



# **Group Videoconferencing Systems**

Video Made Easy

## **HD600**

Multimedia Videoconferencing System  
Version 2.6

### **User's Guide**

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**CAUTION:**

To comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules, only HD600 original equipment should be used. All cables used to connect the HD600 and peripherals must be shielded and grounded. Operation with non-certified accessories or non-shielded cables may result in interference to radio or television reception

## Limited Warranty

Emblaze-VCON Ltd. warrants the Product identified by the serial number indicated on the HARDWARE either accompanying the SOFTWARE or purchased separately will be free from defects in materials and workmanship under normal use and service for a period of ONE (1) year from the date of receipt. This Limited Warranty shall not apply to any product that in the opinion of Emblaze-VCON Ltd. has not been installed or upgraded according to accompanying documentation from Emblaze-VCON Ltd. or been subject to misuse, misapplication, negligence or accident while in the hands of the purchaser. Emblaze-VCON Ltd. warrants that SOFTWARE will perform according to accompanying user documentation for a period of 90 (ninety) days from the date of receipt; replacement SOFTWARE will be warranted for 90 (ninety) days from the date of receipt.

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# Safety Notice



Do not open the HD600 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 the HD600 system, observe the following safety guidelines:

- 1** If the unit or any part of it is damaged, disconnect the power plug and inform the responsible service personnel. Non-observance may result in damage to additional equipment.
- 2** Do not place this product on an unstable surface or support. The product may fall, causing serious injury, as well as serious damage to the product.
- 3** Make sure the monitor and attached accessories are electrically rated to operate with the AC power available in your location.
- 4** Operate this product only from the type of power source indicated on the product's marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- 5** Use only the power supply provided with your product. Check whether the device's set supply voltage is the same as the local supply voltage.
- 6** Plug the accessories' power cables into properly grounded power sources. These cables are equipped with three-prong plugs to help ensure proper grounding.
- 7** Do not overload wall outlets or extension cords, as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
- 8** 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.
- 9** Route power supply cords where they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords where they are attached to plugs and convenience receptacles, and examine the point where they exit the unit.
- 10** Do not connect or disconnect power supply cables and data transmission lines during thunderstorms.
- 11** Before cleaning the appliance, unplug the power cord. Use only a soft cloth dampened with water for cleaning.

- 12** Do not spill food or liquids on the system or accessories, or expose the system to moisture.
- 13** Do not expose the appliance to extreme high or low temperatures (ambient temperature higher than 35°C or lower than 10°C).
- 14** When installing the appliance, make sure that the vents are not blocked.
- 15** Do not use the appliance outdoors.
- 16** Do not use any accessories other than those approved by Emblaze-VCON. Failure to do so may result in loss of performance, damage to the product, fire, electric shock or injury, and will void the warranty.
- 17** To reduce risk of damage to the unit, remove it from the outlet by holding the power adapter rather than the cord.

## **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 B 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.

## About This User's Guide

This User's Guide explains how to videoconference with the Emblaze-VCON HD600. The chapters emphasize a how-to approach, and include detailed instructions for participating in conferences and getting the most out of the system's capabilities.

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

- Chapter 1**      **Welcome to HD600**  
Introduction to the HD600 and its components.
- Chapter 2**      **Setting Up HD600**  
Instructions, drawings and cautions describing how to connect HD600's components and accessories.
- Chapter 3**      **Getting Started**  
Instructions for starting HD600, navigating within dialog boxes, and making calls with the Manual Dialer.
- Chapter 4**      **Videoconferencing Basics**  
Instructions for answering calls; creating, editing and deleting Phone Book entries; using Phone Book entries to start calls; and calling through a gateway.
- Chapter 5**      **Network Configuration**  
Setting up HD600's network configuration and various communication properties.
- Chapter 6**      **Video and Audio Adjustments**  
Adjusting the video (monitors, cameras, display settings) and audio quality of videoconferences.
- Chapter 7**      **Streaming Media**  
Description of the HD600's Streaming feature, including setting its configuration and starting a streaming session.
- Chapter 8**      **Data and Application Sharing**  
Procedures for setting up data sharing and opening a data connection with a remote party.
- Chapter 9**      **Web-Based Remote Management**  
Instructions for setting various HD600 configuration properties over the Internet from a remote computer.
- Chapter 10**     **MultiPoint Conferencing with Interactive Multicast**  
Instructions for participating in Interactive Multicast conferences.

Chapter 11	<b>Telephony Exchange Functions</b> Description of exchange functions (such as call forwarding, call pickup, call transfer, and inviting additional parties) that are available if the HD600 is managed by an Emblaze-VCON Media Xchange Manager <sup>®</sup> (MXM) system.
Chapter 12	<b>System Security</b> Description and procedures of available system security options for the HD600.
Chapter 13	<b>Troubleshooting</b> Suggestions for solving possible issues.
Appendix A	<b>Multi-language Interface</b> Procedure for changing the language of the HD600 menus and dialog boxes.
Appendix B	<b>Software Upgrade</b> Instructions for installing the latest version on a HD600 that runs on an earlier version.

## Emblaze-VCON Technical Support

This User Guide and the HD600 Online Help were designed to help you set up and work with your Emblaze-VCON Group Videoconferencing 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
<b>Support Notes</b>	Troubleshoot or receive technical information about specific Emblaze-VCON products.
<b>Downloads</b>	Download a new software release or a free product evaluation.
<b>Demo Numbers</b>	Test your videoconferencing system.
<b>License Key Requests</b>	Request a permanent license key for your organization's MXM(s).





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# 1 WELCOME TO HD600

## 1.1 HD600 Features

The HD600 is a high-quality, cost-effective multimedia conferencing system combining videoconferencing, streaming video and remote management. The HD600 provides several distinctive attributes and features which makes it an ideal solution for small group and personal videoconferencing environments.

- TV-like video and crisp audio quality**  
HD600 includes Emblaze-VCON's award-winning technology and solutions for maintaining high quality during video, audio and control transmissions. It supports H.261, H.263, H.263+, and H.263++. It also supports G.711, G.722, G.723.1, G.728 and G.729 audio transmission. Features such as Automatic Buffering, Automatic Lip Synch Enabling, and Acoustic Echo Cancellation (AEC) provide superior performance.
- Quality of Service (QoS)**  
Emblaze-VCON's PacketAssist™ Architecture preserves optimum quality of your videoconference according to available bandwidth and network traffic. The HD600 applies mechanisms such as IP Precedence to prioritize the video, audio and control bits, and DiffServ to transfer packets according to the HD600's specific needs.
- System Security**  
Administrators may restrict access to the system's configuration, prevent unauthorized outgoing calls, or lock the system completely.
- Multicast and Unicast Streaming**  
The HD600 applies HD Simulcast™ technology, which provides multiple ways of streaming live conferences out over your organization's network and over the Internet, where it can be viewed by any authorized person with a streaming viewer. Users can simultaneously stream a presentation and live video to remote sites. The streaming functions may be accessed through the HD Web-based Management program, allowing network administrators to begin and end streaming, freeing the conference leader (Chair) to control the meeting.
- Participation in Interactive Multicast**  
Using Emblaze-VCON's Interactive Multicast, all parties in the videoconference see and hear the same video, audio, and data sharing. HD600 users may temporarily receive the floor, in which their video and audio are seen by the other parties until the floor returns to the session's controller (*Chair*).

## 1 Welcome to HD600

### **Media Xchange Management® Support**

Emblaze-VCON's Media Xchange Manager® (MXM) provides centralized management of an organization's videoconferencing network. If the HD600 logs into an MXM server, it receives gatekeeper services, bandwidth management, remote call initiation, and telephony functions, such as call forwarding, call pickup, call transfer, ad-hoc videoconferencing, and IP-to-ISDN connection through a gateway.

### **Remote Management Through a Web Browser**

From any computer on the same network as your HD600, several functions may be accessed through Microsoft® Internet Explorer.

### **Remote Software Upgrade**

The HD600's software version may be upgraded, using the HD Upgrade Utility, from an MXM (if the HD600 is logged into it) or another computer at a remote location.

### **Multi-language Interface**

The standard HD600 version provides menus, commands and options in several languages.



## Optional Accessories

The following item is required for videoconferencing and may be purchased through your local Emblaze-VCON distributor

**TV Monitor** Consult with your Emblaze-VCON distributor for recommendations regarding monitors.

The following accessories are supported by the HD600 and may be purchased through your local Emblaze-VCON distributor.:

**Stationary Camera** A stationary camera is handy for both a desktop environment and for portable use. It provides color video and includes a built-in microphone, focus, contrast, and other controls for adjusting the image manually.

**Pan/Tilt (PT) and Pan/Tilt/Zoom (PTZ) Camers** A PT or PTZ camera may be connected to the HD600 and controlled through the system software, either from the hand-held remote control or from a remote PC using the Web-based Management program. 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 remote control.

**Document Camera** A document camera displays documents that are placed on the camera's slide. High-quality resolution is guaranteed by the S-Video connection between the document camera and the HD600.

**Speakers** A three-piece computer audio system that delivers a high level of power (200 W) and accuracy. The system consists of two speakers and a subwoofer.



## 2 SETTING UP HD600

This chapter explains how to set up the HD600 and connect accessories.

### 2.1 Package Checklist

Before setting up the HD600 for the first time (see [“Before Setting Up” on page 5](#)), carefully unpack its package. Check that the listed items are included, in accordance with the supplied product.



If anything is missing or damaged, contact your local Emblaze-VCON distributor as soon as possible.

- HD600 main unit
- Microphone and cable
- Hand-held remote control
- Universal power supply Input 100-240V Output 12V 2A
- Video/Audio RCA cable (yellow/white/red)
- LAN cable RJ-45
- MiniDIN-to-MiniDIN 4-pin cable
- Two AAA nickel-cadmium batteries
- Safety instructions sheet
- HD600 User's Guide
- Camera (optional according to purchase order)
- RS-232 serial cable (optional)
- VGA cable DB-15 High-density (optional)

### 2.2 Before Setting Up

Before setting up HD600, make sure you have the necessary components (see [“Package Checklist” on page 5](#)). If anything is damaged or missing, contact your local Emblaze-VCON distributor.



**CAUTION** Before connecting accessories, turn off the power and disconnect the system and the accessory (if applicable) from their power supplies.

### **2.3 Connecting the Basic Components**

Carefully unpack the Main Unit, and position it on a stable horizontal area.

See the following sections for instructions about connecting:

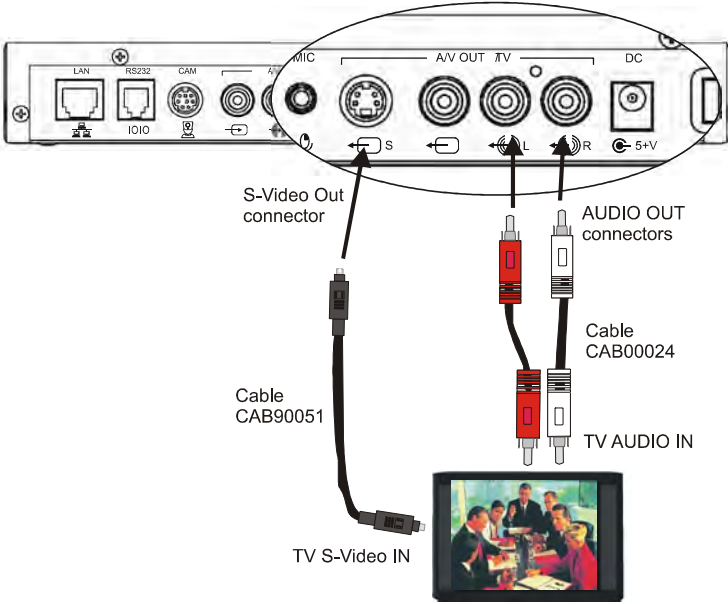
- Monitor - TV and VGA-type
- Cameras (purchased either separately or as an optional accessory from Emblaze VCON)
- Tabletop Microphone
- LAN
- Power Supply

## Connecting a Monitor

The HD600's video may be displayed on either a TV monitor or VGA-type monitor (VGA/SVGA), such as Plasma or LCD monitors.

### Connecting a TV Monitor

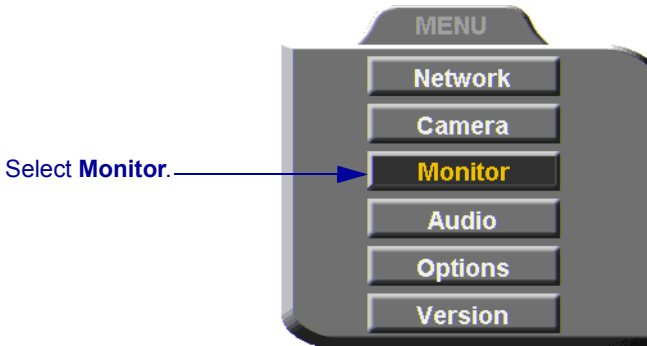
- **To connect the TV monitor to the HD600**
  - 1 Place the unplugged TV on a sturdy surface near the HD600 main unit.
  - 2 Connect the S-Video cable (CAB90051) or RCA cable's yellow RCA connector (depending on your TV) between the TV's Video In connector and the HD600's A/V OUT TV S-Video connector.
  - 3 Connect the RCA cable's red/white connectors between the TV's Audio In connectors and the HD600's A/V OUT TV Audio connectors (Left=White, Right=Red).



*Connecting HD600 to a TV Monitor*

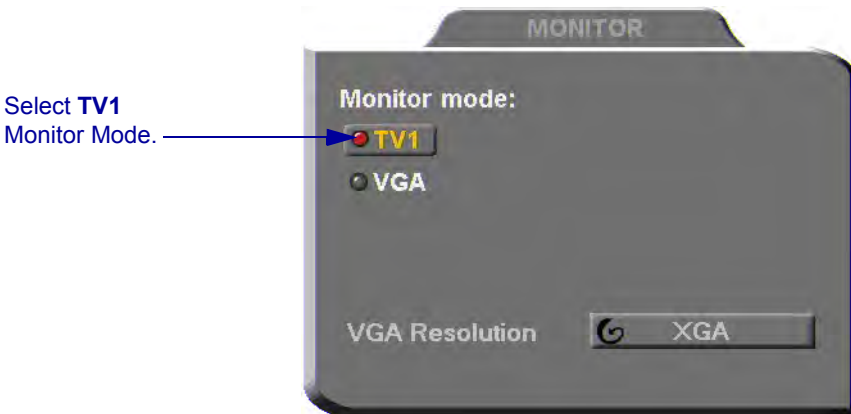
## 2 Setting Up HD600

4. After starting the HD600, press <Menu>. The main Menu appears. Select **Monitor**.



5. To view video and HD600 menus and dialog boxes, you must define the monitor configuration. If this configuration is not defined correctly, your monitor will be blank. In the Monitor dialog box, set the following properties:

**Monitor Mode** Select TV1.



6. Press <OK> to apply the changes and close the dialog box.



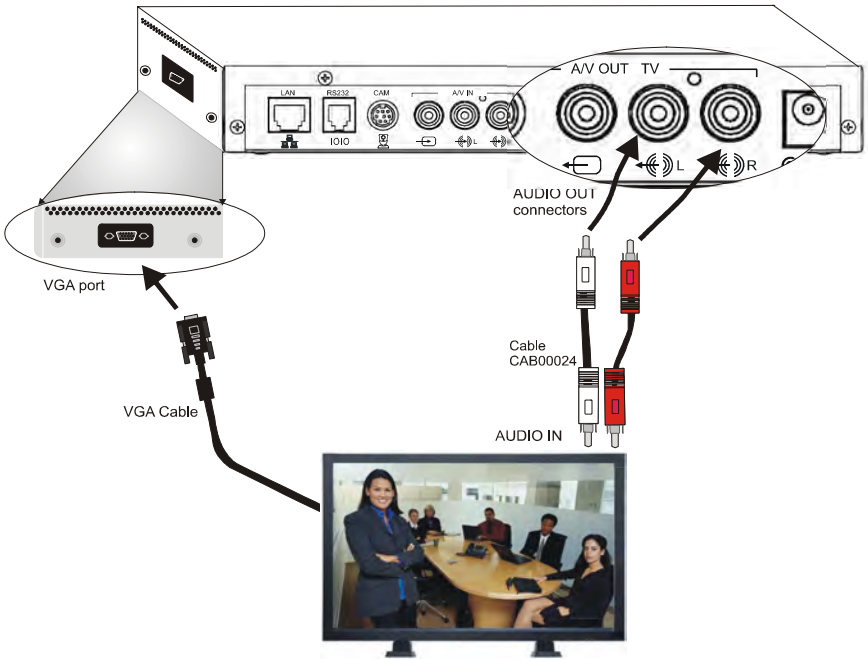
**Connecting a VGA-type Monitor**



To enable the use of a VGA-type monitor with the HD600 for the first time, you must first connect the HD600 to a TV monitor and change the Monitor settings.

➤ **To connect a VGA-type monitor to the HD600**

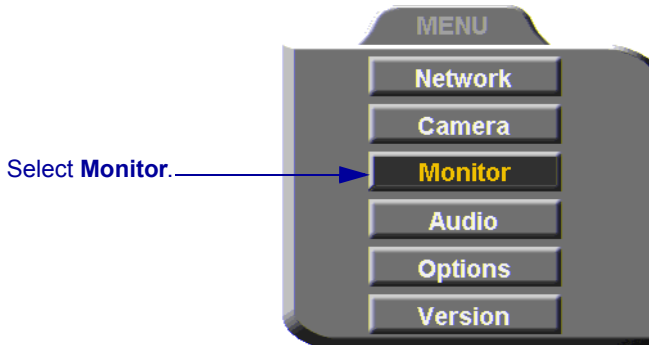
- 1 Place the unplugged monitor on a sturdy surface near the HD600 main unit.
- 2 Connect the monitor's VGA cable (15-pin) to the VGA port on the side of the HD600.
- 3 Connect the Audio cable between the monitor's Audio In connectors and the HD600's AUDIO OUT connectors (Left=White, Right=Red).



*Connecting HD600 to a Single VGA Monitor*

## 2 Setting Up HD600

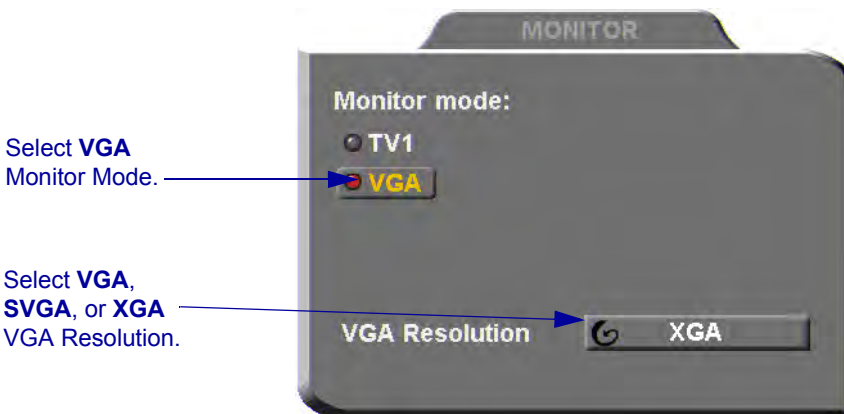
- 4 After starting the HD600, press <Menu>. The main Menu appears. Select **Monitor**.



- 5 To view video and HD600 menus and dialog boxes, you must define the monitor configuration. If this configuration is not defined correctly, your monitor will be blank. In the Monitor dialog box, set the following properties:

**Monitor Mode** Select **VGA**.

**VGA Resolution** Choose **VGA**, **SVGA**, or **XGA**.



- 6 Press <OK> to apply the changes and close the dialog box.



- 7 Disconnect the TV monitor from the HD600.

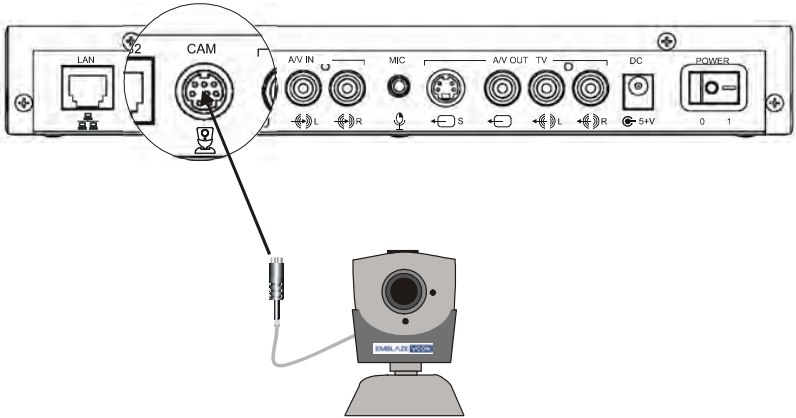
### Connecting a Camera

The main camera may be stationary, Pan/Tilt (PT), or Pan/Tilt/Zoom (PTZ) type. Cameras may be purchased separately or as an optional accessory from Emblaze-VCON.

 Video quality may vary according to your choice of camera.

➤ **To connect a stationary camera to the HD600**

- Connect the camera cable to the HD600's CAM connector.



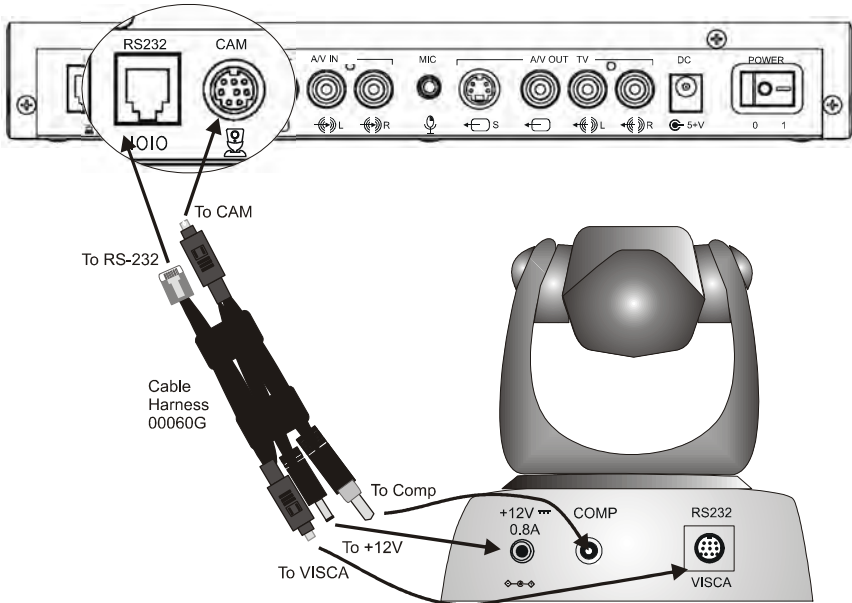
*Connecting a Stationary Camera to the HD600*

## 2 Setting Up HD600

### ► To connect a PT camera to the HD600

The HD600 package includes the 00060G harness, which contains three cables and five connectors for connecting a PT camera.

- ❑ Connect the cables between the camera and the HD600 as demonstrated in the following illustration.



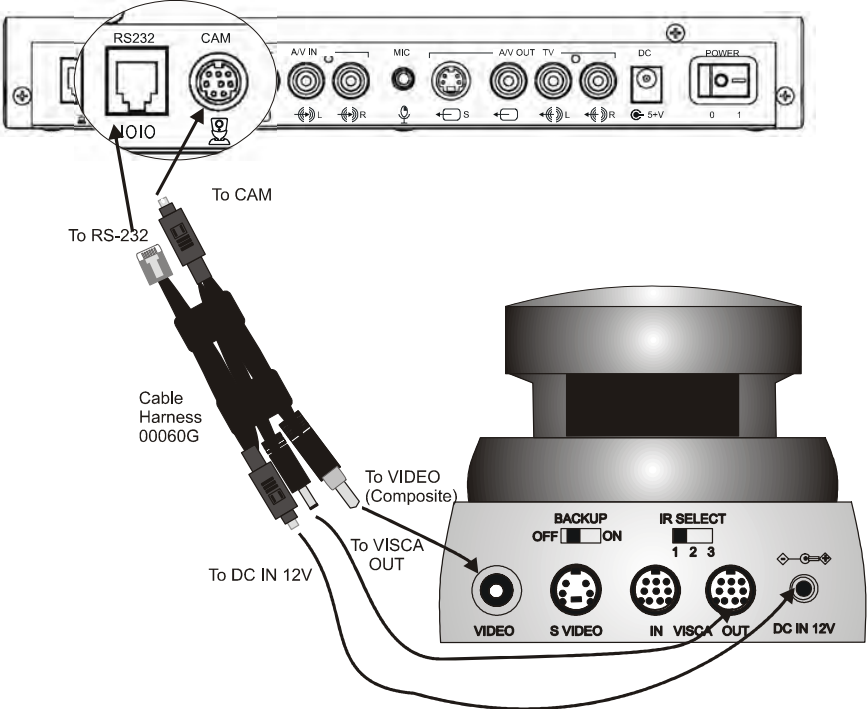
*Connecting a PT Camera to the HD600*



➤ **To connect a PTZ camera to the HD600**

The HD600 package includes the 00060G harness, which contains three cables and five connectors for connecting a PTZ camera.

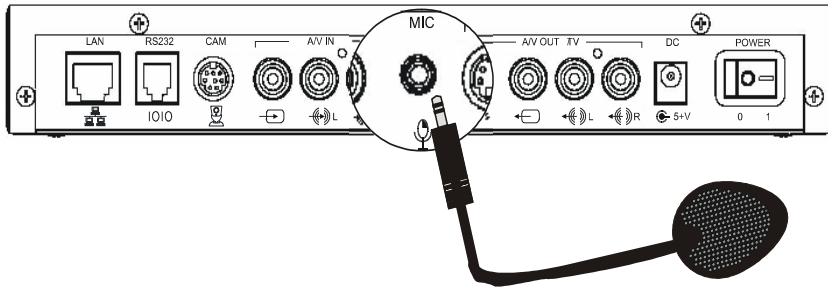
- ❑ Connect the cables between the camera and the HD600 as demonstrated in the following illustration.



*Connecting a PTZ Camera to the HD600*

## Connecting the Tabletop Microphone

- **To connect the Tabletop microphone to the HD600**
  - 1 Connect the microphone to the MIC connector on the HD600.
  - 2 Place the microphone on the conference table with the cable stretching toward the HD600. It is recommended that the microphone be placed at least 2 m (7 ft) from the TV speakers.



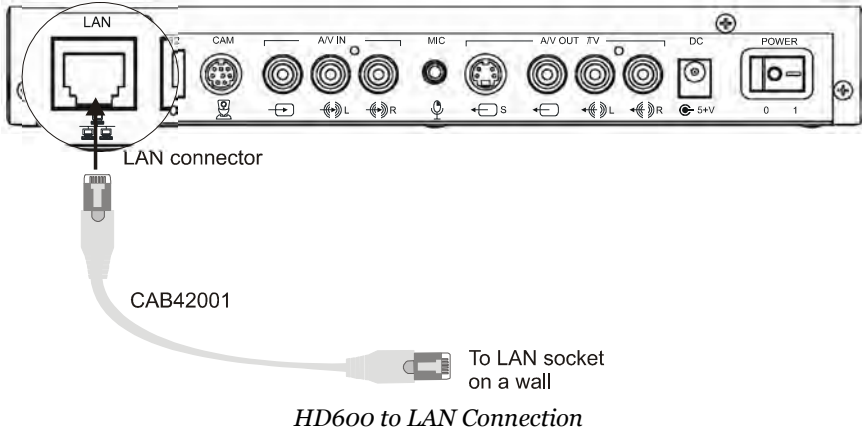
*Connecting the Tabletop Microphone to the HD600*

## Connecting the LAN

A standard RJ-45 interface for connection to your LAN is provided.

### ► To connect a network (LAN) cable to the system

- ☐ Connect the LAN cable between the LAN port (RJ-45) on the rear of the system and to the LAN socket on the wall.



After you plug the HD600 to the electrical power source (see [“Connecting the Power Supply” on page 17](#)) and turn on the system (see [“Starting HD600” on page 23](#)), check that the network connection is correct.

### ► To check for correct network connection

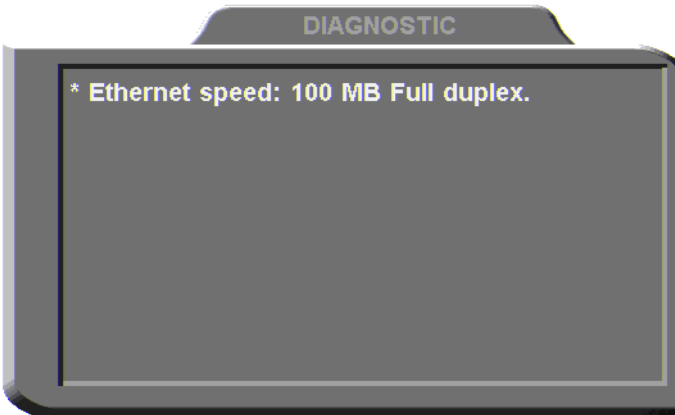
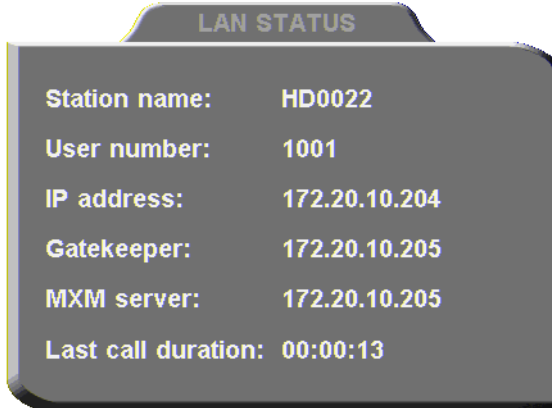
- 1 Press <Status>. The Status dialog box opens.
- 2 Press the green DIAGNOSE SoftKey. The Diagnostics dialog opens.

If the connection to the network is working properly, the Diagnostics dialog box displays the line speed of the connection.



## 2 Setting Up HD600

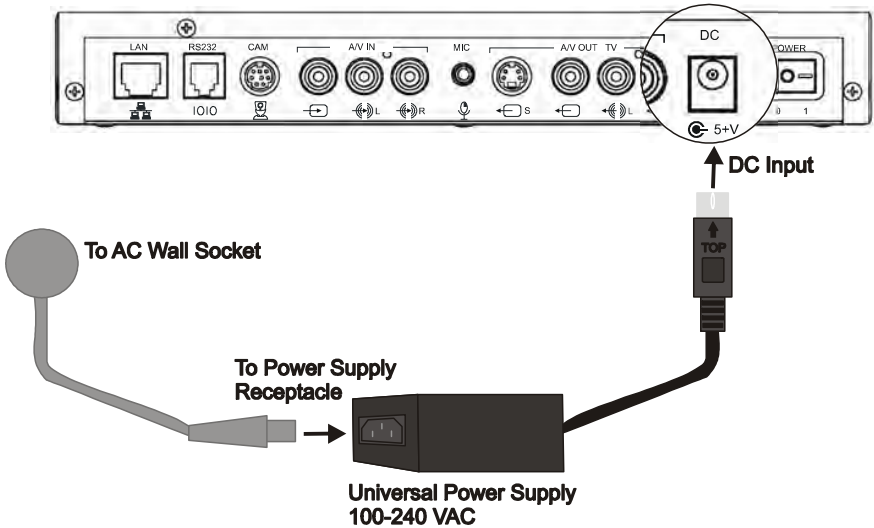
Select **DIAGNOSE** to view a diagnostic report.



## Connecting the Power Supply

After connecting the HD600 to the accessories, connect the system to the power supply. A 100-250VAC/50-60Hz universal power supply is supplied in the HD600 package.

- **To connect the HD600 to a power supply**
  - 1 Insert the power supply's DIN connector (6-pin) to the DC Input socket on the rear of the system.
  - 2 Insert the power cable plug into the receptacle on the power supply.
  - 3 Insert the other plug of the power cable into a grounded AC wall socket.



*Connecting HD600 to the Electrical Power Source*

## 2.4 Connecting Optional Accessories

See the following sections for instructions about connecting:

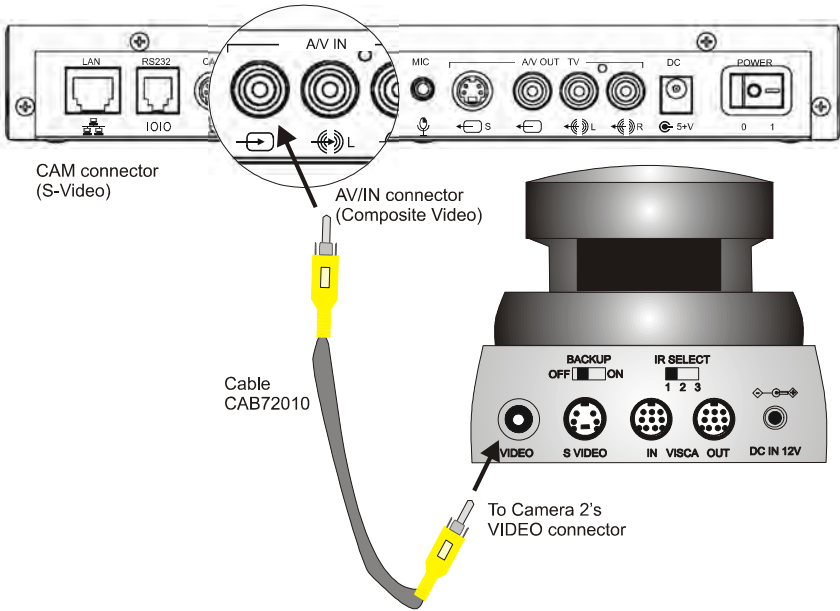
- Second camera
- DVD/VCR for playback to the conference
- VCR for recording the conference.

### Connecting a Second Camera

HD600 supports the use of up to two cameras, which may be connected and controlled through the remote control and/or the web management program.

➤ **To connect a second camera to the HD600**

- 1 Connect a Composite video cable between the camera's Video connector and the HD600's A/V IN Composite video connector.



*Connecting HD600 to a Second Camera*

## Connecting a DVD/VCR for Playing Back Videoconferences

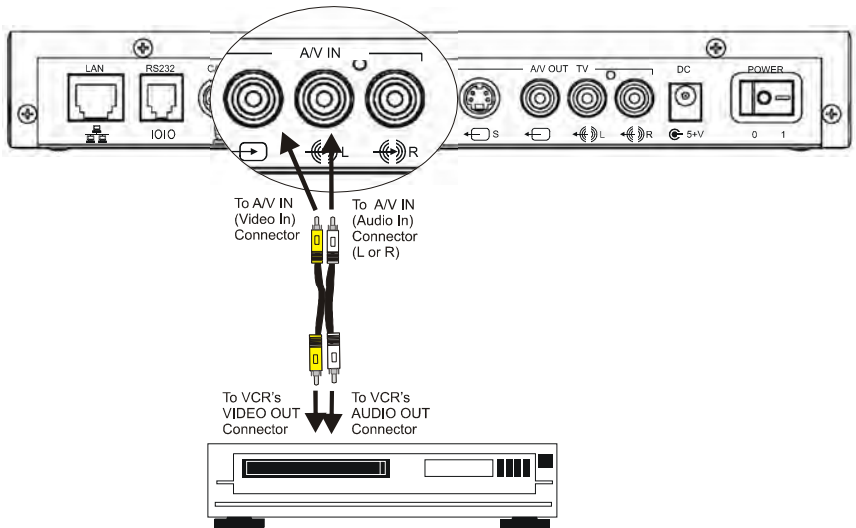
The HD600 supports the playback of a DVD or videocassette to a videoconference.



For specific instructions on installing and operating the DVD or VCR, see its accompanying user's guide.

### ► To connect a DVD or VCR for playback

- 1 Connect the RCA video connector between the VIDEO OUT connector of the DVD/VCR and the HD600's A/V IN Video connector.
- 2 Connect the RCA audio connector between the AUDIO OUT connector of the DVD/VCR and one of the HD600's A/V IN Audio connectors.



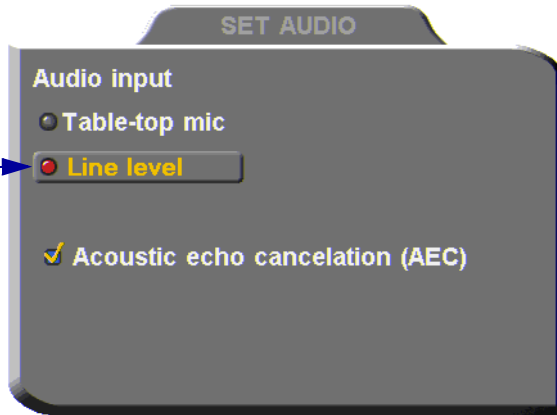
*Connecting a DVD or VCR to the HD600 for Playback*

- 3 Connect the DVD/VCR to its power supply and insert the DVD disc/ videocassette.

## 2 Setting Up HD600

- 4 Navigate to the HD600's Audio configuration. Define the following:  
**Audio Input**      Select **Line Level**.

Set Audio Input  
to **Line Level**.



*Audio Configuration for VCR Playback*

- 5 On the remote control, press <Cam> to open the Camera configuration. Select the VCR icon.



Select the VCR icon.





## Connecting a VCR for Recording Videoconferences

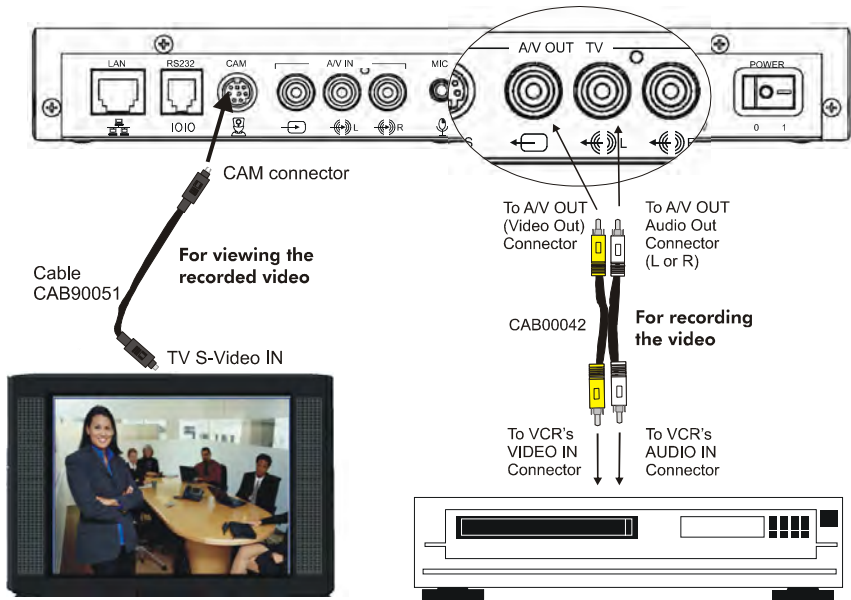
The HD600 supports the recording of a videoconference.



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

### ► To connect a VCR for recording

- 1 Connect the VCR's video RCA cable between the VIDEO IN connector of the VCR and the HD600's upper VCR 3 yellow (VIDEO OUT) connector.
- 2 Connect the VCR's audio RCA cable between the AUDIO IN connector of the VCR and the HD600's upper VCR AUD white (Out) connector.
- 3 Connect the VCR to a power source. Insert an empty videocassette.
- 4 To view the conference as it's being recorded, connect the S-Video cable (CAB90051) between the TV's Video In connector and the HD600's CAM connector.



*Connecting a VCR to the HD600 System for Recording*



## 3 GETTING STARTED

This chapter explains how to operate HD600 and to make a call. It includes the following sections:

- [Starting HD600](#)
- [The Remote Control](#)
- [HD600 Screens](#)
- [Navigating in HD600](#)
- [Setting up the Network Configuration](#)
- [Starting a Videoconference from the Manual Dialer](#)
- [Shutting Down HD600](#)

### 3.1 Starting HD600

Make sure the system is set up, the TV monitor is on, and the cables are connected properly. See “[Connecting the Basic Components](#)” on page 6.

#### ► To start up HD600

- 1 On the back of the Main Unit, press the **POWER** button on, marked (I).
- 2 Wait until the HD600 Ready Screen appears, and HD600 is ready to make and receive calls.



*Introduction Screen*



If the Ready Screen does not appear after 1 minute from the time you started the system, see Chapter 13, “[Troubleshooting](#)”.

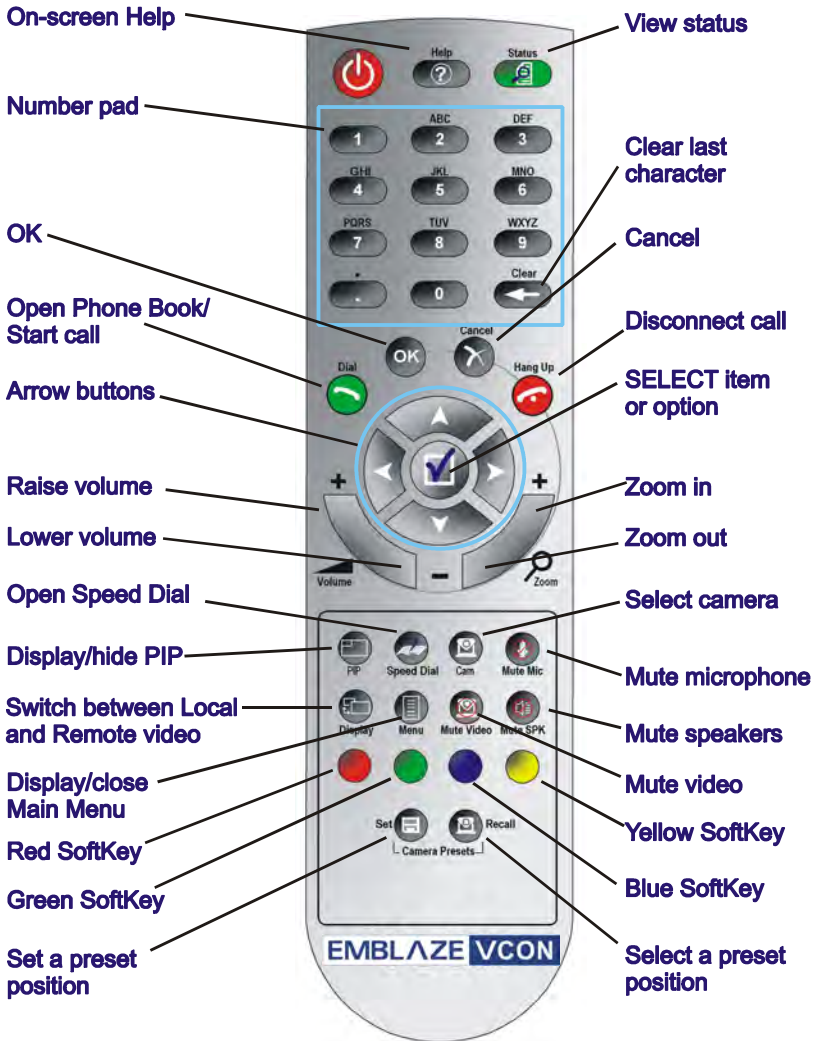
### 3 Getting Started

## 3.2 The Remote Control

Use the remote control to work with the HD600. Operate the remote control within six meters of the HD600 unit.



Use only alkaline batteries in the remote control device.



### 3.3 HD600 Screens

The HD600 screens provide an efficient videoconferencing environment. The types of elements displayed by the system are:

#### HD600 Ready Screen



- Indicates that HD600 is operational and provides a home screen.
- <Dial>, <Menu>, <Status> and <Help> are active.

#### Dialog Boxes



HD600's dialogs provide on-screen information. They can contain checkbox options, menu options, and data-entry boxes. Press the arrow buttons to move among the options and boxes.

#### Tabs



Some dialogs contain various tabs, which are related sets of categorized options.

- Press the up and down arrows to move among tabs.
- Press the right arrow to open a dialog.
- Press the left arrow to leave a dialog and move among the tabs again.

#### SoftKey Guide



The four colored keys located on the covered part of the remote control are the SoftKeys.

SoftKey functions change according to the status of the system and the displayed dialog. The SoftKey Guide at the top of the screen indicates the current functions.

### 3.4 Navigating in HD600

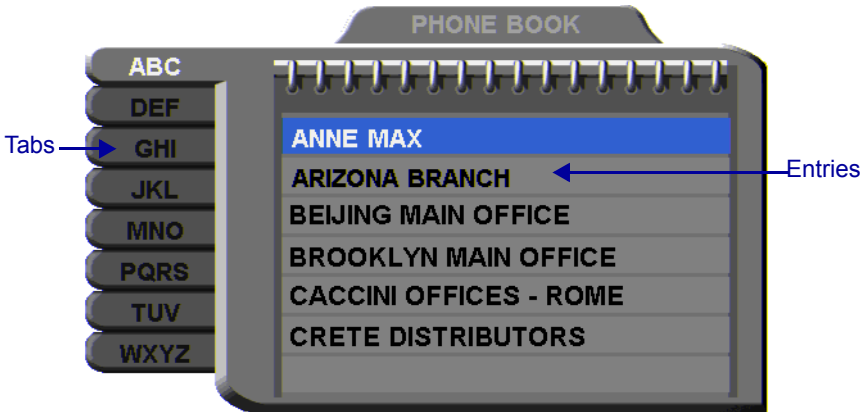
Whether making videoconference calls or setting configurations, you use the supplied remote control to navigate and enter information.

#### Moving Around the Menus and Dialog Boxes

To perform various functions, you must access the system's menus and dialog boxes. Many dialog boxes are divided into tabs (groups of related options and configuration properties). This section explains how to navigate among the menus, dialog boxes and tabs, and how to select entries or items.

➤ **To navigate using the remote control**

- Press the arrow buttons.
  - To move along tabs or entries in dialog boxes, press the up and down arrows.
  - To enter a tab or an entry inside a dialog box, press the right arrow.
  - To exit a tab, press the left arrow.



Address: 202.20.25.144  
Bandwidth: 384

➤ **To select an option**

- 1 Navigate to the menu or checkbox option.
- 2 Press the Select button, located in the middle of the arrow buttons.  
To deselect an option, press the Select button again.



➤ **To close a dialog box**

- To apply changes and close the dialog box, press <OK>.
- or-
- To close a dialog box without applying changes, press <Cancel>.



Cancel



### 3 Getting Started

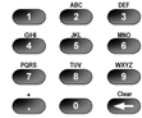
## Entering Data

Some dialog boxes contain text boxes for entering data.

#### ➤ To enter numbers in a text box

- Enter numbers by pressing the number pad's keys on the remote control.

If you make a mistake, press <Clear>.



#### ➤ To enter alphabetical characters

- 1 Navigate to the box in the dialog where the data is to be entered.
- 2 Press the yellow **KEYBOARD** SoftKey on the remote control. The on-screen keyboard appears.



*On-screen Keyboard for Alphanumeric Data Entry*

To enter lower case letters, press the red **LOWER CASE** SoftKey on the remote control. To enter upper case letters, press the red SoftKey again.



- 3 Press the arrow keys to navigate to the character you want to enter.



- 4 Press the Select button to select the character.

If you make a mistake, select the **DEL** button on the on-screen keyboard or the <Clear> button on the remote control.



- 5 Press <OK> to close the keyboard. The characters you selected are entered in the dialog box.





## 3.5 Setting up the Network Configuration

To initiate and receive calls, the HD600's network LAN and H.323 configuration must be defined correctly.

- 1 Press <Menu>. The main Menu appears. Select Network.
- 2 Define LAN and H.323 properties as required. For a full explanation of the Network Configuration, see [“Communication and Network Configuration” on page 49.](#)



## 3.6 Starting a Videoconference from the Manual Dialer

Numbers dialed in the Manual Dialer are not stored in the Phone Book. It is more efficient to store frequently repeated destinations in the Phone Book. See [Adding New Phone Book Entries](#).

### Before Calling

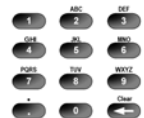
Before you start videoconferences, you can mute the microphone to ensure that the other side does not overhear a local discussion before you notice that the connection is made. See [“Adjusting the Volume” on page 75](#) and [“Automatically Muting the Microphone During Incoming Calls” on page 76.](#)

### Calling Through the Manual Dialer

#### ► To dial through the Manual Dialer

- To dial a number, press the buttons on the Number Pad. The Manual Dialer dialog box appears. The numbers that you press appear in the Address box.

-or-

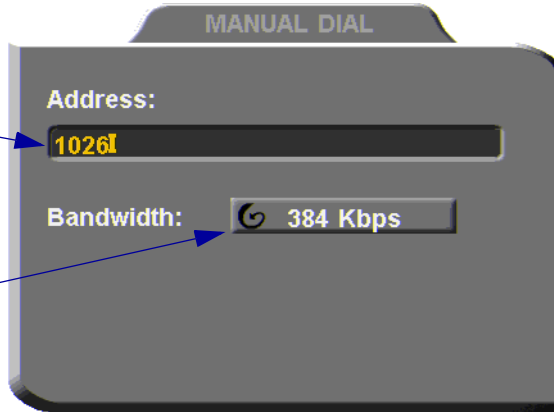


- 1 Press <Dial>. The Phone Book screen appears.
- 2 Press the blue MANUAL DIAL SoftKey. The Manual Dialer dialog box appears.



### 3 Getting Started

Enter the party's User Number, IP address, or DNS name.



Press the right or left arrow button to select the maximum bandwidth.

#### *Manual Dialing*

**3** Enter the IP Address, DNS name or User Number of the party.

**IP Address** Example: 123.124.125.126

**DNS Name** Example: john.widget.com

**Station Name** Example: HeadOffice

**User Number** Example: 102

**4** Navigate to the **Bandwidth** value and press the right or left arrow button until the maximum bandwidth required for this call appears.

**5** Press <Dial> to dial the number.



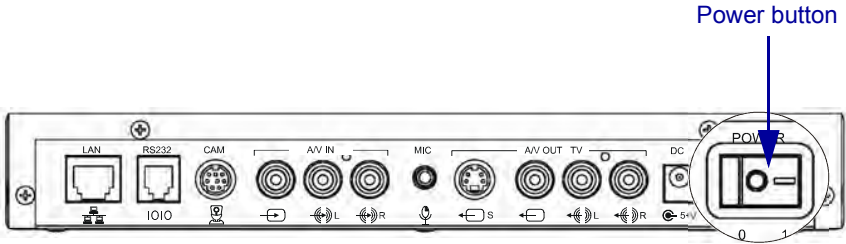
**6** To dial the previous number, press the red REDIAL SoftKey on the remote control.



## 3.7 Shutting Down HD600

► To shut down the HD600

- Press the **Power** button on the rear of the HD600.





## 4 VIDEOCONFERENCING BASICS

This chapter provides instructions on videoconferencing with HD600. It includes the following operations:

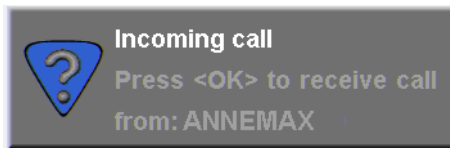
- Answering Videoconferencing Calls
- Adding New Phone Book Entries
- Starting Videoconferences
- Ending Videoconferences.

### 4.1 Answering Videoconferencing Calls

You can accept and reject incoming calls manually, or answer them automatically.

#### Manually Answering Calls

When there is an incoming call, HD600 rings. A message, including the caller's station name or address, asks if you want to answer the call.



#### ► To answer the call .

- Press <OK>. HD600 completes the connection.



The other party's (*remote*) video appears on your monitor. The In Call icon appears, indicating that the call has been successfully connected.



#### ► To reject the call

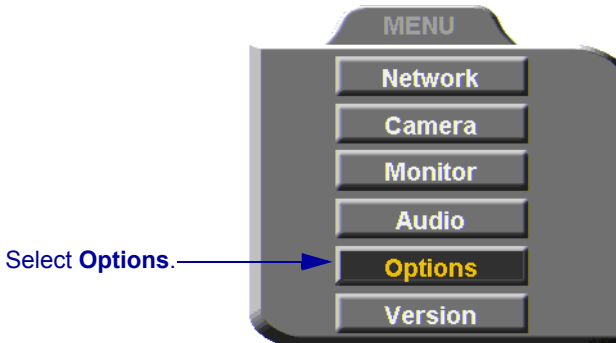
- Press <Cancel>.



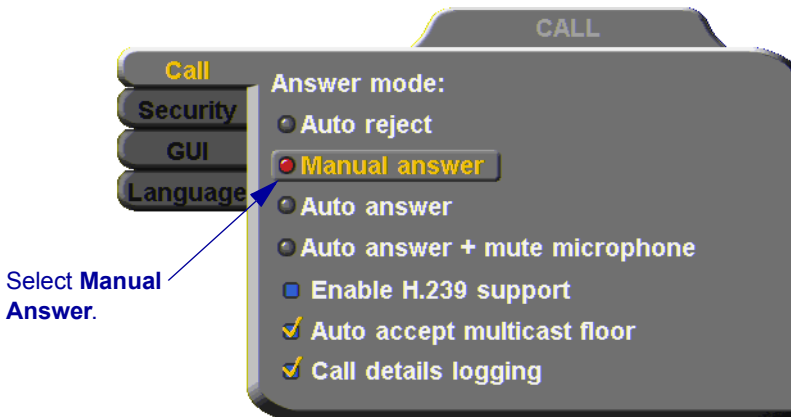
## 4 Videoconferencing Basics

### ► To set Manual Answer

- 1 Press <Menu>. The main Menu opens. Select **Options**.



- 2 If you want to accept/reject calls as they come in, select **Manual Answer**.

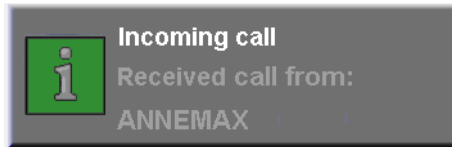


- 3 Press <OK> to apply changes and close the dialog box.



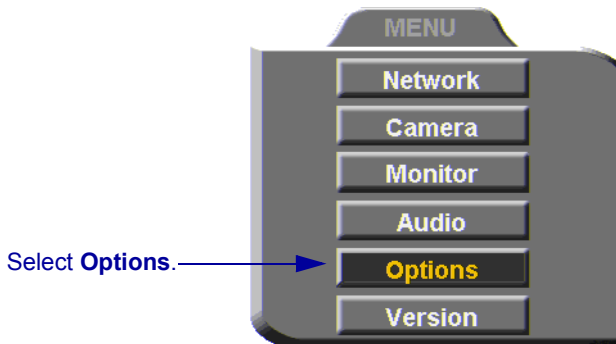
## Automatic Answer

If Automatic Answer is selected, incoming calls connect automatically. The remote video appears on your monitor, and the In Call icon appears.

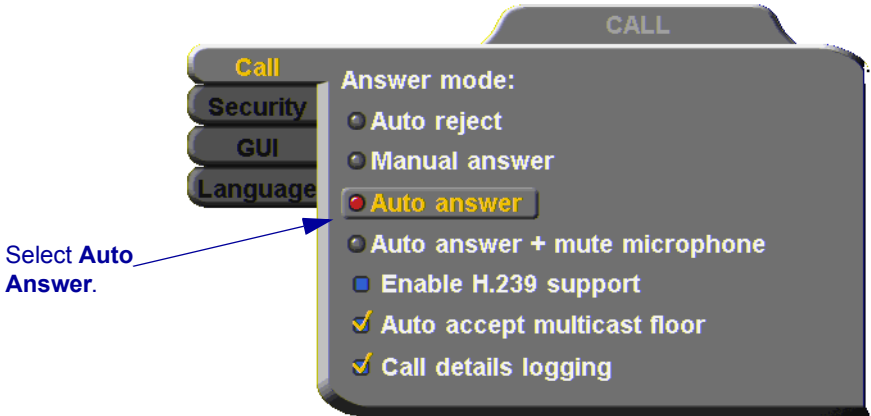


### ► To set Auto Answer

- 1 Press <Menu>. The main Menu opens. Select **Options**.



- 2 If you want HD600 to answer all calls, select **Auto Answer**.



- 3 Press <OK> to apply changes and close the dialog box.



## Other Call Answering Options

In addition to basic manual and automatic answering, HD600 provides additional options for answering incoming calls.

- |                                    |   |
|------------------------------------|---|
| <b>Auto Reject</b>                 | Select to automatically reject all incoming calls ( <i>Do-not-disturb</i> ).  |
| <b>Auto + Mute Mic.</b>            | Select to automatically accept incoming calls but to mute the outgoing audio at the beginning of the conference. After the conference begins, you may turn the audio back on.   |
| <b>Auto Accept Multicast Floor</b> | During interactive multicast conferences, the <i>Floor</i> (one user's video and audio being broadcast to all participants at the same time) may be granted to you by the conference's organizer ( <i>Chair</i> ).<br><br>Select this option to automatically accept the floor when it's granted to you (see <a href="#">"Requesting the Floor" on page 94</a> ). |

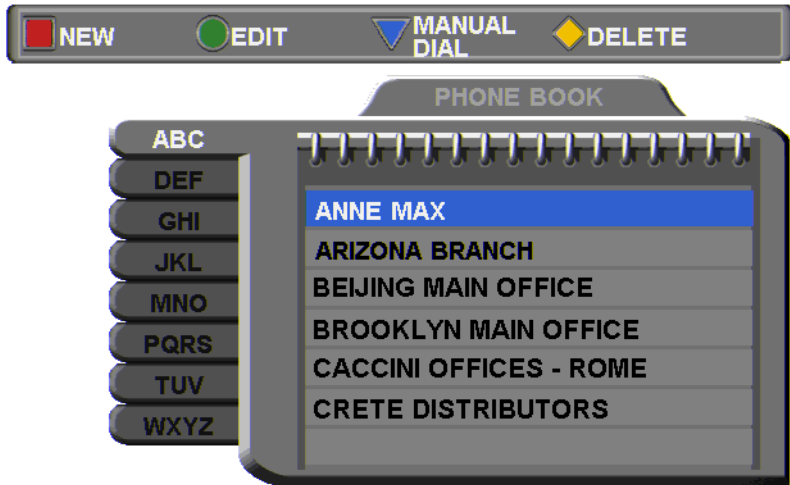


## 4.2 Adding New Phone Book Entries

It is more efficient to store frequently repeated destinations in the Phone Book.

### ► To create a new Phone Book entry

- 1 Press <Dial>. The Phone Book opens.



Address: 172.20.25.144  
Bandwidth: 4096

- 2 Press the red NEW SoftKey. The New Entry dialog box opens.
- 3 Enter a **name** for this entry (to open the on-screen keyboard, press the yellow KEYBOARD SoftKey - see [“Entering Data” on page 28](#)). The name must begin with a letter; it cannot begin with a number or symbol.



## 4 Videoconferencing Basics

- 4 Enter the remote party's IP Address, DNS Name, Station Name or User Number (see [“Dialing Options” on page 41](#)).



The DNS name is case-sensitive. For example, if the host name of the station you want to call is HEAD\_OFFICE, enter it in all caps, including the underscore: HEAD\_OFFICE.emblaze-vcon.com

- 5 Set appropriate dialing properties and options:

**Bandwidth** Press the right or left arrow key to choose the maximum bandwidth for calls dialled to this contact.

**Speed Dial** Select if you want this entry to appear in the Speed Dial list, with the shown entry number. See [“Starting Videoconferences from the Speed Dial list” on page 43](#).

- 6 Press <OK> to add the entry and close the dialog box.



Enter a name

Enter an IP address,  
DNS name, or User  
Number

Press the right or left  
arrow button to select  
the maximum  
bandwidth

Select to place entry  
in Speed Dial list.

NEW ENTRY

Name: HEAD\_OFFICE

Address: boardroom.bestcorp.com

Bandwidth: 384 Kbps

Speed dial

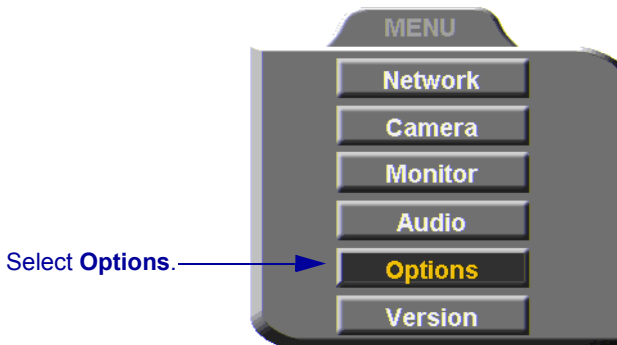
*New Phone Book Entry*

## Automatically Adding the Remote Party to the Phone Book

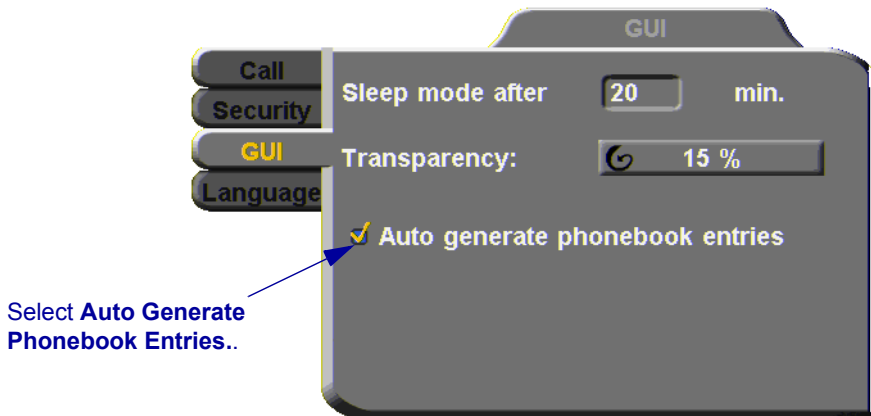
If the remote party in a conference is not listed in the Phone Book, the HD600 provides an option to add its entry to the Phone Book after the call ends.

### ► To enable automatic entry addition to the Phone Book

- 1 Press <Menu>. The main Menu opens. Select **Options**.



2. Navigate to the **GUI** tab and select **Auto Generate Phonebook Entries**.

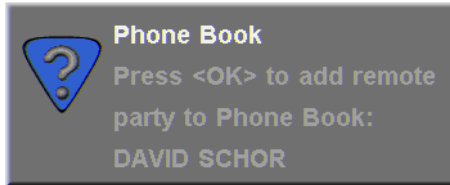


## 4 Videoconferencing Basics

- 3 Press <OK> to apply changes and close the dialog box.



After the call ends, a request to add the remote party to the Phone Book appears. Press OK if you want to do this.



## Editing and Deleting Phone Book Entries

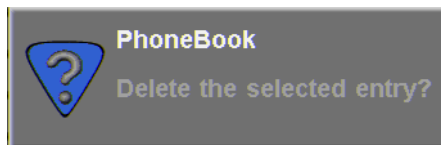
### ► To edit an entry

- 1 Navigate to a Phone Book entry. Press the green EDIT SoftKey. The Edit Entry dialog box opens. It looks like the New Entry dialog box and contains the information entered earlier.
- 2 Change data appropriately. Press <Clear> to erase the character to the left.
- 3 Press <OK> to apply the changes and close the dialog box.



### ► To delete an entry

- 1 Navigate to the Phone Book entry. Press the yellow DELETE SoftKey. A message appears to confirm the deletion.



- 2 Press <OK> to delete the entry and close the dialog box.



### 4.3 Starting Videoconferences

You can start a videoconference either from the Manual Dialer dialog box as described in [“Calling Through the Manual Dialer” on page 29](#), or by using one of the following methods:

- [Starting Videoconferences from the Phone Book](#)
- [Starting Videoconferences from the Speed Dial list](#)

#### Dialing Options

The following table defines the network address types supported by HD600. Enter one of these address types in the Manual Dial dialog box or in a New Entry dialog box of the Phone Book.

Address Type	Example	Applicable When
IP Address	212.219.130.100	Always applicable. Usually dynamic, changing without notification, so the other address types are often preferred.
DNS Name	Room1.corp.com	The IP addresses of a DNS server and of a WINS server are configured. The HD600 Station Name is the first part of the DNS address.
User Number (E.164)	259	Both HD600 and the remote system are registered with an Emblaze-VCON Media Xchange Manager® (MXM) or Gatekeeper. Any number.
Station Name (H.323 Alias)	Room1	Both HD600 and the remote system are registered with a Gatekeeper. Any string of characters beginning with an alphabetical letter.

## Starting Videoconferences from the Phone Book

Phone Book entries makes dialing easier and more efficient. From the Phone Book, you can dial without entering the address or phone numbers again.

### ► To dial from the Phone Book

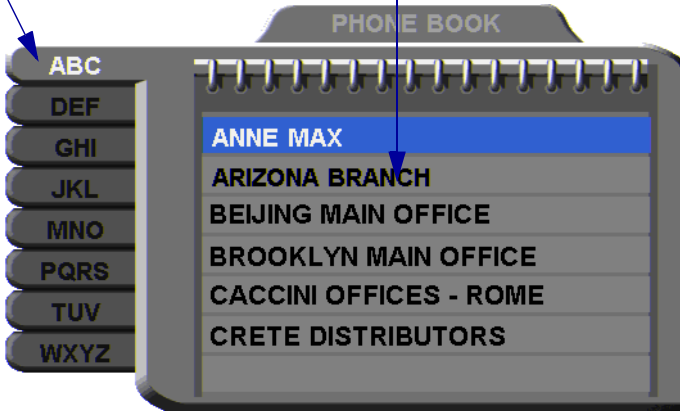
- 1 Press <Dial>. The Phone Book opens.
- 2 Navigate to the alphabetical tab that contains the entry you want to dial. Press the right arrow button to enter the tab.
- 3 Navigate to the entry that you want to dial. The entry shows the following information:

<b>Name</b>	The name of the videoconferencing contact.
<b>Address</b>	The address of the contact is listed below the phone book.
<b>Bandwidth</b>	The bandwidth listed below the phone book shows the maximum bandwidth setting for the selected entry.
- 4 Press <Dial> or <OK>. HD600 dials the number.



Navigate to a letter tab

Select a name and press <Dial> or <OK> to start a videoconference



## Starting Videoconferences from the Speed Dial list

Dialing out from the Speed Dial is faster than from the Phone Book. You don't have to search through tabs and various entries, because there are only nine entries in the Speed Dial, and they are all in one dialog box. Also, you can dial a Speed Dial entry simply by pressing its number instead of navigating within the dialog box.

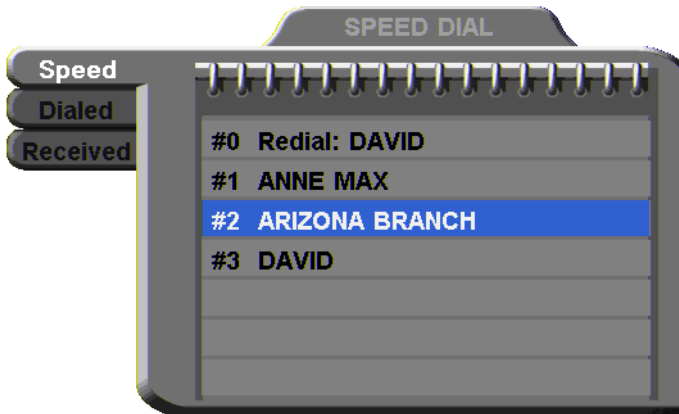
### ► To add an entry to the Speed Dial

- In the New Entry or Edit Entry dialog boxes, select **Speed Dial**.

**✓ Speed dial**

### ► To dial a number from the Speed Dial

- 1 When the screen is clear of dialog boxes, press <Speed Dial>. The Speed Dial list appears.



- 2 Press the number of the Speed Dial entry that you want to dial. The selected entry is dialed. You don't have to press <Dial>.

### ► To redial a Speed Dial entry

- From the Speed Dial screen, press <0> (zero) or #.



## 4 Videoconferencing Basics

### ► To delete a Speed Dial entry

- 1 Navigate to the entry you want to delete and then press the red **DELETE** SoftKey. A message asks for confirmation.
- 2 Press <OK>. The entry is deleted from the Speed Dial list (the Phone Book entry is not affected).



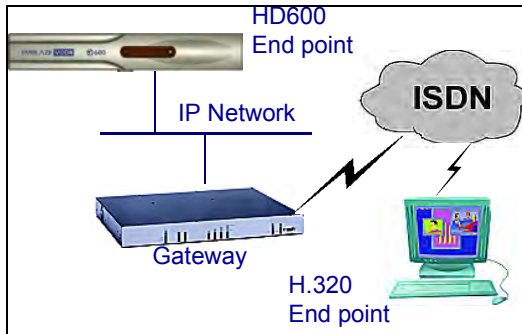
-or-

- 1 Navigate to a Phone Book entry. Press the green **EDIT** SoftKey. The Edit Entry dialog box opens.
- 2 Deselect **Speed Dial**.



## Calling Through Gateways

On certain occasions, you may need to call out from your local network (LAN call) to parties who are connected to different networks, ISDN lines, or telephone exchanges. In such situations, dialing through a gateway is required.



*HD600 to Gateway to an ISDN Address*



Before attempting a Gateway call, ask the system administrator to give you the calling syntax. The syntax includes a service access number and, in some cases, a variation of punctuation signs.



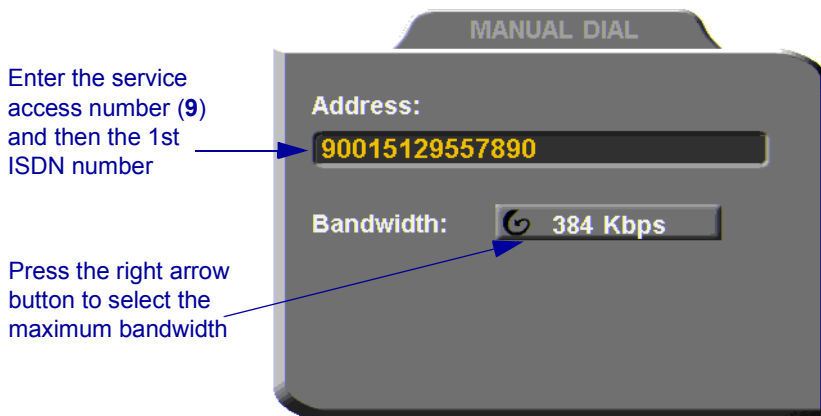
➤ **To call through a Gateway**

- 1 Open the Manual Dial dialog (see [“Starting a Videoconference from the Manual Dialer” on page 29](#)) and dial [*service access number*][*ISDN number(s)*] in accordance with the system administrator’s instructions.
- 2 Set the required **Bandwidth** or use the default bandwidth.
- 3 Press <Dial>.



The gateway’s gatekeeper receives the call. It recognizes the syntax that the system administrator instructed you to enter, and it passes the call onto the Gateway. You must be registered with a Gatekeeper to reach a Gateway (see [“H.323 Network Registration and Properties” on page 52](#) for details).

The Gateway calls the destination, and when it receives an answer, it begins the videoconference, continuously translating between H.320 (ISDN) and H.323 (IP).

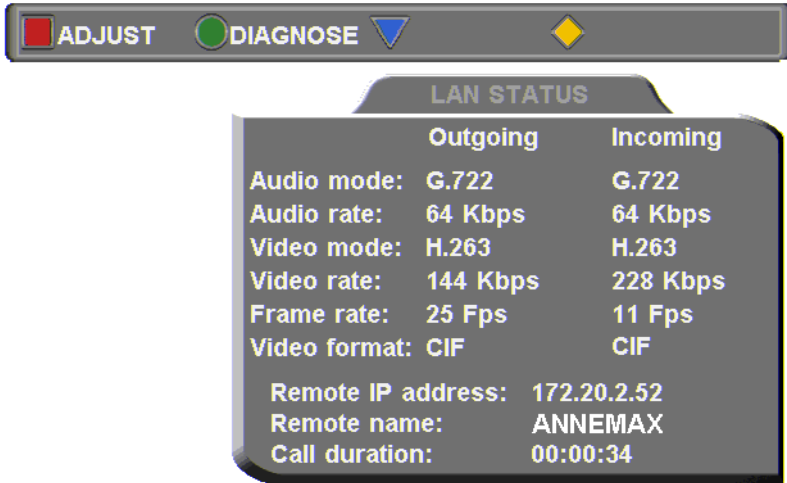


## Verifying the Status of a Call

During an active videoconference you can check the status of the call to see the identification of the remote party, the bandwidth of the call, the current compression modes, etc.

➤ **To check the status of the current call**

- 1 Press <Status>. The Status dialog box appears.



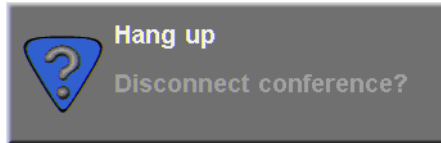
- 2 Press <OK> to close the dialog box.



## 4.4 Ending Videoconferences

### ► To end a videoconference

- 1 Close any open dialog boxes.
- 2 Press <Hang up>. A message appears, asking for confirmation.



*Hang Up Confirmation Message*

- 3 Press <Hang up> again or <OK>. The videoconference ends.



To cancel the Hang up command and continue the videoconference, press <Cancel> in response to the confirmation message.





## 5 NETWORK CONFIGURATION

This chapter explains how to set up HD600 to operate with your network connections. Network options may be edited at any time, from the HD600, from a remote station through a web browser (see *HD Web Management User's Guide*), or from the Media Xchange Manager® (MXM).

### 5.1 Communication and Network Configuration

After you connect the HD600 to the LAN (see “[Connecting the LAN](#)” on page 15 for connection details), set up the HD600's network configuration.

Whenever the HD600 is not in a call, you can edit the communication and network configurations, which include:

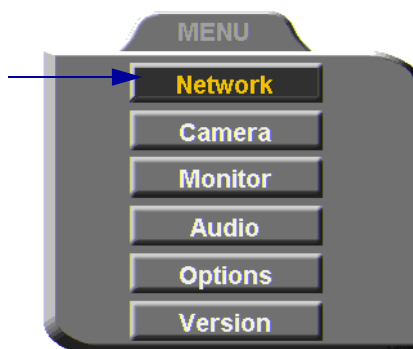
- [LAN Connection](#)
- [H.323 Network Registration and Properties](#)
- [Advanced Properties](#), such as QoS priorities, NAT address, and Ethernet speed.

#### ➤ To set up network connections

- 1 Press <Menu>. The main Menu appears. Select Network.



Select **Network**.



- 2 In the LAN dialog box, set up the communication, networking and streaming configurations, navigating among the tabs, properties and entering information appropriately.

## 5 Network Configuration

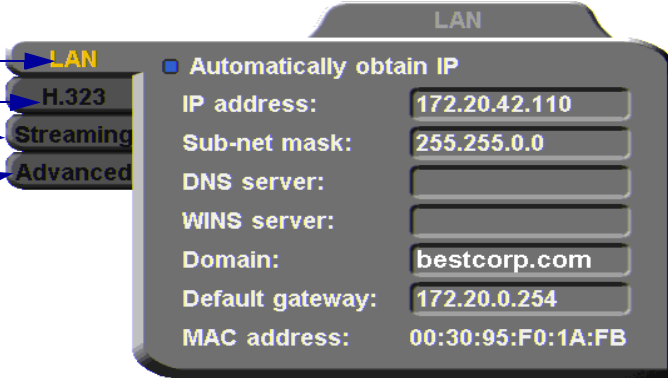
For descriptions  
of each tab

See page 51.

See page 52.

See page 80.

See page 56.



- 3 Press <OK> to apply changes and close the dialog box.

A message states that HD600 will restart in a few seconds. After restarting, the changed properties are in effect.



-or-

Press the left arrow key to navigate to another tab.



## LAN Connection

In the LAN tab, enter the HD600's address and information about its connection to the LAN (Local Area Network).

- Automatically Obtain IP** Select to enable HD600 to receive its network configuration from the LAN's DHCP server and enter it automatically in the LAN tab.
- If this option is not selected, you have to enter the LAN properties manually. Consult with your system administrator.
- IP Address** If your HD600 receives an address automatically, it is a temporary address which is liable to be changed when the network's users' IP addresses are updated periodically.
- If you manually enter an IP address here, the address remains permanently.
- Subnet Mask** Your company's subnet mask.
- DNS Server & WINS Server** IP Addresses of the DNS server and the WINS server. Registering with these servers enables HD600 to translate names to IP addresses.
- Domain** DNS domain name of your company (for example, **bestcorp.com**).
- Default Gateway** IP address of the network's Gateway router. The gateway helps HD600 send and receive calls between subnets.
- MAC Address** The unique Media Access Control (MAC) address of your HD600 device.

LAN

Automatically obtain IP

IP address: 172.20.42.110

Sub-net mask: 255.255.0.0

DNS server:

WINS server:

Domain: bestcorp.com

Default gateway: 172.20.0.254

MAC address: 00:30:95:F0:1A:FB

Select to obtain the whole LAN configuration automatically.

If the configuration is not obtained automatically, enter all the addresses manually.

### H.323 Network Registration and Properties

H.323 is the standard for video, audio, and data streaming over IP networks. In the H.323 tab, define how the HD600 handles these functions within its LAN environment. These properties include:

- H.323 Management** - registration of the HD600 with a remote H.323 management and service provider
- Automatic Video Transmission Adjustment** - automatic preservation of optimum transmission, in response to changing network conditions

#### **H.323 Management**

Many H.323 networks include devices such as the Emblaze-VCON Media Xchange Manager® (MXM) or a gatekeeper, which provide important management functions and provision of communication services to large numbers of users within defined zones on a LAN or WAN. HD600 supports registration with the MXM and with third-party H.323 Gatekeepers.

An HD600 receives the following capabilities if it registers with an MXM:

- Telephony exchange features, such as Call Transfer, Ad-hoc Conference, Call Forward and Call Pickup.
- Address translation and short-number dialing to registered users within the same zone and to other zones.
- Allocation of network resources, such as bandwidth management.
- Remote call initiation from the MXM Administrator.
- Remote configuration management by a system administrator.
- Presence in online directories (LDAP).
- HD600 software version upgrade from the MXM Administrator.

In the **H.323** tab, choose to register the HD600 in an Emblaze-VCON MXM or in an H.323 Gatekeeper.

<b>None;</b>	To register with the MXM or a <b>Gatekeeper</b> and receive services from them, select the appropriate option. Select <b>None</b> to operate HD600 as a stand-alone system.
<b>Gatekeeper;</b>	
<b>MXM</b>	
<b>MXM Server IP</b>	Enter the IP address of the MXM, if applicable.
<b>Gatekeeper IP</b>	Enter the IP address of the Gatekeeper, if applicable.



- User Number** Videoconferencing contacts registered with the same MXM or other Gatekeepers will be able to dial using your User Number as well as your IP address.
- Enter a number to register HD600 with the MXM or Gatekeeper. Some of these devices may register your device under this number, while others assign these numbers, regardless of your request.
- Station Name** The Station Name is the identification of the HD600 on the connected network. Consult with the system administrator before modifying this box.
- If the system is registered with the WINS server or a Gatekeeper, HD600 can use station names instead of IP addresses for starting and receiving calls. When you register with a Gatekeeper, the station name is entered as your User Name.
- If the system has access to a Domain Name System (DNS) server, the Station Name is also the DNS Host Name of the system. Enter the Host Name, then a dot, then the Domain Name: **StationName.Domain.com** (see [“Entering Data” on page 28](#) for instructions on entering alphanumerical data from the keyboard).

## 5 Network Configuration

Select if HD600 registers with an MXM, third-party gatekeeper, or operates independent of a management system.

Select **None** to operate HD600 outside of the control of an MXM or gatekeeper.

Enter the addresses of the external network server(s) (MXM or Gatekeeper) that provide management and H.323 services to the HD600.

Enter a preferred User Number and/or Station Name for identification and dialing purposes. If possible, the MXM or Gatekeeper may assign HD600 this preferred number.

LAN

H.323

Streaming

Advanced

H.323

None  Gatekeeper  MXM

MXM server IP: 172.20.10.205

Gatekeeper IP: 172.20.10.205

User number: 1001

Station name: HD918

Enable lip synchronization mechanism

Automatic buffering control

Bandwidth adjustment

### **Automatic Video Transmission Adjustment**

The H.323 tab also includes options that enable HD600 to preserve optimum transmission quality automatically, according to current network conditions (for example, available bandwidth).

#### **Enable Lip Synchronization Mechanism**

Select this option to synchronize the audio and video of a LAN conversation. You can adjust the lip synch during a call. See [“Adjusting Quality of Video Calls” on page 72.](#)

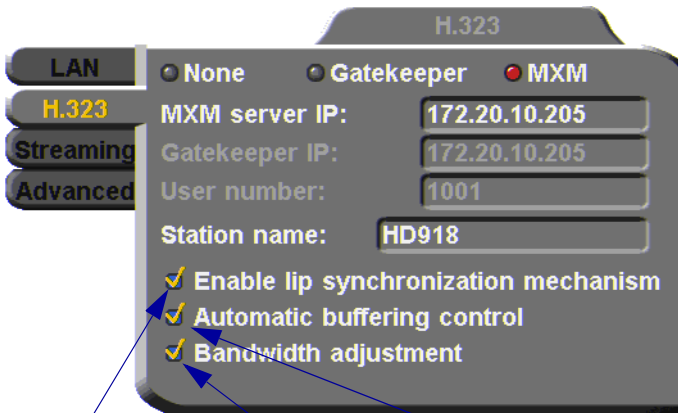
**Automatic Buffering Control**

Buffer Control optimizes the transmission of the video for the available dynamic bandwidth. If network conditions require, the system holds back frame transmission before transmitting, in order to attain smooth playback and avoid “jumping”.

Select this option to make the buffer control automatic. Deselect it to make it adjustable during LAN conversations. See [“Adjusting Quality of Video Calls” on page 72.](#)

**Bandwidth Adjustment**

Enables videoconferences to precede at reduced bandwidth if the network is congested. Deselecting this option maintains a constant bandwidth during the session, but it may cause network problems.



Select to activate automatic Lip Synchronization, which synchronizes the audio and video by delaying either the audio or the video stream, so that both arrive at the same time.

Select to enable the system to automatically adjust video transmission in accordance with network conditions.

Select to enable videoconferences to precede at reduced bandwidth if the network is congested

### Advanced Properties

In the Advanced dialog box, administrators can view or modify the following:

- Setting Quality of Service (QoS) Priority Levels** - control of the Quality of Service that will be used for transmitting packets from the HD600.
- Setting a Public NAT Address for the HD600** - entering the public IP address of the HD600 (if your organization's network is protected by NAT).

#### **Setting Quality of Service (QoS) Priority Levels**

Emblaze-VCON's PacketAssist™ Architecture simplifies Video over IP bandwidth management and delivers true Quality of Service (QoS) for IP networks. PacketAssist automatically adapts video meeting transmissions to current network conditions, while ensuring optimal video and audio performance.

The **Advanced** tab contains properties for controlling the type of Quality of Service that will be used for transmitting packets from the HD600.



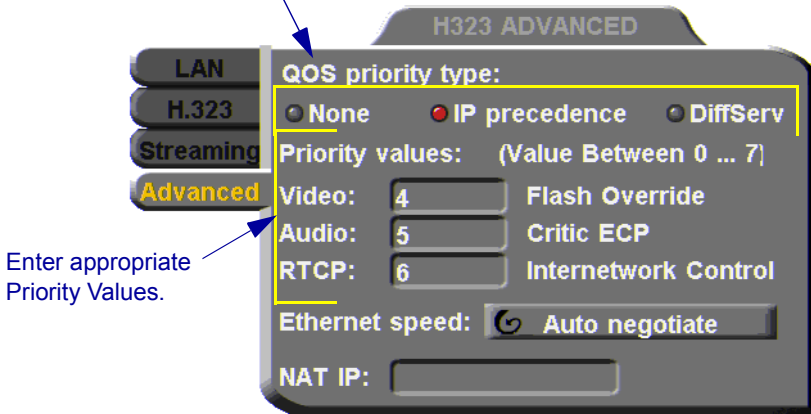
**CAUTION** Emblaze-VCON sets the Quality of Service default values. We recommend that only system administrators with knowledge of QoS make any changes, if required.

#### ➤ **To set Quality of Service options**


- 1 Set QoS properties as follows (see tables on page 58):

<b>QoS Priority Type</b>	Select the type of QoS priority used for transmitting packets during heavy network congestion conditions. <ul style="list-style-type: none"><li><input type="checkbox"/> <b>None</b> - network transfers packets in a normal Best-Effort method (<i>First In, First Out, or FIFO</i>).</li><li><input type="checkbox"/> <b>IP Precedence</b> - network gives priority to video, audio, control bits according to the eight levels of IP precedence.</li><li><input type="checkbox"/> <b>Diffserv</b> - network transfers packets according to specific differentiated services priority levels.</li></ul>
<b>Priority Values</b>	For <b>Video, Audio, and RTCP (Real Time Control Protocol) Priority</b> , enter an appropriate priority level. According to their priority levels, bits are queued for forwarding by QoS-supporting routers. <p>The priority levels vary, depending on whether the selected Priority Type is <b>IP Precedence</b> or <b>Diffserv</b>.</p>

Select the type of QoS Priority used by your system.



**2** To return to the default QoS values, press the blue **RESET** SoftKey. 

**3** Press <OK> to save the QoS settings and close the dialog box. 



For best results, it is recommended that RTCP packets receive the highest priority, to ensure that QoS features continue to operate during the entire call.

Audio packets should receive a higher priority than video packets, as a meeting can continue without video, but not without audio.

## 5 Network Configuration

### *IP Precedence Values*

Value	Description
0	Routine
1	Priority
2	Immediate
3	Flash
4	Flash Override
5	Critic/ECP
6	Internetwork Control
7	Network Control

### *DiffServ Values*

Value	Description
000000	Probability Timely Forwarding 0
001000	Probability Timely Forwarding 1
010000	Probability Timely Forwarding 2
011000	Probability Timely Forwarding 3
100000	Probability Timely Forwarding 4
101000	Probability Timely Forwarding 5
110000	Probability Timely Forwarding 6
111000	Probability Timely Forwarding 7
101110	Expedited Forwarding
001010	Forward Class 1 Low Drop
001100	Forward Class 1 Mid Drop
001110	Forward Class 1 High Drop
010010	Forward Class 2 Low Drop
010100	Forward Class 2 Mid Drop
010110	Forward Class 2 High Drop
011010	Forward Class 3 Low Drop
011100	Forward Class 3 Mid Drop
011110	Forward Class 3 High Drop
100010	Forward Class 4 Low Drop
100100	Forward Class 4 Mid Drop
100110	Forward Class 4 High Drop

## **Setting a Public NAT Address for the HD600**

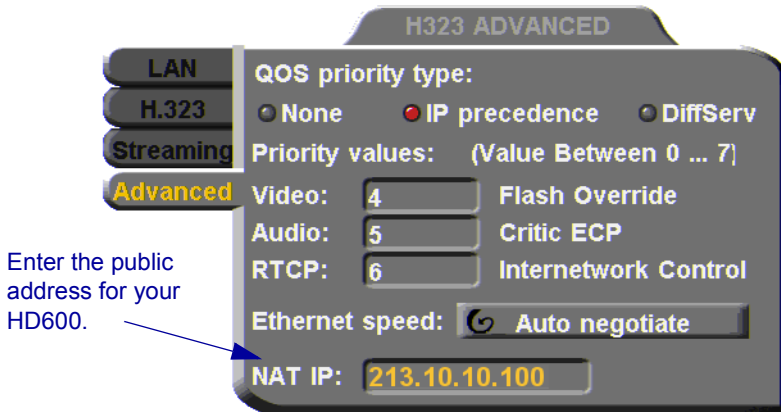
NAT (Network Address Translation) is a protocol in which a LAN uses one set of IP addresses for internal communication (within an organization's private LAN) and a different, single address for communication with a public network, such as the Internet. In this way, a NAT helps protect a LAN from exposure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

In the **Advanced** tab, you can enter the public address (if applicable) for your HD600.

### ➤ **To define the public address for the HD600**

- In the NAT IP box, enter the public address used for contacting your HD600 device.

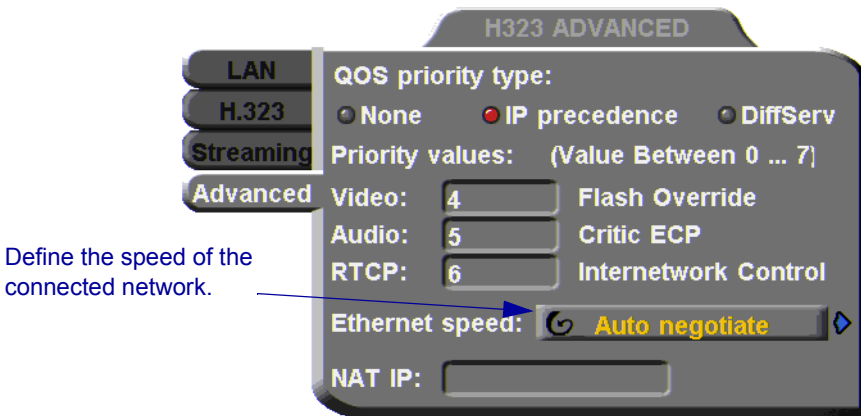


## 5 Network Configuration

### Ethernet Speed

In the **Advanced** tab, define the speed of the network to which the HD600 is connected. The HD600 supports 10 MB and 100 MB half-duplex and full-duplex networks.

If the **Ethernet (network) speed** is defined to **Auto-Negotiate**, the HD600 can determine the common set of networking options supported between it and the remote parties in a conference. For example, they can figure out the highest speed that they each support, or automatically set full-duplex operation if both parties support that mode.



Define the speed of the connected network.



## 5.2 Testing Network Configuration

After you configure the Set Network dialogs and restart HD600, you can check that the changes that you made were applied.

### ► To check network configuration

- 1 Press <Status>. The Status dialog box appears.



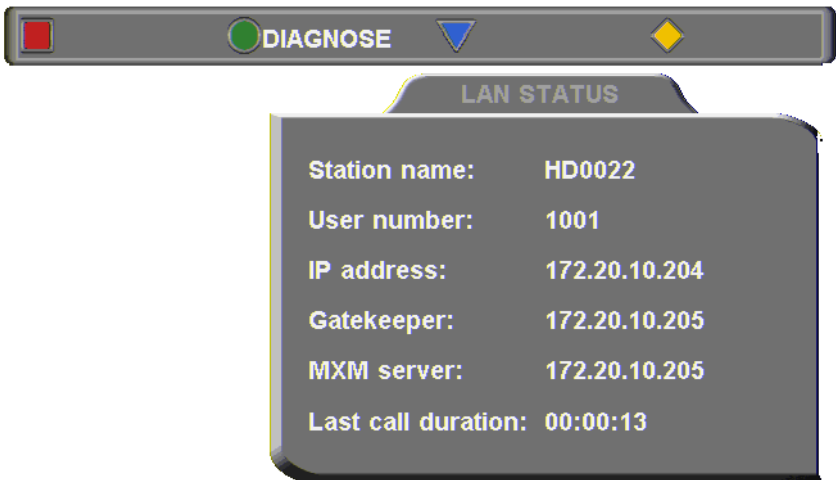
The Status dialog box informs you if your HD600 is connected with the local LAN and if the HD600 is registered with an MXM and/or a Gatekeeper.

- 2 Check that the IP Address displayed is the one that you set or received for the system.
- 3 Check if the system is logged into an MXM or registered with a Gatekeeper, depending on the H.323 options that you chose.



If you selected **Gatekeeper** and entered the correct IP address in the Network dialog box's **H.323** tab, the HD600 should be registered in the Gatekeeper. If it is not, change the **User Number** that you entered. You might have entered a number that is already occupied.

- 4 For more troubleshooting details, press the green **DIAGNOSE** SoftKey (see "[System Diagnostics](#)" on page 111).





## 6 VIDEO AND AUDIO ADJUSTMENTS

This chapter explains how to adjust the video and audio variables for optimizing quality. Some of these adjustments should be made before entering into a videoconference; others are available only during a call.

### 6.1 Adjusting the Video

To customize the HD600's video transmission and display, you can control and adjust the following:

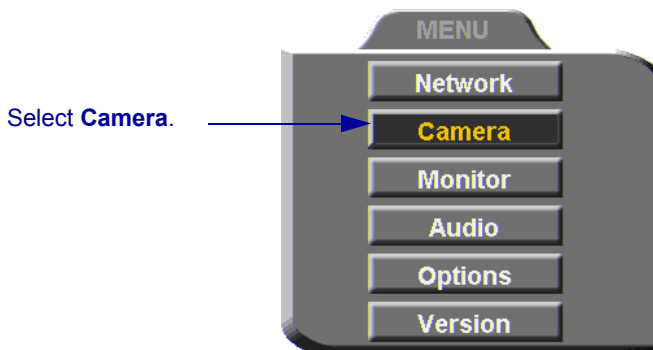
- Video Settings – adjust the brightness, color, contrast and hue.
- Camera Configuration – adjust, select and position the main camera and optional cameras.
- Display Configuration – customize the display and mute video.

#### Adjusting the Camera Settings

To save time during a videoconference, adjust the brightness, color, contrast and hue while you are not in a call. If necessary, you can adjust them again at any time.

##### ► To adjust display color settings

- 1 Press <Menu>. The main Menu appears. Select **Camera**.



## 6 Video and Audio Adjustments

The Set Camera dialog box opens and the camera adjustment SoftKeys appear at the top of the screen.



To adjust Brightness, Color, Contrast, or Hue, press the appropriate SoftKey.

- 2 To increase the setting, press the right arrow key.  
To decrease the setting, press the left arrow key.



- 3 Press the up and down arrow keys to switch to other camera settings.



- 4 To return to the default camera settings, press the red RESET SoftKey.



- 5 Press <OK> to save the settings and close the dialog box.



To increase the setting, press the right arrow key.  
To decrease the setting, press the left arrow key.

To navigate among the settings, press the up and down arrows.



## Selecting the Current Camera

Current camera selection is always available. At any time, you can select different local video sources.

### ► To select the current camera

- 1 Press <Cam>. The Local Camera Selection menu opens. The currently selected camera is highlighted.

Press the down arrow to switch to remote camera selection (if Far End Camera control is enabled).

Press the up arrow to switch back to local camera selection.



AuxCamera 1 is selected.



- 2 Press the left or right arrow buttons to switch between the local video sources (up to six):

An S-Video camera connected to a CAM connector.

A video source connected to the VCR connector.

Main camera connected to the S-Video connector on the rear panel.






A Composite camera connected to a CAM connector.



During a videoconference, you can also select the current remote video source if the remote party enabled *Far End Camera Control (FECC)*. Using FECC, one party may select, position and control the other party's camera. To enable the remote party to control your camera, see **"Far End Camera Control" on page 69.**

## 6 Video and Audio Adjustments

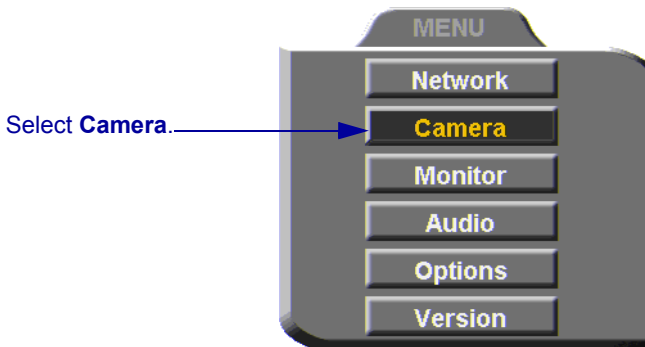
- 3 During a conference with a party who enabled FECC, press the down arrow key to view the remote camera selection options. 
- 4 Press the left or right arrow buttons to switch between the remote video sources. 
- 5 Press <OK> to select the highlighted camera (and the selected Local camera) and close the dialog box. 


### Selecting the PTZ Camera Type

If a Pan/Tilt/Zoom (PTZ) camera is connected to the HD600, specify its type in the Select Camera dialog box.

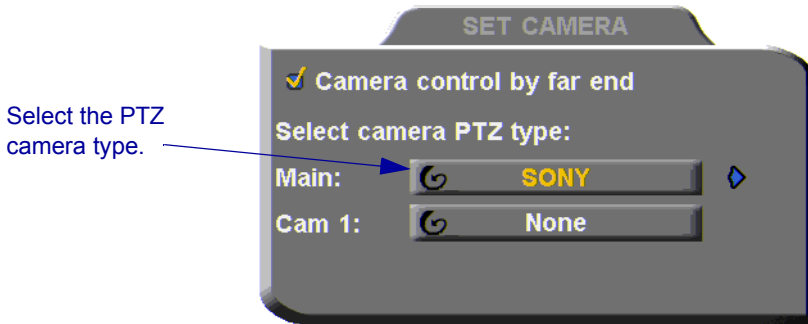
#### ► To select the PTZ camera type

- 1 Press <Menu>. The main Menu appears. Select Camera. 



- 2 In the Set Camera dialog box, navigate to **Main**. Press the right arrow button to switch between camera types. If you are not using a PTZ camera, select **None**. 

If a second PTZ camera is connected, select **Cam 1** and select its camera type.



## Controlling the Camera

You can position the HD600's main camera at any time, either prior to or during a call. You can pan, tilt, and zoom the camera every time you want to change the local display, or you can save preset positions.

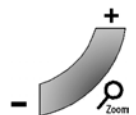
### Positioning the Camera

When the screen is clear of dialog boxes, either in or out of a videoconference, you can control the camera in various ways:

- Manual positioning - temporarily positioning the camera as required.
- Preset positioning - focusing the camera on a specific person or location, then saving the position and recalling it when needed.
- Far-end camera control.

#### ➤ To manually position the camera

- To pan the camera left and right, press the left and right arrow keys. To tilt it up and down, press the up and down arrow keys.
- To zoom in and out, press the <+> and <-> of the Zoom button.



## 6 Video and Audio Adjustments

### ➤ To preset a camera position

- 1 Manually position the camera.
- 2 Press <Set> in the remote control's Presets area.
- 3 Press a number on the number pad. Each of the numbers between 0 and 9 may represent a preset position.



### ➤ To restore the camera to a preset position

- 1 Press <Recall> in the remote control's Presets area.
- 2 Press the number (0-9) in the number pad corresponding with the position you want. The camera positions itself accordingly.



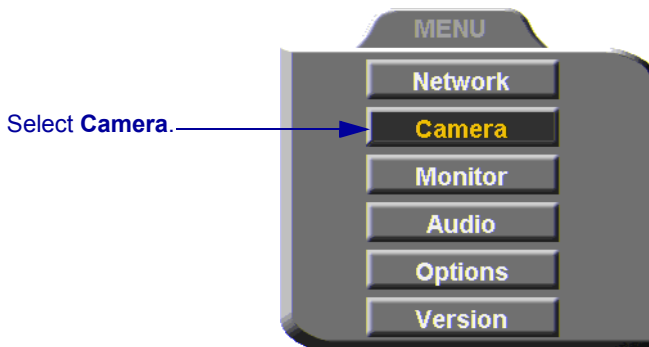


## Far End Camera Control

The *Far End Camera Control (FECC)* option permits the remote party to control your camera, so that they see views that are convenient for them. FECC provides control over the pan/tilt/zoom positioning and the adjustment of brightness, color, contrast and hue.

### ► To enable the remote party to control your HD600's camera

- 1 Press <Menu>. The Main Menu opens. Select Camera.



- 2 In the Set Camera dialog box, select Camera Control by Far End.
- 3 Press <OK> to apply changes and close the dialog box.



Select to enable the remote party to control your camera.



## 6 Video and Audio Adjustments

### Display Modes

Different display modes are available during a videoconference.

- Local** - your party
- Remote** - the other party
- PIP** - Picture-in-picture. A small inset of the local party appears over the full-screen video of the remote party. At the start of a call, PIP mode is activated by default.



*Video Display in PIP Mode*

- Data** - image of the screen display from the computer that opened a data connection to the HD600.
- **To switch between viewing Local and Remote video**
  - Press <Display> on the remote control.



### Muting the Outgoing Video

You can mute the local outgoing video if you want to stop sending video temporarily. The remote party then sees a frozen video image until you unmute it.

Muting the video does not affect the video or audio from the remote party. If you want to mute the audio also, see [“Adjusting the Volume” on page 75](#).

- **To mute the video**
  - Press <Mute Video>. An animated icon at the bottom of the screen indicates that the outgoing video is frozen.



➤ **To unmute the video**

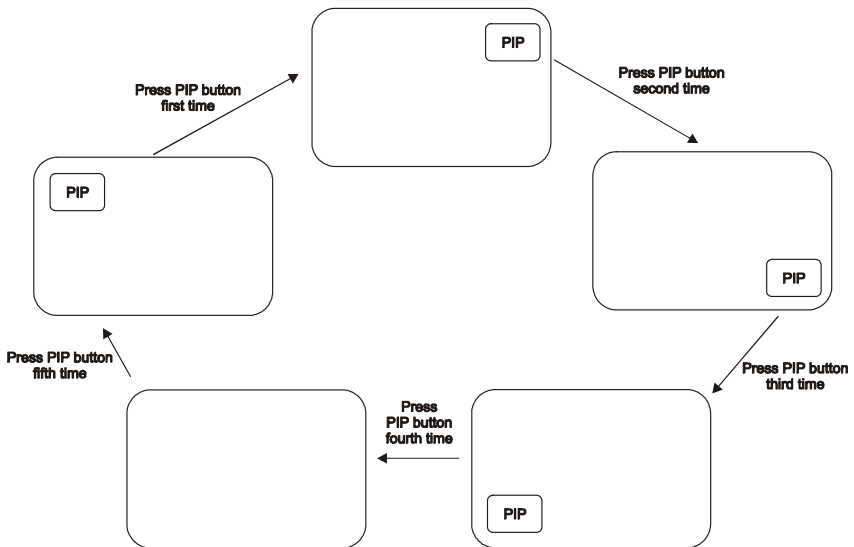
- ☐ Press <Mute Video> again.



## **Displaying Picture-In-Picture (PIP)**

When a conference begins, the local video appears on the monitor in a small rectangular inset located in the upper left corner of the larger remote video display. This display mode is called Picture-In-Picture, or PIP.

Each time you press the PIP button on the remote control, the PIP rotates counter-clockwise to another corner of the screen. Pressing the PIP button after the PIP completes a rotation to all corners then hides the PIP. Pressing the PIP button again restores the PIP to the upper left corner and the rotation begins again.



*PIP Button Sequence*

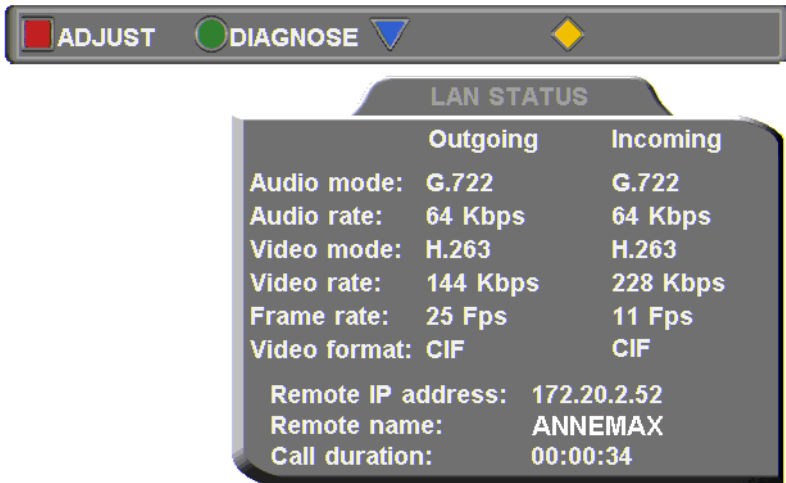
## Adjusting Quality of Video Calls

HD600 can automatically adjust its video and audio for dynamic IP bandwidth. However, you may want to adjust the quality-control mechanisms yourself if you experience the following problems:

- Parts of the video are covered with blocks (low motion control).
- The audio and video fall out of synchronization (low quality lip synch).
- The video freezes and then doubles up frames (inefficient buffering).

➤ **To adjust the quality of your video calls**

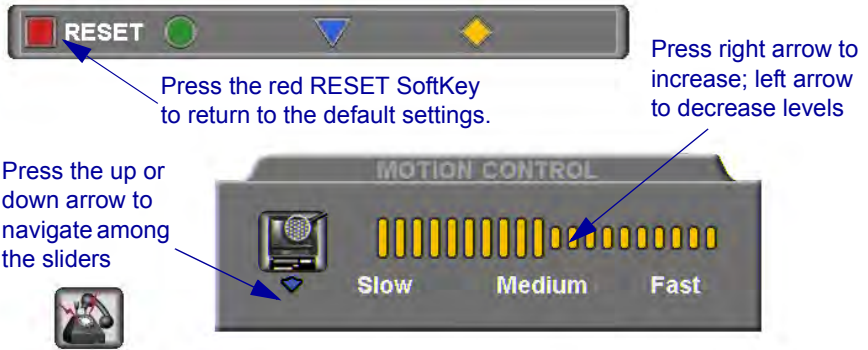
- 1 Press <Status>. The Status dialog box opens.



During a call, the red **ADJUST** SoftKey is available. You can access the Adjustment sliders only during a call.

- 2 Press the red **ADJUST** SoftKey. The first slider appears.





**3** Press the up and down arrow keys to view and adjust the different sliders:

**Motion Control**



Press the left arrow key to clear up blocks in the video (**Slow** motion).

Press the right arrow key for smoother, more continuous motion (**Fast** motion).

**Lip Synch**



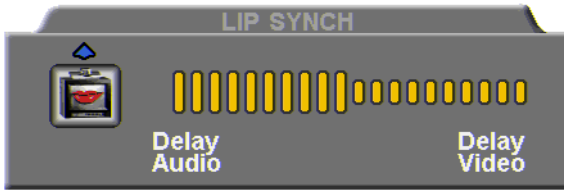
Press the left arrow key if sound comes before motion (**Delay Audio**).

Press the right arrow key if motion comes before sound (**Delay Video**).



The Lip Synch slider is only available if Lip Synchronization is enabled (see **“Automatic Video Transmission Adjustment”** on page 54).

## 6 Video and Audio Adjustments



### Buffering



Press the left arrow key for a more realistic video (**Less Delay**).

Press the right arrow key to clear up video freezing and jumping (**Smoother Motion**).



The buffering slider is only available if Automatic Buffering is disabled (see "[Automatic Video Transmission Adjustment](#)" on page 54).

- For best results, start the sliders at one end and gradually adjust them.
  - To reset the default values, press the red **RESET** SoftKey.
- 4** Press <OK> to apply the changes and close the sliders.



## 6.2 Adjusting the Audio

HD600 supports various and useful audio features:

- Increasing, decreasing or muting the volume of incoming and outgoing audio
- Switching between different local microphones and other audio sources
- Setting audio options to support special environments

### Adjusting the Volume

You can adjust the volume at any time, in or out of a videoconference, when a dialog box is open or when the screen is clear. The following volume controls are available:

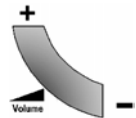
- Increase or decrease the volume of the incoming audio
- Mute the incoming audio
- Mute the outgoing audio

#### ► To adjust the volume of incoming audio

- 1 Press the “+” end of the volume button to increase the volume, or the “-” end of the volume button to decrease the volume.



*Volume Level*



#### ► To mute the speaker

- Press <Mute SPK>. An animated picture on the bottom of the screen indicates that the speakers are muted.

To restore the speaker, press <Mute SPK> again.



#### ► To mute the microphone

- Press <Mute Mic>. An animated picture on the bottom of the screen indicates that the microphone is muted.

To restore the microphone, press <Mute Mic> again.

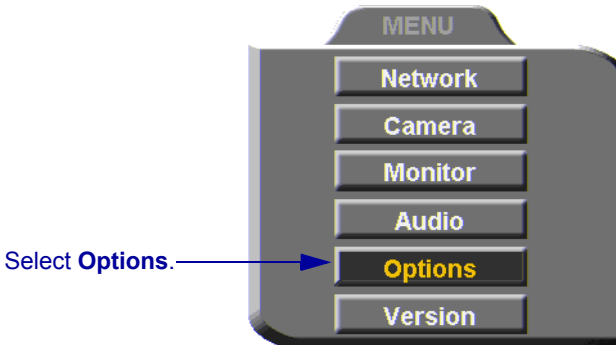


## Automatically Muting the Microphone During Incoming Calls

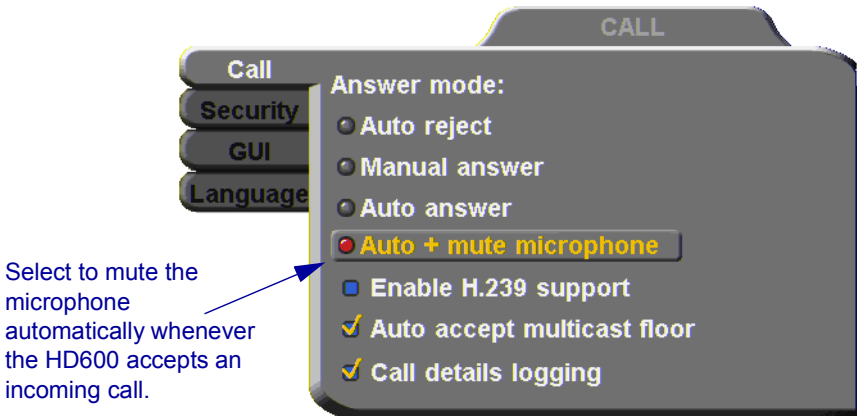
When Auto Answer is turned on, there is a possibility that the remote side will hear your audio before you're ready to interact with them. This carries the risk of broadcasting something you don't want the remote side to hear. To protect against this scenario, you can automatically mute your microphone (Audio Out) at the start of automatically answered incoming calls.

➤ **To automatically mute the microphone at the start of incoming calls**

- 1 Press <Menu>. The Main Menu opens. Select **Options**.



- 2 In the Options dialog box, navigate to the **Call** tab, select **Auto + Mute Mic**.



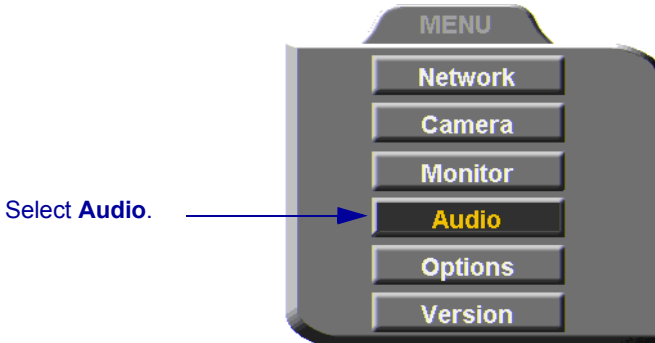


## Selecting a Microphone

To send audio during videoconferences, choose the current audio source.

### ► To choose an audio source

- 1 Press <Menu>. The Main Menu opens. Select **Audio**.



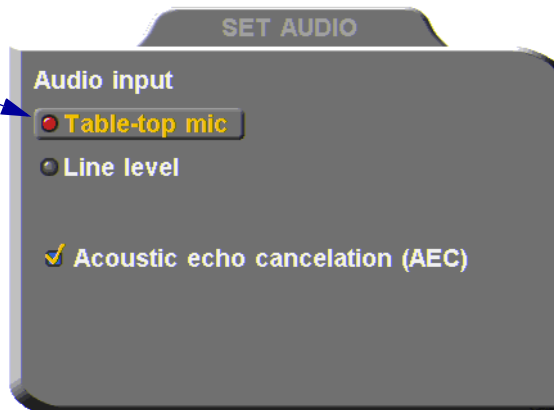
- 2 In the Set Audio dialog box, select the appropriate **Audio Input** option.

**TableTop** To use a tabletop microphone or other audio source connected to the HD600's MIC connector.

**Line Level** To use a microphone or other audio source connected to the HD600's VCR AUD connector.

- 3 Press <OK> to apply the changes and close the dialog box.

Select the current audio source.



## Enabling Echo Cancellation

When the microphone picks up audio from your speakers, an echo is created. Acoustic Echo Cancellation (AEC) suppresses this effect. By default, AEC is turned on.

You should disable AEC only if audio input comes through a Line Level connection from a playback device that does not capture sound from the conference room.

► **To turn on AEC**

- 1 In the Set Audio dialog box, select **Acoustic Echo Cancellation**.
- 2 Press <OK> to apply the changes and close the dialog box.



## 7 STREAMING MEDIA

Streaming refers to the continuous transmission of media (video, audio and/or data) in one direction. Unlike videoconferencing, which requires realtime, two-way transmission with sufficient bandwidth, successful streaming has less stringent transmission requirements. Streaming may take place whether or not the HD600 is engaged in a call.

Multicast and unicast streaming are available for HD600 users:

- A *multicast* stream refers to the same stream simultaneously sent from one terminal to more than one client.
- A *unicast* stream refers to one stream being sent from one terminal to only one client.

The transmitted media is not stored on the client computer. Instead, the client's viewing application runs the stream as it collects and processes it, even if the client is still receiving the stream.



To view streams, Emblaze-VCON's Broadcast Viewer or Apple's QuickTime Player must be installed on the client computer.

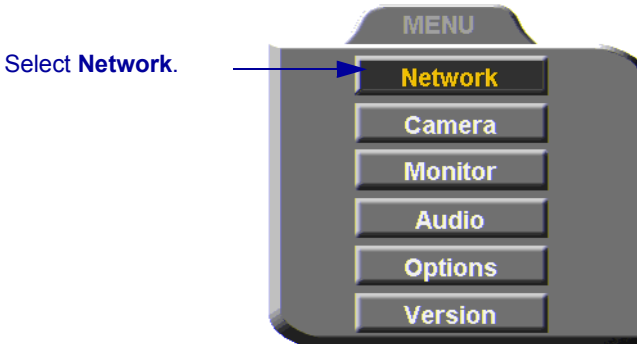
Using Emblaze-VCON's HD DualStream™, the HD600 can send a video and data stream simultaneously. HD DualStream enables video transmission using the H.263 codec in CIF, and data transmission (as video images) using H.263 at 4CIF resolution. If the viewing client's conferencing system or PC supports 4CIF, the data images appear in 4CIF. Otherwise, the data displays in CIF.

## 7.1 Setting Streaming Properties

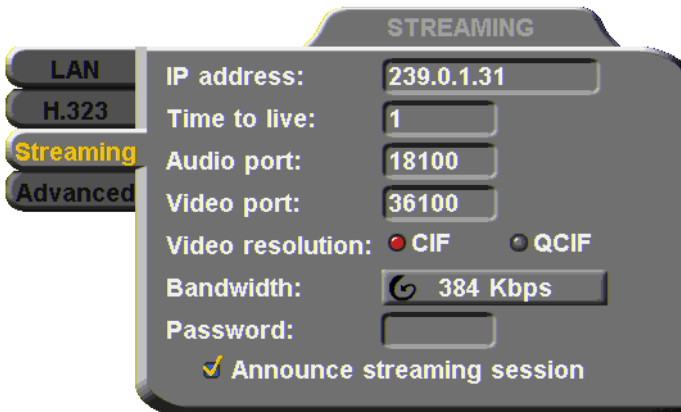
In the **Streaming** tab, define the configuration for transmitting streaming media from the HD600.

► **To set the Streaming configuration**

- 1 Press <Menu>. The main Menu appears. Select **Network**.



- 2 Navigate to the **Streaming** tab.



### 3 Set Streaming properties as follows:



The default configuration is recommended for most streaming conditions. Change them **ONLY** if your system's or network's specifications differ from the default values.

<b>IP Address</b>	The destination IP address for a multicast streaming broadcast. The HD600 defines this address internally. This address must be a class D address in the range of <b>224.0.0.0 to 239.255.255.255</b> .  The sender transmits the streams to this address and viewers receive the stream from this address.
<b>Time to Live</b>	The maximum number of routers that the stream may pass through.
<b>Audio Port</b>	The ID of the port used for the audio connection.
<b>Video Port</b>	The ID of the port used for the video connection.
<b>Video Resolution</b>	<input type="checkbox"/> Select <b>CIF</b> to transmit video at a higher resolution and lower frame rate, using Common Interchange Format (CIF). Usually, CIF provides better overall video quality, especially when a higher transmission bandwidth, such as 2 x BRI (at least 128 kbps) is available.  <input type="checkbox"/> Select <b>QCIF</b> to transmit video at a medium resolution and higher frame rate, using Quarter Size Common Interchange Format (QCIF). Use QCIF if the viewers' systems do not support CIF format, or if you transmit over low bandwidth.
<b>Bandwidth</b>	Click the right arrow to select the maximum bandwidth for the streaming media.
<b>Password</b>	To restrict access to stream viewing, enter a password. When they attempt to view the stream, users will need to type this password.
<b>Announce Streaming Session</b>	Select to send announcements of your streaming session over the network to client Viewer Programs other than HD600 (such as Emblaze-VCON's Broadcast Viewer).

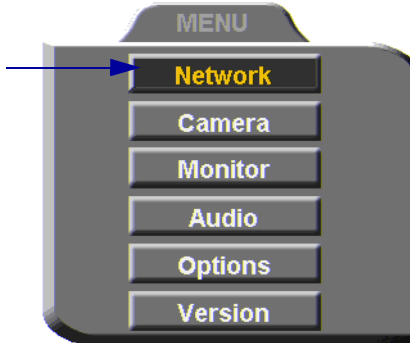
## 7.2 Starting a Streaming Session

➤ **To start a streaming session**

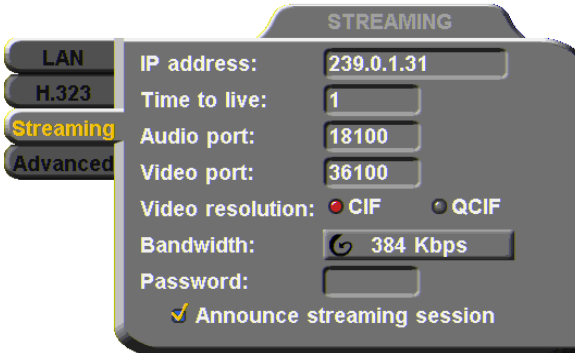
- 1 Press <Menu>. The main Menu appears. Select **Network**.



Select **Network**.



- 2 Navigate to the **Streaming** tab.



- 3 Press the red **START STREAM** SoftKey.
- 4 To stop streaming, press the red **STOP STREAM** SoftKey. Press <OK> to confirm.



## 8 DATA AND APPLICATION SHARING

The ability to share data and applications is an important feature of enterprise conferencing. For example, you and the other parties can exchange files, view a business presentation together, or analyze the execution of another application.

To share data and applications, a personal computer must be connected to the same network as the HD600.

This chapter explains how to set up your HD600 for data sharing, to open a data connection, and start the data stream.

### 8.1 Minimum PC System Requirements

The HD Data Utility may be installed and operated on any computer that meets the following minimum requirements:

Operating System	Windows 2000/XP, Pentium III or higher
Minimum CPU Speed	500 MHz
Color Resolution	24 bpp, 32 bpp
Screen Display	640x480, 800x600, 1024x768

### 8.2 Installing the HD Data Utility

The HD Data Utility enables you to share data applications with the other contacts in your conferences.

#### ► To install the HD Data Utility

- 1 Go to the Downloads page of the Emblaze-VCON website (<http://www.emblaze-vcon.com/support/downloads.shtml>).
- 2 Find and click the **HD600 Data Utility** link. The Download window opens in your browser.
- 3 Downloading from the Emblaze-VCON site requires registration.

If you've downloaded items from the site before, enter your e-mail address and password. If you forgot your password, click the Password Reminder link to request that Emblaze-VCON send it to your e-mail address.

If you're downloading for the first time, click the New Users link. Fill out the registration form and Emblaze-VCON will send you a password quickly. After receiving the password, enter your e-mail address and password to log in.

## 8 Data and Application Sharing

- 4 Click the **Download** link to start downloading the HD Data Utility.
- 5 After downloading the file, restart your computer.

### 8.3 Opening a Data Connection

To open a data connection and display the PC screen on the HD600, run the HD600 Data Utility on the remote computer.

#### ► To start a data connection

- 1 Run **Start>Programs>VCON>HD Utilities>Data Utility**.
- 2 Enter the IP address of the HD600.



- 3 Click **Connect** to view what's displayed on the PC's screen.

To indicate the open data connection, an icon appears in the Windows taskbar near the bottom of the screen.



#### ► To disconnect the data connection

- 1 In the Windows taskbar, double-click the data connection icon.
- 2 Click **Disconnect**.





## 8.4 Data Display on Participants' Monitors

This section describes what participants see in various types of data-sharing situations:

- Sharing with Emblaze-VCON HD systems
- Sharing with non-HD systems
- Streaming

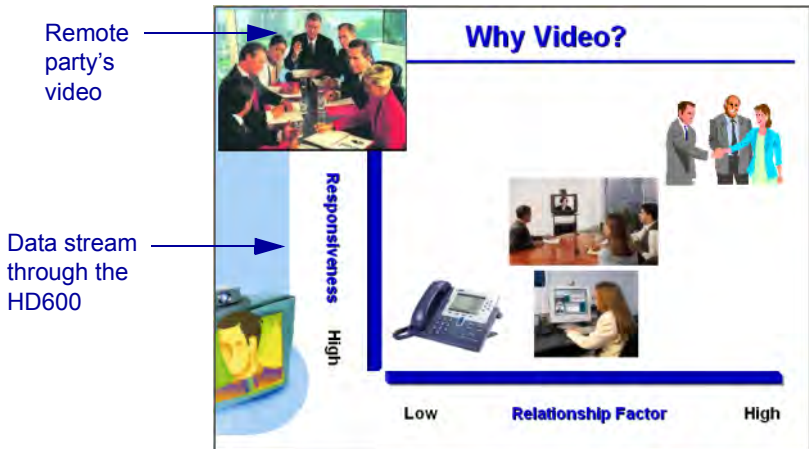
### Data Sharing Between HD Systems

During a conference with other Emblaze-VCON HD systems, or with systems supporting HD DualStream™, the HD600 can send two streams (video and data) at the same time.

- If the remote party operates in **Dual Monitor**, the shared application appears on one monitor and your HD600's video appears on the second monitor.
- If the remote party operates in **Single Monitor**, the shared application appears in full screen display and your HD600's video appears in a Picture-in-Picture (PIP) display.



The data stream will display in 4CIF resolution in systems supporting 4CIF. Otherwise, the data displays in CIF.

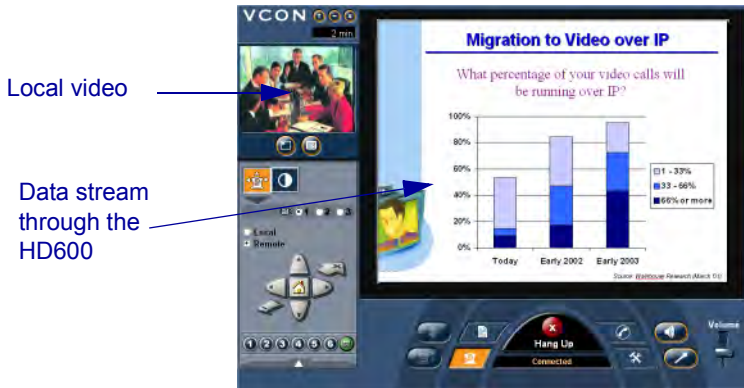


## 8 Data and Application Sharing

### Data Sharing to a non-HD System

Non-HD systems refer to earlier VCON products (Falcon, MediaConnect series, ViGO) and other vendors' products.

In this situation, the remote party receives only the data, but may display its local video in addition to the data. The data is actually transmitted as video, with a resolution of 4CIF (or CIF if the remote system does not support 4CIF).



## Streaming Data

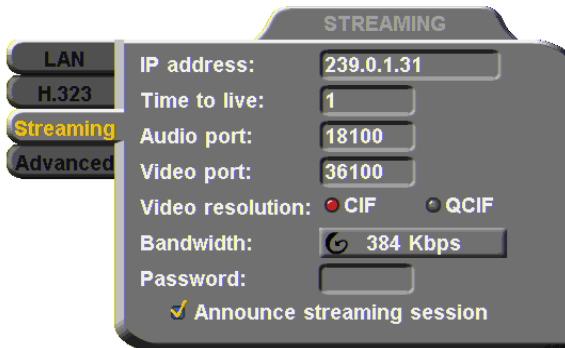
Data applications may also be shared by streaming the data to any person who connects to the HD600. Anyone can see the data in one of the following viewers:

- Emblaze-VCON's Broadcast Viewer.
- HD600's Web-based Remote Viewer. Connecting to the HD600 through Internet Explorer, users see both the data and the video from the HD600.

You can turn the streaming on from the HD600 interface or the HD Web-based Remote Management. After several seconds, the data stream starts. The data appears in the appropriate viewer of any user connecting to the stream.

### ➤ To turn on data streaming from the HD600 interface

- 1 Open a data connection to the HD600 (see [“Opening a Data Connection” on page 84](#)).
- 2 Press <Menu>. The main Menu appears. Select Network.
- 3 In the Streaming dialog box, press the red **START STREAM** SoftKey.



The default configuration is recommended for most streaming conditions. Change them **ONLY** if your system's or network's specifications differ from the default values (see [“Setting Streaming Properties” on page 80](#)).

Turn streaming off by pressing the red **STOP STREAM** SoftKey.

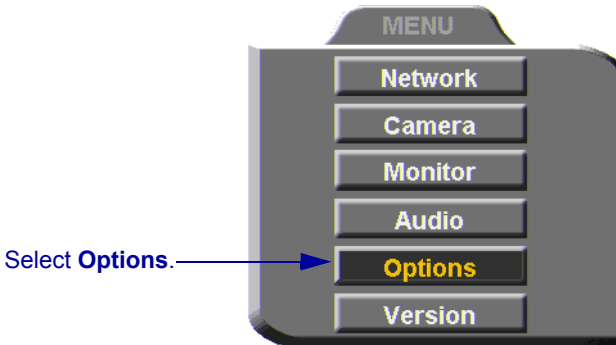


## Enabling H.239 Dual Streaming

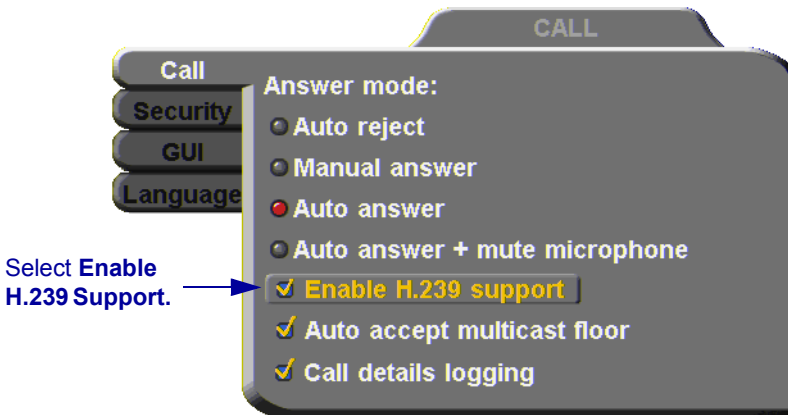
The H.239 standard enables the HD3000 to convert PC application graphics into a separate media stream and transmit it parallel to the video stream. Video systems supporting H.239 display shared data and remote video in separate windows. Systems not supporting H.239 display only the shared data in a single window.

► **To enable H.239 streaming**

- 1 Press <Menu>. The main Menu opens. Select **Options**.



- 2 Select **Enable H.239 Support**.



- 3 Press <OK> to apply changes and close the dialog box.



## 9 WEB-BASED REMOTE MANAGEMENT

HD600 contains an embedded web management program, which provides powerful operational and management capabilities from remote locations. You can access the HD Web Management from any PC through an Internet Explorer browser.

To access the Web Management program, the following prerequisites must be met:

- HD600 must be set to enable remote web management.
- The user must enter a correct password.
- Internet Explorer 5 or higher must be installed on the remote PC.

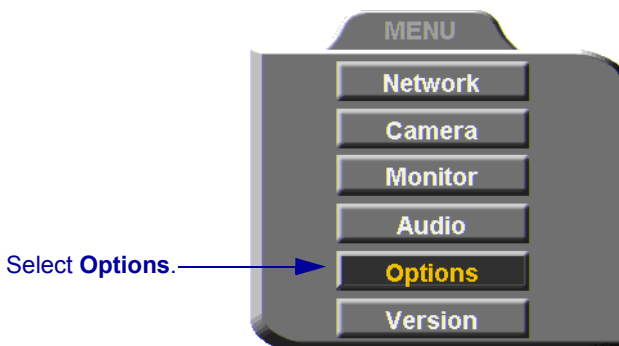
For details on working with the Web Management, see the *HD Web Management User's Guide*.

### 9.1 Enabling Remote Management of the HD600

To manage and operate the HD600 remotely, turn on the Web Management option in the HD600's configuration.

#### ► To enable remote management of your HD600

- 1 Press <Menu>. The main Menu opens. Select **Options**.

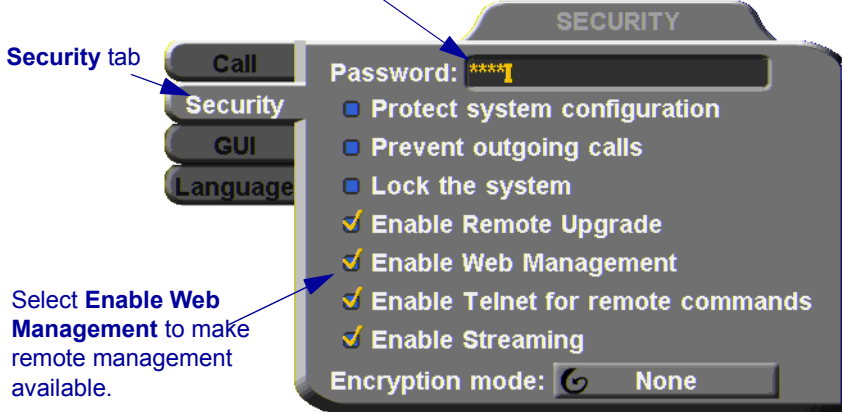


- 2 Navigate to the **Security** tab.

## 9 Web-Based Remote Management

- 3 Select **Enable Web Management**.
- 4 To secure the web-based management against unauthorized access, enter a password using numbers and/or letters. To type letters, press the yellow **KEYBOARD** SoftKey to open the online keyboard.

Enter the system's **Password** using numbers and/or letters. To type letters, press the yellow softKey.



- 5 Press <OK> to apply changes and close the dialog box.



## 9.2 Logging into the Web Management Program

### ➤ To log into the Web Management Program

- In your remote computer's browser, enter the IP address of your HD600. For example, <http://x.y.z.a>, where [x.y.z.a] is the IP address.







# 10 MULTIPPOINT CONFERENCING WITH INTERACTIVE MULTICAST

Interactive Multicast is an alternative to MCU sessions, allowing the broadcast of identical video streams, audio streams, and data application sharing packets from one party to multiple parties. Interactive Multicast uses bandwidth more efficiently than an MCU does, and it does not limit the number of users in a session or the number of sessions per license; most MCUs do.

During an Interactive Multicast, the initiating party (*Chair*) calls one or more parties (*Participants*) to start the conference and controls its progression. All parties receive identical transmissions.

Many Emblaze-VCON products provide the capability to carry out Interactive Multicast video meetings over a Local Area Network (LAN), in which the Chair *and* all Participants may be seen and heard during the duration of the meeting. The HD600 can join an Interactive Multicast as a Participant - only Participant functions are available.

As a Participant, you may receive the floor, in which its video and audio is seen and heard, respectively, by the other Participants and the Chair for a period of time.

Interactive Multicasts can proceed in the form of a lecture or demonstration, in which Participants' participation is restricted and controlled by the Chair, or as a free discussion, in which everyone has the right to be seen and heard without the need to receive permission from the Chair.

## 10.1 Entering an Interactive Multicast

### ► To enter an Interactive Multicast

- Answer an incoming call from the Chair of an Interactive Multicast.

-or-

Call the IP address of the session after the Interactive Multicast starts.

You will see and hear the same video and audio as everyone else in the conference.

## 10.2 Participating in an Interactive Multicast

After you join an Interactive Multicast, you will see and hear the same remote video and audio as everyone else in the meeting.

During the session, you may request the floor. When you have the floor, all the other participants see and hear you.

### Requesting the Floor

To speak and be seen, request the Floor from the Chair.

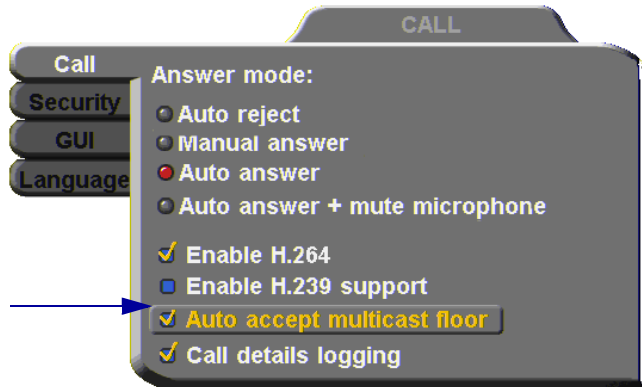
#### ► To request the Floor

- 1 Press the red FLOOR SoftKey. A message asks you if you want to receive the floor.
- 2 Press <OK>.



To skip the message and automatically receive the Floor every time the Chair grants it to you, select **Auto Accept Multicast Floor** in the Call dialog box.

Select to accept the multicast floor automatically without having to confirm acceptance.



## Returning the Floor

When you finish speaking to the floor, return the Floor to the Chair.

### ► To return the Floor

- 1 Press the red **FLOOR** SoftKey. A message asks you if you want to return the floor.
- 2 Press <OK>.





# 11 TELEPHONY EXCHANGE FUNCTIONS

Users that are registered with an Emblaze-VCON Media Xchange Manager® (MXM) receive all the regular Gatekeeper services, plus call exchange services.

The MXM assigns every registered user a new User Number (directory number), to ensure that every user has a unique number. To dial other registered users, you can enter the User Number and then press <Dial>.

If your HD600 is registered to an MXM, call exchange functions are available:

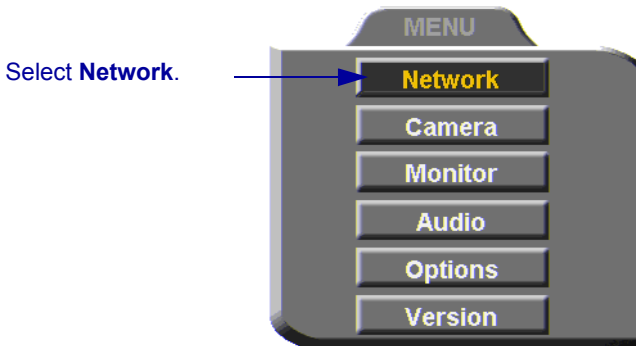
- Call Forward
- Call Transfer
- Inviting Additional Parties to an Ad-hoc Conference
- Simplified Gateway Dialing
- Connecting to an MCU Videoconference

## 11.1 Logging In to the MXM

To log in to an MXM, you must enter its address in the Network Configuration. Consult with your system administrator.

### ► To log in to the MXM

- 1 Press <Menu>. The Main Menu opens. Select Network.



- 2 Navigate to the H.323 tab and press the right arrow button to access H.323 properties.
- 3 Select the MXM option.

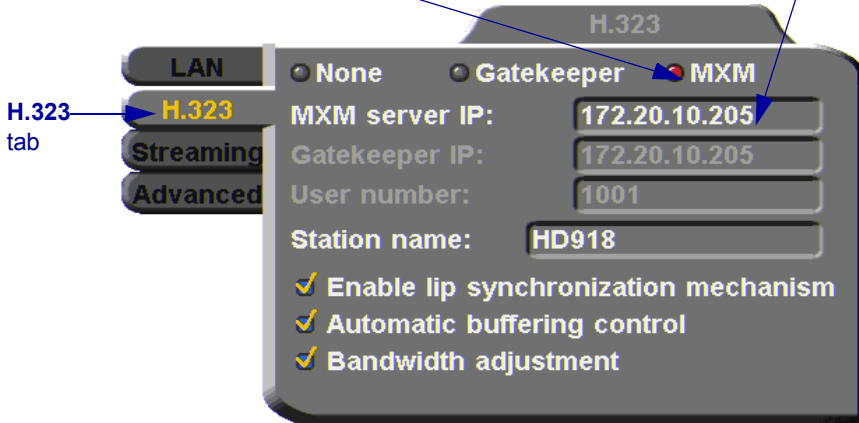


## 11 Telephony Exchange Functions

- 4 In the **MXM Server IP** box, enter the IP address of the MXM.

Select to enable the system to register with the MXM

Enter the IP address of the MXM



- 5 Press <OK> twice. A message states that HD600 will restart in a few seconds.



If the MXM is in Open mode, it automatically permits the HD600 to register or log in.

If the login attempt is unsuccessful, consult with the system administrator. The administrator must then grant login permission before the HD600 can log in.

## 11.2 Call Exchange Services

If HD600 is registered with the MXM, telephony services are available for videoconferencing. The available services are:

- Call Forward
- Call Transfer
- Inviting Additional Parties to an Ad-hoc Conference
- Gateway Dialing for IP-to-ISDN

### Call Forward

If Call Forward is activated for the HD600, the MXM forwards calls to another specific user if you are unable to answer. The Call Forward settings for the HD600 may be done by both the administrator (in the MXM Administrator application) or you. The last changes, regardless of who made them, are valid.

In HD600, you can enable Call Forwarding by dialing a system function code. The code may be either the factory default value or a value set by the administrator.

#### ► To set Call Forwarding

- In the Manual Dialer, dial one of the following (bold values are factory defaults):



- 1 To enter the “\*”, press the yellow **KEYBOARD** Softkey from the Manual Dialer screen, navigate to the “\*” and select it, and then press <OK>.
- 2 After dialing, a “Call Rejected” message appears. However, the request is accepted by the MXM if the directory number is valid.



#### For this feature

#### Dial this number

**Forward on no answer**

**\*70** (or other code number), followed by [*other destination directory number*], and then press <Dial>.



Activate if you want to forward calls intended for you to another specific user. The interval before transferring the call is set by the administrator.

For example, **\*70751+**<Dial> will forward calls to user 751.

## 11 Telephony Exchange Functions

### For this feature

### Dial this number

**Forward on busy**

**\*71** (or other code number), followed by [*other destination directory number*], and then press <Dial>.



Activate if you want to forward calls to another specific user if you are engaged in another videoconference.

For example, **\*71751**+<Dial> will forward calls to user 751.

**Unconditional forward**

**\*72** (or other code number), followed by [*other destination directory number*], and then press <Dial>.



Activate if you want to forward ALL calls intended for you to another specific user.

For example, **\*72751**+<Dial> will forward calls to user 751.

### ► To disable Call Forwarding

- In the LAN Manual Dialer, dial one of the following (bold values are factory defaults):

### To disable this feature

### Dial this number

**Forward on no answer**

**\*70\*** (or other code number), and then press <Dial>.



**Forward on busy**

**\*71\*** (or other code number), and then press <Dial>.



**Unconditional forward**

**\*72\*** (or other code number), and then press <Dial>.



After dialing, a "Call Rejected" message appears. However, the request is accepted by the MXM if the directory number is valid.

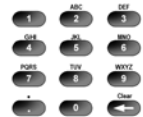


## Call Transfer

Using the Call Transfer feature, you can transfer an open videoconference from the HD600 to another party. As a result, the videoconference will continue between your original remote party and the party to which you transferred the call. HD600 will be disconnected from the call.

### ► To transfer an open videoconference to another party

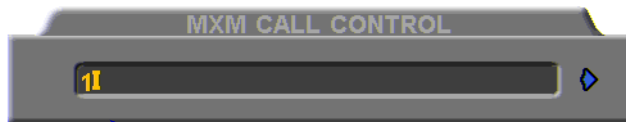
- 1 Press any of the number keys on the remote control. The Manual Dial dialog box and SoftKey menu open.
- 2 Press the red **MXM CALL CONTROL** Softkey.



- 3 In the **MXM Call Control** box, enter the directory number of the party to whom you want to transfer the call. To browse entries from the **Phone Book**, press the right and left arrow keys on the remote control.
- 4 Press the red **TRANSFER** SoftKey.



Press the red Softkey to transfer the videoconference to the entered address



Enter the address of the additional party for transferring the conference

The call gets transferred to the party that you requested. When that party accepts the call, the HD600 is disconnected from the videoconference. The call continues between the original remote party and the newly-joined party.

## Inviting Additional Parties to an Ad-hoc Conference

The Invite command lets you “invite and join” additional parties into an “ad-hoc multipoint videoconference.” During an open videoconference between two parties, HD600 provides an Invite button for calling the additional parties.

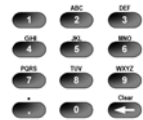
You can invite another party by selecting its entry from the Phone Book or by entering its address directly.



Through the Invite function, you can join more participants than the capacity for a multipoint conference initiated through the Embedded MCU (three participants).

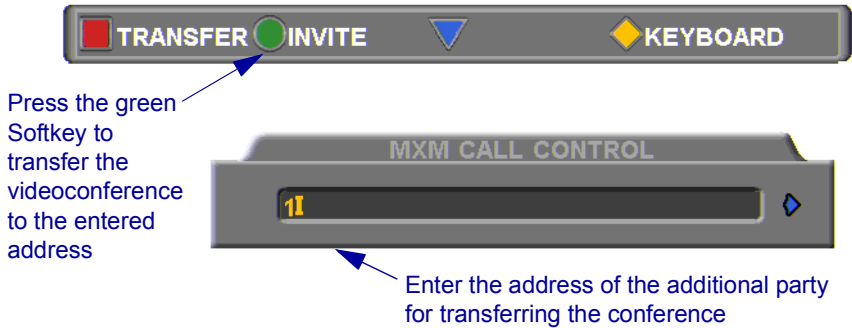
### ► To invite other parties into an ad-hoc videoconference

- 1 Press any of the number keys on the remote control. The Manual Dial dialog box and SoftKey menu open.
- 2 Press the red MXM CALL CONTROL Softkey.



- 3 In the MXM Call Control box, enter the directory number of the party that you want to invite. To browse entries from the Phone Book, press the right and left arrow keys on the remote control.
- 4 Press the green INVITE SoftKey.





**5 HD600 dials the number.**

After several seconds, the additional party is added to the session, which is now a multipoint conference with MCU management. The parties' video is displayed in Voice-Activated Switching.

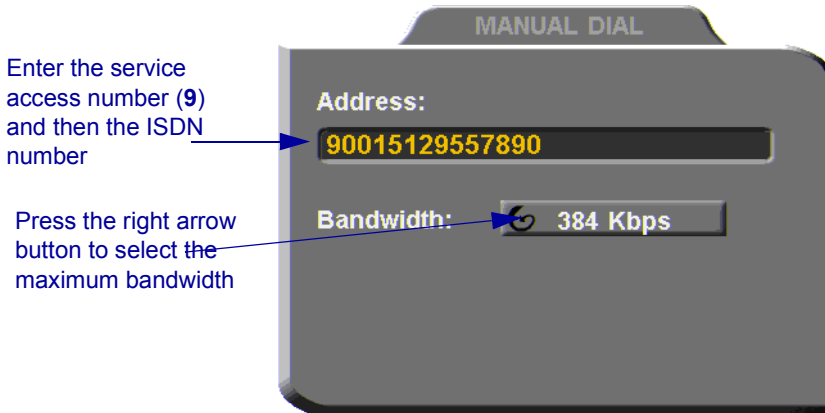
## Simplified Gateway Dialing

If HD600 is logged into an MXM, simplified gateway dialing is available for starting a videoconference through a LAN connection to an ISDN destination.

The default function code for starting a call through a gateway is **9**. The system administrator may change this code, if necessary (see the *Media Xchange Manager*<sup>®</sup> *Administrator's Guide*).

### ► To start a LAN-to-ISDN call through a gateway

- 1 In the Manual Dialer, dial [service access number][ISDN number].
- 2 Set the required Bandwidth or use the default bandwidth.



*Dialing a LAN-to-ISDN Call Through a Gateway*

# 12 SYSTEM SECURITY

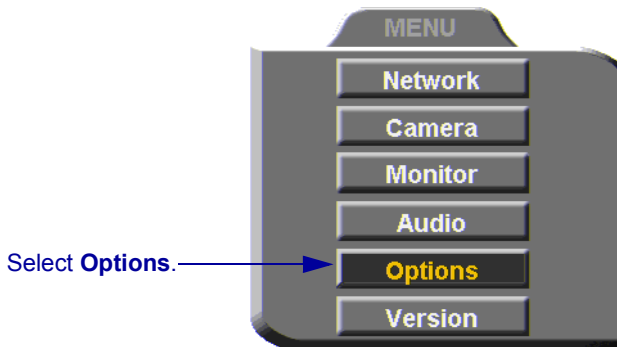
You can protect against unauthorized use of the HD600 by defining restrictions on configuration changes and the initiation of videoconferences.

The Security dialog box in the Options contains the options and properties for setting up a security configuration:

- Setting a Security Password
- Setting Security Properties
- Locking the System

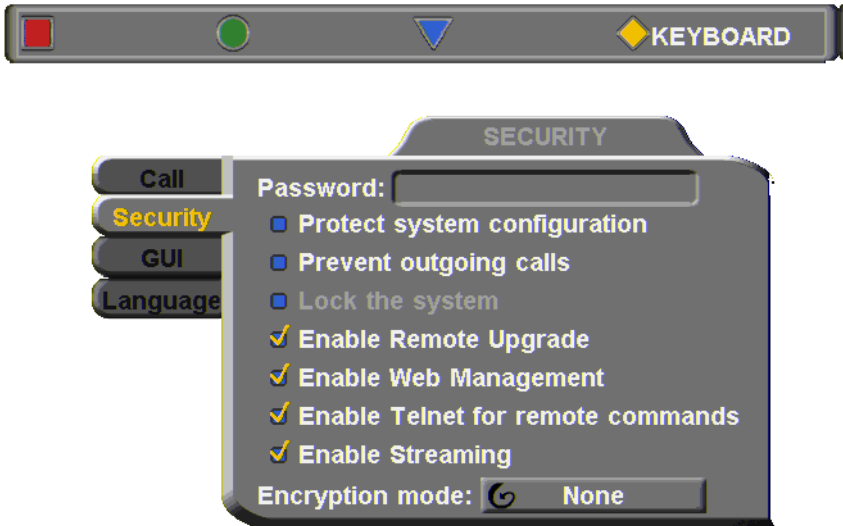
➤ **To access the Security properties**

- 1 Press <Menu>. The main Menu appears. Select Options.



## 12 System Security

- 2 In the Options dialog box, navigate to the **Security** tab. If you previously set a security password (see [“Setting a Security Password” on page 107](#)), enter it in the Password dialog box.



- 3 After setting Security properties, press <OK> to save the settings and close the dialog box.




## 12.1 Setting a Security Password

A password prevents unauthorized users from changing the system configuration, initiating videoconferences, and/or accepting videoconference calls. The password is mandatory for locking the system completely from all of the actions stated above.

A password for accessing security should be unique and known only to the administrators. After a password is defined, any user must enter the password to gain access to the restricted functions. This password is also required for accessing remote configuration through the HD600's Web-based Remote Manager (see Chapter 9, “[Web-Based Remote Management](#)”). If you forget your password, contact your local Emblaze-VCON distributor's technical support.

### ► To set a security password

- 1 In the Security dialog box's **Password** box, enter numbers and/or letters. To type letters, press the yellow **KEYBOARD** SoftKey. 



Enter the system's password using numbers and/or letters. To type letters, press the yellow softKey.

## 12.2 Security Properties

The Security dialog box contains the available security options for the HD600.

- |  |   |
|--|---|
| <b>Protect System Configuration</b>      | Select to prevent unauthorized changes to the system configuration. The system's configuration is then disabled to videoconferencing users.   |
| <b>Prevent Outgoing Calls</b>            | Select to prevent users from initiating calls.  |
| <b>Lock the System</b>                   | See <a href="#">“Locking the HD600” on page 110</a> .   |
| <b>Enable Remote Upgrade</b>             | Select this option to enable the transfer of upgrades and patches to the HD600 unit. <ol style="list-style-type: none"><li>1 For upgrading the HD600 software through the HD Upgrade Utility.</li><li>2 For software integrators to send software patches, upgrades, and modifications to the HD600.</li></ol>  |
| <b>Enable Web Management</b>             | Select this option to enable remote access to the HD600 through the Web Management Utility (see <a href="#">“Web-Based Remote Management” on page 89</a> ).   |
| <b>Enable Telnet for Remote Commands</b> | Select this option to enable Telnet access for programming the HD600 software, using the HD600's ZAPI application. This access is intended for software integrators.  |
| <b>Enable Streaming</b>                  | Select this option to enable the transmission of multimedia streaming from this HD600.  |
| <b>Encryption Mode</b>                   | Choose the mode of encryption for this HD3000's conferences. <ul style="list-style-type: none"><li><input type="checkbox"/> Choose <b>None</b> to allow unsecured calls.</li><li><input type="checkbox"/> <b>AES</b> (Advanced Encryption Standard) is 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 HD3000's calls. If the remote side has not also enabled encryption, the call attempt will be unsuccessful.</li><li><input type="checkbox"/> <b>Auto</b> enables the HD3000 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.</li></ul> |



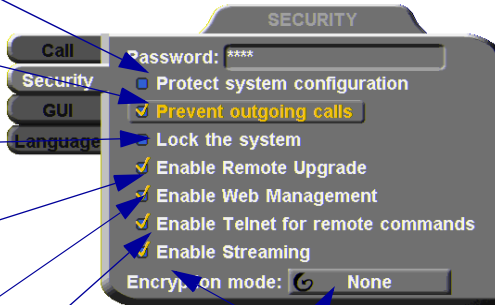
Prevent unauthorized changes to the system configuration.

Prevent users from initiating calls.

Prevent unauthorized use of HD600.

Enable transfer of software upgrades and patches to HD600.

Enable remote management of the HD600.



Enable Telnet access for programming.

Enable multimedia streaming from the HD600.

Type of encryption used on outgoing calls.

## 12.3 Locking the HD600

Locking the HD600 completely prevents unauthorized use, such as configuration changes and initiation and acceptance of videoconferences.

When the HD600 is locked, a password is mandatory for accessing all of these functions. After a password is defined, any user must enter the password to unlock the system and gain access to the restricted functions. If you forget your password, contact your local Emblaze-VCON distributor's technical support.

### ► To lock the system

- 1 Press <Menu>. The main Menu appears. Select **Options**.
- 2 Press the yellow **SECURITY** SoftKey. Press the yellow **SECURITY** SoftKey.
- 3 In the **Password** box, enter a password using numbers and/or letters. To type letters, press the yellow **KEYBOARD** SoftKey to open the onscreen keyboard.
- 4 Select **Lock the System**.
- 5 Press <OK> to save the settings and close the dialog box.



Enter the system's password using numbers and/or letters. To type letters, press the yellow softKey.

Select to prevent unauthorized use.



# 13 TROUBLESHOOTING

This chapter provides simple solutions for common oversights and issues.

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.

The solutions in this chapter are grouped by the type of equipment affected by the oversight or failure.

<b>System or Equipment</b>	Issues concerning the HD600 unit or connected accessories
<b>Network or Communications</b>	Issues concerning networks, interface lines, and network equipment. This section is further categorized into IP, Streaming and Data Transfer issues.

## 13.1 System Diagnostics

To begin searching for the source of a problem, check the Diagnostics dialog. It describes any network and server problems that may exist.

### ► To open the Diagnostics dialog box

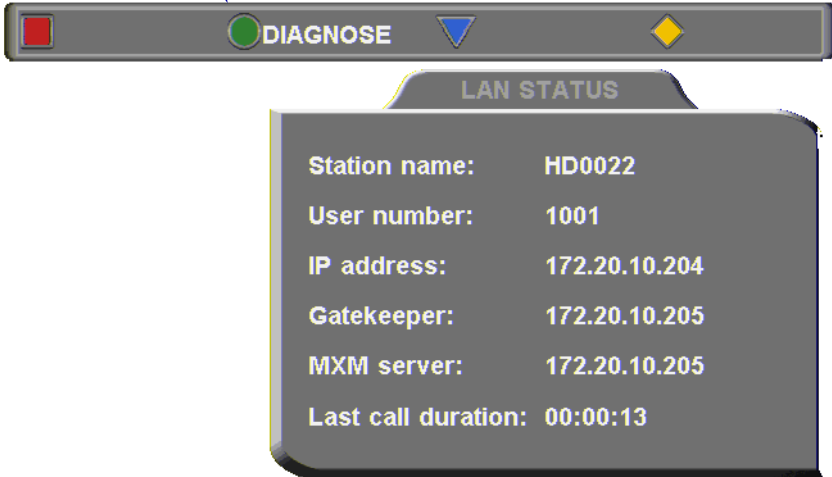
- 1 Press <Status>. The Status dialog box opens.
- 2 Press the green **DIAGNOSE** SoftKey. The Diagnostics dialog box opens.



If there is a problem described in the Diagnostics dialog box, consult with the system administrator to find a solution.

### 13 Troubleshooting

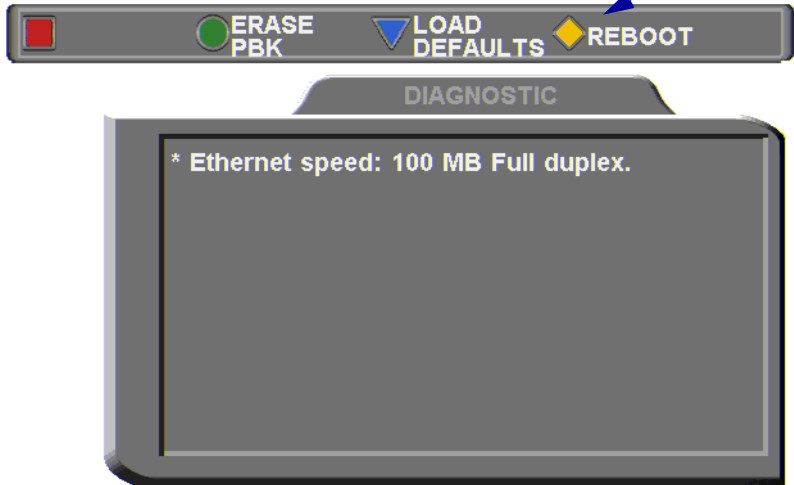
Select **DIAGNOSE** to view a diagnostic report.



Select **ERASE PBK** to delete the Phone Book. Use this if the Phone Book is not usable and then recreate it or load a previously backed-up Phone Book.

Select **LOAD DEFAULTS** to restore the factory-set defaults for the system

Select **REBOOT** to restart the HD600.



- If you have a problem with the Phone Book, you can erase it completely, by pressing the green **ERASE PBK** SoftKey.

A confirmation message appears. Click **OK** if you are sure you want to erase all Phone Book entries.



- You can restore the factory-set defaults for the system, by pressing the blue **LOAD DEFAULTS** SoftKey.

A confirmation message appears. Click **OK** if you are sure you want to cancel all changes made to the HD600 options and settings and restore the original defaults.  
HD600 restarts.



- To restart the system, press the yellow **REBOOT** SoftKey.



If the problem you are trying to solve is not described in the Diagnostics dialog, try to find the solution in the following sections.

## 13.2 Starting HD600 .

### Condition

The HD600 starts up slowly.



After loading, video from the camera is visible but the menus and address books are not.

### Solution

- Verify that the LAN cable is connected by the following methods:
  - Check that the green LED underneath the LAN connector on the rear panel is on.
  - Press <Status> and then the red **DIAGNOSE** SoftKey to check the LAN speed.
  
- 3** Make sure that the HD600 is connected to your monitor's S-Video In connector.  
-or-  
If the TV only has a Composite Video In connector, connect it to the HD600's VCR Video Out connector.

## 13.3 Video/Audio

### Condition

After startup, the screen is black.



During a conference over the Internet, the video and audio quality are poor.

The remote party cannot hear you, but you can hear them.



### Solution

- 1 Verify that the TV monitor is on.
  - 2 Verify that at least one camera is connected securely and turned on.
  - 3 Switch to another camera. On the remote control, press <Cam> and then the arrow buttons until a camera view is visible.
- The Internet connection is either limited or insufficient. Call at a lower bitrate.
- 1 Verify that the microphones and TV monitors on both the local and remote sides are connected properly and securely.
  - 2 Press <Menu> and select **Audio**. Make sure that the tabletop microphone is the selected audio input.

## 13.4 Software Upgrade

### Condition

The “Upgrade cannot start” message appears.



Following the upgrade, a configuration dialog box appears automatically.

### Solution

- Press <Menu> and access the Options>Security dialog box. Select **Enable Remote Upgrade**.
- If the upgrade is unsuccessful, the HD600 enters Installer Mode. Verify that the displayed LAN configuration is correct and run the Upgrade program again.

## 13.5 Unsuccessful Call

### Condition

A “Call rejected” message appears.



### Solution

- 1 Press <Status> and check if the HD600 is registered to an MXM or Gatekeeper. If no, but you want MXM or Gatekeeper management, access the Network<H.323 dialog box and enter the MXM/Gatekeeper’s correct address.
- 2 Verify that the remote party is registered with the same or a neighboring Gatekeeper.
- 3 If you use DNS names to dial, access the Network>LAN dialog box to verify the correct DNS server name.

You cannot receive calls dialed to the HD600’s Station Name.

- Access the Network>LAN dialog box and verify the correct WINS server name.

## 13.6 Streaming Media

### Condition

You cannot view streaming video.

### Solution

- If a supported viewer is not installed on your PC, the Web-based Remote Management redirects you to the viewer’s installation page. Install the viewer and then try again to view the stream.



# A MULTI-LANGUAGE INTERFACE

The HD600 application's interface (menus, dialog boxes, commands) may be viewed in several different languages. The default language after initial installation or upgrade is English. However, you may easily switch the interface language to:

- Français
- Deutsch
- Italiano
- Chinese
- Svenska
- Other - Turkish, Chinese (Traditional), Korean
- Español (Spain or Mexico)
- Português (Portugal or Brazil)
- Japanese
- Suomi
- Russian

## ► To change the interface's language

- 1 Press <Menu>. The main Menu opens. Select **Options**.
- 2 Navigate to the **Lang.** tab
- 3 Select the language you want and then click **OK**. The HD600 application's interface then appears in the language you chose.



Navigate to the  
**Language** tab.

Select the interface's  
language





## B SOFTWARE UPGRADE

This chapter explains how to upgrade to new software versions of your HD600. Whenever Emblaze-VCON notifies HD600 customers that a version upgrade is available, you can download and install it in your system. Unless instructed otherwise, the latest software version is available from Emblaze-VCON's website: ([www.emblaze-vcon.com](http://www.emblaze-vcon.com)>Support>Downloads).

The methods for upgrading the HD600 software are:

- Running the HD Upgrade Utility from a remote PC
- Upgrading directly from the HD600

### B.1 Upgrading From a Remote PC

The HD Upgrade Utility is a program that enables you to upgrade HD600 software from a remote PC. You can download the utility from Emblaze-VCON's website.

#### Before Downloading

Before you upgrade the HD600 software, make sure that the following conditions are present:

- A quiet period of the network. We recommend that you perform upgrading when activity on the network is low. Heavy network traffic may interfere with the procedure and cause upgrade failures.
- The possibility of electrical failure is at a minimum.
- The computer from which the upgrade will run (referred to throughout this document as **the remote PC**) fills the following requirements:
  - Windows XP, 2000, or NT (with Service Pack 5.0).
  - No other programs should run at the same time as the HD600 upgrade program.

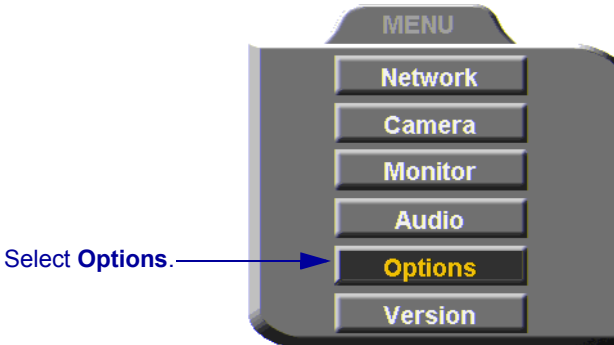
## B Software Upgrade

### Enable Remote Upgrade

To enable upgrading through the HD utility, you must enable remote upgrading in the HD600's Security dialog box.

➤ **To enable remote software upgrading of the HD600**

- 1 Press <Menu>. The main Menu appears. Select **Options**.



- 2 Navigate to the **Security** tab. If you previously set a security password (see [“Setting a Security Password” on page 107](#)), enter it in the Password dialog box.
- 3 Select **Enable Remote Upgrade**.



- 4 Press <OK>.



## Downloading the HD Upgrade Utility

The HD Upgrade Utility is available from the Downloads page of Emblaze-VCON's website (<http://www.emblaze-vcon.com>).

### ► To download the Upgrade utility

- 1 On the [www.emblaze-vcon.com](http://www.emblaze-vcon.com)>Support>Downloads page, click the link for downloading the HD Upgrade utility.
- 2 Download the setup file to your PC.
- 3 Run the setup file to install the utility on the remote PC. Perform the steps in the Upgrade utility's installation wizard. Click **Finish** when the process is complete.

## Downloading the New Software Version

After downloading the Upgrade Utility, return to the Emblaze-VCON website to download the new software version.

### ► To download the new software version

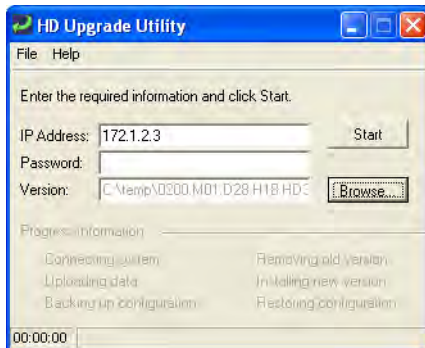
- On the [www.emblaze-vcon.com](http://www.emblaze-vcon.com)>Support>Downloads page, click the link for downloading the new HD600 software version.

## Installing the New Upgrade in the HD600

Run the Upgrade Utility to install the new version in the HD600.

### ► To install the upgrade in the HD600

- 1 Run **Start>Programs>VCON>HD Utilities>Upgrade Utility**.



- 2 Type the IP address of the HD600.
- 3 If applicable, enter the Password defined in the HD600's Security settings (see [“Setting a Security Password”](#) on page 107).

## B Software Upgrade

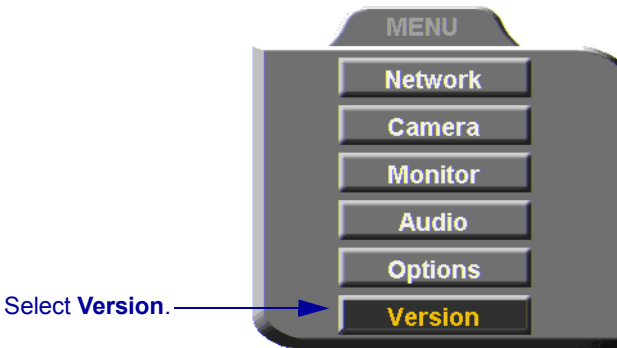
- 4 Click **Browse** to select the upgrade file that you previously downloaded from the Emblaze-VCON website.
- 5 Click **Start**.



**CAUTION** The entire procedure takes several minutes. Do not restart HD600 until the upgrade process is complete!

When the upgrade installation finishes, the HD600 restarts.

- 6 When the HD600 is ready again, verify that the new version was installed correctly. Press <Menu>. The main Menu appears. Select **Version**.



- 7 Check that the **Software Version** matches the downloaded filename.



## B.2 Upgrading from the HD600

Alternatively, you may upgrade the HD600 software directly from the HD600. Checking for upgrade can be done automatically or at your own initiative.



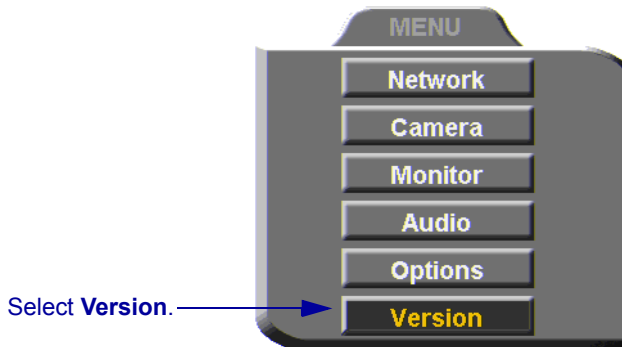
To upgrade through the HD600, the system's LAN configuration must be set up completely - all parameters must be defined (see "[LAN Connection](#)" on page 51).

### Automatically Checking for Upgrade

Automatic Checking for Upgrade enables the HD600 to check the FTP site for a new software version whenever the system restarts.

#### ► To set up automatic upgrading

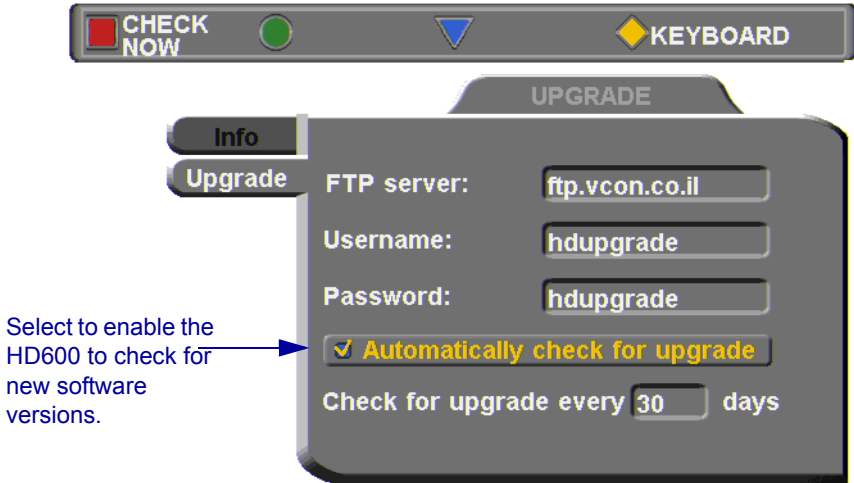
- 1 Press <Menu>. The main Menu appears. Select **Versions**.



- 2 Navigate to the **Upgrade** dialog box.
- 3 Select **Automatically Check for Upgrade**. The HD600 will check the FTP site for a new software version whenever the system restarts.

## B Software Upgrade

- 4 The **Check for Upgrade** box commands the HD600 to check for the upgrade after a specific period, IF the system has not restarted during the interim. Enter the number of days in this period.



- 5 Press <OK> to apply changes and close the dialog box.



## Manual Upgrade

Checking for new upgrade availability manually may be done at any time.

### ► To upgrade manually

- 1 In the Upgrade dialog box, press the red CHECK NOW SoftKey.
- 2 If a new version is available, a message appears, identifying the version and asking if you want to download it.
- 3 To proceed with the upgrade, press <OK>.





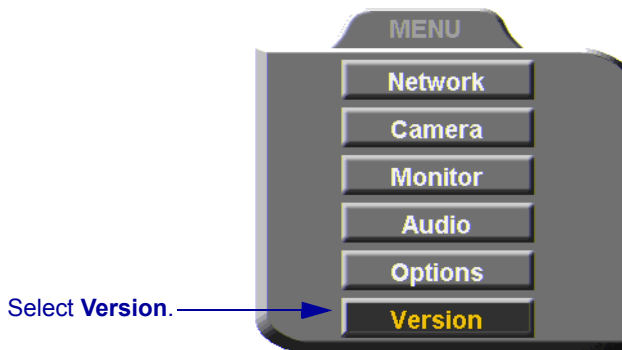
## B.3 Confirming Successful Upgrade

The upgrade process has been completed. HD600 then restarts itself and runs through the usual opening process. Wait until the Ready Screen (see “[HD600 Screens](#)” on page 25) appears.

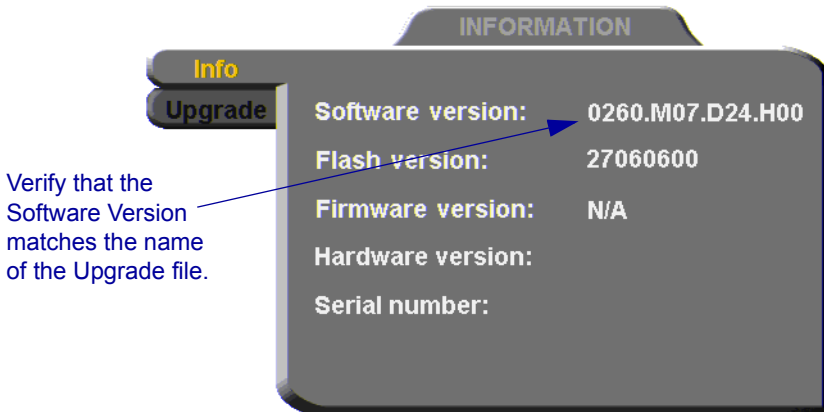
At this stage, confirm that the latest software is running on your system.

### ► To check the version of the HD600 software

- 1 Press <Menu>. The main Menu appears. Select Versions.



- 2 In the Info dialog box, verify that the **Software Version** matches the name of the downloaded upgrade file. If it does, HD600 is ready for use!





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