

Lite Megapixel IP Camera

User Manual

V1.2

- Thank you for purchasing this Megapixel IP Camera.
- Before using the IP Camera, please ensure that you read and understand the User Guide.
- Please store the CD-ROM including this User Guide at an easily accessible location.
- Before connecting and installing any third party monitors, computers and alarms, please refer to the appropriate instruction manual for proper operation.

Model Line

Type	Model	Picture
Indoor Dome	PNC-ID2E1F_P	
	PNC-ID2E1F_IR_P	
	PNC-ID2E1V_P	
	PNC-ID2E1V_IR_P	
Outdoor Bullet	PNC-IB2E2	

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Disclaimer

- The information in this manual is believed to be accurate and reliable as of the date of publication.
The information contained herein is subject to change without notice. Revisions or New editions to this publication may be issued to incorporate such change.
- We makes no warranties for damages resulting from corrupted or lost data due to a mistaken operation or malfunction of the IP Camera, the software, PC Hardware, peripheral devices, or unapproved/unsupported devices.

Warning

INDOOR DOME CAMERA (PNC-ID2E1 Series)

- Do not expose this product to rain or moisture to reduce a risk of fire or electric shock.
- Do not shoot an extremely bright object (ex. an illumination, the sun, etc.).
- Do not allow the equipment come into contact with, or become immersed in, water or other liquids. Do not allow liquids to enter the interior.

The Camera has not been waterproofed.

If the exterior comes into contact with liquids or salt air, wipe it dry with a soft, absorbent cloth.

In the event that the water or other foreign substances enter the interior, immediately turn the Camera Power off or unplug the power cord from the power outlet. Continued use of the equipment may result in fire or electrical shock. Please consult your Camera distributor.

COMMON WARNING FOR ALL TYPE OF CAMERA

- Do not attempt to disassemble or alter any part of the equipment that is not expressly described in this guide. Disassembly or alteration may result in high voltage electrical shock.
- The installation should be made by a qualified service person authorized by your equipment distributor. They should conduct internal inspections, alterations and repairs.
- Stop operating the equipment immediately if it emits smoke or noxious fumes. Failure to do so may result in fire or electrical shock.
Immediately turn the Camera power off, remove the power cable from the power outlet. Confirm that smoke and fume emissions have ceased. Please consult your Camera distributor.
- Stop operating the equipment if the camera is dropped or the casing is damaged. Do not strike or shake. Failure to do so may result in fire or electrical shock. Immediately turn the Camera power off or unplug the power cord from the power outlet. Please consult your Camera distributor.
- For Installers Only – Instructions for installing the equipment on the ceiling or the wall.

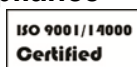
Caution

- Do not operate the appliance beyond its specified temperature, humidity or power source ratings.
- Do not use the appliance in an extreme environment where there is high temperature or high humidity. Use the device at temperatures within **-10°C to +50°C** and humidity below 90 %.
- The normal operating power source for this device is DC 12V / PoE. For Power Supply – it operates on DC 12V or PoE.
- To prevent heat buildup, do not block air circulation around the camera.
- When transporting the camera, repack it as originally packed at the factory or in materials of equal quality.
- Do not proceed beyond any of the above notices until you have fully understood the implications.
- For LAN port – For safety reason, do not connect the LAN port to any network devices that might have excessive voltage.

- **FCC Compliance**

Information to the User: 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 in a residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference. For example, try reorienting or relocating the receiving antenna, increasing the separation between the equipment and receiver, or connecting the equipment to an outlet on a different circuit.

- **CE Compliance**



Preventing Malfunction

To avoid operating or storing the camera in the following locations, as these can be a cause of a malfunction.

- Extremely hot or cold places.
- Close to heating equipment (e.g., near heaters)
- Close to sources of strong magnetism
- Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters
- Locations subject to strong vibration or shock
- Humid or dusty locations
- Locations under influence of fluorescent light or reflection of a window
- Under an unsteady light (the image will flicker)

1. Introduction

This section introduces our new IP camera with its key features, and basic information about the product.

Refer to later chapters for information on setting up and configuring the product in more detail.

1.1 Key Features

- 45 FPS @ 1080p
- 3D- DNR (Digital Noise Reduction)
- E-WDR (Electronic Wide Dynamic Range)
- TDN (True Day and Night /IR Cut filter)
- Secondary Video-BNC output for Easy Installation.
- Mirror Image Control (Horizontal control & Vertical Control)
- 4 Zone Motion Detection
- 3-Axis Gimbal (For Dome Camera only)
- Varifocal Lens (Option)
- PoE Supported (Option)

1.2 Features of Network

- H.264 Embedded Linux
- Up to 45 fps at 2M
- Multi-Codec : H.264 High Profile, MPEG4, MJPEG
- Easy Setup Program From Web Browser
- Multi-Streaming – Triple: Recording, HD and SD.
- Built in Web server (IE), Free DDNS
- Static and Dynamic IP
- Smart & Multi Steaming - Automatic control in Codec and frames
- Web Setup by IE, Safari, Chrome, Firefox
- Touch CMS : I-Phone, I-Pad, Android, BlackBerry
- EMS : Live Monitoring, Recording Search and Playback
IP Discovery : Auto IP Scan and Setting

1.3 System Requirement

To view the IP Camera images, your computer must have the following technical specifications.

Powerful System

Operating System Microsoft Windows 7 32bit or Windows 7 64bit (Recommended)
Web Browser Microsoft Internet Explorer 8.0 or higher
CPU Intel Core i7 Core / VGA Internal CPU Graphic Core
Memory (RAM OVER 4G), NIC 1 Gbps network card installed
HDD (2T * over 8) and HDD RAID SYSTEM for Powerful Record Storage

Recommended System

Operating System Microsoft Windows Vista or higher
Web Browser Microsoft Internet Explorer 8.0 or higher
CPU Over Quad Core 1.8 GHz / VGA Microsoft DirectX 9.0
Memory (RAM 4G), NIC 1 Gbps 100 Mbps network card installed
HDD over 2T

Minimum System

Operating System Microsoft Windows XP or higher
Web Browser Microsoft Internet Explorer 7.0 or higher
(Safari, Firefox, Chrome: Setting only)
CPU Dual Core 2.8 GHz VGA Microsoft DirectX 9.0
Memory (RAM 2G), NIC 100 Mbps network card *installed*
HDD 500G

The system requirements for installing and running EMS must be adjusted depend on your PC performance, number of accesses and the number of simultaneous monitoring video as follows.

Powerful(Maximum) System

It is possible to operate EMS at any condition with the Maximum System.

Recommended System

Set the individual camera when **6** channel of 2 megapixel camera simultaneously.
Please set the Performance on the EMS Setup Menu which is Default.

Minimum System

Set the individual camera when **2** channel of 2 megapixel camera simultaneously.
It might not perform well with record or other operation under the Minimum System.

Warning

It might not perform well with some Hardware such as graphic card or others.
To use EMS, it is not recommended to use a web browser or other program such as MS OFFICE, Game or etc. to prevent any malfunction of record.

1.4 Package Contents

The package should contain all the following.

If anything is missing or appears damaged, contact your dealer immediately.

INDOOR DOME TYPE

PNC-[ID2E1F] / [ID2E2F_IR] / [ID2E1V] / [ID2E1V_IR]

Megapixel IP Camera (Including I/O Cable)

CD with manual and Client software

Quick Start Guide

Model Configuration

1. ID2E1F : Fixed Lens
2. ID2E1F_IR : Fixed Lens / 30x IR LED
3. ID2E1V : Varifocal Lens
4. ID2E1V_IR : Varifocal Lens / 30x IR LED

BULLET TYPE

PNC-IB2E2

Megapixel IP Camera

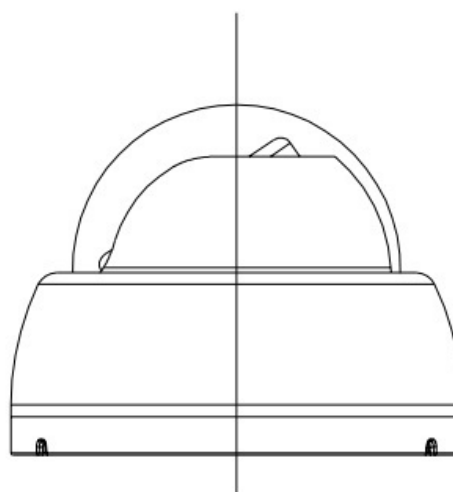
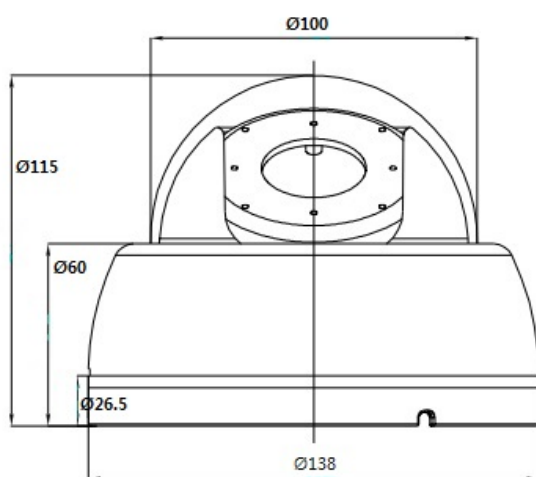
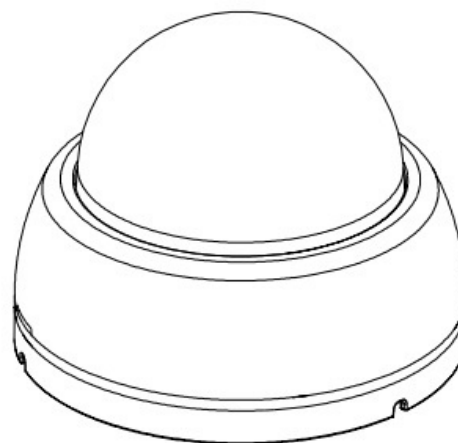
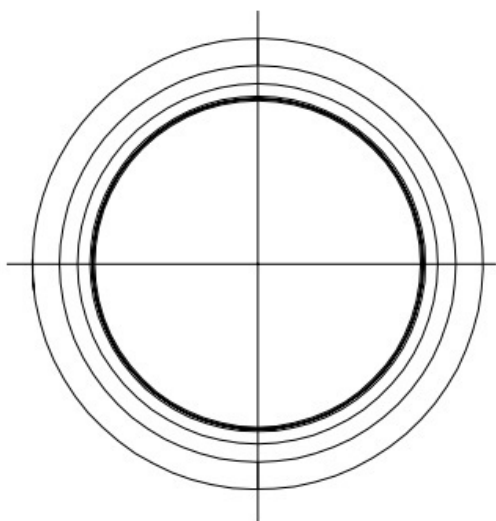
CD with user's manual and software (EMS)

Quick Start Guide

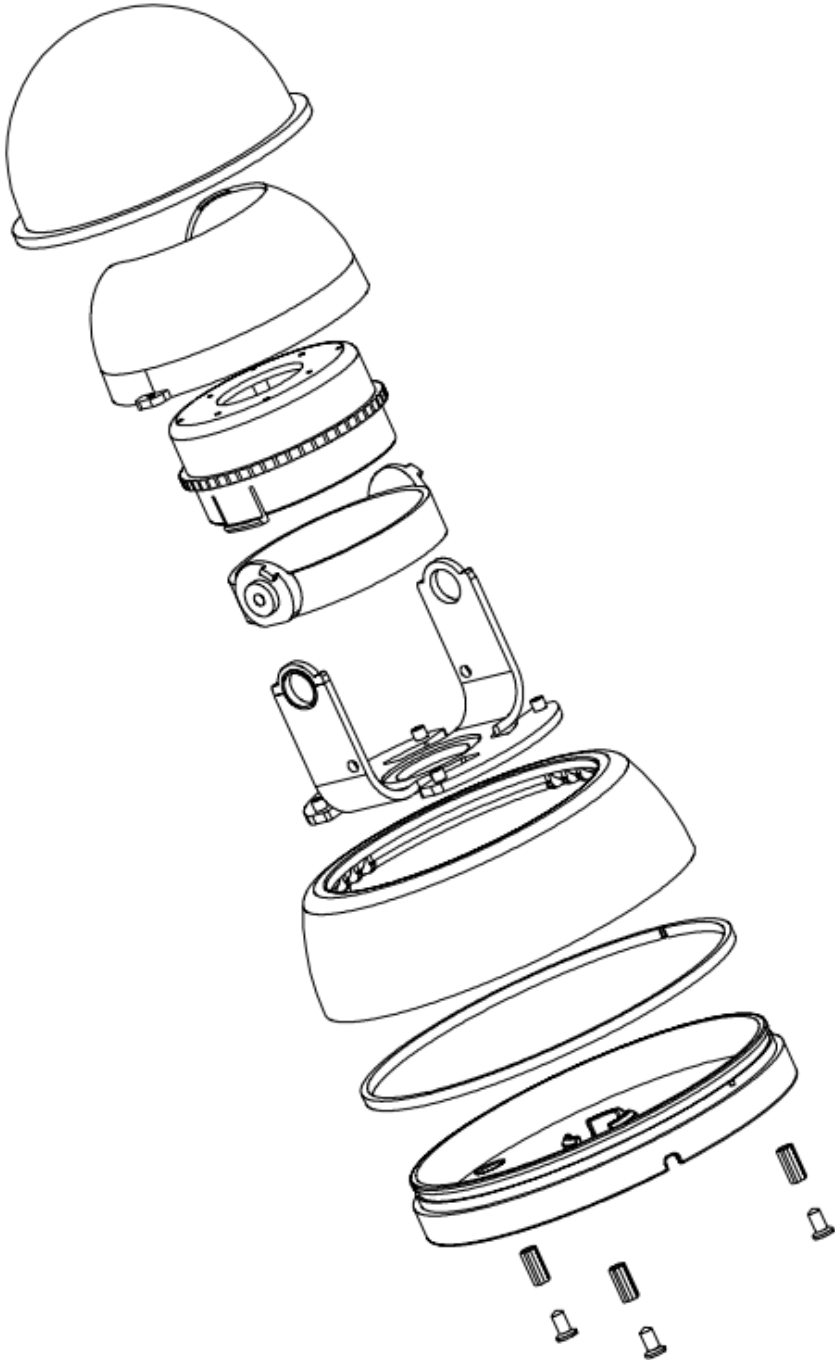
2. Product Views

2.1 PNC-ID2E1 Series

2.1.1 Camera Dimensions

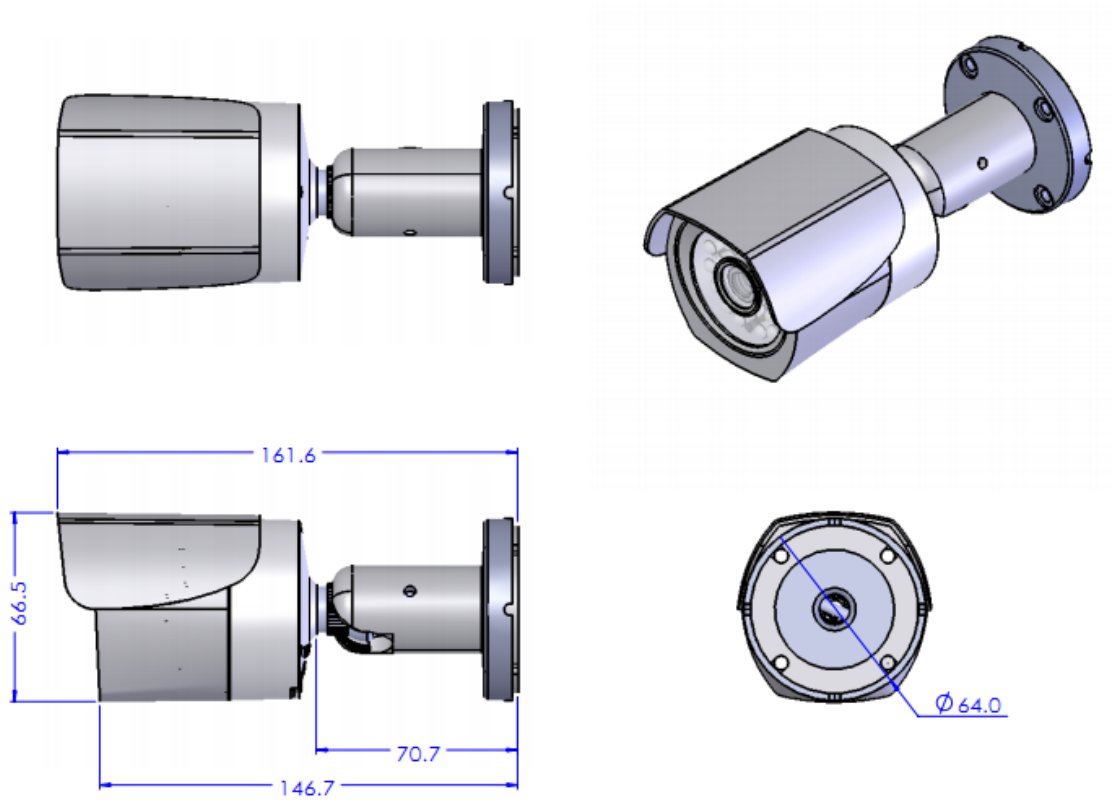


2.1.2 Parts Configuration

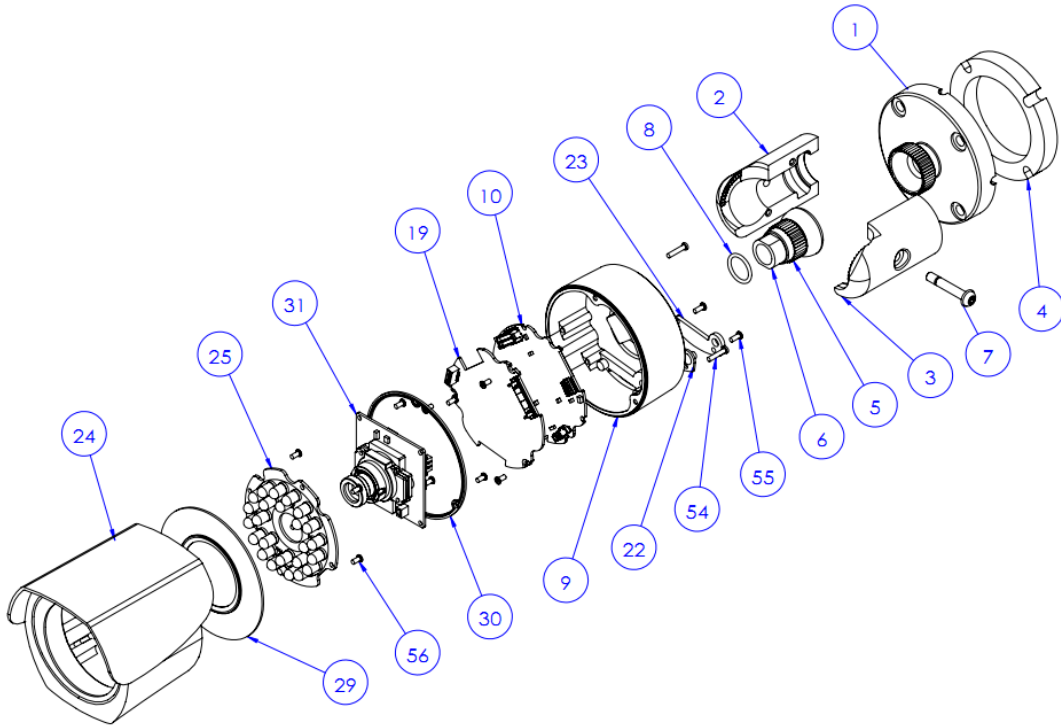


2.2 PNC-IB2E2 Series

2.2.1 Camera Dimensions

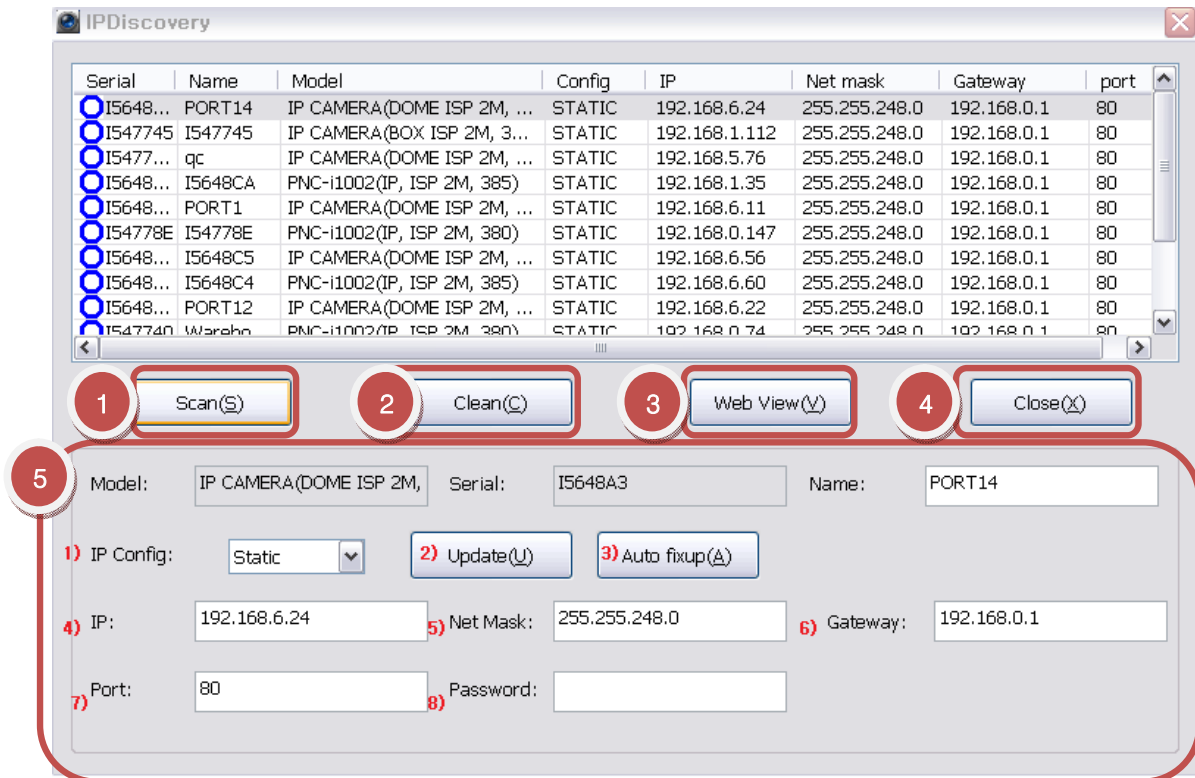


2.2.2 Parts Configuration



NO.	품번	품명	수량
1	CP12DCT023-A	STAND BRACKET BASE	1
2	CP13DCT012-A	STAND BRACKET ARM-2	1
3	CP13DCT013-A	STAND BRACKET ARM-1	1
4	CP12SPO009-A	BASE CUSHION	1
5	CP12DCT095-A	BALL SHAFT SERRATION	1
6	CP12DCT063-B	BALL SHAFT	1
7	SCREW	M4.0x24.0 TORX T-20	1
8	CP12RUB053-A	BALL SHAFT-RING	1
9	CP13DCT017-A	REAR	1
10	BOARD	IP BOARD	1
19	BOARD	POE BOARD	1
22	CP13RUB016-A	SWITCH CAP GASKET	1
23	CP13DCT018-A	SWITCH CAP	1
24	CP13DCT026-A	FRONT-PINETRON	1
25	IR PCB	IR BOARD	1
29	CP13GLA019-A	GLASS	1
30	CP13RUB015-A	GASKET	1
31	BOARD	MP2301	1
54	SCREW	M/S PH+ M2.0x8.0(BK)	3
55	SCREW	M2.0x5.0	2
56	SCREW	M2.0x4.0	11

.3 IP Discovery



All of devices on a local network are automatically discovered by using IP Discovery of EMS.

1. Click **Scan** button to detect an IP Camera connected on the network and lists them.
2. Click **Clean** button to remove all the information of IP camera on the list.
3. Click **Web View** to open the live view window of the selected camera via Internet Explorer.
 - The Internet Explorer, Safari and Chrome support live view windows.
 - The Other Web Brower such as Fire Fox supports setup menu only.
4. Click **Close** button to close the window of IP Discovery.

5. **Model:** Check the Camera information such as the Model no. and the Megapixels, etc.
Serial: Check the Serial on the menu with the Mac Address indicated on the side of the packing box.
Name: Set a new name of IP Camera.
- 1) **IP Config.:** Support of both Dynamic and Static IP address assignment.
 - 2) **Update:** Please press Update button to save the changed settings after modification.
 - 3) **Auto fixup :** Select more than one camera on the list to allocate IP address of the selected cameras in consecutive order.
 - 4) **IP:** The IP address of the device on the network.
The camera obtains an IP address by static or dynamic. There're 2 options. DHCP, assigned by the user, or Static assigned by Network.
 - 5) **Net Mask:** Select more than one camera on the list to allocate IP address of the selected cameras in consecutive order. In addition, Net Mask is also allocated as your PC's Net Mask automatically.
 - 6) **Gateway:** The default gateway address that connects the device to the network. Enter the IP address of the host to use as a gateway between networks. The gateway allows communication between devices that are on different networks. Without a correct gateway setting, the camera cannot receive or transmit data from or to devices that are not in the same network address range.
 - 7) **Port:** The default HTTP port number is 80.
 - 8) Click a camera name on the list to set **Password** for Admin after changing a setup and saving it.

4. Web Browser Connecting & Live View

4.1 Accessing Internet Explorer & Web Browser

1. Configuring IP settings

1) The default IP configuration setting of

- IP address is 192.168.0.251.

- Gateway is 192.168.0.1

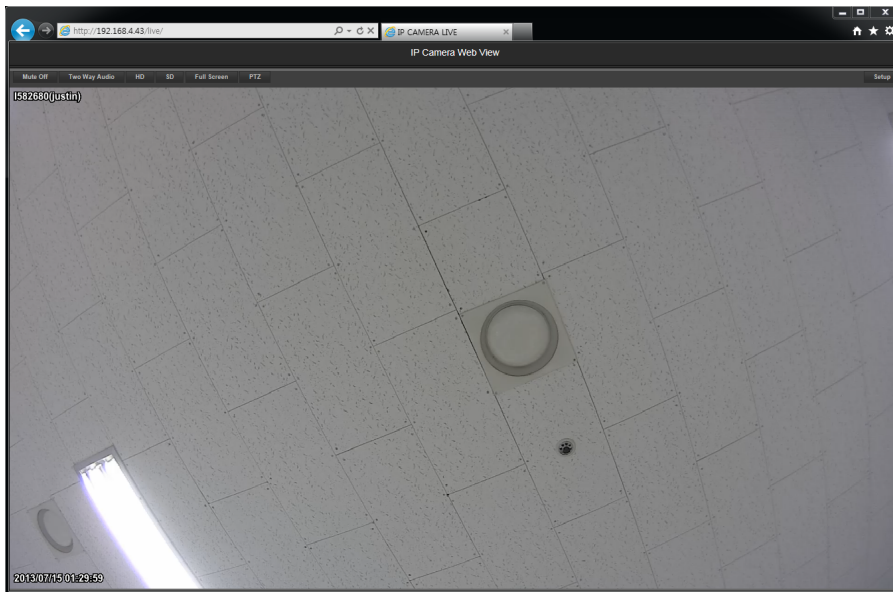
- Netmask is 255.255.248.0

- ID: **ADMIN**, Password: **000000**.

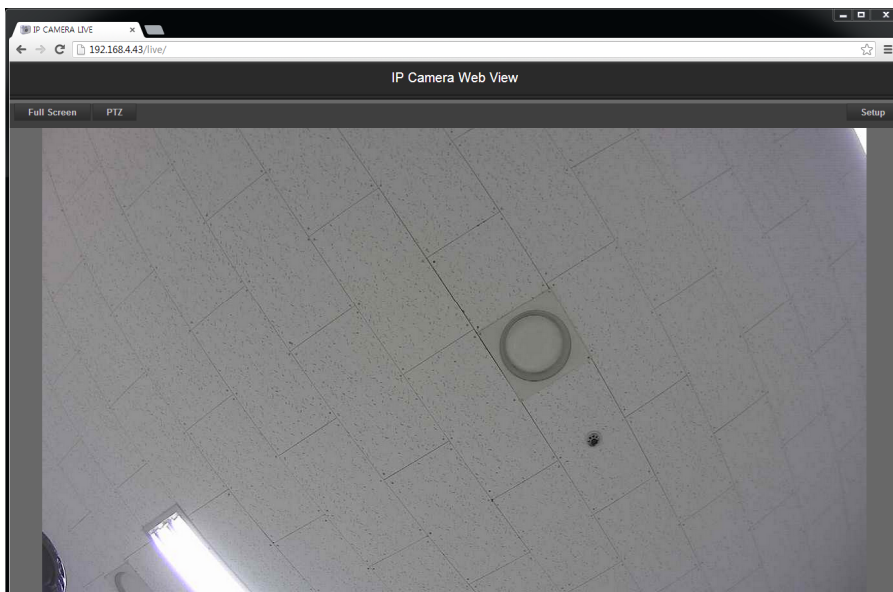
2) You can change the above default settings on IP Discovery and Web Browser.

2. Web Client Live Overview

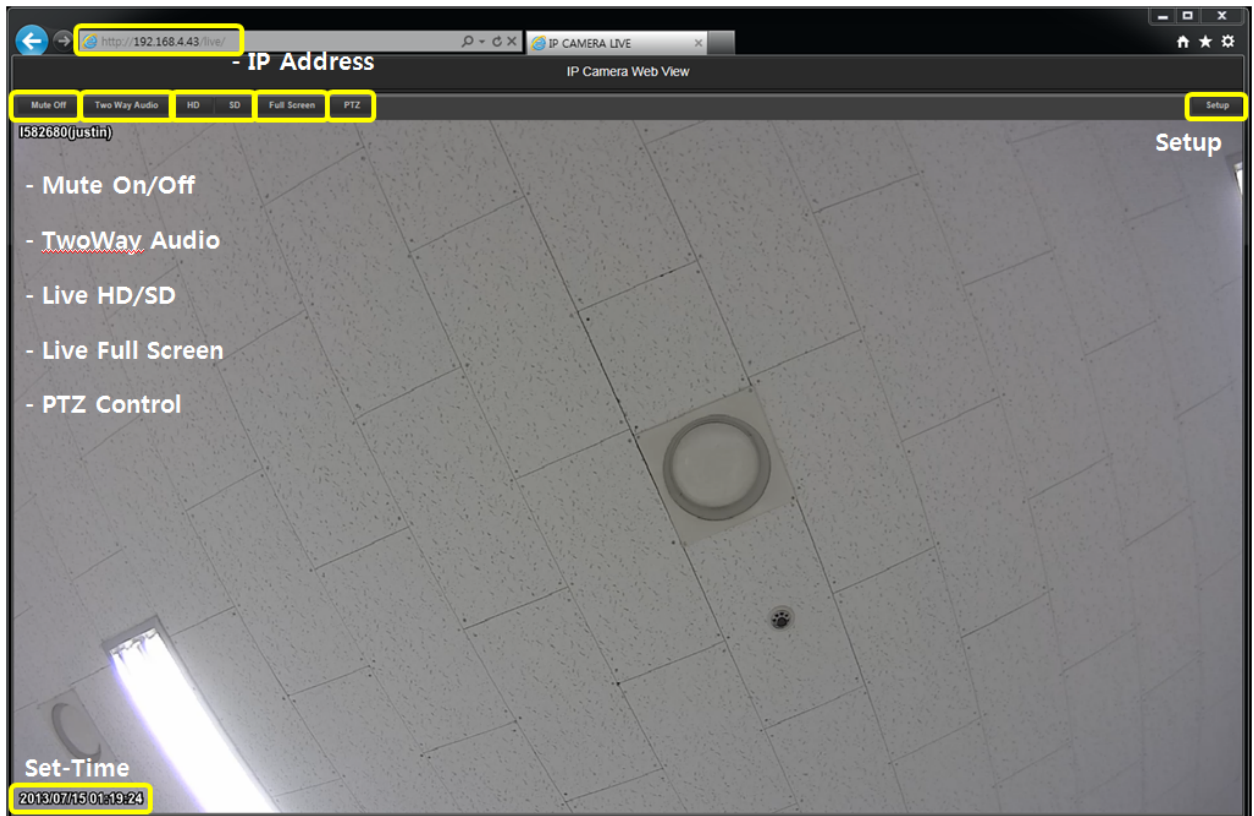
- Internet Explorer (Active X) – Recommended



- Google Chrome



3. Accessing Internet Explorer & Web Browser



- 1) Using Internet Explorer, enter the URL (IP address of a device) in the address bar to open the Log on window. Ex) <http://192.168.4.43>



- 2) Display the Camera Title (Host Alias) on top of the screen to check the correct camera you chose.
- 3) Click the Setup button to setup camera features.
- 4) Click the Setup button to display setup menu of a camera.
- 5) Change the Live view as HD or SD display by clicking those buttons.
The default video resolution is HD.



- 6) Live View
Internet Explorer, Safari and Chrome support Live View.
The other Web Browser such as Fire Fox supports setup menu only.

7) Log in



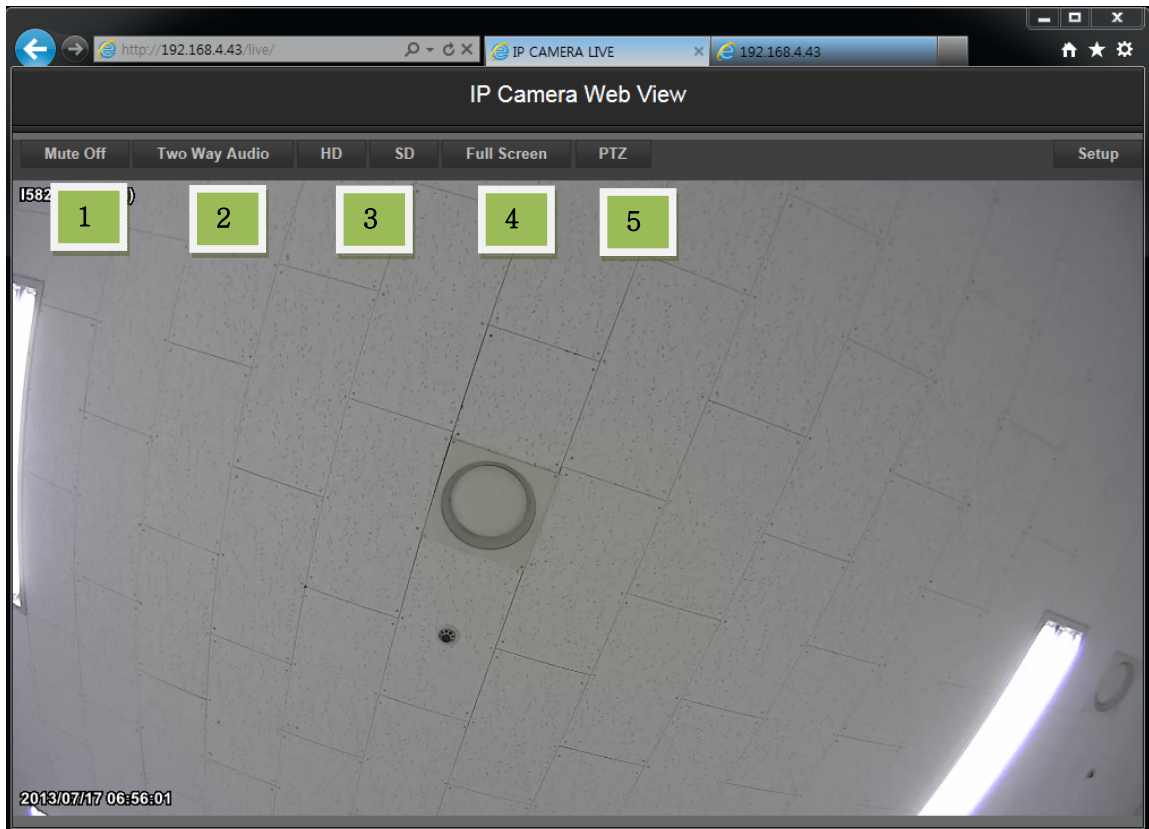
Enter a User ID and Password.

The Default setting of User ID is '**admin**' and Password is '**000000**'.

Warning!

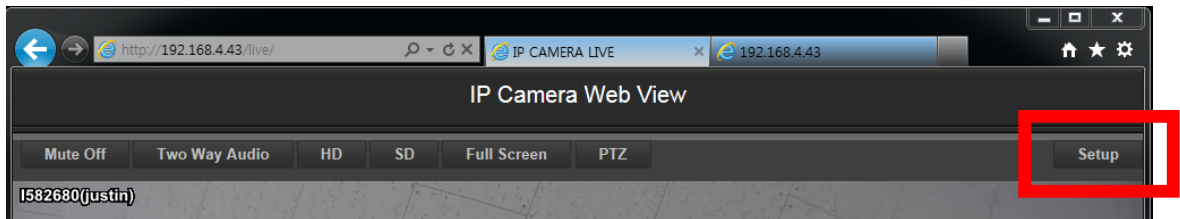
Without downloading Active X, a live view might not be displayed on the screen. .

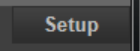
4.2 Live Web View

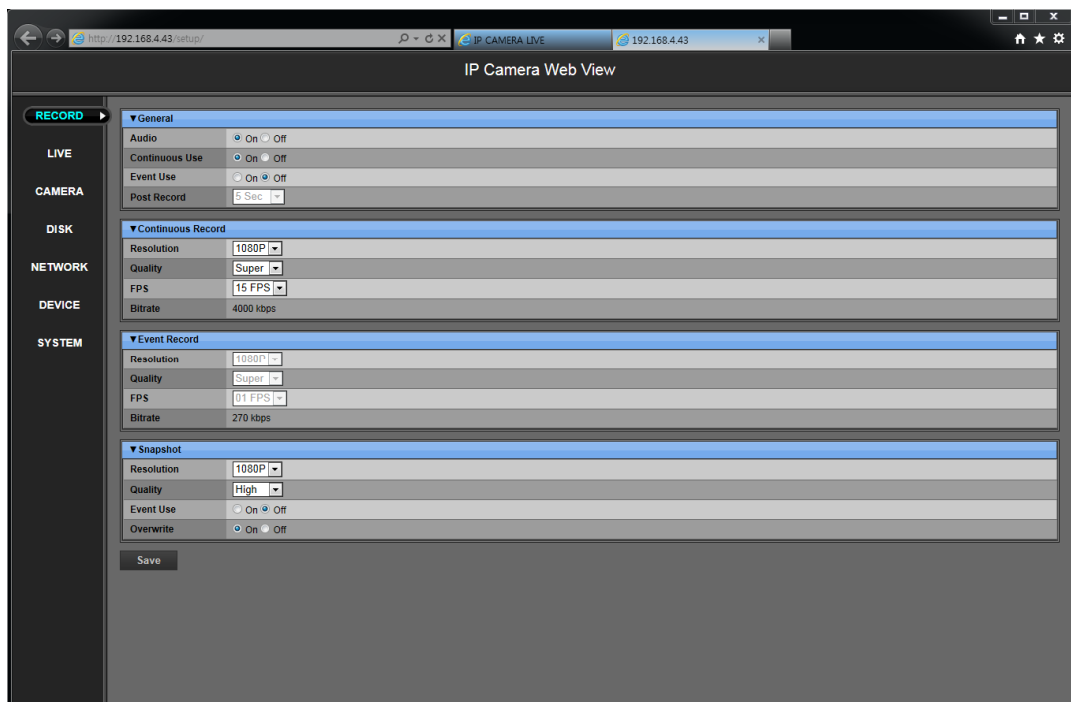


- (1) Mute Off (Voice recording support model only)
 - On/Off the audio output from the IP Camera.
- (2) Two Way Audio (Voice recording support model only)
 - Two-way audio function control.
- (3) HD / SD
 - Select the live view image quality as to HD or SD.
- (4) Full Screen
 - Support the maximum sized image on the screen. Click "ESC" to return back to the previous mode.
- (5) PTZ (PTZ support model only)
 - Control Pan/Tilt/Zoom of PTZ camera with tow-way communication.

5. Setup

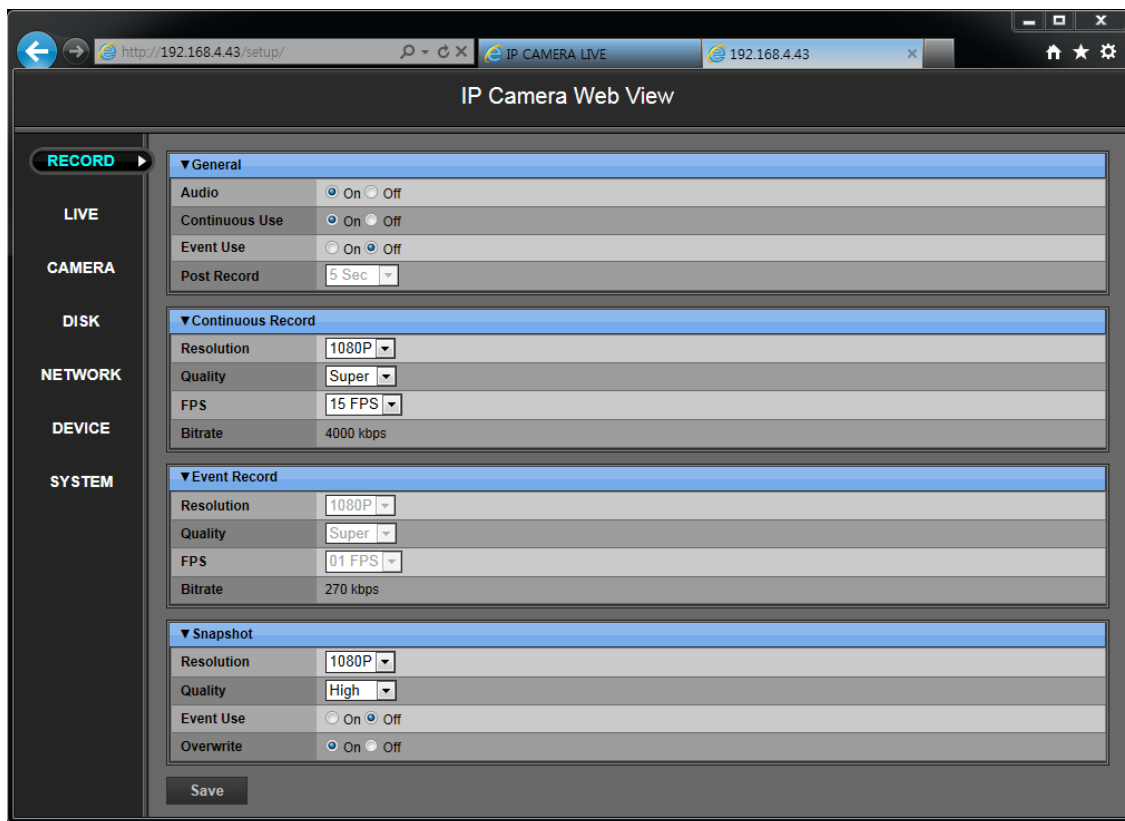


Click the Setup button on the advanced camera  the top right of the web view window, then setting window will be switched to the IP camera as below picture.



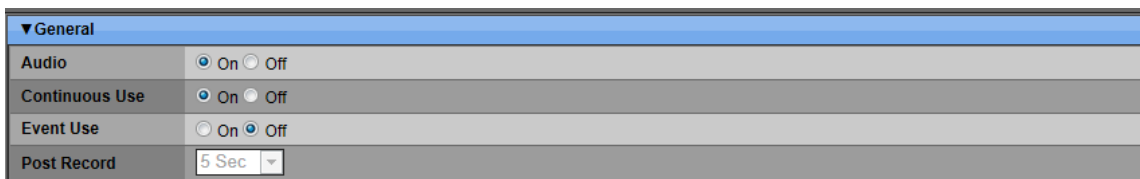
1. RECORD: Configure the recording Mode.
2. LIVE: Live mode Setup (HD, SD, MJPEG)
3. CAMERA: Image correction and additional control features.
4. DISK: with the SD card can be managed
5. NETWORK : Network and related services
6. DEVICE: Imaging modalities, such as to set the motion detection.
7. SYSTEM: Account, Language, Time configuration

5.1 RECORD



This section is to configure the recording image quality and related feature settings.

(1) General



1) Audio

If Audio is turned [Off], the audio output transmitted from client software (E.M.S.) to the Mic. on site is also turned off. If it turns [On], the audio in client software (E.M.S.) is activated.

2) Continuous Use

If Continuous Use is turned [On], the user can set the regular video record continuously.

3) Event Use

If Event Use is turned [On], the user can set the event record and [Post Record] will be activated.

4) Post Record

The Post Record it to set the time before the trigger of event.

Determines the duration time [5Sec ~ 60Sec] of recording after an event detection.

The default time is 5 sec.

This function can be activated only if the **Event Use** is turned [On].

Click  to save setting values.

(2) Continuous Record

▼ Continuous Record	
Resolution	1080P ▼
Quality	Super ▼
FPS	15 FPS ▼
Bitrate	4000 kbps

1) Resolution

Select the recording resolution as [CIF - D1 - 720P - SXGA - 1080p]

2) Quality

Select the image quality as [Low – Middle – High – Super – Ultra]

3) FPS


Select the recording frame rates.

- NTSC: 1, 2, 3, 4, 5, 8, 10, 15, 30 fps can be selected.

- PAL: 1, 2, 3, 4, 5, 8, 10, 12, 25 fps can be selected.

4) Bitrate

The bitrate of data transmission per each frame rate is indicated.

Click  to save setting values.

(3) Event Record

The **Event Record** menu will be activated, when **[Event Use]** of **General** menu is On

▼Event Record	
Resolution	1080P ▼
Quality	Super ▼
FPS	01 FPS ▼
Bitrate	270 kbps

1) Resolution

Select the recording resolution as [CIF - D1 - 720P - SXGA - 1080p]

2) Quality

Select the image quality as [Low – Middle – High – Super – Ultra]

3) FPS

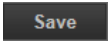
Select the recording frame rates.

- NTSC: 1, 2, 3, 4, 5, 8, 10, 15, 30 fps can be selected.

- PAL: 1, 2, 3, 4, 5, 8, 10, 12, 25 fps can be selected.

4) Bitrate

The bitrate of data transmission per each frame rate is indicated.

Click  to save setting values.

(4) Snapshot

▼ Snapshot	
Resolution	1080P ▾
Quality	High ▾
Event Use	<input type="radio"/> On <input checked="" type="radio"/> Off
Overwrite	<input checked="" type="radio"/> On <input type="radio"/> Off

1) Resolution

Select the recording resolution as [CIF - D1 - 720P - SXGA - 1080p]

2) Quality

Select the image quality as [Low – Middle – High – Super – Ultra]

3) Event Use


Select the [On] to activate the snapshot function at events.

4) Overwrite

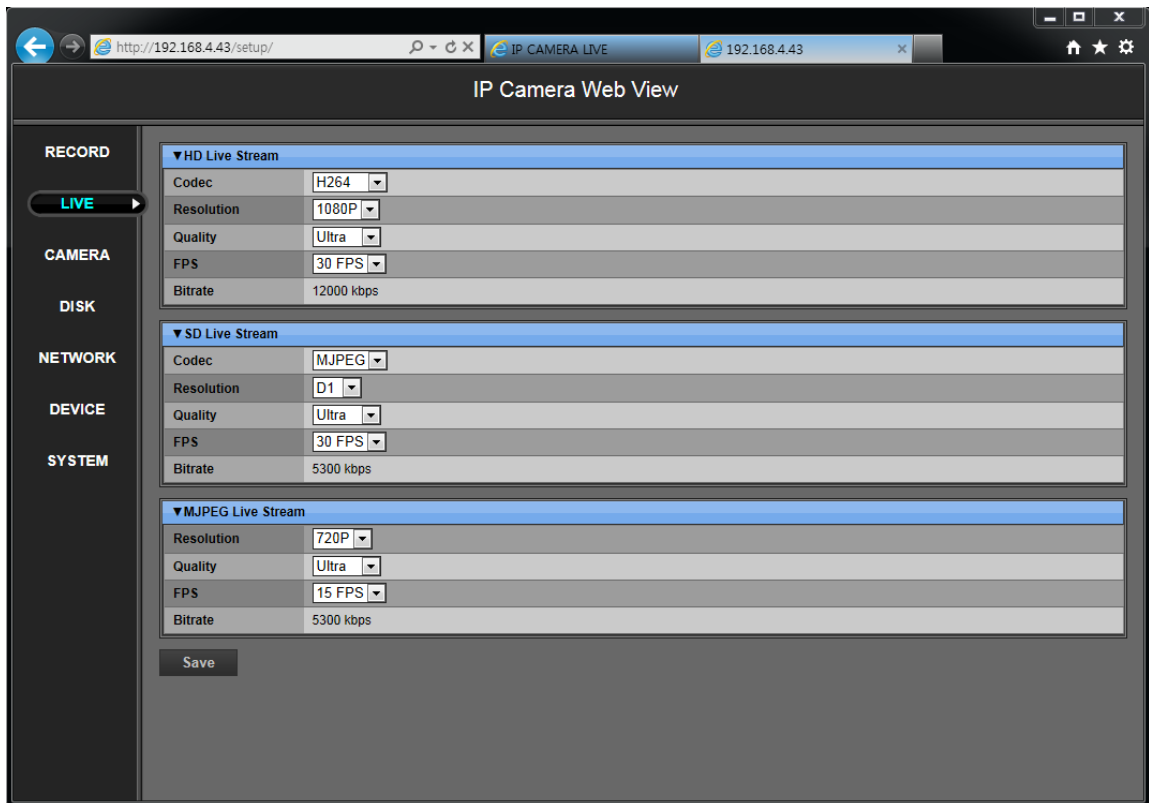
Select the use of Overwriting micro SD memory Card or not.

And the default setting is [On].

If the micro SD memory Card is full, the camera deletes the oldest images

Click  to save setting values.

5.2 LIVE



In Live menu, you can set the Live Video Stream settings.




1) HD Live Stream

- **CODEC** : Select H.264 or MJPEG
- **RESOLUTION**
D1(720x480), 720P(1280x720), SXGA(1280x1024) and Up to 1080P (1920x1080) can be displayed.
- **QUALITY**
Set the quality of Image data as the level of Low, Middle, High, Super and Ultra.

- FPS

If the Video mode is NTSC, 1, 2, 3, 4, 5, 8, 10, 15, 30 FPS can be selected.

If the Video mode is PAL, 1, 2, 3, 4, 5, 8, 10, 12, 25 FPS can be selected.

Click  to save setting values.

2) SD Live Stream

- CODEC: Select H.264, MJPEG or MPEG4

- RESOLUTION

CIF (352x288) and D1 (720x480) can be displayed.

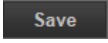
- QUALITY

Set the quality of Image data as the level of Low, Middle, High, Super and Ultra.

- FPS

If the Video mode is NTSC, 1, 2, 3, 4, 5, 8, 10, 15, 30 FPS can be selected.

If the Video mode is PAL, 1, 2, 3, 4, 5, 8, 10, 12, 25 FPS can be selected

Click  to save setting values.

3) MJPEG Live Stream

- RESOLUTION

CIF (352x288), D1 (720x480) and 720P (1280x720) can be displayed

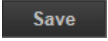
- QUALITY

Set the quality of Image data as the level of Low, Middle, High, Super and Ultra.

- FPS

If the Video mode is NTSC, 1, 2, 3, 4, 5, 8, 10, 15, 30 FPS can be selected.

If the Video mode is PAL, 1, 2, 3, 4, 5, 8, 10, 12, 25 FPS can be selected

Click  to save setting values.

5.3 CAMERA

IP Camera Web View

RECORD

LIVE

CAMERA

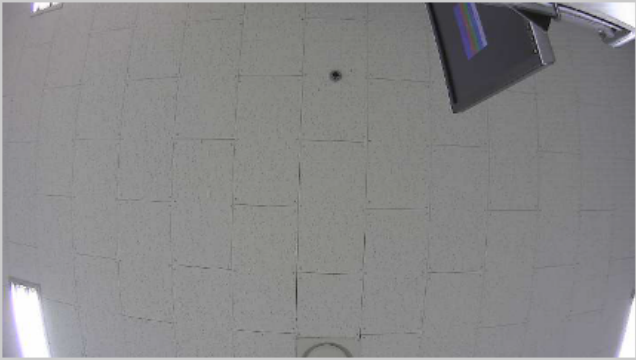
DISK

NETWORK

DEVICE

SYSTEM

▼ Preview



▼ Image Sensor

Day Night

TDN Threshold Level

Frequency

Orientation Flip Mirror

▼ Exposure Control

Camera Location

Shutter Speed

DSS

▼ Image Adjustment

White Balance

Enhancement

WDR Level

DNR

Defog

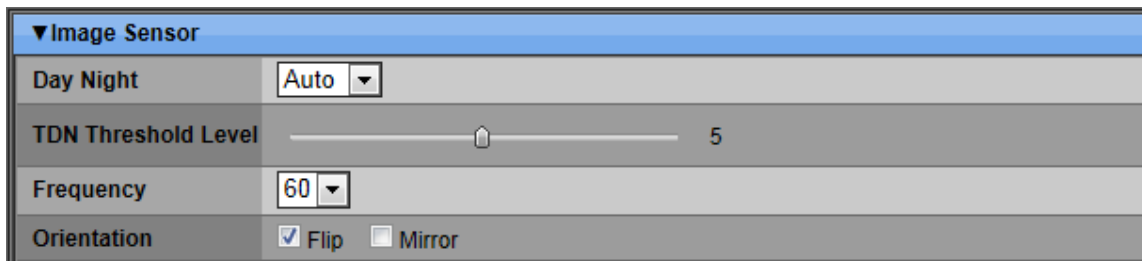
Brightness

Chroma

Sharpness

Save

(1) Image Sensor



1) Day & Night

Set the [Auto – Day – Night]. The default is [Auto].

- [Auto] : The IR-cut filter will be On/Off automatically depending on external brightness.
- [Day]: The IR-cut filter is on with color image at all times
- [Night]: The IR-cut filter is removed with B/W image at all times.

2) TDN Threshold Level

Determine the recognition sensitivity level (0, 5, 10) to operate IR-cut filter. The default is 5.

The higher value means the higher the recognition and sensitivity.

3) Frequency

Set Line Frequency of Sensor as 50Hz (PAL) and 60Hz (NTSC) for analogue output via Composite out.

4) Orientation

Set the way of reversing the Image as up and down, right and left.

If select [Flip], the image gets reversed as up and down.

If select [Mirror], the image get reversed as right and left.

Click  to save setting values.

(2) Exposure Control

▼ Exposure Control	
Camera Location	Outdoor ▼
Shutter Speed	Auto ▼
DSS	Off ▼

1) Camera Location

Determines the camera location [Outdoor- Indoor] to set the appropriate camera exposure settings.

2) Shutter Speed

Adjusts the light sensitivity of the camera.

- NTSC : Auto, 1/25, 1/50, 1/100, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/3000, 1/60000.

- PAL : Auto, 1/30, 1/60, 1/120, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/3000, 1/60000.

3) DSS (Digital Slow Shutter)

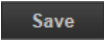
[OFF - 2X - 3X - 4X]

Automatically it provides a bright image under low light conditions.

DSS improves the picture quality (brightness) in low light conditions.

DSS might cause the motion blur. The default is [Off].

The higher the setting, the more likely motion blur will occur.

Click  to save setting values.

(3) Image Adjustment

▼ Image Adjustment	
White Balance	Auto ▼
Enhancement	Off ▼
WDR Level	6
DNR	Middle DNR ▼
Defog	0
Brightness	55
Chroma	40
Sharpness	50

1) White Balance

The White Balance ensures that color integrity is maintained in the camera image.

Determine the [Auto - Outdoor- Indoor] to set the appropriate white balance. The default is [Auto] as an automatic white balance mode that can be used in scenes which have constant lighting.

2) Enhancement

Select [Off – BLC – WDR] as a backlight revision. The default is [Off].

3) WDR Level

The Wide Dynamic Range is the improved version of BLC.

The image sensor scans the picture of both the dark and bright area at the same time in spite of the many differences of brightness. The default is 5. So it can make the clearer Image by making the bright place more darken and making the dark place more lighten.

4) DNR

It reduces digital noise on the image in low light condition and improves picture performance.

It uses the more improved 3D DNR and reduces the Noise effectively.

Select the menu as [Off – Low – Middle – High].

The default is [Middle DNR].

5) Defog

Enhance the visibility on the low contrast scene.

Determine the Defog level [0-10] of image. The default is [0]

6) Brightness


Determine the brightness level [1-100] of image. The default is 55.

7) Chroma

Determine the Chroma level [1-100] of image. The default is 40.

8) Sharpness

Determine the Sharpness level [1-100] of image. The default is 50.

Click  to save setting values.

5.4 DISK

(1) Buffering

▼ Buffering		
	Email	FTP
State	OFF	OFF
Queue	/	/
Storage		

If event menu is turned on, the snapshot is transmitted to Email and FTP.

In this menu, the user can check the information of Email and FTP, the number of Que and the type of the current storage.

1) State

Status	Display
when the connection failed	Connect Fail..
when the recognition failed	Invalid
when the information is not recognized	Unknown
when it is normally operated	Good
when the Snapshot is transmitting	Transfer

2) Queue

If there's a SD Card, the Maximum of Queue set as 100

If there's no SD Card, it displays "RAM" and the Queue is reduced as 10.

Display example 10/100

10 is the number of the remaining snapshot.

100 is the whole capacity that can be saved

In case of Email, It is automatically transmitted when it is more than

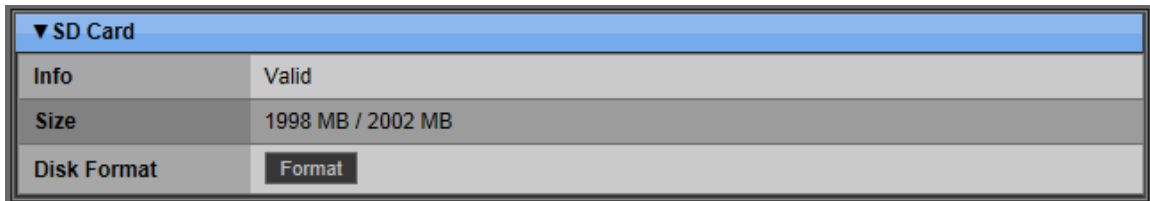
5pcs.

It is automatically transmitted after 1 minute when it is less than 5pcs.

3) **Storage**

Indicates “SD Card” to display that SD Card is activated now, when the SD Card is recognized

(2) **SD Card**



Display the information of the micro SD memory Card of IP Camera.

1) **Info**

If the micro SD Card is not inserted or not recognized,

Status	Display
If the micro SD Card is not inserted or not recognized	UNPLUGED
If the capacity of the micro SD Card is over the limitation,	DISK FULL

- If Overwrite is being turned on, the camera deletes the oldest images first.

2) **Size**

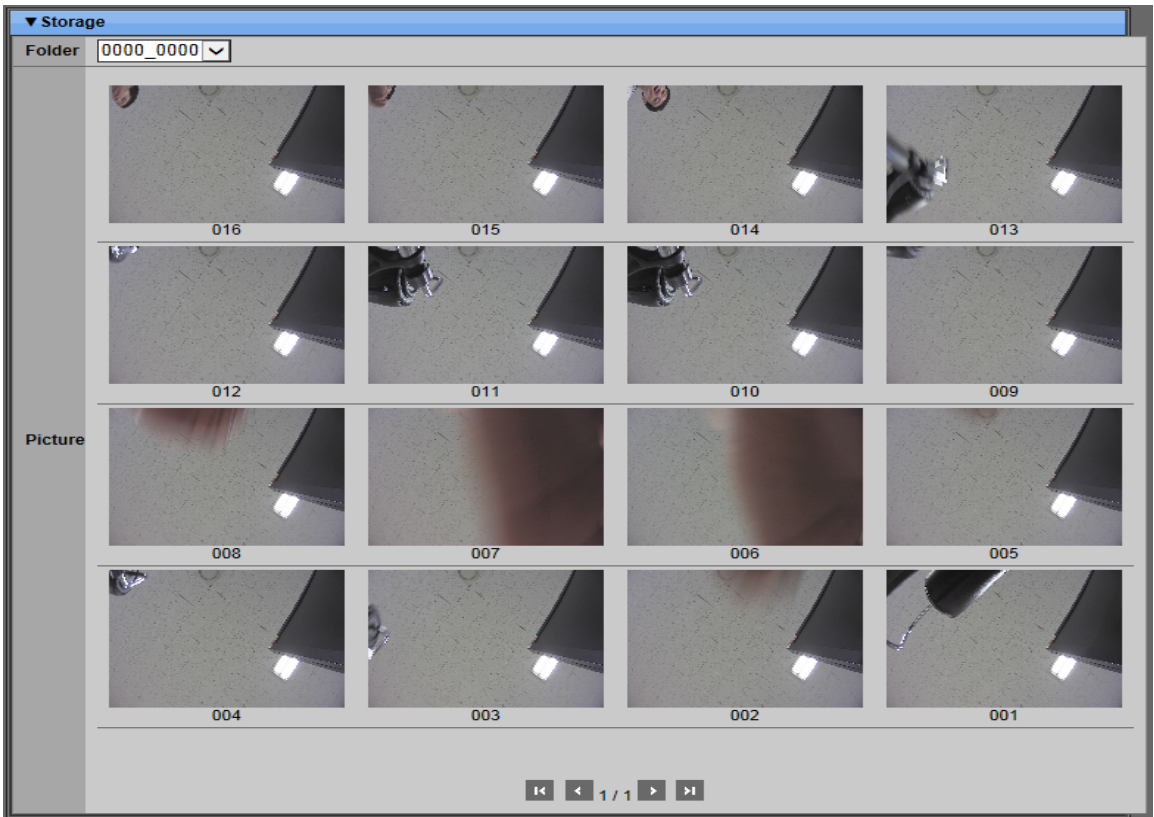
Check the storage capacity of SD card.

3) **Disk Format**

User can format the SD card.

(3) **Storage**

The user can check the event snapshots.



5.5 NETWORK

The screenshot shows the 'IP Camera Web View' configuration interface. The browser address bar displays 'http://192.168.3.152/setup'. The left sidebar contains navigation options: RECORD, LIVE, CAMERA, DISK, NETWORK (highlighted), DEVICE, and SYSTEM. The main content area is divided into three sections: Ethernet, General, and RTSP. The Ethernet section is expanded, showing configuration for a static IP address (192.168.3.152), netmask (255.255.248.0), gateway (192.168.0.1), and DNS servers (168.126.63.1 and 210.220.163.82). The General section shows HTTP Port (80), Authorization (Off), Bandwidth (Unlimited), Ping Block (Off), and Scan Block (Off). The RTSP section shows RTSP Port (554) and various RTSP URLs for HD, SD, Record, and MJPEG.

▼ Ethernet	
Config	Static
IP Address	192.168.3.152
Netmask	255.255.248.0
Gateway	192.168.0.1
DNS Server	<input type="radio"/> Manual <input type="radio"/> From DHCP
Pri DNS Server	168.126.63.1
Sec DNS Server	210.220.163.82

▼ General	
HTTP Port	80
Authorization	<input checked="" type="radio"/> Off <input type="radio"/> Basic <input type="radio"/> Digest
Bandwidth	Unlimited
Ping Block	<input type="radio"/> On <input checked="" type="radio"/> Off
Scan Block	<input type="radio"/> On <input checked="" type="radio"/> Off

▼ RTSP	
RTSP Port	554
RTSP for HD	livehd.sdp
RTSP for SD	livesd.sdp
RTSP for Record	record.sdp
RTSP for MJPEG	mjpeg.sdp

▶ Email

This section is to configure the IP network setting.

(4) Ethernet

▼ Ethernet		
Config	Static ▾	
IP Address	192.168.3.152	
Netmask	255.255.248.0	
Gateway	192.168.0.1	
DNS Server	<input checked="" type="radio"/> Manual <input type="radio"/> From DHCP	
	Pri DNS Server	168.126.63.1
	Sec DNS Server	210.220.163.82

4) Config

Select the [Static – DHCP].

5) IP Address

The Camera obtains an IP address by static or DHCP.

In case of Static, you can put any IP you want.

Enter the network details such as [Netmask], [Gateway], [DNS server] in each data field.

It is deactivated, when you select [DHCP]

6) Netmask

It's the value of the device on the network.

IP networks can be divided into several smaller networks by subnet.

It is deactivated, when you select [DHCP]

7) Gateway

The default gateway address connects the device to the network. Enter the IP address of the host to use as a gateway between networks.

The gateway allows communication between devices that are on different networks. Without a correct gateway setting, the camera cannot receive or transmit data from or to devices that are not in the same network address range.

It is deactivated, when you select [DHCP]

8) DNS Server

When you select [Static] of **Config**, enter the network details of [Pri DNS Server] and [Sec DNS Server] manually.

When you select [DHCP] of **Config**, the check points of “**Manual**” and “**From DHCP**” will be activated. If you check the point of “**From DHCP**”, IP addresses of DNS Servers will be assigned automatically. Check the

point of “**Manual**” to enter desired network details of [Pri DNS Server] and [Sec DNS Server] manually..

Click  to save setting values.

(5) General

▼ General	
HTTP Port	<input type="text" value="80"/>
Authorization	<input checked="" type="radio"/> Off <input type="radio"/> Basic <input type="radio"/> Digest
Bandwidth	<input type="text" value="Unlimited"/>
Ping Block	<input type="radio"/> On <input checked="" type="radio"/> Off
Scan Block	<input type="radio"/> On <input checked="" type="radio"/> Off

4) HTTP Port

Enable HTTP Port and the port number is 80 by default.

The port is required for searching the device by scan of E.M.S software.

5) Authorization

Change the way of the certification connecting to IE of IP Camera as [Off – Basic – Digest].

6) Bandwidth

It controls the network bandwidth by adjusting the resolution and the frame rate of the device.

Select the bandwidth as [Unlimited – 1Mbps – 2Mbps – 4Mbps – 8Mbps - 16Mbps – 32Mbps]

The default setting is Unlimited.

7) Ping Block

If Ping Block is turned on, It cannot use the connection of Ping Protocol in PC. No response to ping. The default setting is [Off].

8) Scan Block

If Scan Block is turned on, it cannot use the device search by scanning in E.M.S. software. No response to Auto Scan from E.M.S. software. The default setting is [Off]

Click  to save setting values.

(6) RTSP

▼ RTSP	
RTSP Port	<input type="text" value="554"/>
RTSP for HD	<input type="text" value="livehd.sdp"/>
RTSP for SD	<input type="text" value="livesd.sdp"/>
RTSP for Record	<input type="text" value="record.sdp"/>
RTSP for MJPEG	<input type="text" value="mjpeg.sdp"/>

The RTSP serves as a control protocol, to negotiate which transport protocol to use for the stream. It is important for live video using an up-to-date video stream even if some images do get dropped.

1) RTSP Port

Enter the RTSP port number to use. The default setting is **554**

2) RTSP for HD

The RTSP access name for HD is **livehd.sdp** which is to save the accessible path to HD display

3) RTSP for SD

The RTSP access name for SD is **livehd.sdp** which is to save the accessible path to SD display

4) RTSP for Record

The RTSP access name for HD is **record.sdp** which is to save the accessible path to HD recording display

5) RTSP for MJPEG

The RTSP access name for SD is **mjpeg.sdp** which is to save the accessible path to SD display

Click to save setting values.

(7) Email

▼ Email	
Use	<input checked="" type="radio"/> Off <input type="radio"/> Default <input type="radio"/> SMTP
Attach Picture	<input type="radio"/> On <input checked="" type="radio"/> Off
Email Address 1	<input type="text"/>
Email Address 2	<input type="text"/>
Email Address 3	<input type="text"/>
Email Address 4	<input type="text"/>
Email Address 5	<input type="text"/>

1) Use

Select the e-mail notification as **[Off – Default – SMTP]**. The default is **[Off]**.
[Default] : It is provided by manufacturer. The mail notification options and mail address settings are available.

[SMTP]: The **[SMTP]** configuration tab is activated to set up your own mail settings.

2) Attach Picture

Select the **[On – Off]** to attach the snapshot or not, when Email with the event notification is delivered by trigger of event.

3) Event

Select the type of the source as **[Alarm – Motion]**.

4) Email Address 1~5

Enter the email address for user's primary mail servers in the fields provided to enable the sending of event and error e-mail messages from the camera to the addresses via SMTP

Email Address can be saved up to 5 and for details on notifying event detection via E-mail.

Click  to save setting values.

(8) SMTP

▼ SMTP	
Server	<input type="text"/>
Port	<input type="text" value="25"/>
Authentication	<input type="radio"/> On <input checked="" type="radio"/> Off
User ID	<input type="text"/>
Password	<input type="text"/>

The SMTP is a common e-mail protocol.

This menu is activated when you check **[SMTP]** on **Email**.

Enter the Sever and Port in the fields provided to enable the sending of event and error e-mail messages from the camera to the addresses via SMTP.

1) **Server**

Enter the e-mail server name or IP address.

To set server name, press the appropriate numeric button on IR Remote..

2) **Port**

Define the port. The SMTP server will communicate through.

The default port number is 25.

3) **Authentication**

Check **[On]**, if your mail server requires authentication.

4) **User ID**

Enter the user ID for the SMTP Server.

(It is recognized as Lower Case, even though it's displayed in Upper Case).

5) **Password:**

Enter the password for the SMTP Server.

Click to save setting values.

(9) DDNS

▼ DDNS	
Use	<input type="radio"/> Off <input checked="" type="radio"/> Default <input type="radio"/> DYNDNS
Domain Name	<input type="text"/>
User ID	<input type="text"/>
Password	<input type="text"/>

It offers free dynamic DNS update. It keeps track of your changing IP address. Locate and translate Internet domain names into IP (Internet Protocol) addresses.

1) Use

Select DDNS OFF. The default is [Off]

- **[Default]:** it is provided by manufacturer.

If you are using **[Default]** for DDNS, you do not need to setup anything.

It does not allow you to create a host name; it's provided by the Camera.

We offer DDNS service for remote at <http://www.dvrhost.com>

- **[DYNDNS]:** To use your own domain name service or "dyndns.com"

The following settings are only needed, if you are NOT using the default.

2) Domain Name

Enter the name you set for the DDNS web configuration.

3) User ID

Enter your user ID

4) Password

Enter your password.

Click to save setting values.

(10) FTP (File Transfer Protocol)

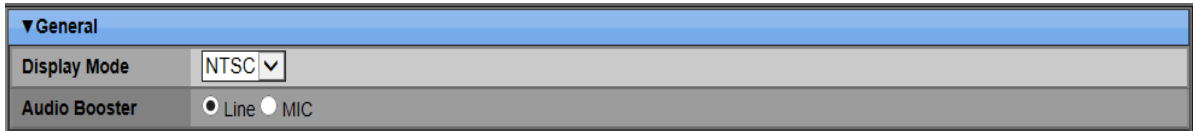
▼FTP	
Use	<input type="radio"/> On <input checked="" type="radio"/> Off
Event	<input checked="" type="checkbox"/> Alarm <input type="checkbox"/> Motion
Server	<input type="text"/>
Port	<input type="text" value="21"/>
Connection	<input type="radio"/> Regular <input type="radio"/> Passive
Authentication	<input type="radio"/> On <input checked="" type="radio"/> Off
User ID	<input type="text"/>
Password	<input type="text"/>
Backup Path	<input type="text" value="1582680"/>

- 1) **Use**
The FTP server enables the upload of new firmware, user applications.
If Use is turned [On], the following conditions are activated.
- 2) **Event**
Select the source of event as [Alarm] or [Motion].
- 3) **Sever**
Enter the IP address of FTP server.
- 4) **Port**
Enter the port of FTP server. The default number is 21.
- 5) **Connection**
Select [Passive] if firewall is on the network only.
- 6) **Authentication**
If Authentication is turned [On], [User ID], [Password] and [Backup Path] are activated.
- 7) **User ID**
Enter the user ID to log in to the FTP server.
- 8) **Password**
Enter a user Password to log in to the FTP server.
- 9) **Backup Path**
Enter the accessible path to save backup data in FTP server.

Click to save setting values.

5.6 DEVICE

(1) General



▼ General

Display Mode

Audio Booster Line MIC

1) Display Mode

Select the Display mode as [NTSC – PAL].

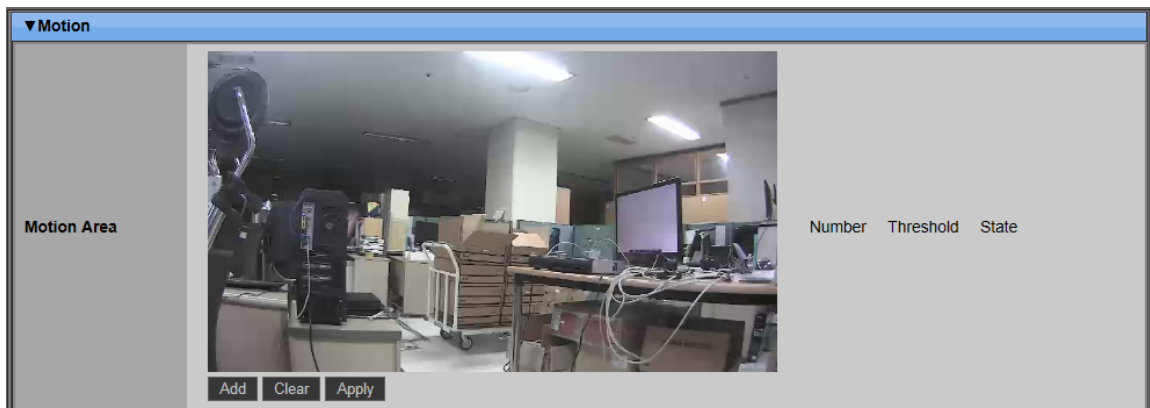
2) Audio Booster

Increase the Grain of MIC installed to IP Camera by Audio Booster for 2 Way Audio.

- LINE : Audio In
- MIC : Audio Out

Click to save setting values.

(2) Motion



▼ Motion

Motion Area

Number Threshold State

1) Motion Area

Set up to 4 Motion areas defined by selected parts.

2) Number

The user can set the 4 Motion areas on the web viewer.

3) Threshold

Set the Threshold of the each area up to 99. It is standard value for motion sensitivity.

-The higher value, the slower the sensitivity of the motion detection.

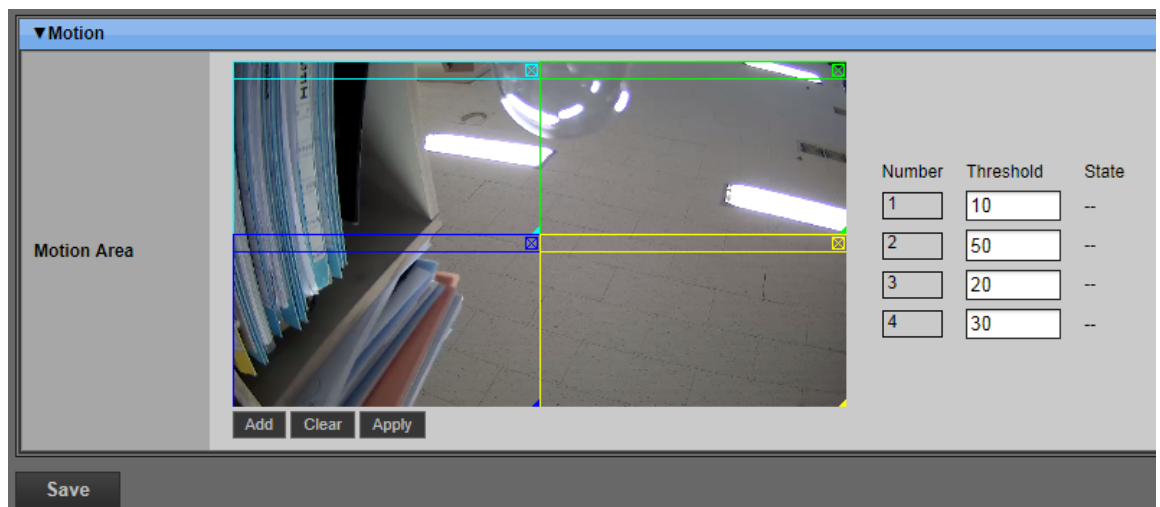
For example, if the Threshold is 50, the motion state should be exceeded over 50 for the detection.

- The lower value, the higher sensitivity of the motion detection.

4) State

Display a Motion figure at each designated area.

The number of state should be exceeded over the Threshold to be detected.



Press the Add button **Add** to add motion block on the screen.

Press the Clear button **Clear** to remove the Motion Block.

Press the Apply button **Apply** to save the settings

Click **Save** to save setting values.

Warning!

1. It would be possible to recognize the noise coming from the Motion detection of IP camera in low light levels as a Motion.
2. So when it occurs, we recommend you to use DNR function as high level as it can be.

It is also improved by using a sensor or a light installed with IR.

5.7 SYSTEM

(1) General

▼ General	
Name	<input type="text" value="I582680"/>
Language	<input type="text" value="ENGLISH"/> ▼
Model Brief	IP_E(DOME ISP 2M, 390)
Host Name	I582680
Factory Reset	<input type="button" value="Reset"/> <input type="button" value="Reboot"/>

1) Name

Enter the alphabet character to make a name of each camera to distinguish its location when you have several cameras on a Network.

Default is a Mac Address.

2) Language

Support multilingual operation as a combo box.

- ENGLISH / KOREAN / JAPANESE / CHINESE / TAIWANESE / FRENCH / SPANISH / GERMAN / RUSSIAN / POLISH / ITALIAN / DUTCH / HUNGARIAN / BULGARIAN / CZECH / PORTUGUESE / TURKISH / FINNISH / THAI / PERSIAN / braportuguese / ESTONIAN

3) Model Brief

Displays the product name, Operating information such as IP or SLOC and Sensor (ISP 2M).

4) Host Name

It is a Mac Address.

5) Factory Reset

The Camera has a Factory Reset button inside of the camera.

Click the Reset button for 10 seconds to restore the camera options, password and existing network settings to its default setting. It takes approximately 2 minutes to complete and during that time, the camera will lose connection to the client software (E.M.S.)

Click the Reboot button to reboot the camera.

Click to save setting values.

(2) Time

▼ Time	
Time Zone	GMT+00:00 (Monrovia) <input checked="" type="checkbox"/> Day Light Saving
NTP Server	<input type="radio"/> Manual <input type="radio"/> From DHCP <input type="text" value="pool.ntp.org"/>

1) Time Zone

Selects the time zone where the Camera is located and installed.

The Time Zone contains DST (Daylight Saving Time) ON.

If you choose Time Zone with DST, there is no change in the system time stamp for recorded data. When the Daylight Saving End date and time occurs the Camera's time goes back one hour.

2) NTP Server

It allows you to use a public or private NTP server.

Enter the IP address of the server or domain. The default setting is public "pool.ntp.org". <Note> Time Sync. Interval: Min 64 sec. Max 1024 sec.

If NTP Sync is turned Off, Date & Time is activated as a type of YYYY/MM/DD, HH/MM/SS set by user.

Ex) 2011/08/24, 09:43:00.

Click to save setting values.

(3) Account

▼ Account	
Account	ADMIN <input type="button" value="v"/>
Name	<input type="text" value="admin"/>
Custom Access	System <input type="button" value="v"/>
System PW	Old Password <input type="text"/>
	New Password <input type="text"/>
	Confirm Password <input type="text"/>

The Camera comes preconfigured with ADMIN

Register General User up to 5, and then activate it by setting to [On].

- Name Length: up to 10 characters.

- Characters: A to Z, numerals 0 to 9.

a. Admin

Administrator can set the name, password and user's name, password,

Activate and defining each user's Privilege such as Live, Snapshot and Backup for record setting, IP camera sensor and Setup for network and Upgrade.

1) **Name**

Enter the name of administrator.

2) **Custom Access**

Select the [SYSTEM – CUSTOM].

3) **System/Custom PW**

Enter the 6 characters of the previous password into the [Old Password].

Enter the new password into the [New Password].

Re-enter the same password into the [Confirm Password].

b. **User**

User can set the Live, Snapshot and Backup for record setting, IP Camera sensor and Setup for network and Upgrade.

▼ Account	
Account	USER1
Name	user1
Activate	<input checked="" type="radio"/> On <input type="radio"/> Off
Privilege	<input checked="" type="checkbox"/> Live <input checked="" type="checkbox"/> Setup <input type="checkbox"/> Upgrade
Custom Access	System
System PW	New Password
	Confirm Password

1) **Name**

Enter the name of general user.

2) **Activate**

Select the [On] to activate the Privilege menu.

3) **Privilege**

Define the authorized of users' rights. [Live – Setup – Upgrade]

4) **Custom Access**

Select the [SYSTEM – CUSTOM].

5) **System/Custom PW**

Enter the new password into the [New Password].

Re-enter the same password into the [Confirm Password].

Click  to save setting values.

(4) Upgrade

▼ Upgrade	
File	<input type="text"/> <input type="button" value="찾아보기..."/> <input type="button" value="Upgrade"/>
BIOS Version	I1K-UBT-1.0.1.62
LINUX Version	I1K-LNX-1.0.1.44
APP Version	I1K-APP-1.0.1.37

Download the latest firmware file and copy to micro SD card in the Root directory.

- a. Connect or insert the Micro SD memory card to the slot on the back side of Camera.
- b. Search the path to select the valid update file.
- c. Then, press the Update button and while updating, an “in progress” message is displayed.
- d. After the update process is complete, a “Success” message is displayed.
- e. The device restarts automatically after all Update process is completed.

Click to save setting values.

6. Specification

ITEMS	INDOOR DOME- PNC-ID2E1 Series
SYSTEM	
Sensor	Sony 1/3" 2.0M Pixel Color CMOS (1080P)
Lux	Color : 1.0 lux, BW : 0.5lux, Color DSS : 0.002 lux, BW DSS : 0.001 lux
Lens	Fixed f=4.3mm, F2.5 (PNC-ID2E1F Series) Varifocal f=2.8~10mm, F1.2 (PNC-ID2E1V Series)
Shutter Speed	AUTO 1/30, 1/25 ~ 1/60000 sec
IRIS Control	Electronic shutter (PNC-ID2E1F Series) DC Auto IRIS (PNC-ID2E1V Series)
POWER	DC 12V & PoE(IEEE 802.3af)
Consumption	IR MAX 10W
Working temp.	-10°C ~ 50°C
Storage temp.	-20°C ~ 60°C
FPS	45 fps
Compress Codec	H.264 High Profile, MJPEG
Alarm I/O	N/A
Motion	4 Zone Motion Detection
Streaming	Triple: Recording (All resolution), HD (1920x1080, 1280x1024, 1280x720, 720x480), SD (720x480, 352x240)
Network Protocol	HTTP, FTP, SMTP, DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, ARP, DHCP
Signal Processing	WDR, Adaptive Digital Noise Reducer (3D), Optical detector (AE, AWB), Edge enhancement, Gamma correction, Hue controller
Auto backup	Micro SD card, FTP, EMAIL
Client support	EMS2.0 / Web Viewer : Internet Explorer / Setup Only(Firefox, Chrome, Safari) / Mobile Touch CMS(IOS, Android)
Miscel.	Time Zone, Daylight Saving, Web Update, Privilege, Multi languages
Recording Streaming	Continuous, Event

Network Performance	100M Link/ Max 50Mbps, Video Stream Max Simultaneous Transmission :10
Storage	SD or Micro SD: Snapshot Record, Email and FTP buffering (include Power Fail Recovery)
Recording Frame Rate	NTSC: 1, 2, 3, 4, 5, 8, 10, 15, 30 fps / PAL: 1, 2, 3, 4, 5, 8, 10, 12, 25 fps
ETC	
IP Discovery	Device Search, Network Setup(only local network)
SDK	1 Channel receiver, 1 Channel decoding, 1 Channel receiver and display

ITEMS	INDOOR DOME- PNC-IB2E2 Series
SYSTEM	
Sensor	Sony 1/3" 2.0M Pixel Color CMOS (1080P)
Lux	Color: 0.5Lux @ F2.5, 30IRE
Lens	Fixed f=4mm, F2.5
Shutter Speed	AUTO 1/30, 1/25 ~ 1/60000 sec
IRIS Control	Electronic shutter
POWER	DC 12V & PoE(IEEE 802.3af)
Consumption	IR MAX 10W
Working temp.	-20°C ~ 50°C
Storage temp.	-20°C ~ 60°C
FPS	45 fps
Compress Codec	H.264 High Profile, MJPEG
Alarm I/O	N/A
Motion	4 Zone Motion Detection
Streaming	Triple: Recording (All resolution), HD (1920x1080, 1280x1024, 1280x720, 720x480), SD (720x480, 352x240)
Network Protocol	HTTP, FTP, SMTP, DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, ARP, DHCP
Signal Processing	WDR, Adaptive Digital Noise Reducer (3D), Optical detector (AE, AWB), Edge enhancement, Gamma correction, Hue controller

Auto backup	Micro SD card, FTP, EMAIL
Client support	EMS2.0 / Web Viewer : Internet Explorer / Setup Only(Firefox, Chrome, Safari) / Mobile Touch CMS(IOS, Android)
Miscel.	Time Zone, Daylight Saving, Web Update, Privilege, Multi languages
Recording Streaming	Continuous, Event
Network Performance	100M Link/ Max 50Mbps, Video Stream Max Simultaneous Transmission :10
Storage	SD or Micro SD: Snapshot Record, Email and FTP buffering (include Power Fail Recovery)
Recording Frame Rate	NTSC: 1, 2, 3, 4, 5, 8, 10, 15, 30 fps / PAL: 1, 2, 3, 4, 5, 8, 10, 12, 25 fps
ETC	
IP Discovery	Device Search, Network Setup(only local network)
SDK	1 Channel receiver, 1 Channel decoding, 1 Channel receiver and display

8. Appendix 1: Time Zone Chart

Standard Time	Time Zone
GMT+00:00	Standard
	European DST
GMT+01:00	Standard
	European DST
	Namibia DST
GMT+02:00	Standard
	Israel DST
	European DST
	Lebanon DST
	Jordan DST
	Russia DST
GMT+03:00	Standard
	Russia DST
GMT+03:30	Iran DST
GMT+04:00	Standard
	Azerbaijan DST
	Russia DST
GMT+04:30	Standard
GMT+05:00	Pakistan DST
	Russia DST
GMT+05:30	Standard
GMT+05:45	Standard
GMT+06:00	Standard
	Russia DST
GMT+06:30	Standard
GMT+07:00	Standard
	Russia DST
GMT+08:00	Standard
	Russia DST
GMT+09:00	Standard
	Russia DST
	Standard

GMT+09:30	Australia DST
Standard Time	Time Zone
MT+10:00	Standard
	Russia DST
	Australia DST
GMT+11:00	Standard
	Russia DST
GMT+12:00	Standard
	New Zealand DST
GMT+13:00	Standard
GMT-01:00	Standard
	European DST
GMT-02:00	Standard
GMT-03:00	Standard
	Brazil DST
	European DST
	Uruguay DST
GMT-04:00	Chile DST
	US DST
GMT-04:30	Standard
GMT-05:00	Standard
	US DST
GMT-06:00	Standard
	Mexico DST
	US DST
GMT-07:00	Standard
	Mexico DST
	US DST
GMT-08:00	Standard
	Mexico DST
	US DST
GMT-09:00	Standard
	US DST
GMT-10:00	Standard
GMT-11:00	Standard

WEEE Symbol Information



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates, that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for d

