



EN

# User Manual

**1/2.8" Network Dome, Fixed,  
Day&Night, 1920x1080,  
Infrared, 12VDC, PoE, IP66**

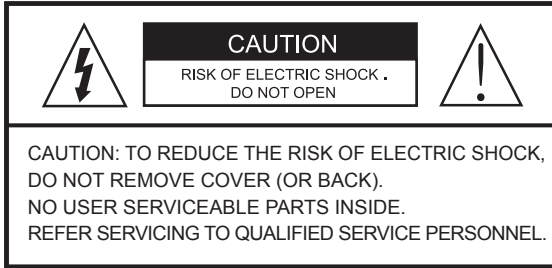
**IED-62F0036M0A**

**IED-62V2812M0A**



# Safety Precaution

- To prevent fire or shock hazard, do not expose the unit to rain or moisture.
- To prevent electric shocks and risk of fire hazards, do NOT use other than specific power source.



The symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the unit.

## • Warning :

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## • Caution :

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Mains power quality should be that of a typical commercial environment. If the user of the model requires continued operation during power mains interruptions, it is recommended that the model be powered from an uninterruptible power supply (UPS) or a battery.

# Safety Precaution

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## NOTICE

- The image used in this instruction manual are processed to help comprehension and may differ from actual video of the camera.
- Avoid installing areas where has shock or vibration which results in the problems.
- Pay attention to safety when laying the connection cable and observe that the cable is not subjected to heavy loads, kinks or damage and no moisture can get in.
- Never open the device such as boards or lens.  
The warranty becomes void if repairs are undertaken by unauthorized persons.
- Maintenance and repair have to be carried out only by authorized service centers.
- Use only a mild detergent to clean the housing body only but never for the clear bubble dome.
- The camera should never be operated beyond the technical specifications.  
This can lead to destruction.
- The camera should never be operated in water.

# Contents

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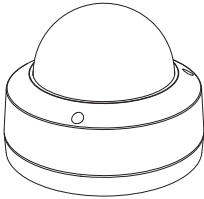
p.03~04	Safety Precaution
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# Features

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- Full-HD 2Mega Pixel, NETWORK CAMERA, 1920x1080(30p/25p)
- ONVIF Conformance
- Zero configuration
- Cross Web Browsing (IE, Edge, Safari, Firefox, Chrome)
- Adaptive web resizing depending on layout & resolution of display device by RESPONSIVE WEB
- Increased usability for all PC, tablet and mobile
- Simultaneously H.264 & MJPEG (Triple streaming)
- ONVIF Event Mapping
- Lens
  - > IED-62V2812M0A : f=2.8~12mm F1.4, Mega pixel Vari-focal lens
  - > IED-62F0036M0A : f=3.6mm F2.3, Mega pixel Fixed lens
- Dual Filter Switcher
- D-WDR (Digital Wide Dynamic Range)
- Improved noise figure with the enhanced 3DNR
- Motion Detection, Privacy Mask, Tamper, Defog, BLC/HLC, D-Zoom(~16x), Mirror/Flip, LDC(Lens Distortion Correction), Sens-up(Slow Shutter), Smart IR, Hue, Contrast, Brightness, Saturation, Sharpness, Auto-Flickerless, VerticalView(90°/270°)
- Circuit protection against faulty connection in power polarity
- PoE(IEEE Std. 802.3af) & DC12V
- Built-in 30pcs IR-LED
- 3-Axis Gimbal, Surface mount
- Optimized Cooling System
- IP66 Protection

# Composition



Network Camera

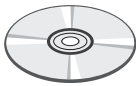
Plastic Anchor: 6.5 x 26.6mm (4pcs)



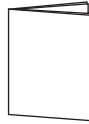
Mounting Screw: 4 x 25mm (4pcs)



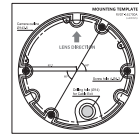
L-Wrench (1pc)



Installation CD



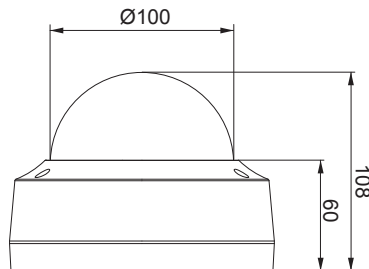
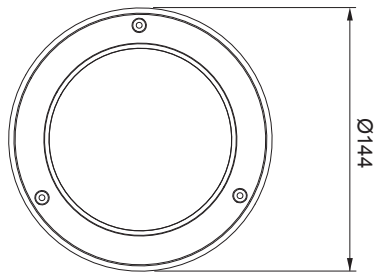
Operating Instruction



Mounting Template

# Dimensions

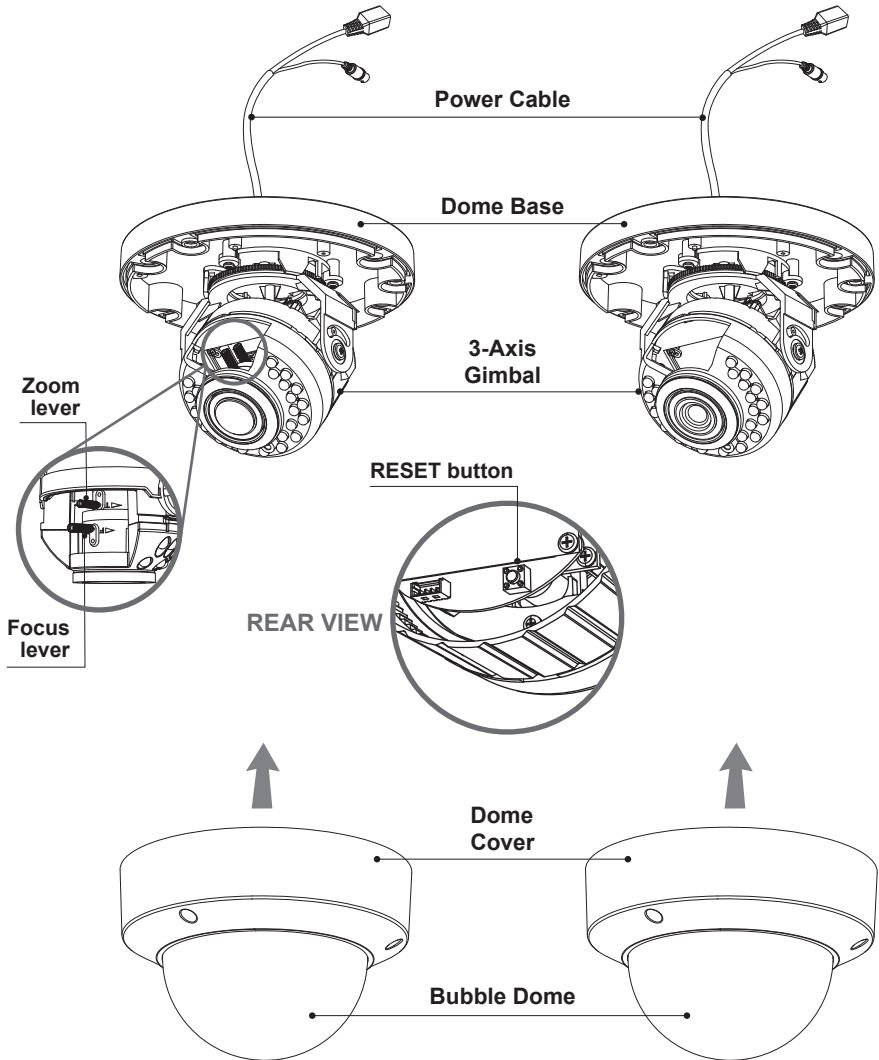
(unit : mm)



# Part Names

[ IED-62V2812M0A ]

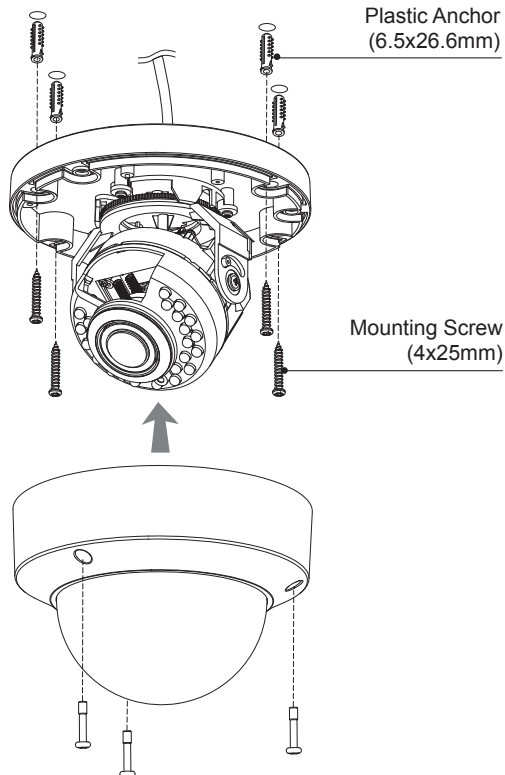
[ IED-62F0036M0A ]





# Installation Instructions

1. Drill four holes for mounting on the ceiling or wall.
2. Place the dome base at the pre-drilled installation position and fix it by using mounting screws.
3. Route the power & ethernet cable to the connecting place.
4. Adjust the camera's viewing angle (Pan, Tilt, Rotation)
5. Assemble the dome cover to the dome base unit.



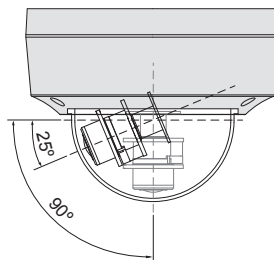
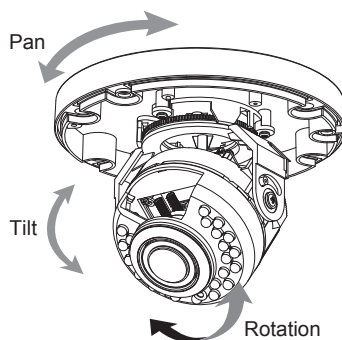
## **!** CAUTION

- Extreme care should be taken NOT to scratch the lens and the bubble dome surface while the camera installing or adjusting.
- Care should be taken the cable is NOT to be damaged, kinked or exposed in the hazardous area.
- Do not expose the camera directly to a strong light source such as the sun or spot light.

# Installation Instructions

## Limit of Pan & Tilt

- 1) Pan limit:  
Adjusts the first pan angle by turning the gimbal 360°.
- 2) Tilt limit:  
Tilt is limited to 25°min ~ 90°max. with reference to the ceiling when the inclination of camera module is 0°, that is, the image is aligned horizontally.
- 3) Rotation limit  
(Horizontal image alignment):  
Adjust the rotation angle by turning the upper gimbal 360°.



### **CAUTION**

- Be careful with the cable twisting during pan or tilt adjustments.

## Zoom & focus adjustments (Vari-focal lens type)

- Turn the Focus lever to "N"(Near) or "∞"(Far) until the sharpest focus is made.
- To widen the viewing angle, turn the Zoom to "W"(Wide) and to obtain a closer view, turn it to "T"(Tele)

## Installation and commissioning Instructions

- Make sure the power is removed before the installation.
- After all connections are finished properly, follow the order for applying power.
  - a) Plug the network cable into RJ-45 Ethernet Port.  
If PoE is the unique power, there will be no need to connect Power jack.
  - b) When DC12V Local power is necessary, connect the low voltage (DC12V) first, then plug the DC adapter to DC outlets to avoid an improper reset from power jitter and a damage from the surge voltage when no load.
- ▶ When PoE and Local DC power are connected at the same time, Local power has priority.

# Operating Instructions

## Power Supply Connections

Camera can work with either DC12V or PoE(IEEE Std. 802.3af).  
Primary and secondary grounds are completely isolated to avoid the possible ground loop problems.

## Quick Network Setup

### ■ Log-in the Web-Viewer

1. After the camera is connected to the network start '**eneo Scan Device**' tool (enclosed CD).
2. Use the '**Scan eneo**' button to find the camera in your network.
3. By default the camera is set to DHCP. If there is no DHCP server present in the network the camera will fall back to a default IP address after a while.  
In this scenario please only add one camera at a time to the network to avoid conflicts due to identical IP addresses.  
The network camera's default IP address is : **192.168.1.10**
4. Right clicking the device name in the eneo Scan Device tool will bring up the context menu. Use the '**Open Device Web Site**' option to access the camera.
5. The web viewer login page will open up in your default web browser.  
In case of Microsoft Internet Explorer install Active-X named VIDEOR E. Hartig GmbH according to the instruction at the bottom of the browser.
6. Use the default user name and password to log in.

Default user name: admin

Default password: admin

eneo XXX-XXXXXXXXXX

admin

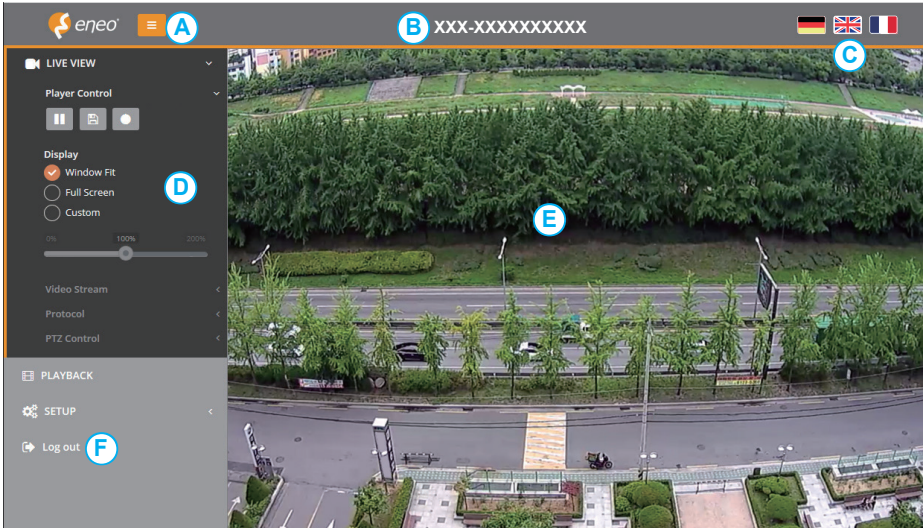
.....

Jump to setup

Login

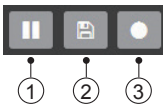
# Operating Instructions

## ■ Web Viewer description



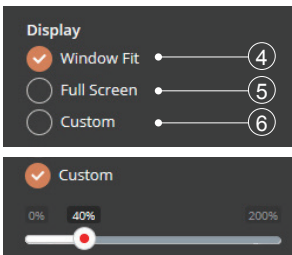
- A) Menu button : Click the button to show or hide the setup menu bar.
- B) Model name : Show a camera model name connected.
- C) Select Language : Set the web viewer language English, Deutsch or French.
- D) Main setup menu bar : Set the camera or network functions.
- E) Camera monitoring window: Display the currently connected camera view or function.
- F) Log out and exit the web viewer

## ■ Player Control



- ① Pause: Freeze the current video.
- ② Snapshot: Take a picture of the video image currently on display. Supports the origin image size view, print, and save feature.
- ③ Record: Not Available
- ④ Window Fit: Display live view to fit the window size.
- ⑤ Full Screen: Expand the current windows into maximum monitor size. Clicking ESC button or right button on mouse to back to the normal view.
- ⑥ Custom: Move the control bar to make preferred window size.

## ■ Display



## ■ PTZ Control : Not Available

# Operating Instructions

## Setup Menu table

Category	Menu	Configuration			
LIVE VIEW	Player Control	Pause, Snapshot, Record(*)			
		Display (Window Fit, Full Screen, Custom)			
	Video Stream	Stream1, Stream2, Stream3			
	Protocol	HTTP, TCP, UDP			
	PTZ Control(*)	Zoom, Focus, Push AF			
PLAYBACK(*)	Event Search, Timeline Search, Timeline Bar				
SETUP	Information	General, Open source Information			
	Video & Image	Source			
		Stream1/2/3			
		Image	Basic	Brightness, Contrast, Saturation, Hue, Sharpness, Enable flip image, Enable mirror image	
			OSD	Enable text OSD, Enable date&time OSD, Enable zoom&focus OSD(*), Mode	
		AE	Mode, Shutter, Min/Max shutter, Gain, Min/Max gain, Slow shutter, Auto iris, Auto flicker-less		
		AWB	Mode, Cb Gain, Cr Gain		
		AF(*)	Mode, Speed, Lens Locking, Locking Timer, Lens Calibration, Enable Day&Night sync focus		
		Day&Night	Mode, Switching time, Threshold(D->N), Threshold (N->D), Smart IR		
		WDR	WDR(Mode, Level), Defog(Mode)		
		BLC	BLC(Mode, Level), HLC(Mode)		
		DNR	2DNR(Mode, Level), 3DNR(Mode, Level)		
		LDC	Mode, Level, Boundary Line		
		VerticalView	Mode, Rotation		
	Privacy Mask	Color, Name			
	Digital Zoom	Level			
	Record(*)	Record	Overwrite when storage is full, Continuous record setting		
		Schedule			
		Storage	Format, Remove, Storage Information		
	Event	Triggers	Motion, Tamper, System, Manual, Network		
Actions		Record(*), E-Mail, FTP, Video Boost			
Rules		Event Processing, ONVIF Mapping			

# Operating Instructions

SETUP	System	Security	User, HTTPS, IP Filter, ONVIF
		Date & Time	Current Time, New Time, Time Zone, Date & Time Display
		Network	TCP/IP, DDNS, RTP, UPnP, Zeroconf, Bonjour
		Language	English, Korean, Deutsch, French
		Maintenance	Maintain(Restart, Reset, Default), Upgrade, Setup Export, Setup Import
		Log & Report	System Log, Event Log, Report
Log out			

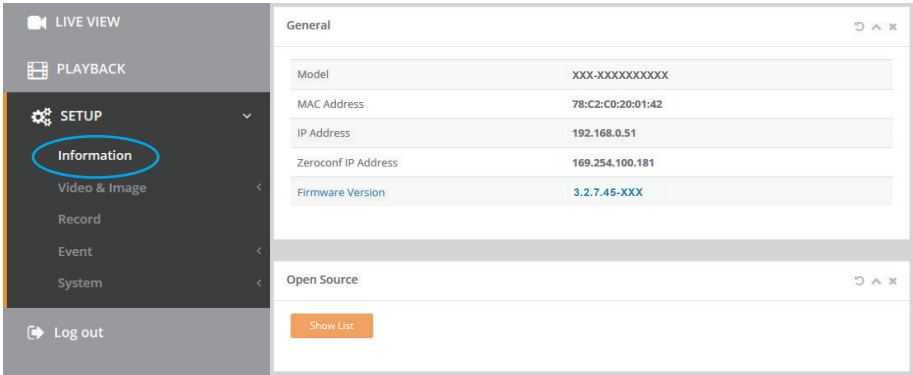
(\*) *Not Available*

# Operating Instructions

## Quick Menu Setup

### 1-1. Information

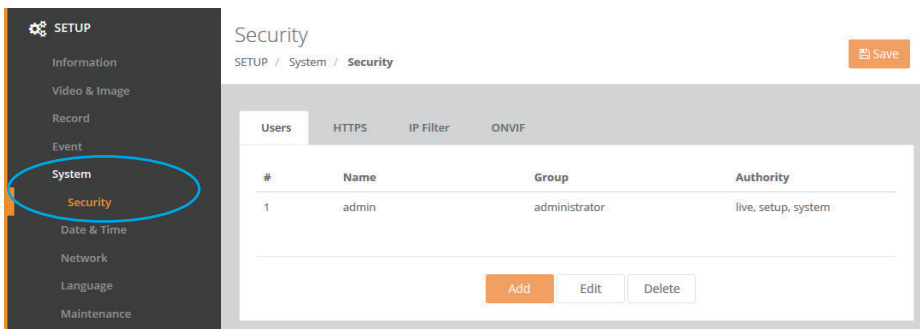
The Information shows the camera basic information such as Model name, MAC address, IP address, Zeroconf IP address and Firmware version.



### 1-2. Users

User accounts can be added or modified or removed. The authority depends upon user group automatically and shows the permission status to access the menus.

- Name: Shows the name which registered to access the camera.
- Group: Shows the assigned permission given to users.
- Authority: Shows the permission status to access the menus.



Click the Add, Edit, or Delete button for managing user account.

#### 1-2-1. Add

To add a new user:

1. Click the Add tab, and type a new user name. (1 to 14 alphanumeric characters).
  - User names are not case sensitive.

# Operating Instructions

2. Type a password and retype confirm password. (1 to 8 alphanumeric characters).
  - Passwords are case sensitive.
3. Select one of the groups you wish to assign to the user.
4. Click the OK button to save the settings and add a new user

The image shows two side-by-side screenshots of web-based user management interfaces. The left window is titled 'Add User' and contains four input fields: 'Name' (empty), 'Password' (empty), 'Confirm Password' (empty), and 'Group' (a dropdown menu with 'guest' selected). At the bottom right are 'OK' and 'Close' buttons. The right window is titled 'Edit User' and contains the same four input fields, but the 'Name' field is pre-filled with 'admin'. The 'Group' dropdown is also set to 'guest'. It also has 'OK' and 'Close' buttons at the bottom right.

## 1-2-2. Edit

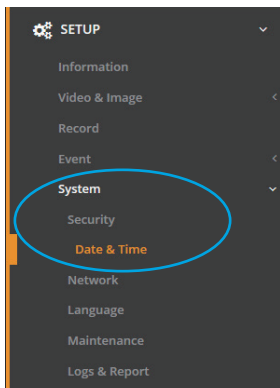
To edit a user:

1. Select one of the User Names in the User List you want to modify.
2. Click the Edit tab, then new pop-up window appears.
3. Type a password (1 to 8 alphanumeric characters) and retype confirm password.
  - **The user name can't be modified.**
4. Select one of the groups you wish to assign to the user.
5. Click the OK button to save the settings and modify a user.

## 1-2-3. Delete

To delete a user:

1. Select one of the User Names in the User List you want to remove.
2. Click the Delete tab. A dialog box appears with confirmation message.
3. Click the OK button. The user profile is removed from the User List profile.



## 1-3. Date & Time

### 1-3-1. Current Time

Shows the current date and time.

### 1-3-2. New Time

Select one of the server time.

- Synchronize with computer time:
  - Sets the time according to the clock on your computer.
- Set manually: Using this option allows you to manually enter the date and time.



# Operating Instructions

- Synchronize with NTP Server:

This option will obtain the correct time from an NTP server every 60 minutes. The NTP server's IP address or host name is specified in the time server.

### 1-3-3. Time Zone

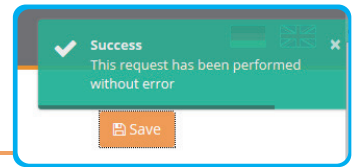
Select the time zone where your camera is located. Click the "Automatically adjust for daylight saving changes" checkbox to automatically update the time changes caused by daylight saving.

- Time zone: The default setting is GMT.

### 1-3-4. Day & Time Display

Select one of the Date and Time format.

- Date Format: The default setting is YYYY-MM-DD.
- Time Format: The default setting is 24 hours.



## Date & Time

SETUP / System / Date & Time

Save

**Current Time** C ^ X

Date: 2015-10-06      Time: 11:46:11

**New Time** C ^ X

Synchronize with computer time

Date: 2015-10-06      Time: 11:46:16

Set manually

Date:       Time:

Synchronize with NTP server

Server:       Interval [Hour]:

**Time Zone** C ^ X

(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London v

Automatically adjustment for daylight saving time changes

**Date & Time Display** C ^ X

Date Format:  v

Time Format:  v

# Operating Instructions

## 1-4. Network

The DHCP (Dynamic Host Configuration Protocol) server has a feature that automatically assigns an IP address to the device if there is a device on the network.

> Obtain IP address via DHCP :

Select the choice box if you want to assign the IP address from DHCP server automatically, and then the remaining setting are read-only text.

> Use the following IP address:

Select the choice box if you want to assign the IP address manually.

- IP address:

The address of the camera connected to the network. Specify a unique IP address for this network camera.

- Subnet mask:

The address that determines the IP network that the camera is connected to (relative to its address). Specify the mask for the subnet the network camera is located on.

- Gateway:

The gateway that accesses other networks. Specify the IP address of the default router (Gateway) used for connecting devices attached to different networks and network segments.

The screenshot displays the 'Network' configuration page. The left sidebar is titled 'SETUP' and includes options like 'Information', 'Video & Image', 'Record', 'Event', 'System' (highlighted with a blue circle), 'Security', 'Date & Time', 'Network' (highlighted in orange), 'Language', and 'Maintenance'. The main content area shows the 'Network' settings with a breadcrumb 'SETUP / System / Network' and a 'Save' button. Under the 'TCP/IP' tab, the 'IPv4 Address' section has 'Obtain IP address via DHCP server' selected. The status is 'Allocated'. The IP address is 192.168.0.87, Subnet mask is 255.255.255.0, and Gateway is 192.168.0.1. There is also an option for 'Use the following IP address' which is not selected.

\* For more details, refer to enclosed CD.

# Troubleshooting

If you suspect a problem is being caused by incorrect configuration or some other minor problem, consult the troubleshooting guide below.

## Upgrading the Firmware

Firmware is software that determines the functionality of the network camera. One of your first actions when troubleshooting a problem should be to check the current firmware. The latest version may contain a correction that fixes your particular problem. The current firmware version in your camera is displayed on the Basic Configuration or About. For the latest firmware of the camera, please contact with your product administrator.

Detailed instructions on how to perform the upgrade process are provided with each new release. See also the Maintenance/ Upgrade for more information.

## General Troubleshooting

The following list covers some of the problems that may be encountered and suggests how to remedy them:

Symptom	Guide
The camera cannot be accessed by some clients.	If using a proxy server, try disabling the proxy setting in your browser. Check all cabling and connectors.
The camera works locally, but not externally	Check if there are firewall settings that need to be adjusted. Check if there are router settings that need to be configured.
Poor or intermittent network connection.	If using a network switch, check that the port on that device uses the same setting for the network connection type (speed/duplex).
The camera cannot be accessed via a host name.	Check that the host name and DNS server settings are correct.
Not possible to log in.	When HTTPS is enabled, ensure that the correct protocol (HTTP or HTTPS) is used. When attempting to log in, you may need to manually type in http or https in the browser's address bar.
No image using Refresh and/or slow updating of images.	If images are very complex, try limiting the number of clients accessing the camera.
Images only shown in black & white.	Check the Video & Image setting.
Blurred images.	Refocus the camera.

# Troubleshooting

Poor image quality.	Increased lighting can often improve image quality. Check that there is sufficient lighting at the monitored location. Check all image and lighting settings.
Rolling dark bands or flickering in image.	Try adjusting the Exposure Control setting under AE and AWB part.
H.264 not displayed in the client.	Check that the correct network interface is selected in the Video & Image/Stream.
Multicast H.264 not displayed in the client.	Check with your network administrator that the multicast addresses used by the camera are valid for your network. Check that the Enable multicast checkbox are enabled in the System/Network/RTP tab. Checks with your network administrator to see if there is a firewall preventing viewing.
Multicast H.264 only accessible by local clients.	Check if your router supports multicasting, or if the router settings between the client and the server need to be configured. The TTL value may need to be increased.
Color saturation is different in H.264 and Motion JPEG.	Modify the settings for your graphics adapter. Please see the adapter's documentation for more information.

## **[ NOTE ]**

If you cannot find the help you require, please see the User's Manual, or contact with your network administrator.

# Specifications

ITEM	IED-62V2812M0A	IED-62F0036M0A
<b>Imaging Sensor</b>	1/2.8" Sony 2.3Mega pixel RGB Bayer Array CMOS Sensor	
<b>Effective Pixels</b>	1920(H) x 1080(V) approx. 2.07Mega pixels (Full-HD mode)	
<b>Sensitivity</b>	Color Mode: 0.15 lux (LED off), B/W Mode: 0.03 lux (LED off)	
<b>Scanning mode</b>	Progressive Scan	
<b>S/N Ratio</b>	54dB	
<b>Day &amp; Night mode</b>	ICR by Auto, Day, Night, External	
<b>WDR</b>	Digital WDR (ATR-EX)	
<b>DNR</b>	2D-NR, 3D-NR	
<b>Auto Exposure</b>	Automatic (Priority: Frame rate/Low noise), Manual	
<b>Shutter Speed Control</b>	Automatic: Min. 1/10,000 sec ~ Max. 30/25 sec Manual: Min. 1/10,000 sec ~ Max. 30/25 sec	
<b>Gain Control</b>	Automatic: ~ Max. 46.2dB, Manual: ~ Max. 46.2dB	
<b>Auto White Balance mode</b>	ATW-Indoor/Outdoor, Automatic, Shade, Clear sky, Fluorescent light, Light bulb, Flame, Manual	
<b>Lens</b>	f= 2.8~12mm F1.4, Mega pixel Auto Iris Vari-focal lens	f= 3.6mm F2.3, Mega pixel Fixed lens
<b>LEDs</b>	Built-in 30pcs x 850nm IR-LED	
<b>Functions</b>	Privacy Mask, Motion Detection, Tamper, Defog, D-Zoom(~x16), HLC/BLC, LDC (Lens Distortion Correction), Mirror/Flip, Sens-up(Slow shutter), Hue, Brightness, Contrast, Saturation, Sharpness, Auto-Flickerless, Smart IR, VerticalView (90°/270°)	
<b>Installation Temp.</b>	-20°C ~ +50°C (Humidity : 20%RH ~ 80%RH)	
<b>Operating Temp.</b>	-20°C ~ +50°C (Humidity : 20%RH ~ 80%RH)	
<b>Dimension</b>	144mm(Ø)x108mm(H)_ Ø100-bubble	
<b>Housing</b>	IP66, Aluminum Cast, Surface mount, Optimized Cooling system, 3-Axis gimbal, Anti-scratch Hard coated clear bubble dome	
<b>Power Source</b>	PoE(IEEE Std. 802.3af ), DC12V=600mA, 7.5W Circuit protection against faulty connection in power polarity.	
NETWORK SPECIFICATION		
<b>Video Compression</b>	H.264(High, Main, Base line profile) MJPEG	
<b>Video Resolution</b>	1920x1080, 1600x900, 1280x720, 960x540, 640x360, 320x180	
<b>Video Frame Rate</b>	Up to 30/25fps@1920x1080p	
<b>Video Streaming</b>	Simultaneously H.264 and MJPEG (Triple Streaming) Independent Frame Rate and Bandwidth Control, CVBR/CBR Mode	
<b>FTP Uploading</b>	MJPEG Still Image	
<b>Login Authority</b>	Administrator, Operator, Guest	

# Specifications

<b>Security</b>	Multi User Authority, IP Filtering, HTTPS
<b>Network Time Sync.</b>	Synchronize Computer/NTP Server, Manual
<b>Software Reset</b>	Restart, Reset, Factory Default
<b>Auto Recovery</b>	Backup, Restore
<b>Remote Upgrade</b>	Using Web Browser
<b>Protocol</b>	TCP/IP, UDP, IPv4/v6, HTTP, HTTPS, FTP, UPnP, RTP, RTSP, RTCP, DHCP, ARP, Zeroconf, Bonjour
<b>Client Software</b>	Built-In Web, ONVIF Compatible 3rd Party VMS
<b>SDK Support</b>	API, ONVIF Profile S Compliant
<b>Audio &amp; Alarm</b>	Not Available

(\*) Design and specifications are subject to change for product improvements without prior notice.





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