

Introduction

The CAM-INT-00 is a 1 / 2.7" Mega-Pixel CMOS sensor IP camera with a built-in web server. The user can view real-time video via IE browser. It supports H.264, and M-JPEG video compression, providing smooth and high video quality.

Supports Wired Ethernet connections and Wi-Fi connectivity with a user friendly interface, it is an easy-to-use IP camera for security applications. The camera support a web interface that allows authorised users access the camera menus and change settings.

The only configuration of the Camera that the Installer is required to do is set the IP address and/or Wi-Fi settings and also set up the image/focus.

The panel will configure all required settings for visual verification of the camera once the IP address of the camera has been entered in to the panel.

Package contents:

- 1 x internal IP camera
- 1 x bracket
- 1 x screw package
- 1 x quick installation guide

Note: It is recommended you follow these instructions and configure the device before mounting it.

This product must be installed by qualified service personnel.

Installing the unit

Connections

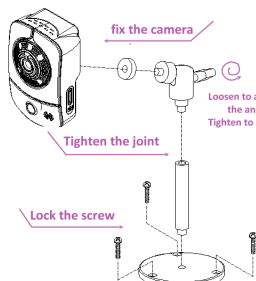
The camera connectors are as below.



Connect the power and the Ethernet cable to the camera and set it according to your network environment.

Mounting Bracket

Use the screws to lock the bracket to the wall or ceiling, and then connect the camera to the bracket. There's a knob on the back of the bracket, after the knob is loosened you can adjust the angle of camera; tighten it to fix the angle.



Adjust focus

Use the rotary dial to adjust focus until the image is clear.



Power Over Ethernet (Optional)

802.3af, 15.4W PoE Switch is recommended

Power over Ethernet (PoE) is a technology that integrates power into a standard LAN infrastructure. It allows providing power to a network device, such as an IP phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations and enables easier application of uninterruptible power supplies (UPS) to ensure an operation of 24 hours a day, 7 days a week.

IP assignment

By default the camera will be configured to obtain a DHCP IP address when plugged into a DHCP enabled router.

Alternatively the camera can be connected to a WPS enabled router. The WPS learn mode is initiated by pressing the WPS button until the blue light is flashing, once the camera has synced with the WPS enabled router then the blue light will remain on.

If the camera does not detect a DHCP connection then it will switch to a fixed IP address of 192.168.0.200.

Connect to WiFi using WPS

1. Locate WPS button on the Wi-Fi router
2. Depending on the make and model this may start to flash. Press to activate the WPS feature (consult router manufacturer for details on WPS function)
3. Locate the WPS button on rear of camera
4. Press and hold WPS button till the blue LED starts to flash. When the camera and

router are connected the blue LED stops flashing and remains ON

IP address discovery

If the DHCP or WPS is used to assign an IP address to the camera then the IP address will not be known to the installer, there are 2 recommended methods to discover the IP address.

1. IP motion App

IP motion App - This is an Android or iOS app which has a LAN search feature which will seek out and display the IP address of any cameras on the same network, also with the added ability to view the live stream of the cameras.

The Android app can be found in the Google Play store, below is a QR code to easily find it.



The IOS app can be found in the App store, below is a QR code to easily find it.



1. Open the app and Press on the LAN Search button for searching IP devices connected to the LAN network
2. A list of on-line camera will be displayed, with the current IP address and port number
3. If a camera is selected then a detailed view will be displayed.
4. Pressing test will provide a snapshot in order to confirm the camera view
5. Pressing save will add the camera to the app's camera view
6. Selecting the required camera will provide a live stream

2. IP Installer

This is a Windows PC application which will seek out and display the IP address of any cameras on the same network. It also provides the ability to change the IP of the camera. This software is free to download from www.touchpoint-online.com

1. Run the installation programme IP InstallerENG.EXE
2. Select 'Search Device'
Camera will be shown in the device list
3. Select the camera

This will show the default details of the camera. IP address, Subnet Mask, Gateway and Mac Address

4. Change name of the camera
5. Change IP information if known
IP address, Subnet Mask, Gateway address and DNS
6. Change Static to DHCP
This allow the router to allocate a free address to the camera
7. Press Submit to save changes
Camera reboots
8. Select Camera
IP address of camera assigned by router will be displayed

Subnet Mask, Gateway etc. will also be automatically filled out
9. Change DHCP back to Static
Assigns a static address to the camera.
10. Press Submit to save changes
Camera reboots

Camera set up

Once the IP address is known then the installer can configure the basic set up of the camera.

To access the camera, the Installer must enter the IP address of the camera into a web browser on a PC, Tablet or smartphone such as Internet Explorer, Firefox, Safari, Chrome etc.

The camera will asked for a user name and password;

The default username is: admin

The default password is: admin

Once the username and password has been entered then the installer will be presented with a live view of the selected camera similar to the screenshot below.

Please note: to display the live feed then the Browser will need to support ActiveX.

From the live view screen the Installer can access the configuration screen by clicking on the "spanner" icon.

Once in the configuration screens the Installer can configure various options.

Panel & camera set up

When the IP address and HTTP Port number is known it can be entered into the control panel.

The table below shows the requirements for the alarm panel configuration for each of the 4 cameras:

Camera triggers	When an event occurs within the system the control unit will send a command to the camera to carry out its action, the available triggers are: Fire Alarm, Hold Up Alarm, Burglar Alarm, Technical Alarm, Tamper, Duress Code, 24 Hour Alarm, Perimeter, Full Set, Part Set, Unset, Zone follow & Zone Alarm
Zone Follow	Only displayed if Zone follow is set to yes in Camera Triggers. Displays a list of programmed zones that can be followed.

Zone Alarm	Only displayed if Zone Alarm is set to yes in Camera Triggers. Displays a list of programmed zones that can be followed in Alarm.
Trigger Partitions	Option to set which partitions the camera and camera triggers apply to, a list of all partitions will be displayed with the option to enable or disable each partition or enable or disable all partitions (only displayed in partition mode).
IP address	The IP address of the camera installed at the premises.
HTTP Port Internal	The Port used to communicate with the camera, default is 80.

When a specified event occurs the control unit will instruct the relevant camera to acquire JPG images and send them to the control unit, where these images will be stored on the locally fitted SD card, if a corresponding email trigger is set up then the control unit will then attach these images to an email and send to a specified recipient(s).

The amount of images that will be attached to the email will be 15 equivalent to 1 image per second for 5s pre event 10s post event.

Up to 4 IP cameras can be configured in the panel. The panel will need to have the address of the camera and required triggers programmed into it.

Once the IP address of the camera has been entered into the panel UI, then the panel will periodically poll the camera for its presence and report if there is no response from a camera.

Image Settings

The installer can make various changes the image settings

- For security and privacy purposes, there are three areas that can be set up for privacy. Click the Area button first, and then drag an area on the above image. Remember to save your settings. The masked area will not be shown on both live view and recording image.
- Brightness, Contrast, Hue, Saturation, Sharpness can be adjusted here. The available values are: -4, -3, -2, -1, 0, 1, 2, 3, 4
- AGC: The sensitivity of the camera can be adjusted to the environmental lighting. By enabling this function the camera will get brighter images on low light, but the level of noise may also increase. The available values are: 16x, 24x, 32x, 48x.
- Shutter Time: Choose the location of your camera or a fixed shutter time. The shorter the shutter time is the less light the camera receives and the image becomes darker.

Note: When you select a number in Shutter Time, the shutter time will vary in a range and be controlled by camera automatically. The following table shows the shutter time options and corresponding range.

Option	Shutter Time Range (sec.)
Outdoor	1/33000 ~ Selected number in Sense-up
Indoor	NTSC: 1/120 ~ Selected number in Sense-up PAL: 1/100 ~ Selected number in Sense-up
1/30	1/33000 ~ 1/30
1/50	1/33000 ~ 1/50
1/60	1/33000 ~ 1/60
1/100	1/33000 ~ 1/100
1/125	1/33000 ~ 1/125
1/250	1/33000 ~ 1/250
1/500	1/33000 ~ 1/500
1/1000	1/33000 ~ 1/1000
1/33000	1/33000
* Sense-up options: 1/30, 1/15, 1/10	

5. Sense up: When enabled, provides a higher sensitivity in low light conditions by slowing the shutter speed. The available values are: 1/30, 1/15, 1/10, 1/5.

6. D-WDR: This function enables the camera to reduce the contrast in the view to avoid dark zones as a result of over and under exposure. If the Input resolution is 30fps, the default value is fixed on ENABLED. The available values are: OFF, 1, 2, 3, 4, 5, 6, 7, 8. If the D-WDR is enabled the values for bright, dark and contrast can be adjusted.

7. Anti Fog: Improve the image clarity on environments presenting high levels of fog or smoke.

8. Lens Distortion Correction: Straight the curves in the borders of the image caused by the lens angles. The available values are: OFF, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

9. Video Orientation: Flip or mirror the image.

10. Day & Night: The camera can detect the light level of the environment. If you choose Light Sensor Mode, the image will be turned black and white at night in order to keep a clear image. To set light sensor mode, appoint a Lux standard of switching D/N. The current Lux value is provided for reference. Under Times Mode the switch time of Color / Black and white will be according to the given time. You can also control it by choosing Color or B/W.

11. Red / Blue gain: Set the values for Red / Blue gain. The available values are: -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5

12. Denoise: This function is able to filter the noise and blur from the image and show a clearer view. You can set the values for 2D and 3D filters.

User Management

The installer can change the default username & password, create and remove users.

Wireless Setting

The installer can change connect the camera to a Wi-Fi network, the camera will display the available networks and their SSID's and the required level of security.

IP Setting

The installer can change the IP assignment mode to and from DHCP or Static. When Static

is selected then the options displayed below can all be manually edited.

Please Note: It is advised that if the IP address is assigned via DHCP that the IP assignment mode is changed to Static to retain the IP address should there be a loss of power to the camera or the router.

Log list

The installer can view the system log of the camera.

Factory Default

If you forget your password, please follow the steps to revert back to default value.

1. Remove the power adapter and Ethernet cable from the camera.
2. Press and hold the Default button on the back of the camera
3. Connect back the power to the camera. It will take around 30 seconds for the camera to boot.
4. Release the Default button after the camera finishes booting.
5. Re-login the camera by using the default IP (<http://192.168.0.200>), and user name: admin, password: admin.

Specifications

Hardware

CPU: Multimedia SoC

RAM: 256MB

Flash: 16MB

Image Sensor: 1 / 2.7" Mega-Pixel CMOS sensor

Sensitivity: Color : 0.1 Lux (AGC ON)

Black & white: 0.05 Lux (AGC ON)

Lens Type: 2.8mm @ F2.0

View Angle: 111.10°(H), 65.10°(V)

ICR: IR cut filter mechanism

Audio: G.711(64K) and G.726(32K,24K)

Input : Mic built-in

Output : 3.5mm phone jack, or Speaker

Support 2-way audio

I/O: 1 DI / 1 DO

Video Output: N/A

PIR: Yes

Power over Ethernet: Yes

Power Consumption: DC 12V Max: 3.6W (IR ON); 2.76W (IR Off)

PoE Max: 4.3W (IR ON); 3.3W (IR Off)

Operating Temperature: 0°C ~ 45°C

Dimensions: 62mm x 100mm x 44mm

Weight: 230g

IR LEDs

LEDs: 4 LEDs, 850nm,

IR Distance: 8M

System

Privacy Mask: Yes, 3 different areas

Compression Format: H.264/ M-JPEG

Video Bitrates Adjust: CBR, CVBR

Motion Detection: Yes, 3 Different Areas

Triggered Action: Mail, FTP, Save to SD card, Samba, DO

Pre/ Post Alarm: Yes, configurable

Security: Password protection, IP address filtering, HTTPS encrypted data transmission, 802.1X port-based authentication for network protection, QoS/DSCP

Firmware Upgrade: HTTP mode, can be upgraded remotely

Simultaneous Connection: Up to 10

Micro SD card management

Recording Trigger: Motion Detection, IP check, Network break down (wire only), Schedule, DI

Video Format: AVI, JPEG

Video Playback: Yes

Delete Files: Yes

Web Browsing Requirement

OS: Windows 7, 2000, XP, 2003, Microsoft IE 6.0 or above, Chrome, Safari, Firefox.

Mobile Support: iOS 4.3 or above, Android 1.6 or above.

Hardware Suggested: Intel Dual Core 2.53G, RAM: 1024MB, Graphic card: 128MB

SIMPLIFIED EU DECLARATION OF CONFORMITY
Hereby, Eaton Electrical Products Ltd declares that the radio equipment type CAM-INT-00 is in compliance with Directives 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:
www.touchpoint-online.com

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Eaton, Security House,
Vantage Point Business
Village, Mitcheldean,
GL17 0SZ

www.touchpoint-online.com



Product Support (UK) Tel: +44 (0) 1594 541978 available 08:30 to 17:00 Monday to Friday.
email: securitytechsupport@eaton.com

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