



## Instruction Manual

# 146-4649

## Network Miniature Camera

EN



**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS  
INSIDE REFER SERVICING TO  
QUALIFIED SERVICE PERSONNEL.

Warning : This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Warning : To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

Warning: This installation should be made by a qualified service person and should conform to all local codes.

Caution : To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Caution: The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.

**Disposal of your old appliance**

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government of the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service of the shop where you purchased the product.

**CE** This product is manufactured to comply with the EMC DIRECTIVE 2004/108/EC and 2006/95/EC.

To disconnect power from mains, pull out the mains cord plug. When install the product, ensure that the plug is easily accessible.

### Important Safety Instructions

1. **Read these instructions.** - All these safety and operating instructions should be read before the product is operated.
2. **Keep these instructions.** - The safety, operating and use instructions should be retained for future reference.
3. **Heed all warnings.** - All warnings on the product and in the operating instructions should be adhered to.

4. Follow all instructions. - All operating and use instructions should be followed.

5. Do not use this apparatus near water. - For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; near a swimming pool; etc.

6. Clean only with dry cloth. - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. - Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product, and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with apparatus. When a cart is used, use caution. When moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



• A suitable conduit entries, knock-outs or glands shall be provided in the cable entries of this product in the end user.

• Caution: Danger of explosion if battery is incorrectly replaced. Replaced only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

• Holes in metal, through which insulated wires pass, shall have smooth well rounded surfaces or shall be provided with brushings.

**Warning :** Do not install this equipment in a confined space such as a bookcase or similar unit.  
**Warning :** Wiring methods shall be in accordance with the National Electric Code, ANSI/NFPA 70.

## NETWORK MINIATURE CAMERA

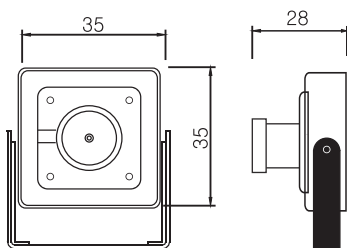
### 2Mega HD Network IR BULLET CAMERA



#### FEATURE

- \* Sony EXMOR 2MP Image Sensor
- \* Triple Codec (H.264/MPEG4/MJPEG)
- \* Triple Stream
- \* Supporter Onvif Latest version
- \* True Day & Night
- \* Mega 3.6mm Fixed Lens
- \* Support POE Cable

#### DIMENSION



#### CAMERA SECTION

IMAGE	Image Sensor	Sony Exmor 2.07MP Image Sensor
	Scan System	Progressive Scan
	Total Pixels	2000(H)×1121(V) 2.24MegaPixels
	Effective Pixels	1984(H)×1105(V) 2.19MegaPixels
Function	Day & Night	Auto/Day(Color)/Night(BW)
	Privacy	Area On/Off (6 Programmable Zone)
	WDR	DWDR (1~55step)
	3D DNR	ON / OFF
	Motion Detector	432 Zone (On/Off, 1~55step)
	Elec. Shutter	Auto(1/30~1/10000), Suppress Rolling, Manual
	White Balance	Auto/Indoor/Outdoor/Fluorescent
	Ext. Video	VBS1.0Vp-p
Lens	Focal Length	Mega 3.6mm Fixed Lens
	Power Supply	DC12[V] ±10% / POE Cable
Electrical	Operating Temp.	-10°C ~ +40°C
	Preservation Temp.	-20°C ~ +50°C
	Humidity	0% ~ 80%
Mechanical	Weight	Approx. 80g

#### NETWORK SECTION

System	OS	Embedded Linux
	Interface	RJ45 100/100 Base-T PoE
	Protocol	TCP/IP, UDP/IP, RTP, RTSP, RTCP, NTP, HTTP, DHCP, FTP, SMTP, DNS, DDNS
	Onvif	Ver2.4
	DDNS	iplinker.net
Network	Simultaneous Access	Max. 10 user
	Compress Format	H.264/MPEG4/MJPEG
	Resolution	1920x1080/1280x1024/1280x960/ 1280x720/640x480/320x240
	Frame rate	5fps ~ 30fps @ all resolution
	Video Quality	H.264, MPEG4 : Bit rate Control MJPEG : Quality Level Control
Video	Streaming	Triple Stream (Stream1, 2, 3) RTP/RTSP, UnicastRTP, Multicast RTP
	Manager	IE, Firefox, Safari, Opera
	Viewer	IE over 10ver (Active-X)

## HOW TO USE NETWORK MINIATURE CAMERA

### INSTRUCTION

This is a megapixel network camera which uses a 1/2.8" megapixel progressive scan SONY CMOS sensor. Built-in H.264, MPEG4, MPEG CODEC and streaming server, the advantage of this camera is the ability to monitor real time image from a remote location via internet. This camera supports both static IP and dynamic IP and can change communication port, resulting in one IP address supporting multiple servers. It also supports CMS (Central Monitoring System), various services and is waterproof for outdoor use.

### SAFETY CAUTION

1. This camera may be damaged by electrical and physical shock.
2. Use regulated 12V DC 500mA (No IR LED model) or 1A (Built-in IR LED model)
3. In case the unit fails, DO NOT try to disassemble the product.  
Contact or consult the distributor or an authorized technician for after-sales service. Warranty is void when the product is disassembled without authorization from the distributor of an authorized technician.
4. All responsibility for using this camera is on the user.
5. In case it is installed at high location, be sure to mount securely to prevent the unit from falling below.

When the product is no longer in use, take it to a local recycling plant for collect disposal which is not harmful to the environment. Please read the instruction carefully for correct use of the product and keep it for reference purposes. This specification is subject to change without any prior notice to improve the quality.

### <Caution>

Software, server and service may be changed according to policy or may be stopped without prior notification. Appearance, function and specification may be changed without prior notification. Our company assumes no responsibility for visible or invisible loss resulted from changes in policy or products.

### Trouble Shooting

- \* If you are not able to view anything from the screen, check power, video, strength of signal, monitor input/output.
- \* If you can not access the camera through MS IE, Check to make sure if the camera's network settings are appropriate, and if PC's network settings is correct.
- \* If all images would be broken even you can access the camera, update your web browser as MS IE 10 version is suitable.
- \* If no video displayed, our camera viewer needs Active-x. So please check firewall in PC.
- \* If the camera IP can not be detected in using by "IP manager" even the camera is connected to the network,
  - 1) Please start the "IP manger" as an administrator.
  - 2) Turn off the firewall settings on your PC. And then, It can search the camera IP again.
- \* If the viewer may disconnect while monitoring,
  - 1) It may happen if any changes to camera or network configurations. Please set default value.
  - 2) Check all network connections.
  - 3) It may happen if your camera would be connected over an PPPoE network. Check the network circumstance.
- \* When you have a problem with browser, press the [Refresh] button on your browser window.

<For all further support please contact the supplier or IP expert.>

## HOW TO USE NETWORK MINIATURE CAMERA

### Accessing the IPC & Log in

- 1 Default IP address is 192.168.1.30

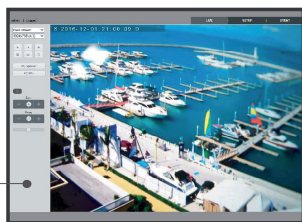


- 2 Default ID : admin  
Password : admin



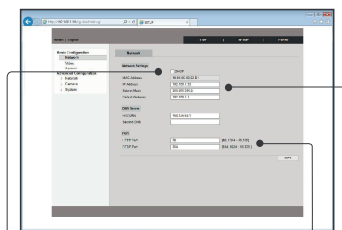
- 3 Live Setup Event

### Live Video



- Stream disconnection
- Stream Connection
- 1 Screen Capture
- MIC. On / Off (Option)
- Focus Control
- Record
- Full Screen
- File path
- IPC Speaker
- IPC Mic
- Speaker On / Off (Option)
- Zoom Control
- One time Auto Focus
- Speed

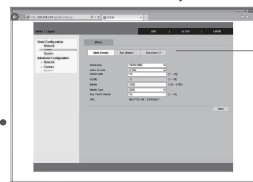
### Network Setting



- Use DHCP(Dynamic Host Configuration Protocol)
- Port Change
- IP address Change
- (Default IP Address is 192.168.1.30)

### Video Setting

- This Network camera supports triple streams simultaneously



- Stream selection

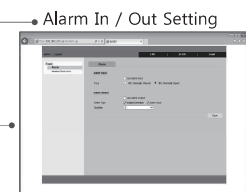
- RTSP address
- Video settings for streams

### System



- Update F/W
- Factory set & Reset
- Expert all parameters for device and user defined scripts
- Update configuration file

### Event (Option)



- Motion detection Setting

### Before using or Installing.

Please do not make any attempt to disassemble this camera.

To avoid any electrical shock, please do not remove the camera cover and screw.

Use a dry towel to wipe the camera and a weak cleaning detergent to remove any stains.

Please operate the camera within the temperature range -10°C and 50°C.

Please do not operate the camera if there is a lot of smoke or gas, and under direct sunlight.

Do not aim the camera directly at bright objects.

Please handle the camera with care, and try not to hit or shake.

Children should not handle or operate the camera.

Do not use the camera in a humid or wet area.

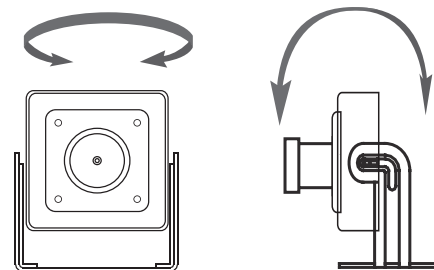
Do not install the camera where there is a lot of vibration.

Do not attempt to open the camera after installation and image adjustment.

### \* INSTALLING THE CAMERA

1. Station Bracket on the wall or any place what you want.
2. With bracket station screw, you can fix the bracket.
3. To use bracket screw, you can adjust the angle of this camera.

\* This camera is two axis adjustable



\*\*The lens is focused far from 1M when Ex-Factory.

Therefore we recommend the lens focus as is.

### How to connect IP camera to NVR

#### 1.NVR with PoE,

Change IP address of camera from static to DHCP on IP manger. Connect IP camera into input of NVR.

#### 2.NVR without PoE,

Check NVR IP address on NVR(refer to NVR manual as well).

Assign IP of camera by changing the last digit of NVR IP between 1~255 except for the same digit of NVR IP on IP manager

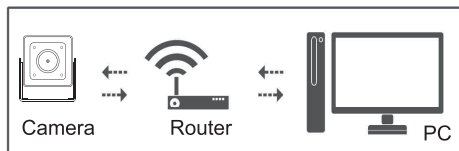
Ex) if NVR IP 192. 168. 1. **1**

**You can change the last digit 1 to number 2~255**

IP 192.168.1 should not be changed and assigned IP of camera should not be same as NVR. (NVR IP stated above is just an example, not your actual NVR IP, Please check user's NVR IP) Connect camera to NVR after assigning camera IP, and connect the power supply to each camera. Search IP camera on NVR by Onvif and register IP address of camera on NVR (User should refer to the manual of NVR together)

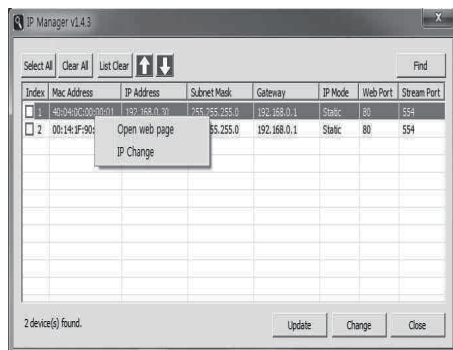
## HOW TO USE NETWORK MINIATURE CAMERA

### 1. Installation with IP sharing device - (router)

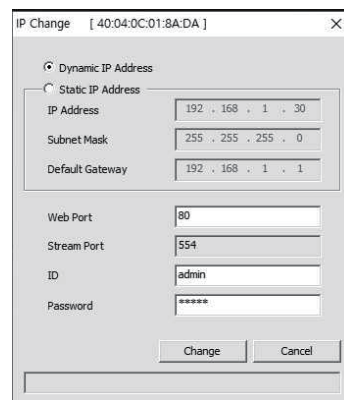


#### DHCP IP setup

- 1) Connect the camera to Router with LAN cable.
- 2) Connect the PC to Router with LAN cable.
- 3) Start "IP manager" on the PC. You can find "IP manager" in Utility folder of the CD.
- 4) Push the "Search" button to find camera IP.



- 5) Double-click IP address you want to change or check the list on the index and click "Change"
- 6) If the "Dynamic IP Address", is selected the IP Address, Subnet Mask, Default Gateway, Web port, Stream port will be greyed out.
- 7) Input ID and password.  
- Default ID : admin, Password : admin
- 8) Click the "Change" button. Setup will be completed. Relevant information will be changed.
- 9) Double click the IP address you want to change or check the list on the index and click "Change":
- 10) Check the "Dynamic IP Address", the IP Address, Subnet Mask, Default Gateway, Web Port, Stream port will be greyed out.



## HOW TO USE NETWORK MINIATURE CAMERA

### NETWORK SETTING

#### - Check network and installation type

This information is for basic setup of the camera and about network. To install hardware, you should understand what network is installed.

#### Warning

This setting value might be different in accordance with your network environment.

**[Please refer to included CD for better understanding about it]**

There are two methods to install your IP camera.

- 1) Install the camera without IP sharing device.
- 2) Install the camera under IP sharing device which is needed PPPoE environment.

### Static IP setup

- 1) Connect the camera to PC with LAN cable.
- 2) Please refer to the information of "Change the setting value of PC network environment" as below.
- 3) Connect the camera to web.

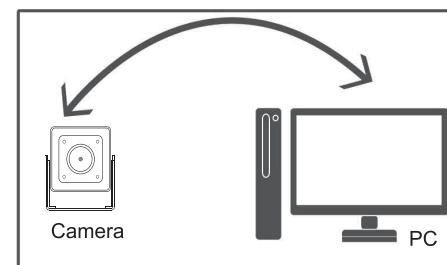
Please run your web browser and input <http://192.168.1.30> (default value) in URL address and press "Enter" button. Then you can see login page.

### Change the setting on the PC network environment

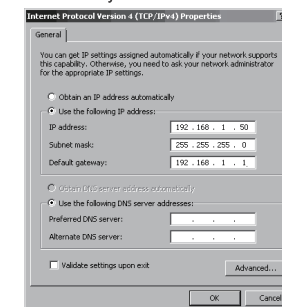
Basic network information of the unit is to be:

IP Address : 192.168.1.30  
Subnet Mask : 255.255.255.0  
Gateway : 192.168.1.1

### 1. Installation without IP sharing device(router)



Default Value  
IP Address : 192.168.1.30  
Subnet Mask : 255.255.255.0  
Gateway : 192.168.1.1



To Connect the camera with user's PC, change the setting value of PC network environment. Set IP address, Subnet Mask and Gateway of user's PC with 192.168.1.50 / 255.255.255.0 / 192.168.1.1 as the upper picture is shown in Internet protocol version 4 (TCP/IPv4) properties.

**<CAUTION>** Before changing the setting value, please memorize the previous setting value on your PC.