AXIS 2400+ and AXIS 2401+ Video Servers

Administration Manual

Installation instructions are also available in German, French and Spanish in this manual

About This Document - This manual is intended for administrators and users of the AXIS 2400+/2401+ Video Server, and is applicable for software release 3.10. It includes instructions for installing, using and managing the AXIS 2400+/2401+ /AXIS 2400+/2401+ Blade on your network. Previous experience of networking is of use when installing and using this product. Some knowledge of UNIX or Linux-based systems would also be beneficial for developing custom PHP-based programming scripts and applications. Later versions of this document will be posted to the Axis Website, as required. See also the product's online help, available via the Web-based interface.

Safety Notices Used In This Manual - Do not proceed beyond any of the above notices until you have fully understood the implications.

Caution! - Indicates a potential hazard that can damage the product.

Important! - Indicates a hazard that can seriously impair operation.

Intellectual Property Rights - Axis AB has intellectual property rights relating to technology embodied in the product described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the patents listed at http://www.axis.com/patent.htm and one or more additional patents or pending patent applications in the US and other countries.

Legal Considerations - Camera surveillance can be prohibited by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

Electromagnetic Compatibility (EMC) - This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. Shielded cables should be used to ensure compliance with EMC standards. If the I/O terminal block connector is used, a ferrite core (available e.g. from Axis) should be fitted around the wires in order to ensure compliance with EMC standards.

USA - This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his/her own expense will be required to take whatever measures may be required to correct the interference.

Europe - $C\epsilon$ This digital equipment fulfills the requirements for radiated emission according to limit B of EN55022/1994, and the requirements for immunity according to EN55024/1998 residential, commercial, and light industry.

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Support Services - Should you require technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- download user documentation and firmware updates
- find answers to resolved problems in the FAQ database. Search by product, category, or phrases
- report problems to Axis support staff by logging in to your private support area
- visit the Axis Support Web at www.axis.com/techsup/

Caution - This product contains a Lithium battery which is used to back up the real time clock. This battery lasts more than 10-15 years. Study the warning notice carefully before replacing the battery. Do not replace or remove the battery unless needed! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of the battery according to the manufacturer's instructions.

Table of Contents

Produktbeschreibung und Installationsanleitung

Decsription du Produit et Guide d'Installation

Descripción del producto y Guía de instalación

Product Description

Read the following information to familiarize yourself with the AXIS 2400+/2401+, making particular note of where the connectors and indicators are located.

AXIS 2400+ Front Panel

● **Status Indicator**
The multi-colored status indicator shows the operational status of the server, as described below:

- green - the indicator flashes briefly and momentarily displays orange during the start-up and self-test routines; the indicator then displays green to indicate a healthy unit status.
- red - the indicator will display red only if there is a problem with the AXIS 2400+
- orange - flashes orange when resetting to the factory default settings.

● **Network Indicator**
After completion of the startup and self test routines, the multi-colored Network Indicator flashes independently, as follows:

- yellow - indicating network activity on a 10Mbps Ethernet network
- green - indicating network activity on a 100Mbps Fast Ethernet network
- red - indicating no physical connection to the network.

● **DIP Switches**
A corresponding line termination switch for each of the supported video outputs. All units are shipped with the line termination enabled for each supported video input; that is, with the DIP switches set in the down-position. If the AXIS 2400+ is to be connected in parallel with other equipment, disable the input termination by turning the corresponding DIP switch to the up-position (OFF). Failure to do this can cause the picture quality to be impaired.
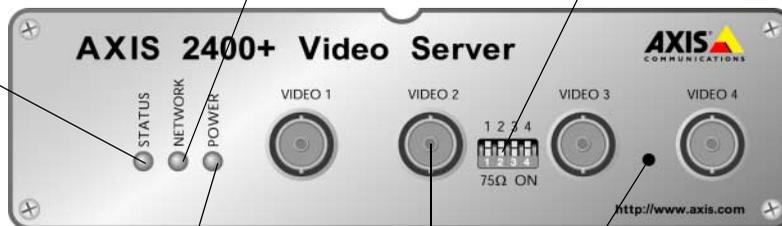
Power Indicator ●
The Power indicator is normally lit while power is applied. If it is not lit, or it flashes, there is a problem with the AXIS 2400+ external power source.

● **Control Button**
This button is recessed within the product casing. Using a suitably pointed object, press this button to restore the factory default settings, as described in *Network Settings,* on page 21.

Serial Number ●
Located on the underside label of the AXIS 2400+, the serial number is identical to the unit's MAC/Ethernet address.

● **Video Inputs**
Accommodates up to 4 separate video sources (VIDEO 1- VIDEO 4) simultaneously.

Each supported video input is terminated using a coax/BNC connector. Physical connections made using RG59 75 Ohm coax video cable have a recommended maximum length of 800 feet (250 meters).

AXIS 2401+ Front Panel

● **Status Indicator**
The multi-colored status indicator defines the operational status of the server, as described below:

- green - the indicator flashes briefly and momentarily displays orange during the start-up and self-test routines; the indicator then displays green to indicate a healthy unit status.
- red - the indicator will display red only if a problem with the AXIS 2401+ has occurred
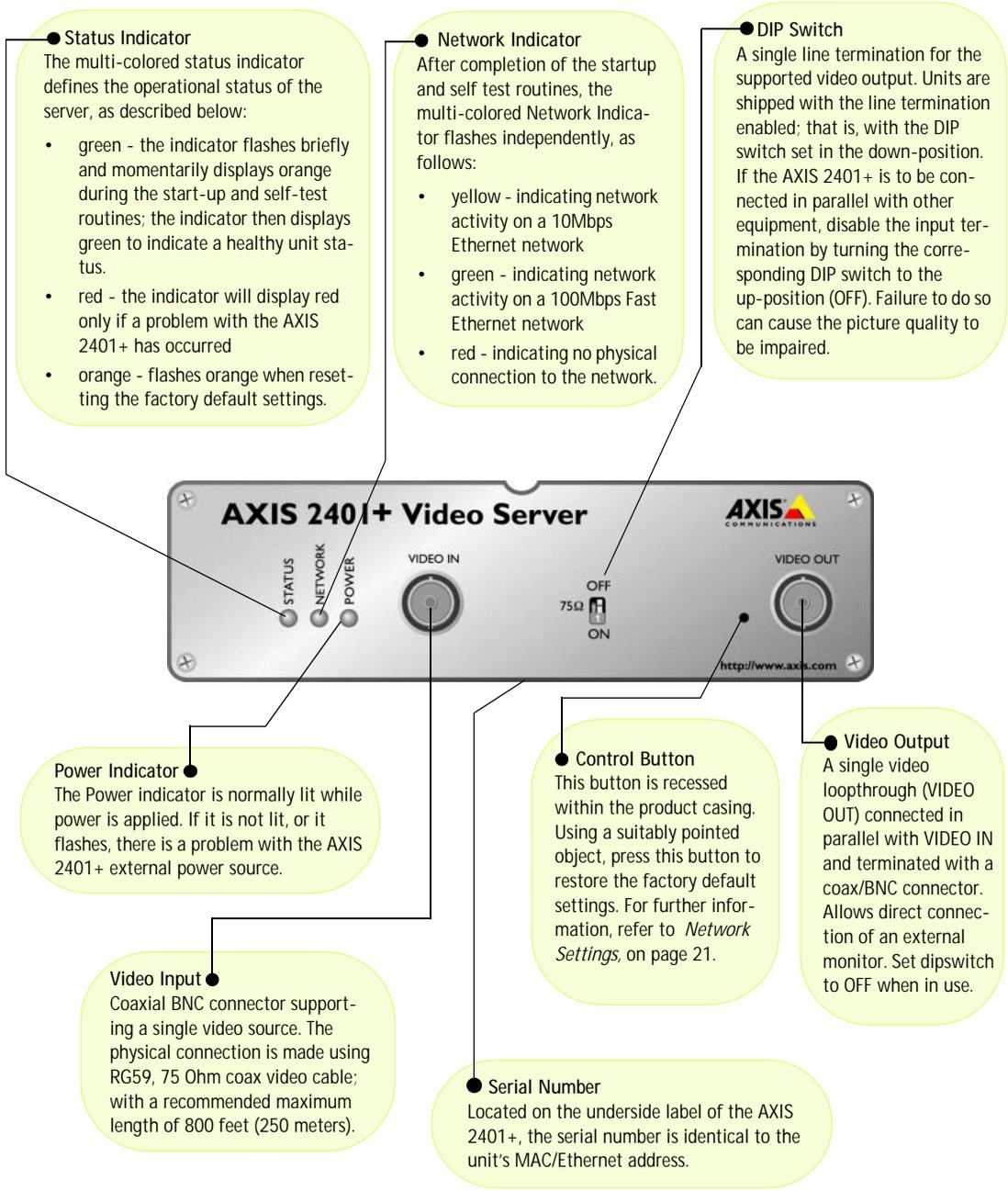- orange - flashes orange when resetting the factory default settings.

● **Network Indicator**
After completion of the startup and self test routines, the multi-colored Network Indicator flashes independently, as follows:

- yellow - indicating network activity on a 10Mbps Ethernet network
- green - indicating network activity on a 100Mbps Fast Ethernet network
- red - indicating no physical connection to the network.

● **DIP Switch**
A single line termination for the supported video output. Units are shipped with the line termination enabled; that is, with the DIP switch set in the down-position. If the AXIS 2401+ is to be connected in parallel with other equipment, disable the input termination by turning the corresponding DIP switch to the up-position (OFF). Failure to do so can cause the picture quality to be impaired.

AXIS 2401+ Video Server   **AXIS**
COMMUNICATIONS

STATUS NETWORK POWER   VIDEO IN   OFF   75Ω   ON   VIDEO OUT

http://www.axis.com

Power Indicator ●
The Power indicator is normally lit while power is applied. If it is not lit, or it flashes, there is a problem with the AXIS 2401+ external power source.

● **Control Button**
This button is recessed within the product casing. Using a suitably pointed object, press this button to restore the factory default settings. For further information, refer to *Network Settings,* on page 21.

● **Video Output**
A single video loopthrough (VIDEO OUT) connected in parallel with VIDEO IN and terminated with a coax/BNC connector. Allows direct connection of an external monitor. Set dipswitch to OFF when in use.

Video Input ●
Coaxial BNC connector supporting a single video source. The physical connection is made using RG59, 75 Ohm coax video cable; with a recommended maximum length of 800 feet (250 meters).

● **Serial Number**
Located on the underside label of the AXIS 2401+, the serial number is identical to the unit's MAC/Ethernet address.
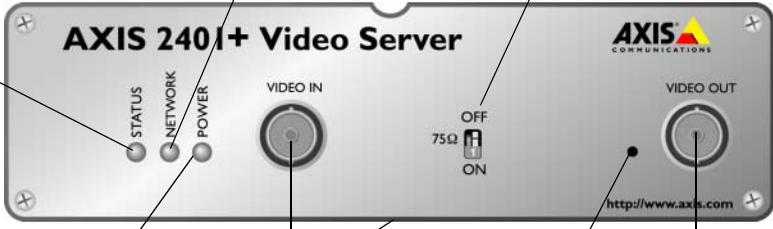
AXIS 2400+/2401+ Rear Panel

● Power Supply Connector
A single Jack socket (PS-D) for connection of the AXIS 2400+/2401+ power supply. The terminal block connector provides an auxiliary connection point for AC or DC power to the unit.

● I/O Terminal Block
The I/O Terminal Block connector is located between the two serial ports on the rear panel and provides the physical interface to one relay switch output, four digital photo-coupled inputs, and an RS-485 interface. Use this connector for transmitting data over multi-drop communication lines, RS-485 Pan Tilt devices, and external triggering - typically associated with CCTV equipment. The connector can be utilized as an alternative connection point for DC supply to the unit.

RS-232 Serial Connectors ●
Two 9-pin D-sub connectors providing RS-232 serial connection. Typically used for Pan/Tilt device interface. COM1 is multiplexed with the RS-485 port via the Terminal Block Connector. COM2 can also be used for connecting a modem or the AXIS 2191 Audio Module.

Network Connector ●
The AXIS 2400+/2401+ is designed for 10 Mbps Ethernet and 100 Mbps Fast Ethernet networks and connects to the network via a standard RJ45 connector. Supporting NWAY, the AXIS 2400+/2401+ detects the speed of the local network segment and varies the speed of data communication accordingly (between 10 Mbps and 100 Mbps).

Hardware Inventory

Check the items supplied with your AXIS 2400+/2401+ against the following list:

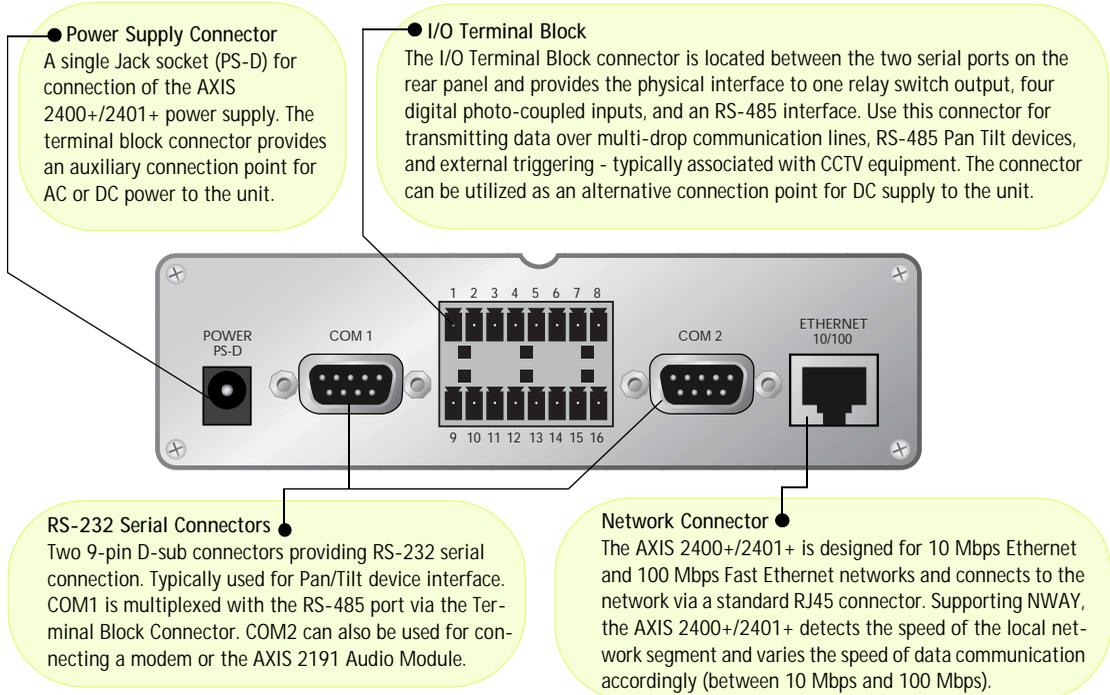| Item	Title/Variants	Item	Title/Variants
Video Server	AXIS 2400+ AXIS 2401+	Power Supply (PS-D)	Europe UK Australia USA Japan
Printed Items	AXIS 2400+/01+ Administration Manual v1.02		
	Warranty Document		

Note:
- The power supply for your AXIS 2400+/2401+ is country-specific. Please check that the type you are using is correct.
- The AXIS 2400+ and AXIS 2401+ are also available as Blade versions for rack mounted video server solutions. See the Axis Web site at www.axis.com for more information.
- If you are installing an **AXIS 2400+ Blade** or **AXIS 2401+ Blade**, please refer to the **Axis Rack Mounted Video Server Solution Installation Guide** for additional instructions.

Installing on a Network

- Standard installation - Follow the instructions below to install on an Ethernet network.
- *Alternative IP Setup Methods,* on page 11 (UNIX, Macintosh, Windows)
- These instructions are available in German, French and Spanish. Refer to *Table of Contents,* on page 3

❶Connect the video output of your camera(s) to the AXIS 2400+/2401+ video port(s) using standard 75 Ohm coaxial video cable, with a BNC-connector. If your camera is supplied with a standard phono-type (RCA) connector, use a BNC-to-RCA converter.
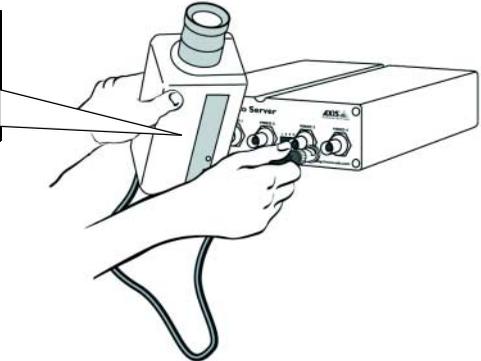
❷Note the Serial number on the underside of the unit. You need to know this to set the IP address.
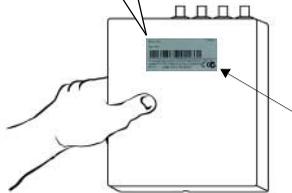
Serial number same as MAC/Ethernet number; e.g. 00408c100086 = 00-40-8c-10-00-86

❸Using an appropriate method for your operating system, assign your product with a unique IP address from a computer on your network, as follows:

Windows only - Start a DOS window and type these commands:

Syntax - The ping command is followed by -I (lower case L):

```
arp -s <Server IP address> <MAC/Ethernet address>
ping -I 408 -t <Server IP address>
```

Example:

```
arp -s 172.21.1.200 00-40-8c-10-00-86
ping -I 408 -t 172.21.1.200
```

UNIX only - Type this in your command line:

Syntax:

```
arp -s <IP address> <MAC/Ethernet address> temp
ping -s 408 <IP address>
```

Example:

```
arp -s 172.21.1.200 00:40:8c:10:00:86 temp
ping -s 408 172.21.1.200
```

Note: In some Unix systems, the arp command can be located in a directory that is not on the command path.

You will now see '`Request timed out...`' messages repeatedly returned in the window.

❹Connect an Ethernet cable to the AXIS 2400+/2401+ and attach it to the network.

Network socket

RJ-45 connector

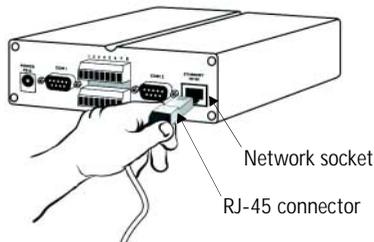Power Supply Connector

❺Connect the power supply to the unit and connect it to your main power supply.

❻Approximately 10-15 seconds after connecting the power supply, the message 'Reply from 172.21.1.200...' - or similar, is returned within the window. Ensure that the Power Indicator is permanently lit and that the Network Indicator flashes intermittently.

❼Exit ping. The installation is now complete, and you are ready to access the AXIS 2400+/2401+ from your browser, as described in the next section.

AXIS 2400+ Video Server

Network Indicator

Power Indicator
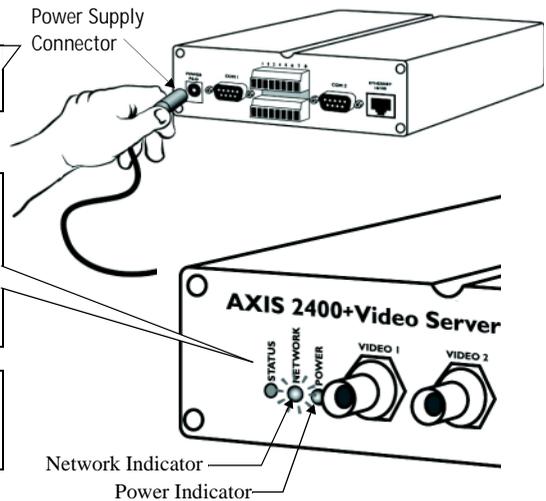
Verifying and Completing the Installation From Your Browser

❶Start your browser and enter the IP address of the AXIS 2400+/2401+ in the location/address field.

❷Click the Installation Wizard. The wizard guides you through the remaining installation procedures.

Important!

- The AXIS 2400+/01+ is supplied with one pre-configured Administrator user name and password, set to **root** and **pass**, respectively. The Administrator password must be changed to prevent unauthorized access to the Admin Tools and/or product images, as defined in the Security Settings.
- To enable live images in Microsoft Internet Explorer, set your browser to allow ActiveX controls and perform a once-only installation of Axis' ActiveX component onto your workstation (as prompted). If your working environment restricts additional software components, you can configure your AXIS 2400+/01+to use a Java applet for updating the images (Web page - Image Settings).

Alternative IP Setup Methods

As an alternative to the ARP command, you can set the IP address for your AXIS 2400+/2401+ using one of the following methods depending on your operating system:

Before you begin:

- Make sure the AXIS 2400+/2401+ is powered up and connected to the network.
- Acquire an unused IP address from your Network Administrator, do NOT attempt to use the IP address in the examples in this manual.
- No special privileges required for Windows 95/98/ME or XP (Home)
  Administrator privileges required for Windows NT/2000 and XP (Professional)
  Root privileges required for UNIX systems
- The AXIS 2400+/2401+ is pre-configured with a unique Ethernet/MAC Address based on the serial number printed on the underside label of the unit.

UNIX

BOOTP - this method operates over the entire network. A request to an active daemon initiates a search of the boot table to find an entry matching the unit's Ethernet address. The daemon downloads the IP address to the device if a match is found (requires a BOOTP daemon on your system).

Macintosh

Before you begin:

- The AXIS 2400+/2401+ has a default IP address of **192.168.0.90**
- Changing the IP address for a Macintosh does not require a reboot
- There are limitations in the ActiveX Support in Internet Explorer running on the Macintosh. The recommended solution for viewing images from the AXIS 2400+/2401+ on a Macintosh work station is to use Netscape Navigator

Setting the IP address from a Macintosh workstation:

1. Assign a temporary IP address to your Mac workstation in the same subnet as the default IP address of the AXIS 2400+/2401+ (e.g. 192.168.0.91).

2. Enter the default IP address (**192.168.0.90**) in your browser to access the internal Web pages of the AXIS 2400+/2401+.

3. Run the **Installation wizard** in the AXIS 2400+/2401+ and set the desired IP address.

4. Reset the correct IP address for your Macintosh workstation.

5. Proceed to *Verifying and Completing the Installation From Your Browser,* on page 10

Windows

AXIS IP Utility is a Windows software application that installs the AXIS 2400+/2401+ to your network.

Download the AXIS IP Utility software free of charge from the Support pages. Double-click the setup.exe file and follow the on-screen instructions to install the software on your computer.

Follow the instructions below to set the IP address using AXIS IP Utility:
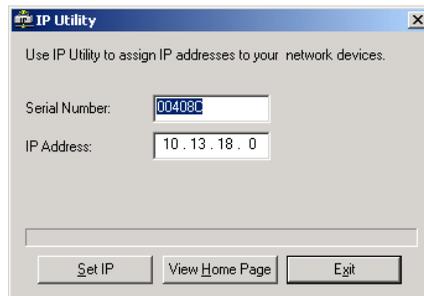
1. Acquire an unused IP address for your AXIS 2400+/2401+.
   Note: AXIS IP Utility detects the IP address subnet your computer is connected in. The video server must be connected in the same subnet.

2. Connect the AXIS 2400+/2401+ to your network using a standard (RJ-45) network cable.

3. Connect the power to the AXIS 2400+/2401+.

4. Start **AXIS IP Utility** on your computer.

5. Enter the serial number (the serial number is located on the label on the underside of the video server):

6. Enter the IP address acquired for your AXIS 2400+/2401+ and click **Set IP**.

7. When prompted by AXIS IP Utility, restart the video server by disconnecting and reconnecting the external power supply.

8. A message confirming that the IP address has been set will be displayed, click **OK**.

9. Click **View Home Page** to access the internal Web pages of the AXIS 2400+/2401+.

10. Proceed to *Verifying and Completing the Installation From Your Browser,* on page 10.

Configuring the Video Server

After deciding on the application you wish to develop and having installed your AXIS 2400+/2401+, the unit is now connected directly to a local area network.

This section describes how to configure the AXIS 2400+/2401+ and is intended specifically for product *Administrators* – who normally have high-level privileges denied to ordinary *users*.

The AXIS 2400+/2401+ is configured from a standard browser (Netscape Navigator 4.x or Microsoft Internet Explorer 4.x/5.x), by using the **Administration Tools**.

Important!

> To access the AXIS 2400+/2401+ configuration pages, you must first set the IP address, as described in *Installing on a Network,* on page 9.

The Administration Tools

The Web-based Administration tools are displayed in an intuitive graphical user interface that allows simple point-and-click system configuration. How to access and use the tools is explained in the following pages.

Tip!   On-line help 🅿 is available on every page of the AXIS 2400+/2401+Web interface.
This information is of particular relevance when configuring the unit and should be used as a
first point of reference for resolving any administration queries. The help system is stored
internally in the unit.

Accessing the Tools

Follow the instructions below to access the Administration Tools from a browser:

1. Start the browser and enter the name or IP address of the AXIS 2400+/2401+ in the location/address field.

Example!

```
http://172.21.1.200/
```

2. The **Application** page is now displayed. Click the **Admin** button to display the **Administration Overview** page and the *Administration Tools*.

3.   The various components of the video server are shown as icons on the page. Simply click the desired component and configure it directly from here.
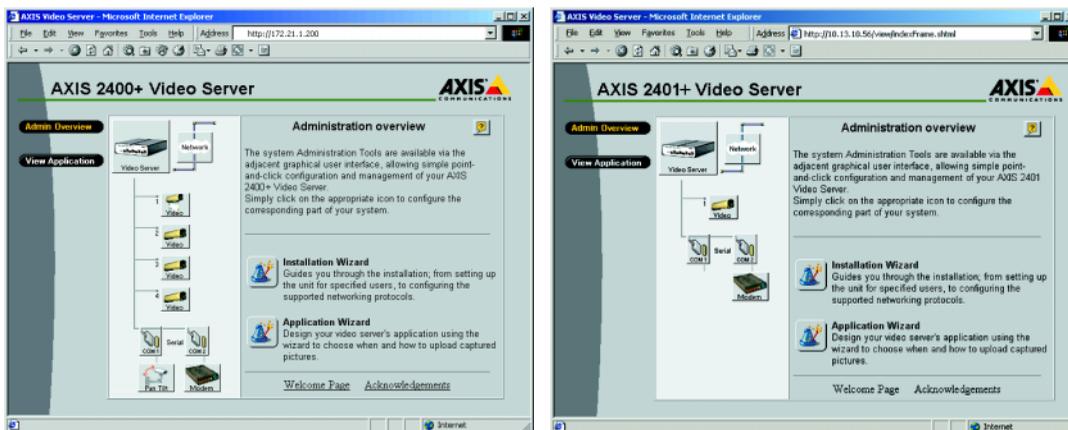
Important!

- If this is the first time you have accessed the AXIS 2400+/2401+, the Welcome page will be now be displayed. Click the button for the **Installation Wizard** and configure your application.
- To enable the updating of images in Microsoft Internet Explorer, set your browser to allow ActiveX controls and perform a once-only installation of Axis' ActiveX component onto your workstation. If your workstation restricts the downloading of additional software components, you can alternatively configure your AXIS 2400+/2401+ to use a Java applet for updating the images.
- *Administrators* can choose <u>not</u> to display the Administration and other navigational buttons from the user interface. Selecting this feature ultimately means that the Administration tools can then only be accessed by entering the full *Admin* address into the browser's URL field; for example: http://172.21.1.200/admin/.

Admin Tools - Overview
The **Administration Tools** provide access to the following tools and parameters:

Admin Overview

Installation Wizard — Sets all of the parameters required for securely viewing images directly in a browser; including: TCP/IP (Network), SMTP (e-mail), Date/Time, and System Security settings.

Application Wizard — Use the *Application Wizard* for developing the following applications:
- transmitting images to a remote server on your network
- sending e-mails with embedded images, or links to recorded video streams
- developing alarm or time-based image applications

General — Video Server

Date and Time — Set the system date & time, manually or automatically.

Security — Define the user name and password for administratrors and users.

Layout — Choose your default viewer and personal settings.

View Parameter List | View Log File
View Server Report
View Release Notes — These 4 buttons show various product information.

Factory Default — Set server parameters to factory default.

Restart — Restart the AXIS 2400+/2401+.

Network — Specify the system settings for the supported networking protocols, including: TCP/IP (Network settings), DNS (Domain Name System Settings) and SMTP (E-Mail Settings). Also provides access to the settings for Dynamic IP Address Notification

Video
(with or without Pan/Tilt)

Driver Specific Settings — Refine the Driver Specific Settings. (Only visible if the video source is connected to a pan tilt device).

Image — Set the image features; such as: displaying text, clock, color, Black & White etc.

Preset Positions — Create and recall Pan Tilt and Zoom preset conditions (only visible if the video source is connected to a pan tilt device).

Modem — Define the type of modem to use and specify the flow control, initialization string and other settings. (COM2 only). — Configure the connection to your ISP and edit PPP-scripts.

Audio — Use and configure the AXIS 2191 Audio Module (COM2 only).

COM Port — COM 2

Pan Tilt — Select a pan tilt device. Note: This icon is displayed under a Serial Port icon only if the purpose of the serial port is defined as Pan Tilt.

Designing your Application

Using the Wizards

Click the **Admin Overview** button and use the **Wizards** (explained below) to quickly establish the parameters necessary for an application:

Installation Wizard

Sets all of the parameters required for viewing images directly in a browser.

Parameters / Options	Description
Users	Define or edit the Administrator password (the Administrator user name is permanently set to **root**, and the default password is set to **pass**), or define, add and delete user names and passwords.
TCP/IP	Specify the IP Address for your AXIS 2400+/2401+. If you intend to use DNS names, specify the Domain Name and the IP-addresses for the primary and secondary DNS servers. You may also optionally specify a Host Name for the AXIS 2400+/2401+. There is also an option for restricting the network bandwidth usage and for selecting the appropriate media.
Date and Time	Synchronize the internal clock of the AXIS 2400+/2401+. This can be done manually or automatically, from an NTP server or your computer clock. There is also an option that automatically adjusts the time for daylight saving.
Image Settings	Choose monochrome or color images, and define the quality of the images. Remember: the higher the quality of the images - the greater the file sizes and the network bandwidth requirements.
Video Modulation	Detection of the type of video modulation used.

Application Wizard

Use this wizard to develop applications for:

- Transmitting images to a remote server on your network
- Sending e-mails with embedded images or links to recorded video streams
- Developing alarm or time-based image applications

Parameters / Options	Description
Upload Images	Specify the video sources and proceed to define how and when your images will be transmitted: • upload images continuously • upload images only when an alarm event occurs.
Alarms and buffers	Define: • digital input alarm conditioning • pre- and post-alarm buffer settings

Parameters / Options	Description
Destinations	Configure: • network protocol for uploading images (FTP or SMTP) • SMTP settings and the e-mail recipient (if used) • FTP path name and security settings (if used)

Upload images via FTP

File Transfer Protocol (FTP) is used to exchange files between computers on a network. Using the **Application Wizard**, configure the AXIS 2400+/2401+ to upload images to an FTP server on your network.

Before you begin:

> If you do not have an FTP server on your network, you can install one on your own computer. Both Commercial FTP servers and freeware are available.

Check your FTP server connection to make sure that you have access to the files and that the Host Name /IP address is valid. If the connection is OK, proceed to the **Application Wizard** to configure the video server to upload images to your FTP server. Note: To avoid unnecessary DNS traffic and to speed up the connection, it may be better to use the IP address instead of the Host Name, If you are using the Host Name, make sure that you specify your DNS server details in **Admin	Network Settings	DNS**	1 Start a Command Prompt on your PC: 2 Type: ftp yourcompany.com and press **Enter** 3 Type: your username and press **Enter** 4 Type: your password and press **Enter** 5 You should receive: **User logged on** 6 Type: **dir** 7 You should receive **the list of files on your FTP server** Note: check the file structure in order to know which 'Upload Path' to define (see below)

In the **Application Wizard**, enter the following information:

1. Select the video cameras (1-4) providing the images to be uploaded *(AXIS 2400+ only)*

2. Define when the images are to be uploaded - continuously or when an event occurs.

3. Define the preferred protocol (FTP).

4. Enter the Host Name or IP address of the FTP server.

5. Enter the user name and password of your FTP server.

6. **Detailed FTP setting for the advanced user**: if there is a firewall between the video server and FTP server, you may need to check **Use Passive Mode**.
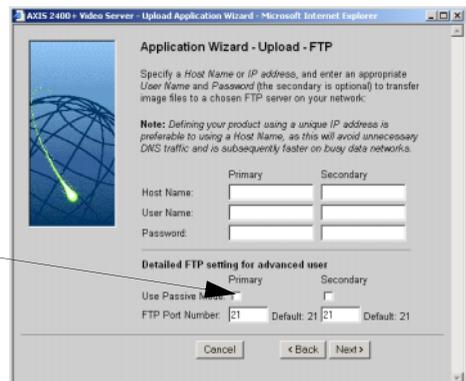
7. Upload path - enter the path to the folder on your FTP server where the images are to be stored e.g. images/

8. **Base File Name** - enter a descriptive name for the uploaded images (default 'image').

9. Enter the desired image size and select one of the options (see descriptions below):

Overwrite	The latest uploaded file will overwrite previous files
Date/time Suffix	Each uploaded file will be saved as 'FileNameDateTime.jpg' e.g. image_YYMMDD_HHMMSS
Sequence Number Suffix set to Maximum	Each uploaded file will be saved as 'FileName1.jpg' with no limit to the amount of files uploaded.
Sequence Number Suffix set Up To:	Each uploaded file will be saved as 'FileName1.jpg' with a set limit. When the limit is reached, the files will be named 'FileName1.jpg' and will overwrite existing files of the same name.

- Allowing unlimited files to be uploaded may cause capacity problems, depending on the configuration of the FTP server
- All uploaded images will be in the JPEG format

10. Once the Application Wizard is completed, click **Finish** to save the settings

Upload images via SMTP

Using the Application Wizard, configure the AXIS 2400+/2401+ to send live images as an email attachment to a pre-defined email address or address list.

1. **To Email** - define the email address of the recipient(s)

2. **Subject** - enter a text for the email subject field e.g. Video Server image

3. **Text** - enter a text to include in the email e.g. Image generated by an Axis Video Server

4. **Server Link** - include a link to the AXIS 2400+/2401+ in the email

5. Once the Application Wizard is completed, click **Finish** to save the settings

Having used the Wizards for initially configuring your application, refer to the on-line Help and use the Administration Tools for refining the application to meet your specific requirements.

General Server Settings

Click the **Video Server** icon to display and/or edit the following settings:

Date and Time

Click the **Date and Time** icon to set the date and time, automatically, or manually. Automatic setting of the date and time requires you to either synchronize the time with that on your computer or, alternatively, to provide the IP address of an NTP server. To automatically adjust the time to reflect changes made by daylight saving, check the box provided. Click **Save** to register the settings with the Video Server.

Security

To prevent unauthorized use of the Video Server, access is password-protected and restricted to defined *Users* and *Administrators* <u>only</u>. *Administrators* have unrestricted access to the Administration Tools and can determine the registration of all other *users.*

As an *Administrator*, click the **Security** icon to either:

- define or edit the *Administrator* password (the Administrator user name is permanently set to *root*, with the default password set to *pass*)
- configure, add or delete user names and passwords

Important!

> Upon delivery, the AXIS 2400+/2401+ is configured for open access (anonymous users), with one pre-configured Administrator user name and password, set to *root* and *pass*, respectively. The Administrator password <u>should always be changed</u>, to prevent unauthorized access to the Admin Tools and/or product images. Furthermore, all Axis products are supplied with these defaults.

By default, the AXIS 2400+/2401+ supports anonymous user access, which means that anybody on the Internet/intranet has access to the video images and Admin Tools from a browser. Entering at least one user name and password for an authorized user in the Security page will disable anonymous access, and thereafter only allow defined users. If the anonymous user service is satisfactory for your application, do not add any users. The Administrator password should, however, still be changed.

Layout Settings

Using the Layout settings, you can define your default viewer and enable a wide range of personal features for inclusion on the product's **Home Page**.

Default viewer for Internet Explorer

To enable the updating of images in Microsoft Internet Explorer, set your browser to allow ActiveX controls and perform a once-only installation of the Axis ActiveX component onto your workstation. If your computer restricts the downloading of additional software components, you can instead configure your AXIS 2400+/2401+ to use a Java applet for updating the images. Click the appropriate button for your choice and then click **OK**.

Personal Settings

Many of the features on the Home page can be customized. For example, you can quickly change the background color and include your corporate logo by clicking the appropriate radio buttons and providing the appropriate URL for any given object.

Refer to the on-line help for more information on personal settings.

Caution!

Unchecking the **Show Admin** box removes the Admin button from the product Home Page, and effectively means that the Administration Tools can then only be accessed by entering the full Admin address into the browser's URL-field; for example: http://172.21.1.200/admin/.

View Parameter List

The Parameter List provides a comprehensive list of all of the system parameters and their current settings. Click **View Parameter List** to display the list.

View Log File

System messages are recorded in a single log file and stored in product memory. Consequently, the file can be used for examining system events. The log file also serves as a useful diagnostic tool when attempting to resolve any problem that might occur. See also *Troubleshooting,* on page 42.

To display the latest server messages since the last *Restart* of the system, click the **View Log File** button.

View Server Report

This button shows important information about the server status and settings.

View Release Notes

This button opens a window showing the release notes for the installed firmware.

Emergency Actions

In certain circumstances it may become necessary to perform a **Restart** of the AXIS 2400+/2401+, or to return it to its **Factory Default** settings. Both of these actions can be performed by clicking the appropriate button on this page. Please see *Resetting to the Factory Default Settings,* on page 27, for more information.

Network Settings

Click the **Network** icon to display, edit and refine the settings for:

• **TCP/IP** - used by the Video Server for transmitting data over the network.

• **DNS (Domain Name System)** - the Internet service used by the product for translating domain names into IP addresses.

• **SMTP (E-mail)** - this is the protocol for sending e-mail messages between mail servers on the network.

• **Miscellaneous** - set the network media and to restrict the bandwidth used by the product.

Configure the Network Settings with reference to the on-line help and the table below:

TCP/IP Parameters	Description
DHCP	Enable DHCP to allow automatic IP address assignment. Requires a DHCP server on the network.
BOOTP	Enable the BOOTP protocol for automatic IP address assignment. See *Alternative IP Setup Methods,* on page 11.
IP address	Specifies the video server's IP address.
Default Router	Specifies the network router the video server will use.
Subnet Mask	If unsure what value to use, contact your system administrator. Typically set to 255.255.255.0.
Host Name	If you are using a DNS server on your network (see below), this is usually the same as the assigned DNS Name.

DNS Parameters	Description
Domain Name	Enter the name of the domain your AXIS 2400+/2401+ belongs to.
Primary DNS	Defines the IP address of the primary DNS server. This is used for identifying a computer by name instead of IP address.
Secondary DNS	The IP address of the secondary DNS server. This will be used if the primary DNS server is unavailable.

SMTP Parameters	Description
Primary Mail Server	Defines the server that provides your mail facilities.
Secondary Mail Server	Defines a secondary server that can provide mail facilities in the event of the primary server being unavailable.
Return Address	The reply address for e-mails sent by the AXIS 2400+/2401+; that is, the name that will appear in the 'From' field of the dispatched e-mail.

Miscellaneous	Description
Select Media	This does not normally need to be changed, but if you have specific needs - due to the use of network switches or similar equipment, select the type of network media here.
Max Bandwidth	With the default set to unlimited, this parameter defines a restriction on the network bandwidth used by the video server; particularly useful for a connection to a busy network.
HTTP Port Number	This does not normally need to be changed, but may be, if you have particular requirements. Typically set to port 80.

DHCP

DHCP (Dynamic Host Configuration Protocol) is a protocol that lets network administrators centrally manage and automate the assignment of IP addresses in an organization's network.

Important!

DHCP should only be enabled if you know which IP address the AXIS 2400+/2401+ will get from the DHCP server, or if your version of DHCP can update a DNS server, which then allows you to access the AXIS 2400+/2401+ by name. If DHCP is enabled and you cannot access the unit, you may have to reset it to the factory default settings (see page 27) and then perform the installation again (see page 9).

Dynamic IP Address Notification Settings

When the IP address changes by means beyond your control, such as by DHCP or PPP, you can choose to be notified of the change via HTTP, FTP or SMTP. Click the icon to display, edit and refine the settings for address notification.

Referring to the on-line help and the table below, configure the dynamic IP address notification settings.

Parameter	Description
HTTP	Enabling HTTP means the server will send an HTTP GET request to the specified URL. This can then easily be taken care of by a designated cgi-script, which registers the request by some means. Custom parameters can be used by entering them in the field provided. The fields User Name and Password, (located directly below the field for Custom Parameters) should be used if the script is password protected. If you need to pass a proxy server to connect to the URL for the host, provide your user information in the relevant fields. See also the On-line help for more information.
SMTP	Enabling SMTP will send an e-mail notification of any change in IP address. Enter the recipient's address and a sender's address, as well as any text you want to appear in the subject of the e-mail. Note that you must configure the mail server under Network Settings. See also the On-line help for more information.
FTP	Saves a notification file on an FTP server. Provide the connection details for the server and your user name and password. If there is a firewall between the server and the FTP server, it is recommended that Passive Mode is enabled. There are 3 levels of TXT Type to choose from; **Short** - the IP address only; **Extended** - multi-line file; and **HTML** - contains the same information as Extended, but includes HTML tags. See also the On-line help for more information.
TXT Field	Specify your own text to include in the notification.

Video Settings

Each **Video** icon in the graphic display represents a supported video input to the AXIS 2400+/2401+. A video source that is not enabled will be indicated by the **Disabled** icon; whereas a cross (**x**) visible to the left of the icon means that the input is enabled, but the associated video signal is not present on the input. Click a video icon to configure that camera/source.

Enabling and Disabling - Checking the *Video enabled* box enables or disables the respective video port. Disabling the source will disable the Video icon in the application page.

Pan Tilt Serial Port - From the drop-down list, choose the serial port that will control the respective video source. The devices displayed in the drop-down list correspond to the defined Purpose of the port and selected device for each port. Please see the Axis Web site at www.axis.com for a list of currently supported devices. Selecting a COM-port that has been configured for pan tilt will reveal a button that opens the dialog for making **Driver Specific Settings**.

Important!

> The port must be defined as a Pan Tilt port before you can select it for controlling the video source.

Image Settings

Click the **Image Settings** button to set the image features for the video source(s).

As the AXIS 2400+ supports up to four video inputs, you can choose to implement your preferred settings *generically* - that is, for all connected video sources, or *specifically* - limiting your settings to the selected video source.

From the **Apply settings to** drop-down list, select whether your settings are to be applied *specifically* or *generically*; that is, to **Video X (1,2,3 or 4)** or to **All Videos**.

With reference to the table below, configure the image settings to your requirements:

Header	Description
Date & time	Check to enable time display in the selected video source(s).
Text	Enable or disable the display of a text string in the selected video image. Type the text string that you want to display in the adjacent field.
Image	
Color	Display *Color* or *Black and White* video images.
Resolution	Set the required resolution for your images.
Compression	Determines the compression factor (0-100) for the selected video source. Lower compression optimizes picture quality, but generates larger image file sizes, requiring greater network bandwidth and storage space.
Offset Adjustments	
XOffset, YOffset	Enter values in these fields to change the horizontal and vertical synchronization for the image(s). This can be used to eliminate any black border surrounding the image.

Notes: • Image control can also be achieved directly using CGI parameters in the image URL. See below for more information.

CGI parameters - using CGI parameters embedded in a URL request will temporarily override any parameters defined in the Image Settings dialog. For detailed CGI information, refer to the Axis Camera API, HTTP - Interface Specification, available from our website at www.axis.com

HTTP API - All Axis network cameras and video servers have an HTTP-based application programming interface (API). This HTTP API provides functionality for requesting images, controlling network camera functions (PTZ, relays etc.) and setting/retrieving internal parameter values. The purpose of the API is to make it easier to develop applications that support Axis network video products. For examples, please refer to *Controlling and Monitoring,* on page 40.

Preset Positions

(This button is only visible if a Pan / Tilt device has been configured)

To enable quick and accurate camera PTZ positioning to known camera *hotspots*, the Administrator can control and record any camera orientation as a named entity - creating up to twenty **Preset Positions** that can be used at any time.

Defining Preset Positions
The camera *orientation* for the selected video source is controlled by Pan Tilt and Zoom control bars. Follow the instructions below to define a preset position:

1. Click the **Preset Position** button. An image from the selected source (at its current position) is displayed in a new window.

2. By clicking in the image or by using the **Pan Tilt** and **Zoom** control bars, move the camera to the desired position.

3. Enter a descriptive name in the **Current Position** field.

4. Click **Save** to register the new preset position with the AXIS 2400+/2401+ and then check that the new name is included in the **Preset Positions** drop-down list. You can alternatively choose to save the position as a new **Home** position. Setting Home positions for several video sources (AXIS 2400+ only) will cause these to be named as **Home1**, **Home2**, etc.

5. Click **Remove** to remove this or any other preset position in the list.

Established preset positions are selected from the **Preset Positions** drop-down list in the application viewing environment, or when viewing a specific video source.

Serial Port Settings

The AXIS 2400+/2401+ is supplied with two internal serial ports that are managed directly from the user interface:

- **Serial Port 1**- Typically used for controlling PTZ devices, this port can be logically connected to the **RS-232 COM 1** port or the **RS-485/422** port on the **Terminal Block Connector**, and is configurable as either an RS-232 or RS-485/422 port.
  Click the **COM1 icon** in the graphic interface to determine the **Purpose**, **Interface Mode** and **Communication Settings** for the port.
- **Serial Port 2** - logically connected to COM2, this port is used for connecting a PTZ device, a modem, or the AXIS 2191 Audio Module. Click the **COM2** icon in the graphic interface to set the **Purpose** and **Communication Settings** for the port.

Purpose

From the drop-down list, select the purpose of the port from the following alternatives:

- **Pan Tilt** - Select this if you wish to use a Pan Tilt Zoom device. An icon for PTZ appears below the port icon. Click the PTZ icon and, from the drop-down list, choose from among the Pan Tilt devices supported by the AXIS 2400+/2401+. See the Axis Web site at www.axis.com for a list of currently supported devices.
- **Modem** - Select this to connect a V.90 compatible modem to your AXIS 2400+/2401+ (Port 2 only).
- **AXIS 2191 Audio Module** - This add-on device, supplied separately, provides your video server with audio capability. Please visit the Axis Web site for more information.

Interface Mode (COM1)

From the drop-down list you can configure **COM1** as either an **RS-232** or an **RS-485** port. Selecting the former logically connects **Serial Port 1** to the **COM1** connector, whereas the latter connects the port to the **Terminal Block Connector**.

Notes: •Most CCTV equipment supports the RS-485 standard - a bi-directional, half-duplex standard for transmitting data over multi-drop communication lines. Supporting up to 32 drivers and 32 receivers over a single twisted-pair cable, the maximum cable length should not exceed 4000 feet (1220 meters). Typically used for connecting a single PC to several addressable devices over the same cable.

•Many Video cameras support RS-232, as it provides for reliable point-to-point communication at low data transmission rates. Your wiring distances should be limited to 200 feet (60 meters) for asynchronous data lines, and to about 50 feet (15 meters) on synchronous lines.

COM Settings

Using the drop-down lists for **Baud Rate**, **Data Bits**, **Stop Bits** and **Parity**; match the AXIS 2400+/2401+ data transmission formats with the devices connected to the COM1 and COM2 ports. Select the default settings or make your own adjustments to suit.

Note: Detailed communication settings for each supported Pan/Tilt device can be obtained from www.axis.com. See also the documentation supplied with your Pan Tilt device.

Pan Tilt Settings

Before selecting an appropriate driver for connecting Pan Tilt devices:

• Ensure that your pan tilt devices are properly connected. Instructions for the physical connection of pan tilt devices are provided in *The RS-232 Interface*.
• Define the port's *purpose* as **Pan Tilt**. See page 25.
• Specify the related *Interface Mode (COM1 only).*
• Define the *Communications Settings* for the serial port.

Choosing the Pan Tilt Driver

The AXIS 2400+/2401+ supports a variety of stand-alone Pan Tilt devices as standard. Follow this procedure to set up your Pan Tilt device:

1.   Select the icon for the COM-port you have set to use Pan Tilt.

2.   Click the **Pan Tilt** icon under the port icon and select the driver for your Pan Tilt device. Click **Save**. The video server will then request a restart. Click **OK**.

3.   Click the Video icon for the video input you wish to use with the selected driver. Under **Pan Tilt Serial Port**, select the COM-port you configured in steps 1 and 2.

4.   If there are **Driver Specific Settings** available for the driver, a button is provided for this purpose. If the default settings are OK for your needs, then you need do nothing. For specific instructions on how to refine the respective Driver Specific Settings, see the list of supported Pan Tilt devices at www.axis.com. See also the documentation supplied with your PTZ device.

Modem Settings

After configuring COM2 to use a modem, click the **Modem** icon to select and configure your modem. The AXIS 2400+/2401+ supports most v.90-compatible modems. Click the **ISP** icon to define the connection to your ISP. To edit the supplied modem and PPP scripts, click **Advanced Modem Settings**. These scripts should be used with caution - if not used correctly they may render your unit unusable.

Refer to the on-line help for more information on these topics.

Resetting to the Factory Default Settings

In certain circumstances, it may be necessary to reset to the **Factory Default** settings for your AXIS 2400+/2401+. This is performed by clicking the appropriate button within the **Administration Tools**, *or* by using the **Control Button**.

The Control Button is recessed within the product casing and located between the VIDEO 3 and VIDEO 4 input connectors on the AXIS 2400+, and to the left of the VIDEO OUT connector on the AXIS 2401+.

Follow the instructions below to reset to the product factory default settings, using the Control button:

1. Switch off the AXIS 2400+/2401+ by disconnecting the power cable.

2. Using a suitably pointed object, press in and keep the Control Button pressed. While the button is pressed, reconnect the power supply cable.

3. Keep the button pressed until the Status Indicator displays *yellow* (note that this may take up to 15 seconds). Now release the Control Button. When the Status Indicator changes to *green* (which may take up to 60 seconds) the AXIS 2400+/2401+ will then have been reset to the original factory default settings.

Note: Resetting to the factory default settings will cause <u>all</u> parameters (including the IP address) to be reset. Refer to *Installing on a Network,* on page 9, or *Other IP Setup Methods,* on page 32, for information on how to set the IP address.

Using the Video Server

This section is intended specifically for system *Users*; that is, personnel responsible for using the AXIS 2400+/2401+ as part of an integrated surveillance system.

Important!

- Your system *Administrator* has installed the AXIS 2400+/2401+ on your computer network, connected one or more surveillance video cameras to the unit, and tailored the user functions and general look and feel of the system to meet your specific surveillance needs. Consequently, many of the functions and examples provided within the section may differ from those displayed in your system.
- Any deficiencies or shortcomings in your application should be referred to the system administrator, who has high-level privileges that are normally denied to ordinary users.
- On-line help 🔁 may not be available from the user interface, as access to this information may be denied by your system administrator.

Accessing your Surveillance Images

The AXIS 2400+/2401+ can be used with most operating systems; Windows, Linux, UNIX, Mac, and several others. You can access the AXIS 2400+/2401+ from Netscape Navigator 4.x or Internet Explorer 4.x or 5.x (see the note below).

Follow the instructions below to access your surveillance images:

1. Start your browser.

2. Enter the name or IP address of the AXIS 2400+/2401+ into the **Location/Address** field (URL) of your browser:

Example!

```
http://172.21.1.200/
```

A video image, similar to one of the examples featured on page 29, is now displayed in your browser.

Note: To enable the updating of images in Microsoft Internet Explorer, you must set your browser to allow ActiveX controls and perform a once-only installation of Axis' ActiveX component onto your workstation. If your computer prohibits the downloading of additional software components, you can alternatively configure your AXIS 2400+/2401+ to use a Java applet for updating the images. For more information on this, please refer to the on-line Help.

Typical Image Styles

Because the look and feel of the AXIS 2400+/2401+ user interface is set up by the Administrator, the image formats and page styles can vary considerably. Typical layout styles are featured below - but there are many others that can be used.

Typical quad image style.
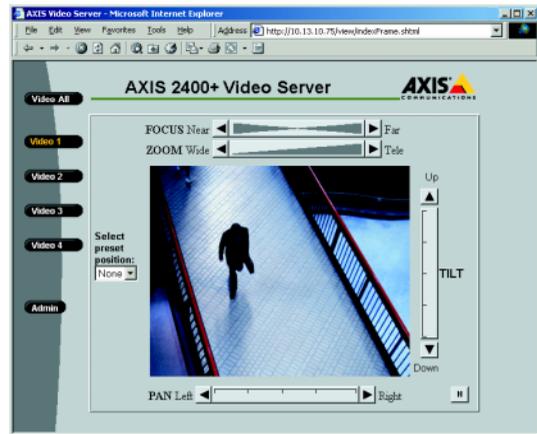
Typical single image style - with a configured pan tilt zoom device. Note that the functions available depend on your pan tilt zoom device.

Disconnected Video Sources

All **Disabled** or **Disconnected** video cameras are displayed with an appropriate text message in single-display viewing areas; that is, when a source other than **VIDEO ALL** is selected.

A blank display (without text) may indicate a break in the signal transmission and any such incident should be immediately referred to your system administrator.

Positional Control of the Video Sources

Video cameras supporting Pan Tilt and Zoom (PTZ) are connected and controlled directly from the unit's serial ports. Depending on the type of PTZ device used, the AXIS 2400+/2401+ can control up to four external (stand-alone) PTZ devices for positioning cameras on your system.

Clicking a specific **Video** button other than **Video All**, automatically displays *pan-tilt-configured* video sources in a *single-image* format that features **Pan**, **Tilt** and **Zoom** bars, as shown in the illustration below:

Focus
Allows smooth or stepped camera focus between near and far focus.

Zoom
Allows smooth or stepped camera zoom between telescopic and wide viewing.

Select Preset Position
To enable quick and accurate camera positioning, the Administrator can define within server memory, up to 20 preset camera positions. Preset positions are created and saved as named entities by your Administrator and can be selected at any time from the drop-down dialog. Choosing a preset position from the drop-down dialog immediately causes the selected camera to assume the predefined orientation.

Tilt
Allows smooth or stepped vertical panning of the camera.

Home (H)
Returns the camera to the 'Home' position.

Click-in-image
For navigational control of pan tilt devices.

Pan
Allows smooth or stepped horizontal panning of the camera.

Notes:
- Clicking anywhere on the toolbar's gradient allows for a "smooth" PTZ adjustment; whereas clicking on the left or right arrows causes a stepped incremental change.
- The AXIS 2400+/2401+ can control a range of *relative* and *absolute* PTZ devices via the Web interface, or third-party TCP application. The positioning tools available from the main page depend on the PTZ device chosen by the Administrator.
- Pan Tilt control can be disabled by the Administrator and may be unavailable in the user interface.

Updating the Firmware

The AXIS 2400+/2401+ firmware is stored in Flash memory. This memory is provided by a silicon chip that, just like any other ROM device, retains data content even after power is removed. Flash memory is unique because it allows its data to be erased and re-written. This means you can install firmware updates for your AXIS 2400+/2401+ as they become available - without having to replace any parts. New firmware can be simply loaded into the AXIS 2400+/2401+ over the network.

Obtaining Updated firmware

The latest version of the AXIS 2400+/2401+ firmware is available free of charge from the Axis website at www.axis.com or from your local distributor.

Updating the firmware

The AXIS 2400+/2401+ Flash memory is updated over the network using FTP. See the detailed instructions supplied with each new firmware release.

Important!

- Always read the upgrade instructions available with each new release, before updating the firmware.
- Upgrading normally takes between 30 seconds and 10 minutes, although it can take longer. After starting the process, you should always wait at least 20 minutes before power-cycling the AXIS 2400+/2401+ - even if you suspect the procedure has failed.
- In controlled environments, flash memory updates provide a very safe way of updating the firmware. However, flash products can become damaged if the update is not performed correctly. Your dealer reserves the right to charge for any repair attributable to faulty updating by the user.

Customizing the Video Server

Modifying the File System

The Linux-based operating system and flash memory file system make it possible for advanced users and application developers to customize the AXIS 2400+/2401+ by adding additional files to the read-write area of the flash memory.

Important!

- Modification of the flash file system is NOT supported by Axis. In practice, this means that Axis will not answer questions relating to custom script or Web page development, but merely wishes to inform potential application developers of the possibilities afforded by the Linux-based file structure of the AXIS 2400+/2401+.
- When attempting to modify the product, you may inadvertently create a problem that will require you to return the AXIS 2400+/2401+ to its factory default settings. At worst, you may even cause permanent damage to the unit that renders it unusable. Consequently, Axis strongly recommends that inexperienced users DO NOT modify the file system.

Although modification of the file system is not supported, the Axis web at www.axis.com does maintain various documents designed to assist third-party development. These include detailed information such as:

- The Axis Camera API, HTTP-Interface Specification
- A description of the reduced PHP3 scripting language

Configuring using FTP

As an alternative to configuring the AXIS 2400+/2401+ using a browser, the configuration parameters of your unit can be modified using the File Transfer Protocol (FTP).

FTP is supported by most operating environments and is a useful method for quickly downloading standard pre-configurations to one or more video servers.

Custom Web Pages

The AXIS 2400+/2401+ contains a re-writable flash memory file system that allows some directories and files to be changed by the *root* user, using FTP. This strictly non-supported product functionality, makes it possible for advanced users and application developers to add their own Web pages, scripts, and other files to the Axis product.

Customizing Procedures

All files stored in the `/etc/httpd/html` directory are available through the product Web server in the virtual directory `/local/`. The URL to resident pages in the `/etc/httpd/html` directory is `http://IP/local/<filename>.htm`.

Caution!

The existing Administration pages are stored in a compressed read-only area of the file system. If you intend to change them, you must follow the instructions provided here and ensure that you DO NOT change any files other than those featured in this section. Failure to comply with this notice may render your product unusable.

Editing and Storing Your Web pages

Follow the instructions below to create and save customized pages to the video server:

1. Using a html editor, create your html file and store it on your local PC hard drive.

2. Now use ftp to upload the file to the AXIS 2400+/2401+. Enter the following on the command line:

```
ftp <server ip address>
```

Example!

```
ftp 172.21.1.200
```

3. Log on as **root** with the default password **pass**.

4. Change to the correct directory within the AXIS 2400+/2401+ by entering the following command:

```
cd /etc/httpd/html
```

5. For binary storage of the files (not absolutely necessary, but good practice), type `bin`.

6. Upload your html files by entering:

```
put <filename.html>
```

7.   Start your browser and view the Web pages you uploaded, by entering the following URL in the location/Address field:

```
http://<server ip address>/local/<filename.html>
```

Example!

```
http://172.21.1.200/local/index.html
```

The images are now updated in your browser.

8.   Enter `bye` in the command window to exit the ftp program.

Note: You can change the html files as and when you like, but remember that the available flash memory is limited.

Creating a New Home Page

Having created and stored your new custom Web pages in product memory, you then proceed to assign one of these pages as your default Home page in the AXIS 2400+/2401+, as described below:

Caution!

> Adding a new Web page to your AXIS 2400+/2401+ is not something that should be undertaken lightly. Remember: Axis does not support the personalization of product Web pages and strongly recommends that inexperienced users <u>DO NOT</u> perform such modifications.

1. Start a new ftp session to the AXIS 2400+/2401+, by entering:

   ```
   ftp <camera ip address>
   ```

2. Type `bin`

3. Navigate your way to the appropriate directory, entering:

   ```
   cd /etc/httpd/conf/
   ```

4. Fetch the `boa.conf` file, by typing:

   ```
   get boa.conf
   ```

5. Edit `boa.conf` and add the following line to the end of the file:

   ```
   Alias /index.html /etc/httpd/html/index.html
   Alias / /etc/httpd/html
   ```

   This will create an alias to your own "homemade" `index.html` file stored in the `/etc/httpd/html/` directory and redirect access to it. Replace the edited `boa.conf` in the video server, by using the `Put` command.

Note: Alternatively, you can edit the line starting with `Document Root` so that it points directly to the local directory. However, after doing this you will then be unable to access the original Home pages - so be warned!

6. After making these changes, you will not be able to automatically access the default index page. Instead you must type in the complete URL to access it:

   ```
   http://IP#/view/indexFrame.shtml
   ```

The RS-232 Interface

The AXIS 2400+/2401+ has two 9-pin D-sub connectors, providing the physical interface for two RS-232 ports, used for connecting:

- accessory equipment e.g. stand-alone Pan/Tilt devices
- any standard modem for use in remote applications
- the AXIS 2191 Audio Module

As a complement to the information provided in *Pan Tilt Settings,* on page 26, this section describes how to install a standalone Pan/Tilt device to the AXIS 2400+/2401+ Video Server.

Physical Connector

A diagram representative of both RS-232 connectors, complete with an accompanying pin assignment table, is shown below.

Pin	COM1 Function	COM2 Function
1	NC	CD
2	- RXD	- RXD
3	- TXD	- TXD
4	DTR	DTR
5	GND	GND
6	DSR	DSR
7	RTS	RTS
8	NC	CTS
9	NC	RI
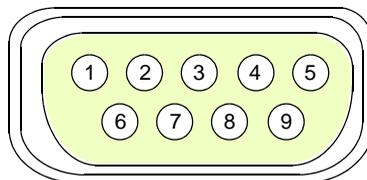
Notes: The pinout is different for each supported serial port.

Pin 4 on COM1 is connected to Pin 7 (RTS).

NC = Not connected

Connecting Pan/Tilt Devices

The AXIS 2400+/2401+ supports several Pan Tilt device drivers that are selected from the *Pan Tilt Settings* page of the *Administration Tools*. Please see www.axis.com for a complete list of supported devices.

The diagram below illustrates how the AXIS 2400+/2401+ connects to your workstation, video cameras and/or Pan Tilt device.
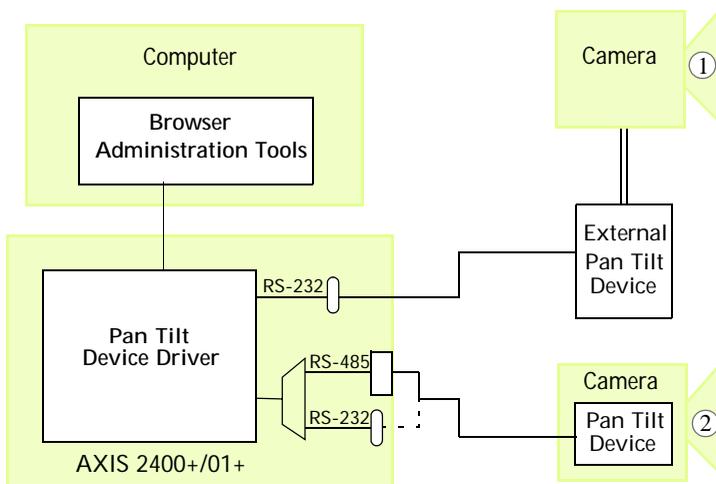
① A camera positioned remotely using an External Pan Tilt device.

② A PTZ-supported camera is connected directly to the COM port.

Installation Procedure

Follow the instructions below to install a Pan/Tilt device:

1. Attach the Pan/Tilt device to the Pan/Tilt port of the AXIS 2400+/2401+ using an appropriate cable.

2. On the AXIS 2400+/2401+ Home Page, click **Admin** and provide your Admin password.

3. Click the Pan/Tilt icon for the port you are using.

4. Select the driver that corresponds to your Pan/Tilt device from the drop-down list. Click **Save driver**.

Notes: •It is also possible to connect a Pan Tilt device via the RS-485 port. See *The I/O Terminal Block* for details

•Advanced users and application developers can also use the Axis Application Programming Interface and HTTP specification for generic control of pan tilt devices using CGI parameters or a TCP/IP client. Please refer to the Axis Website for further information.

The I/O Terminal Block

Typically used in association with programming scripts for developing applications for motion detection, event triggering, time lapse recording, alarm notification via e-mail, picture storage to FTP locations and a variety of other functions; the 16-pin I/O Terminal Block is located on the rear panel and provides the interface to: a single relay switch output, four digital photo-coupled inputs, an RS-485 interface, and auxiliary power.

This section describes the pinout, interface support and the control and monitoring functions provided by this connector.
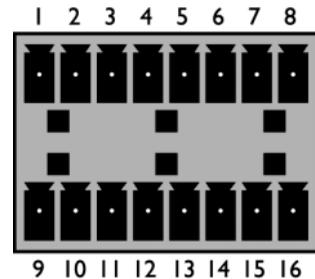
Connector Pinout

The pinout for the Terminal Block *(illustrated right)* and signaling details for each pin is fully described in the table below:

Pin	Function	Description
1	Auxiliary AC Power Input	Electrically connected in parallel with PS-D power connector, pins 1 & 2 provide an auxiliary connector for mains power to the unit.
2	Auxiliary AC Power Input	
3	Digital Input 3 - Photocoupler Anode (+)	Photocoupled Input 3: Electrically isolated from the chassis and connectors, this input can be supplied from an external DC voltage or the DC Power Input/Output on pins 9 and 10.
4	Digital Input 3 - Photocoupler Cathode (-)	
5	Digital Input 4- Photocoupler Anode (+)	Photocoupled Input 4. As above.
6	Digital Input 4 - Photocoupler Cathode (-)	
7	RS-485 - B (inverting)	Serial Port 1- RS-485. A half-duplex RS-485 interface for controlling auxiliary equipment. **Note**: Serial Port 1 is programmed as either RS-232 (COM1 Connector) or RS-485 (Terminal Block Connector), via the browser interface.
8	RS-485 - A (non-inverting)	
9	DC + Power (Input or Output)	DC Power Input or Output: Used as an input, this supplies the unit via a DC source; for example a solar panel or a battery.
10	DC - Power (Input or Output)	As an output, it can drive the photo coupler inputs or other equipment; such as an IR-sensor. The output voltage level is dependent upon the input voltage to the unit. A maximum current of 50mA can be sourced from the DC output. Pin 10 is connected to the unit chassis, and Ground on each serial port and video input. See circuit diagram (below).
11	Digital Input 1 - Photocoupler Anode (+)	Input 1 Photo coupler input. As Input 3.
12	Digital Input 1 - Photocoupler Cathode (-)	
13	Digital Input 2 - Photocoupler Anode (+)	Input 2 Photo coupler input. As Input 3.
14	Digital Input 2 - Photocoupler Cathode (-)	
15	Relay Switch	Relay switch - electrically isolated from chassis and connectors.
16	Relay Switch	

Note: For compatible replacement connectors, contact http://www.phoenixcontact.com, quoting: MC1.5/8-ST-3.81 (art no 1803633).

Power and Ground
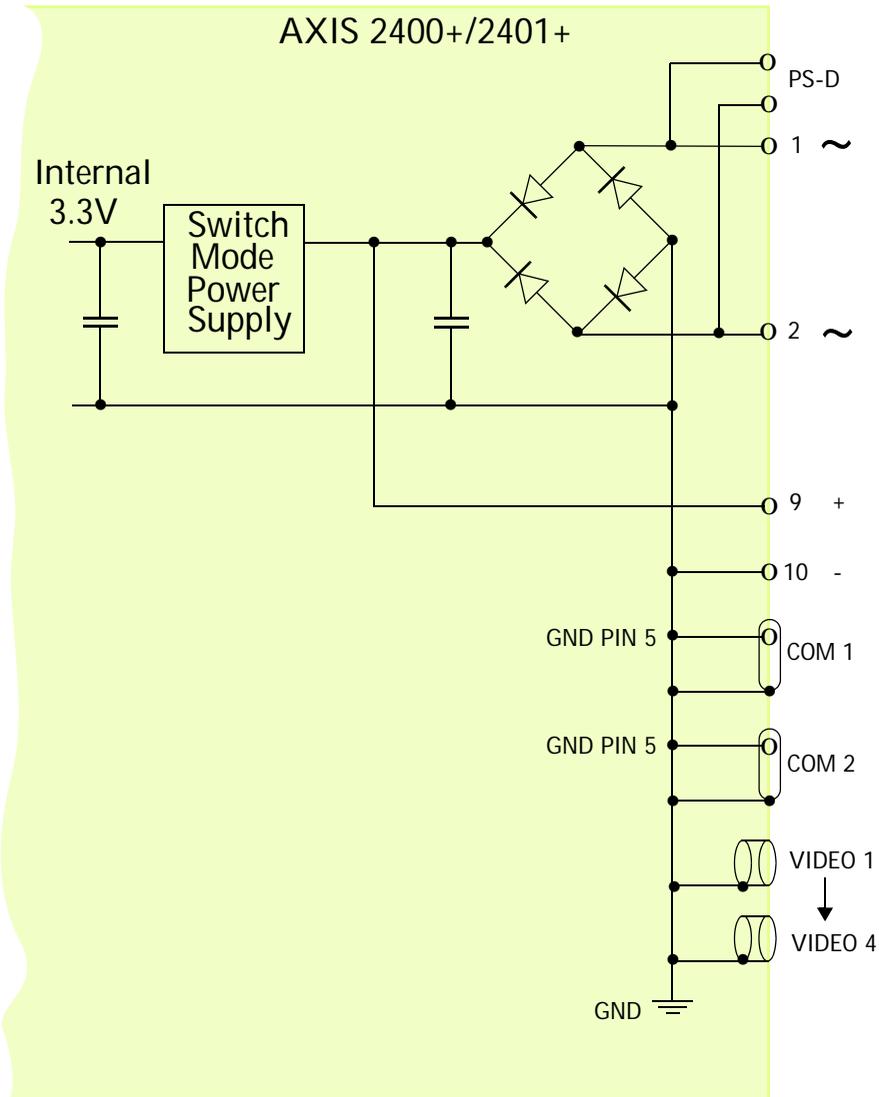
Controlling and Monitoring

By entering http requests in your browser's URL field, you can:

- drive the relay output high or low
- monitor the status of the 4 digital inputs

This requires you to have root access to the AXIS 2400+/2401+ and consequently, to supply a user name and password. Login as *root* and supply the root password (default = *pass*).

Tip!

Developers wishing to create applications incorporating sophisticated alarm conditioning using the relay output and digital inputs are encouraged to read the Camera API, HTTP-Interface Specification, available from the Axis Web at www.axis.com.

Relay Output

You can use the supported relay output to directly drive a maximum load of 24V AC/DC at 100mA. By connecting additional relay circuitry, it can also drive heavier loads.

The output relay is controlled using http requests, as defined in the following examples:

Example 1: - Set output 1 ON

```
http://myserver/axis-cgi/io/output.cgi?action=1:/
```

Example 2: - Set two 300ms pulses with 500ms delay between the pulses on output 1.

```
http://myserver/axis-cgi/io/output.cgi?action=1:/300\500/300\
```

Example 3: - Wait 1 second before setting output 1 ON.

```
http://myserver/axis-cgi/io/output.cgi?action=1:1000/
```

Digital Inputs

Four digital inputs, programmed using the **Application Wizard**, allow the AXIS 2400+/2401+ to be configured for time and alarm based image recording. For example, by connecting a motion detector to a digital input, it is a relatively simple procedure to send a single image (or video stream) to a remote imaging library each time the detector is activated.

Querying the Status of Digital Inputs

The status of the four supported digital inputs can be queried in exactly the same way as the relay output. Simply enter the following URL to query the status of the digital inputs:
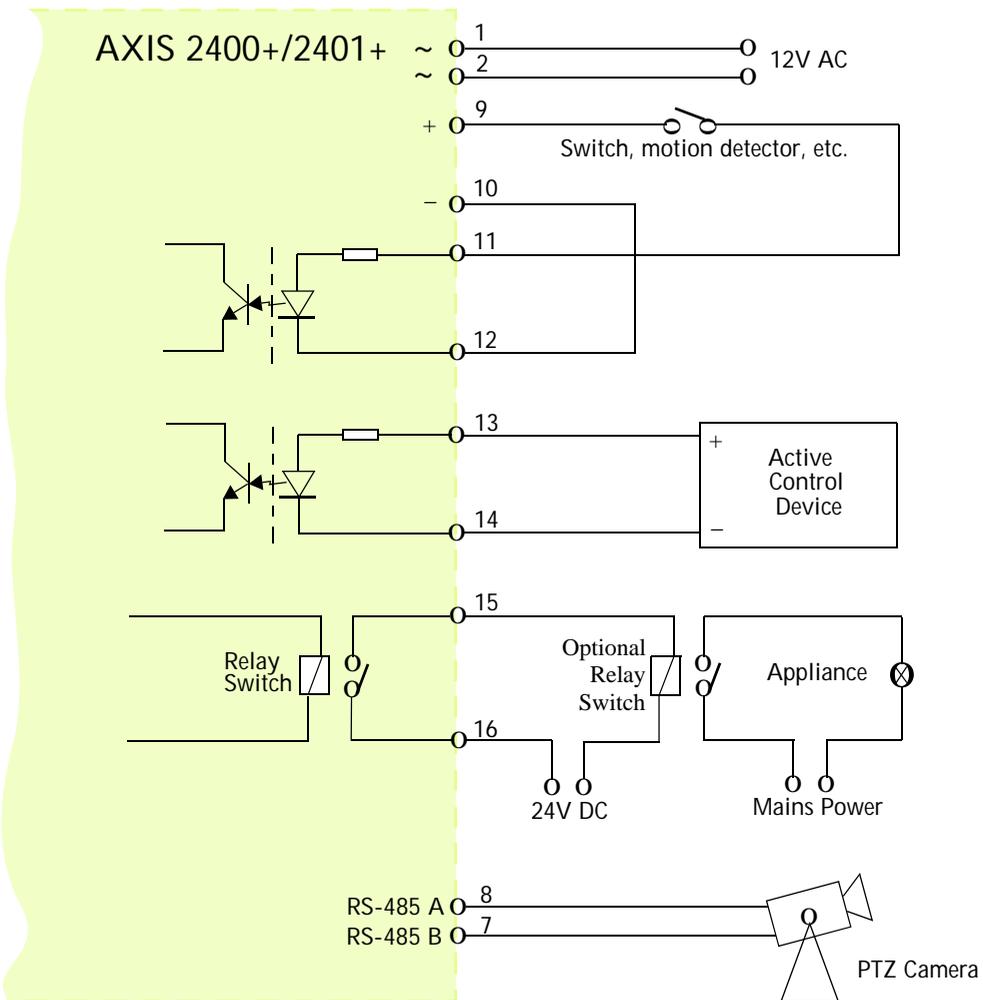
Example: - Monitor data on input ports 1, 2, 3, and 4

```
http://myserver/axis-cgi/io/input.cgi?check=1,2,3,4
```

The AXIS 2400+/2401+ then displays the status of the inputs, as follows:

```
Input 1 = 0
Input 2 = 1
Input 3 = 0
Input 4 = 0
```

Schematic Diagram

Example schematic diagram of the AXIS 2400+/2401+ Terminal Block Connector
- showing possible applications.

Troubleshooting

This section provides useful information to help you to resolve any difficulty you might have with your AXIS 2400+/2401+. Symptoms, possible causes and remedial actions are provided in a quick reference table.

Checking the Firmware

One of your first actions when attempting to solve a problem should be to check the firmware version currently installed. An updated version may contain a correction that fixes your particular problem. For more information, please see *Updating the Firmware,* on page 31.

Support

If you cannot solve your problem after reading the information in this section or after referring to the AXIS 2400+/2401+ FAQ, you can pass the problem to the AXIS support desk. To help us help you resolve your problems expediently, please be sure to provide the following information:

• a brief description of the problem
• the Server Report
• the log file
• if relevant, an example of a poor image.

Server Report

The server report contains important information about the server and its software, as well as a list of the current parameters.

The Log File

The AXIS 2400+/2401+ log file records events within the unit and can prove a useful diagnostic tool when attempting to resolve any problems that might occur.

Viewing the File

To display the latest log entries since the last *Restart* of the system:

1. Click the **Video Server** icon in the graphic interface.

2. Click the **View Log File** button. All Video Server commands executed since the last *Restart* of the system are displayed in a separate window.

Alternatively, get a copy of the log file by typing the following command directly into the location/Address field (URL) of your browser:

```
http://<servername>/support/messages
```

The log file can be read in any text editor and will look something like this:

```
Jan  1 00:01:29 (none) syslogd 1.3-3: restart.
Jan  1 00:01:29 (none) parhand[17]: Starting.
Jan  1 00:01:29 (none) sh: Firmware release: AXIS 2400+ video Server 3.00
Jan  1 00:01:29 (none) sh: Network configuration for AxisProduct
Jan  1 00:01:29 (none) sh: IP: 172.21.1.200 MAC: 00:40:8C:18:16:F2
Jan  1 00:01:29 (none) sh: Netmask: 255.255.0.0 Broadcast: 10.13.255.255
Jan  1 00:01:29 (none) sh: Network: 172.21.1.60 Gateway: 10.13.1.1
Jan  1 00:01:30 (none) camd[22]: camd $Revision: 1.69 $ starting up
Jan  1 00:01:30 (none) iod[23]: iod: Starting 13:26:34  $Revision: 1.22.2.1 $
Jan  1 00:01:32 (none) dstd[51]: Starting.
Jan  1 00:01:32 (none) ssid[54]: "Starting" 13:23:40  $Revision: 1.14 $  0
```

Typical AXIS 2400+/2401+ Log File

PINGing Your IP Address

By sending a packet to the specified address and waiting for a reply, the PING utility can determine whether a specific IP address is accessible. It also provides a particularly useful method for confirming addressing conflicts with your AXIS 2400+/2401+ on the network.

Having disconnected your AXIS 2400+/2401+, follow the instructions below in association with *Symptoms, Possible Causes and Remedial Actions,* on page 44, and run the PING utility to troubleshoot TCP/IP problems on your network:

1. Start a Command window and type `ping x.x.x.x`, where `x.x.x.x` is the IP address of the AXIS 2400+/2401+.

2. If you receive the reply `destination host unreachable`, then the AXIS 2400+/2401+ is not accessible on your subnet. You must obtain a new IP address and reinstall the unit.

3. If this does not solve the problem, <u>disconnect</u> the AXIS 2400+/2401+ from the network and run PING again. See the table below for an interpretation of the results.

PING Reply	Interpretation and recommendation
Reply from <IP address>: bytes = 32; time = 10 ms.....	The IP address is already used and cannot be used again. You must obtain a new IP address.
Request timed out	This IP address is not used and is available for use with your AXIS 2400+/2401+. If you already installed the unit using this IP address, the installation may have failed. Reinstall the unit. Also check all cabling.

Symptoms, Possible Causes and Remedial Actions

Symptoms	Possible causes	Remedial actions
The AXIS 2400+/2401+ cannot be accessed from a browser.	The IP address is already being used by another device.	Run the Ping utility (as described above) and follow the appropriate recommendations.
	The IP address is located on a different subnet.	Run the Ping utility (as described in *PINGing Your IP Address,* on page 43). If you get "no response" or similar, the diagnosis is probably correct. In Windows, check that the IP address for your AXIS 2400+/2401+ is on the same subnet as your workstation. Exactly how this is done varies from one version of Windows to another. See Windows' help for more information. If your AXIS 2400+/2401+ and your workstation are on different subnets, you will not be able to set the IP address. Contact your network administrator.
	In Windows 95, the ARP table was empty when you tried to set the IP address.	In Windows 95, the ARP command cannot be used if you have an empty ARP table. If the table is empty, re-install the product ensuring that the IP address for your own PC is also used. Type arp –a to view the ARP table. If it is empty, you must ping an existing unit on your network before you can download the IP address to the AXIS 2400+/2401+, using ARP.
	The IP address has changed.	Check that there is no DHCP server running on the network and disable BOOTP in the video server.
	Other networking problems.	Test the network cable by connecting it to some other network device and then Pinging that device from your workstation. Test the unit's network interface by connecting a local computer to the unit, using a standard *Crossover (hub-to-hub) Cable.* If the above actions do not resolve the problem, the AXIS 2400+/2401+ may be faulty. In this case, try to localize the problem by connecting the unit to the serial port of a local computer, using the supplied *Null Modem Cable* and report your findings to your local distributor.
	A programming script is locking the unit.	Restore the unit to the factory default settings.
The Power indicator is not constantly lit.	Faulty power supply.	Verify that you are using an Axis PS-D power supply.
The Network indicator displays red.	Faulty cabling.	See *Other networking problems*, above.
The Status indicator is flashing red rapidly.	Hardware failure.	Contact your Axis dealer.
Your AXIS 2400+/2401+ works locally, but not externally.	Firewall protection.	Check the Internet firewall with your system administrator.
	Default routers required.	Check if you need to configure the default router settings.

Symptoms	Possible causes	Remedial actions
	The Internet site is too heavily loaded.	Use a script running on your web server to relay images from the AXIS 2400+/2401+ to the Internet.
Triggering difficulties with programming scripts.	Unable to trigger on both positive and negative transitions of the Control Button and/or I/O ports (double-edged triggering).	Repetitive trigger conditions that occur in quick succession can be missed. This is because the command initiated by the first trigger event may not have been fully executed before the second event starts. This scenario is demonstrated in the illustration below: This feature has particular significance when using commands that take a relatively long time to process, e.g. mail or ftp, especially if they are transmitting a pre/post alarm buffer.
Bad snapshot images.	Display incorrectly configured on your workstation.	In Display Properties, configure your display to show at least 65000 colors, i.e. at least 16-bit. Using only 16 or 256 colors on your display will produce dithering artifacts in the image.
Incorrect exposure in images.	Incorrect line termination.	If the AXIS 2400+/2401+ is to be connected in parallel with other equipment, disable the input termination by turning the corresponding DIP switch to the up-position (OFF). Inversely, when not using other equipment, set the Termination dip-switch to ON (default setting).

Note: If you still have a problem after reading this information, please contact your reseller or check the FAQ on the Axis Website at www.axis.com.

Technical Specifications

System Requirements - The AXIS 2400+/2401+ uses the standard Internet TCP/IP suite of protocols and can be used with most operating systems: Windows, Linux, UNIX, Mac. etc. The only software required is Microsoft Internet Explorer 4.x/5.x or Netscape 4.x

Installation - Physical network connection using RJ-45 twisted pair cable. Installs directly to NTSC or PAL video cameras using BNC connectors. Use as a standalone system or as an add-on to existing CCTV systems

Management - Remote configuration and status using Web-based tools

Compression - Motion-JPEG, as well as single snapshot JPEG images. User-controlled compression level

Video Resolution

- QCIF - 160x112 / 160x144 (PAL/NTSC)
- CIF - 352x240 / 352x288 (PAL/NTSC)
- 2CIF - 720x240 / 720x288 (PAL/NTSC)
- 4CIF - 720x480 / 720x576 (PAL/NTSC)

Video Features - Time stamp and text overlay. Color control (B/W or color)

Video Inputs (AXIS 2400+) - supports up to four BNC composite video inputs with 75 Ohm/Hi Z termination and includes autosensing for NTSC and PAL

Video Inputs (AXIS 2401+) - supports one BNC composite video input with 75 Ohm/Hi Z termination and includes autosensing for NTSC and PAL

Video Output (AXIS 2401+) - A single video output (VIDEO OUT) terminated with a coax/BNC connector that allows direct connection of an external monitor

Networking - 10baseT Ethernet or 100baseTX Fast Ethernet, TCP/IP, HTTP, FTP, SMTP, NTP, ARP, BOOTP

General I/O - 4 optical-isolated alarm inputs and 1 output relay (max 24V, 0.1 A) supplied on a single terminal block connector. Programmable inputs for remote image storage via File Transfer Protocol (FTP) or E-mail (SMTP), pre/post alarm image storage

Pre/Post Alarm Buffer - Up to 16 MB memory available for pre/post alarm image storage

Serial Connectors

- COM-1 - RS-232, max 115 Kbps. Multiplexed with RS-485 port on the terminal block
- COM-2 - RS-232, max 115 Kbps, half-duplex. A modem is connected here

Pan/Tilt/Zoom - PTZ support for remote camera control. Please see www.axis.com for information about supported devices

Security - Multi-user password protection

Operating Conditions: - Temp: 40° to 125^oF (5° to 50^oC), Humidity: 20-80% RHG

Approvals EMC

- FCC Class A

- $C\epsilon$: EN55022/1994, EN55024/1998

Approvals - Safety: - EN60950, UL, CSA (power supply only)

Metrics: - Height: 1.7″ (4.2 cm), Width: 5.7″ (14.5 cm), Length: 8.7″ (22.0 cm), Weight: 1.7 lb. (0.8 kg), excluding Power Supply

Hardware - ARTPEC-1 compression chip, ETRAX-100, 32-bit RISC, 100 MIPS CPU, 32MB RAM, 4MB FLASH PROM

Power - 3 alternative power sources: External power supply 12V AC, 9.6VA (PS-D, included), 9-20V AC, min 10VA, 6-30V DC, min 7W

Axis Chipset Technology - Axis' chipset technology is streamlined to provide device connectivity independent of any file server. The AXIS 2400+/2401+ is driven by a powerful AXIS ETRAX 32-bit RISC processor and includes the industry's first dedicated digital video surveillance compression chip - the AXIS ARTPEC-1

Performance - The AXIS 2400+/2401+ delivers the following file sizes:

NTSC			PAL		
Resolution	File size (kb)	Max fps*	Resolution	File size (kb)	Max fps*
704 x 480**	7 - 150	10	704 x 576**	8.5 - 180	8
704 x 240****	3,5 - 75	15	704 x 288''''	4,5 - 90	12
352 x 240	1.4 - 40	30	352 x 288	1.7 - 50	25
176 x 112	0.3 - 10	30	176 x 144	0.4 - 12	25
Quad (4 x 352 x 240)	7 - 150	5***	Quad (4 x 352 x 288)	8.5 - 180	5***

* Maximum performance with single user and only one video source in use

** Interlaced image

*** Quad image, images from all four video sources integrated into one single image (AXIS 2400+ only)

**** 2CIF, compressed file which needs to be expanded to display correctly (the image is automatically expanded in the View application)

Produktbeschreibung

Machen Sie sich anhand der folgenden Informationen mit dem AXIS 2400+/2401+ vertraut, und beachten Sie insbesondere die Position der Anschlüsse und Anzeigen.

AXIS 2400+ Bedienfeld, Ansicht von vorne

● Die Statusanzeige (Status)
Die mehrfarbige Statusanzeige gibt den Betriebsstatus des Servers wieder, wie im folgenden beschrieben:

- Grün – Die Anzeige blinkt kurz und leuchtet während der Start- und Selbsttestroutinen orange, anschließend deutet die grüne Anzeige auf fehlerfreien Status der Einheit hin.
- Rot – Die Anzeige leuchtet nur rot, wenn ein Fehler am AXIS 2400+ aufgetreten ist.
- Orange – Beim Zurücksetzen auf die werkseitigen Standardeinstellungen blinkt die Anzeige orange.

●Netzwerkanzeige (Network)

Im Anschluss an die Start- und Selbsttestroutinen blinkt die mehrfarbige Netzwerkanzeige. Die Farben haben folgende Bedeutung:

- Gelb – Zeigt Aktivität in einem 10Mbit/s-Ethernet-Netzwerk an.
- Grün – Zeigt Aktivität in einem 100Mbit/s Fast-Ethernet-Netzwerk an.
- Rot – Zeigt fehlende physische Verbindung zum Netzwerk an.

● DIP-Schalter
Ein für jedes unterstützte Videoausgabegerät passender Leitungsabschluss-Schalter. Werkseitig wird der Leitungsabschluss für jedes unterstützte Videoeingabegerät aktiviert, d. h. die DIP-Schalter sind nach unten gedrückt.

Wenn der AXIS 2400+ parallel mit anderen Geräten angeschlossen werden soll, deaktivieren Sie den jeweiligen Eingabeabschluss, indem Sie den entsprechenden DIP-Schalter nach oben drücken (AUS). Andernfalls kann die Bildqualität beeinträchtigt werden.

Betriebsanzeige (Power) ●
Diese Anzeige leuchtet, wenn das Gerät mit Strom versorgt wird. Leuchtet die Anzeige nicht oder blinkt sie, liegt ein Problem am AXIS 2400+/2401+ oder an seinem Netzteil vor.

● Kontroll-Taste
Diese Taste ist in das Produktgehäuse eingelassen. Zum Zurücksetzen auf die werkseitigen Standardeinstellungen drücken Sie diese Taste mit einem geeigneten spitzen Gegenstand, wie unter *Werkseitige Standardeinstellungen,* on page 53 beschrieben.

Seriennummer ●
Die Seriennummer befindet sich auf dem Etikett auf der Unterseite des AXIS 2400+/2401+ und ist identisch mit der MAC/Ethernet-Adresse der Einheit.

● Videoeingabegeräte
Unterstützt bis zu 4 separate Videoquellen (VIDEO 1- VIDEO 4) gleichzeitig.

Jedes unterstützte Videoeingabegerät wird mit einem Koaxial-BNC-Stecker abgeschlossen. Bei physischen Verbindungen mit RG59 75-Ohm-Koaxialvideokabel sollte die empfohlene Maximallänge von 250m nicht überschritten werden.

Deutsch

AXIS 2401+ Bedienfeld, Ansicht von vorne

● Die Statusanzeige (Status)
Die mehrfarbige Statusanzeige gibt den Betriebsstatus des Servers wieder, wie im folgenden beschrieben:

- Grün – Die Anzeige blinkt kurz und leuchtet während der Start- und Selbsttestroutinen orange, anschließend deutet die grüne Anzeige auf fehlerfreien Status der Einheit hin.
- Rot – Die Anzeige leuchtet nur rot, wenn ein Fehler am AXIS 2401+ aufgetreten ist.
- Orange – Beim Zurücksetzen auf die werkseitigen Standardeinstellungen blinkt die Anzeige orange.

● Netzwerkanzeige (Network)
Im Anschluss an die Start- und Selbsttestroutinen blinkt die mehrfarbige Netzwerkanzeige. Die Farben haben folgende Bedeutung:

- Gelb – Zeigt Aktivität in einem 10Mbit/s Ethernet-Netzwerk an.
- Grün – Zeigt Aktivität in einem 100Mbit/s Fast-Ethernet-Netzwerk an.
- Rot – Zeigt fehlende physische Verbindung zum Netzwerk an.

● DIP-Schalter
Ein einzelner Leitungsabschluss für das unterstützte Videoausgabegerät. Werkseitig wird der Leitungsabschluss aktiviert, d. h. der DIP-Schalter ist nach unten gedrückt.

Wenn der AXIS 2401+ parallel mit anderen Geräten angeschlossen werden soll, deaktivieren Sie den jeweiligen Eingabeabschluss, indem Sie den entsprechenden DIP-Schalter nach oben drücken (AUS). Andernfalls kann die Bildqualität beeinträchtigt werden.

● Betriebsanzeige (Power)
Diese Anzeige leuchtet, wenn das Gerät mit Strom versorgt wird. Leuchtet die Anzeige nicht oder blinkt sie, liegt ein Problem am AXIS 2401+ oder an seinem Netzteil vor.

● Kontroll-Taste
Diese Taste ist in das Produktgehäuse eingelassen. Zum Zurücksetzen auf die werkseitigen Standardeinstellungen drücken Sie diese Taste mit einem geeigneten spitzen Gegenstand.

● Videoausgabegerät
Ein externer Monitor kann direkt über ein einzelnes, mit einem Koaxial-BNC-Stecker abgeschlossenes Videoausgabegerät (VIDEO OUT) angeschlossen werden.

● Videoeingabegerät
Koaxial-BNC-Stecker, der eine einzelne Videoquelle unterstützt. Für die physische Verbindung wird RG59 75-Ohm-Koaxialvideokabel mit empfohlener Maximallänge von 250m verwendet.

● Seriennummer
Die Seriennummer befindet sich auf dem Etikett auf der Unterseite des AXIS 2401+ und ist identisch mit der MAC/Ethernet-Adresse der Einheit.

Deutsch

AXIS 2400+/2401+ Bedienfeld, Ansicht der Rückseite

Anschluss für Netzkabel
Eine Einzel-Steckdose (PS-D) zum Anschließen des AXIS 2400+/2401+-Netzkabels. Die Anschlussblockverbindung bietet einen zusätzlichen Anschlusspunkt für Gleich- oder Wechselstrom für die Einheit.

E/A-Anschlussblock
Die E/A-Anschlussblockverbindung befindet sich zwischen den beiden seriellen Anschlüssen auf dem hinteren Bedienfeld und liefert die physische Schnittstelle für ein Relay-Switch-Ausgabegerät, vier mit Digitalkameras gekoppelte Eingabegeräte und eine RS-485-Schnittstelle. Diese Verbindung ermöglicht die Datenübertragung über Gruppenverbindungs-Kommunikationsleitungen, zu kipp- und schwenkbaren RS-485-Geräten und externe Auslösung; Merkmale, die typischerweise CCTV-Geräten zugeordnet werden. Die Verbindung kann auch als Gleichstromanschluss für die Einheit dienen.
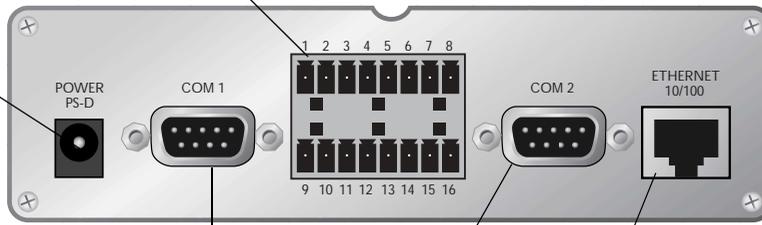
Serieller RS-232-Anschluss
Wird normalerweise bei Schnittstellen zu kipp- und schwenkbaren Geräten verwendet. Der COM1-Anschluss wird über die Anschlussblockverbindung mit dem RS-485-Anschluss multiplexiert. COM2 kan auch für den Anschluss des AXIS 2191 Audiomoduls benutzt werden.

Netzwerkanschluss
Der AXIS 2400+/2401+ ist für 10-MBit/s-Ethernet- und 100-MBit/s-Fast-Ethernet-Netzwerke konzipiert und wird über einen standardmässigen RJ45-Stecker mit dem Netzwerk verbunden. Durch Unterstützung von NWAY ermittelt der AXIS 2400+/2401+ die Übertragungsgeschwindigkeit des Segments im lokalen Netzwerk und stimmt die Datenkommunikation darauf ab (zwischen 10 Mbit/s und 100 Mbit/s).

Lieferumfang

Vergleichen Sie die mit dem AXIS 2400+/2401+ gelieferten Komponenten mit folgender Liste:

Teil	Bezeichnung	Teil	Bezeichnung
Video-Server	AXIS 2400+ AXIS 2401+	Netzteil (PS-D)	Europa Großbritannien
Dokument	AXIS 2400+/01+ Administration Manual v1.02		Australien USA
	Garantiekarte		Japan

Hinweis: Das mit dem AXIS 2400+/2401+ ausgelieferte Netzkabel ist landesspezifisch. Bitte überprüfen Sie, ob Sie das richtige Netzkabel verwenden.

Installation im Netzwerk

❶ Schließen Sie das Videoausgabegerät Ihrer Kamera(s) mit 75-Ohm-Koaxial-Standardvideokabeln mit BNC-Steckverbindern an den/die Videoanschluss/-anschlüsse des AXIS 2400+/2401+ an. (Verwenden Sie einen BNC-in-RCA-Konverter, wenn Ihre Kamera standardmäßig mit einem Phono (RCA)-Stecker ausgestattet ist.)
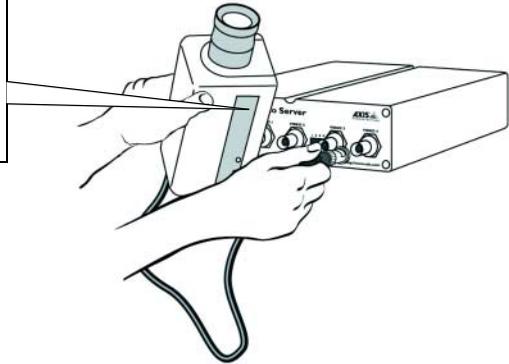
❷ Notieren Sie sich die auf der Unterseite der Einheit angegebene Seriennummer. Sie benötigen sie zum Konfigurieren der IP-Adresse.
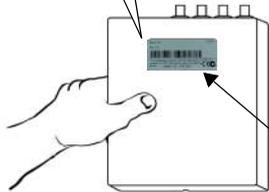
Seriennummer identisch mit MAC/Ethernet-Nummer; z. B.
00408c100086 =
00-40-8c-10-00-86

❸ Weisen Sie Ihrem Produkt mithilfe des für Ihr Betriebssystem geeigneten Verfahrens eine eindeutige IP-Adresse von einem Computer in Ihrem Netzwerk aus zu. Gehen Sie folgendermaßen vor:

Windows – Rufen Sie ein DOS-Fenster auf, und geben Sie folgende Befehle ein:

Syntax - *Hinweis: Dem 'ping'-Befehl wird '-I' (kleines L) hinzugefuegt*:

```
arp -s <Server-IP-Adresse> <Ethernet-Adresse>
ping -I 408 -t <Server-IP-Adresse>
```

Beispiel:

```
arp -s 172.21.1.200 00-40-8c-10-00-86
ping -I 408 -t 172.21.1.200
```

UNIX – Geben Sie die folgenden Befehle in die Befehlszeile ein:

Syntax:

```
arp -s <IP-Adresse> <Ethernet-Adresse> temp
ping -s 408 <IP-Adresse>
```

Beispiel:

```
arp -s 172.21.1.200 00:40:8c:10:00:86 temp
ping -s 408 172.210.10.200
```

Hinweis: Bei einigen Unix-Systemen befindet sich der arp-Befehl nicht in einem Verzeichnis des Befehlspfads.

Es werden wiederholt Meldungen vom Typ **"Zeitüberschreitung für Anforderung ..."** im DOS-Fenster angezeigt.

❹ Schließen Sie ein Ethernet-Kabel an Ihren AXIS 2400+/01+ an, und verbinden Sie es mit dem Netzwerk.

Netzwerkanschluss

RJ-45-Anschluss

Deutsch

Netzeil-
anschluss
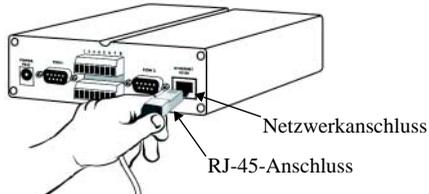
❺ Schließen Sie das externe Netzteil an die Einheit an, und
verbinden Sie es mit Ihrem lokalen Stromnetz.
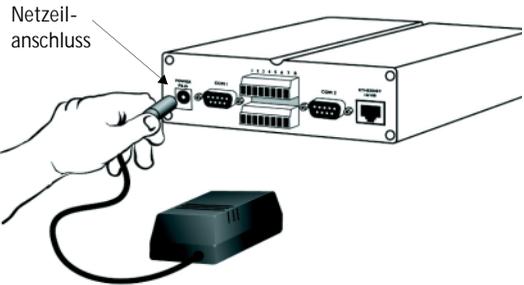
❻ Etwa 10 - 15 Sekunden nach dem Anschluss an das Stromnetz
wird die Meldung "Antwort von 172.21.1.200..." (oder
eine ähnliche Meldung) im DOS-Fenster angezeigt. Vergewis-
sern Sie sich, dass die Betriebsanzeige konstant leuchtet und die
Netzwerkanzeige in bestimmten Abständen blinkt.

❼ Drücken Sie Strg+C, um den Ping-Befehl zu beenden. Die
Installation ist jetzt abgeschlossen, und Sie können von
Ihrem Web-Browser aus auf den AXIS 2400+/2401+ zugre-
ifen. Dies wird im folgenden Abschnitt beschrieben.

Netzwerkanzeige
(Network)
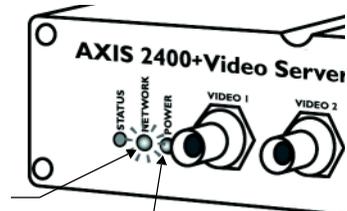
Betriebsanzeige (Power)

Überprüfen und Abschließen der Installation von Ihrem Browser aus

❶ Starten Sie Ihren Web-Browser und geben
Sie die IP-Adresse Ihres AXIS 2400+/2401+ in
die Adresszeile ein, z. B. 172.21.1.200, wie
nachfolgend gezeigt.

❷ Klicken Sie auf die Schaltfläche "Installation Wizard"
(Installationsassistent). Der Assistent führt Sie durch den
weiteren Installationsvorgang.

Wichtig!

- Bei Lieferung ist der AXIS 2400+/2401+ auf offenen Zugriff eingestellt (anonyme Benutzer). Das Gerät wird mit
vorkonfiguriertem Benutzernamen und Kennwort geliefert, die auf "root" und "pass" eingestellt sind. Der
Benutzername muss sofort geändert werden, um nicht-autorisierten Zugriff auf Admin Tools und/oder Bilder zu
verhindern, wie in den Sicherheitseinstellungen erklärt.
- Damit Bilder im Microsoft Internet Explorer aktualisiert werden, aktivieren Sie im Browser die
ActiveX-Steuerung und installieren in einem einmaligen Vorgang die ActiveX-Komponente von Axis auf Ihrer
Workstation. Wenn das Downloaden zusätzlicher Softwarekomponenten in Ihrer Arbeitsumgebung einge-
schränkt oder unzulässig ist, können Sie Ihren AXIS 2400+/2401+ auch so konfigurieren, dass die Bilder mit
einem Java-Applet aktualisiert werden. Weitere Informationen zu diesem Thema finden Sie in der Online-Hilfe.

Werkseitige Standardeinstellungen

Unter bestimmten Umständen kann es erforderlich sein, die **werkseitigen Standard**einstellungen Ihres AXIS 2400+/2401+ wiederherzustellen. Klicken Sie dazu auf die entsprechende Schaltfläche in den **Verwaltungsprogrammen**, *oder* drücken Sie die **Kontroll-Taste**. Die Kontrolltaste ist in das Produktgehäuse eingelassen und sitzt beim AXIS 2400+ zwischen dem VIDEO 3- und VIDEO 4-Anschluss. Beim AXIS 2401+ sitzt sie links vom VIDEO OUT-Anschluss.

Befolgen Sie die Anweisungen, um die werkseitigen Standardeinstellungen mithilfe der Kontroll-Taste wiederherzustellen:

1. Schalten Sie den AXIS 2400+/2401+ aus, indem Sie das Netzkabel ziehen.

2. Drücken Sie mit einem geeigneten spitzen Gegenstand die Kontroll-Taste und halten Sie sie gedrückt, während Sie das Netzkabel wieder einstecken.

3. Halten Sie die Kontroll-Taste gedrückt, bis die Statusanzeige *gelb* leuchtet (dies kann bis zu 15 Sekunden dauern). Lassen Sie die Kontroll-Taste los. Die Statusanzeige leuchtet nach max. 1 Minute *grün*, und im AXIS 2400+/2401+ sind jetzt wieder die werkseitigen Standardeinstellungen geladen.

Hinweis: Beim Wiederherstellen der ursprünglichen Standardeinstellungen werden <u>alle</u> Parameter, inklusive IP-Adresse, zurückgesetzt.

Deutsch

Description du produit

Lisez les informations ci-dessous pour vous familiariser avec le serveur AXIS 2400+/2401+, en portant particulièrement attention à l'emplacement des connecteurs et des voyants.

Panneau avant du serveur AXIS 2400+

● Voyant d'état
Le voyant d'état multicolore définit l'état opérationnel du serveur, comme cela est décrit ci-dessous :

- vert – le voyant clignote brièvement et s'affiche momentanément en orange pendant les sous-programmes de mise en route et d'auto-test ; il doit ensuite normalement s'afficher en vert pour indiquer un état d'unité correct.
- rouge – le voyant ne s'affiche en rouge qu'en cas de problème du serveur AXIS 2400+
- orange – clignote avec une couleur orangée lors de la réinitialisation du serveur aux paramètres d'usine par défaut.

● Voyant réseau
Après exécution des sous-programmes de mise en route et d'auto-test, le voyant réseau multicolore clignote de manière indépendante, comme cela est indiqué ci-dessous :

- jaune – indique une activité réseau sur un réseau Ethernet 10 Mbit/s
- vert – indique une activité réseau sur un réseau Fast Ethernet 100 Mbit/s
- rouge – indique l'absence de connexion physique avec le réseau.

● Commutateurs DIP
Un commutateur de terminaison de ligne correspondant pour chacune des sorties vidéo supportées. Toutes les unités sont fournies avec la terminaison de ligne activée pour chaque entrée vidéo supportée, c'est-à-dire avec les commutateurs DIP en position basse.

Si le serveur AXIS 2400+ doit être connecté en parallèle avec un autre équipement, désactivez la terminaison d'entrée en plaçant le commutateur DIP correspondant en position haute (OFF). Le non respect de cette consigne peut entraîner une dégradation de la qualité de l'image.
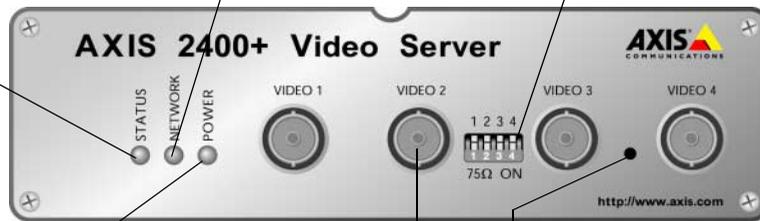
● Voyant d'alimentation
Il est normalement allumé lorsque le système est sous tension. S'il est éteint ou s'il clignote, il signale une défaillance de la source d'alimentation externe du serveur AXIS 2400+.

● Bouton Control
Ce bouton est placé en retrait dans le boîtier du produit. En vous aidant d'un objet pointu adéquat, vous pouvez appuyer sur ce bouton pour restaurer les paramètres d'usine par défaut, comme cela est décrit dans la section *Des paramètres d'usine par défaut,* à la page 59.

● Numéro de série
Situé sur l'étiquette que vous trouverez sous le serveur AXIS 2400+, le numéro de série est identique à l'adresse MAC/Ethernet de l'unité.

● Entrées vidéo
Prend en charge simultanément jusqu'à 4 sources vidéo distinctes (VIDEO 1 - VIDEO 4). Chaque entrée vidéo supportée est terminée à l'aide d'un connecteur coax/BNC. La longueur maximale conseillée pour des connexions physiques effectuées avec du câble vidéo coax RG59, 75 Ohms, est de 250 mètres.

Français

Panneau avant du serveur AXIS 2401+

● Voyant d'état
Le voyant d'état multicolore définit l'état opérationnel du serveur, comme cela est décrit ci-dessous :

- vert – le voyant clignote brièvement et s'affiche momentanément en orange pendant les sous-programmes de mise en route et d'auto-test ; il doit ensuite normalement s'afficher en vert pour indiquer un état d'unité correct.
- rouge – le voyant ne s'affiche en rouge qu'en cas de problème du serveur AXIS 2401+.
- orange – clignote avec une couleur orangée lors de la réinitialisation du serveur aux paramètres d'usine par défaut.

● Voyant réseau
Après exécution des sous-programmes de mise en route et d'auto-test, le voyant réseau multicolore clignote de manière indépendante, comme cela est indiqué ci-dessous :

- jaune – indique une activité réseau sur un réseau Ethernet 10 Mbit/s
- vert – indique une activité réseau sur un réseau Fast Ethernet 100 Mbit/s
- rouge – indique l'absence de connexion physique avec le réseau.

● Commutateur DIP
Terminaison de ligne simple pour la sortie vidéo supportée. Toutes les unités sont fournies avec la terminaison de ligne activée, c'est-à-dire avec le commutateur DIP en position basse.

Si le serveur AXIS 2401+ doit être connecté en parallèle avec un autre équipement, désactivez la terminaison d'entrée en plaçant le commutateur DIP correspondant en position haute (OFF). Le non respect de cette consigne peut entraîner une dégradation de la qualité de l'image.

● Voyant d'alimentation
Il est normalement allumé lorsque le système est sous tension. S'il est éteint ou s'il clignote, il signale une défaillance de la source d'alimentation externe du serveur AXIS 2401+.

● Bouton Control
Ce bouton est placé en retrait dans le boîtier du produit. En vous aidant d'un objet pointu adéquat, vous pouvez appuyer sur ce bouton pour restaurer les paramètres d'usine par défaut.

● Sortie vidéo
Une sortie vidéo unique (VIDEO OUT) terminée par un connecteur BNC/coax permet une connexion directe à un moniteur externe.

● Entrée vidéo
Connecteur BNC coaxial supportant une seule source vidéo. La longueur maximale conseillée pour une connexion physique effectuée avec du câble vidéo coax RG59, 75 Ohms, est de 250 mètres.

● Numéro de série
Situé sur l'étiquette que vous trouverez sous le serveur AXIS 2401+, le numéro de série est identique à l'adresse MAC/Ethernet de l'unité.

Français

Panneau arrière du serveur AXIS 2400+/2401+

● **Connecteur d'alimentation**
Une fiche monojack (PS-D) pour la connexion de l'alimentation du serveur AXIS 2400+/2401+.
Le connecteur de bornier fournit un point de connexion auxiliaire pour l'alimentation secteur ou en courant continu de l'unité.

● Bornier d'E/S
Bornier d'E/S Le connecteur de bornier d'E/S est situé entre les deux ports série sur le panneau arrière. Il fournit l'interface physique vers une sortie de commutateur à relais, quatre entrées numériques à couplage optique et une interface RS-485. Utilisez ce connecteur pour transmettre des données sur des lignes de communication multipoints, des dispositifs de tourelle universelle RS-485 ainsi que le déclenchement externe – généralement associé aux équipements de télévision en circuit fermé. Le connecteur peut également être utilisé comme point de connexion pour une alimentation en courant continu de l'unité.

POWER PS-D   COM 1   1 2 3 4 5 6 7 8   COM 2   ETHERNET 10/100   9 10 11 12 13 14 15 16
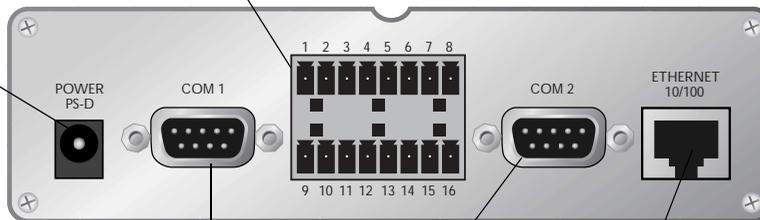
Connecteur série RS-232 ●

Deux connecteurs sub-D 9 broches fournissant une connexion série RS-232, dont l'un (COM1) est multiplexé avec le port RS-485 via le connecteur de bornier. Utilisé généralement pour l'interface le vers un dispositif de tourelle universelle. Le COM2 peut aussi être utilisé pour connecter un module audio AXIS 2191.

Connecteur réseau ●

Le serveur AXIS 2400+/2401+ est conçu pour les réseaux Ethernet 10 Mbit/s et Fast Ethernet 100 Mbit/s et se connecte au réseau à l'aide d'un connecteur RJ-45 standard. Compatible NWAY, le serveur AXIS 2400+/2401+ détecte la vitesse du segment de réseau local et adapte la vitesse des communications de données en conséquence (entre 10 Mbit/s et 100 Mbit/s).

Liste du matériel

Vérifiez les éléments fournis avec votre AXIS 2400+/2401+ par rapport à la liste suivante:

| Elément	Titre/Modèles	Elément	Titre/Modèles
Serveur vidéo	AXIS 2400+ AXIS 2401+	PSU (PS-D)	Europe Royaume-Uni
Document	AXIS 2400+/01+ Administration Manual v1.02		Australie Etats-Unis
	Garantie		Japon

Français

Remarque: Le bloc d'alimentation fourni avec votre serveur AXIS 2400+/2401+ est propre à chaque pays. Assurez-vous que le type d'alimentation que vous utilisez est correct. Reportez-vous à la Liste du matériel.

Installation sur un réseau

Utilisez le guide ci-dessous pour installer rapidement votre serveur AXIS 2400+/01+ dans un réseau Ethernet:

❶Connectez la sortie vidéo de votre (ou vos) caméra(s) au(x) port(s) vidéo du serveur AXIS 2400+/2401+ à l'aide d'un câble vidéo coaxial 75 ohms standard, terminé par un connecteur BNC (utilisez un convertisseur BNC-RCA si votre caméra est fournie avec un connecteur de type audio standard (RCA)).
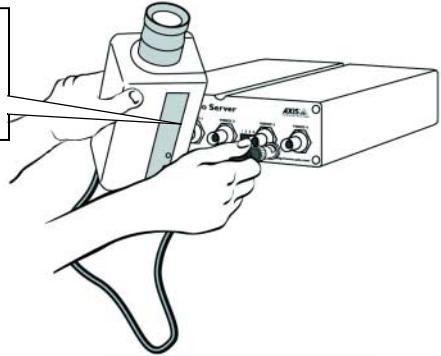
❷Notez le numéro de série sous l'unité. Vous en aurez besoin pour définir l'adresse IP.
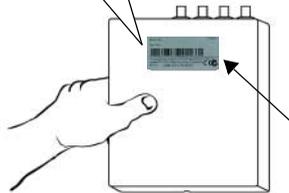
Numéro de série identique au numéro MAC/Ethernet ; par ex. 00408c100086 = 00-40-8c-10-00-86

❸ En utilisant une méthode appropriée pour votre système d'exploitation, attribuez à votre produit une adresse IP unique à partir d'un ordinateur de votre réseau :

Windows uniquement - Ouvrez une fenêtre DOS et saisissez les commandes suivantes :

Syntaxe - *NB: La commande ping est suivie de -I (L minuscule)*:

arp -s <adresse IP du serveur> <adresse Ethernet>
ping -I 408 -t <adresse IP du serveur>

Exemple:

arp -s 172.21.1.200 00-40-8c-10-00-86
ping -I 408 -t 172.21.1.200

UNIX uniquement - Saisissez les commandes suivantes sur la ligne de commande :

Syntaxe:

arp -s <adresse IP> <adresse Ethernet> temp
ping -s <adresse IP>

Exemple:

arp -s 172.21.1.200 00:40:8c:10:00:86 temp
ping -s 172.21.1.200

Remarque: Sous certains systèmes Unix, la commande arp peut être située dans un répertoire qui n'est pas dans le chemin des commandes.
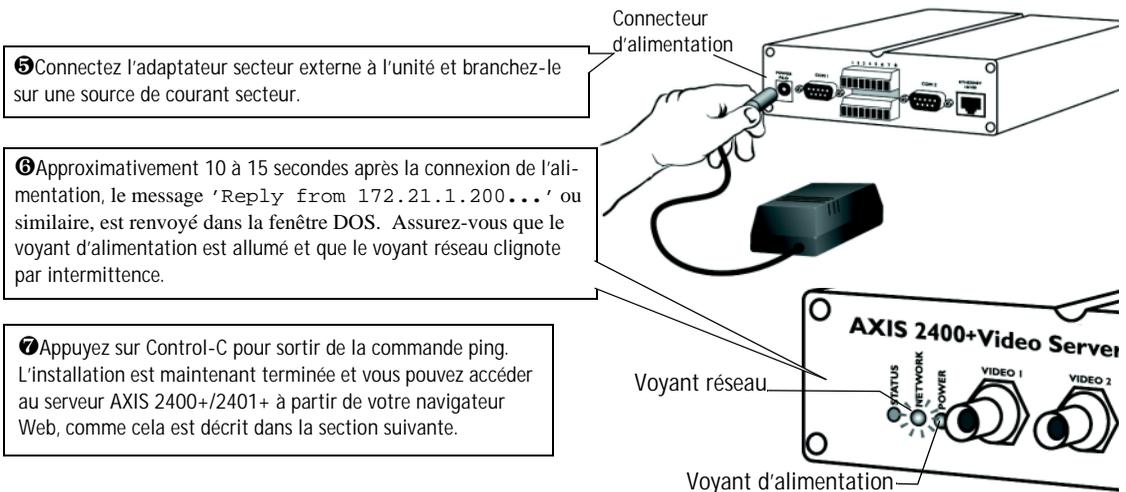
Vous voyez maintenant apparaître des messages **'Request timed out ...'** de manière répétée dans la fenêtre DOS.

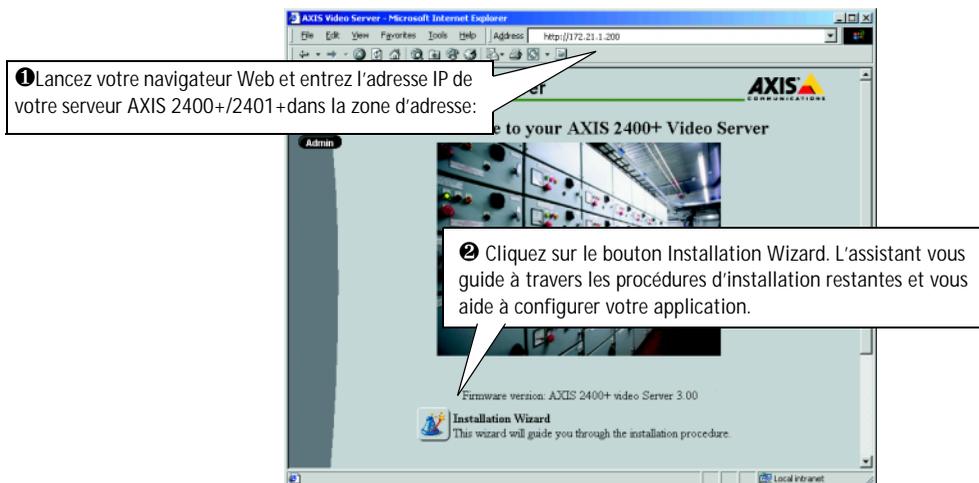❹Connectez un câble Ethernet à votre AXIS 2400+/01+, puis reliez-le au réseau.
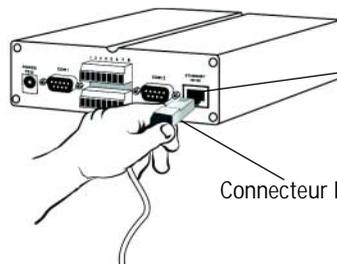
Connecteur réseau

Connecteur RJ-45

Français

Connecteur
d'alimentation

❺Connectez l'adaptateur secteur externe à l'unité et branchez-le
sur une source de courant secteur.

❻Approximativement 10 à 15 secondes après la connexion de l'alimentation, le message 'Reply from 172.21.1.200...' ou similaire, est renvoyé dans la fenêtre DOS. Assurez-vous que le voyant d'alimentation est allumé et que le voyant réseau clignote par intermittence.

❼Appuyez sur Control-C pour sortir de la commande ping. L'installation est maintenant terminée et vous pouvez accéder au serveur AXIS 2400+/2401+ à partir de votre navigateur Web, comme cela est décrit dans la section suivante.

Voyant réseau

Voyant d'alimentation

Vérification et fin d'installation à partir de votre navigateur

❶Lancez votre navigateur Web et entrez l'adresse IP de votre serveur AXIS 2400+/2401+dans la zone d'adresse:

❷ Cliquez sur le bouton Installation Wizard. L'assistant vous guide à travers les procédures d'installation restantes et vous aide à configurer votre application.

Important!

Français

Des paramètres d'usine par défaut

Dans certaines circonstances, il peut être nécessaire de restaurer les paramètres par défaut (**Factory Default**) de votre serveur AXIS 2400+/2401+. Pour cela, cliquez sur le bouton approprié dans la fenêtre **Administration Tools**, *ou* appuyez sur le bouton **Control**. Le bouton de contrôle est situé à l'intérieur du boitier du produit; entre les connecteurs VIDEO 3 et VIDEO 4 sur l'AXIS 2400+, et à gauche du connecteur VIDEO OUT sur l'AXIS 2401+.

Suivez les instructions ci-dessous pour restaurer les valeurs d'usine par défaut des paramètres du produit, en utilisant le bouton Control:

1. Mettez le serveur AXIS 2400+/2401+ hors tension en débranchant le cordon d'alimentation.

2. Tout en appuyant sur le bouton Control, reconnectez le cordon d'alimentation secteur.

3. Continuez à maintenir le bouton Control enfoncé jusqu'à ce que le voyant d'état s'affiche en *jaune* (notez que cela peut demander jusqu'à 15 secondes), puis relâchez le bouton. Lorsque le voyant d'état s'affiche en *vert* (ce qui peut prendre une minute) l'AXIS 2400+/2401+ aura alors restauré les paramètres d'usine.

Remarque: La restauration des paramètres d'usine par defaut réinitialise <u>tous</u> les paramètres, adresse internet incluses.

Français

Descripción del producto

Lea la información siguiente para familiarizarse con el AXIS 2400+/2401+, haciendo especial atención en el lugar en el que están situados los conectores e indicadores.

AXIS 2400+ Panel frontal

● **Indicador de estado**

El indicador de estado multicolor define el estado operativo del servidor, tal y como se describe a continuación:

- verde – el indicador destella brevemente y aparece momentáneamente en naranja durante las rutinas de inicio y autoevaluación; el indicador aparece luego en verde para indicar un estado de unidad correcto.
- rojo – el indicador aparecerá en rojo sólo si se ha producido un problema con la AXIS 2400+.
- naranja – destella en naranja cuando se vuelven a configurar los parámetros de fábrica por defecto.

● **Indicador de red**

Despúes de completar las rutinas de inicio y autoevaluación, el indicador de red multicolor destella independientemente, de la forma siguiente:

- amarillo – indica la actividad de red en una red Ethernet de 10Mbps
- verde – indica la actividad de red en una red Fast Ethernet de 100Mbps
- rojo – indica que no hay conexión física con la red.

● **Clavijas DIP**

Una clavija de terminación de línea correspondiente para cada una de las salidas de video soportadas. Todas las unidades se ofrecen con una terminación de línea para cada entrada de video soportada; es decir, con las clavijas DIP en la posición hacia abajo.

Si la AXIS 2400+ se conecta en paralelo con otro equipo, tiene que deshabilitar la terminación de entrada girando la clavija DIP correspondiente en la posición hacia arriba (OFF). No hacer esto puede deteriorar la calidad de imagen.
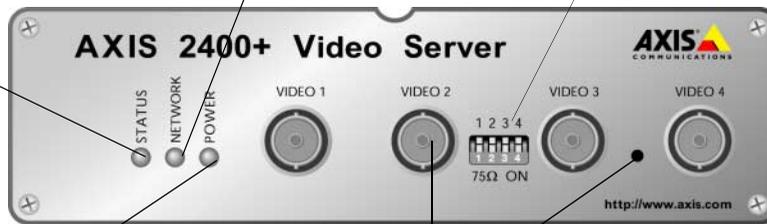
Indicador de corriente ●

El indicador de corriente está normalmente encendido cuando se aplica corriente. Si no está encendido, o destella, hay un problema con la fuente de energía externa de la AXIS 2400+.

Número de serie ●

Situado en la etiqueta de debajo de la AXIS 2400+, el número de serie es idéntico al de la dirección MAC/Ethernet de la unidad.

● **Botón Control**

Este botón está incorporado en la caja del producto. Con un objeto puntiagudo adecuado, pulse este botón para recuperar los parámetros de fábrica por defecto, tal y como se describe en *Incluir los parámetros por defecto, on page 65*.

● **Entrada de video**

Capacidad para 4 entradas de video separadas (VIDEO 1- VIDEO 4) simultáneamente.

Cada entrada de video soportado se termina usando un conector coaxial/BNC. Las conexiones físicas que se hacen usando cable coaxial de video RG59, 75 Ohm, tienen una longitud máxima recomendada de 250 metros.

Español

AXIS 2401+ Panel frontal

● **Indicador de estado**
El indicador de estado multicolor define el estado operativo del servidor, tal y como se describe a continuación:

- verde – el indicador destella brevemente y aparece momentáneamente en naranja durante las rutinas de inicio y autoevaluación; el indicador aparece luego en verde para indicar un estado de unidad correcto.
- rojo – el indicador aparecerá en rojo sólo si se ha producido un problema con la AXIS 2401+.
- naranja – destella en naranja cuando se vuelven a configurar los parámetros de fábrica por defecto.

● **Indicador de red**
Después de completar las rutinas de inicio y autoevaluación, el indicador de red multicolor destella independientemente, de la forma siguiente:

- amarillo – indica la actividad de red en una red Ethernet de 10Mbps
- verde – indica la actividad de red en una red Fast Ethernet de 100Mbps
- rojo – indica que no hay conexión física con la red.

● **Clavija DIP**
Una terminación de línea única para la salida de video soportada. Las unidades se ofrecen con una terminación de línea habilitada; es decir, con una clavija DIP establecida en la posición hacia abajo.

Si la AXIS 2401+ se conecta en paralelo con otro equipo, tiene que deshabilitar la terminación de entrada girando la clavija DIP correspondiente en la posición hacia arriba (OFF). No hacer esto puede deteriorar la calidad de imagen.

AXIS 2401+ Video Server

STATUS NETWORK POWER   VIDEO IN   OFF 75Ω ON   VIDEO OUT

http://www.axis.com

Indicador de corriente ●
El indicador de corriente está normalmente encendido cuando se aplica corriente. Si no está encendido, o destella, hay un problema con la fuente de energía externa de la AXIS 2401+.

● **Botón Control**
Este botón está incorporado en la caja del producto. Con un objeto puntiagudo adecuado, pulse este botón para recuperar los parámetros de fábrica por defecto.

● **Salida de video**
Una salida de video única (VIDEO OUT) terminada con un conector coaxial/BNC le permite conexión directa con un monitor externo.

Entrada de video ●
Un conector coaxial BNC que soporta una fuente de video única. La conexión física se hace usando cable coaxial de video RG59, 75 Ohm, con una longitud máxima recomendada de 250 metros.

● **Número de serie**
Situado en la etiqueta de debajo de la AXIS 2401+, el número de serie es idéntico al de la dirección MAC/Ethernet de la unidad.

Español

AXIS 2400+/2401+ Panel posterior

● **Conector de fuente de alimentación**
Un jack (PS-D) para conexión de la fuente de alimentación de AXIS 2400+/2401+ El conector del bloque terminal le proporciona un punto de conexión auxiliar para la fuente AC o DC a la unidad.

● **Bloque terminal I/O**
Bloque terminal I/O El conector del bloque terminal I/O está situado entre los dos puertos de serie en el panel posterior y proporciona la interfaz física a una salida de clavija relé, cuatro entradas de imagen acopladas y una interfaz RS-485. Utilice este conector para transmitir datos por líneas de comunicación multiterminales, dispositivos RS-485 Pan Tilt y activación externa normalmente asociada con equipo CCTV. El conector puede usarse como un punto de conexión alternativo para fuente DC a la unidad.
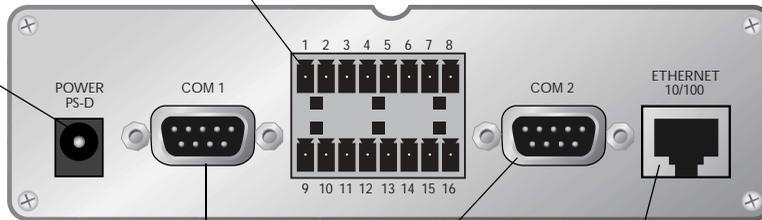
Conector de serie RS-232 ●
Dos conectores D-sub de 9 pins para conexiones en serie de tipo RS-232. Normalmente utilizadas para conectar dispositivos Pan/Tilt. COM1 está multi-plexado con el puerto RS-485 a través del conector del bloque terminal. COM2 puede utilizarse para conectar el módulo de audio AXIS 2191.

Conector de red ●
La AXIS 2400+/2401+ soporta redes Ethernet de 10 Mbps y Fast Ethernet de 100 Mbps y se conecta a la red a través de un cable de par trenzado de categoría 5 (10baseT y 100baseTX) con conector estándar RJ45. La AXIS 2400+/2401+ detecta automáticamente la velocidad de la red y varía la velocidad de comunicación de datos en función de esto (entre 10 Mbps y 100 Mbps).

Inventario de hardware

Compruebe los elementos que se ofrecen con la AXIS 2400+/2401+ teniendo en cuenta la lista siguiente:

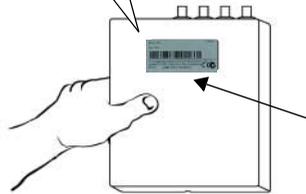| Elemento	Título/Variantes	Elemento	Título/Variantes
Servidor de video	AXIS 2400+ AXIS 2401+	PSU (PS-D)	Europa R.U.
Documento	AXIS 2400+/01+ Administration Manual v1.02		Australia EE.UU.
	Documento de garantía		Japón

Nota: La fuente de alimentación que se ofrece con su AXIS 2400+/2401+ depende del país. Por favor, compruebe que el tipo de fuente de alimentación que utiliza es correcta.
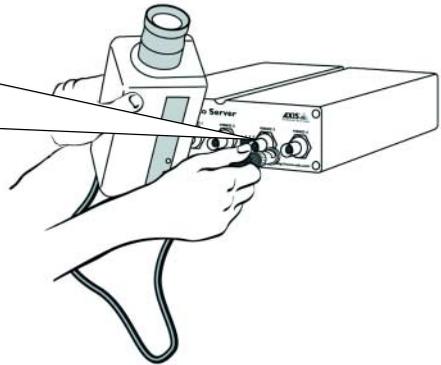
Instalar en una red

❶ Conecte la salida de video de su(s) cámara(s) al puerto(s) de video de la AXIS 2400+/2401+ usando un cable coaxial de video estándar de 75 ohm, terminado con un conector BNC. (Utilice un convertidor BNC a RCA si su cámara se suministra con un conector tipo fono estándar (RCA)).

❷ Fíjese en el número de serie de la parte inferior de la unidad. Debe saberlo para establecer la dirección IP.

Es el mismo número que el número MAC/Ethernet; p. ej. 00408c100086 = 00-40-8c-10-00-86

Prod. No.   17755001
Ser. No:

This equipment complies with the requirements in Part 15 subpart B of FCC Rules for a Class A computing device   Made in EC SWEDEN

❸ Utilice un método adecuado para su sistema operativo, asignando a su producto una dirección IP única desde un ordenador a su red, de la forma siguiente:

Sólo Windows - Inicie una ventana de DOS y teclee estos comandos:

Sintaxis - *El comando Ping se completa con el parámetro -I (L minúscula)*:

```
arp -s <Dirección IP servidor> <dirección Ethernet>
ping -I 408 -t <dirección IP servidor>
```

Ejemplo:

```
arp -s 172.21.1.200 00-40-8c-10-00-86
ping -I 408 -t 172.21.1.200
```

Sólo UNIX - Teclee estos comandos:

Sintaxis:

```
arp -s <dirección IP> <dirección Ethernet> temp
ping -s 408 <dirección IP>
```

Ejemplo:

```
arp -s 172.21.1.200 00:40:8c:10:00:86 temp
ping -s 408 172.21.1.200
```

Nota: En algunos sistemas Unix, el comando arp puede situarse en un directorio que no está en la ruta comando.

Ahora ve mensajes de `'Tiempo de espera agotado para esta solicitud'` que vuelven a aparecer repetidamente en la ventana de DOS.

❹ Conecte un cable Ethernet a su AXIS 2400+/2401+ y conéctela a la red.

Conector de red

Conector RJ-45

Español

Fuente de alimentación
Conector
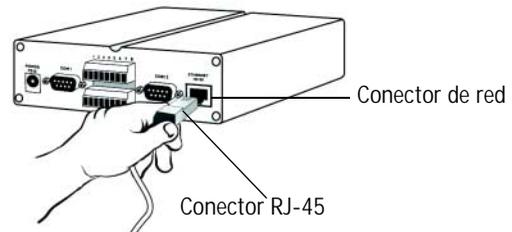
❺Conecte la fuente de alimentación externa a la unidad y conéctela a la fuente de alimentación principal.

❻10 o 15 segundos después de haber conectado la fuente de alimentación, el mensaje 'Respuesta desde 172.21.1.200...' – o similar vuelve a aparecer en la ventana de DOS. Asegúrese de que el indicador de corriente está encendido de forma permanente y de que el indicador de red destella intermitentemente.

❼Pulse Control-C para salir de ping. La instalación se ha completado y está preparado para acceder a la AXIS 2400+/2401+ desde su buscador de web, tal como se describe en la sección siguiente.

Indicador de red
Indicador de corriente
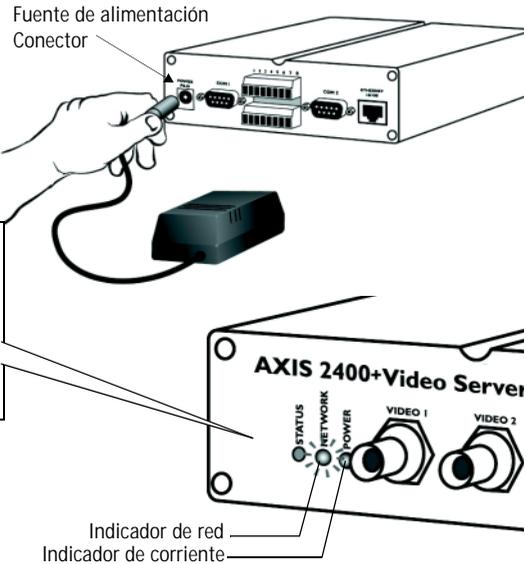
Verificando y completando la instalación desde su buscador web

❶ Inicie su buscador de web e introduzca la dirección IP de su AXIS 2400+/2401+1 en el campo ubicación/dirección, tal y como aparece a continuación.

Welcome to your AXIS 2400+ Video Server

Admin

❷ Haga clic en el botón del *asistente de instalación*. El asistente le guía por los procedimientos de instalación restantes y le ayudará a configurar su aplicación.

Firmware version: AXIS 2400+ video Server 3.00

Installation Wizard
This wizard will guide you through the installation procedure.

¡Importante!

- Para su venta AXIS 2400+/2401+ esta configurada para ser públicamente accedida (usando 'anony-mous'). La unidad también esta configurada para poder acceder a ella como Administrador, usando el nombre de usuario y la contraseña 'root' y 'pass' respectivamente. La contraseña del Administra-dor debe de ser cambiada inmediatamente para prevenir el acceso sin autorización a la adminis-tración y a las imágenes. Luego de hacerlo, cierre y vuelva a abrir su navegador para asegurar que los nuevos parámetros han sido registrados.
- Para permitir la actualización de imágenes en Microsoft Internet Explorer, configure el buscador para activar los controles ActiveX y hacer una única instalación del componente Axis' ActiveX en su est-ación de trabajo. Sin embargo, si su entorno de trabajo restringe o prohíbe la descarga de compo-nentes de software adicionales, puede configurar alternativamente su AXIS 2400+/2401+para utilizar una applet de Java para actualizar las imágenes. Para más información, consulte la ayuda en línea.

Incluir los parámetros por defecto

En algunas circunstancias, puede ser necesario volver a incluir los parámetros **de fábrica por defecto** para su AXIS 2400+/01+. Esto se realiza haciendo clic en el botón adecuado en **Herramientas de administración** *o* pulsando el **botón Control**.

El botón Control se encuentra en el interior del producto entre las entradas de video VIDEO 3 y VIDEO 4 en la AXIS 2400+, y a la izquierda de VIDEO OUT en la AXIS 2401+.

Siga las siguientes instrucciones para volver a incluir los parámetros del producto de fábrica por defecto utilizando el botón Control:

1. Apague el AXIS 2400+/2401+ desconectando el cable de la corriente.

2. Con un objeto convenientemente agudo, pulse y mantenga apretado el botón "Control" y vuelva a conectar el cable de la corriente

3. Siga manteniendo el botón "Control" apretado hasta que el indicador de estado luce *amarillo* (tenga en cuenta que puede tomar 15 segundos), luego deje de apretar el botón "Control". El indicador de estado aparece en *verde* después de máximo 1 minuto y su AXIS 2400+/2401+ se reinicia ahora con las configuraciones originales de la fábrica.

Nota: La reinstalación de los parámetros originales de la fabrica causara a todos los parámetros ser reajustados, incluyendo la dirección IP.

Español

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