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...zippy to fit & zippy to learn!

...Camera browser manual

IP-CAM530 / 535 / 570 / 800 / 815 / 870 / 880 / 910 / 920 / 930 Models

ZIP IPC User Manual

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SPECIAL NOTE:

The default factory IP address for the IP camera is **192.168.10.1**

The default factory administrator username and password for this IP camera is

Username: **admin** Password: **777777**

The default Web port number is: **80**

The default media (management) port number is: **9988**



WEE/CG07835S

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.

All specifications are approximate. Kovert.com reserves the right to change any product specification or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, kovert.com cannot be held responsible in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the camera or other equipment that these instructions refer to.

1. Overview

1.1 Range of IP Address

The ZIP range of IP cameras use an identical menu system which is detailed below. The default IP address is 192.168.10.1. If you are connecting this camera to a network which is not on a 192.168.10 address, then you will have change the IP address in the camera. The safest way is to connect this camera straight to a PC that is set to a 192.168.10 address using a crossover cable or using the LCD390 test monitor. Other methods are covered in more detail later in this manual.

1.2 Product Description

The ZIP IP camera is a digital online surveillance camera embedded with a Web server and capable of independent operation, giving the user access to real-time monitoring through a web browser.

The camera uses an integrated media processing platform for audio and video with H.264/ H265 High Profile encoding standards. Any remote user can have access to real-time monitoring by entering the IP address or domain name of the IP camera in the web browser.

The IP cameras can be managed by several users with different authorisation levels.

IP cameras allow motion detection and send e-mails and can take snapshots in cases of emergency, with the image or video snapshot stored on the internal SD card. Note that record times will vary according to the size of the SD card but will normally be short due to the large storage space taken by HD video and audio.

1.3 Operation Environment

Operating system: Windows 10 / Windows 7/ Windows 8 / Windows 2008 (32/64-bit),
Windows 2003 / Windows XP / Windows 2000 (32-bit)

CPU: Intel Core Duo II dual-core processor or higher

Memory: 1G or more Video memory: 256M or more

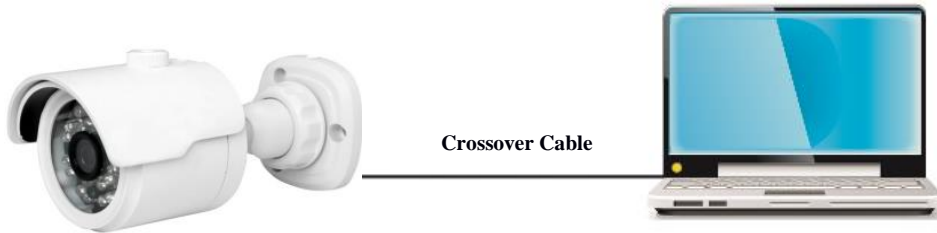
Display: 1024 × 768 or higher resolution

IE: IE 6.0 or higher version

2. IP Camera Connection

2.1 Connection direct to PC via a crossover cable

Connect IP camera to a PC via a crossover cable, with power input connected to a DC 12V power supply and set the IP addresses of the PC and IP camera in the same network subnet. The IP camera will communicate with the PC if the IP address in the camera is changed so that it is in the same subnet as the PC. This can be done prior to connecting IP camera to a network.



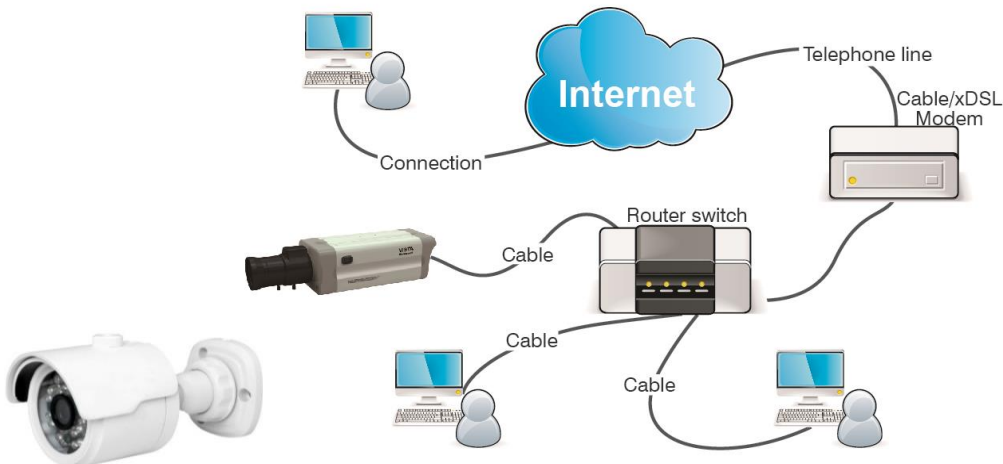
2.2 Connection direct to PC via a LAN/Patch cable

Connect IP camera to a PC via a LAN/Patch cable, with power input connected to a DC 12V power supply and set the IP addresses of the PC and IP camera in the same network subnet. The IP camera will communicate with the PC within one minute if the IP address in the camera is changed so that it is in the same subnet as the PC.



2.3 Connection to a router or switch

The most common use is connecting the IP camera to the Internet, where the camera and PC are connected to LAN ports on a router or switch, with the gateway of the camera and PC set to the IP address of the router.



3. Device Operation Instructions

3.1 Check Connection

1. The default factory IP address for the IP camera is **192.168.10.1** and the subnet mask is 255.255.255.0. Change your computer IP address to the same network subnet as the IP camera, for example: IP Address of PC to **192.168.10.100** and subnet mask **255.255.255.0** same as that of the IP camera.

2. **Example:** To test whether the IP camera is connected properly try pingging it, by clicking on the Windows button and the letter ‘R’ on the PC keyboard, entering the Run box in left hand corner of screen and entering “CMD” and click OK to display a black MSDOS screen with a flashing cursor.

Then type <**PING 192.168.10.1**> (or IP address of IP camera)

Display should confirm the following:

pinging IP address 192.168.10.1 - four times
and - Packets Sent = 4, Received = 4, Lost = 0.

3. This indicates that the IP camera operates normally and the network is connected properly.

3.2 Searching for IP camera device using ZipFinder and changing IP etc.

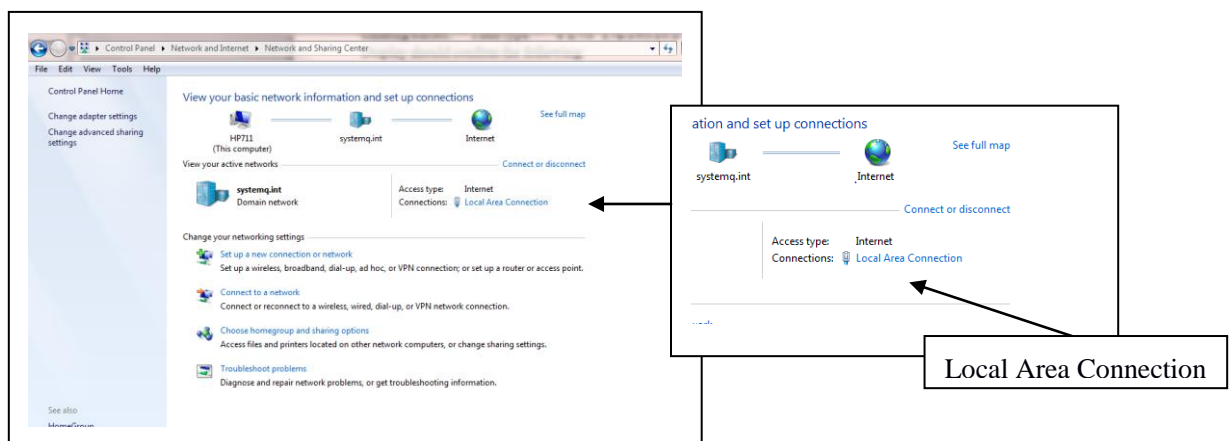


ZipFinder may be used for searching and changing IP devices on a network. This program will be found on the client CD software disk supplied with the IP camera. To run ZipFinder click on the local connection icon on the desktop. Note that this tool must be used with care and must be removed once the IP addressing is completed.

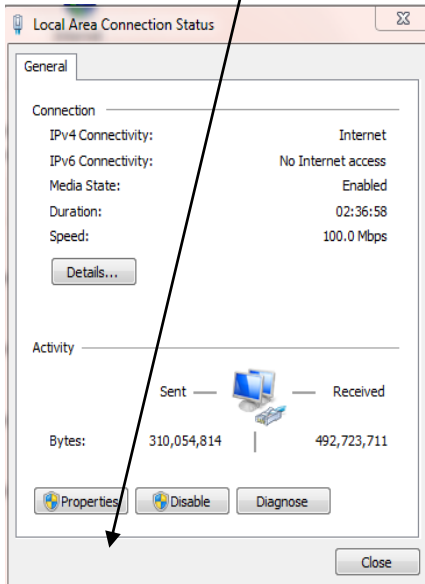
1. First go onto the Windows PC and add an IP address in the range of the IP default address so the IP cameras that can be detected by your PC. Then by running ZipFinder you can search any device within the IP address range of the IP camera and the existing PC IP address range.

Step A

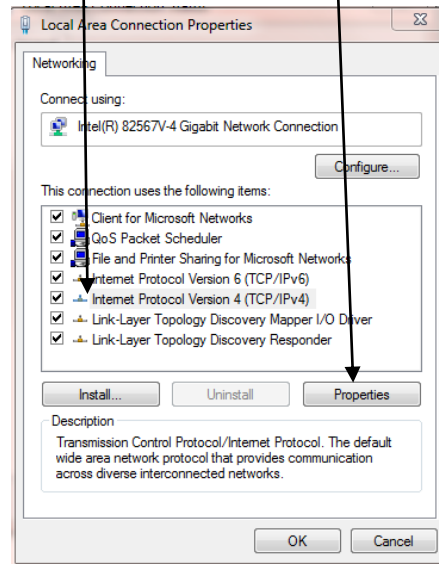
Go to **Control Panel, Network and Internet, Networking and Sharing Centre** and then click on **Local Area Connection**.



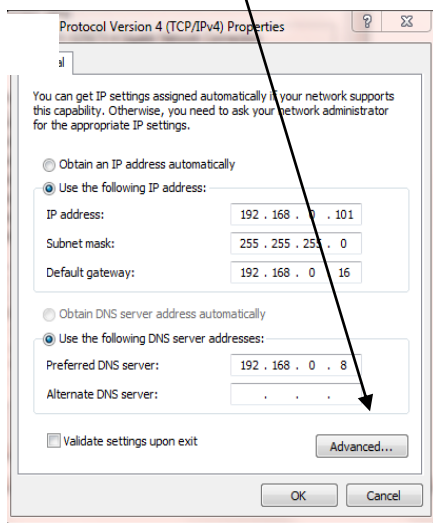
Step B Click on **Properties**



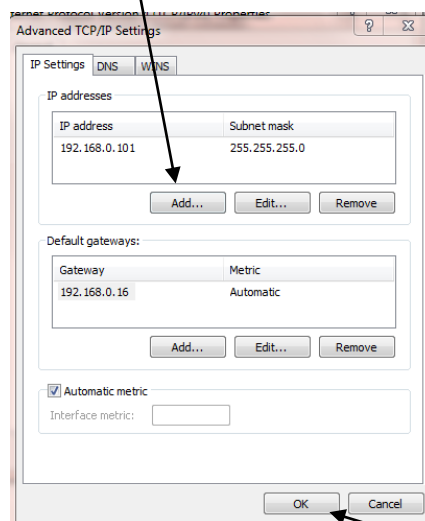
Step C Click on **Internet Protocol Version 4 (TCP/IPV4)** and click **Properties**



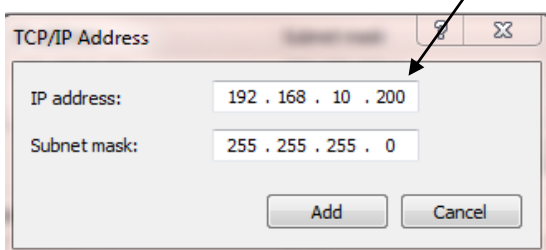
Step D Click on **Advanced**



Step E Click **Add**



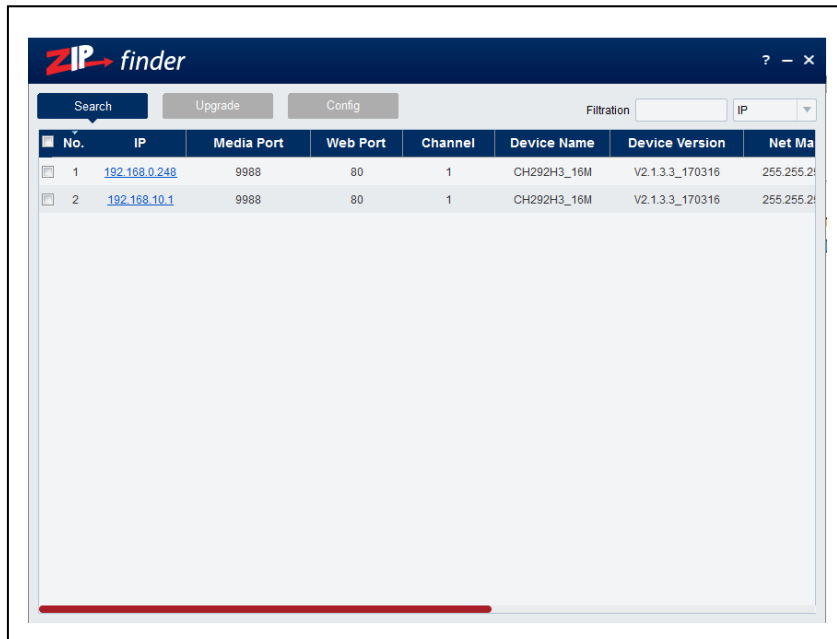
Step F Add an IP address in the range of the IP cameras but not the IP camera/s itself then click OK



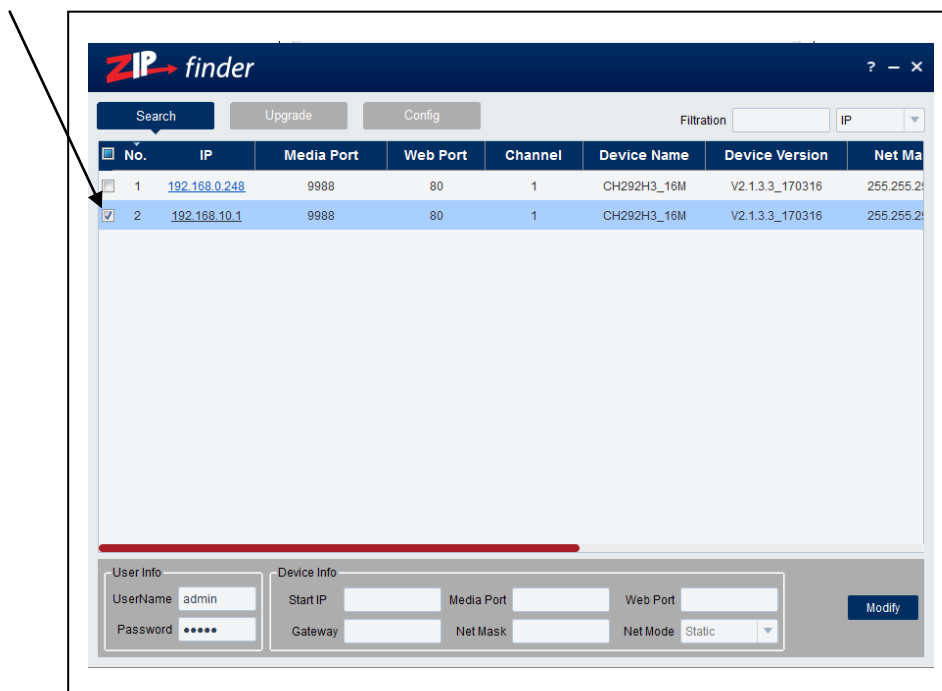
This will allow ZipFinder to access not only the 192.168.0.? addresses but also the 192.168.10. ? addresses for changing to 192.168.0.<n> addresses.

Also ZipFinder uses multicast protocol for searching across subnets but firewalls preclude this, so firewall may need to be disabled during this process.

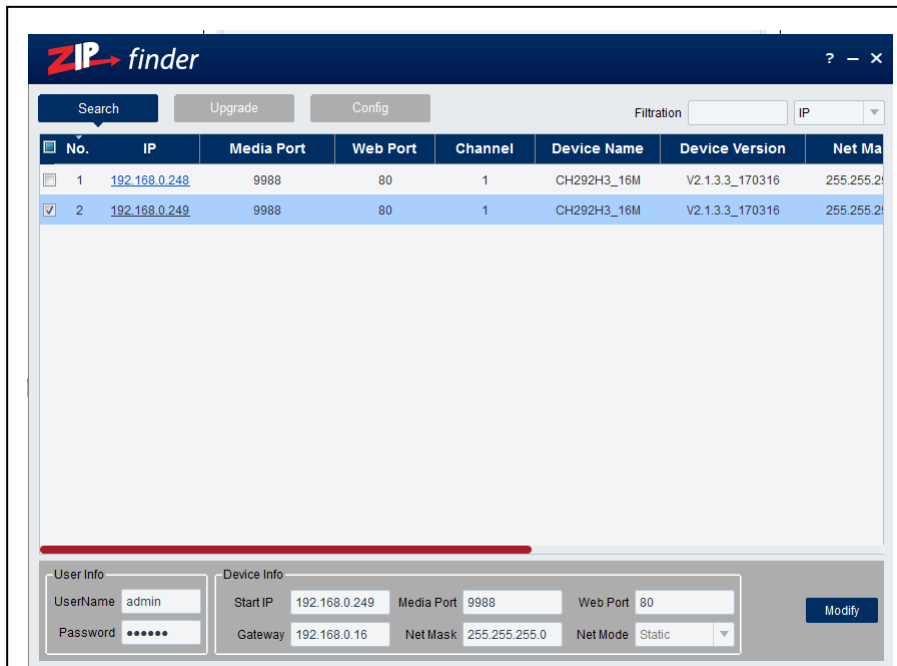
2. Run ZipFinder by double clicking icon. It will search and display any online IP address and its IP address, port number, number of channels, device type and version, subnet mask, gateway, MAC address and connection pattern.



3. You will see that the IP camera address 192.168.10.1 displays. To change the address, click on the box to the left of the IP address.



4. You can now change the IP address by completing the section at the bottom of the screen and click on **Modify**. See note below.



Note you need to enter the IP camera password that is 777777, the new IP address, Media Port 9988, Web Port 80, Gateway (Local IP of Router) & Net Mask (Subnet Mask usually 255.255.255.0)

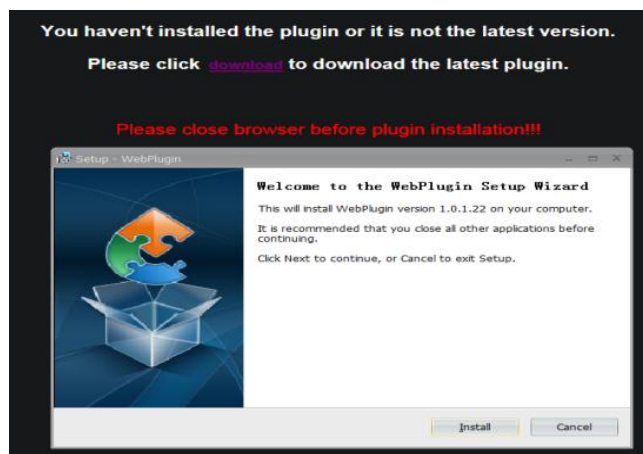
5. You can now add the next IP camera and follow the same procedure above.
6. Double click IP address to display login and enter password to view picture.

3.3 Installation of Controls and Login to System

Before using IE (Internet Explorer) browser to access the IP camera for the first time, related plug-in components must be installed by following the procedure below:

Access IP address of the IP camera to automatically load the controls from it.

In a pop-up plug-in installation dialogue box, choose an installation option to perform the installation process.

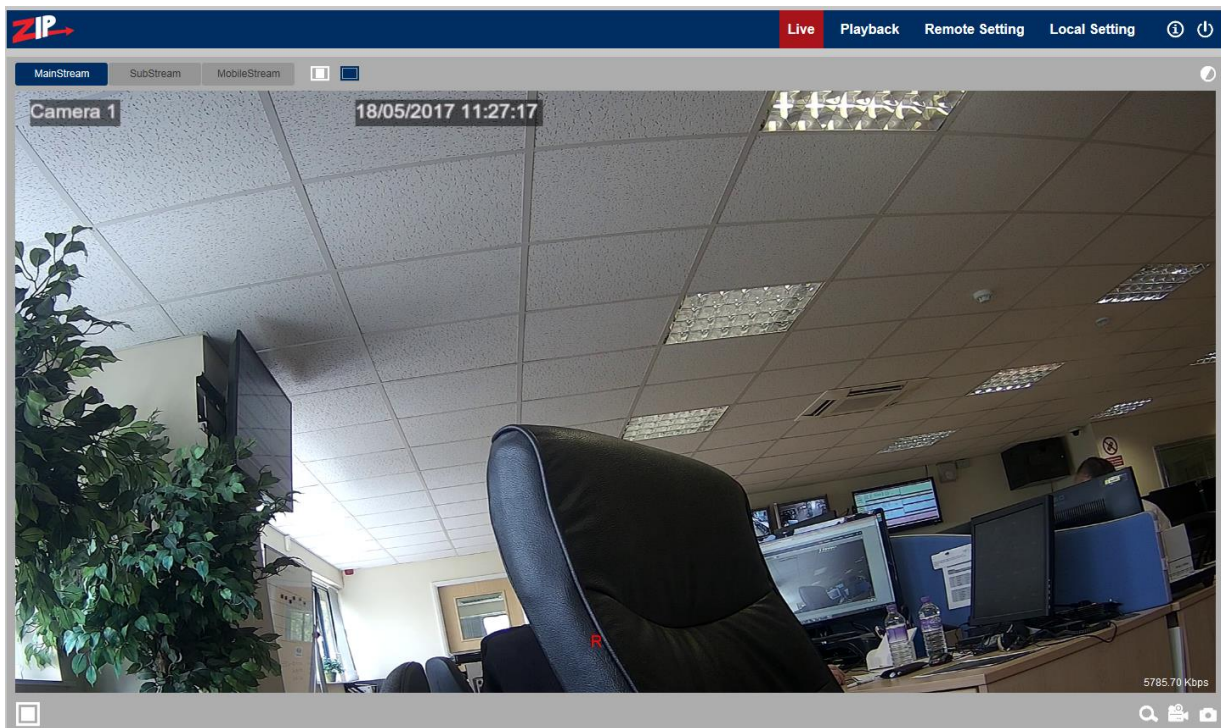


3.3.1 Preview

Open IE and enter the IP address of the camera e.g (http://192.168.0.248) to open a login box as shown below:



In the login box you can choose a language for the IE client. Enter your user name (admin by default) and password (777777) and then press OK to open a preview frame as shown below:



Some buttons in the preview frame are described below.



Colour setting button, for setting of colour, brightness, contrast, saturation and sharpness of the picture.

Playback

Reads the recorded files from SD card, and then plays back from browser

Remote Setting

Access to Remote Setting menu for setting of various device parameters.



Help information (including current user, Web browser and plug-in versions), and logout button for returning to the login page.



Preview frame ratio adjustment, toggling between Original and Widescreen.



Preview control buttons - Zoom-In/Out, Open Video, Capture and Sound On/Off, Microphone arranged from the left to the right.

MainStream

SubStream

MobileStream

Resolution options

Note that if you experience lag time for picture refresh you may have a problem with network resources, so selecting Substream or MobileStream may reduce this effect as they run at a lower resolution and frame rate.

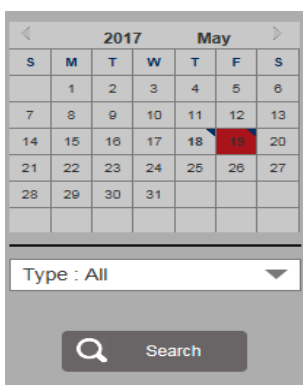
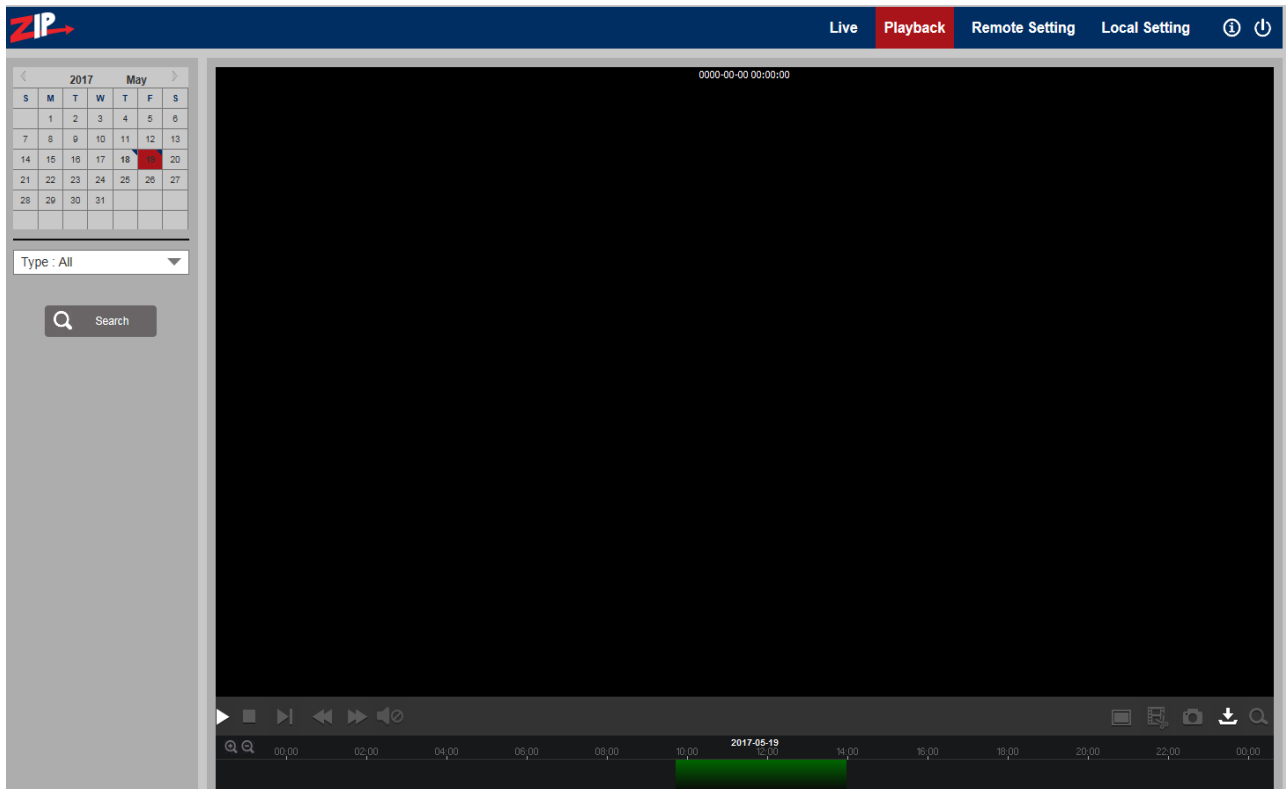
Local Setting

For setting snapshot, video file type and storage path.

See Section 5 – Local Setting for more details.

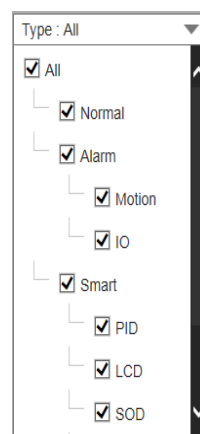
3.3.2 Playback (optional function)

Click on Type All to select recorded file type, select the corresponding date and then click the Search button. Note that the recording is made to an SD card in the camera. As the cards will only hold limited recordings, the green line indicates the the current recorded period and this will change as files are overwritten.



Click on date to playback

Select File Type -



Click Search



From left to right is Play/Pause, Stop, Frame playback (click one frame at a time), Slow playback, Fast forward, Audio control

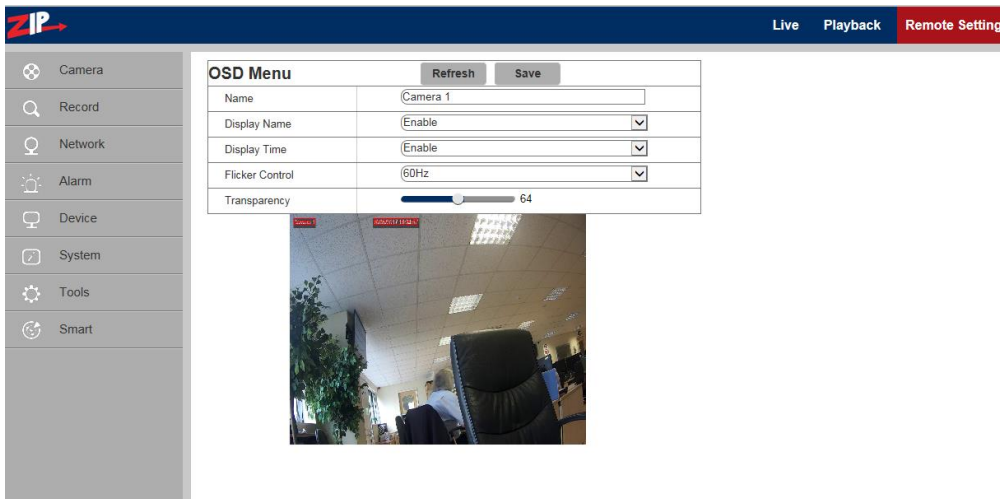


From left to right is Scale up, Video clips(need to setup in the progress bar), Screenshot, Video download and Zoom

4. Remote Setting

4.1 Camera

4.1.1 OSD Menu



Name: Name of the IP camera

Display Name: Choose Enable to display camera name

Display Time: Choose Enable to display time

Flicker Control: Choose 50Hz, 60Hz or disable it.

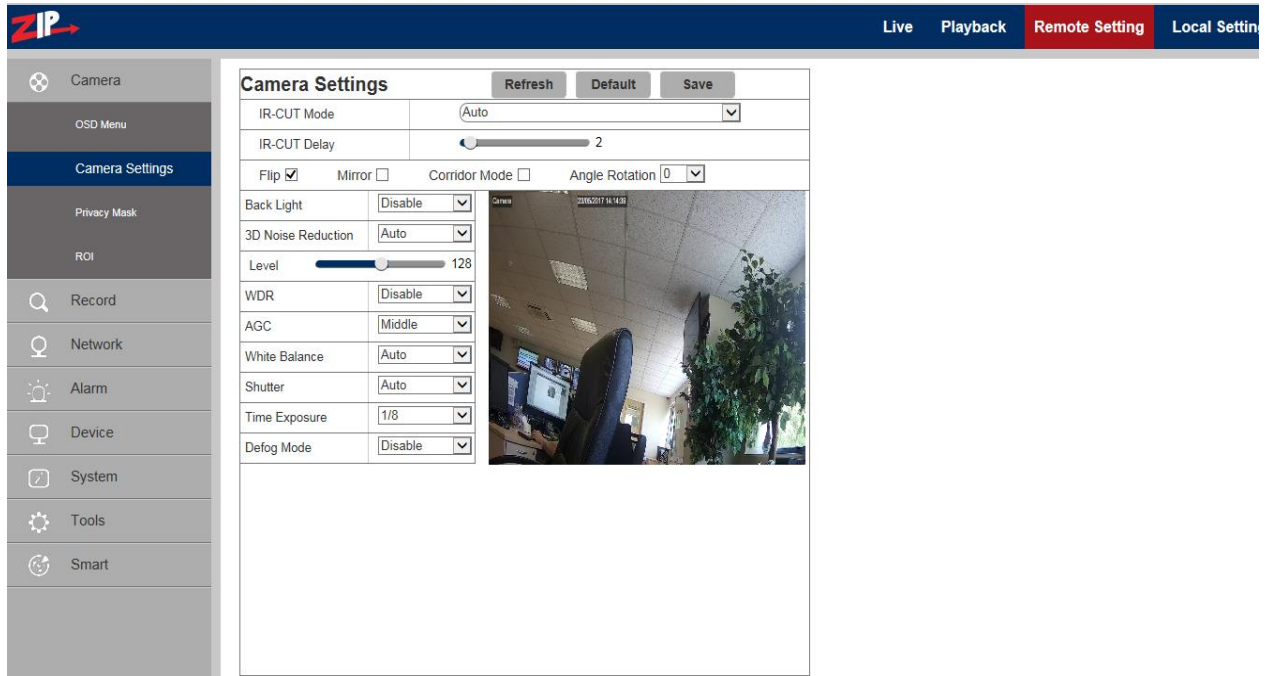
Transparency: Choose transparency of camera name and time in preview mode

(smaller value indicates higher transparency)

OSD: Text in red colour: You can locate the position of the camera name and time display on the channel by dragging the information in the preview frame.

4.1.2 Camera Settings

Click on Camera Settings to open the following page:



IR-Cut Mode: Auto / Colour / Black and White

Delay: IR-cut switching delay 1 ~ 36 seconds (default = 2)

Image Display: Flip / Mirror / Corridor Mode / Angle rotation (0° or 180°)

Back Light: Disable or Enable Backlight Compensation

3D Noise reduction: Disable / Auto (default) / Manual /



WDR: Wide Dynamic Range Disable / Enable

AGC: Automatic Gain Control Off / Low / Middle / High

White Balance: Auto / Manual / Indoor

Shutter: Auto / Manual

Defog Mode: Disable / Auto / Manual



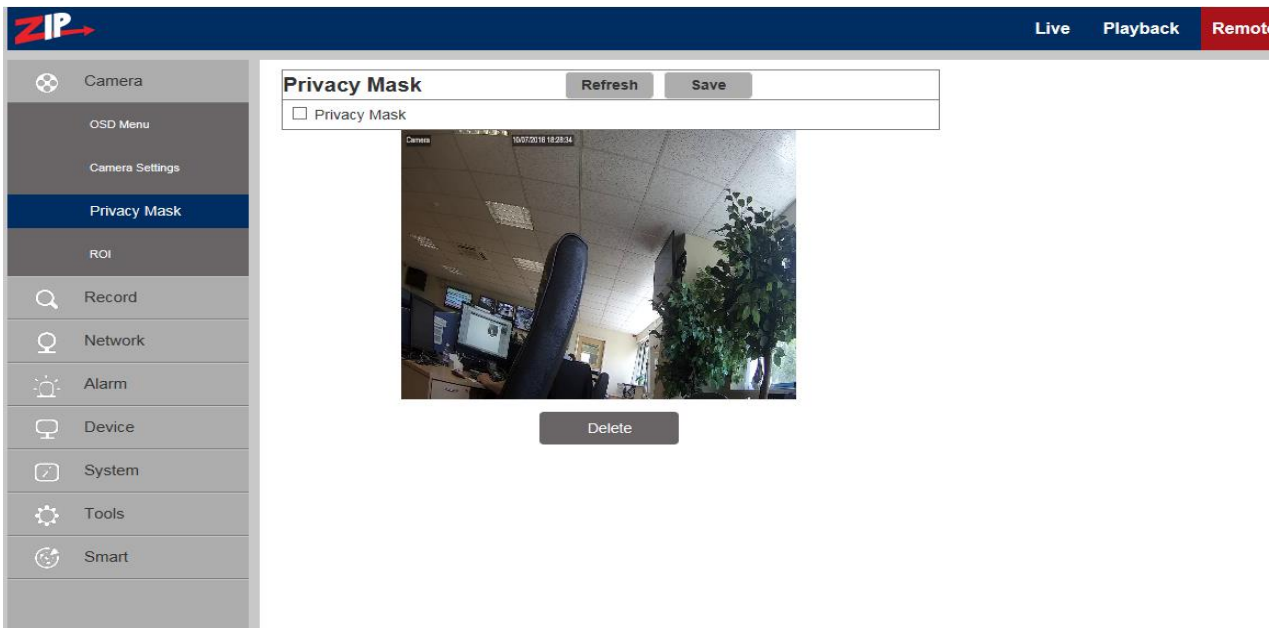
1/5
1/8
1/15
1/25
1/30
1/50
1/60
1/100
1/120
1/150
1/180
1/200
1/240
1/250
1/300
1/360
1/480
1/500
1/600
1/700
1/1000
1/1500
1/2500
1/5000
1/10000
1/12000
1/20000

Note: Below 2MP device , it doesn't support Corridor mode, Angle rotation or fog mode.

4.1.3 Privacy Mask

Click on Privacy Mask in Camera Menu to open the following page:

This option allows you to mask up to 4 areas at a time.



Procedure of setting Video Masking:

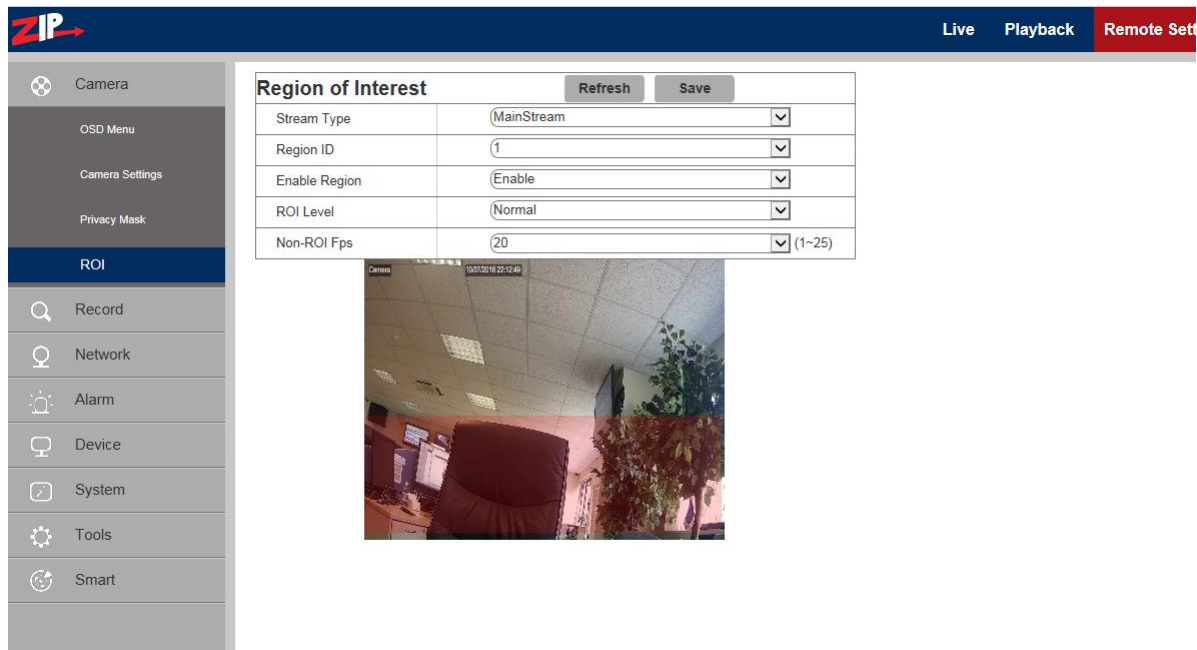
1. Tick the box marked Privacy Mask
2. Press down and hold the left mouse button and drag out an area for video masking (up to four areas at one time)
3. Click on Save to enable the Privacy Masking area.

Removing a Privacy Mask area:

After clicking Refresh, choose a masked area by clicking in it and then click Remove and then click Save.

4.1.4 ROI (Region of Interest)

Click on ROI in Camera Menu to open the following page:



What is ROI (Region of Interest)

Region of Interest is where you want to select from 1 to 8 areas in a picture with improved frame rate and quality, so allowing non-ROI areas to preview in lower frame rate and quality settings. The benefit is lower storage requirements for data and better preview of areas most important to the user.

Procedure for setting ROI:

1. Choose an area of application
2. Press down and hold the left mouse button and draw out an ROI area (only one ROI can be set for each area) but up to 8 areas can be selected.
3. Click on Save to apply the ROI area.

Stream Ttype: Choose from Main Bit Stream, Sub-Bit Stream or Cell Phone Stream which is the lowest quality.

Region: 1 ~ 8. (Up to 8 ROI areas can be set in one bit stream).

ROI area: Enable or disable the ROI area

ROI Level: Set quality of the image in the area.

(Select from: Lowest, Lower, Low, Normal, Better, Best.)

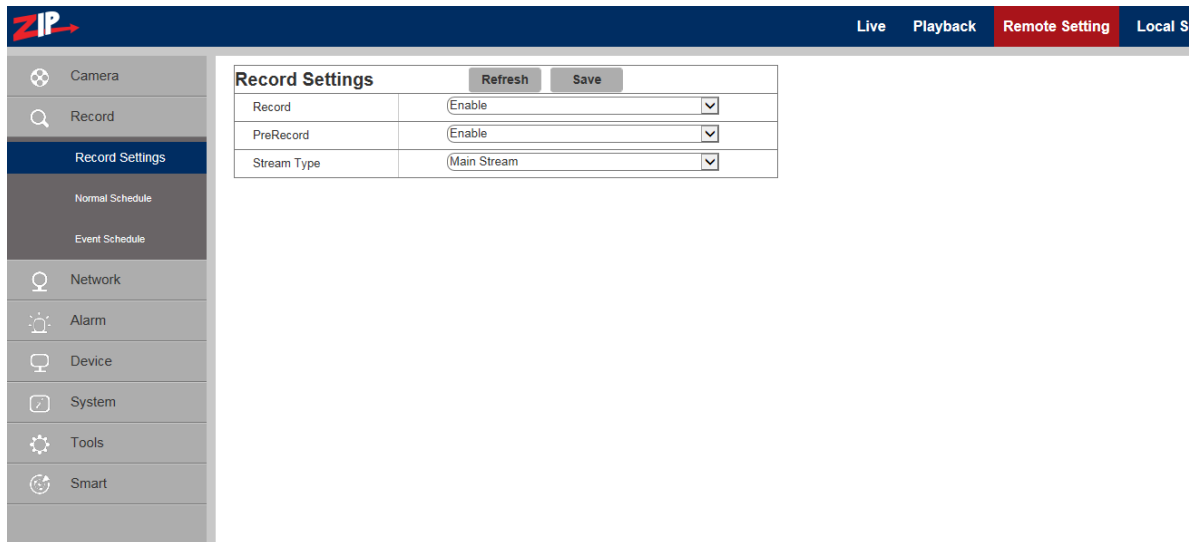
Non-ROI Level: Set ROI level in one bit stream; larger value indicates higher-quality image in ROI area (1~6 Levels)

Non-ROI Level: Sets frame rate out of the RIO area; smaller value indicates higher-quality image in ROI area. Range of frame rate is in relation to video standard and resolution. (Note: Different non-ROI frame rates may be allocated to different ROI areas, but the minimum value among them is used as the frame rate to be applied for the non-ROI area on the preview frame.)

4.2 Record

4.2.1 Record Settings

Click Record Settings in Record Menu



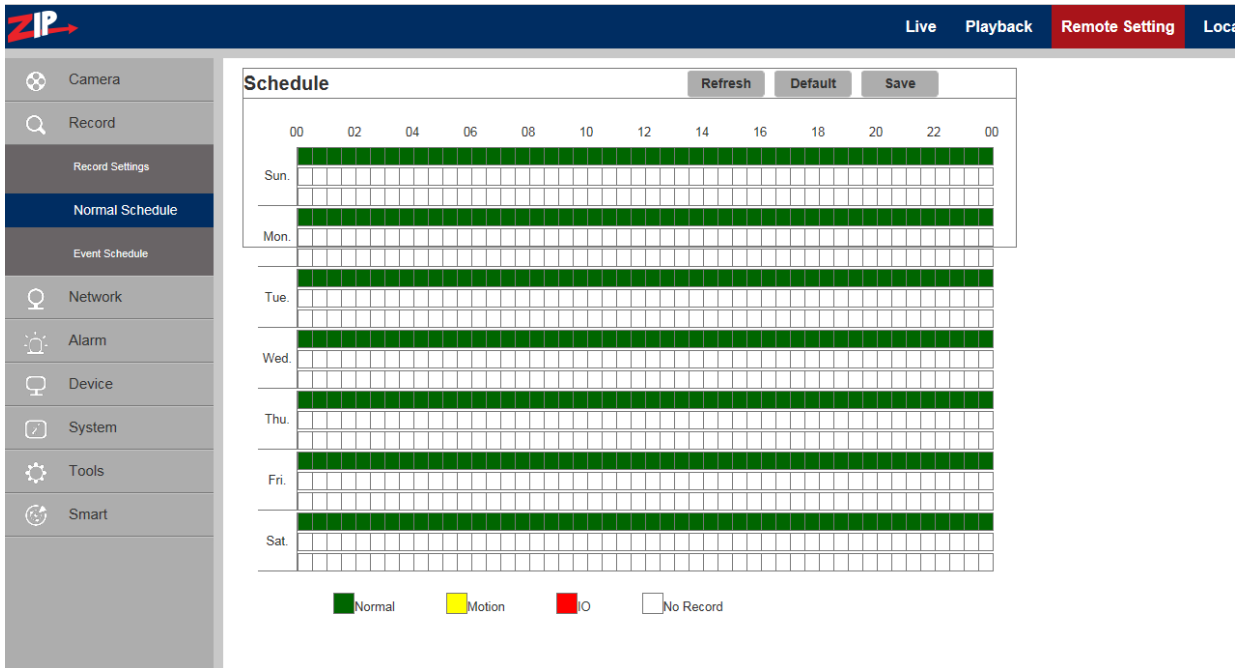
This function controls recording, pre-recording and the recording type (main stream or substream) on an SDHC card facility incorporated in the camera. The card must be Class 10 or above. If the camera does not have a Record and Playback menu option, then it will not have any SDHC card hardware included. SDHC cards are not included in cameras by default that have record/playback facilities, so reference must be made to product specifications at time of purchase.

Record: Enable / Disable Switches recording on or off to SDHC card if appropriate

PreRecord: Enable / Disable Captures a few seconds of recording using motion detection

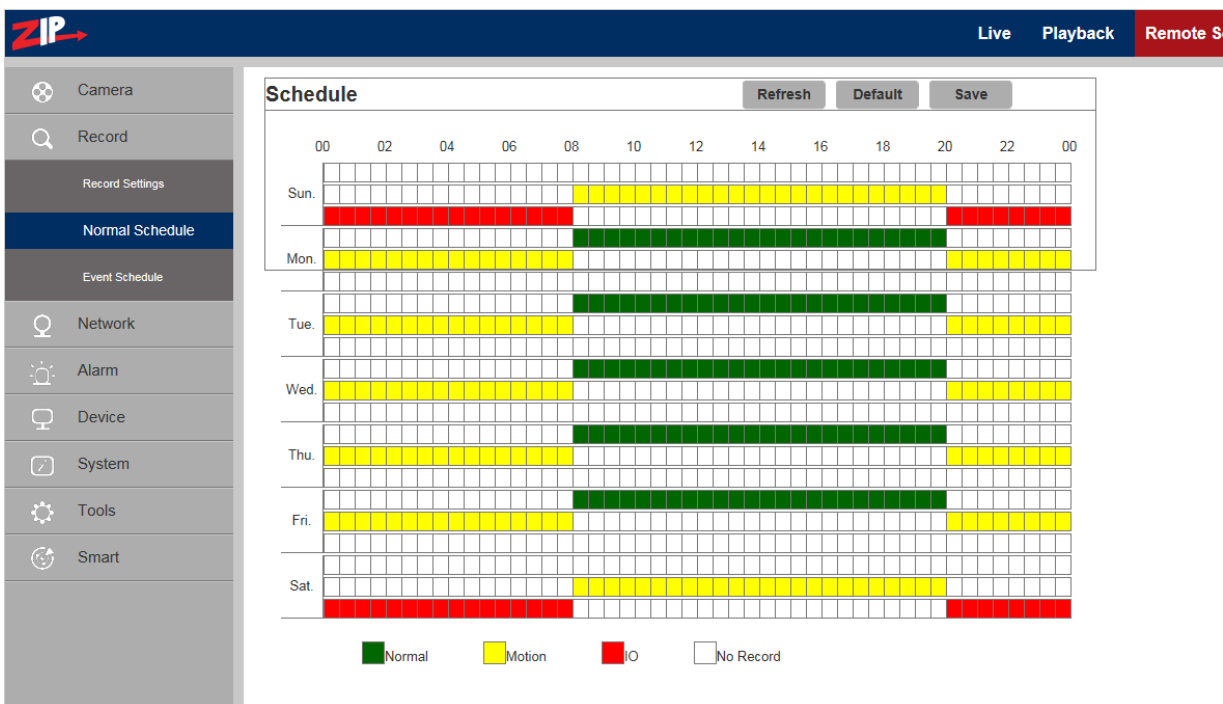
Stream Type: Main Stream / Sub Stream Mainstream settings are higher resolution so use more recording resources.

4.2.2 Normal Schedule



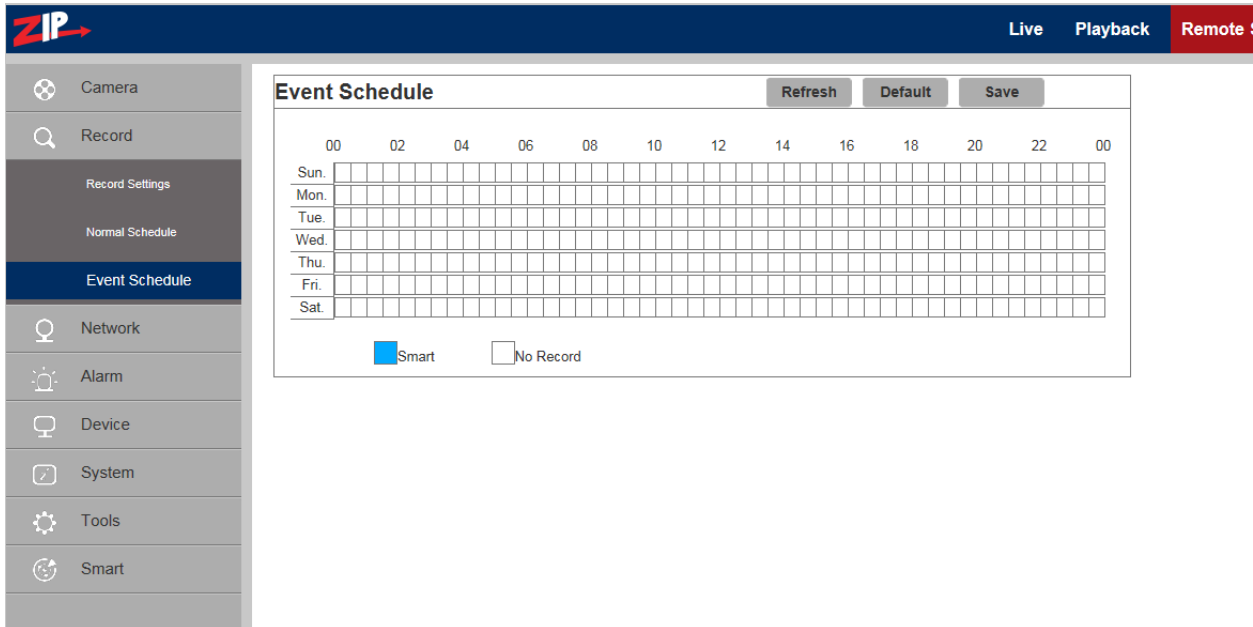
The schedule for setting up record information covers one week from Sunday through to Saturday, with each box representing a 30 minute recording time. For each day there are three lines covering 24x7 normal recording in green colour, motion recording in yellow colour and red in alarm mode recording. The schedule is set for continuous recording in green for the default. White boxes depict no recording.

Example: This shows weekend on alarm recording 00.00hrs – 0800hrs and 20.00 – 00.00hrs and Monday to Friday 00.00hrs – 08.00hrs and 20.00hrs – 00.00hrs motion recording and 08.00hrs – 20.00hrs continuous recording.



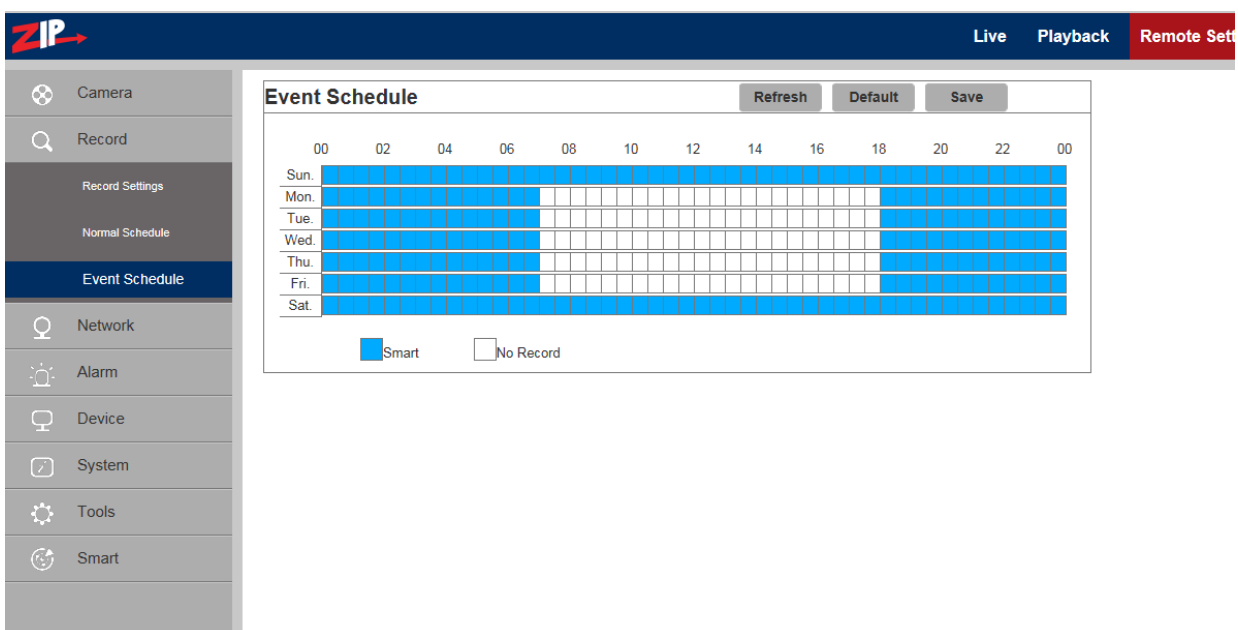
4.2.3 Event Schedule

The Event Schedule is for the SMART option only.



The Event schedule is for use with the SMART option which is documented in more detail later in this manual. Again each box represents a 30 minute period. The box will display in blue when clicked on for record and white for no record.

Example: This shows weekend on alarm recording all day and Monday to Friday 00.00hrs - 07.00hrs and 18.00hrs – 00.00hrs event recording.



4.3 Network

Click on Network Parameters in Network to open the following page:

4.3.1 Network Parameters

Network Setting	
Type	Static
Client Port	9988
HTTP Port	80
Mobile Port	18004
IP Address	192.168.0.248
Subnet Mask	255.255.255.0
Gateway	192.168.0.16
DNS 1	192.168.0.8
DNS 2	8.8.8.8
UPNP	Enable

Port Range: 1024-65535
(Media port, web port, mobile phone port)

Type: DHCP (Automatically Acquired), PPPOE, Static (Manually Configured – Default)

Client Port: Media (management) port Default = 9988

HTTP Port: Web port Default = 80

Mobile Port: Port for connection of mobile phone (Note: lower resolution quality)

IP Address: IP address (Default = 192.168.10.1)

Subnet Mask: Subnet Mask (Default = 255.255.255.0)

Gateway: Default gateway of the device

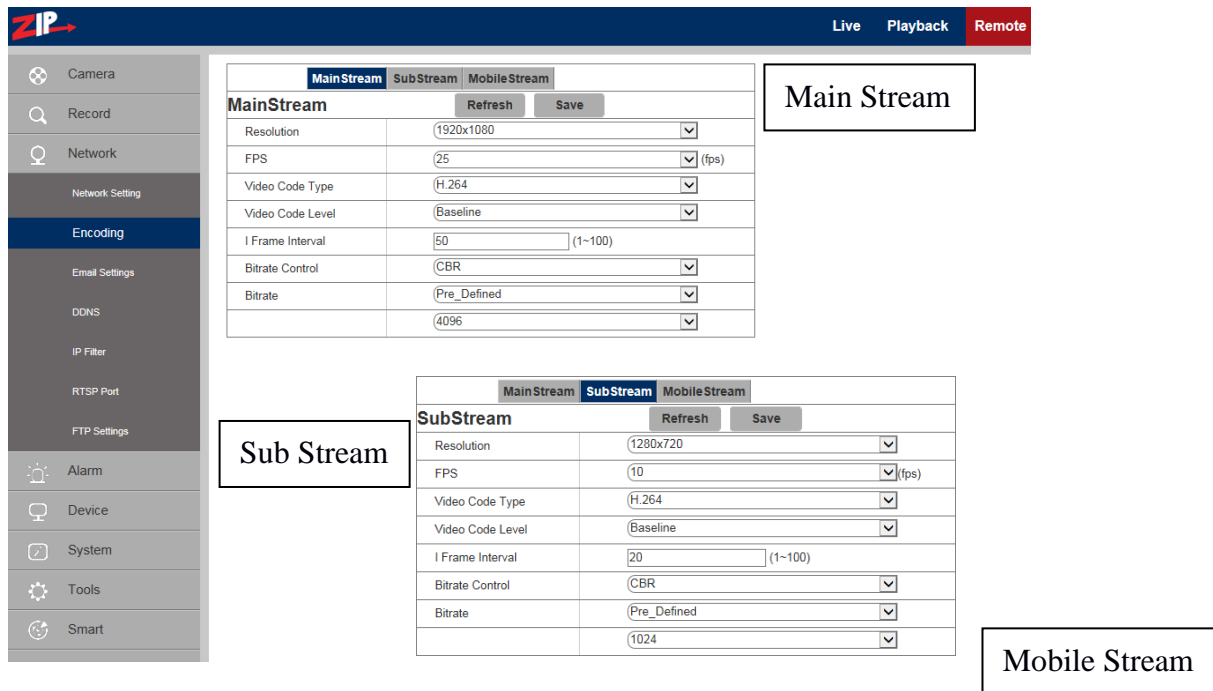
DNS 1: Preferred DNS Server **DNS 2:** Alternate DNS server

UPNP: Enable or disable UPNP function for the IP camera (Default = Enabled)

Note: To enable UPNP, the client/http/mobile phone port should be set to a value between 1024-65535.

4.3.2 Encoding

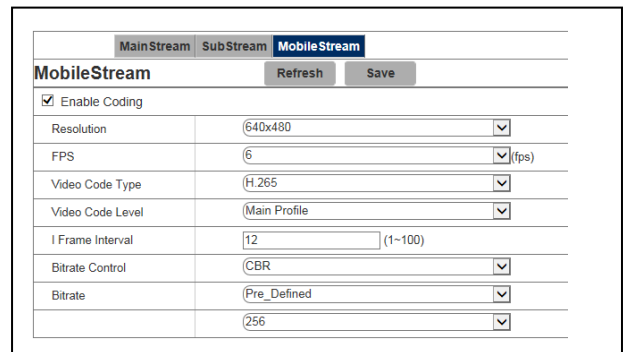
Click on Encoding in Network Menu to open the following page:



Bit Stream Options:

Main Stream / Sub Stream / Mobile Stream

You can set resolution, frame rate, video encoding, encoding level, audio, I frame interval, variable frame rate and bit stream size respectively for main stream, sub-stream and mobile stream



Resolution: Set resolutions respectively for encoding:

The resolutions for Main Stream are 2592×1520, 2048 x 1520, 2304 x 1296, 1920 x 1080.

The resolutions for Sub Stream are 1280 x 720, 640 x 480, 320 x 240.

The resolutions for Mobile Stream are 640 x 480, 320×240.

Note: The highest resolution for Main Stream 3MP cameras is 2048*1520 (frame rate at 30 fps).

The highest resolution for Main Stream 4MP cameras is 2592*1520 (frame rate of 20 fps).

The highest resolution for Main Stream 2MP cameras is 1920*1080 (frame rate of 30 fps).

FPS (Frame rate per sec): When refresh rate is 50Hz, the maximum available frame rate is 25 fps.

When refresh rate is 60Hz, the maximum available frame rate is 30 fps.

Video Code Type: Set video encoding compression to H265 or H264 for bit stream option.

Note: Zip DVRs require H264 compression but mobile phone app will use H265.

Audio: Enable audio for each bit stream.

I frame interval: The I frame interval is the number of frames before a new reference frame is created. You start with encoding a full frame and then holding changes to that frame on the next frame until the count is reached. The default setting is 50 for mainstream, 20 for substream and 12 for mobile stream. Note that lag time issues may occur when too many reference frames are set or alternatively when too many changes occur across each non reference frame. Therefore individual tests will provide the most accurate setting.

Bitrate control: Set constant (CBR) or variable bitrate (VBR). Although VBR is generally the best option regarding network bandwidth use, tests show that overall CBR is the recommended setting.

Bit stream: Set bit stream value by choosing fixed value or customising it.

Note: Range of Main bit stream is 256-8192 Default = 4096

Range of Sub-bit stream is 128-4096 Default = 1024

Range of Mobile bit stream is 8-1536 Default = 256

Video encoding and encoding level are unavailable in setting page of IP camera of 2MP Series.

4.3.3 E-Mail Configuration

If the IP camera has Email options, then this can be used, but it is only applicable to this camera channel. The NVR or DVR used, may have a global Email facility that avoids replication for each channel, so this option may not be the best option to use.

The screenshot displays the 'Email Settings' configuration page in the ZIP IPC web interface. The sidebar on the left contains navigation options: Camera, Record, Network, Network Setting, Encoding, Email Settings (highlighted), DDNS, IP Filter, RTSP Port, FTP Settings, and Alarm. The main content area features the 'Email Settings' form with the following fields:

Email Settings		Refresh	Save
Email	Enable		
SSL	Enable		
SMTP Port	587		
SMTP Server	smtp.gmail.com		
Sender	sysq100@gmail.com		
Sender Password		
Receiver	john.gower@systemq.com		
Interval	3Min		

Below the form is a 'Test Email' button. A callout box labeled 'Test Email Settings' points to this button and a separate window showing a success message: 'Email Tested Succeeded!'.

Email Setup: Email service setting - used with the alarm function to upload images to mail server.

Enable Email: Enable or disable Email function.

SSL: ON/OFF Security setting used by Email service provider

SMTP Port: The default port number is 25 - Email server port used by Email service provider

SMTP Server: Enter the address of mail server - SMTP port used by Email service provider

Sender: Address of sending Email account

Sender Password: Password of sending Email account

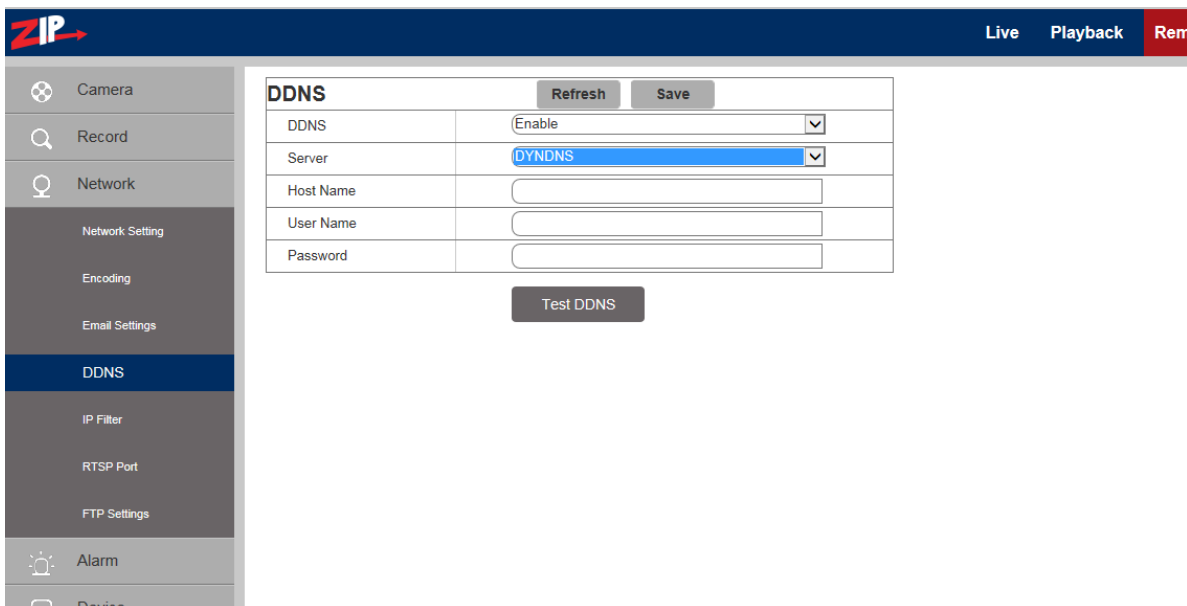
Receiver: Address of receiving Email account

Interval: Time interval for sending mail (1 minute, 3 minutes, 5 minutes, 10 minutes) .

Test Email: Click it to test whether the mailbox is configured properly by sending a test mail to the recipient's mailbox.

4.3.4 DDNS Configuration

This option allows the camera to use a third party DDNS service to determine the current IP address. This does not use the IPPOSTCODE service.



DDNS: Enable or disable it.

Server: Select DYNDNS or NO-IP

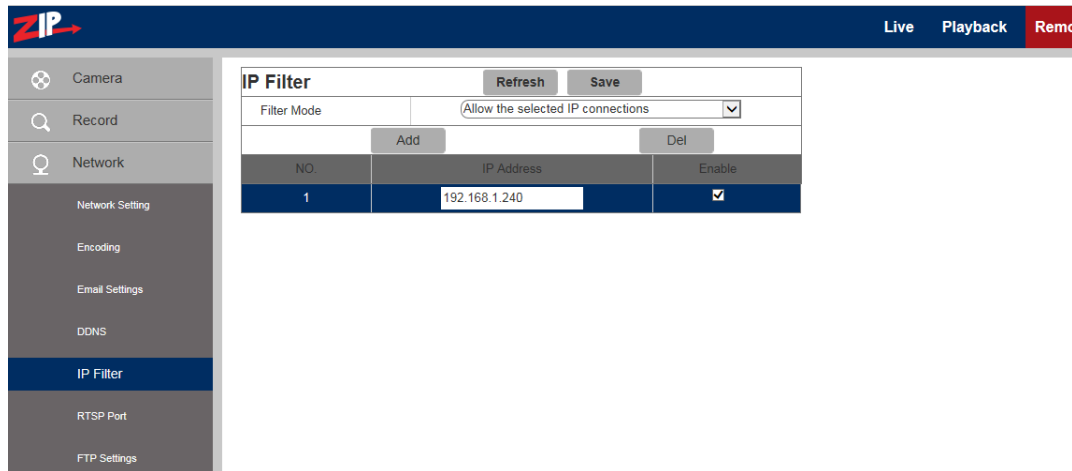
Host Name: Enter the name of active server

User Name: Name of the user

Password: Password of the user Use the Test DDNS button to test service

4.3.5 IP Filtering

Select IP Filter to allow, restrict or block IP connections.



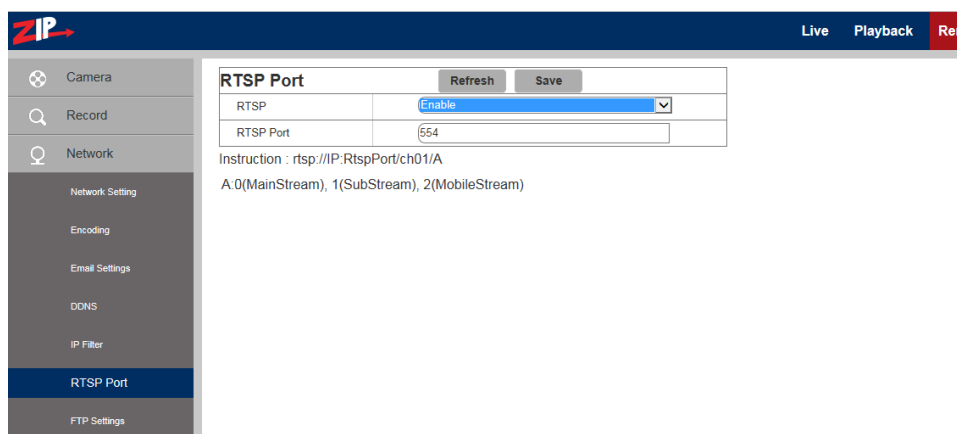
Filter mode: Three modes are available - Allow all IP connections,
 Allow the selected IP connections,
 Block the selected IP connections.

Add: Add any allowed or blocked IP addresses

Delete: Delete any IP address no longer required

4.3.6 RTSP

Select RTSP to open the Realtime Streaming Port. This port must be open to view video streaming.



RTSP: Enable or disable RTSP. RTSP is enabled by default.

RTSP Port: The RTSP port is 554 by default. The NVR/DVR RTSP port is 1240 by default. On a remote connection these ports must be unique on the same network. This port can be changed

to another value between 1024 and 65535. Modification of the port number will restart the system.

Special Operation Instructions:

For IP cameras in 3MP/4MP/5MP/8MP series you can call the RTSP stream using e.g VCL player by entering

rtsp://<User>:<Password of IP camera>@<IP Address>:<Port No.>/ch01/<x>

Example: **rtsp://admin:777777@192.168.0.248:554/ch01/0**

Where User:Password = User and password set in IP camera

IP address = IP address of IP camera

Port No. = RTSP port set in IP camera

ch01 = number of channels (set to 01 as default for IP camera)

x = 0 (mainstream), 1(substream), 2 (mobile phone stream)

For IP cameras in 2MP series you can call the RTSP stream using e.g VCL player by entering

rtsp://<User>:<Password of IP camera>@<IP Address>:<Port No.>/<x>

Example: **rtsp://admin:777777@192.168.0.248:554/ 0**

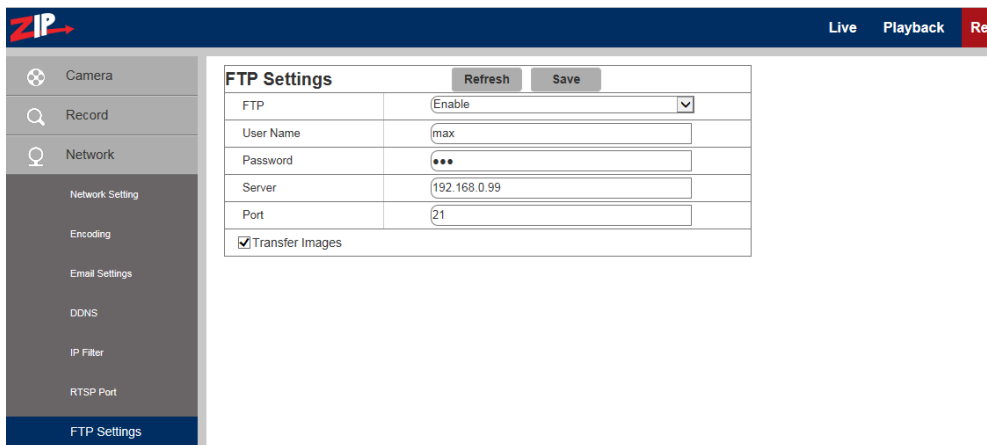
IP address = IP address of IP camera

Port No. = RTSP port set in IP camera

x = 0 (mainstream), 1(substream), 2 (mobile phone stream)

4.3.7 FTP

Click on FTP menu to open the following page. You will need an FTP server to use this. Note if FTP is switched on then the Email service will not run.



FTP: FTP service setting - used with alarm function to upload images or videos to an FTP server.

FTP: Enable or disable it.

User Name: The user name for access to FTP service

Password: The password for access to FTP service

FTP Server: Enter the IP address of FTP server.

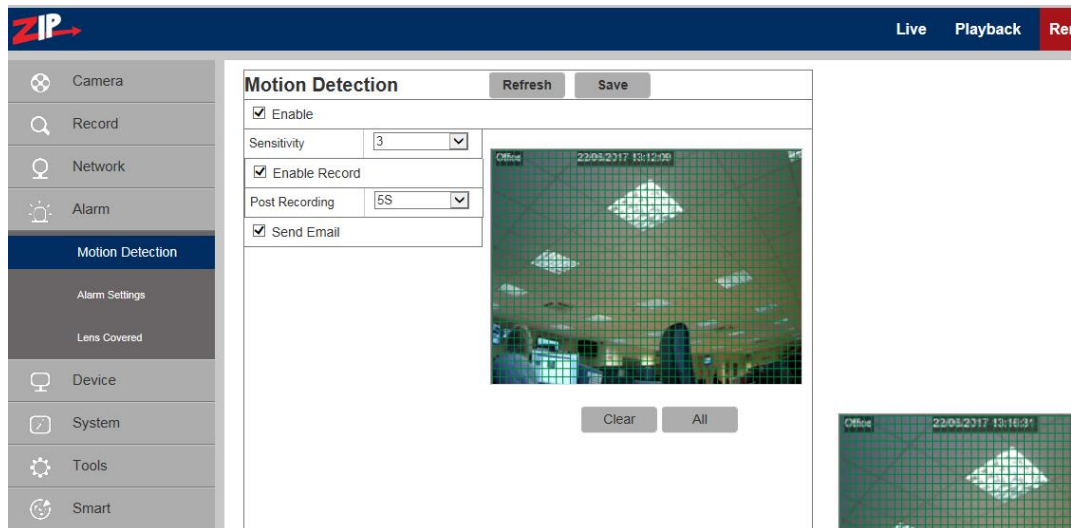
Port: FTP service port number; the default number is 21.

Transmit Images: Click on box to transfer images.

4.4 Alarm

4.4.1 Motion Detection

Click on Motion to open Motion Detection menu.



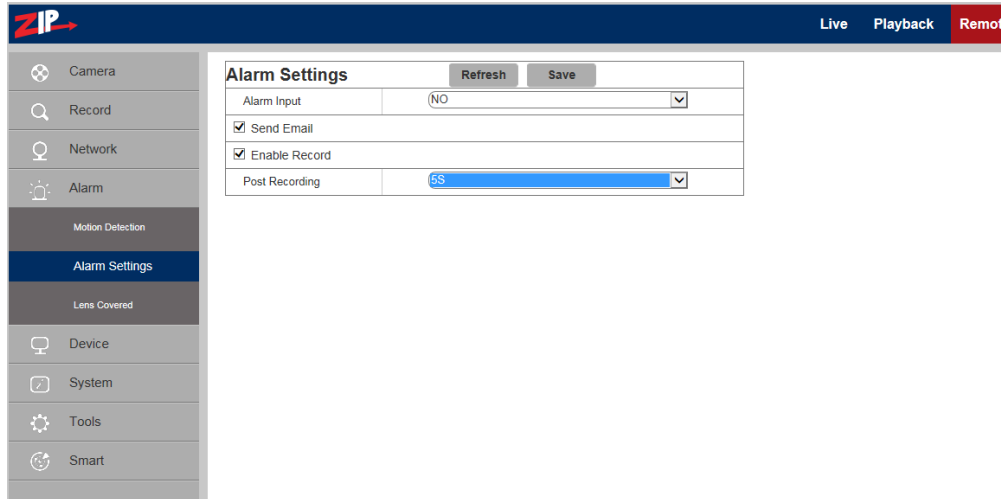
Procedure for setting Motion Detection

1. Check Enable Motion Detection.
2. Press down and hold the left mouse button and drag mouse over area for motion detection.
3. Set the sensitivity for motion detection (1 ~ 8 and the larger the value the higher the sensitivity).
4. Used with SMTP to enable mail delivery.
5. Click on Save to apply the settings.

(Note: When any object moves within the target area, a letter "M" in green colour will be displayed on the preview frame)

4.4.2 Alarm Settings

Click on Alarm Settings in Alarm menu:



Alarm Input: Select NO (Normally Open), NC (Normally Closed) or Off

Send Email: Click on Send Email box to send email

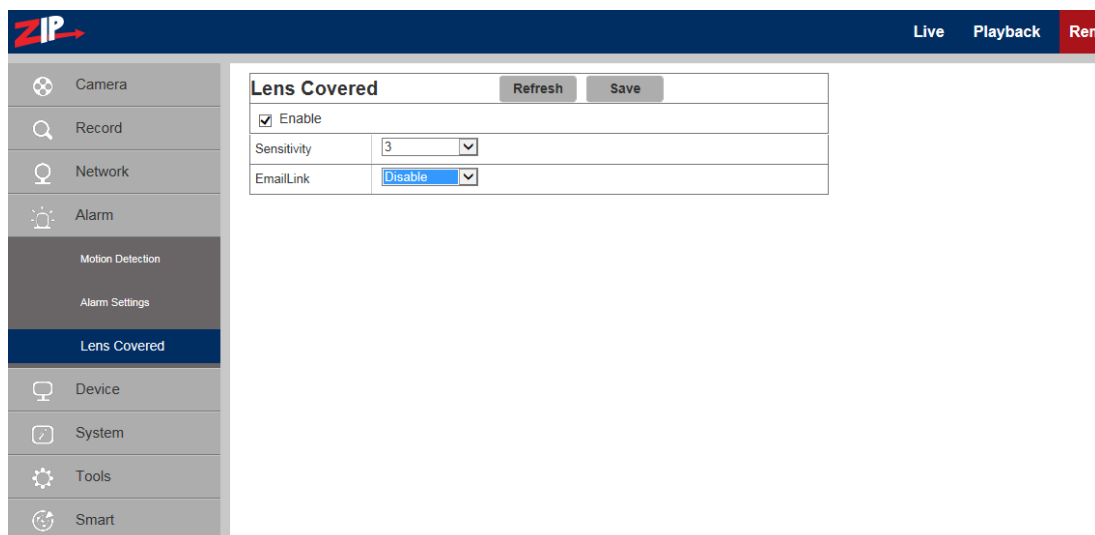
Note if FTP is switched on then the Email service will not run.

Enable Record: Click on Enable Record for recording to SD card

Post Recording: Select additional recording time (5, 10, 20, 30 seconds)

4.4.3 Lens Covered

Click on Lens Covered in Alarm Parameter menu.



Enable: Tick Enable (checked by default) to activate Sensitivity Level and Email Link options.

Sensitivity: Set security level for lens blocking (1~8). The higher value the higher the security level.

Email Link: Disabled by default. After enabling may be used with SMTP to enable Email.

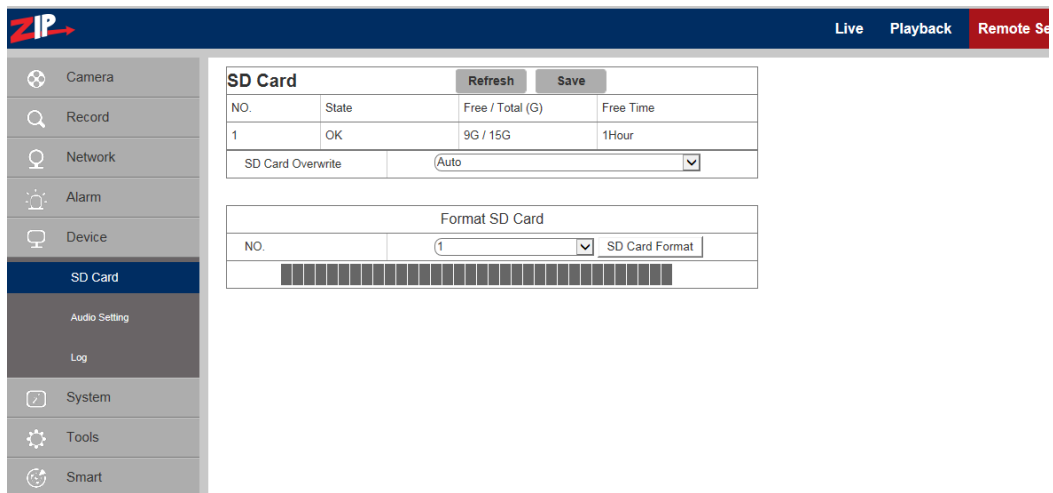
4.5 Device

This menu includes optional functions i.e SD Card, Audio Setting and Log information. (Note that these menu items may be suppressed if they are not supported on the camera).

4.5.1 SD Card (optional function – option available if menu is displayed)

(If the camera menu displays SD card function this does not imply SD card is fitted. Always refer to specifications).

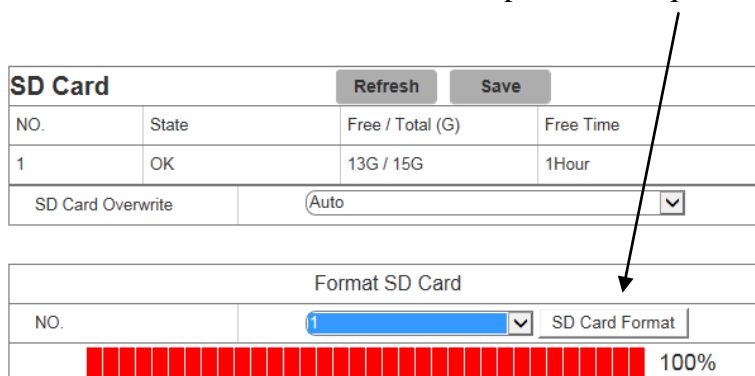
Click SD Card in the Device menu.



Insert SD card in camera and system will auto detect the available capacity and total capacity of the SD card and give an approximate remaining record time.

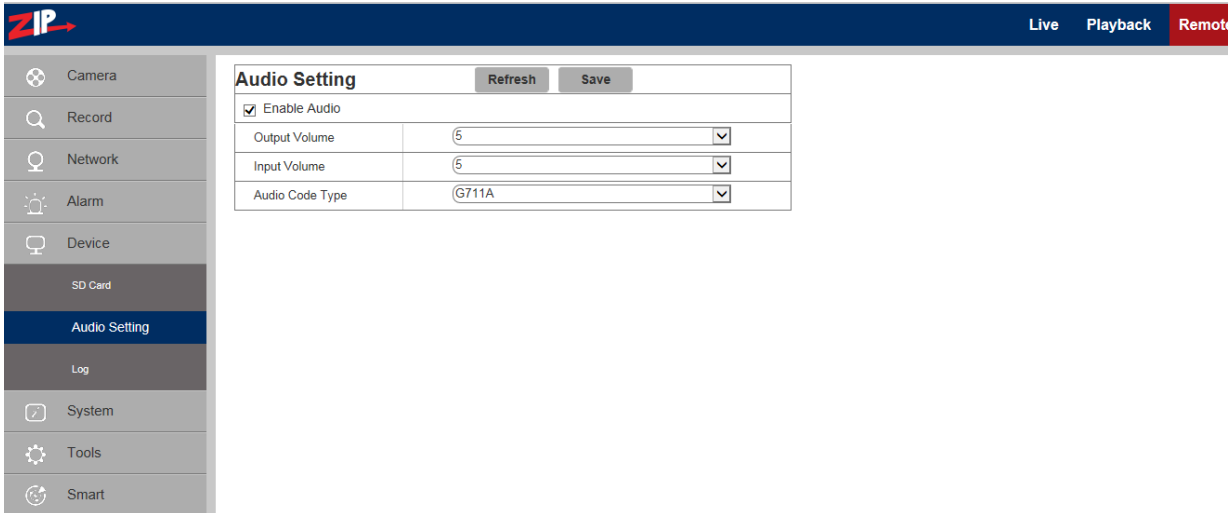
SD Card Overwrite: When the Auto option (default) is set, the SD card will overwrite old data when full, but when set to Close, the SD card will stop recording when full.

SD Card Format: If you click on the SD Card Format box the SD card will be formatted and the display below the box will confirm when it has completed the request.



4.5.2 Audio (optional function – available if audio lead on camera)

Click on Audio in Device menu. Click the Enable Audio box to expand menu options.



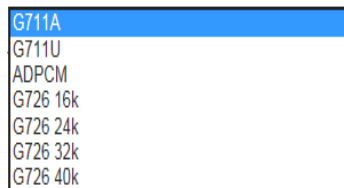
Procedure for setting Audio

Enable Audio: Check that Enable Audio has been ticked.

Output Volume: Set Output Volume (ranging 0~10).

Input Volume: Set Input Volume (ranging 0~10).

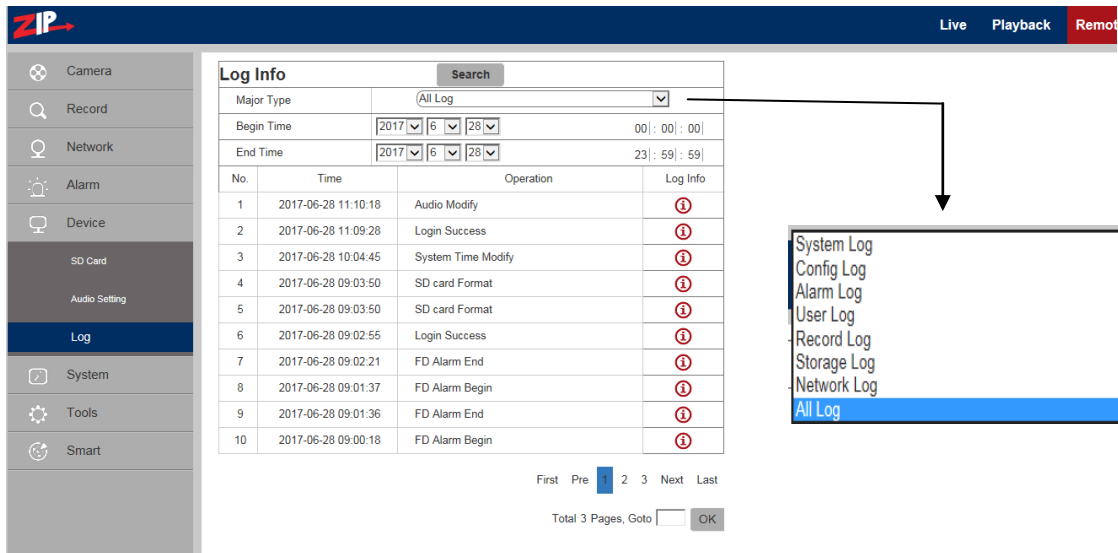
Audio Code Type:
Select codec required



(Note: For application of audio function, the audio option in Network > Encoding menu is automatically enabled).

4.5.3 Log

Click on Log in Device menu.



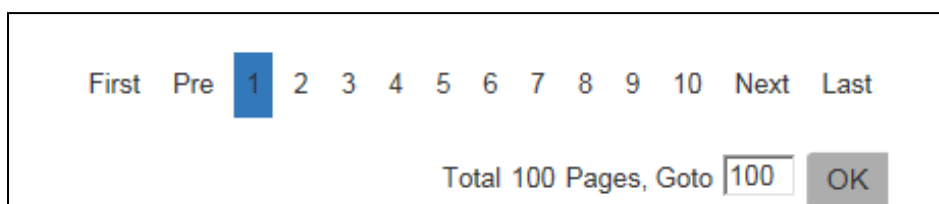
Major Type: There are eight types of logging information held and include - System Log, Config Log, Alarm Log, User Log, Record Log, Storage Log, Network Log and All Log. Each page of the log can display up to 10 records and up to 100 pages can be held at anyone time. Therefore a total of 1000 log records can be held. Select Log type required.

Begin Time: Click on Year, Month and Day to select search start date.
Click on Hour, Minute and Seconds to select search start time.

End Time: Click on Year, Month and Day to select search end date.
Click on Hour, Minute and Seconds to select search end time.

Search: Click to retrieve and display related logs. Up to 100 pages of 10 records per page can be held in the camera and each time an additional log entry is made, it is added to the log or if the log is full, it overwrites the oldest entry.

There are some further options available when the search has completed:
Either use page number, first, previous, next or last or enter page number in GoTo box.

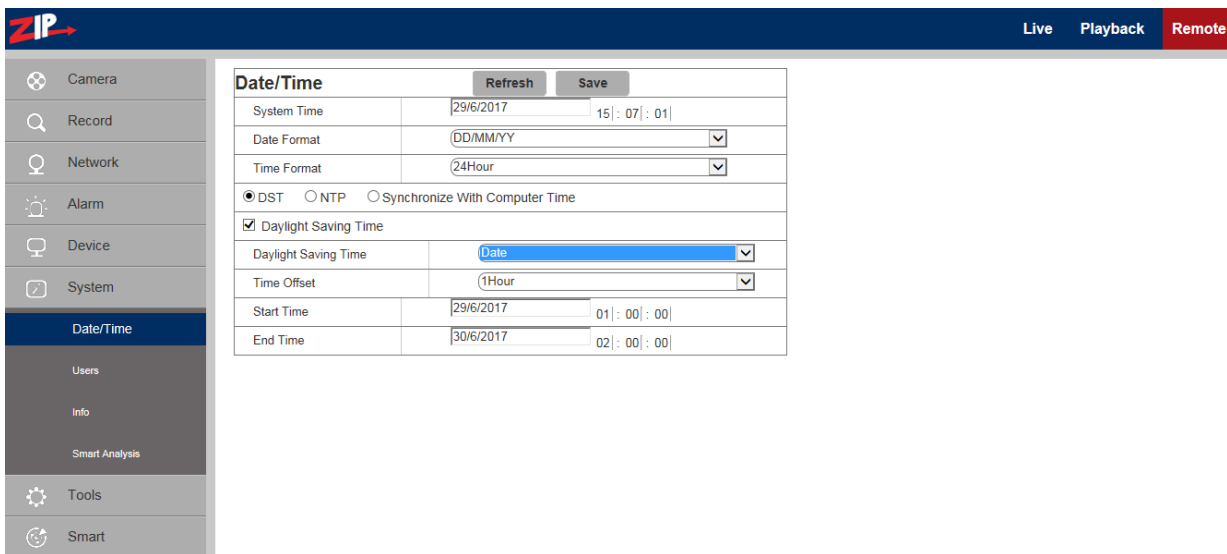


4.6 System

System parameters include Date and Time Information, User Setup Information, Camera System Information and Smart Analysis Reports.

4.6.1 Date and Time Information

Click on Date/Time in System Parameters menu.



The device time, system time, date format and time format contained in the Date and Time information can be manually set and saved.

System Time: Click in date box and select correct date in calendar. Click on hour, minute and second column to set correct time

Date Format: Select from DD/MM/YY, YY-MM-DD or MM/DD/YY

Time Format: Select 24 Hour or 12 Hour

There are three automatic time correction functions provided in this camera.

DST (Daylight Saving Time), NTP (Network Time Protocol) and Synchronize With Computer Time

<input checked="" type="radio"/> DST <input type="radio"/> NTP <input type="radio"/> Synchronize With Computer Time			
<input checked="" type="checkbox"/> Daylight Saving Time			
Daylight Saving Time		<input type="text" value="Week"/>	
Time Offset		<input type="text" value="1Hour"/>	
Start Time	<input type="text" value="Mar."/> <input type="text" value="The last"/> <input type="text" value="Sun."/>	<input type="text" value="01 : 00 : 00 "/>	
End Time	<input type="text" value="Oct."/> <input type="text" value="The last"/> <input type="text" value="Sun."/>	<input type="text" value="02 : 00 : 00 "/>	

DST: Check Daylight Savings Time (DST) option to enable DST correction. The device will correct the time, based on the time deviation changes in March and October each year.

Date/Time		Refresh	Save
System Time	30/6/2017	11	: 38 : 33
Date Format	DD/MM/YY		
Time Format	24Hour		
<input type="radio"/> DST <input checked="" type="radio"/> NTP <input type="radio"/> Synchronize With Computer Time			
<input checked="" type="checkbox"/> Enable NTP			
Server Address	time.windows.com		
Time Zone	GMT		

- time.windows.com
- time.nist.gov
- pool.ntp.org

- GMT-12:00
- GMT-11:00
- GMT-10:00
- GMT-09:00
- GMT-08:00
- GMT-07:00
- GMT-06:00
- GMT-05:00
- GMT-04:30
- GMT-04:00
- GMT-03:30
- GMT-03:00
- GMT-02:00
- GMT-01:00
- GMT
- GMT+01:00
- GMT+02:00
- GMT+03:00
- GMT+03:30
- GMT+04:00
- GMT+04:30
- GMT+05:00
- GMT+05:30
- GMT+05:45
- GMT+06:00
- GMT+06:30
- GMT+07:00
- GMT+08:00
- GMT+09:00
- GMT+09:30

NTP:

Check Enable NTP option, input the address of time server and choose a time zone and then save the setting. The system will correct time in accordance with the time server. There are three time servers that you can select from.

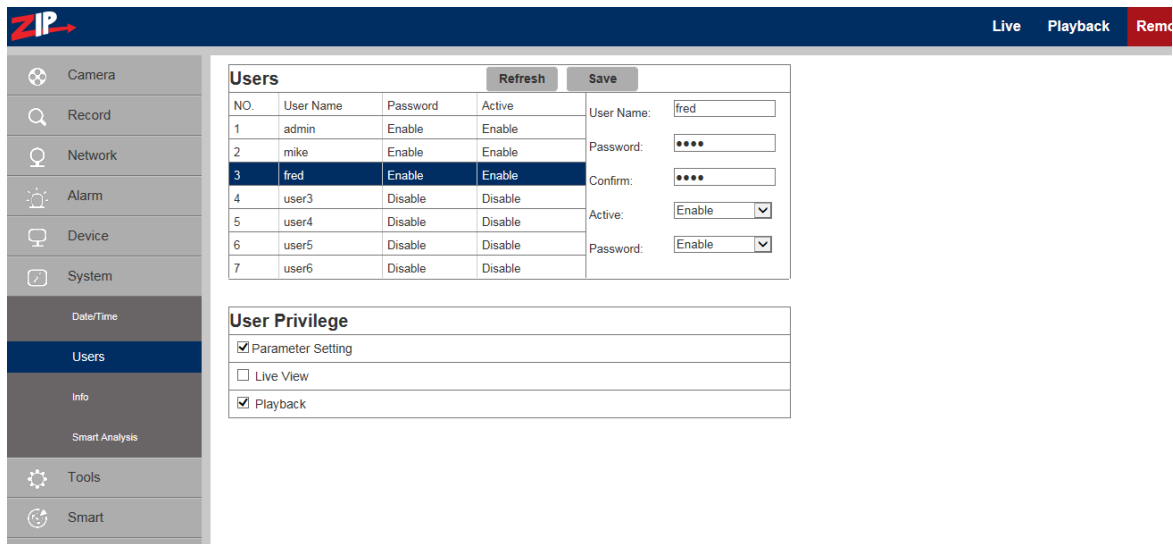
Date/Time		Refresh	Save
System Time	3/7/2017	09	: 02 : 31
Date Format	DD/MM/YY		
Time Format	24Hour		
<input type="radio"/> DST <input type="radio"/> NTP <input checked="" type="radio"/> Synchronize With Computer Time			
System Date	2017-07-03		
Time	09:03:44		

Synchronise with Computer Time:

Check Synchronize With Computer Time option and the camera will use the PC as a time server to correct the date and time.

4.6.2 Users

Click on Users in System Parameters menu. This allows you to set user access authority and login user and password settings. By default there is only one administrator (admin) and has full permissions and controls up to six users. The six users can be restricted from making parameter settings, live viewing and reviewing playback.



admin: There is only one admin user and they have full user privileges. The admin user can set up to six additional users with unique usernames and passwords. The User Privilege box does not display for the admin user.

user1 ~ user6: Up to six users can be setup with up to 12 character username and password.

Active: Enable or disable the user.

Password: Enable or disable password.

User Privilege

Parameter Setting: Tick option to allow camera menu access and changes

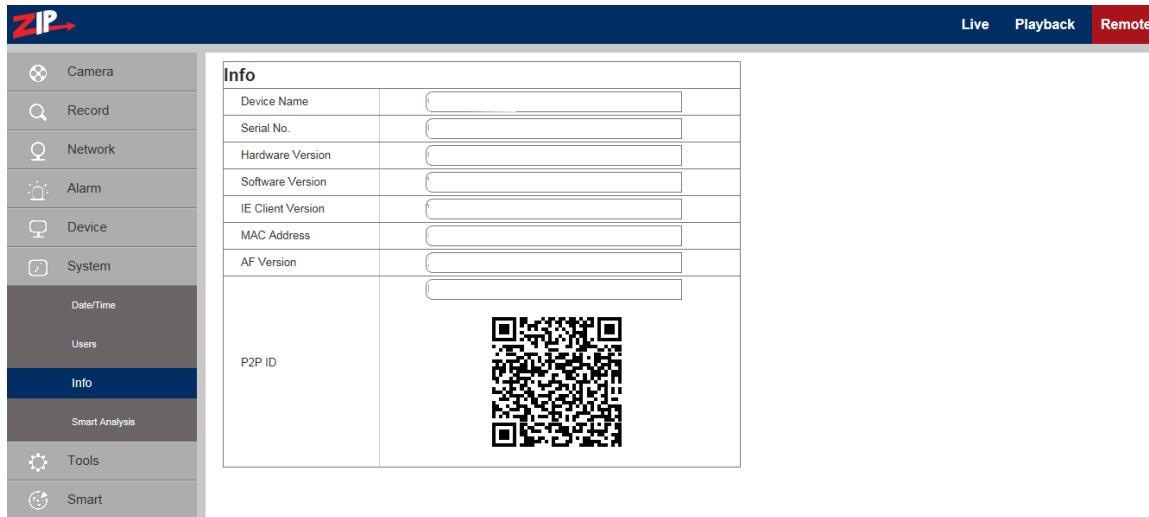
Live View: Tick option to allow live viewing of video stream

Playback: Tick option to allow access to playback feature

Save: Save settings

4.6.3 Information

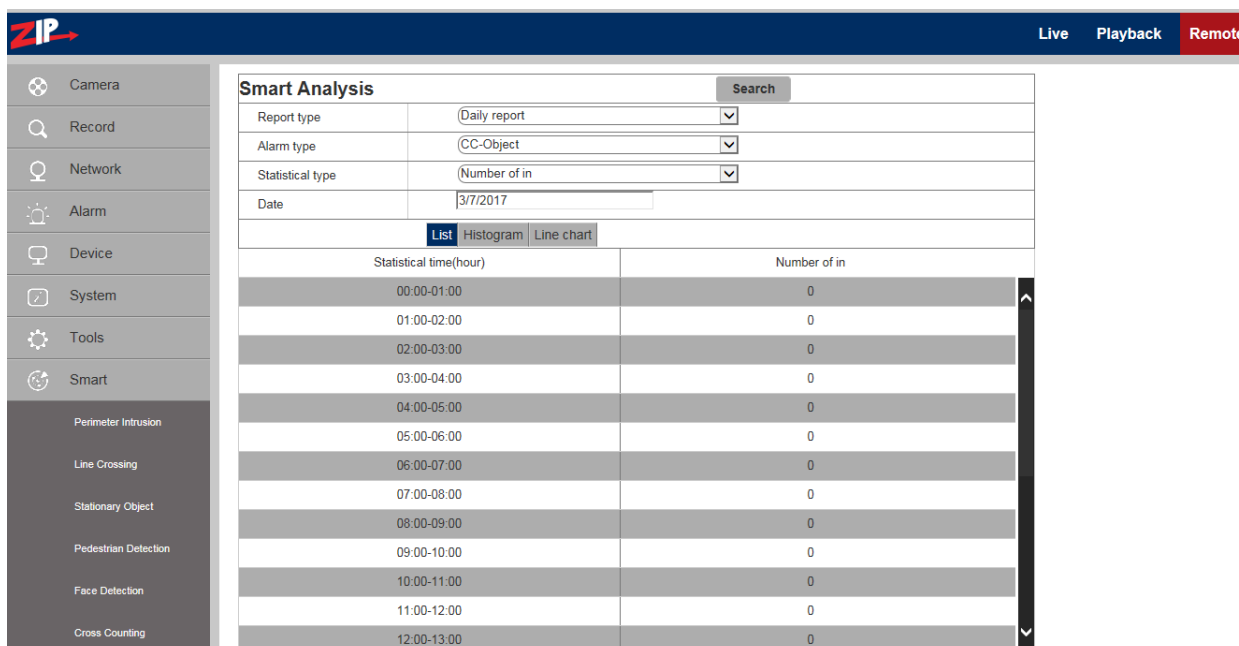
Click on Info in System menu.



This menu describes the system information held on the camera including the device name, serial number, Hardware Version, Software Version, I.E Client version, MAC address and AF version. You can use the P2P QR code for mobile phone parameter setup.

4.6.4 Smart Analysis (CC)

The Smart Analysis menu is used to display the Smart analysis results in various formats for Cross Counting. Refer to the menu section 4.8.6 Cross Counting (CC) for initial setup and analysis options.

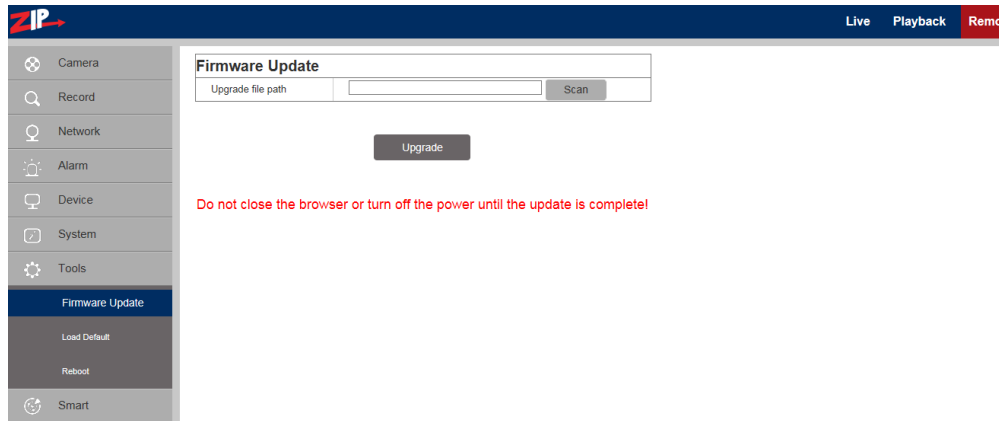


4.7 Tools

This menu includes Firmware Update, Load Default and Reboot options.

4.7.1 Firmware Update

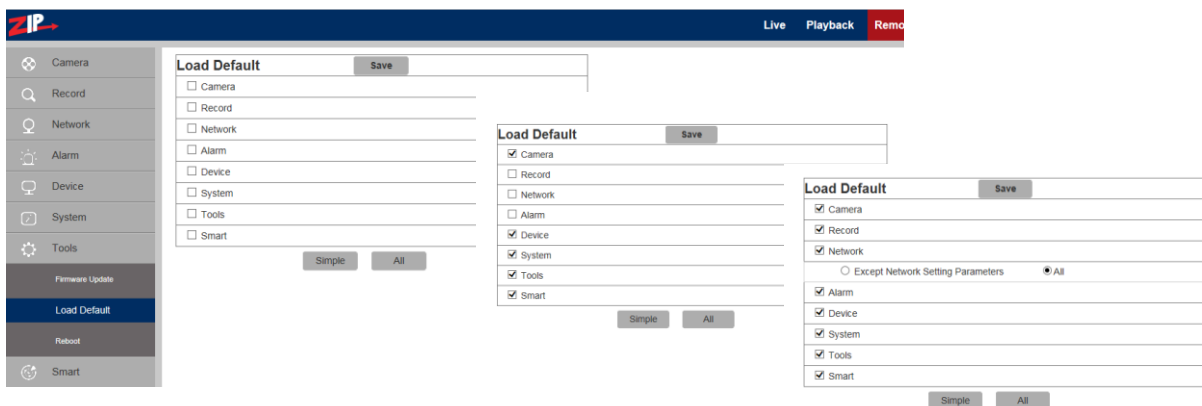
Click on Firmware Update in Tools menu.



Scan: Click on scan button to locate Zip folder storing firmware version
Update will be unavailable if the update files do not match the target device.

4.7.2 Load Default

Click on Load Default in Tools menu.



There are three default options. Select individual menus, simple group option or all menus.

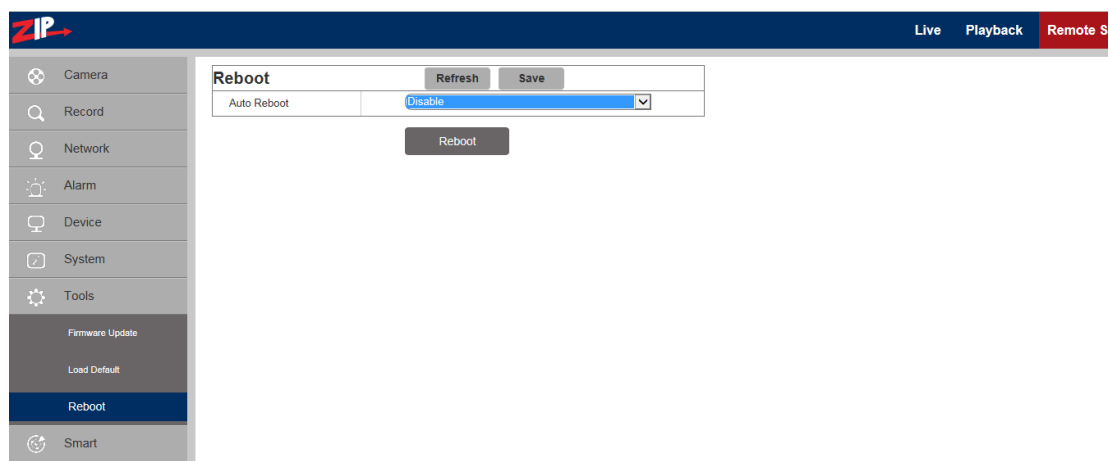
1. Click on boxes to select menus to be defaulted.
2. Click on Simple option to select Camera, Device, System, Tools and Smart.
3. Click on All to select all menus with an option to exclude Network settings if required.

Save: Defaults menus selected.

4.7.3 Reboot

Click on Reboot in Tools menu

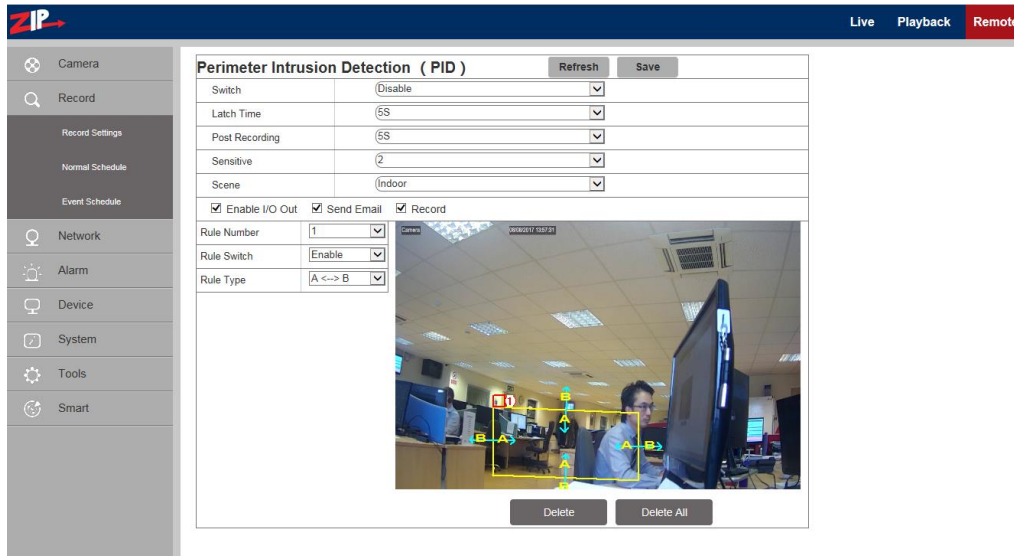
Click on Auto Reboot down arrow key and select Enable, then click Reboot.



4.8 Smart

4.8.1 Perimeter Intrusion

Click Perimeter Intrusion in the Smart menu.



The purpose of this option is to record footage, send an Email and log information, when crossing from A to B, from B to A or in both directions within a defined area, mapped on the display picture.

Switch: Enable/Disable option

Latch Time: The external output alarm alarm time can be set to 5, 10, 20 and 30 seconds.

Post Recording: When the alarm is triggered this option sets the time period for recording after the trigger expires. The time period is 5, 10, 20 or 30 seconds. The recording is made to the storage device used by the camera, so the playback facility is dependent on storage space available.

Sensitive: Sensitive level is in the range of 1 ~ 4 with a default of 2. If the level is set higher then movement is more easily detected however false activation is also more likely. So always best to start with default setting.

Scene: Select either indoor or outdoor.

Enable I/O Out: Triggers alarm if ticked.

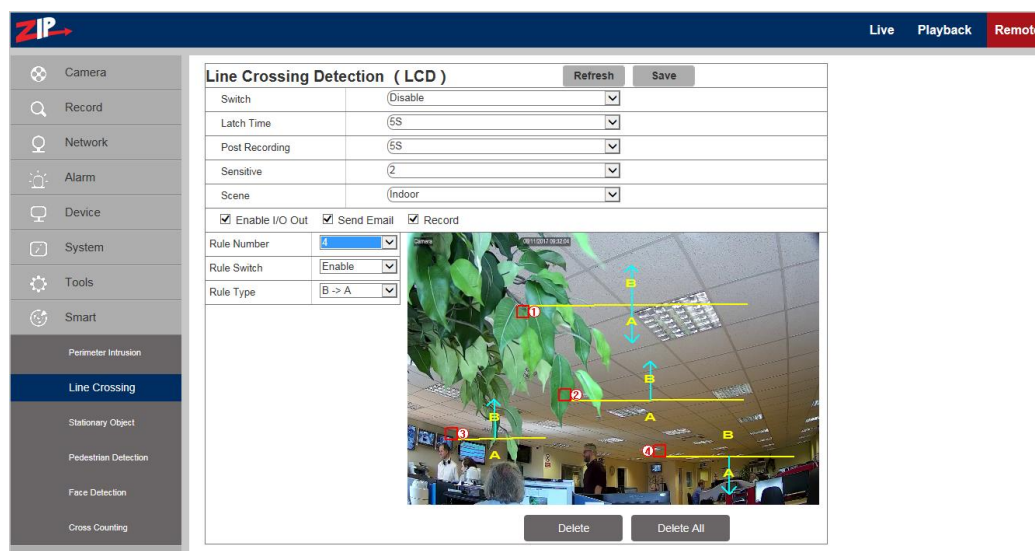
Send Email: If alarm triggers, it sends the Email notification. The Email setup needs to be set in Remote Setting – Network – Email.

Record: Set to enable record function.

Rule Number: Up to 4 different rules may be set by selecting rule numbers 1 ~ 4.

Rule Type: Setting up a rule. A->B means can detect A to B direction moving, B->A means can detect B to A direction moving, A <->B means can detect two directions moving.

4.8.2 Line Crossing Detection (LCD)



The purpose of this option is to record footage, send an Email and log information, when crossing a line from A to B, from B to A or in both directions as mapped on the display picture. Up to 4 rules can be set.

Switch: Enable/Disable option

Latch Time: The external output alarm latch time can be set to 5, 10, 20 and 30 seconds.

Post Recording: When the alarm is triggered this option sets the time period for recording after the trigger expires. The time period is 5, 10, 20 or 30 seconds. The recording is made to the storage device used by the camera, so the playback facility is dependent on storage space available.

Sensitive: Sensitive level is in the range of 1 ~ 4 with a default of 2. If the level is set higher then movement is more easily detected however false activation is also more likely. So always best to start with default setting.

Scene: Select either indoor or outdoor.

Enable I/O Out: Triggers alarm if ticked.

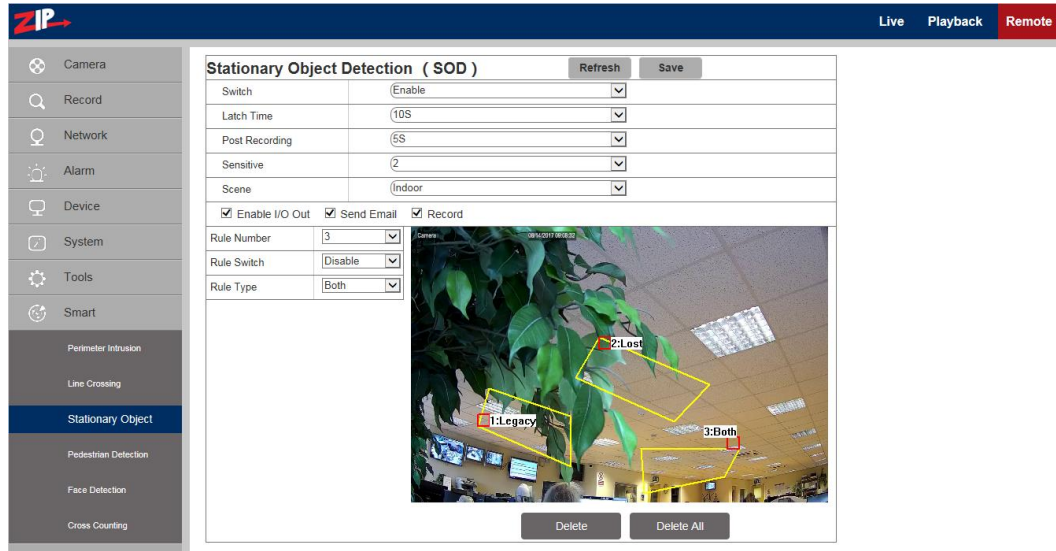
Send Email: If alarm triggers, it sends the Email notification. The Email setup needs to be set in Remote Setting – Network – Email.

Record: Set to enable record function.

Rule Number: Up to 4 different rules may be set by selecting rule numbers 1 ~ 4.

Rule Type: Setting up a rule. A->B means can detect A to B direction moving, B->A means can detect B to A direction moving, A ↔ B means can detect two directions moving.

4.8.3 Stationary Object Detection



The purpose of this option is to draw a box in an area of the picture to detect when an object is removed or added and to trigger an alarm, send an Email and record when this happens.

Switch: Enable or Disable option

Latch Time: The external output alarm latch time can be set to 5, 10, 20 and 30 seconds.

Post Recording: When the alarm is triggered this option sets the time period for recording after the trigger expires. The time period is 5, 10, 20 or 30 seconds. The recording is made to the storage device used by the camera, so the playback facility is dependent on storage space available.

Sensitive: Sensitive level is in the range of 1 ~ 4 with a default of 2. If the level is set higher then movement is more easily detected however false activation is also more likely. So always best to start with default setting.

Scene: Select either indoor or outdoor.

Enable I/O Out: Triggers alarm if ticked.

Send Email: If alarm triggers, it sends the Email notification. The Email setup needs to be set in Remote Setting – Network – Email.

Record: Set to enable record function.

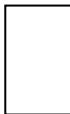
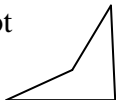
Rule Number: Up to 4 different rules may be set by selecting rule numbers 1 ~ 4.

Rule Type: There are three rule types, Legacy, Lost or Both. Legacy refers to items that are present in the picture, Lost refers to items no longer in the picture and Both refers to both options.

Special Note: When this function is enabled, you will need to wait between 30 seconds and one minute for the search to complete, during which the function is locked. Also you cannot save the function when Pedestrian Detection, Live Crossing Detection or Stationary Object Detection are enabled.

4.8.4 Pedestrian Detection (PD)

Purpose of Function

The purpose of this option is to draw a box in an area of the picture, so that when a moving object enters the detection area, the program extracts the moving foreground to analyse whether there is a human involved. The box must be a convex quadrilateral e.g.  and not  and must contain the whole body.

Trigger Conditions:

1) Minimum area for targeting movement:

The minimum target areas that can be detected respectively under the detection levels from small to large, account for about 4.0%-7.4% of the whole picture size. To aid sizing of the detection area box you will see two red boxes in top left hand corner of the picture. These boxes vary in size when clicking on the Target size parameter either Small, medium or Large. The minimum target area will be between the area size between the two red boxes.

2) The pedestrians must be within the scope of the drawn detection area.

3) The pedestrians must be moving.

Switch: Click to Enable or Disable option

Latch Time: The external output alarm latch time can be set to 5, 10, 20 or 30 seconds.

Post Recording: After an alarm is triggered, the optional record time for continuous video recording can be set to 5, 10, 20 or 30 seconds.

Target Size: The parameter scope for detection level includes Small, Medium and Large, with a default value of Medium. The Small parameter is used for a detection area further away that will require a smaller detection box. The Large target size will generally require a larger detection box because the subject will be closer.

Scene: Indoor only.

Enable I/O Out: whether the triggered alarm has I/O output.

Send Email: If an alarm is triggered, an Email will be sent as a notice, with corresponding Emails set in Remote Setting-Network-Email.

Record: whether a video is recorded.

Rule Number: Only one rule can be set

Rule Switch: Enable / Disable

Rule Type: Normal only.

How Pedestrian Detection Works:

Below is the instructions for setting up Pedestrian Detection.

When an alarm is triggered, the moving target will be surrounded by a coloured rectangular box and a letter is shown just under the preview picture. The letter for Pedestrian Detection is “S” for Smart option and the colour is red for record or green for no record. If options for standard continuous recording or motion have also been set then you may also see a letter “R” for normal continuous recording or “M” for motion recording and again the colour will be red for record or green for no record. If the I/O alarm option has been set then a letter “I” will be displayed, and again this will be in red for record or green for no record.

Note these colour codes do no relate to the colour codes used in the Record Schedule/Playback Screen.

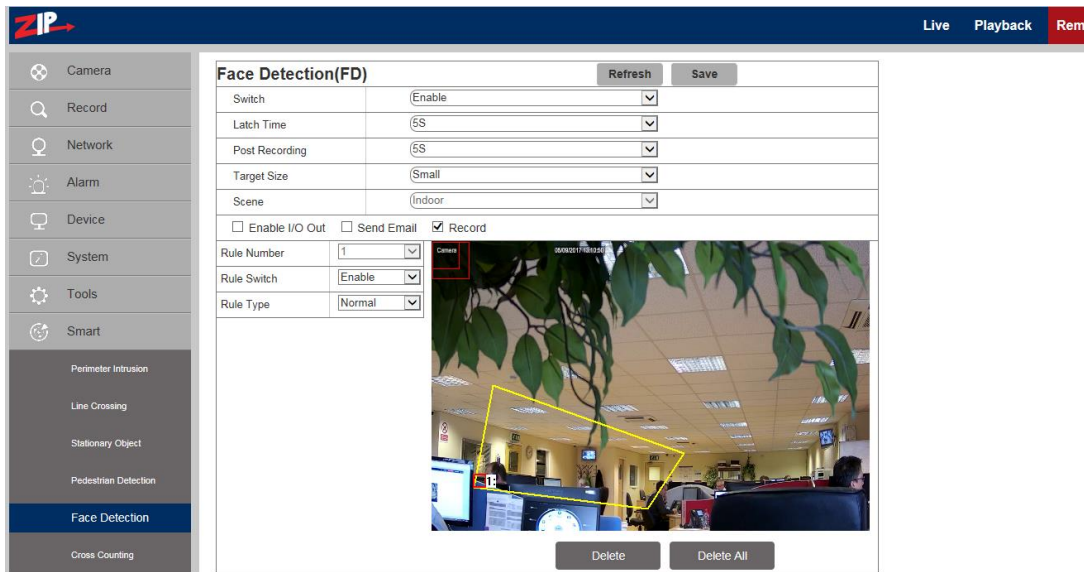
Method for setting up:

1. Enter the Pedestrian Detection interface and set Enable.
2. Click the mouse button in the area where you need to draw the target pedestrian detection box and choose the Rule Number without drawing the pedestrian detection area yet.
3. Enable rule.
4. Now using a mouse create a convex quadrilateral box (See comments about Purpose of Function above). Create this yellow box by dragging the cursor point and clicking on 4 points, which will be connected and form an enclosed area. In one corner of the area created you will see a small red square. Now click on Save. The save will only be actioned if the shape is a convex quadrilateral shape. To modify the shape of the drawn pedestrian detection area you can only select the small number box of the area and turn the yellow area into a red area. You can now click on one of the red circle points of the area to adjust the shape.
5. To delete the pedestrian detection area, you can only select its number box and click Delete, while ‘Delete All’ means to delete all the existing pedestrian detection areas if your camera provides more than one pedestrian detection area.

Note:

- 1) The set detection area must be accessible for pedestrians to avoid an invalid detection and the detection area should cover the whole body in the picture to avoid the failure to trigger an alarm.

4.8.5 Face Detection (FD)



Purpose of Function

The purpose of this option is to draw a box in an area of the picture, so that when a person enters the detection area, the program extracts the moving foreground to analyse whether a front view of a person's face is involved.

NOTE: The channel must be in mainstream mode in order to display the trace boxes when in preview mode.

Trigger Conditions:

1) Minimum area for targeting movement:

The minimum target areas that can be detected respectively under the detection levels from small to large, account for about 0.44% ~ 0.72% of the whole picture size. To aid sizing of the detection area box you will see two red boxes in top left hand corner of the picture. These boxes vary in size when clicking on the Target size parameter either Small, medium or Large. The minimum target area will be between the area size of the two red boxes.

2) The human faces must be within the scope of the drawn detection area.

3) The human face must be a moving front view.

Display results:

When an alarm is triggered, the moving target will be surrounded by a green rectangular box. In the middle of the picture just below this box you will see the letter 'S' displayed for Smart option running. This letter will be red in colour when the camera is recording and green when no video is recorded.

Parameters:

Switch: Click to Enable or Disable option

Latch Time: The external output alarm latch time can be set to 5, 10, 20 or 30 seconds.

Post Recording: After an alarm is triggered, the optional record time for continuous video recording can be set to 5, 10, 20 or 30 seconds.

Target Size: The parameter scope for detection level includes Small, Medium and Large, with a default value of Medium. The Small parameter is used for a detection area further away that will require a smaller detection box. The Large target size will generally require a larger detection box because the subject will be closer.

Scene: Indoor only.

Enable I/O Out: whether the triggered alarm has I/O output.

Send Email: If an alarm is triggered, an Email will be sent as a notice, with corresponding Emails set in Remote Setting-Network-Email.

Record: whether a video is recorded.

Rule Number: Only one rule can be set

Rule Switch: Enable / Disable

Rule Type: Normal only.

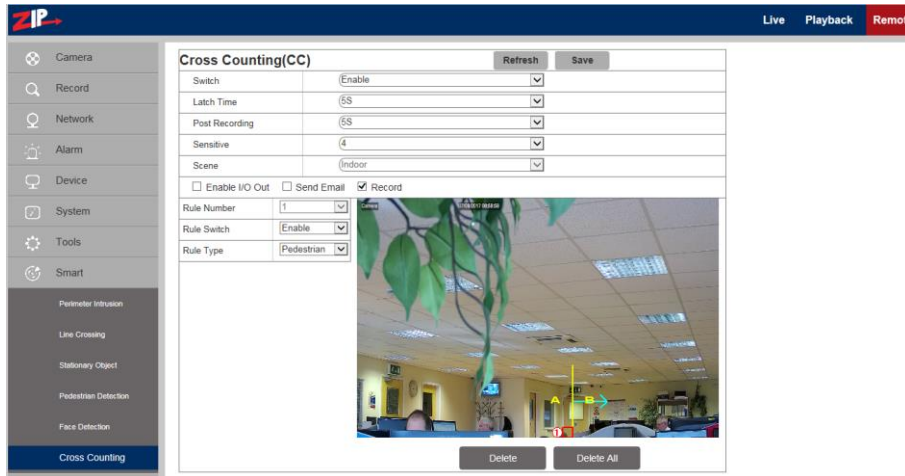
Method for setting up:

1. Enter the Face Detection interface and set Enable.
2. Click the mouse button in the area where you need to draw the target face detection box and choose the Rule Number without drawing the pedestrian detection area yet.
3. Enable rule.
4. Now using a mouse create a face detection area. Create a convex quadrilateral yellow box by dragging the cursor point and clicking on 4 points, which will be connected and form an enclosed area. In one corner of the area created you will see a small red square. Now click on Save. The save will only be actioned if the shape is a convex quadrilateral shape. To modify the shape of the drawn face detection area you can only select the small number box of the area and turn the yellow area into a red area. You can now click on one of the red circle points of the area to adjust the shape.
5. To delete the face detection area, you can only select its number box and click Delete, while 'Delete All' means to delete all the existing face detection areas if your camera provides more than one pedestrian detection area.

Note:

- 1) The set detection area must be able to view a full front view of a face to avoid an invalid detection and the detection area must cover the whole face in the picture to avoid the failure to trigger an alarm.

4.8.6 Cross Counting (CC)



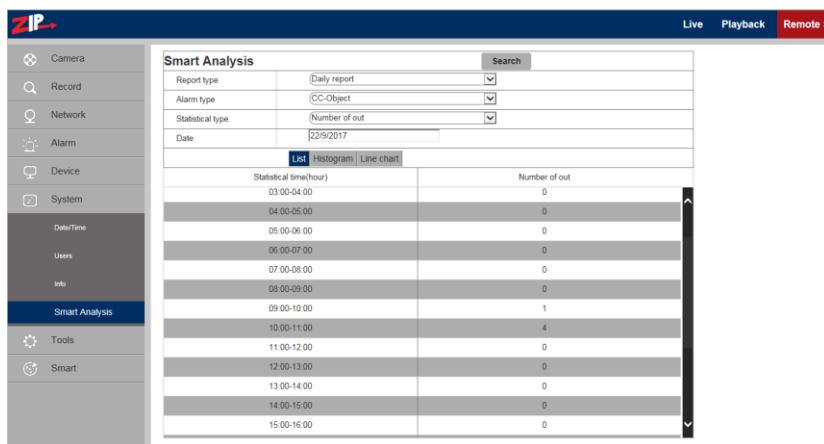
Purpose of Function

The purpose of this option is to calculate the number of pedestrian movements or objects crossing a line either from A to B or from B to A and produce analytical statistics over a time period. The option to produce the statistics is found in the System Menu - Smart Analysis.

Display Results

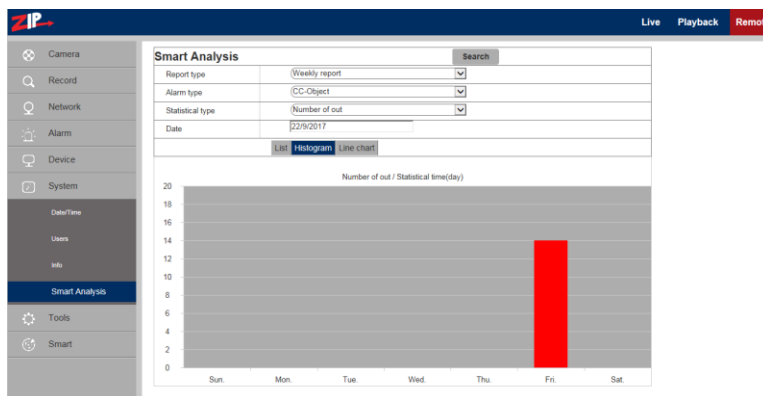
This option provides statistical information that is used by the Smart Analysis menu in the System Menu. There are 3 options - List, Histogram or Line Chart.

List option - Example for a Daily Report



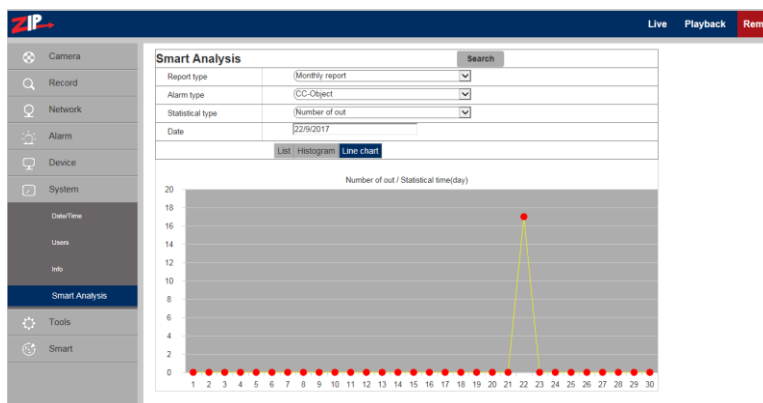
This option provides a statistical report for a Daily, Monthly or Annual Extract for Object or Pedestrian movement moving from A to B or from B to A. Further reports and available in Histogram or Line Chart format. Note that using Pedestrian requires the complete body crossing the line whereas the Object settings detects all objects and partial bodies.

Histogram option - Example for a Weekly Report

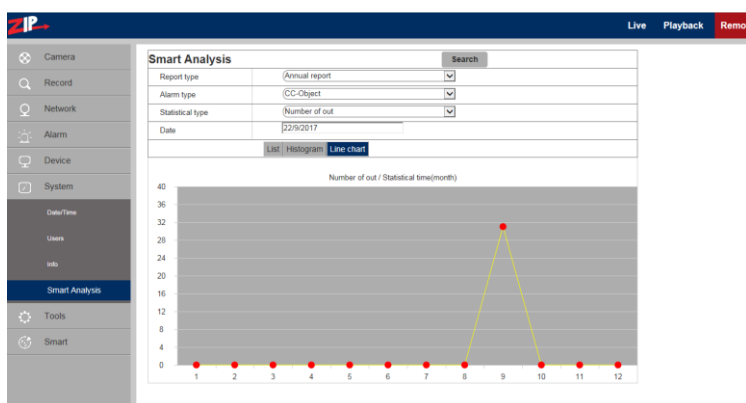


This option provides a histogram report for a Daily, Monthly or Annual Extract for Object or Pedestrian movement moving from A to B or from B to A.

Line Chart option - Example for a Monthly Report



Line Chart option - Example for an Annual Report



The two examples above show line chart reports that can be extracted for a Daily, Monthly or Annual Extract for Object or Pedestrian movement moving from A to B or from B to A.

Parameters:

Switch: Click to Enable or Disable option

Latch Time: The external output alarm latch time can be set to 5, 10, 20 or 30 seconds.

Post Recording: After an alarm is triggered, the optional record time for continuous video recording can be set to 5, 10, 20 or 30 seconds.

Sensitive: Sensitive level is in the range of 1 ~ 4 with a default of 2. If the level is set higher then movement is more easily detected however false activation is also more likely. So always best to start with default setting.

Scene: Indoor only.

Enable I/O Out: Triggers alarm if ticked.

Send Email: If alarm triggers, it sends the Email notification. The Email setup needs to be set in Remote Setting – Network – Email.

Record: Set to enable record function.

Rule Number: This parameter cannot be changed and only allows 1 rule.

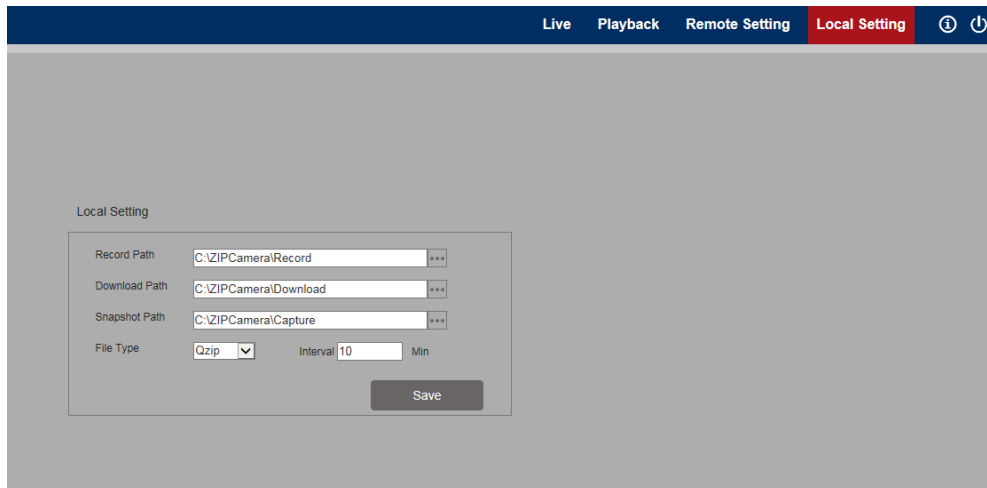
Rule Switch: Enable / Disable

Rule Type: Pedestrian or Object. Note that using Pedestrian requires the complete body crossing the line whereas the Object settings detects all objects and partial bodies.

5. Local Setting

5.1 Local Setting Options

For taking manual recordings, downloads and video captures to your PC hard drive when in live mode, you need to create the respective folders on your PC first. You can use the default folder names shown below or amend them to new path names. You can also use File Type to create Qzip format or AVI format files and set duration of recording or downloading in minutes using the Interval option.



5.1.1 Record Path

To change the record path first ensure the folder exists on the PC, then click on the dots at the end of Record Path setting and select the new path to be used.

5.1.2 Download Path

To change the download path first ensure the folder exists on the PC, then click on the dots at the end of the Download Path setting and select the new path to be used.

5.1.3 Snapshot (Capture) Path

To change the capture path first ensure the folder exists on the PC, then click on the dots at the end of the Capture Path setting and select the new path to be used.

5.1.4 File Type

Select Vzip for H264/H265 or AVI. The Qzip files will require the Vzip Player whereas the AVI file can be played using Windows Media Player etc. Just double click the file to auto detect the correct player.

5.1.5 Interval

The interval time is the maximum record time to the SD card in the camera.

