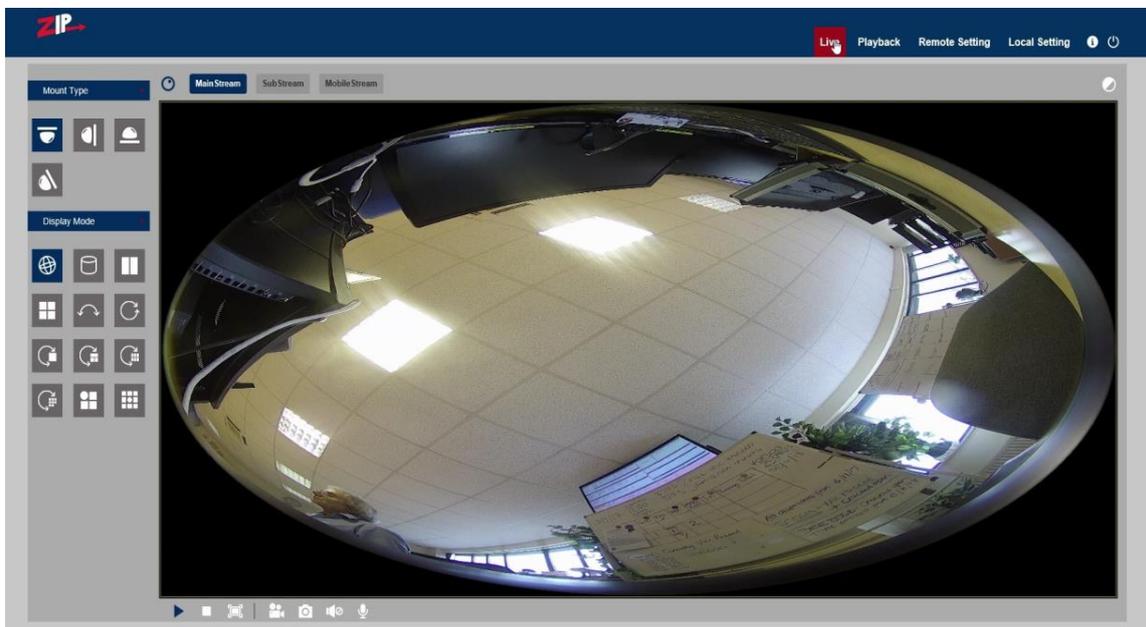


## IP-CAM350 FISHEYE INDOOR IP CAMERA 5MPX



Version: IPC005

Email: [support@zipnvr.com](mailto:support@zipnvr.com)

Last Revised 13/05/2019

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# 1. IP-CAM350 Fisheye Camera

## 1.1 General Information

A **Fisheye camera** is designed for shooting very wide angles, usually 180 degrees. A **fish-eye lens**, also known as an "ultra wide" or "super wide" **lens**, is a type of wide angle **lens** which can capture an extremely wide image, typically around 180 degrees. As these cameras use a very wide angle lens they are used for indoor installations and provide some very interesting features where multiple viewing angles can be displayed. The following are some examples where these cameras could be very useful.

### Example 1

You have a meeting room where a number of people sit round a table and there is a requirement to record video and audio but also be able to view what an individual says. This can be accomplished using one ceiling mounted Fisheye camera that has audio.

### Example 2

You have a requirement to monitor a cash till and who is at the till, what they are doing and what cash is in the till. This can be accomplished using one ceiling mounted Fisheye camera. Audio is useful if you additionally require any conversation taking place.

### Example 3

There is a need to monitor a small room that has more than one door, at night. The Fisheye camera can be mounted on the ceiling, on a wall or on a desk and providing it has IR illumination, should be able to provide effective monitoring. The use of an alarm feature can provide an Email alert to a mobile phone.

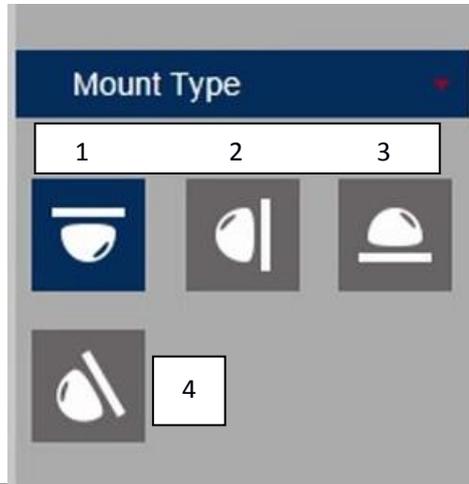
## 1.2 IP-CAM350 Main Features

1. HD 5MPX 360° 1.1mm lens
2. Onvif 2.6 compatible
3. H264/H265 (H.265 encoding uses less storage space)
4. PoE compatible
5. Embedded Infra Red providing up to 5m range
6. One alarm input and one alarm output
7. Built-in microphone and speaker
8. Ability to spin the picture displayed using the mouse
9. 4 mounting positions Ceiling, Wall, Desktop and Tilt with display options
10. Formats for VR (Virtual Reality\*\*) plus the views described in View Variations 1.3

**\*\* Note: The actual view recorded is the VR mode and this is used to create the additional formats.**

### 1.3 Mounting the IP-CAM350

The Fisheye camera can provide various display modes and these differ according to where the camera is mounted. The display modes can also be displayed as a single view or a multiple view via the software in the camera. Recordings set in the web browser interface can be recorded on the internal SD card and in playback mode you have the facility to take a video clip or frame capture to your P.C.



Mount No.	Type	Views	View Variations
1.	Ceiling	12	VR / Cylinder / 2PTZ / 4PTZ / Panorama 180 / Panorama 360 / Panorama 360 + 1PTZ / Panorama 360 + 3PTZ / Panorama 360 + 6PTZ / Panarama 360 + 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ
2.	Wall	7	VR / Panorama / 4PTZ / Panorama +3PTZ / Panorama+ 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ
3.	Desktop	11	VR / Cylinder / 4PTZ / Panorama 180 / Panorama 360 / Panorama 360 + 1PTZ / Panorama 360 + 3PTZ / Panarama 360 + 6PTZ / Panarama 360 + 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ
4.	Tilt	7	VR / Panorama / 4PTZ / Panorama +3PTZ / Panorama+ 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ

Note: VR (Virtual Reality) is the recorded view from which the various view variations are created. After selecting mount type, hover over the Display mode icons to display mode required.

The camera has a mounting plate that is removed by turning anti-clockwise, for fitting to the mounting surface. Secure the mounting plate. The camera and mounting plate are marked “FRONT” to locate the position for locking the mounting plate to the camera base.

---

## 1.4 Powering the IP-CAM350

The IP-CAM350 can be powered using a 12vDC power supply or via PoE. The camera draws approximately 290mA using a 12vDC regulated power supply when IRs are switched on, so to enable for headroom when first powered up, it is recommended using a minimum of a 12vDC 450mA regulated power supply. The camera is provided with a multi-function fly lead with a mini power 2.1mm DC socket.

## 1.5 IP-CAM350 Cable connections

The IP-CAM350 has a multi-function fly lead with the following connections:

- 1) **DC12v** This is the connection detailed in 1.4 above (Not used if powered by PoE)
- 2) **Video** This is an analogue BNC connection for testing purposes
- 3) **Alarm In/Out** This is one alarm in (pins 1 & 2) and one alarm out (pins 3 & 4)
- 4) **LAN** This is the LAN connection
- 5) **RESET** This reset button, resets the camera to manufacturer's settings

## 1.6 Audio In / Out

There is a miniature microphone housed in this camera and a speaker for audio output.

## 1.7 IR LEDs

There are three IR LEDs embedded in the black outer rim of the camera with an IR light sensor. These should provide up to a 5 metre illumination.



---

## **2. Overview**

### **2.1 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.

### **2.2 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.

### **2.3 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: 1Gb or more Video memory: 256Mb or more

Display: 1024 × 768 or higher resolution

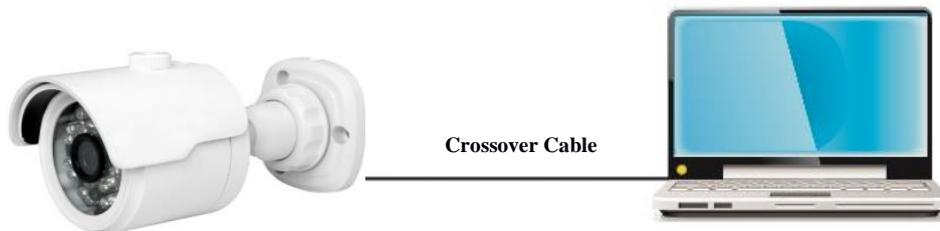
IE: IE 6.0 or higher version

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### **3. IP Camera Connection**

#### **3.1 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.



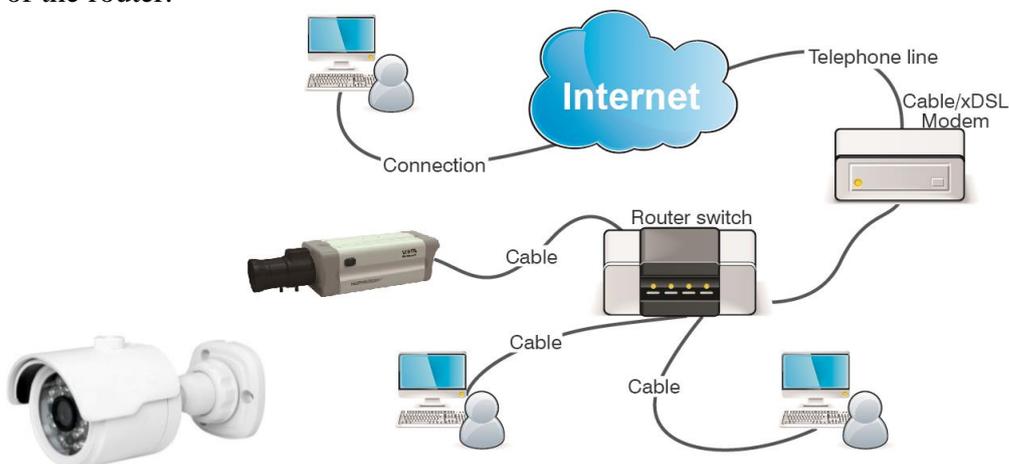
#### **3.2 Connection direct to PC via a LAN/Patch cable**

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.



#### **3.3 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.



---

## 4. Device Operation Instructions

### 4.1 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 pinging 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.

### 4.2 Searching for IP camera device using ZipFinder and changing IP etc.

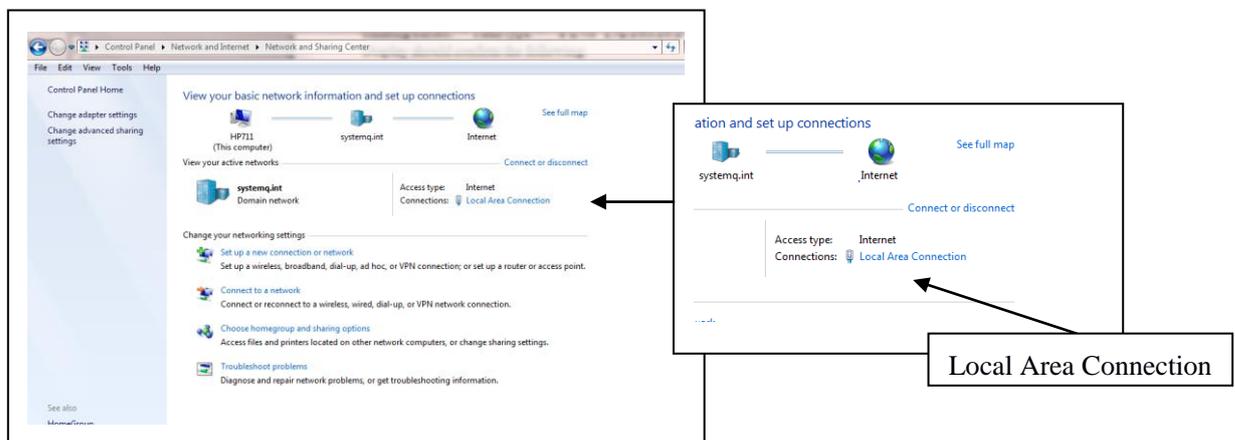


ZipFinder may be used for searching and changing IP devices on a network. This program will be found on the client CD software disk supplied with the IP camera. To run ZipFinder click on the local connection icon on the desktop. Note that this tool must be used with care and must be removed once the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

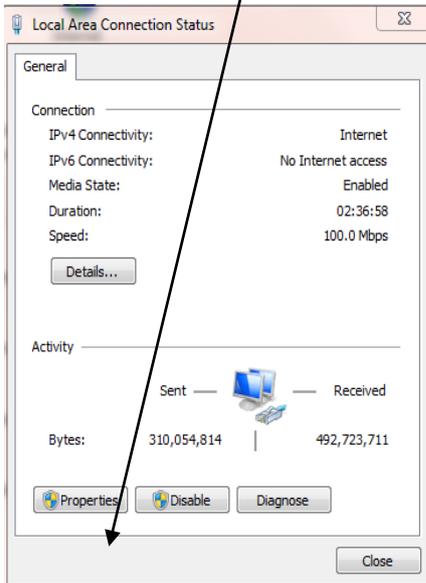
1. First go onto the Windows PC and add an IP address in the range of the IP default address so the IP cameras that can be detected by your PC. Then by running ZipFinder you can search any device within the IP address range of the IP camera and the existing PC IP address range.

Step A

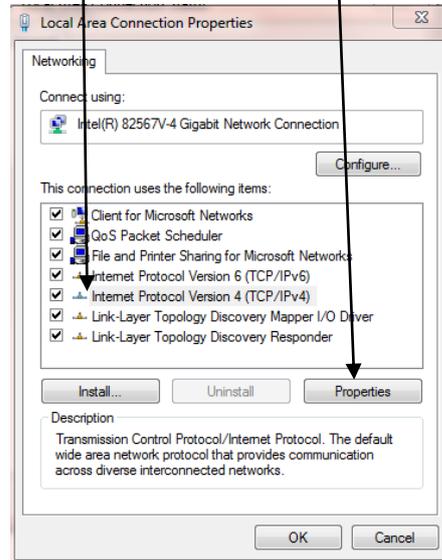
Go to **Control Panel, Network and Internet, Networking and Sharing Centre** and then click on **Local Area Connection**.



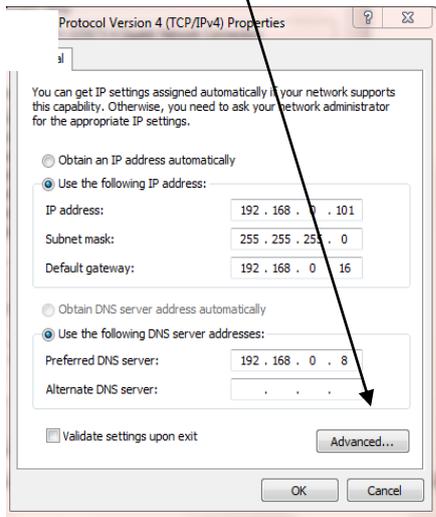
**Step B Click on Properties**



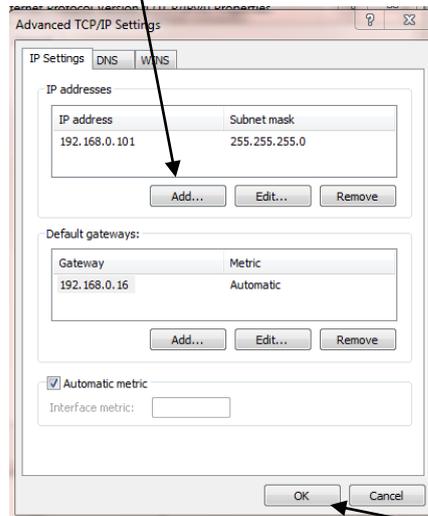
**Step C Click on Internet Protocol Version 4 (TCP/IPV4) and click Properties**



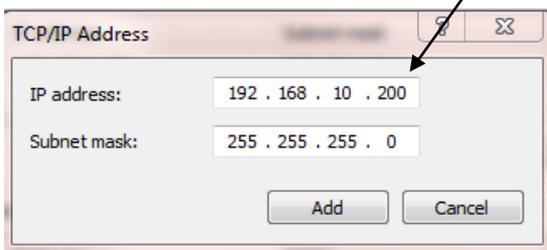
**Step D Click on Advanced**



**Step E Click Add**

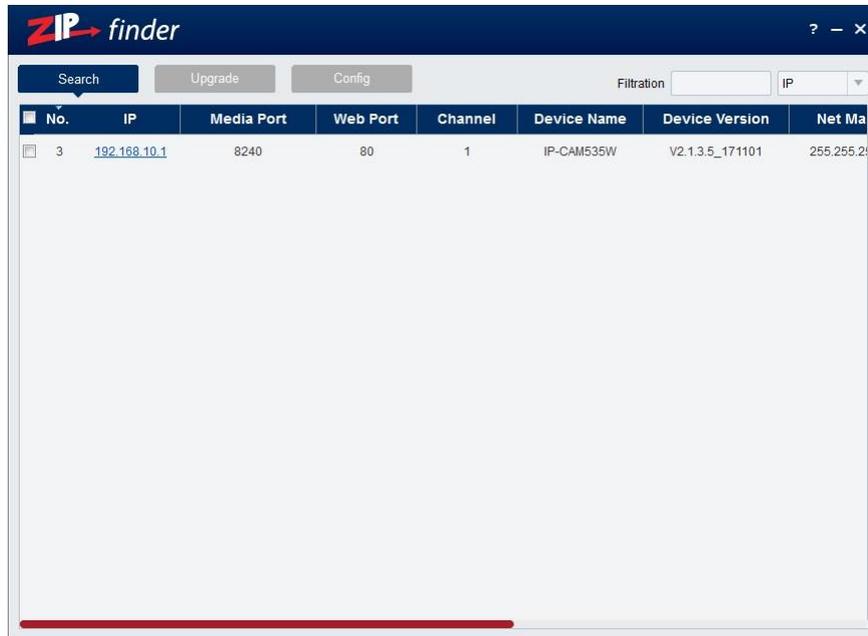


**Step F Add an IP address in the range of the IP cameras but not the IP camera/s itself then click OK**

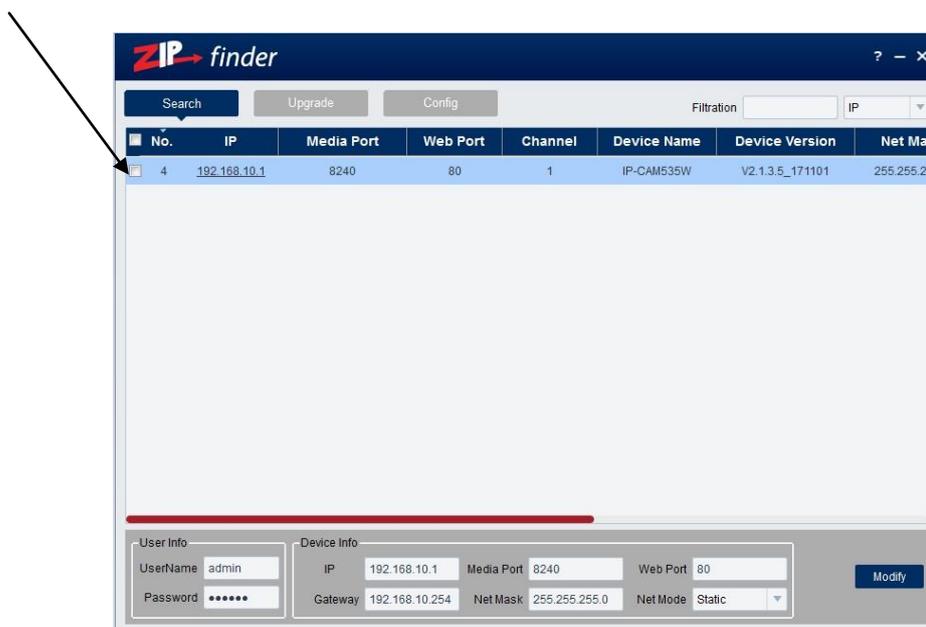


This will allow ZipFinder to access not only the 192.168.0.? addresses but also the 192.168.10.? addresses for changing to 192.168.0.<n> addresses. Also ZipFinder uses multicast protocol for searching across subnets but firewalls preclude this, so firewall may need to be disabled during this process.

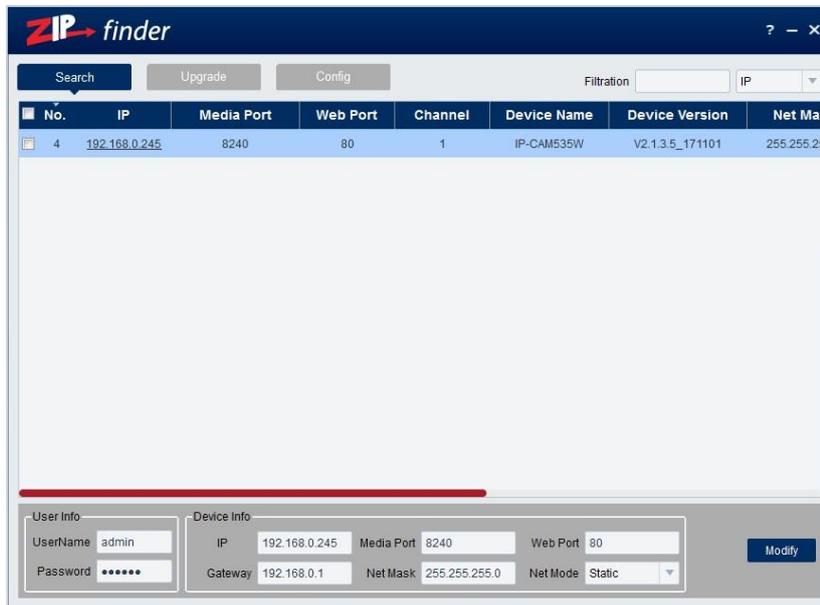
2. Run ZipFinder by double clicking icon. It will search and display any online IP address and its IP address, port number, number of channels, device type and version, subnet mask, gateway, MAC address and connection pattern.



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 8240, 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.

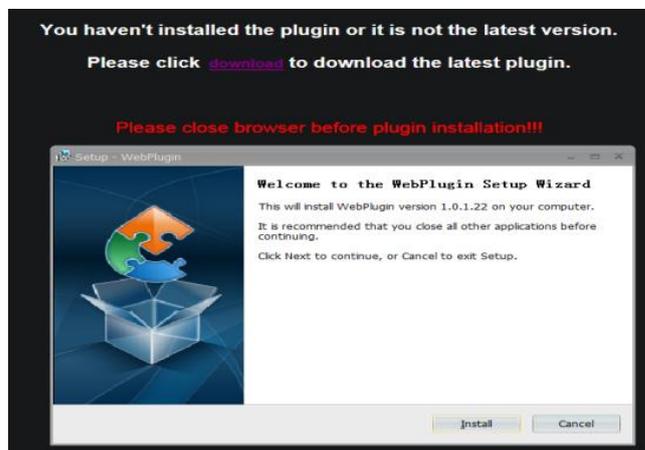
6. Double click IP address to display login and enter password to view picture.

### 4.3 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.



## 5. Web Browser Menu

### 5.1 Live Display

Open IE and enter the IP address of the camera e.g (<http://192.168.10.1>) to open a login box as shown below:



In the login box enter your user name (admin by default) and password (777777) and then press Login to open a preview frame, example as shown below:

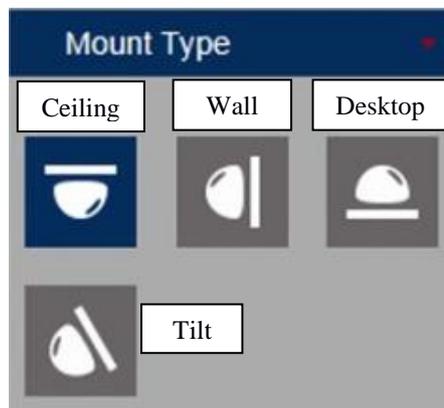


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### 5.1.1 Live Screen Display Control

Buttons in the preview frame are described below:

- 1. Live** Live Preview Mode
- 2. Playback** Playback recorded video
- 3. Remote Setting** Menus for camera setup, recording, networking, Email etc..
- 4. Local Setting** Setting paths for PC for video streaming and capture.
- 5.**  Information - User, Web and Plugin information
- 6.**  Logout
- 7. Mount Type**
- 8. Display On/Off**



The Fisheye camera can provide various display modes and these **differ according to how the camera is mounted**. The display modes can also be displayed as a single view or a multiple view via the software in the camera. Recordings set in the web browser interface can be recorded on the internal SD card and in playback mode you have the facility to take a video clip or frame capture to your P.C. Note: VR (Virtual Reality) is the recorded view from which the various view variations are created. After selecting mount type, hover over the Display Mode icons to display mode required.

- 9.**  Fisheye control On / Off  
This allows fisheye control features.

### 10. Mainstream / Substream / Mobilestream Viewing Display Resolution

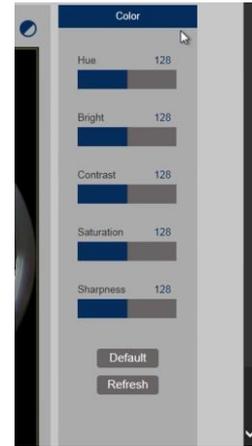
Note that if you experience lag time for picture refresh you may have a problem with network resources, so selecting Substream or MobileStream may reduce this effect as they run at a lower resolution and frame rate.

11.



**Color**

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



**12. Display Mode Ceiling Mount**



**13. Display Mode On / Off**

The above display modes can be viewed when the camera is mounted on the ceiling. The following shows the Display Modes for Wall, Desktop and Tilt modes.

**Wall Mount**



**Desktop**



**Tilt**



## 5.1.2 List of Display Modes for the different Mount Types

Type	Views	View Variations
Ceiling	12	VR / Cylinder / 2PTZ / 4PTZ / Panorama 180 / Panorama 360 / Panorama 360 + 1PTZ / Panorama 360 + 3PTZ / Panaroma 360 + 6PTZ / Panarama 360 + 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ
Wall	7	VR / Panorama / 4PTZ / Panorama +3PTZ / Panorama+ 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ
Desktop	11	VR / Cylinder / 4PTZ / Panorama 180 / Panorama 360 / Panorama 360 + 1PTZ / Panorama 360 + 3PTZ / Panaroma 360 + 6PTZ / Panarama 360 + 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ
Tilt	7	VR / Panorama / 4PTZ / Panorama +3PTZ / Panorama+ 8PTZ / FishEye + 3PTZ / FishEye + 8PTZ

The four mount types display different views and consist of the following options. Note the the VR (Virtual Reality) option is the format from what each view variation is derived from and is really the base fisheye 360 degree view. Where PTZ options are provided, these are the segments that are selected from the base VR view. So for example the Panorama 360 + 8PTZ view is very similar to the Fisheye +8PTZ view, where the 8PTZ views are identical but the Panorama 360 and the Fisheye view are marginally different, where the fisheye view is non corrected and the panorama view is corrected.

### VR

#### Cylinder

#### 2PTZ

#### 4PTZ

#### Panorama / Panorama 180

#### Panarama 360

#### Panarama 360 + 1PTZ

#### Panarama 360 + 3PTZ

#### Panarama 360 + 6PTZ

#### Panarama 360 + 8PTZ

#### Fisheye + 3PTZ

#### Fisheye + 8PTZ

### Base Fisheye View

#### Cylinder shape Fisheye view

#### Divides view into 2 vertical segments

#### Divides view into 4 segments

#### Divides view into 2 horizontal segments

#### One 360° degree view

#### Divides horizontal view into 1x 360° and 1x 90° view

#### Divides horizontal view into 1x 360° and 3x 90° views

#### Divides horizontal view into 1x 360° and 6x 60° views

#### Divides horizontal view into 1x 360° and 8x 45° views

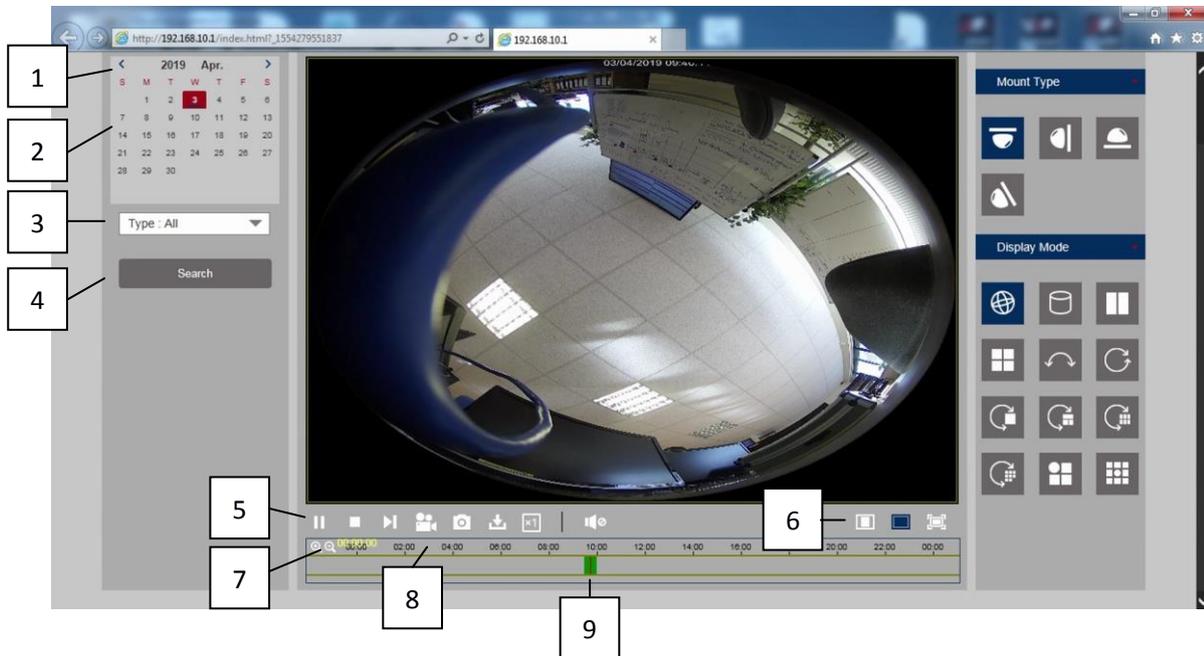
#### Divides quad view into 1x Fisheye and 3 segments

#### Divides quad view into 1x Fisheye and 8 segments

In most cases, views can be moved with the mouse and when segments are involved, these can be individually manually moved with the mouse.

## 5.2 Playback

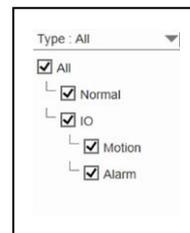
Playback reads the recorded files from internal SD card (if fitted) or optional) and then plays back from the browser.



### 5.2.1 Playback buttons

The calendar should display today's date with day in red box and current year and month

1. < Click to move back to previous month and year
2. > Click to move forward to next month and year
3. **Type** : All (Default)  
Record Type  
All = Normal IO = Motion / Alarm
4. **Search** Click to produce recorded timeline



5. a b c d e f g h
- 

a = start playback || = playing back

b = stop playback

c = forward one frame

d = video clip

e = capture

f = download

g = speed



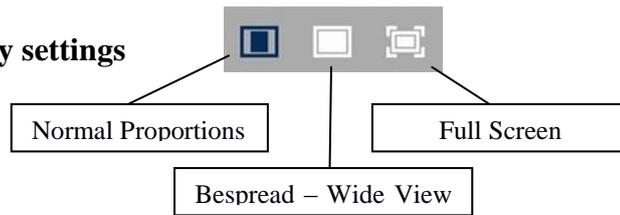
h = audio

off / on



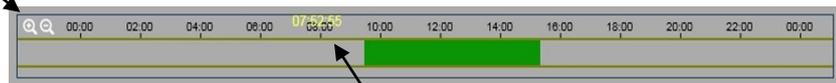
volume level

6. **Screen Display settings**



7.  The magnifier + when clicked increases record timeline to provide more accurate time selection whereas the magnifier - decreases and reduces timeline.

8. **Timeline**



Moving the mouse on the timeline displays the time selected in yellow.

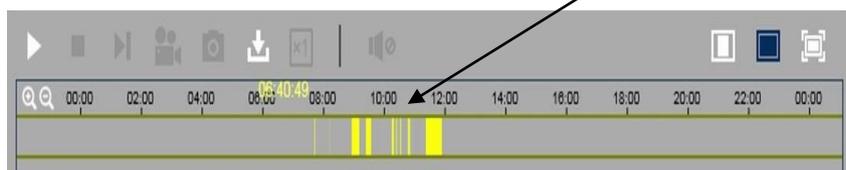
9. **Recordings** (These are displayed in green (continuous recording) yellow (motion) or red (alarm) as defined in the Remote Settings menu > Record Settings > and Normal Schedule>)

**Special Note:** If no recording timeline is displayed, check the above setup and also that the SD card in the Remote Settings menu > Device> SD Card> shows free space and/or SD Card Overwrite is set to Auto.

Also the calendar will show the days where recordings are made by underlining the days recorded



and by clicking on Search will show files on the Timeline.

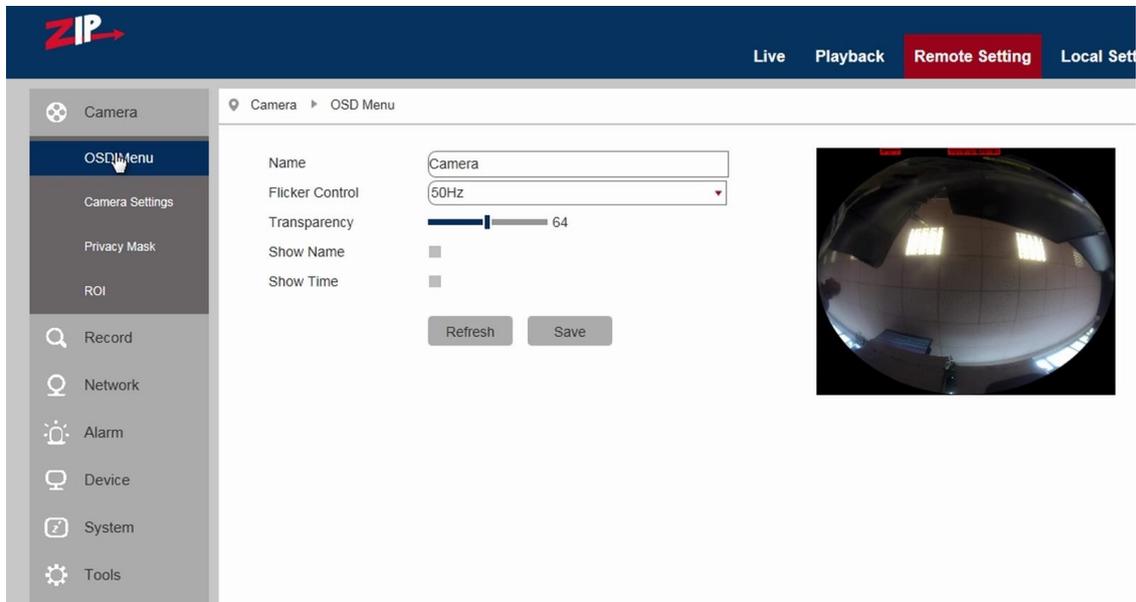


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## 5.3 Remote Setting

### 5.3.1 Camera

#### 5.3.1.1 OSD Menu



**Name:** Name of the IP camera

**Flicker Control:** 50Hz (UK) / 60Hz (USA)

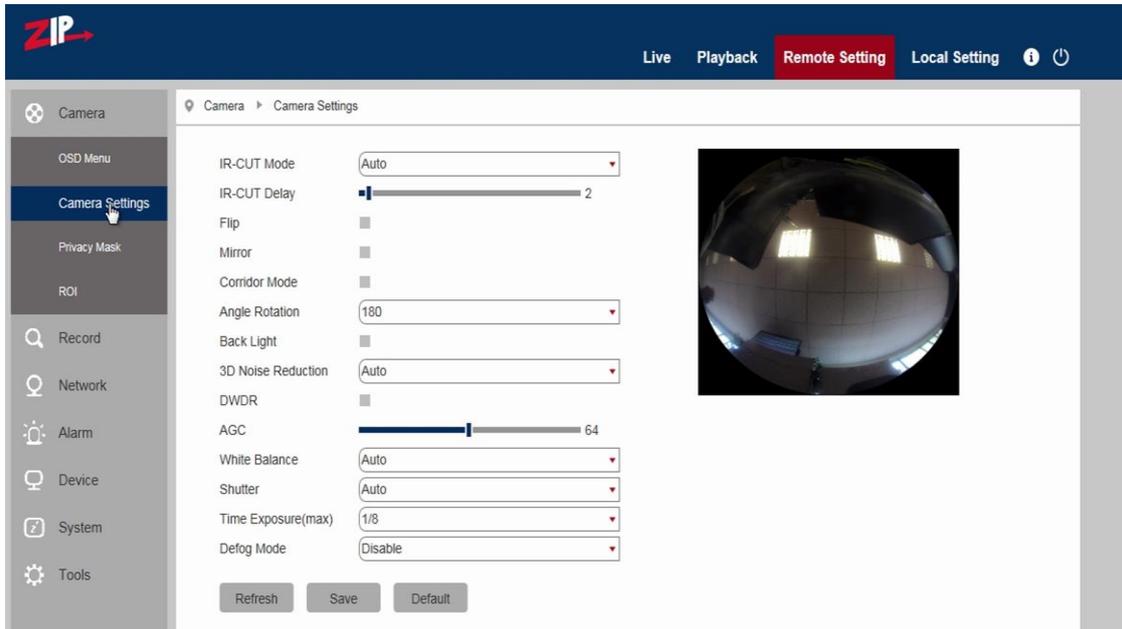
**Transparency:** Choose transparency of camera name and time in preview mode (smaller value indicates higher transparency) (default = 64)

**Show Name:** Text in red colour: You can locate the position of the camera name for the channel by dragging the information in red to another position in the preview picture and saving it.

**Show Time:** Time in red colour: You can locate the position of the time display for the channel by dragging the time in red to another position in the preview picture and saving it.

### 5.3.1.2 Camera Settings

Click on Camera Settings to open the following page:



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

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

**Flip:** Flip picture

**Mirror:** Reverse picture view

**Corridor Mode:**

**Angle rotation:** (0° or 180°) (default = 180°)

**Back Light:** Disable or Enable Backlight Compensation

**3D Noise Reduction:** Disable / Auto (default) / Manual /



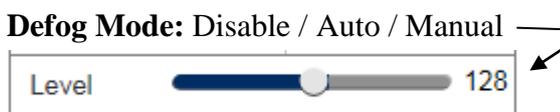
**DWDR:** Digital Wide Dynamic Range (Disable / Enable)

**AGC:** Automatic Gain Control 1 ~ 128 (default = 64)

**White Balance:** Auto / Manual / Indoor

**Shutter:** Auto / Manual

**Time Exposure (max)**



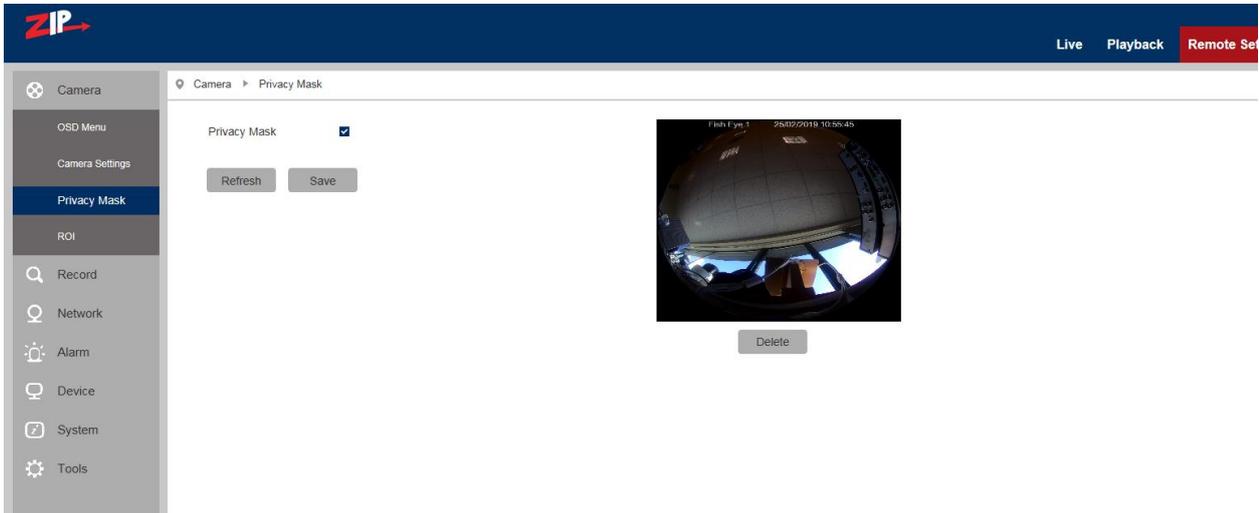
- 1/5
- 1/8
- 1/15
- 1/25
- 1/30
- 1/50
- 1/60
- 1/100
- 1/120
- 1/150
- 1/180
- 1/200
- 1/240
- 1/250
- 1/300
- 1/360
- 1/480
- 1/500
- 1/600
- 1/700
- 1/1000
- 1/1500
- 1/2500
- 1/5000
- 1/10000
- 1/12000
- 1/20000

---

### 5.3.1.3 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: (default = off)

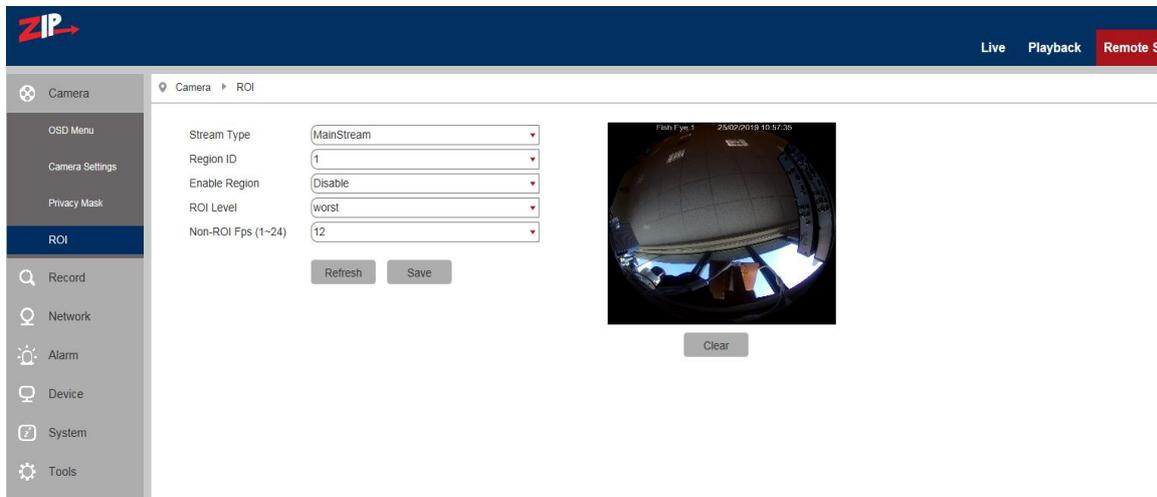
1. Tick the box marked Privacy Mask
2. Press down and hold the left mouse button and drag out an area for video masking (up to four areas at one time)
3. Click on Save to enable the Privacy Masking area.

#### Removing a Privacy Mask area:

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

### 5.3.1.4 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 Type:** Choose from MainStream / SubStream / MobileStream (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

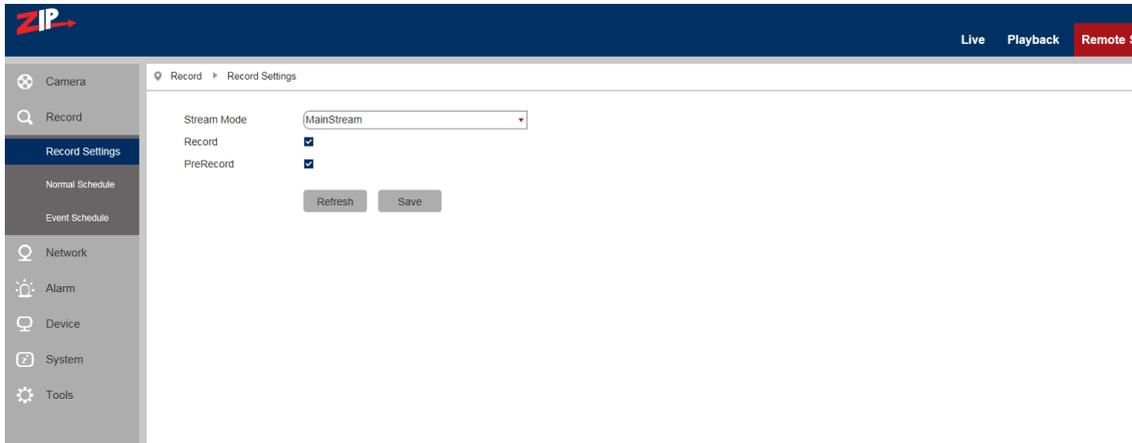
**ROI Level:** Worst / Worse / Bad / Normal / Better / Best Set quality of the image in the area.

**Non-ROI FPS (1 ~ 24): (default = 24)**

Sets the frame rate of the non-RIO area; a smaller value indicates a higher-quality image in the ROI area. The range of frame rate is in relation to video standard and resolution.

## 5.3.2 Record

### 5.3.2.1 Record Settings



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. SDHC cards are not included in this camera.

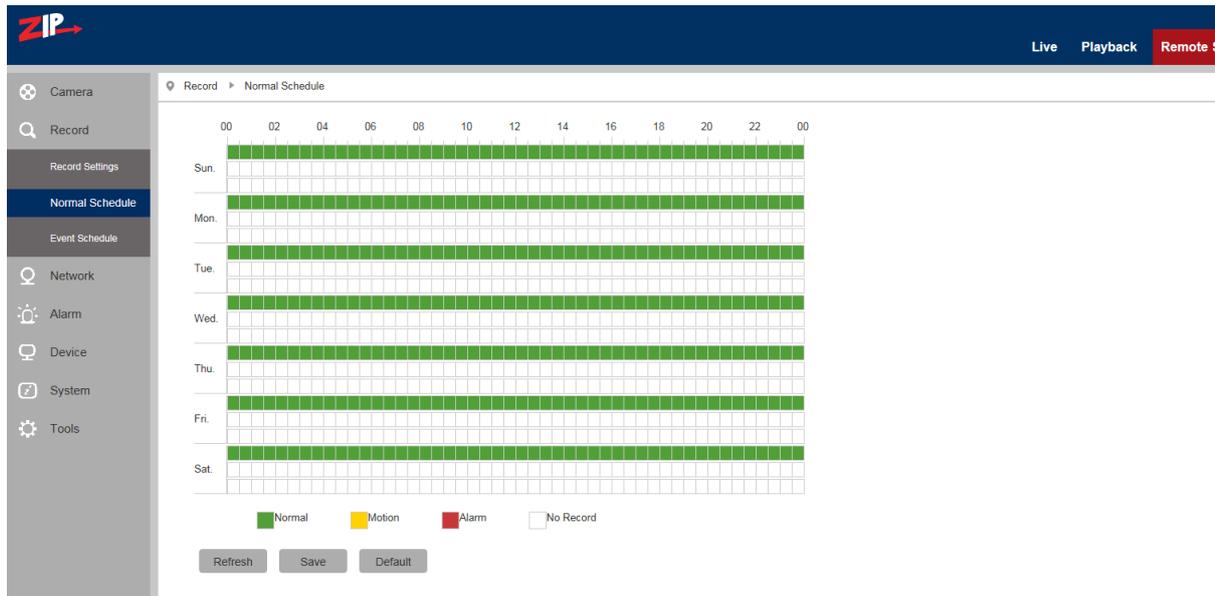
**Stream Mode:** Main Stream / Sub Stream Mainstream settings are higher resolution so use more recording resources.

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

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

Click **Save**

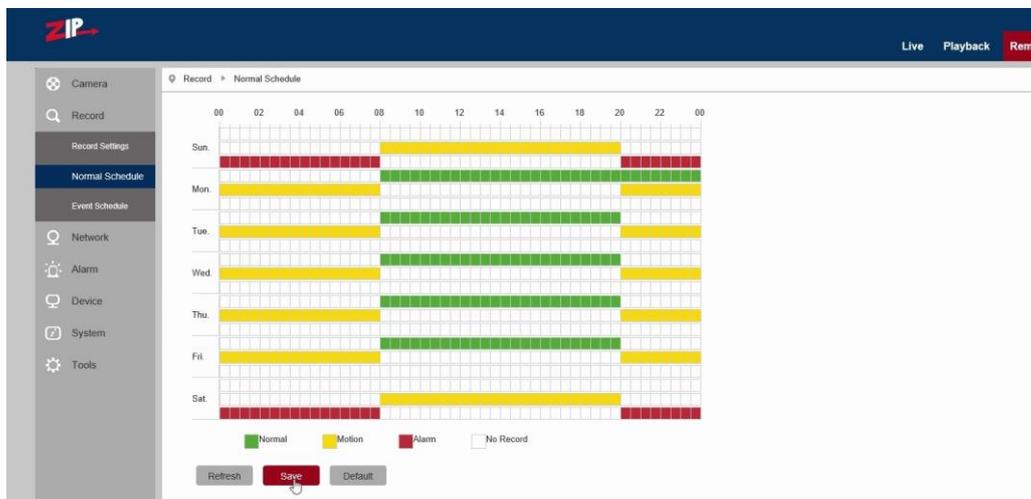
### 5.3.2.2 Normal Schedule



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 Motion recording from 08:00hrs – 20.00hrs and

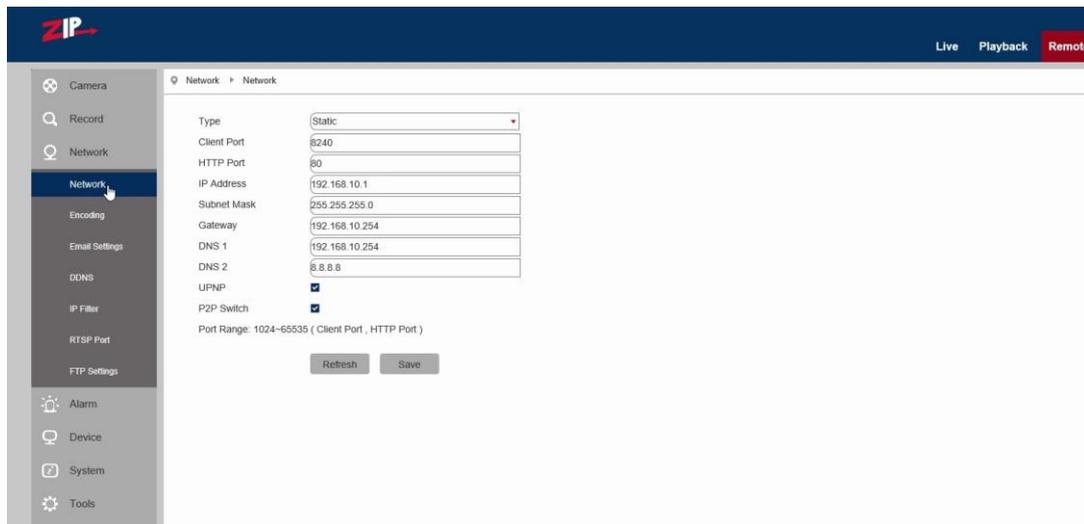
**Monday to Friday** 00.00hrs – 08.00hrs and 20.00hrs – 00.00hrs motion recording and 08.00hrs – 20.00hrs continuous recording.



### 5.3.3 Network

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

#### 5.3.3.1 Network



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

**Client Port:** Media (management) port Default = 8240

**HTTP Port:** Web port Default = 80

**IP Address:** IP address (Default = 192.168.10.1)

**Subnet Mask:** Subnet Mask (Default = 255.255.255.0)

**Gateway:** Default gateway of the device ( Default = 192.168.10.254)

**DNS 1:** Preferred DNS Server (Default = 192.168.10.254)

**DNS 2:** Alternate DNS server (Default = 8.8.8.8)

**UPNP**  Untick to disable UPNP function for the IP camera (Default = Enabled)

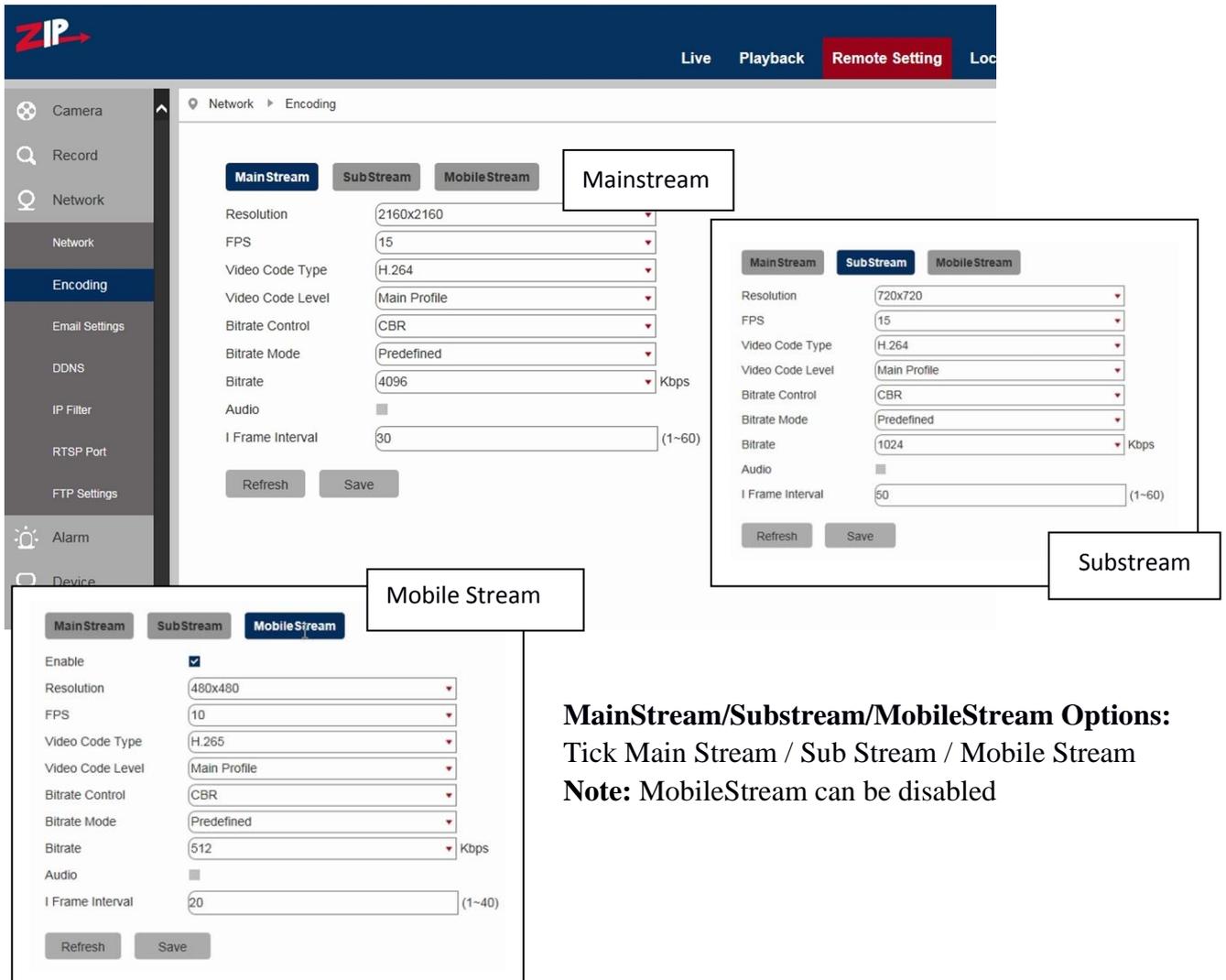
**Note:** To enable UPNP, the client/mobile phone port should be set to a value between 1024-65535.

**P2P Switch**  Untick to disable P2P function for the IP camera (Default = Enabled)

Port Range 1024 – 65535 (Client Port)

### 5.3.3.2 Encoding

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



**MainStream/Substream/MobileStream Options:**  
Tick Main Stream / Sub Stream / Mobile Stream  
**Note:** MobileStream can be disabled

**Resolution:** Set resolutions respectively for encoding – defaults are in bold & underlined

The resolutions for **MainStream** are 720×720, 1080×1080, 1520×1520, **2160×2160**

The resolutions for **SubStream** are 240×240, 480×480, **720×720**

The resolutions for **MobileStream** are 240×240, **480×480**

**Note:**

The highest resolution for Main Stream on 5MPX is 2160x2160 (frame rate at 15 fps).

The highest resolution for Main Stream on 4MP is 2160x2160 (frame rate of 15 fps)

The highest resolution for Main Stream on 2MP is 1520x1520 (frame rate of 25 fps).

**FPS (Frame rate per sec):** The maximum available frame rate is 1 ~ 25 fps.

**Video Code Type:** H264 / H265 (Default H265) Must reflect the IP camera setting.  
 H265 is an algorithm for compression of data that is classed as High Efficient Video Coding (HEVC) that gives you lower processing overheads and thus uses less disk hard drive storage space. Savings of up to 50% hard drive storage space can be made.

**Video Code Level:** Baseline / Main Profile / High Profile (Default = Main Profile)

**Bitrate control:** CBR (Constant) / VBR (Variable Bit Rate)

The Bitrate Type can be set to Constant or Variable although Constant is the default setting. The bitrate type is based on the complexity of the scene. If the subject matter comprises of large areas of the same thing i.e wall, sky, water etc., then use constant bitrate but if the scene is more complex with smaller areas of detail such as a busy street, variable bitrate is more appropriate. Inappropriate bitrate settings can adversely affect processing speeds.

**Bitrate Mode** Predefined / User Defined (Predefined = Default)

Predefined is used if you want to use predefined settings or if you wish to use your own settings then select User Defined mode.

**Bitrate:** Select from a list of predefined bitrates displayed on the right.

or

**User Defined:** Use the default bitrate of 4096 or enter a bitrate between 256 ~ 16384

Mainstream	Substream	Mobilestream
256		8
320		16
384		24
448	128	32
512	160	48
640	192	64
768	224	80
896	256	96
1024	320	128
1280	384	160
1536	448	192
1792	512	224
2048	576	256
2304	640	320
2560	704	384
2816	768	448
3072	832	512
3328	896	576
3584	960	640
3840	1024	704
4096	1088	768
4352	1152	832
4608	1216	896
4864	1280	960
5120	1344	1024
5376	1408	1088
5632	1472	1152
5888	1536	1216
6144	1600	1280
6400	1664	1344
6656	1728	1408
6912	1792	1472
7168	1856	1536
7424	1920	1600
7680	1984	1664
7936	2048	1728
8192	2112	1792
8448	2176	1856
8704	2240	1920
8960	2304	1984
9216	2368	2048
9472	2432	2112
9728	2496	2176
9984	2560	2240
10240	2624	2304
10496	2688	2368
10752	2752	2432
11008	2816	2496
11264	2880	2560
11520	2944	2624
11776	3008	2688
12032	3072	2752
12288	3136	2816
12544	3200	2880
12800	3264	2944
13056	3328	3008
13312	3392	3072
13568	3456	3136
13824	3520	3200
14080	3584	3264
14336	3648	3328
14592	3712	3392
14848	3776	3456
15104	3840	3520
15360	3904	3584
15616	3968	3648
15872	4032	3712
16128	4096	3776
16384	4160	3840

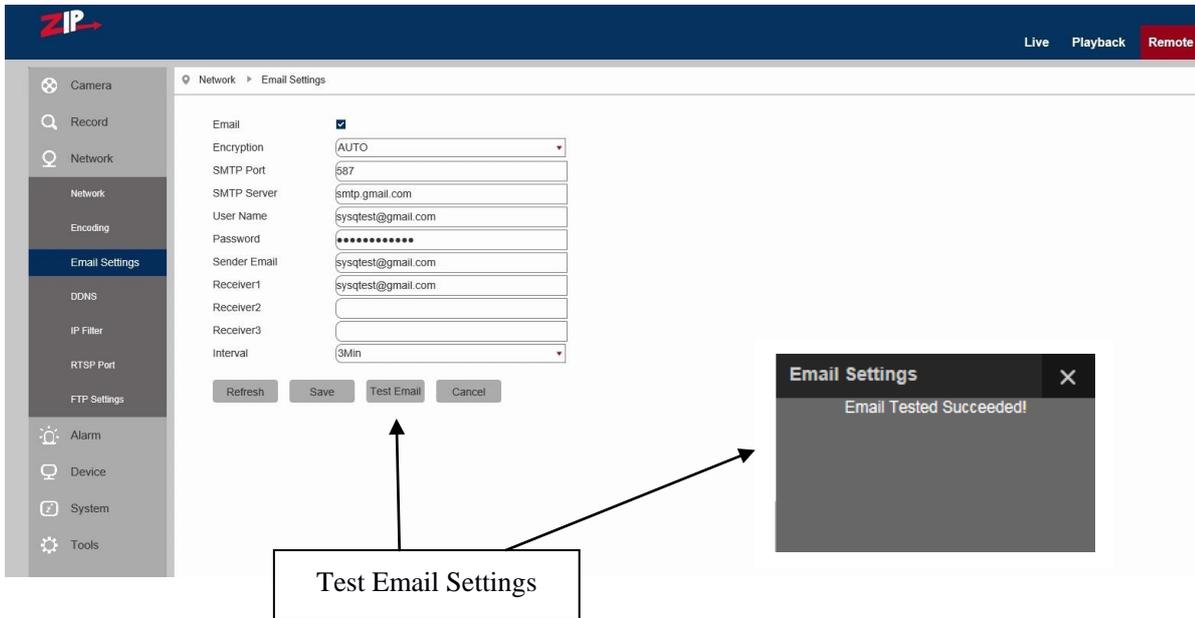
**Note:** Range of MainStream is 256-16384 Default = 4096  
 Range of Substream is 128 - 4096 Default = 1024  
 Range of Mobilestream is 8 - 1536 Default = 512

**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 30 for mainstream, 50 for substream and 20 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.

### 5.3.3.3 E-Mail Settings

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.



**Email:**



Tick to enable or disable Email facility

Email - used with the alarm function to upload text/images to mail server

**Encrypton:**

Disable / SSL / TLS / AUTO Security setting used by Email service provider  
AUTO will detect correct security level automatically

**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 name or SMTP IP address

**User Name:**

Username of sending Email account

**Password:**

Password of sending Email account

**Sender Email:**

Sender's Email address

**Receiver1:**

Address of receiving Email account – may be same as Sender Email

**Receiver2:**

Address of second receiving Email account if required

**Receiver3:**

Address of third receiving Email account if required

**Interval:**

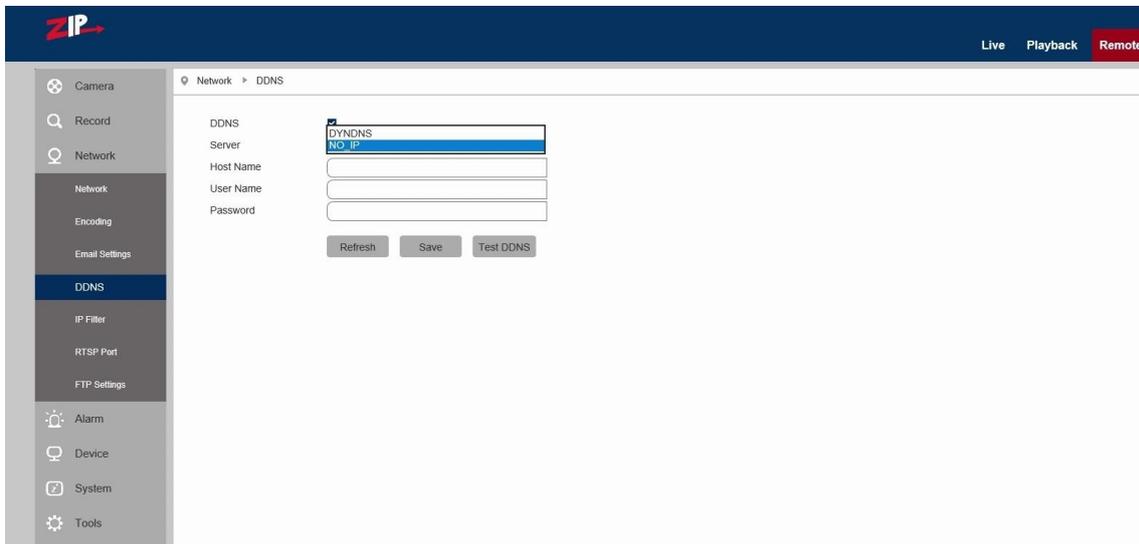
Time interval for sending mail (1 minute, 3 minutes, 5 minutes, 10 minutes) .

**Test Email:**

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

### 5.3.3.4 DDNS

This option allows the camera to use a third party DDNS service to determine the current IP address. These services are DYNDNS or NO\_IP



**DDNS**  Tick to enable or disable it.

**Server:** Select DYNDNS or NO\_IP

**Host Name:** Enter the name of active server

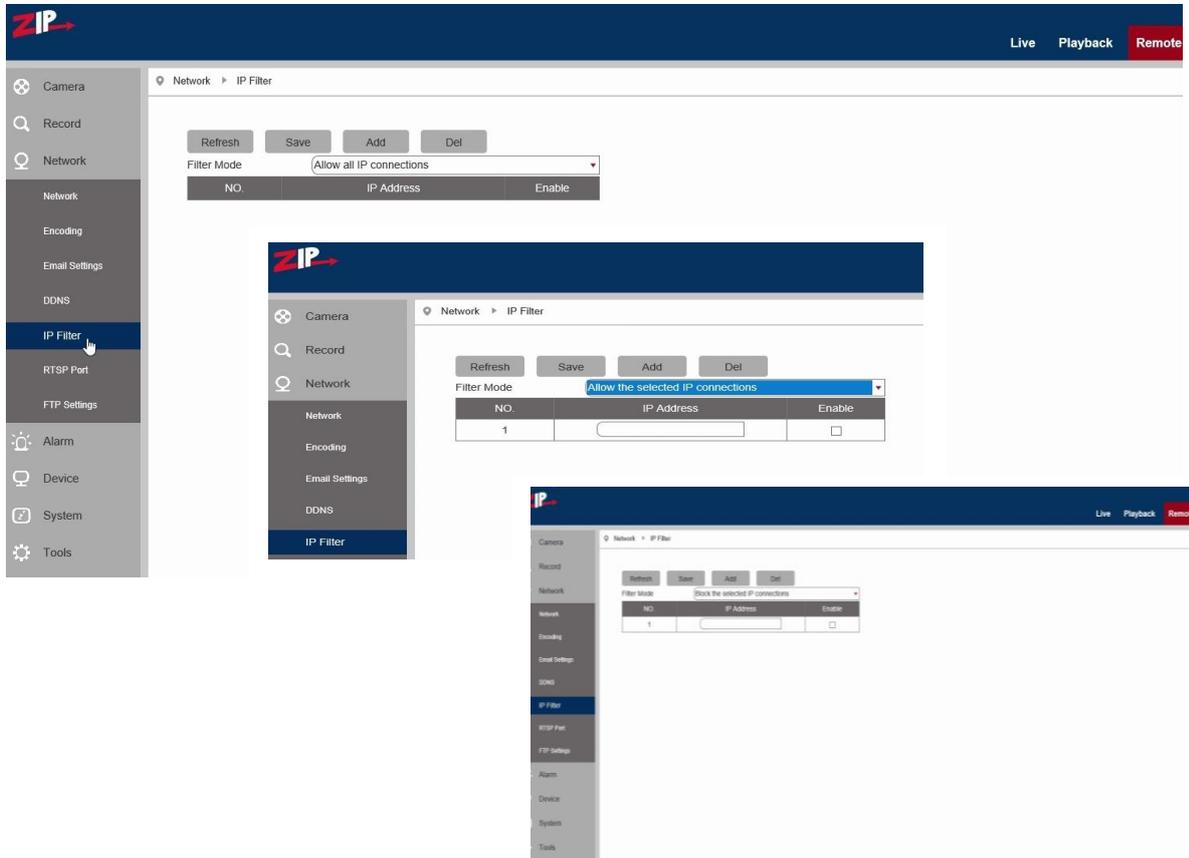
**User Name:** Name of the user

**Password:** Password of the user

**Test DDNS:** Use the Test DDNS button to test service

### 5.3.3.5 IP Filter

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



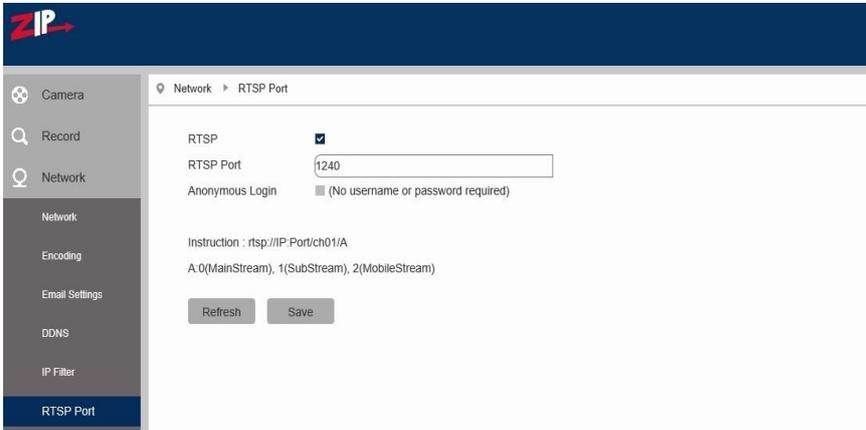
**Filter mode:** Three modes are available - Allow all IP connections,  
Allow the selected IP connections,  
Block the selected IP connections.

**Add:** Add any allowed or blocked IP addresses

**Delete:** Delete any IP address no longer required

### 5.3.3.6 RTSP Port

Select RTSP Port 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 1240 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.

**Anonymous Login**  Tick to allow no username or password protection.

#### Special Operation Instructions:

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

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

**Example:** **rtsp://admin:777777@192.168.0.248:1240/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 channel (set to 01 as default for IP camera)

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

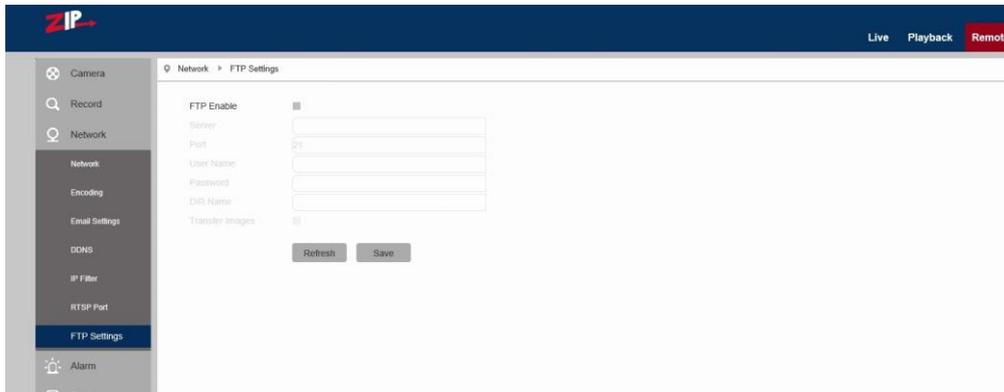
---

### 5.3.3.7 FTP Settings

Click on FTP menu to open the following page. You will need an FTP server to use this.

The FTP service setting is used with the alarm function to upload images or videos to an FTP server.

**Note:** If FTP is switched on then the Email service will not run.



**FTP Enable**  Tick the box to enable or disable the FTP function.

**Server:** FTP server address

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

**User Name:** The FTP user name for the service.

**Password:** The FTP password for the service.

**DIR Name:** The FTP directory name for the service.

**Transfer Images**  Click on box to transfer images.

## 5.3.4 Alarm

### 5.3.4.1 Motion Detection

Click on Motion in Motion Detection menu.



**Enable:**  Click in box to enable motion detection.

**Sensitivity:** Set the motion detection sensitivity level ( 1~ 8)  
The higher the level the less pixel colour changes needed to record

**Alarm Out:**  Click in box to enable alarm output.

**Latch Time:** Set the latch time for the alarm trigger (Default = 5 secs)

**Post Recording:** Set the post recording time for the alarm i.e after alarm triggers.  
(Default = 5 secs)

**Send Email:**  Click in box to enable Email (Email settings are required)

**Enable Record:**  Click in box to enable Alarm Record.

**Refresh:** Applies default settings

**Save:** Saves Motion Detection settings.

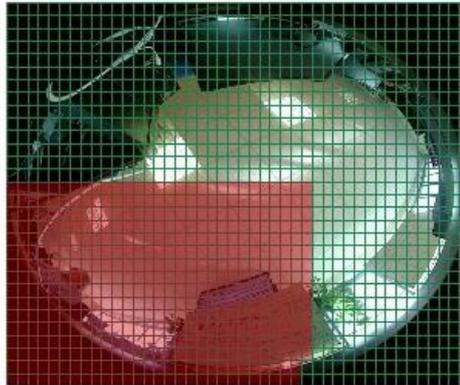
**Clear:** Clears all motion settings.

**All:** Sets whole picture for motion detection. (Complete area red colour)

---

## 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.

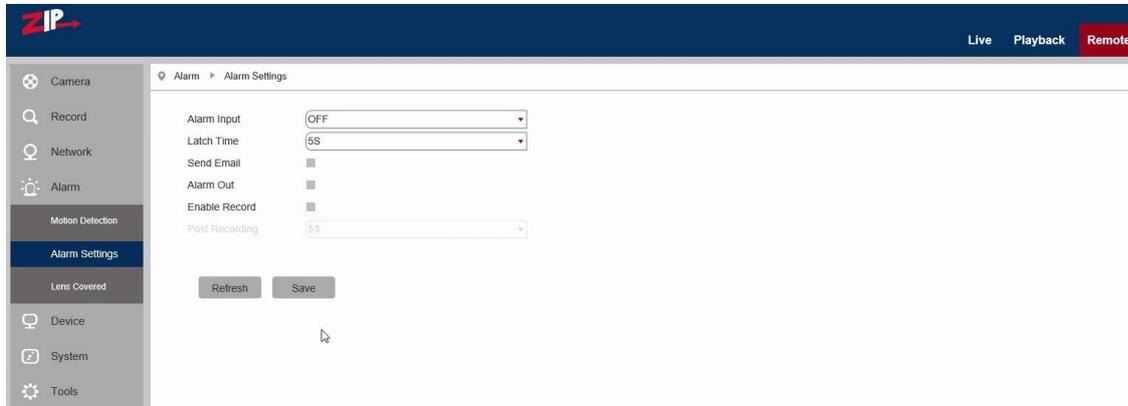


3. Set the sensitivity for n  : the value the higher the sensitivity).
4. Used with SMTP to enable mail delivery.
5. Click on Save to apply the settings.

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

### 5.3.4.2 Alarm Settings

Click on Alarm Settings in Alarm menu:



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

**Latch Time:** Alarm latch recording time (5, 10, 20, 30 seconds)

**Send Email**  Click on Send Email box to send email  
Note if FTP is switched on then the Email service will not run.

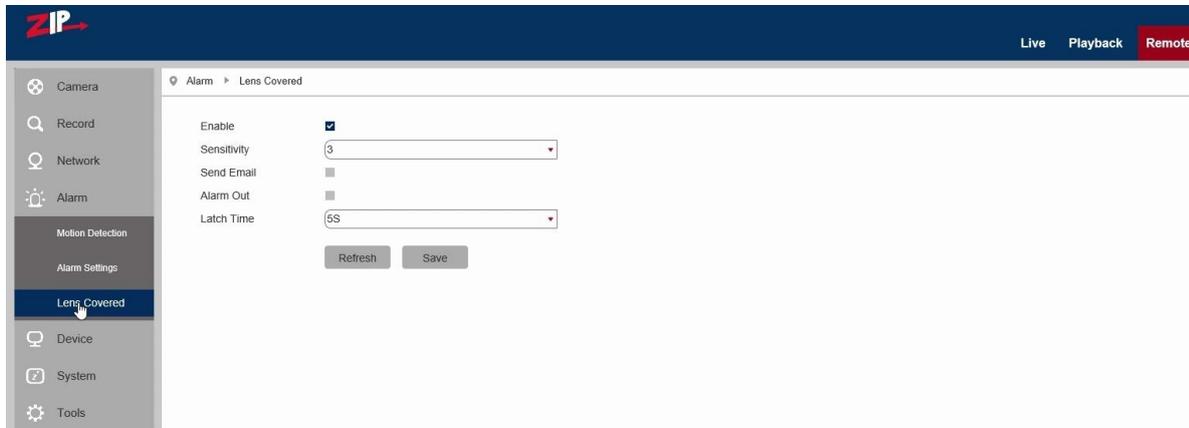
**Alarm Out:**  Click on Alarm Out to enable alarm out

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

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

### 5.3.4.3 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.

**Send Email**  Disabled by default. After enabling may be used with SMTP to enable Email.

**Alarm Out**  Disabled by default. When enable will trigger an alarm out.

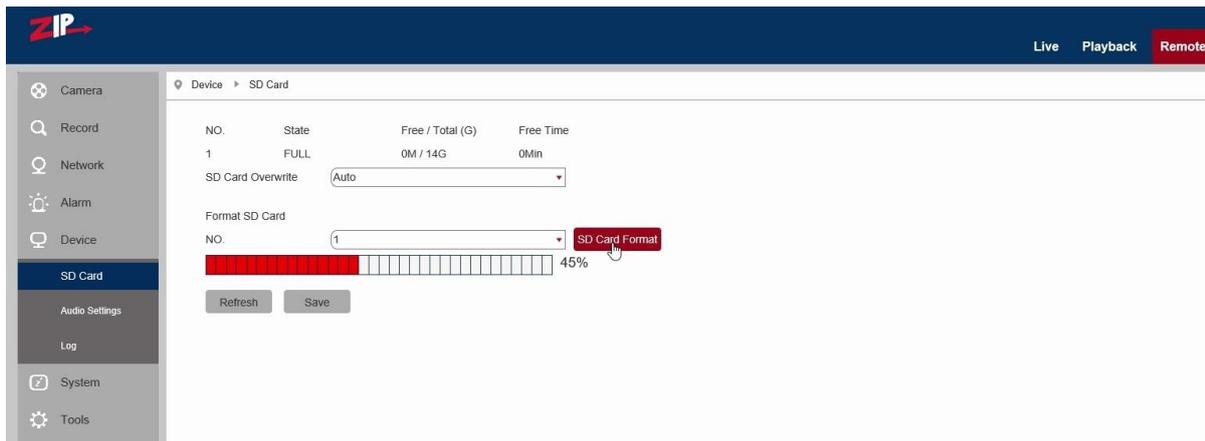
**Latch Time:** Select latch alarm time (5, 10, 20, 30 seconds)

## 5.3.5 Device

This menu includes optional functions i.e SD Card, Audio Setting and Log information.

### 5.3.5.1 SD Card

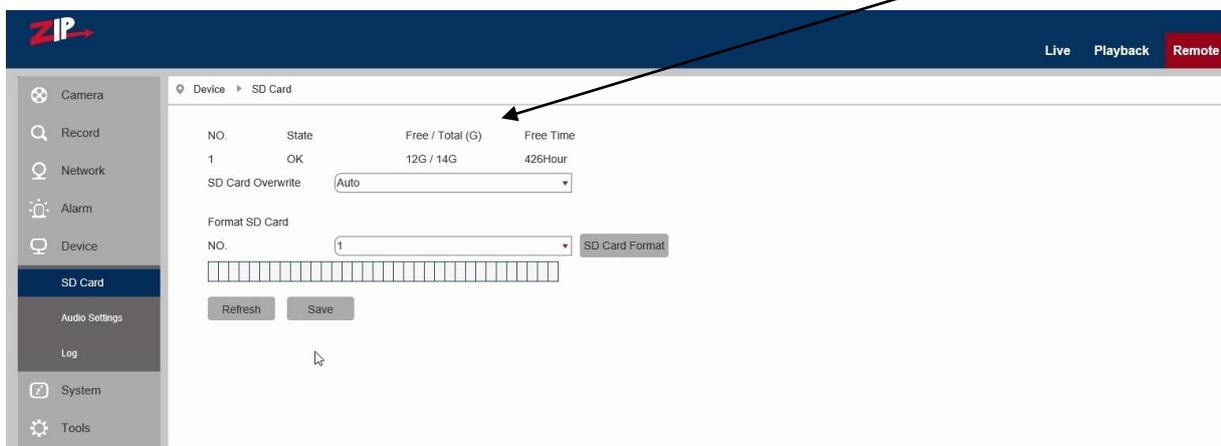
If the camera menu displays SD card function this does not imply that an SD card is fitted. Always refer to specifications. Note that if SD card is not fitted there will be no SD card format option.



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.

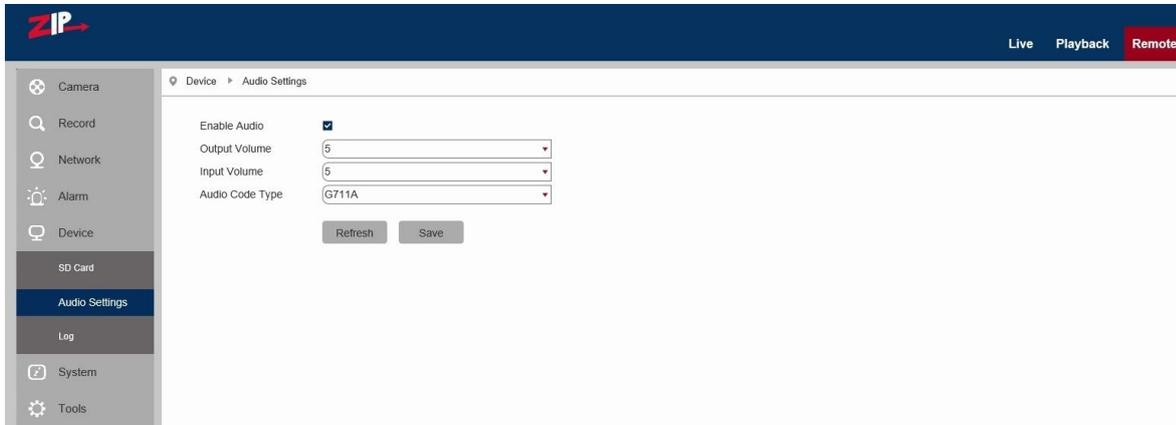
**SD Card Overwrite:** When the Auto option (default) is set, the SD card will overwrite old data when full, but when set to Close, the SD card will stop recording when full.

**Format SD Card:** 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 when 100% is reached. Now click Refresh and Save. The following will now show the status of the SD card.



### 5.3.5.2 Audio

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



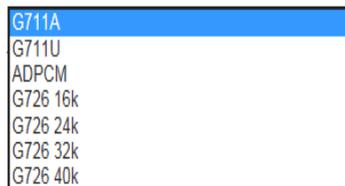
#### Procedure for setting Audio

**Enable Audio:** Check that Enable Audio has been ticked (default = not enabled)

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

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

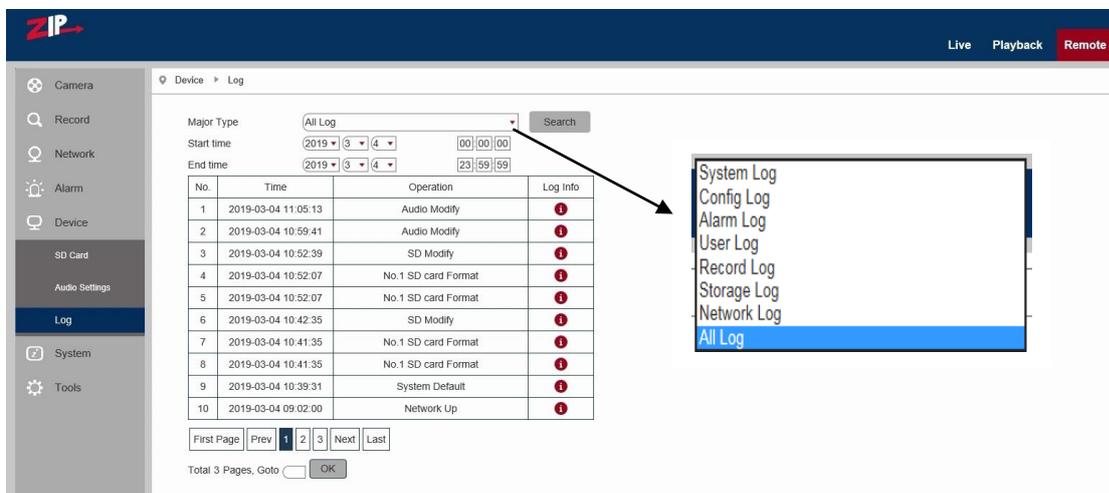
**Audio Code Type:**  
Select codec required



**(Note:** For application of audio recording function, the audio option in **Network > Encoding** menu will need enabling). This should be enabled automatically when audio is enabled in this menu.

### 5.3.5.3 Log

Click on Log, in Device menu.



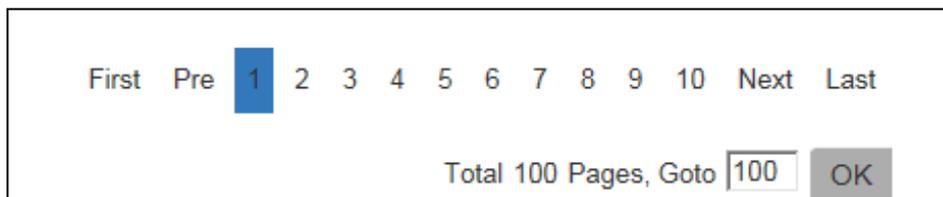
**Major Type:** There are eight types of logging information held and include - System Log, Config Log, Alarm Log, User Log, Record Log, Storage Log, Network Log and All Log. Each page of the log can display up to 10 records and up to 100 pages can be held at anyone time. Therefore a total of 1000 log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

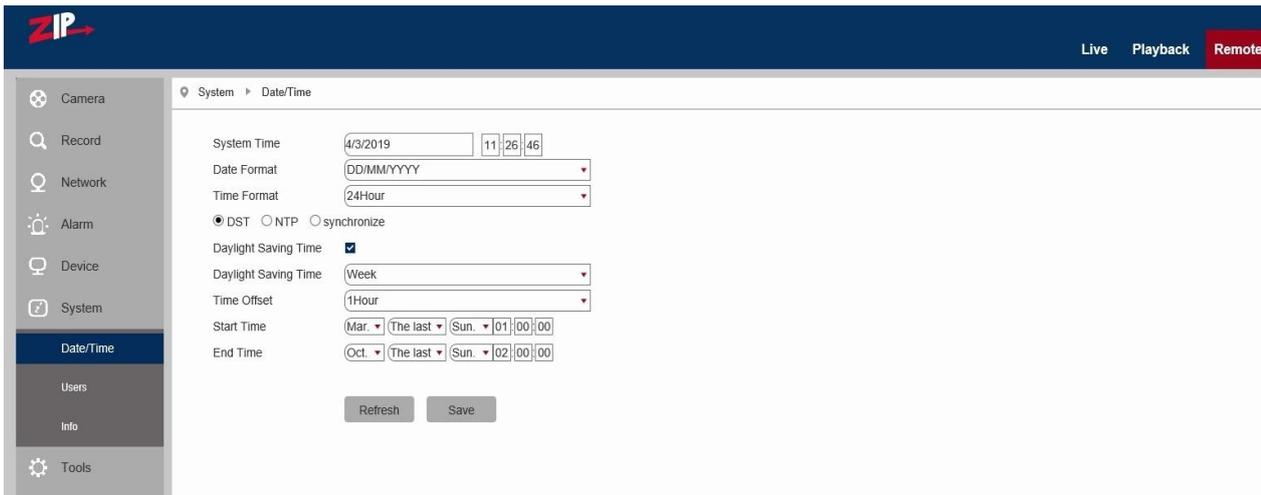


## 5.3.6 System

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

### 5.3.6.1 Date/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 (default), YY-MM-DD or MM/DD/YY

**Time Format:** Select 24 Hour (default) or 12 Hour

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

DST (Daylight Saving Time) (default), 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	Week		
Time Offset	1Hour		
Start Time	Mar.	The last	Sun. 01:00:00
End Time	Oct.	The last	Sun. 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. (default = ticked)

System > Date/Time

System Time: 4/3/2019 11:34:29

Date Format: DD/MM/YYYY

Time Format: 24Hour

DST  NTP  synchronize

Enable NTP:

Server Address: time.windows.com

Time Zone: GMT

Refresh Save

**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.

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+10:00

GMT+11:00

GMT+12:00

GMT+13:00

**Synchronise with Computer Time:**

System Time: 4/3/2019 11:47:18

Date Format: DD/MM/YYYY

Time Format: 24Hour

DST  NTP  synchronize

System Date: 2019-03-04

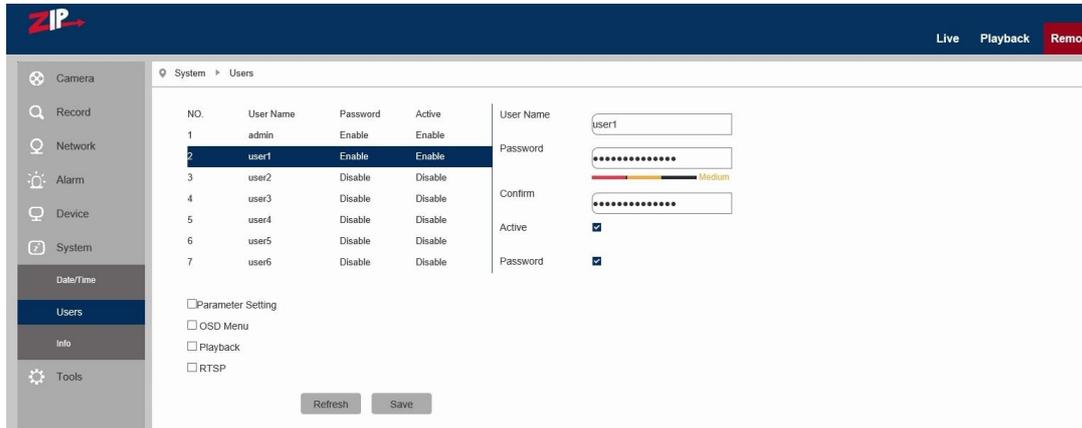
Time: 11:49:19

Refresh Save

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

### 5.3.6.2 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 options do 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 Settings

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

**OSD Menu:** Tick option to allow live viewing of video stream

**Playback:** Tick option to allow access to playback feature

**RTSP:** Tick option to allow RTSP (RealTime Streaming Port) functionality

**Refresh:** Press to clear changes    **Save:** Save settings

### 5.3.6.3 Info

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 P2PID. You can use the P2P ID code for mobile phone parameter setup.

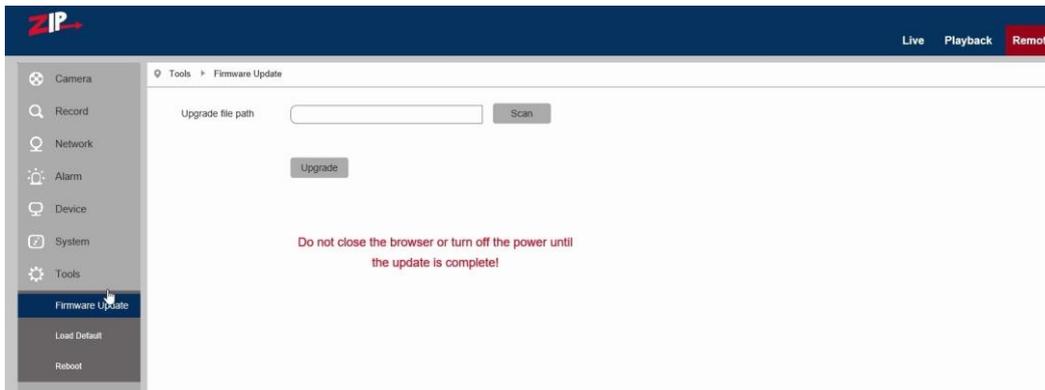
**Note that the device name, serial number and P2P ID code have been removed**

## 5.3.7 Tools

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

### 5.3.7.1 Firmware Update

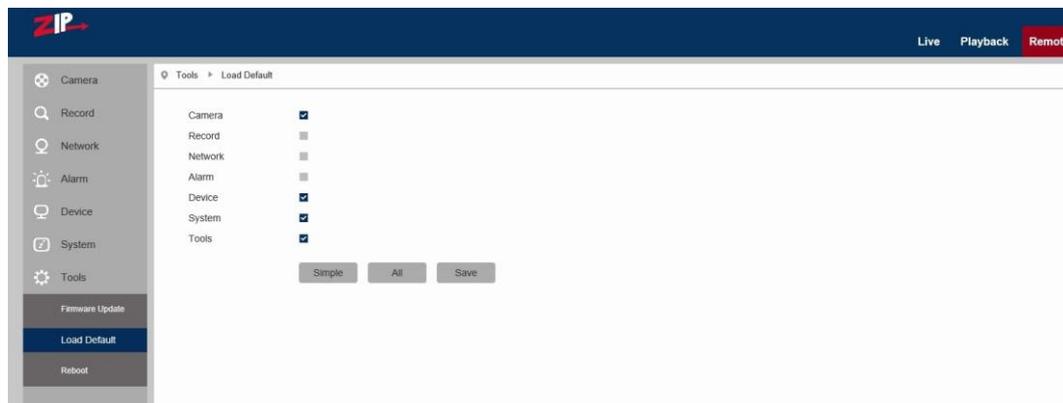
Click on Firmware Update in Tools menu.



**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.

### 5.3.7.2 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 and Tools.
3. Click on All to select all menus with an option to exclude Network settings if required.

**Note: If you do not exclude Network settings, your IP address will default to 192.168.10.1**

**Save: Defaults menus selected.**

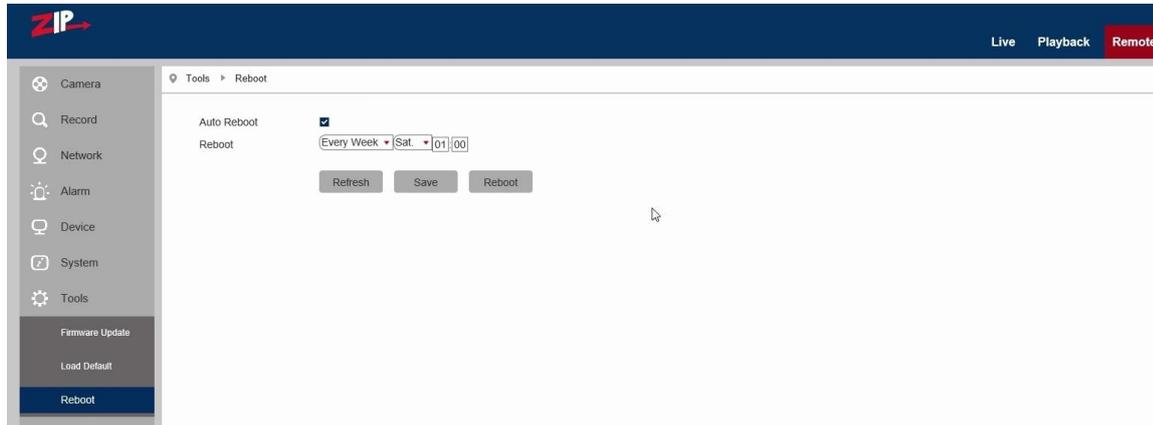
**When camera is defaulted it may take a minute to reboot before access can be made.**

---

### 5.3.7.3 Reboot

Click on Reboot in Tools menu

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



This option allows you to select an auto reboot on a scheduled basis. The default is not activated.

**Auto Reboot**  (default = not activated)

Once set you can schedule an auto reboot Every Week / Everyday / Every Month.

#### **Reboot:**

1. Every Week allows selection of Mon/Tue/Wed/Thu/Fri/Sat/Sun, Hour(24hr) and Minute.
2. Everyday allows selection of Hour(24hr) and Minute.
3. Every Month allows selection of Day No., Hour(24hr) and Minute.

**Refresh:** Disables option

**Save:** Saves Reboot settings

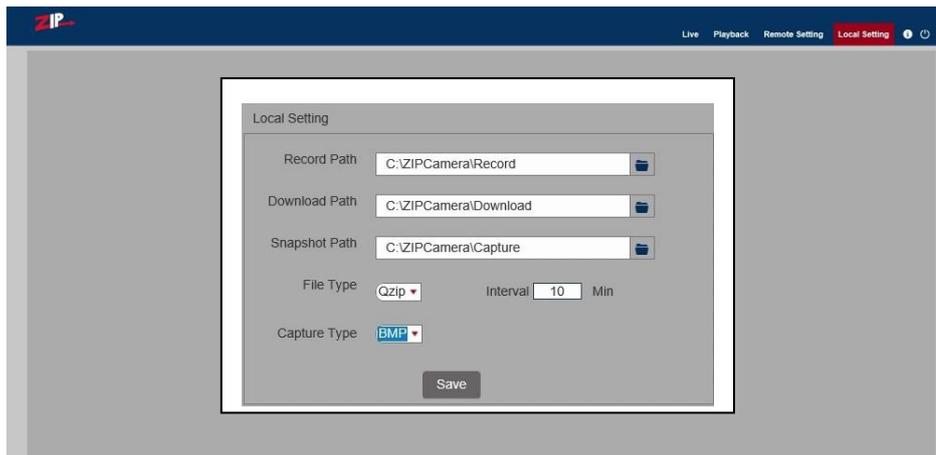
**Reboot:** Initiates reboot according to settings set.

---

## 5.4 Local Setting

### 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, AVI or MP4 format files and set duration of recording or downloading in minutes using the Interval option. For capture only, you can select from JPG, PNG or BMP compression.



#### 5.4.1 Record Path

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

#### 5.4.2 Download Path

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

#### 5.4.3 Snapshot (Capture) Path (for single frame snapshots)

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.

#### 5.4.4 File Type (format of output file created)

Select Qzip for H265, AVI or MP4 format files. The Qzip files will require the Vzip Player whereas the AVI or MP4 files can be played using Windows Media Player, VLC Media Player etc.

#### 5.4.5 Interval

This is the maximum record time for a file. (10 ~ 60 mins (Default = 10 mins)).

#### 5.4.6 Capture Type

This is the capture compression type. Select from JPG, PNG or BMP. (Note BMP has the least compression and will take up more storage space)

## 6. Technical Specifications for IP-CAM350

<b>Model</b>	IP-CAM350	<b>Protocol Version</b>	ONVIF 2.6
<b>Image Sensor</b>	1/2.9" CMOS	<b>Motion Detection</b>	Yes
<b>Resolution</b>	5Mpx (2160 x2160)	<b>Privacy Masking</b>	4 Zones
<b>Min. Illumination</b>	0 Lux IRs on	<b>Camera OSD Menu</b>	Yes
<b>Input Voltage</b>	PoE or 12vDC	<b>Audio Microphone</b>	Built-in microphone
<b>Power Consumption</b>	<4.5W 290mA IR on	<b>Audio Talkback</b>	Built-in speaker
<b>Power Connection</b>	2.1 Jack plug	<b>Image Adjustment</b>	Yes
<b>P.O.E</b>	Yes	<b>Time Synchronisation</b>	Yes/NTP/DST
<b>Lens</b>	1.1mm 360°	<b>Alarm Input/Output</b>	1 in (1,2) / 1 out (3,4)
<b>No. of IR Leds</b>	3	<b>Memory Card</b>	Yes
<b>IR Range</b>	5 metres	<b>Separate Video Out</b>	Yes
<b>Camera Use</b>	Indoor only	<b>Encoding</b>	H264 / H265
<b>Case Colour</b>	Cream & Black	<b>P2P</b>	Yes
<b>Construction</b>	Metal & Polycarbonate	<b>Email facility</b>	Yes
<b>Size</b>	120(D) x 56(H) mm	<b>Auto Reboot</b>	Scheduled facility

### 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: **8240**

The default RTSP port number is: **1240**



WEE/CG0783SS

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.

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