

# AXIS 207/207W/207MW Network Camera Installation Guide

This installation guide provides instructions for installing the AXIS 207/207W/207MW on your network. For all other aspects of using the product, please see the product User’s Manual, available on the CD included in this package, or from [www.axis.com](http://www.axis.com)

## Installation steps

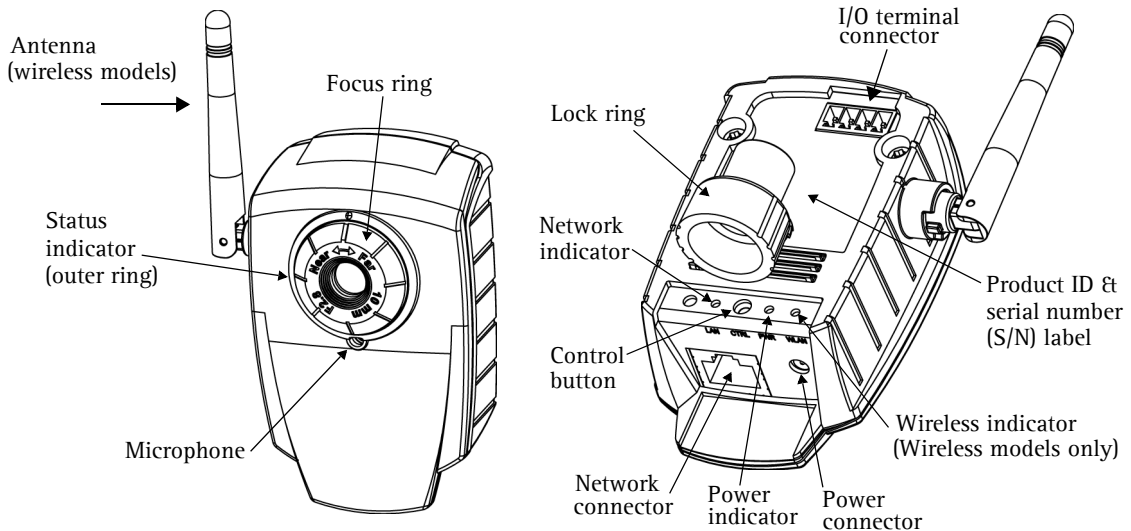
Follow these steps to install the AXIS 207/207W/207MW on your local network (LAN):

1. Check the package contents against the list below.
2. Make all the necessary connections. See page 6.
3. Set an IP address. See page 6 for information on the available methods.
4. Set the password. See page 10.
5. For wireless models, configure the wireless connection. See page 11.

## Package contents



Item	Description
Axis Network Camera models	AXIS 207 AXIS 207W AXIS 207MW
Power adapter	AXIS 207: Type PS-L, country-specific AXIS 207W/AXIS 207MW: type PS-H, country-specific
Camera stand	Supplied with 3 mounting screws. The extension section is ready fitted.
Flexible clamp	For shelf mounting
Connector block	4-pin connector block for connecting external devices to the I/O terminal connector
Cable clip	Self-adhesive - fixes to back panel for holding power cable
CD	Axis Network Video Product CD, including installation tools and other software, product documentation
Printed Materials	AXIS 207/207W/207MW Installation Guide (this document) Axis Warranty Document

## Hardware overview



## I/O terminal connector

The 4-pin I/O terminal connector provides the interface to the following:

Function	AXIS 207	AXIS 207W AXIS 207MW	Description	Pinouts
Transistor Output	Pin 4	Pin 4	With a maximum load of 100mA and a maximum voltage of 24V DC, this output has an open-collector NPN transistor with the emitter connected to the GND pin. If used with an external relay, a diode must be connected in parallel with the load, for protection against voltage transients.	The I/O terminal pins are numbered as shown below.  AXIS 207   AXIS 207W AXIS 207MW 
Digital Input	Pin 3	Pin 3	Connect to GND to activate, or leave floating (or unconnected) to deactivate.	
GND	Pin 2	Pin 1		
Auxiliary DC Power Input	Pin 1 (5VDC min 2.5W)	Pin 2 (5VDC min 3.5W)	Connected electrically in parallel with the power adapter, this pin provides an auxiliary connector for mains power to the unit. It can also be used to power auxiliary equipment, max 50mA.	

## LED indicators

Wireless	Unlit	Wired mode.
	Green	Steady for connection to a wireless network. Flashes for network activity.
	Red	Steady for no wireless network connection. Flashes when scanning for wireless networks.
Network	Amber	Steady for connection to a 10 Mbit/s network. Flashes for network activity.
	Green	Steady for connection to a 100 Mbit/s network. Flashes for network activity.
	Unlit	No wired network connection, or AXIS 207W/AXIS 207MW in wireless mode.
Status	Green	Steady for normal operation. Can be configured to flash green at intervals whenever the camera is accessed. See the online help for more information.
	Unlit	When configured for "no flash" on camera access.
	Amber	Steady during startup, reset to factory default and when restoring settings.
Power	Green	Normal operation.
	Amber	Flashes green/amber during firmware upgrade.

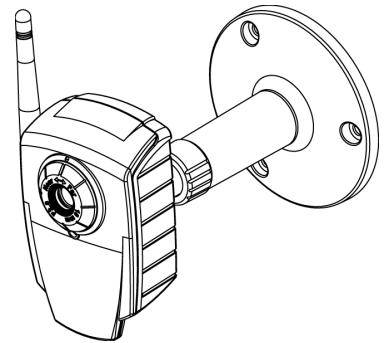
## Hardware installation

### Important!

The AXIS 207/207W/207MW is designed for **indoor use only**, and must always be positioned where it is not exposed to direct sunlight or strong halogen light, which can cause permanent damage to the camera's image sensor. Damage as a result of exposure to strong light is not covered by the Axis warranty.

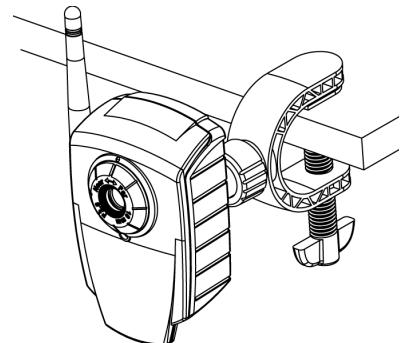
### Wall mounting

1. If required, use the 3 supplied screws to fix the base plate to a flat (horizontal or vertical) surface.
2. To use a shorter stand, unscrew the lock ring to release the camera, and remove the extension section.
3. Attach the camera, adjust the angle and tighten the lock ring.



### Shelf mounting

1. Position the clamp and tighten the fixing screw securely.
2. Attach the clamp to the lock ring on the camera.
3. Adjust the angle and tighten the lock ring.



## Cable Connections

1. Using the self-adhesive strip, attach the supplied cable clip to the rear panel and fasten the power cable to it. This will prevent accidental cable disconnection.
2. Connect the camera to the network using a standard network cable. For the wireless models, this connection is temporary and allows the camera's settings to be configured via the wired network before connecting to the wireless network. If required, the AXIS 207W/AXIS 207MW can be used solely as a wired camera, in which case the network cable should be left connected.
3. Connect the power adapter to the camera.

## Setting the IP address

The AXIS 207/207W/207MW must be assigned an IP address to make it accessible on the network (wired or wireless). The installation information below applies to all models.

### All installation methods

This table shows all of the available methods for setting or discovering the IP address.

Operating system	DHCP Server in network	Install on same network segment	Installation method
Windows	Optional	Required	AXIS IP Utility (recommended method for Windows) See page 7
Mac OSX (10.4 or later)	Optional	Required	Bonjour (recommended method for Macintosh) See page 8
Windows (ME or XP)	Optional	Required	UPnP™ See page 8
All		Required	ARP/Ping See page 8
All	Recommended		AXIS Dynamic DNS Service See page 9
All	Required		View DHCP server admin pages for IP address (See note below)

#### Notes:

- UPnP™ and DHCP are both enabled by default in the AXIS 207/207W/207MW.
- The AXIS 207/207W/207MW has the default IP address 192.168.0.90
- To view the admin pages for the DHCP server, please see the server's own documentation. You may need to contact your network administrator.
- If setting the IP address fails, check that there is no firewall blocking the operation.
- The AXIS Dynamic DNS Service requires an Internet connection with no HTTP proxy.
- Bonjour - applies only to browsers that support this, e.g. Safari. Bonjour is a trademark of Apple Computer, Inc.

## AXIS IP Utility

AXIS IP Utility is the recommended method for setting an IP address in Windows.

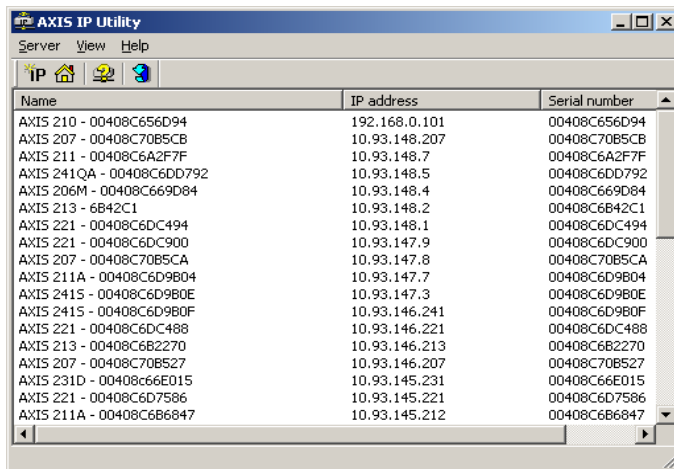
AXIS IP Utility is a free Windows application that discovers and displays Axis devices on your network. The application can also be used to manually set a static IP address. Can be used on networks with or without a DHCP server.

Note that you must install the AXIS 207/207W/207MW on the same network segment (physical subnet) as the computer running AXIS IP Utility.


AXIS IP Utility is available on the CD supplied with this product, or it can be downloaded from [www.axis.com/techsup](http://www.axis.com/techsup)

### Automatic discovery

1. Check that the camera is connected to the network and that power has been applied.
2. Start AXIS IP Utility. When the AXIS 207/207W/207MW appears in the window, double-click it to open the camera's home page.
3. See page 10 for instructions on how to set the password.



### Set the IP address manually

1. Acquire an unused IP address on the same network segment as your computer.
2. Check that the camera is connected to the network and that power has been applied.
3. Click the button  (Set IP address using serial number) and enter the serial number and IP address for the camera.
4. Click the Set IP button and follow the instructions.
5. Click View Home Page to access the AXIS 207/207W/207MW web pages.
6. See page 10 for instructions on how to set the password.

**Notes:**  
 Set the IP address using IP Utility within 2 minutes of starting the camera.  
 AXIS IP Utility can be used to change a dynamically set IP address to a static one.

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## Bonjour™

Bonjour™ will automatically discover the AXIS 207/207W/207MW when it is connected to the network. Simply navigate to the Bonjour™ bookmark in your browser (e.g. Safari) and click on the camera link to access the web pages. See page 10 for instructions on how to set the password.

## UPnP™

UPnP™ functionality is enabled by default in the AXIS 207/207W/207MW. If also enabled on your computer (Windows ME or XP), the camera will automatically be detected and a new icon will be added to “My Network Places.” Click this icon to access the camera.

See page 10 for instructions on how to set the password.

### Note:

To install the UPnP™ service on your computer, open the Control Panel from the **Start Menu** and select **Add/Remove Programs**. Select **Add/Remove Windows Components** and then **Networking Services**. Click **Details** and then select **UPnP** to add it.

UPnP™ is a certification mark of the UPnP™ Implementers Corporation.

## Installation with ARP/Ping

1. Acquire an unused IP address on the same network segment as your computer is connected to.
2. Locate the serial number (S/N) on the rear label (see page 3).
3. Open a command prompt on your computer. As appropriate for your operating system, enter the following commands:

<b>Windows syntax:</b>	Windows example:
arp -s <IP Address> <Serial Number> ping -l 408 -t <IP Address>	arp -s 192.168.0.125 00-40-8c-18-10-00 ping -l 408 -t 192.168.0.125
<b>UNIX/Linux/Mac syntax:</b>	UNIX/Linux/Mac example:
arp -s <IP Address> <Serial Number> temp ping -s 408 <IP Address>	arp -s 192.168.0.125 00:40:8c:18:10:00 temp ping -s 408 192.168.0.125

4. Check that the network cable is connected. Start/restart the camera by disconnecting and reconnecting power.
5. Close the Command prompt when you see ‘Reply from 192.168.0.125: ...’ or similar.
6. Start your browser, type in http://<IP address> in the Location/Address field and press **Enter** on your keyboard.
7. See page 10 for instructions on how to set the password.

**Notes:**

- To open a command prompt in Windows: from the Start menu, select Run... and type cmd (or command in Windows 98/ME). Click OK.
- To use the ARP command on a Mac OS X, use the Terminal utility, which is found under Applications > Utilities
- Set the IP address within 2 minutes of starting the camera.

## AXIS Internet Dynamic DNS Service

The AXIS Internet Dynamic DNS Service is a free service provided by Axis, which allows you to quickly and simply install your camera, which then receives a static DNS name. More information about the AXIS Internet Dynamic DNS Service is available at [www.axiscam.net](http://www.axiscam.net)

To perform this procedure, your network should have an Internet connection with no HTTP proxy, and IP addresses should preferably be assigned via DHCP.

**Follow these instructions:**

1. After making the connections for network and power, wait for the Status indicator to show a steady green.
2. Press the **Control** button **once**. The Status indicator flashes green while it connects to the AXIS Internet Dynamic DNS Service.
3. Wait for the Status indicator to go back to showing a steady green.
4. To complete the installation, now visit [www.axiscam.net](http://www.axiscam.net) from an Internet connected computer. This must be done within 60 minutes of pressing the Control button.
5. Follow the on-screen instructions provided by the AXIS Internet Dynamic DNS Service. You will need the product's serial number to complete the installation. See page 3.

See page 10 for instructions on how to set the password.

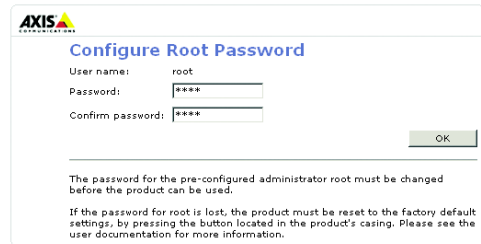
**Important!**

Please note that this procedure will send the IP address, firmware version, product type and serial number of the AXIS 207/207W/207MW to the AXIS Internet Dynamic DNS Service. No personal information is transferred.

To remove the DNS name and unregister from this service, open the Setup pages in the AXIS 207/207W/207MW, click **System Options > Network > TCP/IP > Basic**, click the **Settings** button for the AXIS Internet Dynamic DNS Service and finally, click the **Remove** button.

## Setting the Password

1. When accessing the AXIS 207/207W/207MW for the first time, the 'Configure Root Password' dialog will be displayed on the screen.
2. Enter a password and then re-enter it, to confirm the spelling. Click OK.
3. The 'Enter Network Password' dialog will appear. Enter the User name: root  
**Note:** The default administrator user name root is permanent and cannot be deleted.
4. Enter the password as set in step 2 above, and click OK. If the password is lost, the camera must be reset to the factory default settings. See page 13.
5. If required, click Yes to install AMC (AXIS Media Control), to allow viewing of the video stream in your browser. You will need administrator rights on the computer to do this.  
 QuickTime™ and Real Player™ are also supported for viewing streaming MPEG-4 video.
6. The camera's Live View page is displayed, complete with a link to the Setup tools, which allow you to customize the camera to your specific needs.



**Configure Root Password**

User name: root

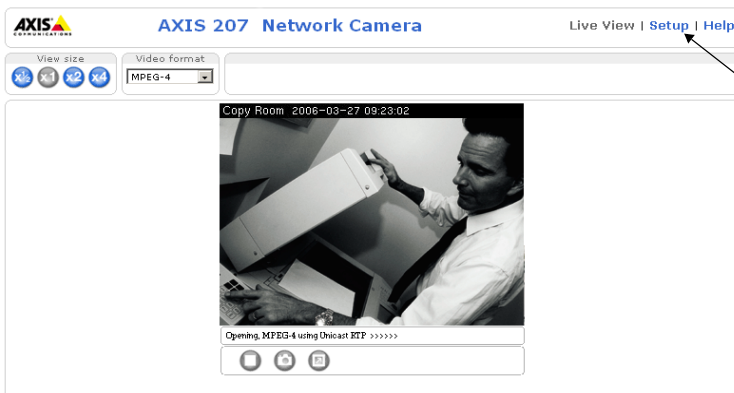
Password: \*\*\*\*

Confirm password: \*\*\*\*

OK

The password for the pre-configured administrator root must be changed before the product can be used.

If the password for root is lost, the product must be reset to the factory default settings, by pressing the button located in the product's casing. Please see the user documentation for more information.



Help - context-sensitive online help.

Setup - tools for configuring the camera.



## AXIS 207W/AXIS 207MW wireless connection

Once the camera has been installed on your network, the wireless settings can be configured. These settings should always (i.e. both during installation and at all other times) be configured or changed in the camera first and in the wireless access point secondly. This ensures that the camera is always accessible when making changes.

The AXIS 207W/AXIS 207MW automatically senses the available network connections, and allows only one of these to be active at a time. Connecting a network cable disables the wireless connection.

Using a wired connection ensures greater secrecy while making these settings.

Open the wireless settings from **Setup > System Options > Network > Wireless**. These settings can also be reached from the Basic Configuration menu.

### Status of Wireless Networks

This list is the result of a network scan. Access points with a disabled SSID Broadcast will not appear unless the camera is associated with it. The network currently associated to is shown in blue. A network using unsupported security is shown in grey. The following information is provided:

- SSID - The name of a wireless network (or ad-hoc device). If the same name occurs several times this means that several access points for that network were found. The AXIS 207W/AXIS 207MW cannot be configured to only associate with one particular access point.
- Mode - An Access Point (Master) or Ad-Hoc device.
- Security - Shows which type of security the network uses. See below for the supported security types.
- Channel - Shows the wireless channel currently in use.
- Signal strength - Shows the signal strength.
- Bit rate - Shows the bit rate in Mbit/s. This can only be shown for the access point currently in use. Note that the bit rate shown is the current rate, and that this value may vary over time.

### Wireless Settings

These settings control how the AXIS 207W/AXIS 207MW interacts with the wireless network. Apart from identifying the wireless network, it is also possible to enable wireless encryption.

**SSID** - This is the name of the wireless network the camera is configured for. The field accepts up to 32 alphanumeric characters. The name must be exactly the same as that used in the wireless access point, or the connection will not be established.

Leaving this field blank means the camera will attempt to access the nearest unsecured network.

**Note:** SSID is sometimes written as ESSID.

**Mode** - Setting this to **Managed** means the camera will attempt to access the nearest unencrypted access point. The **Ad-hoc** option allows the camera to connect to other wireless devices.

**Security** - The AXIS 207W/AXIS 207MW supports two security methods:

- **WPA-PSK** (recommended method)
- **WEP**

## WPA-PSK (Wi-Fi Protected Access - Pre-Shared Key)

The AXIS 207W/AXIS 207MW uses a pre-shared key (PSK) for key management. The pre-shared key can be entered either as Manual hex, as 64 hexadecimal (0-9, A-F) characters, or as a Passphrase, using 8 to 63 ASCII characters.

## WEP (Wired Equivalent Protection)

**WEP - Authentication** - Select Open or Shared Key System Authentication, depending on the method used by your access point. Not all access points have this option, in which case they probably use Open System, which is sometimes known as SSID Authentication.

**WEP - Key length** - This sets the length of the key used for the wireless encryption, 64 or 128 bit. The encryption key length can sometimes be shown as 40/64 and 104/128.

**WEP - Key Type** - The key types available depend on the access point being used. The following options are available:

- **Manual** - Allows you to manually enter the hex key.
- **ASCII** - In this method the string must be exactly 5 characters for 64-bit WEP and 13 characters for 128-bit WEP.
- **Passphrase** - The passphrase can contain up to 31 characters. In 64-bit WEP, the Passphrase generates 4 different keys. For 128-bit WEP, only 1 key is generated, which is then replicated for all 4 keys. Key generation is not standardized and can differ from brand to brand. Check that the generated keys are identical to those in your access point - if not, they must be entered manually.

**WEP - Active Transmit Key** - When using WEP encryption, this selects which of the 4 keys the AXIS 207W/AXIS 207MW uses when transmitting.

## Complete the wireless installation

1. Check that the wireless settings in the AXIS 207W/AXIS 207MW correspond to the settings in the access point.
2. Disconnect the network cable from the camera.
3. Refresh the web page after 20-30 seconds to confirm the wireless connection. If the camera cannot be accessed, run AXIS IP Utility to discover the new IP address and try again.

## Accessing the camera from the Internet

Once installed, your camera is accessible on your local network (LAN). To access the camera from the Internet you must configure your broadband router to allow incoming data traffic to the camera. One method for this is NAT traversal via port mapping.

For more information, please refer to the product's User's Manual, available on the CD included in this package and from the Axis Web site at <http://www.axis.com>.

See also the AXIS Internet Dynamic DNS Service at [www.axiscam.net](http://www.axiscam.net)

## Resetting to the Factory Default Settings

This will reset all parameters, including the IP address, to the Factory Default settings:

1. Disconnect power to the camera.
2. Press and hold the Control button and reconnect power.
3. Keep the button pressed until the Status Indicator displays yellow (this may take up to 15 seconds), then release the button.
4. When the Status indicator displays green (which can take up to 1 minute) the camera is reset to the factory default settings.
5. Re-install the camera using one of the methods described in this document.

## More information

For more information, please see the product's User's Manual, which is available on the CD included in this package. Updated versions can be obtained from [www.axis.com](http://www.axis.com)

