Ikegami

Instruction Manual (Application Part)

Mega-pixel Network Camera

IPD−BX300
IPD-DM300

eco products
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**Before start using the manual, read this manual thoroughly
and handle the device correctly.**

Table of Contents

1. Introduction

1.1 About this Instruction Manual (Application Part)

This manual describes the setting methods of the following cameras from the PC via the network.

- IPD-BX300　(Box-type mega-pixel network camera)
- IPD-DM300　(Dome-type mega-pixel network camera)

This document can be downloaded from the following URL.

http://www.ikegami.co.jp/en/products/download/security.html

For the installation and introduction of this device, please refer to the Instruction Manual Introduction Part delivered with the camera.

Adobe Reader Japanese version is required to view the PDF file. Please download and install the latest version of Adobe Reader from the web site of Adobe Systems Incorporated.

1.2 Trademarks and Registered Trademarks

- Microsoft, Windows, and Internet Explorer are the trademarks or the registered trademarks of Microsoft Corporation in the United States and other countries.
- Adobe and Reader are the trademarks and registered trademarks of Adobe Systems Incorporated in the United States and other countries.
- Other company names and product names are the trademarks or the registered trademarks of each company.

2. Logging In and Logging Out

2.1 Logging In the Camera
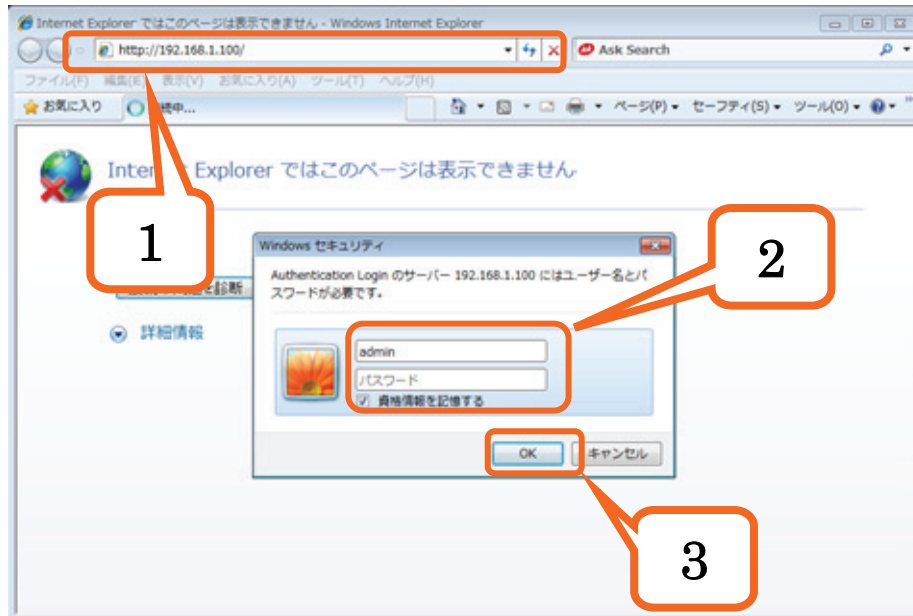
1. Start up the Internet Explorer.

2. Enter the URL of the camera to change the setting in the address bar and press the "Enter" key.
- The corresponding browser is Internet Explorer 8.0.
- The default setting is **http://192.168.1.100/**.
- The input window for the network password opens.

3. Enter the login name (user name) and the password of the administrator.
- In the default setting, the login name and the password of the administrator are both "**admin**."
- If you forget the login name and the password, please contact your dealer.

4. After inputting the login name and the password, click [OK].

If the setting screen of the camera opens, the login process completes.

2.2 Logging Out the Camera
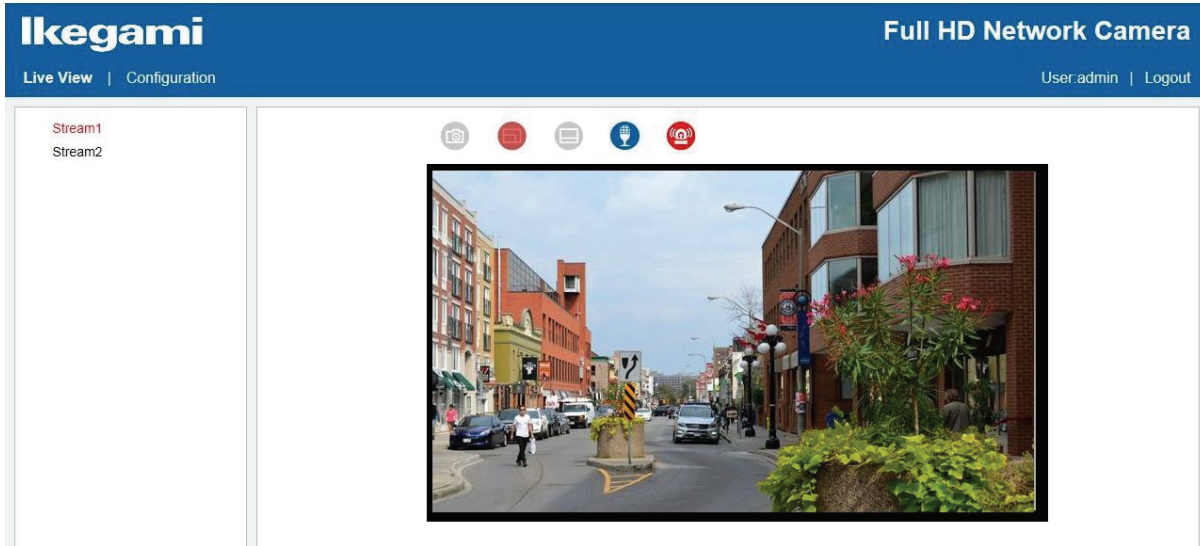Click ⊠ at the upper right corner of the browser to finish the browser.

3. Screen Configuration

When logging in the camera, selecting "Live View" and "Configuration" become possible.

3.1 Displaying the Video
Displaying the video is possible by clicking "Live View."
By using "Stream 1" and "Stream 2," two different encode sizes and frame rates can be delivered simultaneously.

Icon	Description
	"Snapshot" enables saving the still image in the PC.
	"Fit" displays the screen in a size that concise the actual display size.
	"1:1" displays the screen in a size that concise the actual screen size.
	"Audio Input" turns on/off the audio input function.
	"Motion" indicates the sign when the motion is detected in the image.

* Right clicking on the screen indicates the plug-in version of the browser.

3.2 Setting the Camera and the Network
Selecting "Configuration" enables various settings.
Details are explained in the following pages.

4. Basic Settings

In the basic settings, settings of the network and video distribution are possible.
Before installing this device, it is necessary to set the network.

4.1 Inforrmation

It indicates the version information.
Click "Information" from the menu at the left section of the screen.

Information
System Information
Network Settings
Image Parameters
Account Management
Event Settings
System Settings
Event Log
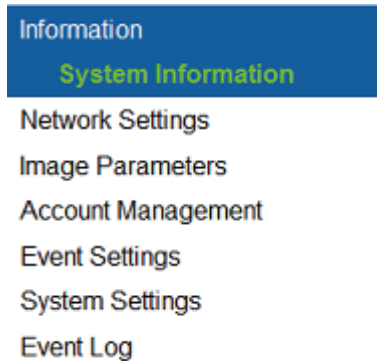
The system information including the firmware version, MAC address, and model name is indicated at the center of the screen.

System Information
Firmware Version: 01.05
MAC Address: 00:05:2a:
Model Name: IPD-BX300
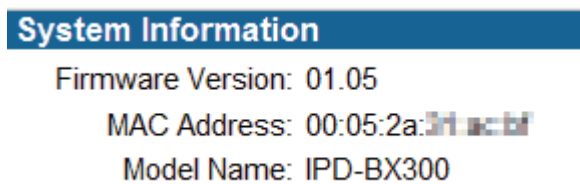
4.2 Network Settings

It sets the network.
Click "Network Settings" from the menu at the left section of the screen.

Information
Network Settings
   Network   1
   RTSP
Image Parameters   2
Account Management
Event Settings
System Settings
Event Log
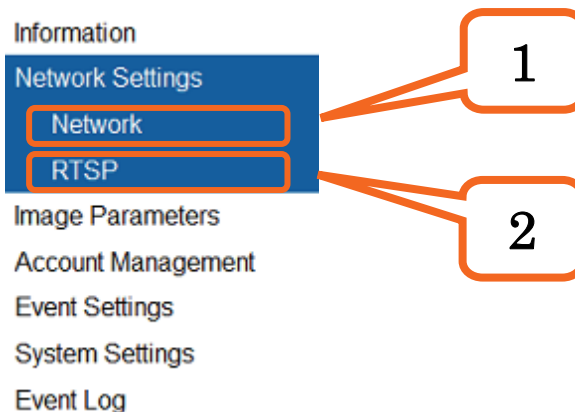
(1) Network

In order to connect this device to the LAN or the network, it is necessary to set the network.
When the settings are changed, be sure to click the "SAVE" button.
Without clicking the "SAVE" button, the setting cannot be saved.

Network Settings

| HTTP Port: | 80 |
| HTTPS Port: | 443 |

IPv4 Address Configure

DHCP:	☑
IPv4 Address:	192.168.1.100
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1
Primary DNS:	0.0.0.0
Secondary DNS:	0.0.0.0

OSD

| Mode: | OFF ▼ |
| Date & Time: | ○ ON ● OFF |

Save

Item	Content	Default Setting
Network Settings		
HTTP Port	It sets the HTTP port number. When changing the number, ask the network administrator.	80
HTTPS Port	It sets the HTTPS port number. When changing the number, ask the network administrator.	443
IPv4 Address Configure		
DHCP	Put a check mark to this item when connecting to the DHCP server. The IP address can be automatically acquired.	ON
IP Address	It inputs the IP address to be allocated to this device. Or, it is the IP address of when the DHCP could not be acquired.	192.168.1.100
Subnet Mask	It inputs the subnet mask to be allocated to this device.	255.255.255.0
Default Gateway	It inputs the IP address of the gateway.	192.168.1.1
Primary DNS	It inputs the primary DNS.	0.0.0.0
Secondary DNS	It inputs the secondary DNS.	0.0.0.0
OSD		
Mode	Selecting ON indicates the text in the live view screen.	OFF
Date & Time	Selecting ON indicates the date and time in the live view screen.	OFF

Caution ⚠	When the IP address and the subnet mask are changed, connecting from the PC may become disabled. Change the network setting of the using PC so the settings confirm the network camera. Then, connect again via the Internet Explorer.

(2) RTSP

It is set to control the communications of the video and the audio.

To enable RTSP, enter the login ID, password, and the port (default: 554) and select the "ON" button.
When the settings are changed, be sure to click the "SAVE" button.
Without clicking the "SAVE" button, the setting cannot be saved.

- **URL**

  Each stream has the unicast and the multicast, which are as follows respectively.

  Unicast: stream1
  Multicast: stream1m

- **Multicast address**

  The IP address for the multicast is from 224.0.1.1 to 239.255.255.254.
  RTSP Stream1 and RTSP Stream2 are as follows respectively.

  rtsp://(IP address)/(Stream 1)
  rtsp://(IP address)/(Stream 2)
  Example: rtsp://224.0.1.1/stream1

- **Audio multicast address**

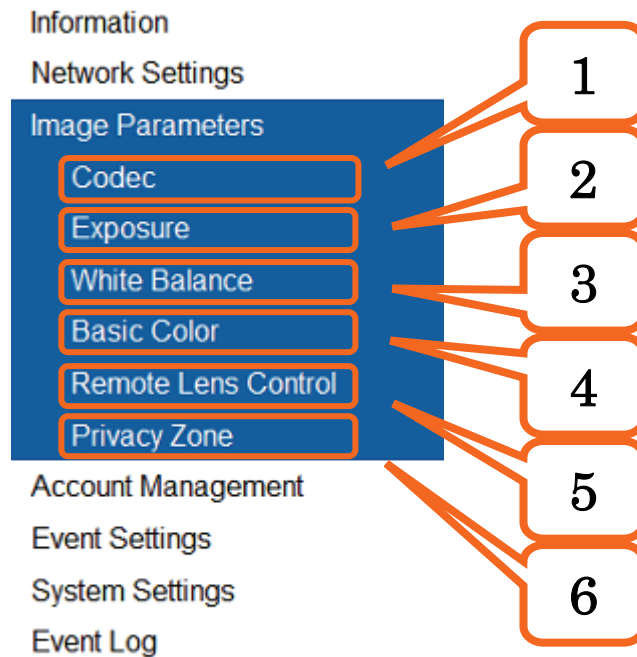 In the same way as above, the audio multicast IP address is from 224.0.1.1 to 239.255.255.254.

4.3 Image Parameters

It sets the details of the camera.

Clicking "Image Parameters" in the menu indicates the camera settings menu.

(1) Codec

It sets the codec.

When the settings are changed, be sure to click the "SAVE" button.

Without clicking the "SAVE" button, the setting cannot be saved.

Item	Description	Default value
Resolution	It sets the image size. Stream1: 1920 x 1080 / 1280 x 960 / 1280 x 720 Stream2: 640 x 360 / 320 x 240 / 320 x 176	Stream1
		1920 x 1080
		Stream2
		640 x 360
Codec	It selects the video compression mode from H.264 or MJPEG.	Stream1
		H.264
		Stream2
		H.264
Frame Rate (fps)	It selects the frame rate. Stream1: 1 to 30 Stream2: 1 to 15	Stream1
		15
		Stream2
		15
GOP Length	It sets the GOP size. (Only H.264 is valid.) Stream1: 1 to 60 Stream2: 1 to 30	Stream1
		15
		Stream2
		15
CBR Bit Rate (kbps)	It sets the bit rate of the video. (Only H.264 is valid.)	Stream1
		4000
		Stream2
		1000
Quality	It sets the image quality in the JPEG compression image. (Only MJPEG is valid.)	Stream1
		60
		Stream2
		60

● **Correlation between resolution/stream/FPS/Codec (NTSC)**

Resolution	Single stream	Double stream
1920 x 1080	1920 x 1080 30 fps (H.264/MJPEG)	1920 x 1080 @ 30 fps, 1280 x 720 @ 30 fps 1920 x 1080 @ 30 fps, 640 x 480 @ 30 fps 1920 x 1080 @ 30 fps, 320 x 240 @ 30 fps 1920 x 1080 @ 30 fps, 320 x 176 @ 30 fps (H.264/MJPEG, H.264/MJPEG)
1280 x 960	1280 x 960 30 fps (H.264/MJPEG)	1280 x 960 @ 30 fps, 640 x 360 @ 30 fps 1280 x 960 @ 30 fps, 320 x 240 @ 30 fps 1280 x 960 @ 30 fps, 320 x 176 @ 30 fps (H.264/MJPEG, H.264/MJPEG)
1280 x 720	1280 x 720 30 fps (H.264/MJPEG)	1280 x 720 @ 30 fps, 1280 x 720 @ 30 fps 1280 x 720 @ 30 fps, 640 x 480 @ 30 fps 1280 x 720 @ 30 fps, 640 x 360 @ 30 fps 1280 x 720 @ 30 fps, 320 x 240 @ 30 fps 1280 x 720 @ 30 fps, 320 x 176 @ 30 fps (H.264/MJPEG, H.264/MJPEG)

● Correlation between resolution/stream/FPS/Codec (PAL)

Resolution	Single stream	Double stream
1920 x 1080	1920 x 1080 25 fps (H.264/MJPEG)	1920 x 1080 @ 25 fps, 1280 x 720 @ 25 fps 1920 x 1080 @ 25 fps, 640 x 360 @ 25 fps 1920 x 1080 @ 25 fps, 320 x 240 @ 25 fps 1920 x 1080 @ 25 fps, 320 x 176 @ 25 fps (H.264/MJPEG, H.264/MJPEG)
1280×960	1280 x 960 25 fps (H.264/MJPEG)	1280 x 960 @ 25 fps, 640 x 360 @ 25 fps 1280 x 960 @ 25 fps, 320 x 240 @ 25 fps 1280 x 960 @ 25 fps, 320 x 176 @ 25 fps (H.264/MJPEG, H.264/MJPEG)
1280×720	1280 x 720 25 fps (H.264/MJPEG)	1280 x 720 @ 25 fps, 1280 x 720 @ 25 fps 1280 x 720 @ 25 fps, 640 x 480 @ 25 fps 1280 x 720 @ 25 fps, 640 x 360 @ 25 fps 1280 x 720 @ 25 fps, 320 x 240 @ 25 fps 1280 x 720 @ 25 fps, 320 x 176 @ 25 fps (H.264/MJPEG, H.264/MJPEG)

(2) Exposure

It controls the exposure time of the camera. Selection between Manual and Auto is possible.

Item	Description	Default value
Exposure Mode	It sets Auto/Manual.	Auto
Auto Exposure		
Type	It sets the auto exposure mode. AES: Auto Electronic Shutter ALC: Auto Lens Control Flickerless	ALC
Slow Shutter	It sets the slow shutter. NTSC: OFF, 1/30, 1/15, 1/7.5 PAL: OFF, 1/25, 1/12.5, 1/6.25	1/7.5
Max Gain	It sets the maximum gain. (24 to 36 dB)	24
Manual Exposure		
Shutter Speed	It sets the shutter speed.	1/60
Manual Gain	It sets the fixed gain. (0 to 36 dB)	0
Advanced Exposure		
EV Compensation	It avoids overexposure. (It is invalid in Manual Exposure.)	0
Day & Night	It switches between day and night settings.	Auto
Switching Sensitivity	It sets the switching level between day and night.	Normal
Delay Time	It sets the switching time between day and night.	Normal
Noise Reduction	It sets the noise reduction.	10
BLC	It sets the blacklight correction. (It is invalid in Manual Exposure.)	OFF
WDR	It sets the dynamic correction.	OFF

* The blacklight correction setting opens the following screens. (It is invalid when the exposure mode is in manual.)
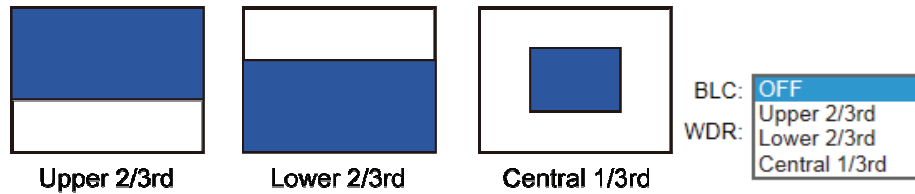
Upper 2/3rd   Lower 2/3rd   Central 1/3rd

BLC: OFF / Upper 2/3rd
WDR: Lower 2/3rd / Central 1/3rd

| Caution ⚠ | Clicking the "Reset to default" button returns the setting to the factory default value. |

(3) White Balance

It sets the white balance of the camera. Selection from Manual and Auto is possible.

Item	Description	Default value
Mode	It sets Auto/Manual.	Auto
R Gain	It sets the red gain. (It is invalid in Auto.)	64
G Gain	It sets the green gain. (It is invalid in Auto.)	64
B Gain	It sets the blue gain. (It is invalid in Auto.)	64

| Caution ⚠ | Clicking the "Reset to default" button returns the setting to the factory default value. |

(4) Basic Color

It sets the image quality of the camera.

Item	Description	Default value
Brightness	It adjusts the video image brightness.	0
Contrast	It adjusts the video image contrast.	128
Hue	It adjusts the video image hue.	0
Saturation	It adjusts the video image saturation.	80
Sharpness	It sets the video image sharpness.	10
Video Rotation	It inverses the video image left/right and up/down. Flip: It inverses the video vertically. Mirror: It inverses the video horizontally. Both: It inverses the video vertically and horizontally.	OFF

| Caution ⚠ | Clicking the "Reset to default" button returns the setting to the factory default value. |

(5) Remote Lens Control (Valid only for IPD-DM300)

It controls zoom/focus of the lens from the browser.

Item	Description	Default value
Zoom Magnification	The control zoom range is x3 to x30.	3x
Zoom Speed	High/medium/low zooming speeds are available.	Medium
Zoom In	It zooms in.	—
Zoom Out	It zooms out.	—
Auto Focus	Clicking "One-Push AF" adjusts the focus automatically.	—
Manual Focus Continuous	It adjusts the focus manually. Focusing starts with "Start" and stops with "Stop."	—
Manual Focus Stepping	It fine-adjusts the focus. It adjusts in steps with "Normal Step." Finer adjustment is possible with "Fine."	—
Day & Night Focus Control	Automatic day and night focus control is possible when "Auto" is selected.	—
CaliBration	It calibrates the lens and the focus.	—

Caution ⚠	Clicking the "Reset to default" button returns the setting to the factory default value.

(6) Privacy Zone

It sets the privacy mask.

Settings of the color, size, and four locations at the maximum are possible while looking at the live view screen.

● It adjusts the privacy mask size by dragging in the target area while pressing the left button of the mouse.

● It selects the privacy mask color (black, gray, or white).

● It enables the setting by clicking "Save Mask zone."

● It deletes the privacy zone setting by clicking "Clean Mask zone."

4.4 Account Management

Clicking "Account Management" in the menu indicates the account management menu.

Changing the setting is possible when connecting this device with the administrator right.

It is recommended to change these settings, so the settings can be changed only by limited people.
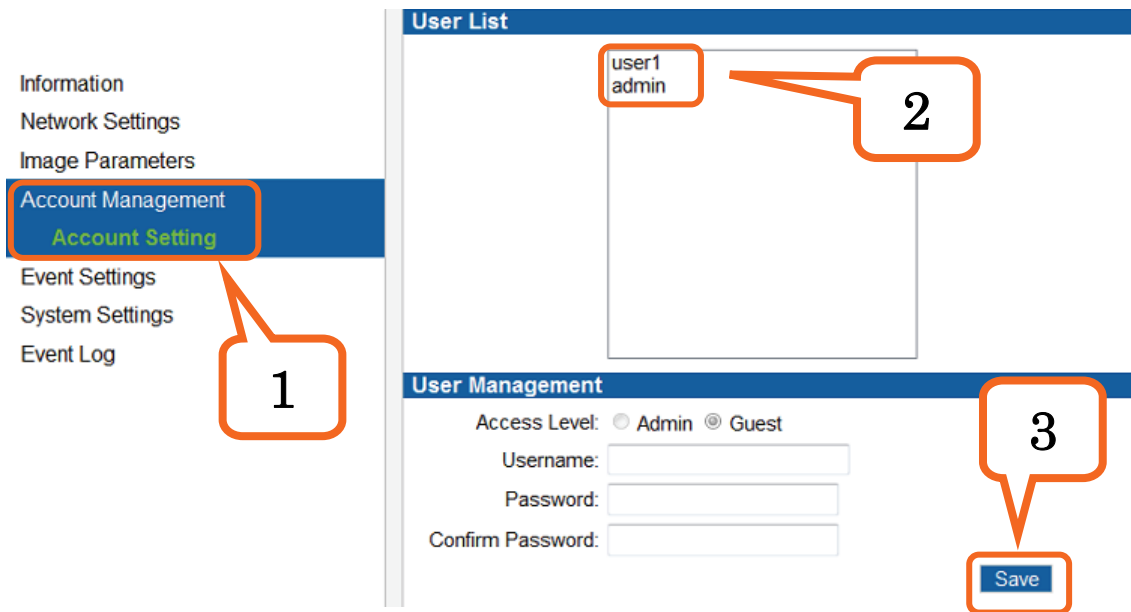
(1) Account Setting

Click "Account Setting" in the menu.

- The administrator registration screen opens.

(2) User List

Select "admin" or "user1" from the User List.
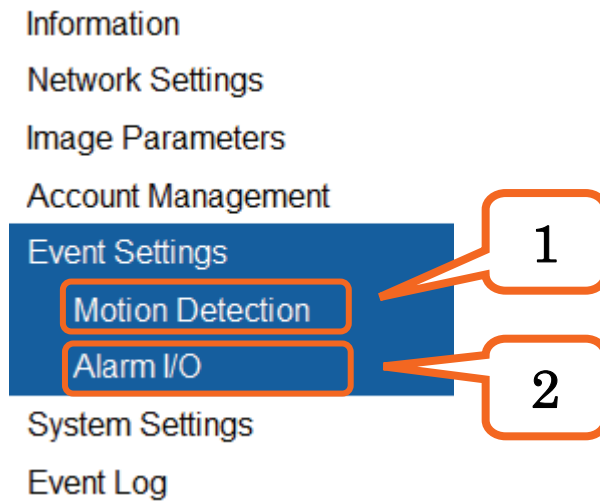
- admin: Administrator right. Setting all functions is possible.
  Username   : admin
  Password   : admin
- user1: User right. Only using the live view is available.
  Username   : user1
  Password   : user1

(3) Save

After changing the setting value, click the "Save" button at the lower section of the screen.

Without clicking the "SAVE" button, the setting cannot be saved.

4.5 Event Settings

Clicking "Event Settings" in the menu opens the motion detection function and the alarm input menu.

Information
Network Settings
Image Parameters
Account Management
Event Settings   1
    Motion Detection
    Alarm I/O   2
System Settings
Event Log

(1) Motion Detection

It sets the motion detection function.

Motion

Enable: ○ ON ⦿ OFF

Sensitivity: 50 (1~100)

Clean

Save
Reset to Default
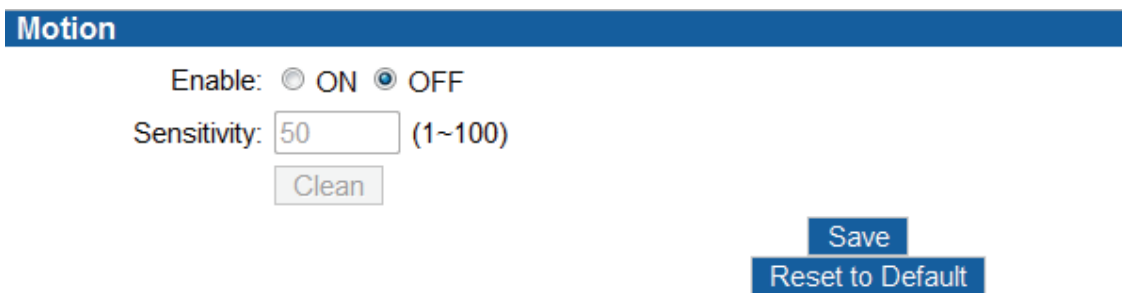
- It turns on the motion detection function.
- Detection sensitivity can be set with "Sensitivity."
- Click the "Save" button.
- When any motion is detected, the following sign is indicated on the live view screen.

Caution	Clicking the "Reset to default" button returns the setting to the factory default value.

(2) Alarm I/O

It sets the alarm input.

- Turn on the alarm input and click the "Save" button.
  NO: Normal Open
  NC: Normal Close

4.6 System Settings

Clicking "System Setting" in the menu opens the menu including date and time, audio input, firmware update, etc.

Information
Network Settings
Image Parameters
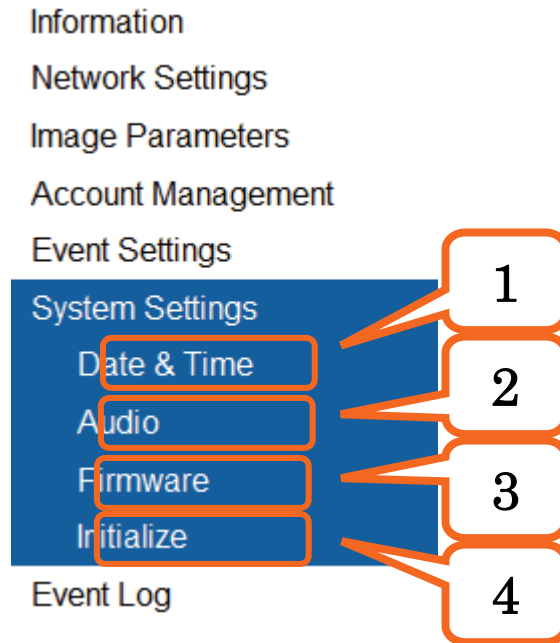Account Management
Event Settings
System Settings
  Date & Time   **1**
  Audio   **2**
  Firmware   **3**
  Initialize   **4**
Event Log

(1) Date & Time

It sets the date and time.

Current Server time

Date	2014/10/23	Time	19:03:56

Synchronization Mode

◉ Manual
Date & Time 2014/10/23 19:03:55
○ Synchronize with PC
Date 2014/10/23 Time 19:03:36
○ Synchronize with NTP Server

NTP

NTP Server:
Synchronizing Period: 1
NTP Test

Time Zone

Time Zone: Asia/Tokyo

Save
Reset to Default

Item	Description
Current Server time	It indicates the current time of the device.
Synchronization Mode	Manual: Date/time can be input manually. PC: It synchronizes to the date/time of the PC. NTP: It synchronizes to the date/time of the NTP server.
NTP	It sets the NTP server.
Time Zone	It sets the country and region.

Caution ⚠	Clicking the "Reset to default" button returns the setting to the factory default value.

(2) Audio

It sets the audio input.

Turn on the audio function and click the "Save" button.

Audio Input

Enable: ◉ ON ○ OFF

Save

(3) Fimware

It updates the firmware.

Click the "Reference" button and select the firmware to update. Clicking the "Upload" button starts the version up process.

Firmware Update & Package Install

参照... Upload

After updating the firmware, click the "Initialize" on the menu. Then, click "Factory Default" to return the setting to the factory default value. Take note that the camera settings return to the factory default value.

Caution ⚠	Do not shut down the power while updating. if the power is shut down, failures may be caused, and repair by the manufacturer may be required.

(4) Initialize

Initializing the setting data is possible to the factory default value.
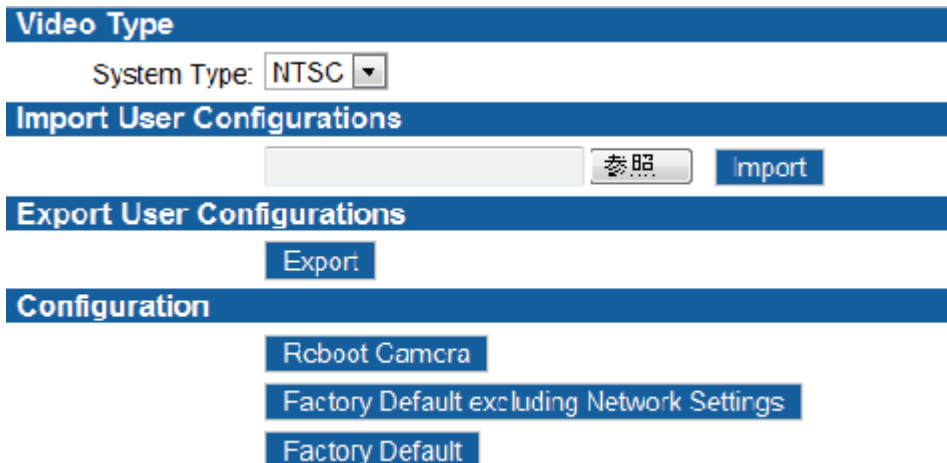
Item	Description
Video Type	It selects NTSC/PAL. Flickering by the fluorescent light can be reduced when "NTSC" is selected for the power supply frequency of 60 Hz and "PAL" for the power supply frequency of 50 Hz.
Import User Configuration	Click the "Reference" and select the file. Clicking "Import" enables uploading the setting.
Export User Vonfiguration	Clicking "Export" enables downloading the setting to the PC.
Reboot Camera	It reboots the camera.
Factory Default Excluding Network	It returns all settings to the factory default values excluding the network setting.
Factory Default	It returns all settings to the factory default values.

4.7 Event Log

It is used for analyzing in case the camera becomes faulty.
Clicking "Event Log" in the menu indicates the event log acquisition menu.
Click the "Download Log" button and save the log file to the PC.

5. Others

5.1 Troubleshooting

- Connecting to the camera via the Internet Explorer is not possible.
    - ✧ The device and the PC are not properly connected via the LAN cable.
        - Confirm that the PC and the device are connected by the LAN cable with the category 5 or higher.
        - Confirm that the LINK lamp (green) of the LAN connector of this device is on.
        - If the hub exists between the device and the PC, confirm the connection between the PC and the hub.
    - ✧ The power is not supplied to the device. (If the power indicator on this device is not on, the power is not supplied.)
        - Turn on the power of the device.
        - In case PoE is adopted, confirm that the cable is connected to the port, of which PoE-compatible hub power can be supplied (refer to the instruction manual of the hub for details).
    - ✧ It is tried to connect to an incorrect IP address.
        - Execute the following from the command prompt of Windows.
            > ping [*IP address of this device*]
        Confirm that the reply message returns.
        - Confirm that the IP address set to this device is not overlapping with the IP addresses of other devices. (Set the IP address so there is no overlap with other devices.)
        - Confirm the IP address that is set to this device. (It is possible to confirm the IP address on the analog monitor by using the BNC output of this device.)

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