



## **BU-2015**

2-Megapixel Outdoor  
IR NightVision  
Bullet IP Camera

## **User's Manual**



[www.airlive.com](http://www.airlive.com)



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## FCC Statement

### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B 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 instructions, 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 A user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

### FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

### WEEE Marking Warning:

The crossed out wheeled bin indicates the product must not be disposed together with household waste. For the sake of the environment, the product should only be given to entities involved in the reception of waste electronic and electrical equipment. The lists of entities entitled to receive used equipment can be found on the websites of municipalities. Some components of devices such as external wiring, circuit boards and liquid crystal displays have a negative impact on the environment.



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# 1

## Overview



This user's manual explains how to operate this camera from a computer. Users should read this manual completely and carefully before operate the device.

### 1.1 Introduction

AirLive BU-2015 is a high-level 2-Megapixel network camera which is designed for professional outdoor surveillance and security applications. The built-in IR LEDs provides high quality of night time monitoring with 15M viewing distance in darkness. Users are able to view live video streaming over the Internet and also equipped with PoE function which allows power and data to be transmitted via single Ethernet cable. This useful function provides an easier installation, lower cabling costs and allows placement of AirLive PoE cameras in locations without access to electrical source.

With the IP66 rated housing, AirLive BU-2015 offered water and dust proof features for demanding environments. Also it can be easily installed and integrated into kinds of surveillance project.

## 1.2 Features

This manual will illustrate the steps of how to setup and operate this IP camera, so you'll soon be enjoying the benefits of these product features:

- 2-Megapixel 1/2.5" CMOS Sensor
- Up to 30fps at 1920x1080 resolution
- Support H.264/MPEG4/MJPEG multi-streaming
- Mechanical IR-Cut Filter Removable
- 22 units IR LED for 15M distance
- Power over Ethernet (IEEE802.3af)
- Compatible with ONVIF Standard
- 4mm High Quality Lens
- Support Samba Server Function for Local Storage
- Support Motion Detection and Email notification
- MicroSD Card Support
- IP66 Weatherproof Housing
- Free Bundled 64-Channel Recording Software

## 1.3 Product Specification

Model		BU-2015
Camera	Camera Type	Outdoor IR Bullet Type
	Image Sensor	1/2.5" CMOS Sensor
	Max. Resolution	1920 X 1080
	Lens Type	4mm/F1.8, Board Lens
	Night Vision	Yes
	IR Distance (Max.)	15M
	Minimum Illumination	Color: 0.05 Lux B/W: 0 Lux (IR On)
	Mechanical IR-Cut Filter	Yes
	Auto Iris	None
	Viewing Angle	D111.5°, H83.7°, V60.6°
	Analog Video Out	None
Video	Video Compression	H.264 High/Main/Baseline Profile, MPEG4 Simple Profile, MJPEG and 3GPP
	Resolution and Frame Rate	30fps@1920x1080
		30fps@1280x960
		30fps@1280x720

		30fps@720x480
		30fps@640x480
		30fps@320x240
	Streaming	Multi-profile streaming
		Streaming over UDP, TCP, or HTTP
		3GPP mobile view
		Configurable frame rate and bandwidth
	Image Processing	Support CBR and VBR
		AE, AWB
		Noise reduction
		Brightness, Sharpness, Contrast, Saturation
		Mirror Vertical / Horizontal
	Text, time and date OSD	
Digital Zoom	Yes	
Shutter Time	Auto, Manual: 1/15~1/10000sec, Day/night dual programmable	
Network	Ethernet	One RJ45 Port; IEEE 802.3u Compliant 10/100 Mbps Fast Ethernet with Auto-MDIX
	PoE	IEEE802.3af/at
	Supported Protocols	TCP/IP, UDP, ICMP, DHCP, NTP, DNS, DDNS, SMTP, FTP, HTTP, HTTPS, Samba, PPPoE, UPnP, Bonjour, RTP, RTSP and RTCP
	Security	Password protection
		IP filter
		HTTPS
	LED Indicator	Power LED
Link/Act. LED		Green Color
General	Network Processor	DSP Base
	Power Supply	DC5V/2A (Optional)
	Power Consumption	8 Watts Max.
	Connector	RJ-45 10BaseT/100BaseTX
		5V DC power jack
		Reset Button
	Environment	Operation Temp: -20℃ ~ 50℃ Humidity: 20% ~ 85% non-condensing
		Storage Temp: -20℃ ~ 60℃ Humidity: 0% ~ 90% non-condensing
	Weather Proof	IP66
	SD card slot	32G MicroSD/SDHC



	Dimension	$\phi$ 73mm x 112mm
<b>System Integration</b>	Software	CamPro Express 64, CamPro Professional
		Search & Installation- IP Wizard II
	Event Triggers	Motion detection
	Motion Detection	Up to 3 zones
	Event handler	FTP or NAS file upload
		E-mail alert
	UPNP	Yes
	Application Programming Interface	ONVIF
		Open API for software integration
		SDK
	Video Buffer	5 sec. pre-alarm / 5 sec. post-alarm, up to 3MB
	Alarm Events	File upload via FTP, NAS, E-mail
		Notification via email
		Save to SD card
	Continuous Recording	Yes
	Certificate	CE, FCC-Class A
<b>Viewing System</b>	OS	Windows® XP, Vista, 7
	Browser	IE 6.0 or later, Firefox 2.0 or later, Safari
	Cell Phone	With 3GPP player
	Video Player	VLC, Quick Time, Real Player, Core Player

## 1.4 System Requirement

For normal operation and viewing of the network camera, it's recommended that your system meets these minimum requirements for proper operation:

Item	Requirements
CPU	Pentium-4 3.6 GHz or higher
VGA Monitor	Resolution 1280 x 1024 or higher
RAM	Minimum 1 GB of RAM
Operating System	Windows XP, Vista or Windows 7
Web Browser	Internet Explorer 7 or later; Apple Safari; Firefox; Google Chrome
Cell Phone	3GPP Player

**Note:** Please keep updating the latest Windows software and service package.  
(Ex: Net Framework, Windows Media Player, Enhance ActiveX Security)

# 2

## Package Contents and Installation

### 2.1 Package Content

User can find the following items in the package as below:

1. **AirLive BU-2015** is the main element of the product.
2. **Bundle CD** includes IP Wizard II, CamPro Express64, Quick Start Guide, User Manual, and Video clips.
3. **Quick Start Guide** provides important information and instructions for installing this device.
4. **Accessory Package** including sunshield, bracket and screws.

**Note:** *The power adapter is optional.*

### 2.2 Connections

#### Power Source Requirement

This camera can work with 802.3af/at POE switch without the power adapter. However, if you don't have POE switch, you can use power adapter to provide power to camera.

#### Switch/Connector

There are various connectors of AirLive BU-2015 as shown in the figures below. Please refer to the diagrams and tables accompanied with for using of each switch / connector.



1. RJ45 LAN socket: Connect to Hub / Switch / PoE Switch / PC.

This Ethernet port built N-Way protocol can detect or negotiate the transmission speed of the network automatically. Please use Category 5 cable to connect the Network Camera to a 100Mbps Fast Ethernet network switch or hub.

In the LAN socket, there are two LEDs embedded:

**LAN LED (Green color)**

Green Link Light indicates the network accessing.

**Power (Amber color)**

This LED is used to indicate whether DC power/PoE power is on or not.

2. DC-in: The input power is DC5V/2A.

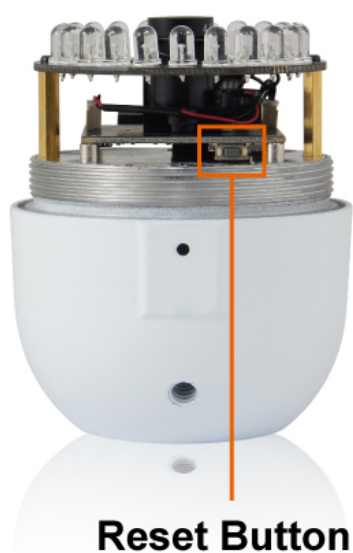
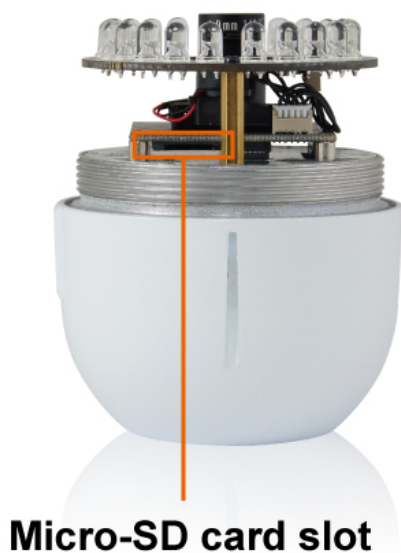
## 2.3 Install the Camera

Install the camera in LAN/WAN:

1. Plug an Ethernet cable into the camera

Connect an Ethernet cable to the LAN socket and attach it into the network.

2. Connect the external power supply to camera by power adapter or PoE switch.
3. Remove the front cover to adjust the focus and insert the MicroSD card if necessary.



4. Find the screws in the package to fix the sun shield on top.

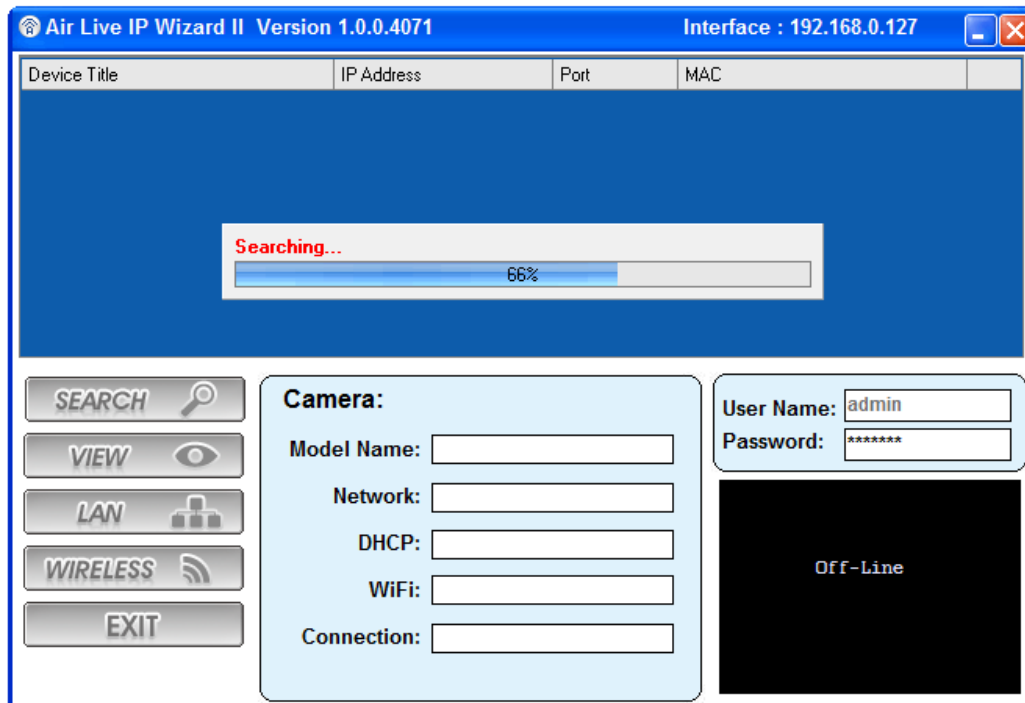
## 2.4 Connect to IP Camera

1. Insert the bundled CD into your PC/Laptop.
2. Auto Run screen pops up, click "Install Software → AirLive IP Wizard II" to install the configuration tool.

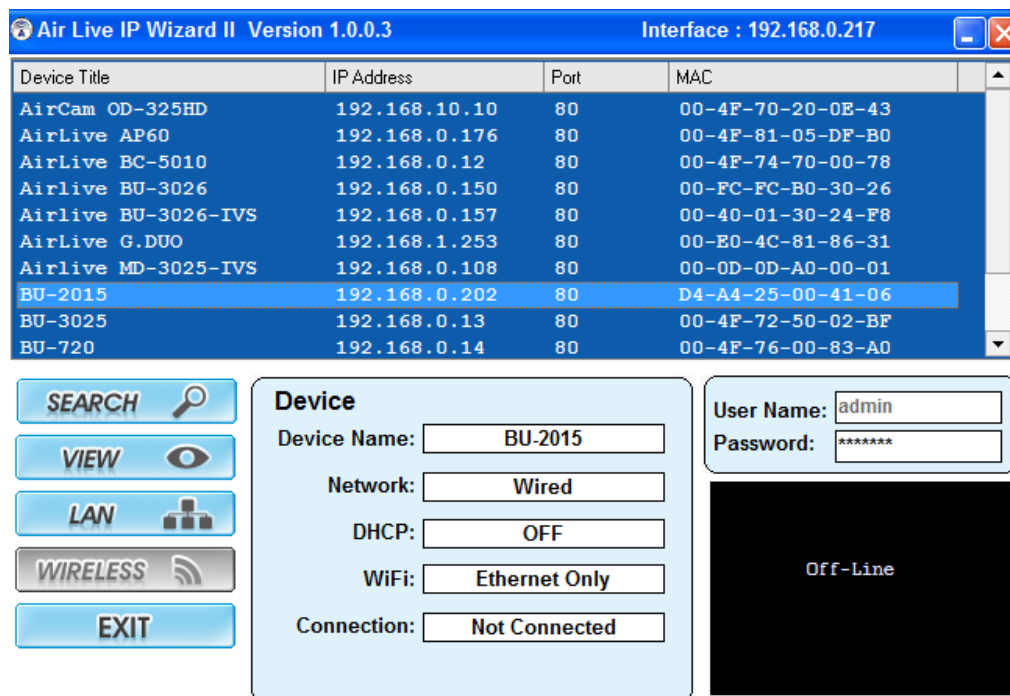




3. After completing installation, run the “Air Live IP Wizard II” to start to search the IP camera.



4. The entire detected IP camera will be listed out.



5. If the Camera’s IP address is in the same IP segment as your LAN, select the founded IP Camera and double click on the item. Then, the default browser will show up and connect to the IP camera’s Web automatically.

# 3

## Using IP Camera via Web Browser

### 3.1 Windows Web Browser

1. Open your web browser and enter the IP address or host name of the IP camera in the Location / Address field of your browser.
2. Use the default account “**admin**” and default password “**airlive**”.



**Note:** The default user name “**admin**” and the password “**airlive**” are the default values. You can change them in the Security Menu. (Please check “Configuration → Security”)

# 4

## Operating IP Camera via Mobile Phone

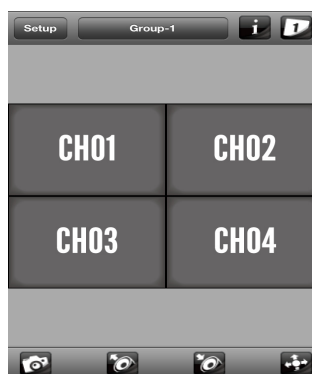
### 4.1 Using IP Camera via iPhone

You can access to your IP camera via your iPhone. Please follow the setting process below. Then you can see the live view via iPhone.

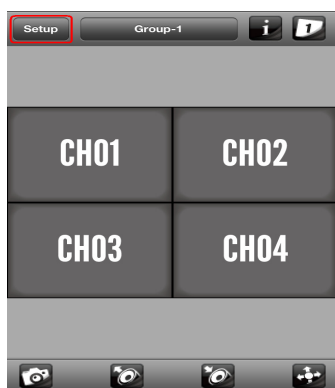
1. Download AirLive CamPro Mobile from APP store



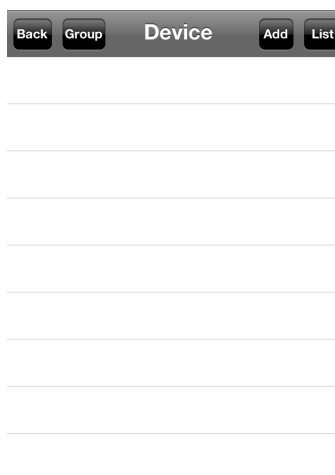
2. Execute AirLive CamPro Mobile



3. Click Setup button.

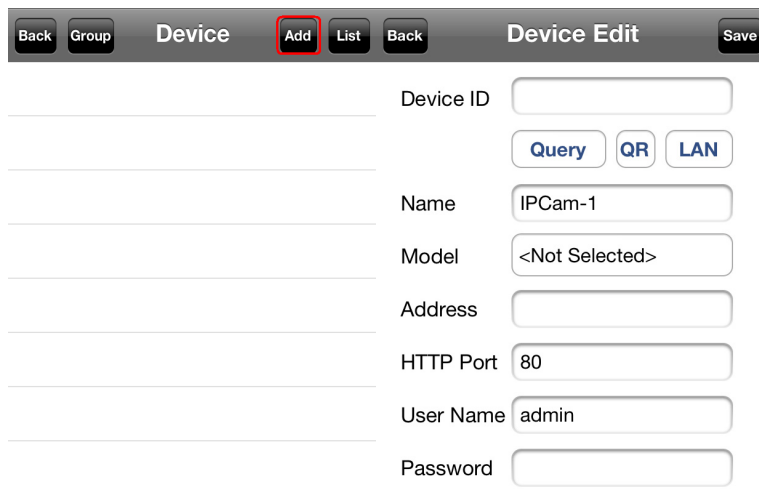


4. Setup page appears





5. Click Add button.



Back Group Device Add List Back Device Edit Save

Device ID

Query QR LAN

Name IPCam-1

Model <Not Selected>

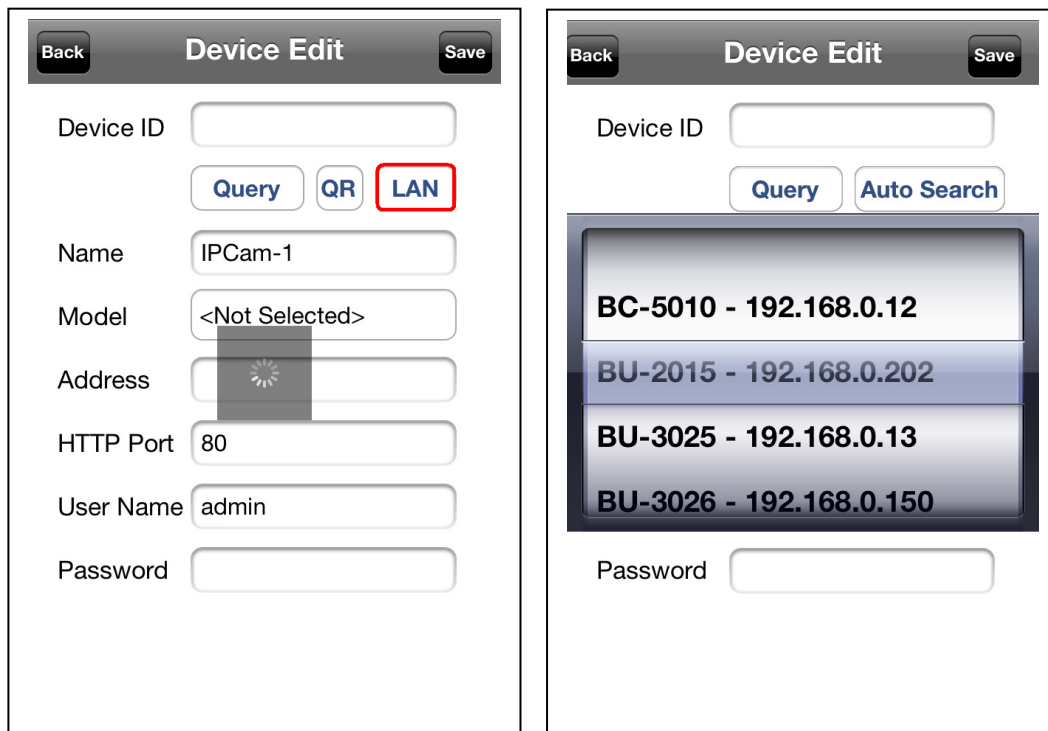
Address

HTTP Port 80

User Name admin

Password

6. Click LAN button and select the camera.



Back Device Edit Save

Device ID

Query QR LAN

Name IPCam-1

Model <Not Selected>

Address

HTTP Port 80

User Name admin

Password

Back Device Edit Save

Device ID

Query Auto Search

BC-5010 - 192.168.0.12

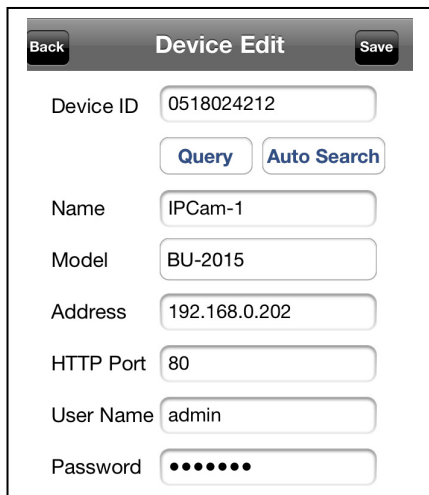
BU-2015 - 192.168.0.202

BU-3025 - 192.168.0.13

BU-3026 - 192.168.0.150

Password

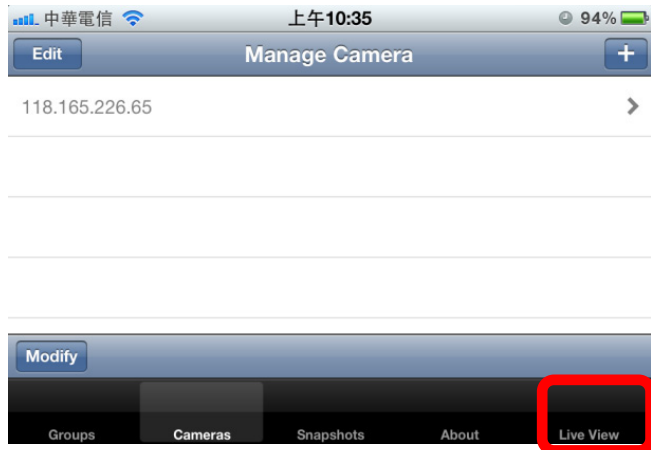
7. Model, Address, HTTP Port info appear on the page.



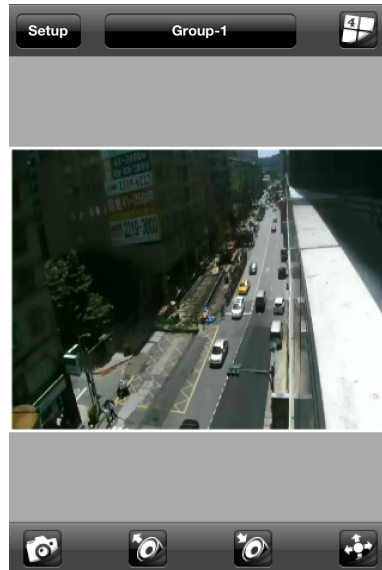
8. Key-in Username and Password then click OK button.



9. Click Live View button.



10. The video appears on the main screen.

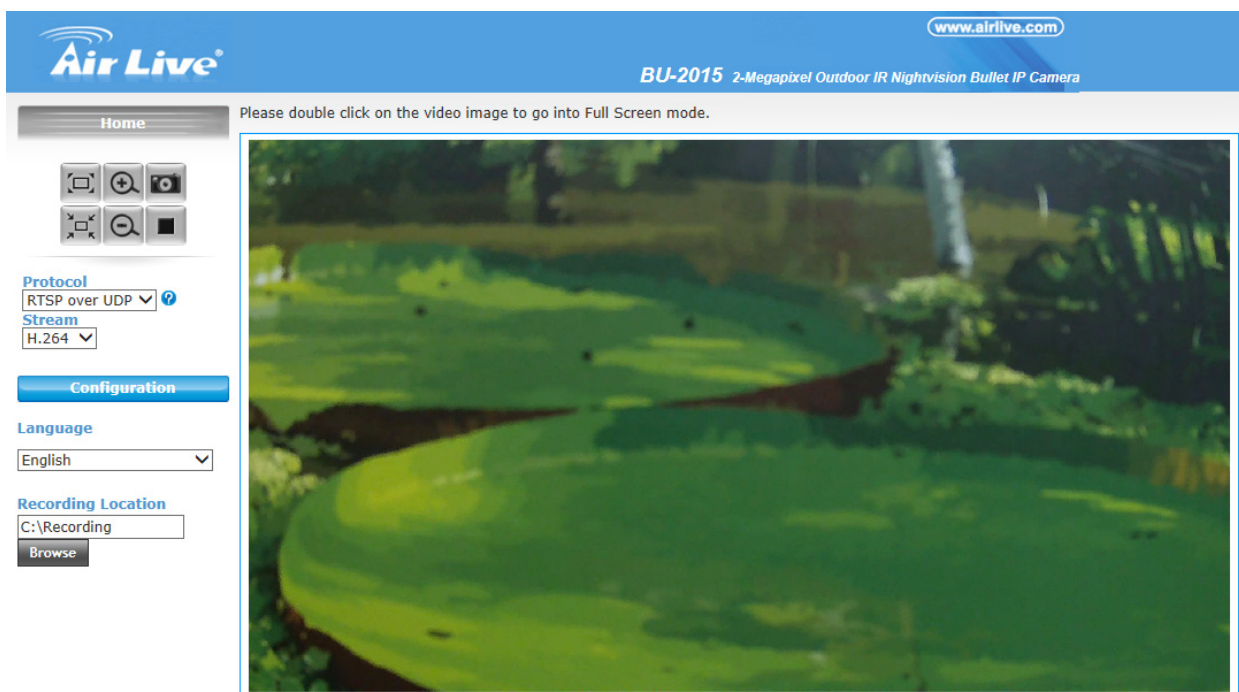


*Note: The image is continuous snapshots, not video. Thus, live image can't be recorded here.*

# 5

## Operating the Network Camera

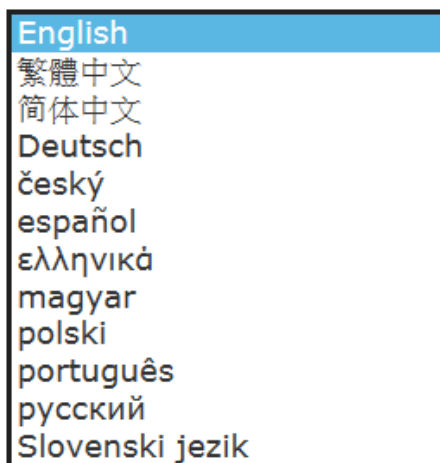
Start-up screen will be shown as follow no matter an ordinary users or an administrator. In the left side, you can control Live View in your main Browser. Please refer to the description below:



## 5.1 Live View

### 1. Language

BU-2015 support multi-language, please choose from the pull-down list.



### 2. Stream

The device supports multi-profile function for H.264, MPEG4 and JPEG simultaneously. User can choose the proper and/or preferred profile which is listed here.

### 3. Protocol

A user can select proper streaming protocol according to network environment.

### 4. Original size / Preview Size

Switches live image view between original size (Depends on main stream setting) and preview size (smaller size).

### 5. Digital Zoom

You can see larger objects in video.

Please note: that digital zoom uses computer algorithm to enlarge the video and may lose some details.

### 6. Snapshot

Take a snapshot and save images into your computer.

### 7. Record

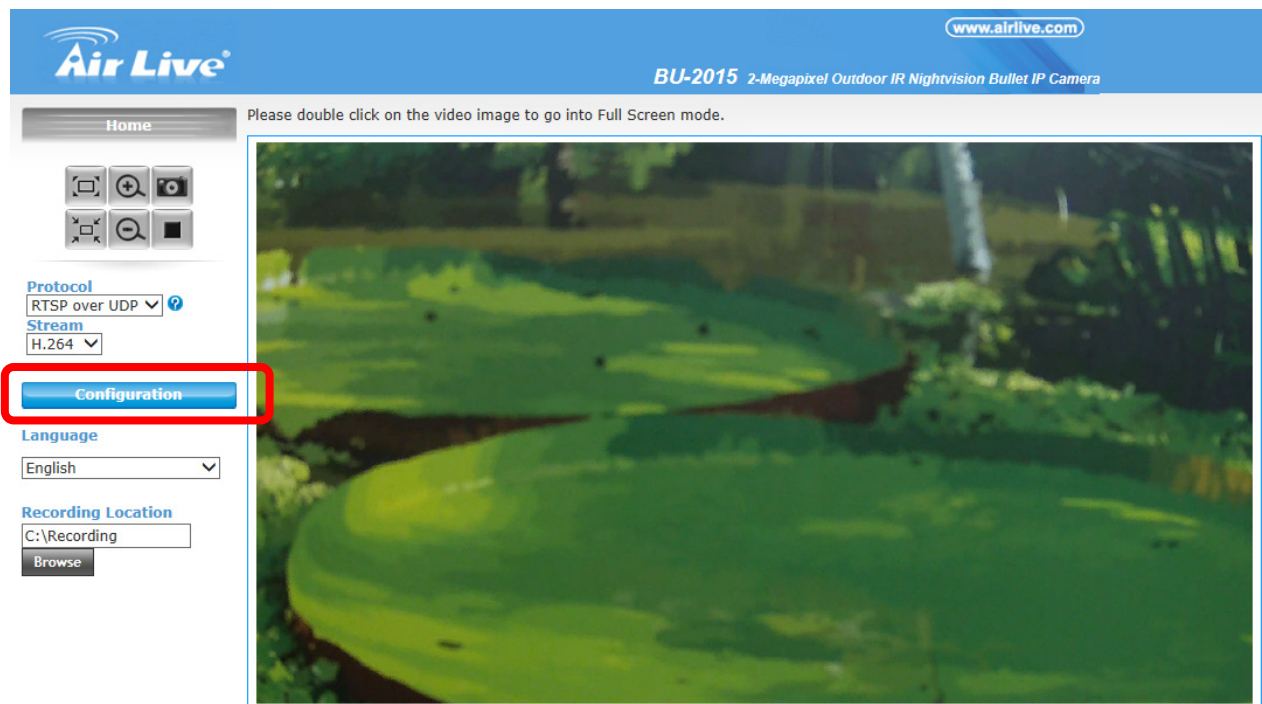
Press Record button to start recording. The video file is saved as ASF format into your local PC. While you want to stop it, press Stop to stop recording.

### 8. Recording Location Recording Location

Select the path to save the recording file.

## 5.2 Configuration

Click “Configuration” for the camera detail settings. For more information, please refer to Chapter 6.

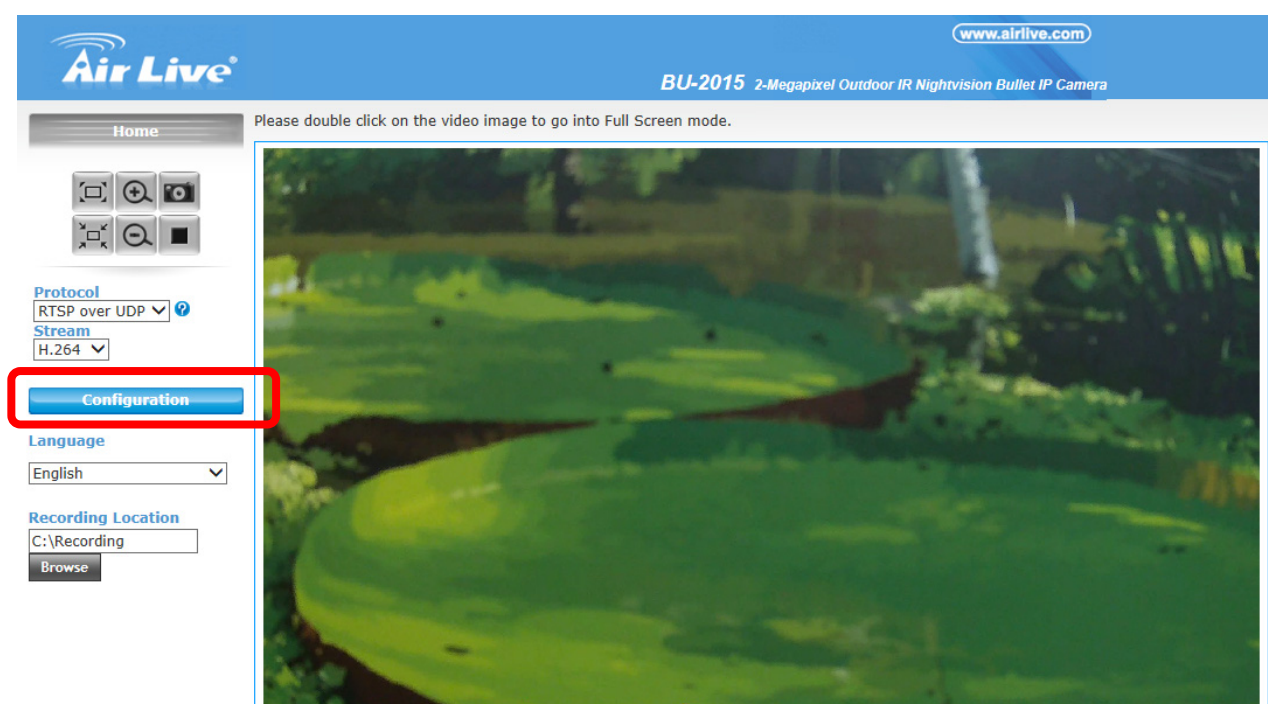


# 6

## Configuration

Click the “**Configuration**” to display sub-menus included:

**System / Security / Network / IP Filter / Video / Motion / Event / Recording / SDHC / Log / Device info / Maintenance**



### 6.1 System

In this menu, you can configure basic IP camera settings here.

#### 1. System

##### - Host Name

You can enter the name of this unit here. It's very useful to identify the specific device from multiple units. The information will be shown on IP Wizard II once the device is been found.

##### - Indicator LED

Turn on or off the Indicator LED.



## 2. Date and Time

### - Time Zone

Set the time difference from Greenwich Mean Time in the area where the device is installed.

### - Daylight Saving

Disable or enable the daylight saving.

### - Keep the current date and time:

Select this option and the date / time setting will not be changed. You can refer to "Camera Date and Time" item in this page for information.

### - Synchronize with computer time

Click this option to enable time synchronization with PC.

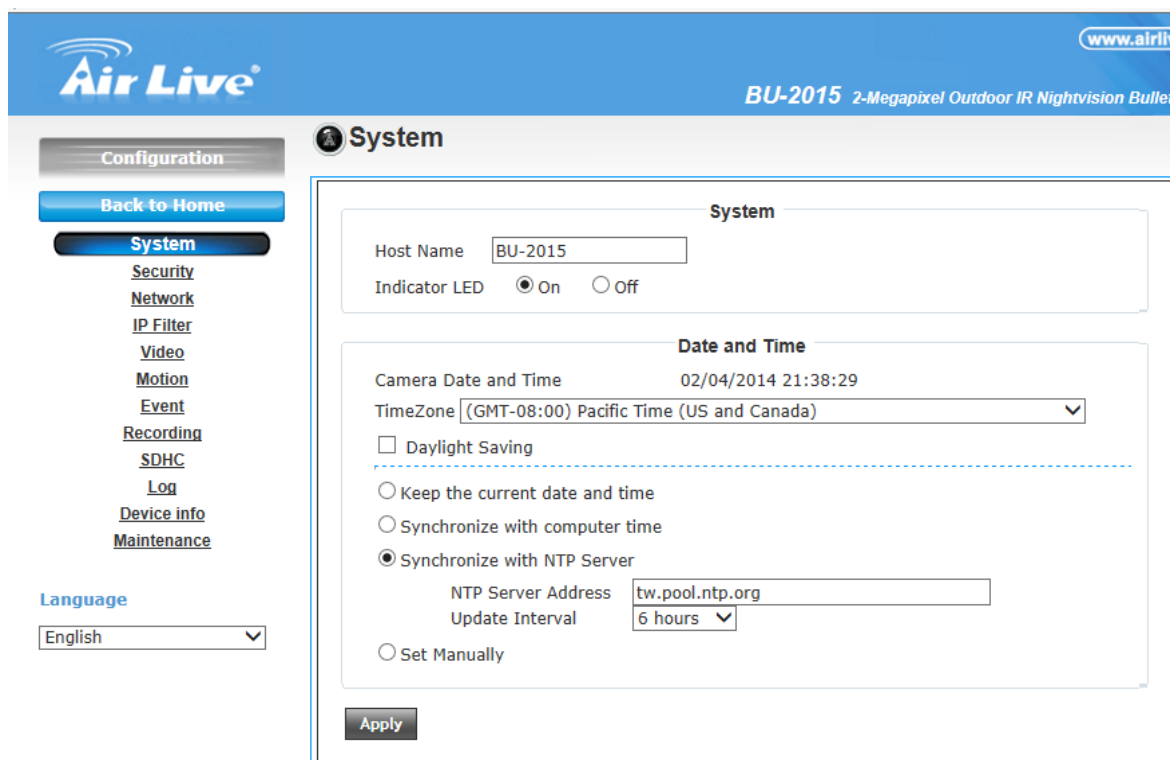
### - Synchronize with NTP Server

Click this option if you want to synchronize the device with NTP server (Network Time Protocol).

### - Set Manually

Click this option to set time and date manually.

When you finish with above settings, click 'Apply' button to save the changes



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## 6.2 Security

In this menu, there are three kinds of account that you can configure.

### - Administrator

An administrator has highest authority to view and configure all the settings.

For the first time use, input the default value below:

**User Name:** admin

**Password:** airlive

### - User

User can view IP camera's video and see settings, but can't make any change.

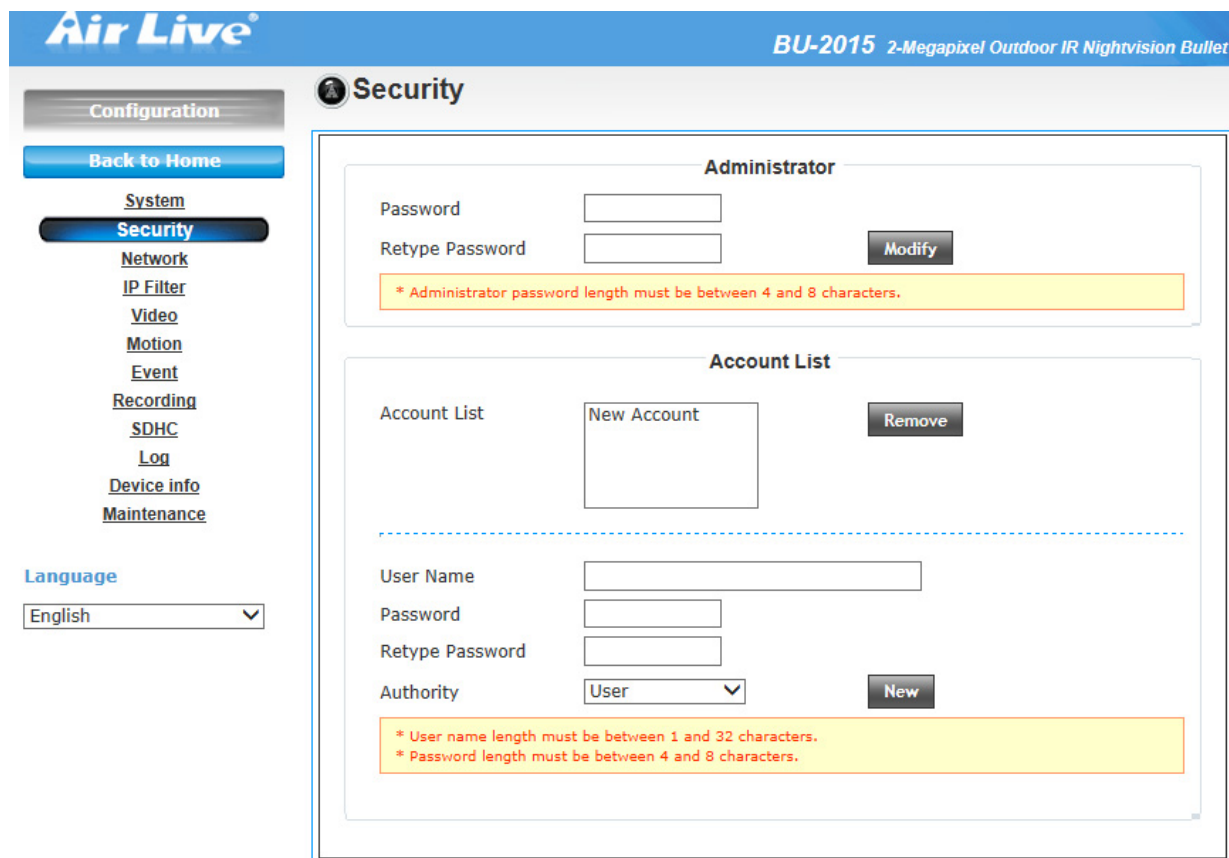
### - Guest

A guest can view IP camera's video only.

There can be multiple users, but only one administrator is allowed, and you can't change administrator's user name (it will always be 'administrator').

Item	Description
Password / Retype Password (Administrator)	Input the new password in both 'Password' and 'Retype Password' field, and click 'Modify' to apply the change. <i>Please note: You'll need to reset IP camera's all settings to get default password once you forgot the new password.</i>
Account List	Here will list out all existed users. Click 'Remove' button to remove any account. <i>Note: If no user is existed, 'New Account' message will be shown here.</i>
User Name	Input new user's username here. User name must be greater than 1 character and less than 32 characters.
Password / Retype Password	Input this user's password in both 'Password' and 'Retype Password' field.
Authority	To define the access privilege, select 'User' or 'Guest' in the dropdown menu. When you finish new user's information, click 'New' button to create a new user.





## 6.3 Network

### 1. General

Here are the descriptions of every setup item:

- LAN:  
Select this option to assign an IP address to LAN port (or obtain an address from DHCP server automatically).

Available options are:

- DHCP IPv4: Obtain an IPv4 IP address from DHCP server on LAN automatically.
- DHCP IPv4 / IPv6: Obtain both IPv4 and IPv6 address from DHCP server on LAN automatically.
- Static IPv4 / IPv6: Assign an IPv4 / IPv6 address to IP camera manually. If you don't have a DHCP server on your local area network, you must use this option to specify an IP address.
- IP Address (IPv4): Input IPv4 IP address\*
- IP Address (IPv6): Input IPv6 IP address\*
- Prefix Length: Input IPv6 IP address' prefix length (0-128)

- Subnet Mask: Input subnet mask
- Gateway: Input gateway address
- Primary DNS: Input DNS server's IP address
- Secondary DNS: Input backup DNS server's IP address, you can leave this field blank.

\* You can leave this field blank, if you only wish to use IPv4 or IPv6 IP address.

Enable UPnP Discovery: Check this box to enable other devices on network to discover the presence of this IP camera by UPnP. It's recommended to enable this function.

Enable UPnP Port Mapping: When UPnP is enabled, check this box to enable UPnP's port mapping.

<b>IP Address (IPv4/IPv6)</b>	Enter the IP address of the camera. The default setting is <b>192.168.1.100</b> .
<b>Subnet Mask</b>	Enter the Subnet Mask of the camera. The default setting is <b>255.255.255.0</b> .
<b>Default Gateway</b>	Enter the Default Gateway of the camera. The default setting is <b>192.168.1.254</b>
<b>Primary/Secondary DNS</b>	DNS (Domain Name System) translates domain names into IP addresses. Enter the Primary DNS and Secondary DNS that are provided by ISP.

- **PPPoE:**  
Select this option to use PPPoE to connect to network. You have to input PPPoE username and password assigned by network operator to get connected.
- **HTTP Port:**  
Input IP camera's web connection port number here. When this port number is changed, you need to change web browser's port number you used to connect to IP camera.  
For example, if the IP camera's IP address is 192.168.2.3 and you changed HTTP port number to 82, please input 'http: //192.168.2.3:82' in web browser's address bar to access IP camera's web configuration interface.
- **RTSP Port:**  
Input RTSP port number. When this port number changes, you must change corresponding settings in external network devices (NVR or CMS software) so they can receive this IP camera's video.

- **RTP Data Port:**  
Input RTP data port number here.

When you finish with above settings, click 'Apply' button to save changes.

## 2. Advanced

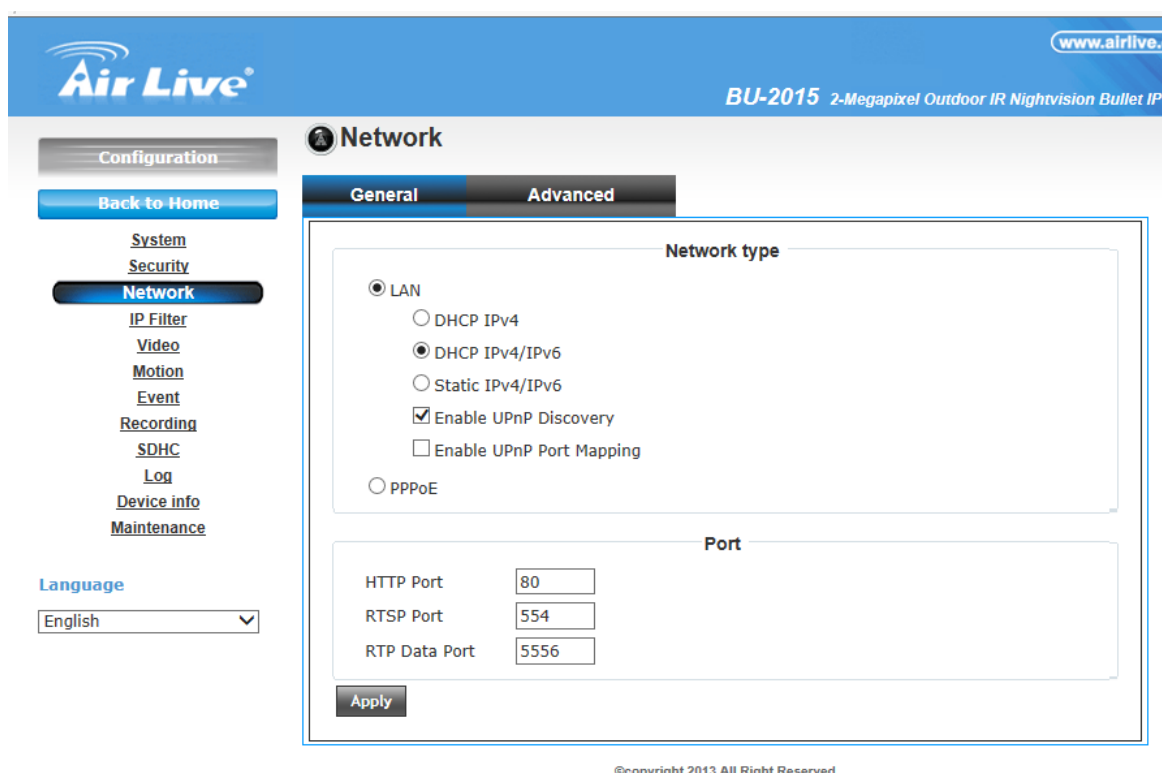
You can setup advanced network settings in this page. This page is intended for advanced settings only, and this IP camera will work fine even you don't make any changes to this page.

- **Multicast:**  
Enable video multicast:  
Multicast Group Address: Input multicast group address here, must be an address between 232.0.0.0 to 232.255.255.255.  
Multicast video port: Input port number for video multicast here.  
Multicast RCTP video port: Input port number for RCTP video here.  
Multicast audio port: Input port number for audio here.  
Multicast RCTP audio port: Input port number for RCTP audio here.  
Multicast TTL: Input TTL value for multicast here.
- **Bonjour:**  
If you're using Mac OS and you have Bonjour installed, you can use it to discover this IP camera.
- **QoS:**  
Enable QoS to improve the data transfer priority of this IP camera (Your local area network must support QoS).  
You can select Video / Audio's QoS DSCP value (0 to 63), or both video and audio.
- **DDNS:**  
Enable DDNS support if your ISP assigns dynamic IP address to you. You must register a dynamic IP service first. Currently this IP camera supports DynDNS and TZO dynamic IP service.  
Provider: Select dynamic IP service provider.  
Host Name: Input the host name you obtained from dynamic IP service provider.  
User name: Input user name used to login dynamic IP service provider.  
Password: Input the password used to login dynamic IP service provider.
- **DIPS ID:**  
It's a unique number of each device for identification and this ID is used for DIPS. This function now is reserved for future use.

- HTTPS:

Check 'Enable HTTPS' box to enable HTTPS channel to encrypt transferred data.

You can also define HTTPS port number in 'HTTPS Port' field if you don't want to use default value '443'.



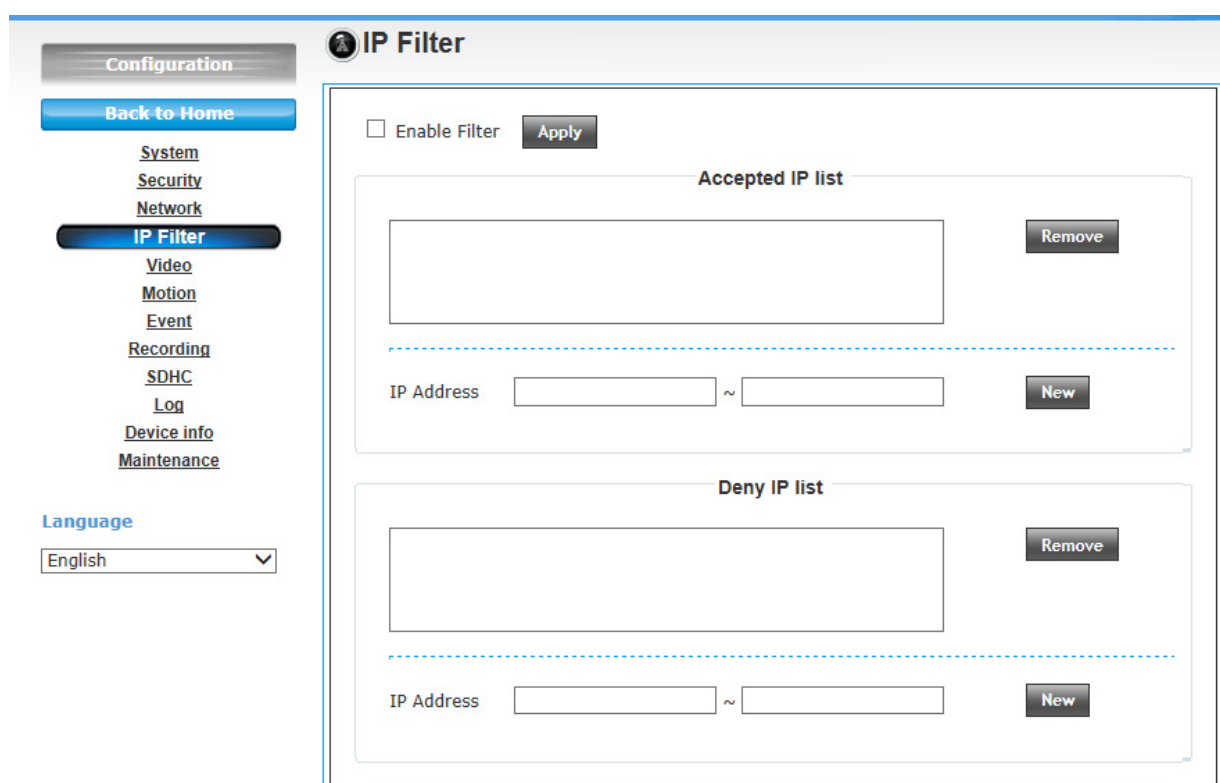
## 6.4 IP Filter

When this IP camera is directly connected to Internet and not protected by firewall, this function acts like a mini built in firewall to protect the safety of this IP camera and avoid attacks from hackers.

Item	Description
Enable Filter	Check this box to enable IP address filter, uncheck this box to disable this function.
Accepted IP list	Here lists all IP address that can build connections to this IP camera. If you want to remove a set of IP address from the list, click on the IP address and click 'Remove' button.
IP Address (Accepted IP list)	Input the starting and ending IP address of IP address you wish to accept connections here. IP camera will only accept connections established from these IP address.

	<p>If you want to specify one IP address only, input the same IP address in both field.</p> <p>Click 'New' button to add IP address into accepted IP list.</p>
Deny IP list	<p>Here lists all IP address that cannot build connections to this IP camera. If you want to remove a set of IP address from the list, click on the IP address and click 'Remove' button.</p>
IP Address (Accepted IP list)	<p>Input the starting and ending IP address of IP address you wish to deny connections here. IP camera will deny connections established from these IP address.</p> <p>If you want to specify one IP address only, input the same IP address in both field.</p> <p>Click 'New' button to add IP address into deny IP list.</p>

When you finish with above settings, click 'Apply' button to save changes.



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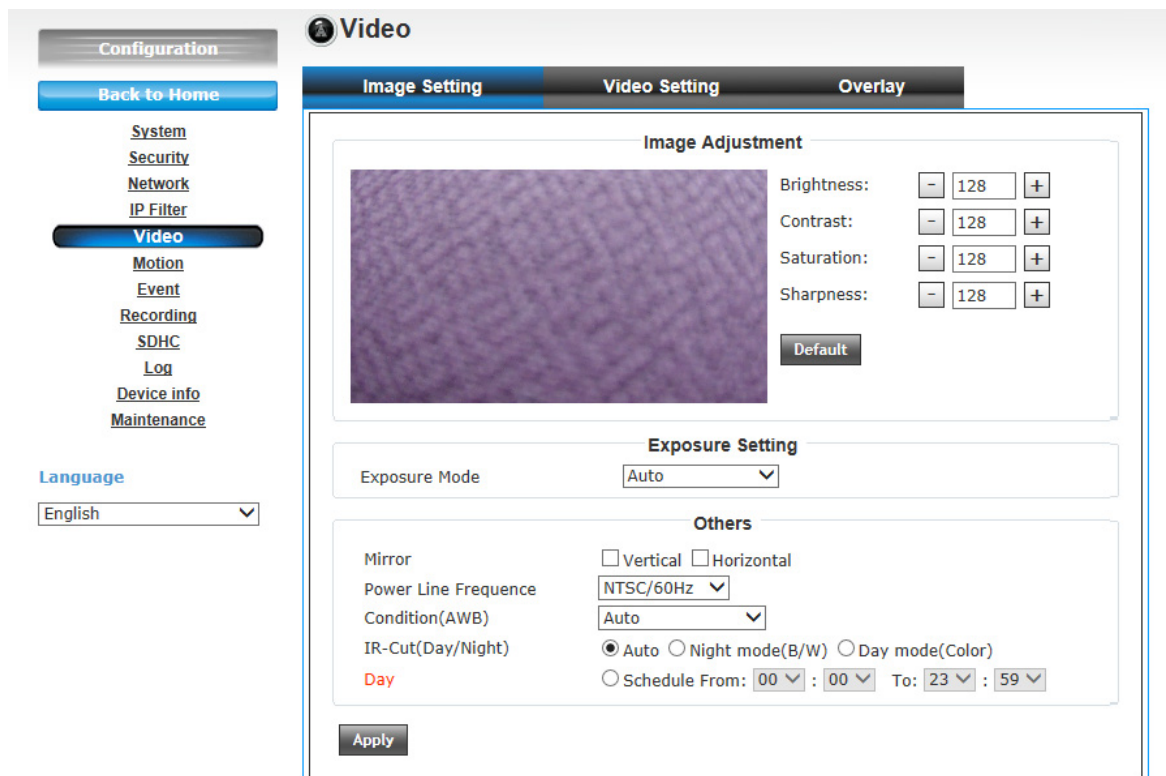
## 6.5 Video

### 1. Image Setting

You can adjust the image parameters in this page.

- **Brightness /Contrast /Saturation /Sharpness:**  
Control the image parameters. Click ' - ' to decrease value, or click ' + ' to increase value. You can also input the value in the field directly.
- **Exposure Setting:**
  1. Manual: You can setup more details here including Exposure Value, Exposure Time and Gain.
  2. Exposure Value is from 0~255
  3. Exposure Time range is about Auto, 1/15, 1/30, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000.
  4. Gain value is from 0~8
  5. Auto: Camera will adjust the exposure automatically.
- **Mirror:**  
Check "Vertical" and "Horizontal" box to flip the image vertically or horizontally.
- **Power Line Frequency:**  
Select the frequency of power line of the place you're using this IP camera. This will help to reduce the flicker of certain lights in the image.
- **Condition(AWB):**  
Select the condition that you'll be using this IP camera from dropdown menu.  
Auto: IP camera will adjust its parameters automatically.  
Indoor, B/W, Tungsten: IP camera will adjust its parameters by different environment.
- **IR cut:**  
An IR cut filter is built in this IP camera to reduce the effect of IR lights (which will change the color of image and makes it looks different than what you see through your eyes), and most of IR lights are coming from sunlight.  
You can select the behavior or IR cut filter:  
Auto: IR filter will act automatically. If you don't know wheatear you should use IR filter or not, select this option.  
Night mode (B/W): IR filter is always on.  
Day mode (Color): IR filter is always off.

- Day:  
Select the time that you want to keep the day mode.



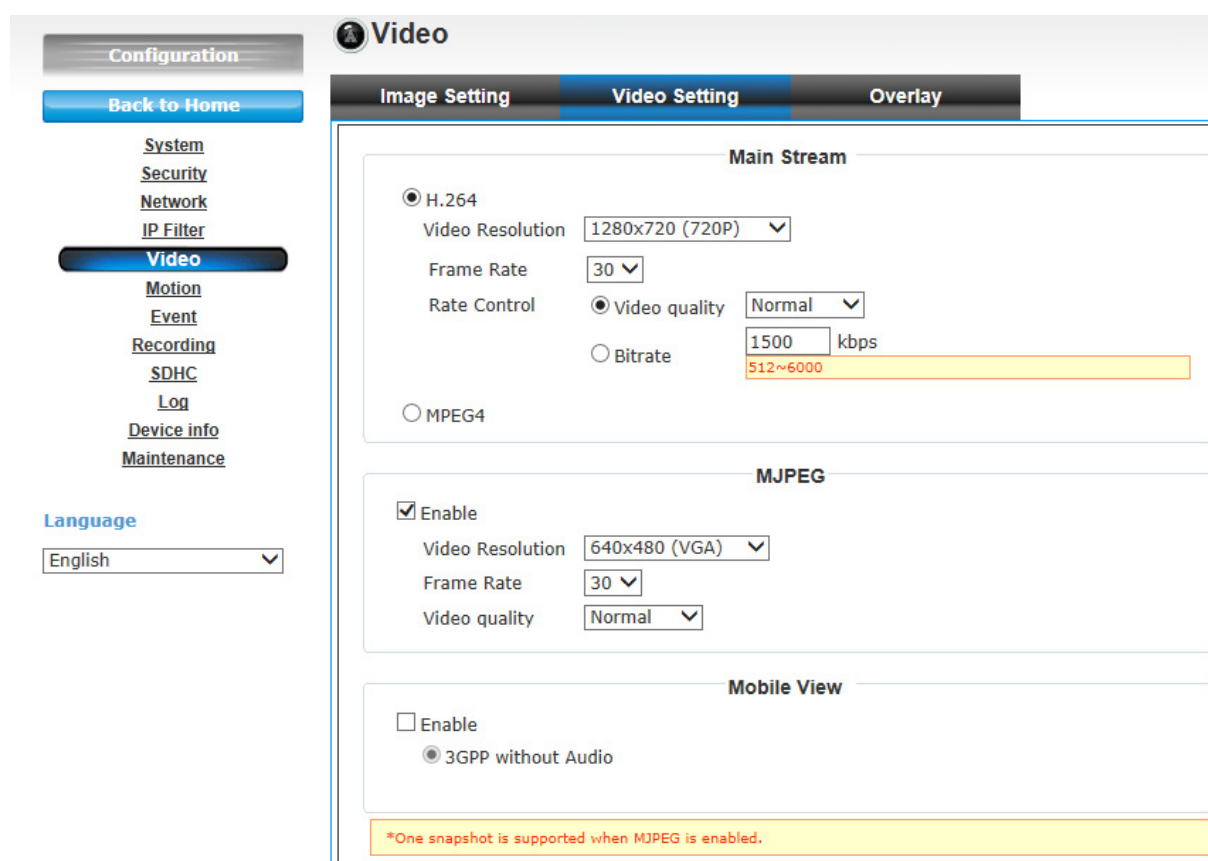
## 2. Video Setting

You can adjust the video transfer parameters in this page.  
Here are the descriptions of every setup item:

Item	Description
H.264 /MPEG4	Select the compression of main stream: H.264 / MPEG4.
Video Resolution	Select video resolution. <ul style="list-style-type: none"> <li>- H.264: 1920x1080 (1080p) / 1280x960 (960p) / 1280x720 (720p) 720x480 (D1) / 640x480 (VGA) / 320x240 (QVGA)</li> <li>- MPEG4: 1920x1080 (1080p) / 1280x960 (960p) / 1280x720 (720p) 720x480 (D1) / 640x480 (VGA) / 320x240 (QVGA)</li> <li>- MJPEG: 720x480 (D1) / 640x480 (VGA) / 320x240 (QVGA)</li> </ul>
Frame Rate	Select video frame rate. When network speed is insufficient, select a lower frame rate will help.

Rate Control	<p>Select video bit rate. You can control bit rate by both 'Video quality' and 'Bitrate':</p> <ul style="list-style-type: none"> <li>- Video quality: There are 5 levels of video quality, select 'very high' to improve video quality but consumes more network bandwidth, and select 'very low' will decrease video quality and consumes less network bandwidth.</li> <li>- Bitrate: Input video's bit rate directly. It must be an integer between 512 and 6000. Higher bit rate provides better video quality, but consumes more network bandwidth.</li> </ul>
Mobile View	<p>Checking the radio box to enable remote access when you need to remote access via mobile phone.</p>

When you finish with above settings, click 'Apply' button to save changes.



The screenshot shows the 'Video' configuration page with the 'Video Setting' tab selected. The left sidebar contains a 'Configuration' menu with options like System, Security, Network, IP Filter, Video (selected), Motion, Event, Recording, SDHC, Log, Device info, and Maintenance. Below the menu is a 'Language' dropdown set to 'English'. The main content area is divided into three sections: 'Main Stream', 'MJPEG', and 'Mobile View'. In the 'Main Stream' section, 'H.264' is selected, with 'Video Resolution' set to '1280x720 (720P)', 'Frame Rate' at '30', and 'Rate Control' set to 'Video quality' with 'Normal' selected. The 'Bitrate' option is also visible with a value of '1500' kbps and a range of '512~6000'. The 'MJPEG' section has 'Enable' checked, with 'Video Resolution' at '640x480 (VGA)', 'Frame Rate' at '30', and 'Video quality' at 'Normal'. The 'Mobile View' section has 'Enable' unchecked, with '3GPP without Audio' selected. A note at the bottom states: '\*One snapshot is supported when MJPEG is enabled.'



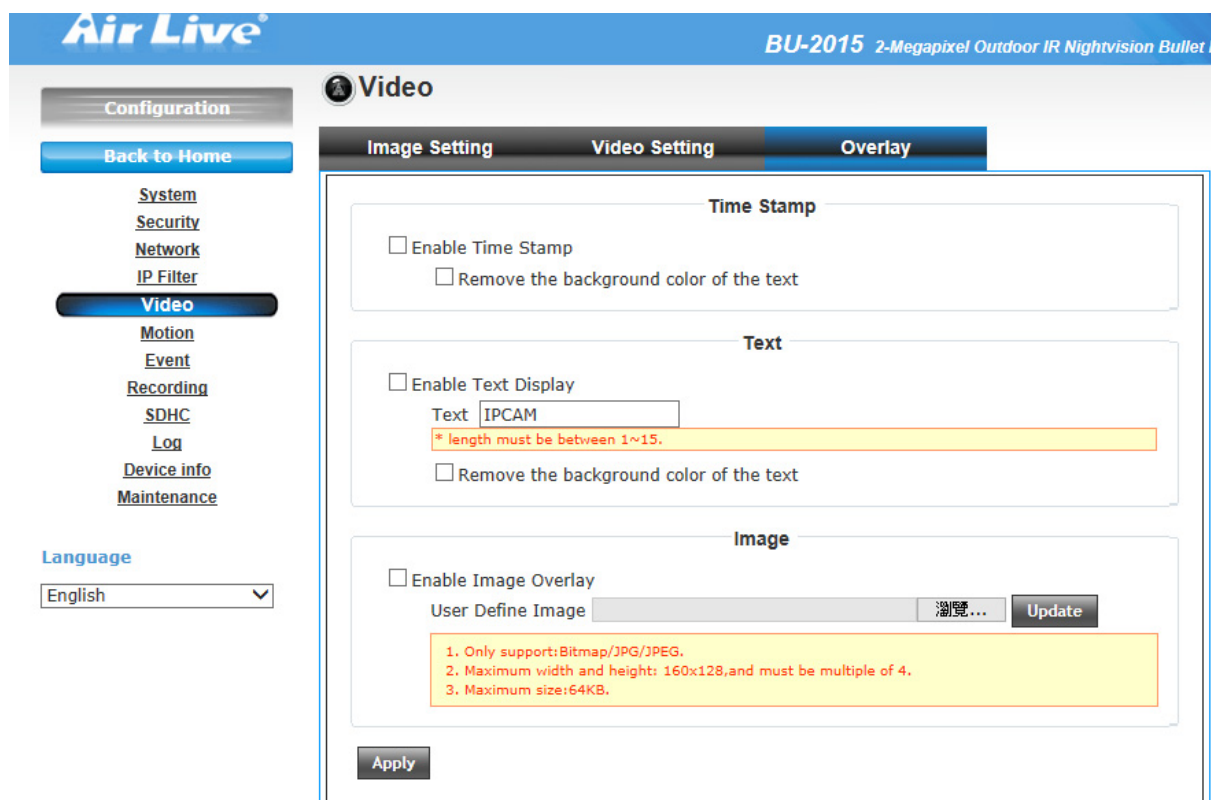
### 3. Overlay

You can adjust the video overlay parameters in this page.

Here are the descriptions of every setup item:

Item	Description
Enable Time Stamp	Check this box to enable overlaying time stamp on video.
Remove the background color of the text (for Time Stamp)	Check this box to remove time stamp's background color. You may find this will help the readability of time stamp text in some cases.
Enable Text Display	Check this box to display certain text on video; this will help when you need to identify certain IP camera when you have a lot of IP cameras. Please input the text in 'Text' field. You can input up to 15 characters.
Remove the background color of the text (Text)	Check this box to remove custom text's background color. You may find this will help the readability of text in some cases.
Enable Image Overlay	Check this box to overlay a specific image on video, so you can show certain text / picture on the video and help people to identify this IP camera. Click 'Browse' button to pick a picture on your computer, then click 'Update' button to use the picture. Please note that there are certain restrictions: <ul style="list-style-type: none"><li>- Select .bmp / .jpg / .jpeg image files only.</li><li>- Image's resolution should be less than 160 x 128, and can be divided by 4.</li><li>- Do not upload image files that size is greater than 64KB.</li></ul>

When you finish with above settings, click 'Apply' button to save changes.



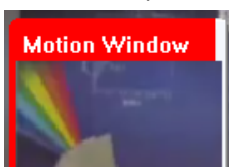
## 6.6 Motion

This IP camera is capable to detect object's motion, so IP camera will only record when there's motion and save disk storage space.

Motion detection is performed by examine the movement of objects in rectangular motion detection area. You can define up to 3 motion detection areas.

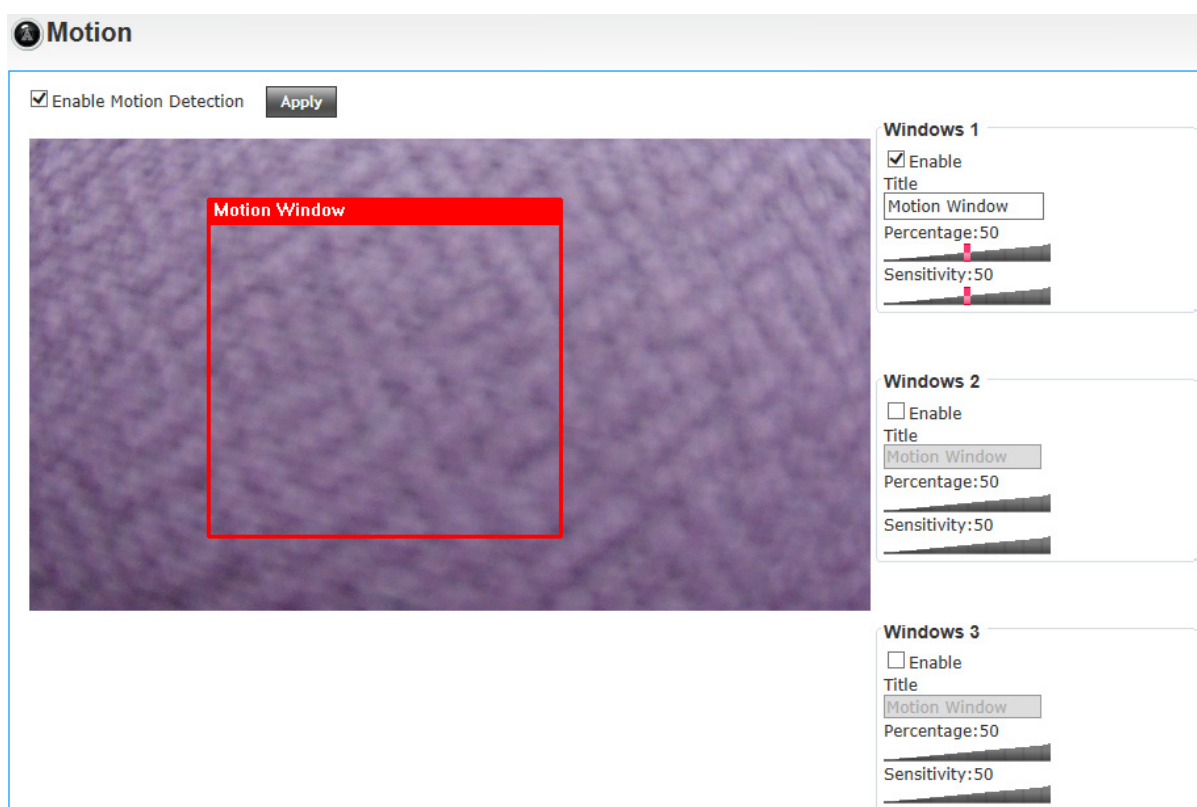
Here are the descriptions of every setup item:

Item	Description
Enable Motion Detection	Check this box to enable motion detection.
Enable (Window 1 to Window 3)	Check this box to enable this motion detection window. You can select window 1 to 3 to enable up to 3 motion detection windows. When a motion detection window is enabled, a rectangular will appear on camera's view, with its title on the top. And you can move / resize the detection window.



Title (Window 1 to Window 3)	Input characters in title field to change motion detection area's title text so you can identify it. Please note that you have to click 'Apply' button and the text will change.
Percentage	Select the percentage of pixel change that will trigger motion detection alert. Select a lower percentage so you can detect tiny changes in motion detection area.
Sensitivity	Select the sensitivity level that will trigger motion detection alert. Select a higher sensitivity so you can detect tiny changes in motion detection area. It will show blue bar when window are detecting moving object through the window range.

When you finish with above settings, click 'Apply' button to save changes. Once the window detects motion, one blue flexible bar will appear at the bottom edge. One video file will be saving at this moment if the ftp server was enabled.



## 6.7 Event

When there's an event, you can use this setup page to define what IP camera should do, like send an Email or trigger digital output to activate external alarm.

There are three setup pages:



1. Setting: Define a new event and manage events.
2. Media: Define what kind of media file should be saved on designate media.
3. Event Server: Define the details of remote server.

Please refer to following chapters for detailed instructions.

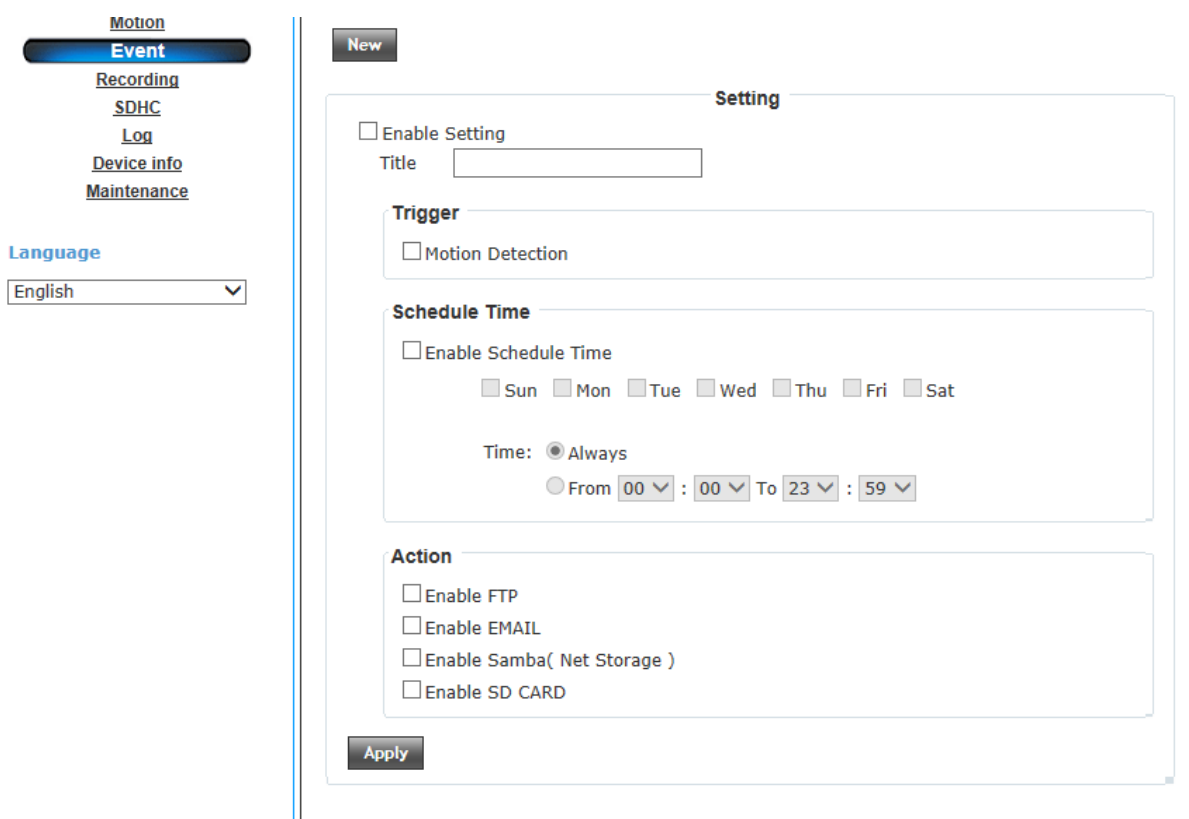
### 1. Setting

This page lists all existing events. You can click 'Modify' button to edit an existing event, or 'Remove' to delete an existing event.

To create a new event, just click "New" button to add an Event setting.

Item	Description
Enable Setting	Check this box to enable this event. If you just want to disable this event temporarily, you can uncheck this box to keep this event and disabling while not deleting it.
Title	Input any description text for this event so you can identify it quickly. You can use alphabets, numbers, and symbols include: ! \$ - . @ ^ _ ~ (no spaces allowed).
Motion Detection	Check this box and this event will be activated when one of motion detection window detects motion.
Enable Schedule Time	Check this box and this event will be activated when designated weekday and time is reached. You also have to check weekday box, and select time from dropdown list. If you select 'Always' as time, this event will be activated during all the day.
Enable FTP	Check this box and IP camera will save file on FTP server (refer to 'FTP Server' setting in 'Event Server' tab) when this event is activated.
Enable EMAIL	Check this box and IP camera will send an Email to designated recipient address (refer to 'SMTP Server' setting in 'Event Server' tab) when this event is activated.

Enable Samba (Net Storage)	Check this box and IP camera will save file on samba server (refer to 'Samba Server' setting in 'Event Server' tab) when this event is activated.
Enable SD CARD	Check this box and IP camera will save file on SD card when this event is activated. A working SD card must be inserted into IP camera in advance.



The screenshot shows the 'Event' configuration page. On the left is a sidebar with navigation links: Motion, **Event**, Recording, SDHC, Log, Device info, and Maintenance. Below these is a 'Language' dropdown menu set to 'English'. The main area has a 'New' button and a 'Setting' section. The 'Setting' section contains three main areas: 'Trigger' with a 'Motion Detection' checkbox; 'Schedule Time' with an 'Enable Schedule Time' checkbox, a day selection row (Sun, Mon, Tue, Wed, Thu, Fri, Sat), and a 'Time' section with 'Always' selected and a time range 'From 00:00 To 23:59'; and 'Action' with checkboxes for 'Enable FTP', 'Enable EMAIL', 'Enable Samba( Net Storage )', and 'Enable SD CARD'. An 'Apply' button is at the bottom.

## 2. Media

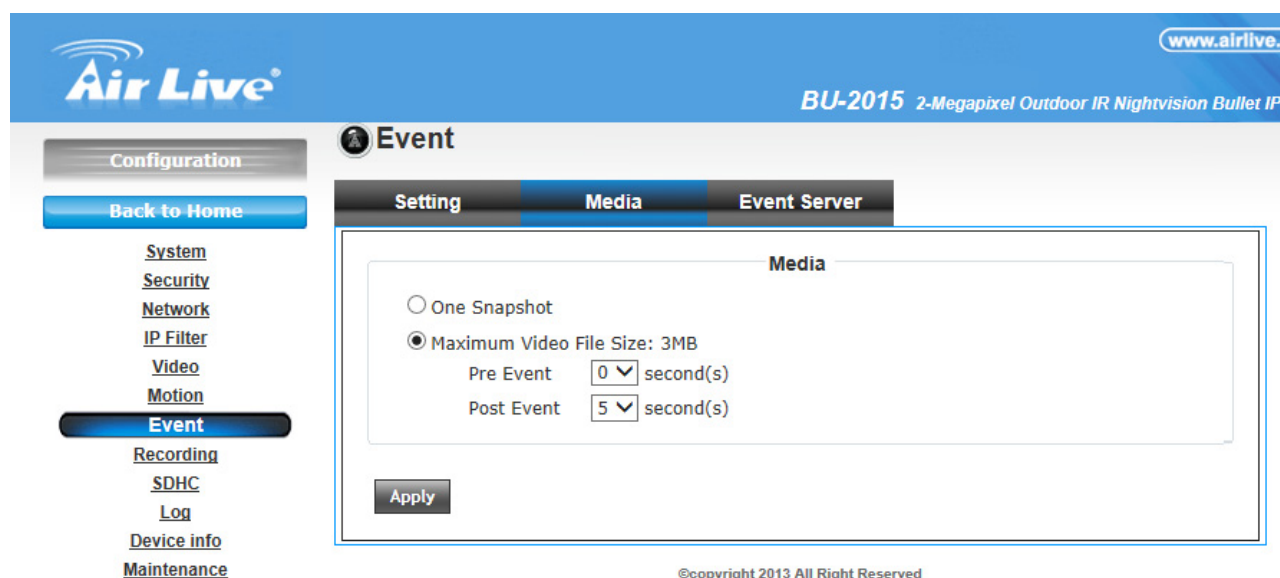
Here are the descriptions of every setup item:

Item	Description
One Snapshot	Save a picture file when event is triggered.
Maximum Video File Size: 3MB	Save a H.264 video clip. You can also select the recording length before and / or after the time when event is triggered in 'Pre Event' and 'Post' Event'. For example, if you set 'Pre Event' to '10' and 'Post Event' to 5', and an event is triggered at 14:10:30, then the video file will be 15 seconds long, starting from 14:10:20 to 14:10:35.

**Tips:** You may want to know what happened before event is triggered in many cases, especially when object is outside of motion detection window.

**Note:** If the “Pre Event” set to “0” second, the “Post Event” cannot set to “0” second.

When you finish with above settings, click ‘Apply’ button to save changes.



### 3. Event Server

You can define the details of remote media server: FTP (File), SMTP (Email), and Samba (File).

**A Samba server can be any computer running windows operating system with network neighbor function enabled. Many stand-alone network file server also support samba server function.**

Here are the descriptions of every setup item:

Item	Description
Enable FTP Server	Check this box to enable FTP server upload.

	<div data-bbox="438 302 1420 772"> <input checked="" type="checkbox"/> Enable FTP Server  FTP Server <input type="text"/>  Port <input type="text" value="21"/>  User Name <input type="text"/>  Password <input type="password"/>  File Path Name <input type="text"/>  <input type="checkbox"/> Enable Passive Mode  <div data-bbox="529 698 734 750">Test FTP</div> </div> <div data-bbox="438 772 1428 1366"> <ul style="list-style-type: none"> <li>- FTP Server: Input FTP server's IP address or hostname.</li> <li>- Port: Input FTP server's port number. In most cases it should be default value '21'.</li> <li>- User Name: Input FTP server's username.</li> <li>- Password: Input FTP server's password.</li> <li>- File Path Name: Input the path where you want to save file on FTP server, like 'upload/record'. If you want to save file on this FTP user's home directory, you can leave this field blank.</li> <li>- Enable Passive Mode: Check this box to force IP camera to communicate with FTP server in passive mode (Some FTP Server may only work when you check this box, while others don't).</li> <li>- Test FTP: Click this button to test FTP server settings above immediately.</li> </ul> </div>
SMTP Server	<div data-bbox="438 1377 1420 2072"> <p>Check this box to enable Email send.</p> <div data-bbox="470 1422 694 1724"> <div> <a href="#">Video</a>  <a href="#">Motion</a>  <div>Event</div>  <a href="#">Recording</a>  <a href="#">SDHC</a>  <a href="#">Log</a>  <a href="#">Device info</a>  <a href="#">Maintenance</a> </div> <div> Language  <div>English</div> </div> </div> <div data-bbox="758 1422 1412 1926"> <div>SMTP Server</div> <div> <input checked="" type="checkbox"/> Enable SMTP Server  SMTP Server <input type="text"/>  Port <input type="text" value="25"/>  Sender Email Address <input type="text"/>  Receiver #1 Email Address <input type="text"/>  Receiver #2 Email Address <input type="text"/>  Subject <input type="text" value="BU-2015"/>  <input type="checkbox"/> Authentication  User Name <input type="text"/>  Password <input type="password"/>  <input type="checkbox"/> Requires SSL Encryption  <input type="checkbox"/> STARTTLS  <div>Test SMTP</div> </div> </div> <div data-bbox="438 1937 1428 2072"> <ul style="list-style-type: none"> <li>- SMTP Server: Input SMTP server's IP address or hostname.</li> <li>- Port: Input SMTP server's port number. In most cases it should be default value '25'.</li> </ul> </div> </div>

	<ul style="list-style-type: none"> <li>- Sender Email Address: Input the sender's email address that will appear in the Email send by IP camera. This will help you to identify the Email sent by this IP camera, and may help when you have anti-spam software installed (you can set this Email address to 'White List' in your anti-spam software)</li> <li>- Receiver #1 Email Address: Input primary recipient's Email address. This field is required.</li> <li>- Receiver #2 Email Address: Input backup recipient's Email address. This field is optional.</li> <li>- Subject: Input Email title that will appear in the Email send by IP camera. This will help you to identify the Email sent by this IP camera.</li> <li>- Authentication: Check this box when authentication is required by the Email server you're using. You also need to input Email server's username and password in corresponding field.</li> <li>- Requires SSL Encryption: If your Email server required SSL encryption, check this box. Please note that some Email server uses different port number than standard port 25 when SSL encryption is used.</li> <li>- STARTTLS: If your Email server required STARTTLS encryption, check this box. Please note that some Email server uses different port number than standard port 25 when STARTTLS encryption is used.</li> <li>- Test SMTP: Click this button to test SMTP server settings above immediately.</li> </ul>
Samba Server	<p>Check this box to enable Samba server file upload.</p> <div data-bbox="438 1496 1246 1800"> <input checked="" type="checkbox"/> Enable Samba Server  Samba Server Address <input type="text"/>  Path <input type="text"/>  User Name <input type="text"/>  Password <input type="password"/>  <input type="button" value="Test SMB"/> </div> <ul style="list-style-type: none"> <li>- Samba Server Address: Input Samba server's IP address or hostname.</li> <li>- Path: Input the path where you want to save file on Samba server, like 'upload/record'. If you want to save file on this user's home directory, you can leave this field blank.</li> </ul>



	<ul style="list-style-type: none"> <li>- User Name: Input Samba server's username.</li> <li>- Password: Input Samba server's password.</li> <li>- Test SMB: Click this button to test Samba server settings above immediately.</li> </ul> <p><b>Tips: Some samba server does not have username and password check, you can just input samba server address and path to access the file storage space.</b></p>
--	---

When you finish with above settings, click 'Apply' button to save changes.

## 6.8 Recording

You can save video file in the Memory card or Samba server.

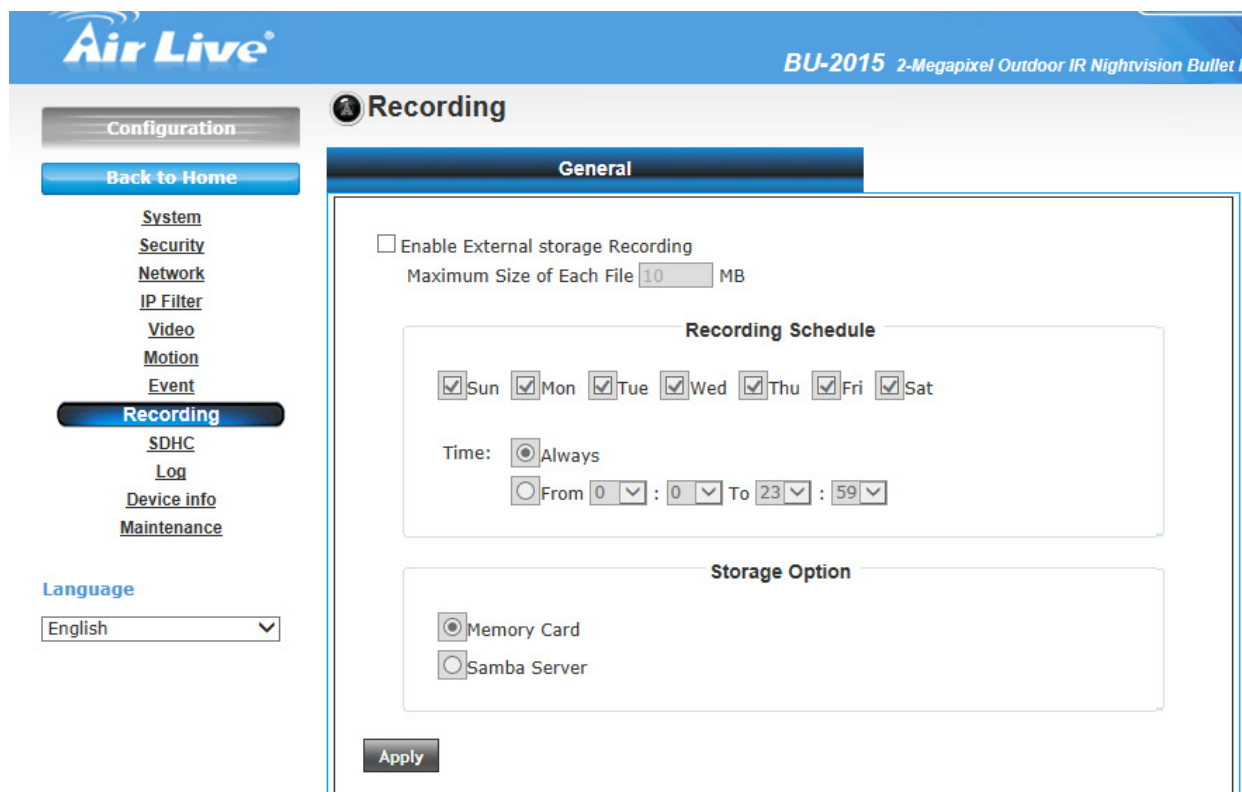
### Note:

**Be sure that the Micro-SD Card format should be FAT32. The NTFS format cannot be supported by this camera.**

Here are the descriptions of every setup item:

Item	Description
Enable External storage Recording	Check this box to enable this function.
Maximum Size of Each File	Input the maximum size of every video file from 1MB to 50MB. IP camera will start a new video file when a recording video file reaches the size limit stated here.
Recording Schedule	Define the recording schedule. You can check Sun to Sat boxes to represent a weekday, and specify time period in 'From' and 'To' field. Select 'Always' to record 24 hours in selected weekday(s).
Storage Option	Select Memory card or Samba server as your destination.

When you finish with above settings, click 'Apply' button to save changes.



**Air Live** BU-2015 2-Megapixel Outdoor IR Nightvision Bullet Camera

**Configuration**

**Recording**

**General**

☐ Enable External storage Recording  
Maximum Size of Each File  MB

**Recording Schedule**

☒ Sun ☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☒ Sat

Time: ☒ Always  
☐ From  :  To  :

**Storage Option**

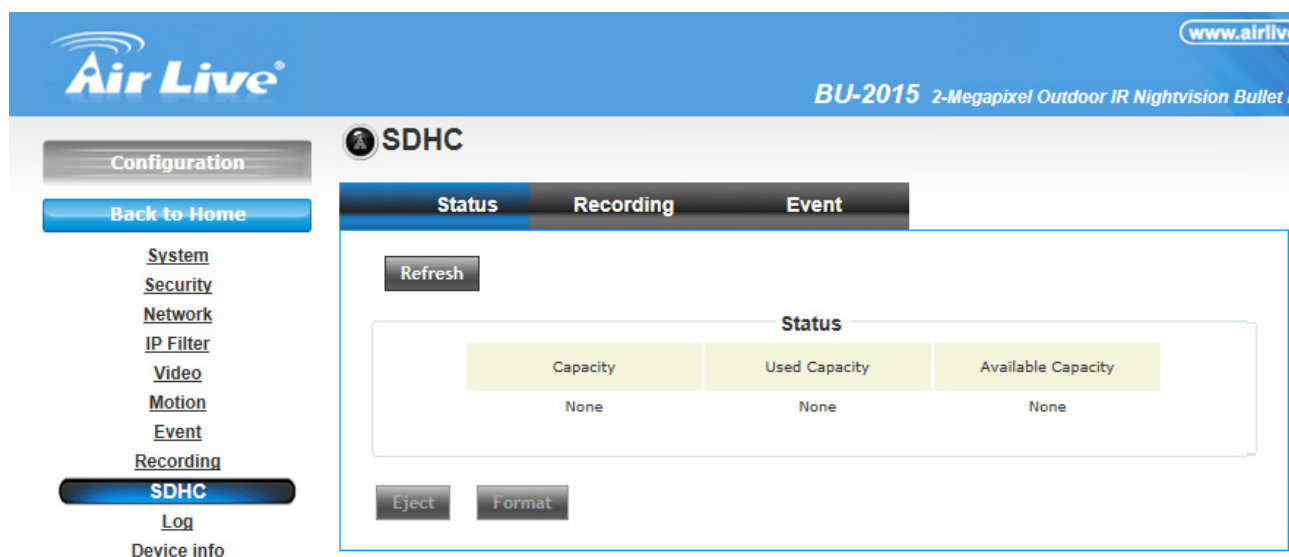
☒ Memory Card  
☐ Samba Server

**Apply**

## 6.9 SDHC

### 1. Status

Once the Micro-SD card is inserted, the UI will show the information of the Micro-SD card.



**Air Live** BU-2015 2-Megapixel Outdoor IR Nightvision Bullet Camera

**Configuration**

**SDHC**

**Status** **Recording** **Event**

**Refresh**

**Status**

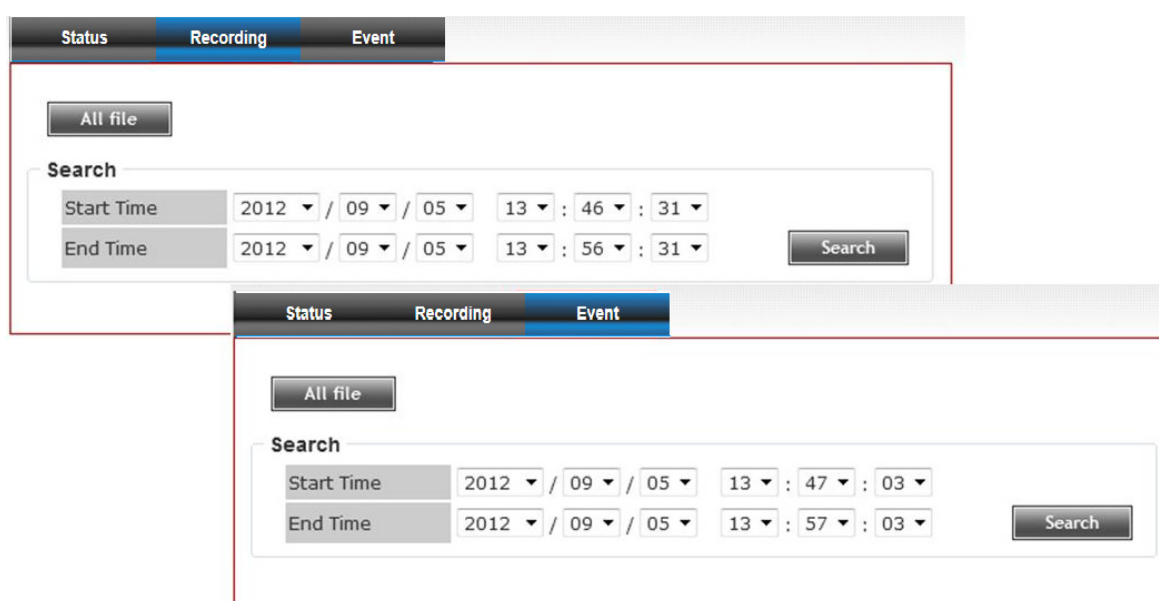
Capacity	Used Capacity	Available Capacity
None	None	None

**Eject** **Format**

## 2. Recording

There are two UI pages to show the record on the Micro-SD card. They are mapping to the setting of “Recording to Micro-SD card” and “Event” accordingly.

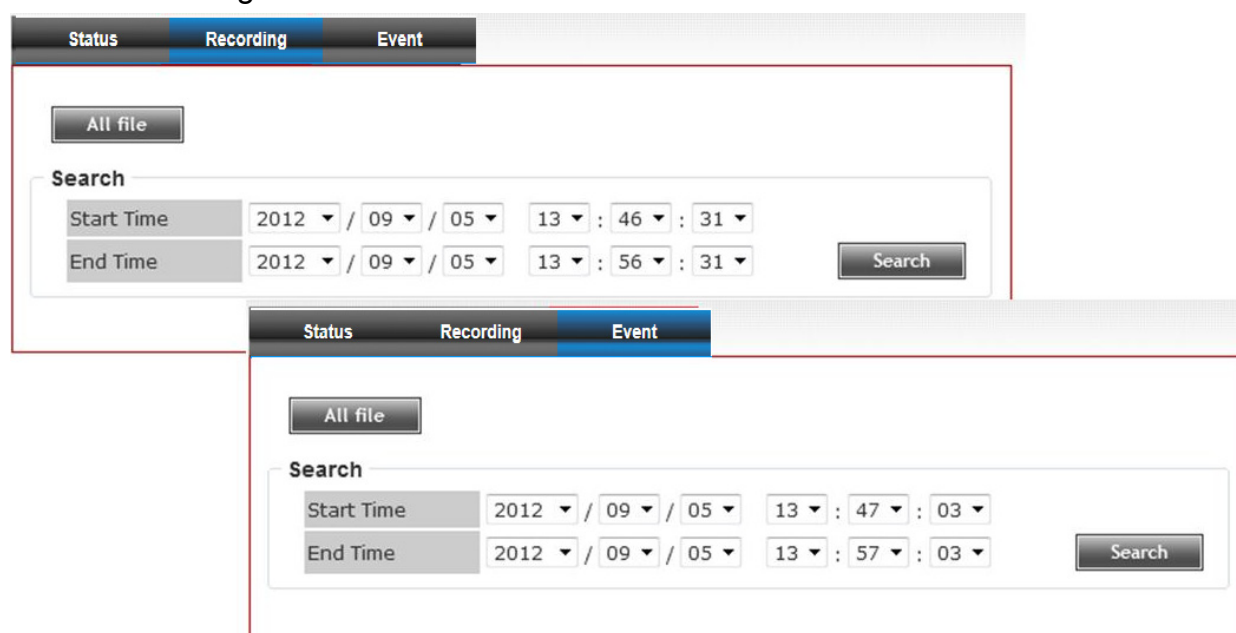
Click “All file” to list all files. You also can define the range and click “Search” to sort the files needed. It shows likes the images in the next page.



The image displays two screenshots of the Recording UI. The top screenshot shows the 'Recording' tab selected, with search criteria for Start Time (2012/09/05 13:46:31) and End Time (2012/09/05 13:56:31). The bottom screenshot shows the 'Event' tab selected, with search criteria for Start Time (2012/09/05 13:47:03) and End Time (2012/09/05 13:57:03).

## 3. Event

Set the time range then click “Search” then shows the records like below.



The image displays two screenshots of the Event UI. The top screenshot shows the 'Event' tab selected, with search criteria for Start Time (2012/09/05 13:46:31) and End Time (2012/09/05 13:56:31). The bottom screenshot shows the 'Event' tab selected, with search criteria for Start Time (2012/09/05 13:47:03) and End Time (2012/09/05 13:57:03).

## 6.10 Log

You can check the log file of IP camera here.

In this page, you can click:


1. First page / Final page: Jump to first / final page of log.
2. Previous / Next: Jump to previous or next page of log.
3. Remove: Clear log. You'll be prompted for confirmation.

System Log		
Item	Date and Time	Event
1.	02/05/2014 13:04:48	[SDCard]: NO Card !!!
2.	02/05/2014 13:04:47	[SDCard]: NO Card !!!
3.	02/05/2014 13:04:44	[SDCard]: NO Card !!!
4.	02/05/2014 13:04:41	[SDCard]: NO Card !!!
5.	02/05/2014 13:04:38	[SDCard]: NO Card !!!
6.	02/05/2014 13:04:34	[SDCard]: NO Card !!!
7.	02/05/2014 13:04:31	[SDCard]: NO Card !!!
8.	02/05/2014 13:04:28	[SDCard]: NO Card !!!
9.	02/05/2014 13:04:25	[SDCard]: NO Card !!!
10.	02/05/2014 13:04:21	[SDCard]: NO Card !!!
11.	02/05/2014 13:04:18	[SDCard]: NO Card !!!
12.	02/05/2014 13:04:17	[SDCard]: NO Card !!!
13.	02/05/2014 13:04:14	[SDCard]: NO Card !!!
14.	02/05/2014 13:04:11	[SDCard]: NO Card !!!
15.	02/05/2014 13:04:08	[SDCard]: NO Card !!!
16.	02/05/2014 13:04:07	[SDCard]: NO Card !!!
17.	02/05/2014 13:04:05	[SDCard]: NO Card !!!
18.	02/05/2014 13:04:02	[SDCard]: NO Card !!!
19.	02/05/2014 13:04:01	[SDCard]: NO Card !!!
20.	02/05/2014 13:03:58	[SDCard]: NO Card !!!
<div> <div>First page</div> <div>Previous</div> <div>Next</div> <div>Final page</div> </div>		
<div>Remove</div>		

## 6.11 Device info

You can check the information and network settings of this IP camera. This information is very useful when you need to repair or fix the problem of this IP camera.

An example of device info page looks like this:

 **Device info**

**Basic**

Camera Name	BU-2015
Firmware version	1.03.14
MAC	d4:a4:25:00:41:06
Camera Date and Time	02/05/2014 13:06:37

**H.264**

Video Resolution	1280x720(720P)
Video Quality	Normal
Frame Rate	30 fps

**MJPEG**

Video Resolution	640x480 (VGA)
Video Quality	Normal
Frame Rate	30 fps

**Mobile View**

3GPP Enable	Disable
-------------	---------

**Network**

IP MODE	DHCP IPv4/IPv6
IP Address(IPv4)	192.168.0.202
IP Address(IPv6)	
Subnet Mask	255.255.255.0
Gateway	192.168.0.254
Primary DNS	192.168.0.254
Secondary DNS	0.0.0.0

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## 6.12 Maintenance

You can do some maintenance job about this IP camera here.

Here are the descriptions of every setup item:

Item	Description
Reboot	Click this button to reboot the IP camera. This function is useful when the IP camera is not working properly.

Factory Reset	(1) Clear all settings of IP camera and reset to factory default setting. (2) Reset all parameters, except for the IP, time zone and daylight saving parameters to the original factory settings
Backup	Backup IP camera's setting and save it on your computer.
Backup to SD card device	Backup IP camera's setting and save it on SD card. A SD card must be inserted into SD card slot when you click this button, or you'll receive an error message.
Restore	Restore a previously-saved configuration file saved on your computer. Click 'Browse' button to select a file on your computer first, then click 'Restore' button.
Restore from SD card device	Restore IP camera's configuration which is previously-saved on SD card.
Upgrade	Upgrade IP camera's firmware. Click 'Browse' button to select a firmware image file on your computer first, then click 'Upgrade' button.


**Maintenance**

### Reboot

System will be rebooted.

Reboot

### Factory Reset

Factory reset will restore all the settings to factory default.

Reset

Reset all parameters, **except for the IP , time zone, and daylight saving parameters** , to the original factory settings.

Reset

### Backup

Backup

Backup to SD card device

### Restore

Select the configuration file to restore

Restore from SD card device

### Firmware

Current Firmware Version 1.03.14