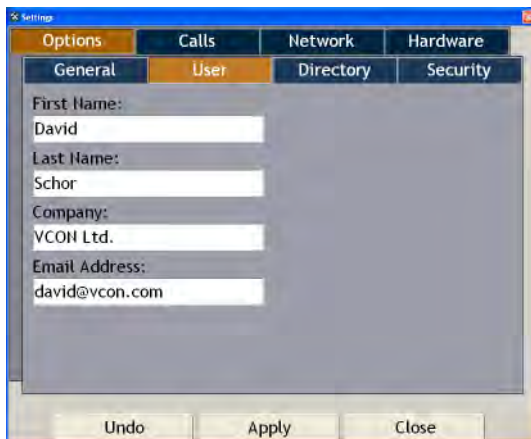
Select Language

Select the language of the HD5000 application on your computer.

User

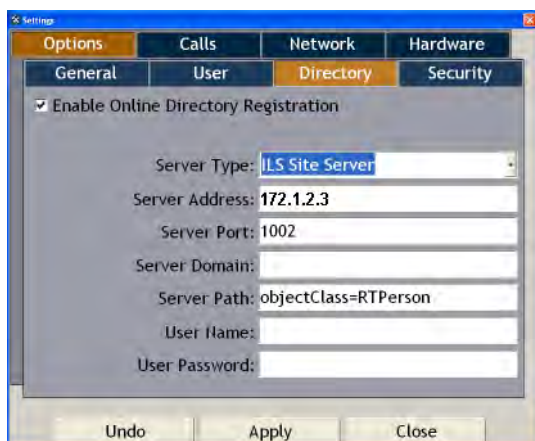
The **User** settings provides identification of the HD5000 end point. This includes the following information:

- First Name
- Last Name
- Company or organization
- E-mail address



Directory

The **Directory** settings contains the configuration of the HD5000's registration in an online directory. An online directory is a list of other videoconferencing users who may be called if they are online. To dial a user, select the name and click the Dial command.



Enable Online Directory Registration

Select to enable the HD5000 to register with the online directory specified in this dialog box.

- If the HD5000 is registered in an Emblaze VCON Media Xchange Manager® (MXM), the HD5000 receives its online directory configuration from the MXM.
- If the HD5000 operates as a stand-alone unit, you must fill in the configuration. Consult with your system administrator for the configuration details.

Server Type

From the supported directory server types from the list, choose the one used by your organization.

Server Address

Enter the IP address of the directory server.

Server Port

Enter the port through which the HD5000 is connected to the directory server.

Server Domain

Enter the domain in which the directory server resides.

- Server Path** The folder in the directory server in which this end point is listed.
- User Name** The user name for this HD5000 that's listed in the directory server.
- User Password** Password required to access the online directory listings, if applicable.

Security

HD5000 contains an embedded web server, which provides powerful management capabilities from remote locations. You can access the HD5000 server from any PC through an Internet Explorer browser.

For any remote access management operation to succeed, you must set the HD5000 to accept the remote modifications, and the remote PC must be able to run the web server screens.



- Enable Web Application** Select to make remote management available.
- Web Application Password** Type a password to restrict access to the remote management.
- Enable Password for Advanced Configuration** Select to restrict access to advanced system properties by requiring a password.

Encryption Mode

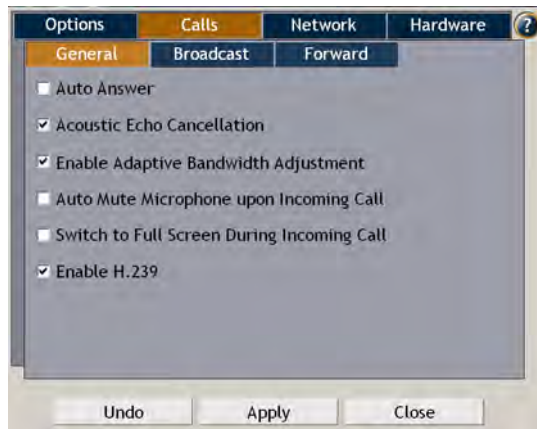
Choose the mode of encryption for this HD5000's conferences.

- No Encryption** - Select to allow unsecured calls.
- Automatic** - Enables the HD5000 to encrypt a call if the remote side has also enabled encryption. If the remote side has not enabled encryption, an outgoing call will be unsecured.
- AES** (Advanced Encryption Standard) - A standard encoding method for encrypting data transmissions in commercial and government sectors of the USA and its use is growing worldwide.

Select this option to encrypt all of this HD5000's calls. If the remote side has not also enabled encryption, the call attempt will be unsuccessful.

Calls General

In the **Calls General** Settings, enable the use of any of the following parameters during your HD5000 conferences.



- Auto Answer** Select to accept calls automatically. If the system is idle when a videoconferencing call arrives, the session starts automatically.
- Acoustic Echo Cancellation** Select to cancel the echo created when your system's microphone picks up audio from the system's speakers.
- Enable Adaptive Bandwidth Adjustment** Enables videoconferences to precede at reduced bandwidth if the network is congested. Deselecting this option maintains a constant quality to the session, but it may cause network problems.
- Auto Mute Microphone Upon Incoming Call** Select to mute the microphone automatically whenever the HD5000 accepts an incoming call. After the conference begins, you may turn the audio back on.
- Switch to Full Screen During Incoming Call** Select to view video on a full monitor display after accepting an incoming call.
- Enable H.239** Select to enable the H.239 standard. The H.239 standard enables the HD5000 to convert data into a separate media stream and transmit it parallel to the video stream. Video systems supporting H.239 display shared data and live video in separate windows. Systems not supporting H.239 display only the shared data in a single window.

Broadcast

The **Broadcast** settings contain the default configuration for sending video and audio to Interactive Broadcast Participants and public viewers. These settings are only applicable for sessions chaired by this HD5000.

Options	Calls	Network	Hardware
General	Broadcast	Forward	
Broadcast IP Address:	239.20.10.21	Maximum Participants:	10
Bandwidth:	384	Time to Live:	5
Video Format:	H.261	Audio Format:	G.728
Video Port:	36100	Audio Port:	18100
Public			
Announcement Rate:	10	Seconds	
Refresh Video Rate:	5	Seconds	



The default Broadcast settings are recommended for most Broadcast conditions. Change them **ONLY** after consultation with your system administrator.

Broadcast IP Address

The destination IP address for the Interactive Broadcast. All participants in the session transmit and receive from this common IP address. This address must be a class D address in the range of **224.0.0.0** to **239.255.255.255**.

Maximum Participants

The maximum number of participants that may participate in a Broadcast session initiated by the HD5000.

Bandwidth

The maximum bandwidth for Interactive Broadcasts. The actual bandwidth will depend on the amount of available bandwidth during the session.

Time to Live

The maximum number of routers that the Session's packets may pass through.

Video Format

The video coding standard that all parties in the Broadcast are capable of using - **H.261**, **H.263** and **H.264**.

H.264 is a new standard which provides better video quality, compression efficiency, and more resilience against packet and data loss, than earlier standards.

Since it is new, some video systems do not support H.264. If at least one Participant's system does not support H.264, or you are not sure, select **H.263** or **H.261**.

Audio Format

The audio standard that all parties in the Broadcast are capable of using.

G.711 U-law/A-law

This standard gives the lowest quality results, but it must be selected if you want public viewers to be able to view a broadcast session. Select **G.711 U-law** if you're in the U.S. or Japan, or **G.711 A-law** if you're in Europe. For other regions, consult with your system administrator or your local Emblaze VCON technical support representative.

G.722

This standard gives the best quality. Select it if you know that the remote parties support it and if you think that the connection will be over high bandwidths.

G.723


This is a standard for transmitting audio at faster bit rates, which reduces bandwidth usage.

G.728

This standard gives the best possible quality with the smallest possible bandwidth cost. Select this standard if you know that the remote parties support it and if you think that the connection will be over low bandwidths.



If you select either **G.728**, **G.723**, or **G.722**, and a remote party's system does not support it, that party will not be able to participate in the session.

- Video Port** The ID of the port used for the video connection.
- Audio Port** The ID of the port used for the audio connection.
-  Participants must use the same video, audio and control ports. Make sure that the ports you choose are available for every Participant.
- Announcement Rate** The interval between announcements of your Broadcast in the public viewer's schedule.
- Refresh Video Rate** The maximum number of seconds required until the video broadcast is synchronized for all viewers. If the refresh value is low, the quality is lowered. If the refresh value is high, it will take a longer time to see the video display when the viewers connect. Use the default setting as a guide.

Forward



The Forward settings are available if your HD5000 system is registered and managed by an MXM.

In the **Forward** settings, set alternate destinations for the routing of incoming calls. Call forwarding may occur:

- At all times (unconditionally)
- If the node is busy in another videoconference
- If the call is not answered by the node.



Set forwarding numbers for the following conditions:

Unconditional Forward



Select this option to set an alternate destination for every call to this HD5000. Type a User Number or choose another destination by clicking the Destination List button and choosing an entry.

The forwarding will then occur unconditionally whenever an incoming call comes.

If this option is selected, the **Busy** and **No Answer** options are not available.

Forward on Busy



Select this option to set an alternate destination for a call if this end point is engaged in another call at the same time. Type a User Number or choose another destination by clicking the Destination List button and choosing an entry.

Forward on No Answer



Select this option to set an alternate destination for a call if this node does not answer after a specified time. Type a User Number or choose another destination by clicking the Destination List button and choosing an entry.

Forward after

Type the number of seconds before the system forwards unanswered calls.



A “*” entry indicates that the particular forwarding setting is not active.

LAN Basic

The **LAN Basic** settings contain the HD5000's identification configuration on the local network.



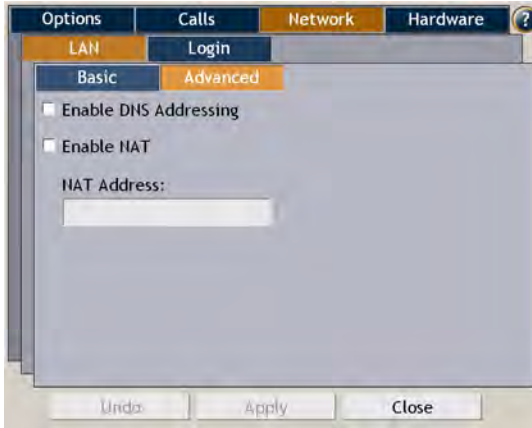
- | | |
|-------------------------------|--|
| IP Address | The HD5000's IP address. |
| DNS Name | The HD5000's name if it's located in a network that employs a DNS server |
| User Name/
Number | Name and Number of the HD5000 as listed in the MXM or gatekeeper that it's registered in (if applicable). Videoconferencing contacts registered with the same MXM or other gatekeepers will be able to call you by dialing your User Number. |
| Gatekeeper
Address | IP address of the MXM or gatekeeper to which the HD5000 is registered. |



In MXM management mode, it is only possible to edit the **User Number**.

LAN Advanced

In the **LAN Advanced** settings, select options for communicating over the connected IP network.



Enable DNS Addressing

Allows the use of the Domain Naming System (DNS) for contacting other parties by a defined computer name.

Enable NAT

If your organization uses Network Address Translation (NAT) when communicating with parties in another LAN or WAN, type the external address for your videoconferencing device.

NAT is a protocol in which a LAN uses one set of IP addresses for internal communication (within an organization's private LAN) and a different, single address for communication with a public network, such as the Internet. In this way, a NAT helps protect a LAN from exposure to unwanted traffic.

To hide a LAN's users from other networks, the NAT maps the private addresses to the public address. The public address is then used to identify the local users to remote contacts. Therefore, remote contacts use this public address to call the local users, without knowing their actual local addresses.

NAT Address

Enter the public address of the HD5000.

Login

In the **Login** settings, define how the HD5000 logs into a Media Xchange Manager (MXM) to receive management and telephony services.



Automatic Login

Select to log in automatically to the MXM during the HD5000's startup using the current User Name and Password.

Change MXM Password

Click this button to change the HD5000's password for logging into the MXM. The following items appear in the dialog box.

User Name

User name of this HD5000. This name indicates your HD5000 in the MXM Administrator application.

Old Password

Current password.

New Password

Password that replaces the current one.

Verify Password

Confirmation of the new password.



If the Password boxes are blank, the current password remains valid.

Audio

In the **Audio** settings, you can define the audio configuration to be used during conferences.



Audio Inputs/ Outputs

Select the types of audio hardware installed in or connected to the HD5000's computer.

Microphone Boost

Select to significantly raise the volume range of the microphone or deselect to lower the range.

Line In

Select to enable audio input through the Line In connector from an external audio source, such as DVD or VCR.

Microphone Level

Drag the slider to the right to raise the microphone volume or to the left to lower it.

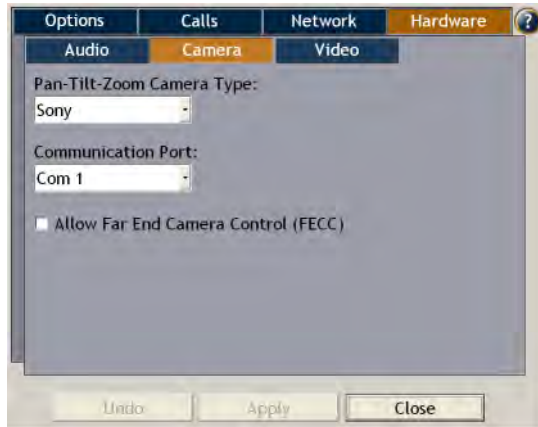
Lip Synchronization

Drag the slider towards Delay Video if you hear the audio after the video movement, or towards Delay Audio if you see the appropriate video movement only after you hear the audio.

Click **Default** to return to the default setting.

Camera

In the **Camera** settings, set the type of Pan/Tilt/Zoom (PTZ) camera that is connected to the system and the communications port through which it can be controlled.



- | | |
|--|--|
| Camera Type | Select the manufacturer and/or model of the connected PTZ camera (if applicable).
If you are using a non-controllable camera, select None . |
| Communication Port | Select the name of the computer port to which the PTZ camera is connected. |
| Allow Far End Camera Control (FECC) | Select to permit a remote participant in a conference to control the positioning of your PTZ camera. If a PTZ camera is not used, this option is not applicable. |

Video

The **Video** settings contain the configuration for displaying video on the HD5000 system.



Video Input Device

Name of the HD5000's video source.

Video Input Type

Type of video source.

- Fixed** - Non-adjustable analog camera.
- Pan-Tilt-Zoom** - Pan/Tilt/Zoom (PTZ) controllable camera.
- Document** - Document camera.

Display Mode

- Select **Single Mode** to display video on one monitor.
- Select **Dual Mode** to display remote video on one monitor, local video and the HD5000 application on a second monitor.

Display Ratio

Aspect ratio, or rectangular shape of the displayed video.

- 4:3** is the aspect ratio used by standard TV.
- 16:9** is wider than 4:3 and is the standard aspect ratio for high definition television (HDTV).

Display Format Video format for your system .Select the one that is compatible with your camera and/or monitor.

- NTSC** is widely used throughout the Western Hemisphere, Japan and South Korea.
- PAL** is used in many countries in Western Europe, Asia, Africa, as well as Australia.

6 TROUBLESHOOTING

This chapter may help you resolve certain conditions that may occur while operating the HD5000 system.

If you are unable to find a solution to your problem, please request help from our Technical Support channels.

Access the Technical Support section of the Emblaze VCON website (<http://www.emblaze-vcon.com/support/index.shtml>) in order to check its knowledge base or initiate other customer support processes:

Page	Type of support
Support Notes	Troubleshoot or receive technical information about specific Emblaze VCON products.
Downloads	Download a new software release or a free product evaluation.
Demo Numbers	Test your videoconferencing system.
License Key Requests	Request a permanent license key for your organization's MXM(s).

Connection Problems	Solution
When switched ON, the system does not have any power	<ol style="list-style-type: none">1. Verify that the power cable is correctly inserted in the power connector on the computer's rear panel and that it is firmly plugged into the power outlet.2. Verify that the power outlet is working correctly.3. If the problem still remains, contact your local Emblaze VCON distributor for further instructions.

Keyboard Problems	Solution
When you work with the keyboard, the system does not respond.	<ol style="list-style-type: none">1. Make sure that you are directing the keyboard directly at the receiver unit with no obstructions between them.2. Check that the keyboard and mouse are connected to the correct ports. See the illustration on page 11.3. Check that the receiver is connected correctly and that the receiver LEDs are ON.4. Optimal distance for using the keyboard is 6 meters (19.5 feet). Use of the keyboard over a long period of time without replacing its batteries will reduce this optimal distance.5. Check that the batteries are inserted correctly in the keyboard. If necessary, replace the batteries.6. If the problem still remains, contact your local Emblaze VCON distributor for further instructions.

Camera Problems	Solution
The camera does not respond to movement requests.	<ol style="list-style-type: none"> 1. Open the Settings>Hardware>Camera dialog box and make sure that the correct camera model and port are defined. 2. Make sure that you are directing the keyboard directly at the receiver unit with no obstructions between them. 3. Verify that the Camera unit is connected correctly to the video card. 4. Open the Settings>Hardware>Video dialog box and make sure that the correct video device and type are defined. 5. Verify that the camera control cable is connected between the VISCA IN connector on the camera and the COM1 serial port on the rear panel of the computer. 6. If your camera is Sony EVI-D100, check that the IR Select switch on the rear of the camera is set to: <ul style="list-style-type: none"> — 1 if you're using an S-Video connection — 2 if you're using a Composite Video connection. 7. If your camera is Sony EVI-D100, check the settings of the DIP switches on the bottom of the camera. IR OUT must be set to OFF and MODE must be set to ON.
The Far End (remote) camera does not respond.	<ol style="list-style-type: none"> 1. Verify that a controllable PTZ camera is connected to the remote user's computer. 2. Verify that the remote user allows you to establish control the remote camera. 3. Open the Settings>Hardware>Camera dialog box and make sure that Allow Far End Camera Control (FECC) is selected.

Video Problems	Solution
<p>The system is switched ON but the local Video Image is blank.</p>	<ol style="list-style-type: none"> 1. Verify that the Camera is switched ON. 2. Verify that all connections from the computer to the Camera unit are correct. 3. Open the Settings>Hardware>Video dialog box and make sure that the correct video device is selected. 4. If the problem still remains, contact your local Emblaze VCON distributor for further instructions.
<p>The local Video Image is the VCON logo.</p>	<ol style="list-style-type: none"> 1. If you have only the XGA monitor, open the Settings>Hardware>Video dialog box and make sure that Single Mode is selected as the display. 2. If you have a TV and an XGA monitor, verify that Dual Mode is selected as the display, and that the TV is tuned into the correct channel.

Audio Problems	Solution
When connected in a video-conferencing session, you cannot hear any sounds from the remote user.	<ol style="list-style-type: none"> 1. Verify that the system's volume is not turned down or muted. 2. Verify that the monitor volume is not muted. 3. Verify that all audio connections from the computer to the XGA monitor are correct. 4. Verify that the remote participant has not muted audio transmission from the remote side. 5. If you started the videoconference, then disconnect and redial to verify whether the problem remains. If the remote user started the videoconference, advise the remote user to disconnect and redial to verify whether the problem remains. 6. Open the Settings>Hardware>Audio dialog box and make sure that the correct audio device is selected. 7. If the problem still remains, contact your local Emblaze VCON distributor for further instructions.
Audio from your system is not being received by the remote user.	<ol style="list-style-type: none"> 1. Verify that you have not turned the audio transmitted from your microphone off – muting audio being transmitted from your system to the remote user. 2. Open the Settings>Hardware>Audio dialog box and make sure that the correct audio device is selected. 3. Verify that the connection from the microphone to the computer is correct. 4. Instruct the remote participant to examine the remote system as indicated in the previous section for received audio. 5. If the problem still remains, contact your local Emblaze VCON distributor for further instructions.

Connectivity Problems	Solution
When trying to start or receive a call, the connection fails.	<ol style="list-style-type: none">1. Verify that the LAN cable is connected and not loose.2. Verify that the TCP/IP settings (Windows Control Panel>Network>Configuration tab) are correct.
When trying to start or receive a call through the Gatekeeper, the connection fails.	<ol style="list-style-type: none">1. Open the Settings>Network>LAN Basic dialog box and make sure that the Gatekeeper IP Address is entered correctly.2. Verify that your system's E.164 name or alias name is entered correctly in the User Name box of the LAN Basic dialog box.

A THE REMOTE CONTROL

In addition to the wireless keyboard, the HD5000 includes a remote control unit for controlling the cameras, dialing, and additional functions. To use it, point it at the keyboard receiver from a distance of up to 6 meters (see [“Wireless Keyboard, Remote Control and Receiver”](#) on page 5).



See the next page for an explanation of the remote control buttons.

HD5000 Remote Control

The HD5000 includes a remote control unit for controlling the camera, dialing, and additional functions. The illustration below is a guide to the remote control's functions.

