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## **ANPR IP Cameras**

RY Series license plate capture with LCD



# **Installation manual**

How to install the camera How to connect to the network

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## **Contents of the manual**

The RY series camera range is a range of POE IP cameras for readable recording of license plates. These cameras are designed to record license plates. of slow or fast moving vehicles, up to 180 km/h. They can operate in any conditions of light thanks to the built-in LED illuminators and special suppression systems of glare.

This manual explains how to connect the camera, how to make basic adjustments and how to configure the network connection parameters.

WARNING – This manual refers to the **RY cameras with internal monitor** for the configuration. For older models, please refer to the relevant manuals.

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## **Installation**

#### **CONNECTIONS**

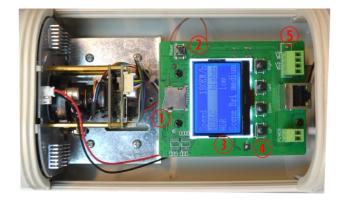
All RY series cameras have 2 connectors: a mains socket and a power plug. 12VDC power supply



#### NET 12VDC

- RJ45 NETWORK PORT FEMALE RJ45 connector for connecting the LAN network. This
  connector connects to the network, such as to a switch port or router, using
  a straight network cable. The camera supports POE power, so if your switch
  provides POE power, the camera will receive power along the network cable and not
  requires additional connections.
- 12VDC Plug to connect a 220VAC/12VDC power supply (not included). This
  plug is used if you connect the camera to a network switch that does not provide
  POE power. If, on the contrary, the camera receives POE power from the network cable
  This connector will be unused.

#### **INTERNAL CARD**



- 1 MicroSD card slot for local recording
- 2 Reset button
- 3 LCD Monitor
- 4 Keypad

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5 - Alarm relay output OUT

#### **CAMERA MOUNTING**

The cameras come with a wall mounting bracket designed to allow the cable passage inside it. The bracket is usually mounted in correspondence of the cable outlet. The fixing base has 4 holes for fixing to the wall with dowels. The The case is waterproof and can be installed outdoors without protection.

#### **CAMERA POSITIONING**

The positioning of the camera is very important for good license plate reading performance. The optimal recording of the license plate is done at a maximum distance of 30 m. depending on the lens adjustment. The first thing to check is therefore that the straight-line distance (not walkable on the ground) between the camera and the point where the vehicle will be located does not exceed this distance otherwise the LED lighting will not be effective.

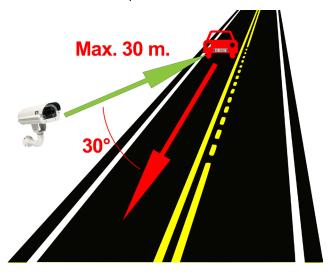
The second thing to consider is to position the camera so that the light from the headlights is not directly oriented towards the camera.

The optimal angle with respect to the direction of travel of the vehicles is approximately 15° on the horizontal plane and of approximately 30° on the vertical plane.

It is advisable to install the camera in a raised position with respect to the road surface: from 3 to 8 meters you can get the best results.

Once the 3 previous points have been satisfied, when orienting the camera it is necessary to ensure that the license plate stay in the camera's field of view as long as possible.

The best reading is obtained by framing a single lane, however it is possible to shoot up to 3 lanes with a satisfactory reading. The camera works indifferently framing the rear or front license plates.



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#### **LIGHT SENSOR**

The camera is equipped with a CDS sensor that allows it to detect the ambient brightness and It is placed on the back of the camera to avoid false detections due to car headlights. The sensor It is placed in the rear cable gland of the case.

It is absolutely necessary to avoid light sources distorting the detection of this sensor, because in this case the camera will not work properly at night. Above all, you need to avoid the presence of lighting in the vicinity of the camera which would impede the LEDs turning on.

For proper operation, make sure that the camera's front LEDs turn on at night.

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# **Network Configuration**

After connecting the camera to the network and supplying power via POE or with external power supply you need to proceed with configuring the network parameters in order to be able to make the cameras accessible from computers. The cameras come with

Factory address 192.168.1.109 or 192.168.1.100

Username: admin

Password: admin or blank

This data is shown on the label on the camera and on the packaging.

#### SOFTWARE SEARCHTOOL

To assign the correct IP address to the camera, use the configuration software SEARCHTOOL which can be downloaded from our website SOFTWARE | IP CAMERAS | section. RY SERIES. The function of this software is to detect the presence of the network camera, whatever its address, and allow you to change the address of the camera so as to be consistent with the local network. In fact, we remember that because the camera is visible from other PCs on the network, the first 3 parts of the address must be IP addresses are the same as those of other PCs on the network and the subnet mask is also the same. It is advisable connect one camera to the network at a time and insert new ones only after configuring the previous ones.

#### **PRELIMINARY CHECKS**

Before proceeding, you need to obtain some information from your network administrator about the IP address management used on your network. You need to know an IP address. to be able to assign to the camera that is not the same as any other device already present on the network. If you are unsure about how your network works, you can use some commands in the DOS PROMPT.

On a network PC, launch a DOS window available among the Windows accessory programs. Type IPCONFIG at the command prompt and press ENTER. The parameters will appear. TCP/IP. The second line is the IP address assigned to your computer.

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In the example above the address of the PC you are working on is 192.168.2.3 and the subnet
The mask used is the classic 255.255.255.0. You can therefore assign a
address of your choice such as 192.168.2.XXX, where XXX stands for a number between 0 and 255.
It's importantchoose an address that is not already used by others
equipmentnetwork. To verify that the chosen address is free, try performing
a PING from the same DOS window by typing PING followed by a space and the IP that
you want to assign to the camera. If there is no device matching the
that address, you will receive 4 REQUEST TIME OUT as in the following example:

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\(\mathrm{W}\)Documents and Settings\(\mathrm{W}\)AMD\(\right)ping 192.168.1.6\)

Pinging 192.168.1.6 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

Ping statistics for 192.168.1.6:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\(\mathrm{W}\)Documents and Settings\(\mathrm{W}\)AMD\(\right)
```

All cameras support automatic IP address assignment by a

DHCP server. However, this mode is not recommended because in the event of a network failure or restarting the equipment it is possible that the cameras change IP address making NVR reconfiguration required.

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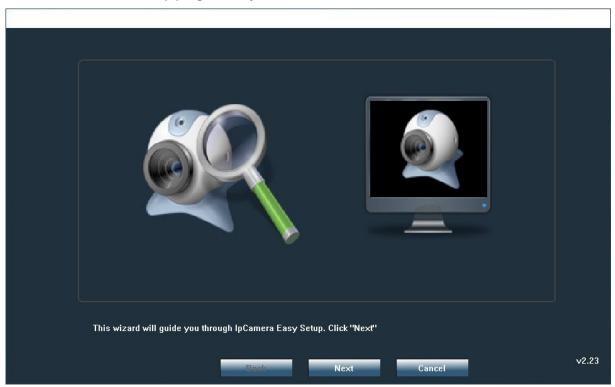
#### **USING SEARCH TOOL TO ASSIGN IP ADDRESS**

All RY series cameras come with the factory default IP address: 192.168.1.109

After connecting the camera you need to change the camera address to assign one consistent with your network (first 3 parts of the address common to all network equipment).

#### Proceed as follows:

1. Download and install the setup program on your PC.

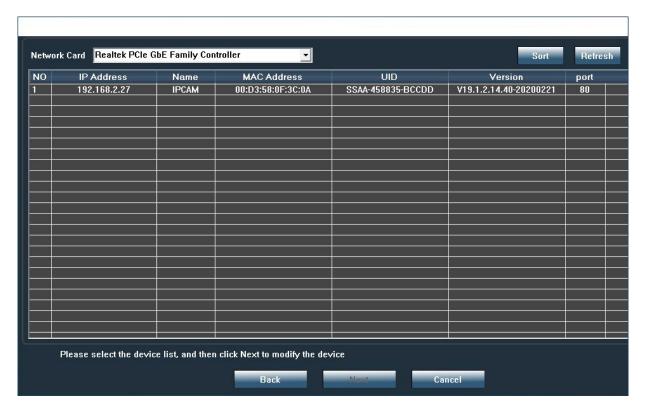


2. Press NEXT to start the wizard. The program searches for RY cameras. present on the network and lists the new camera in the table.

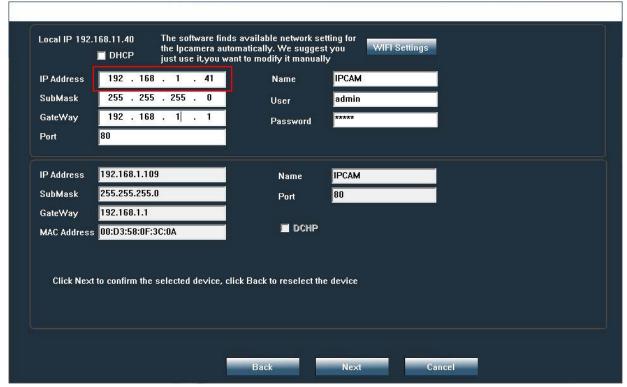
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3. Click on the camera and the NEXT button to open the address configuration page



4. Now enter the correct network parameters you want to assign to the camera. **The address IP**must be entered in the red box. The first 3 digits must be the same as those used by the your network and not be used by other equipment, as we have explained extensively in the previous chapter. The **SUBNET MASK**must be the one used by your network (in

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type 255.255.25.0). The **gateway**It is the address of the network equipment that allows Internet access (usually a router with the network address xxx.xxx.xxx.1). The port The factory default setting for communication is 80 and it is advisable not to modify it.

5. You can edit the network parameters as desired by typing in the boxes. In the USER boxes PASSWORD you must enter the camera's access credentials which are factory set USER: admin

PASSWORD: admin

- 6. Press NEXT to transfer the configuration to the camera.
- 7. You're done. The camera is now configured correctly to communicate with your network. If you have Connect other cameras one at a time and assign different addresses to each of them.

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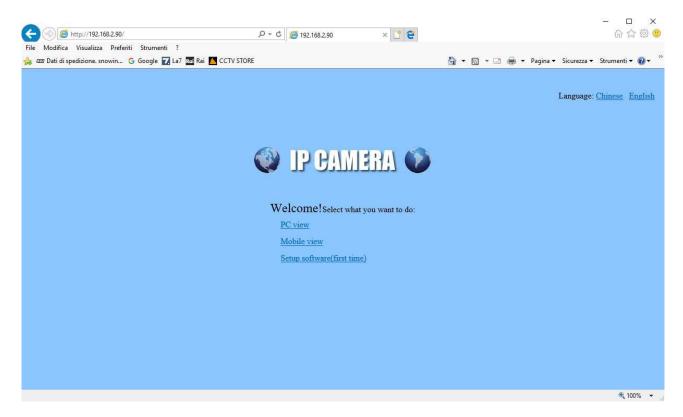


## **Browser access**

To control the camera you can use any Internet browser, such as Google Chrome or Firefox.

#### **LOG-IN**

If the connection to the camera is successful, the log-in window appears.



Select ENGLISH as the language and PC VIEW as the mode. Then enter your credentials.

The factory login data for RY Series cameras are:

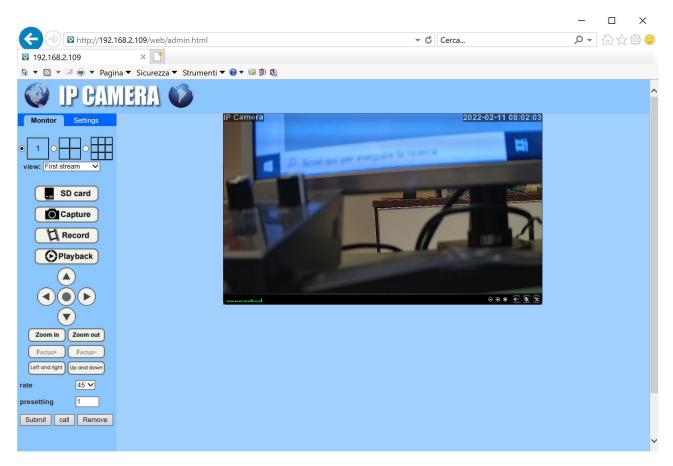
USERNAME: admin PASSWORD: admin

You access the camera control mask.

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In this live view window there are some commands that you can use right away to install

The camera must be adjusted correctly. The main one is the lens adjustment, which is described below.

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# Lens adjustment

These cameras are equipped with a motorized lens with autofocus. For effective capture For license plates, it is essential that the lens is perfectly adjusted. The adjustment is carried out by connecting with the browser, as explained in the previous chapter.

First press the ZOOM IN/OUT button and adjust the width of the frame (wide angle/zoom) depending on the area to be framed.

Remember that a wider angle inevitably corresponds to a lower image detail.

It is usually best to frame the narrowest possible width around the location where it will be placed. to position the license plate so that it appears as large as possible in the frame.

These cameras can cover up to 3 lanes at the same time.

Once the field of view is defined, focusing will take place automatically.

You can also further act on the FOCUS button to refine the manually focus on the framed area.

Remember that each lens has its own depth of field that you can focus on perfectly only a portion of the space in front of the camera. Focus on the area of greatest relevance where the vehicle license plate will be located to adjust the focus as appropriate optimal. Make sure you have as large a monitor as possible to be able to properly evaluate the quality of detail.

For a correct adjustment of the lens it can be useful to position a stationary car in the exact point where the license plate is read. This adjustment should be made in vision at night, where conditions are worse.

Here's an effective shot as an example



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# **ANPR** regulation

These ANPR license plate capture cameras are developed to capture the license plate in a readable in all conditions.

Connected to an Onvif NVR, they guarantee that legible license plates are always found in the recordings.

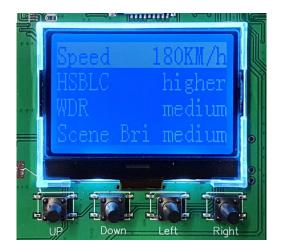
The cameras are supplied with factory settings that allow the reading of the

license plates in most situations. However, there are some adjustments you can make.

tweak to optimize performance in your situation and that are configured with the screen inside and its 4 buttons: 1 Up, 2 Down, 3 Left, 4 Right.

Use buttons 1 and 2 to move around the menu and buttons 3 and 4 to change the value of the item selected.





SPEED-Select the maximum speed of vehicles in transit. You have the following steps available:

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30km/h, 60km/h, 90km/h, 120km/h, 150km/h, 180km/h.

Consider that the higher the speed of the vehicles set, the darker the night image will be. when a faster shutter speed is required. Conversely, setting a slower speed you will get a night image that also allows a decent view of the vehicle and not only of the license plate. The AUTO setting is also available, which adapts automatically.



SPEED 30 Km/h

The vehicle is also visible in color, but if the vehicle is fast the license plate appears to be moving



180 km/h

The vehicle is poorly visible, but the license plate is readable even at high speed

Be careful not to get too attracted to setting low speeds to get the night image of the vehicle in color, as in this situation a vehicle passing by higher speed will present a blurred and difficult to read license plate.

**HSBLC**–It is the electronic function that prevents glare caused by vehicle headlights. You can adjust the intensity of this function to LOW/MEDIUM/HIGH/HIGHER/AUTO.

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**HSBLC** corrected



**HSBLC** insufficient

**WDR**–This parameter allows you to increase the visibility of the environment around the vehicle. You can set this function to progressively increasing values: CLOSE (excluded), LOW, MEDIUM, HIGHER, HIGH



WDR CLOSED

The environment around the vehicle is poorly visible

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**WDR MEDIUM** 

The environment around the vehicle is more visible

**BRIGHT SCENE**–Here you can set the night brightness of the environment in which the recovery. You can choose the increasing values CLOSE (excluded), LOW, MEDIUM, HIGHER, HIGH. It is However, it is recommended to keep the factory setting for this parameter except of particular shooting situations. For example, it may be a good idea to set HIGH lighting in environments that are always well lit at night, such as in the surveillance of a motorway toll booth or a gas station.



SCENE BRIGHT CORRECT



SCENE BRIGHT EXCESSIVE

LED LIGHT-Here you can adjust the intensity of the IR illuminator to suit the distance

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of the recording. You have 13 levels of LED brightness available (1..13). If the license plate is recorded from close range, under 10 m for example, it may be advisable to reduce the brightness of the LEDs to avoid that it looks too white.

To correctly adjust the lighting, place yourself in real darkness conditions with the lights turned on. by placing a stationary vehicle at the license plate reading point. If the license plate is whitened with the illegible characters, reduce the power of the LEDs.



**CORRECT LED POWER** 



**EXCESSIVE LED POWER** 

**CDS START**–For a good reading of the license plates in the dark it is necessary that the front IR LEDs are turn on in night mode. Here you can set the threshold for turning on the IR LEDs from 1 to 10 depending on the night lighting of the environment. If you set a low value the LEDs will They'll light up sooner. With a higher value, however, it will have to be darker for the LEDs to light up. By reducing this setting to low values you can compensate for the presence of any sources bright lights near the camera which prevent the LEDs from turning on and prevent good night-time license plate reading.

**CHECK MODE**–This parameter concerns the HSBLC function for suppression of the headlight glare described above. If you leave the factory setting

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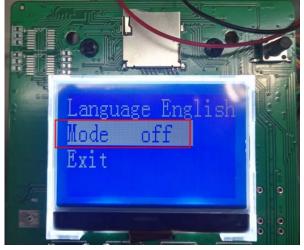


CHECK MODE ON, the HSBLC function is activated only when a vehicle passes while it remains disabled if no vehicles are passing. This usually improves the overall quality of the shot. because the HSBLC function tends to mask any areas of the shot that are very illuminated. However, it is possible to disable this option by setting CHECK MODE OFF for ensure that the HSBLC function is always active. This setting is recommended if the vehicle remains in the imaged area for a short time and ensures that the anti-glare will be always in operation and the license plate always legible.



**HSBLC TIME**-Adjusts how long the HSBLC function remains active when a vehicle (2..5 seconds) when the present option is set to ON (CHECK MODE ON)

**MODE**–This setting is factory set to ON. This means that the camera adjusts the shutter speed (EXPOSURE) automatically, based on the shutter speed setting half. It is advisable to keep this setting because the brightness of the image will be automatically defined based on the speed of the vehicles to be filmed. If you set this item is OFF instead you need to adjust the shutter speed with the browser





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## **Access with IPCamera client**

To control RY cameras from your computer you can download the IP software from our website CAMERA CLIENT in the SOFTWARE | IP CAMERAS | RY SERIES section. This program

It allows you to manage the cameras from your PC without using a browser. It can be activated in just a few minutes. passages.

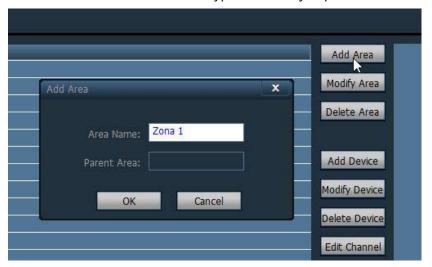
The factory login credentials are:

USER: admin PW: empty field

 The IPCamera Client program provides the management of areas within which to insert the cameras. This is a useful function for dividing the system if it is made up of many Cameras. First you need to create an area to place the cameras.
 Press the CONFIGURATION button,



then click ADD AREA and type the name you prefer.



2. Now you need to choose the cameras to add to the area you created. Press SEARCH to find the camera you configured, then select the camera and the area you have created. Then press the >> button to add the camera to the zone.

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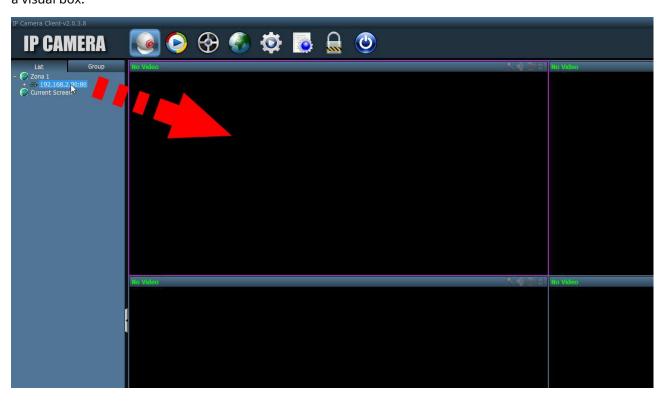




3. Now you can return to the live viewing area by clicking the icon at the top



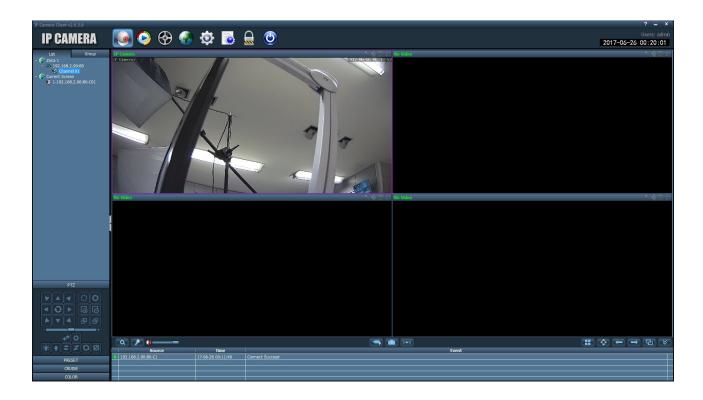
On the left, you'll find your zone with the IP address you added. Double-click to show the video channels connected to the IP address, then drag the video channel with the mouse a visual box.



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# Connection with RTSP player

The cameras support the RTSP protocol which is factory set to use the port 554. You can connect to the camera using any RTSP player such as VLC.

The address to be called must have the following syntax:

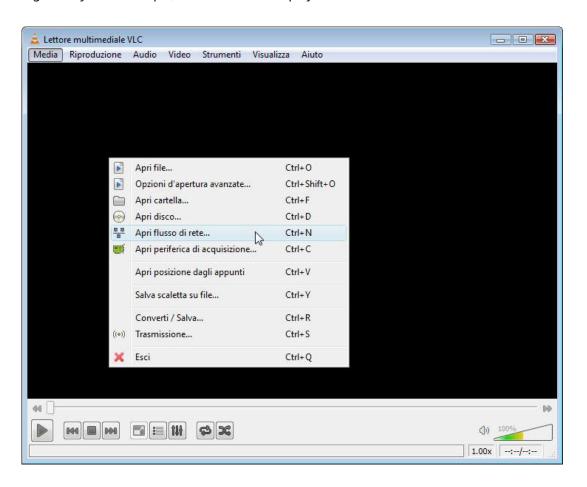
RTSP://IP/11 to receive the main stream

RTSP://IP/12 to receive the secondary stream

Here's an example:

rtsp://192.168.2.90/11

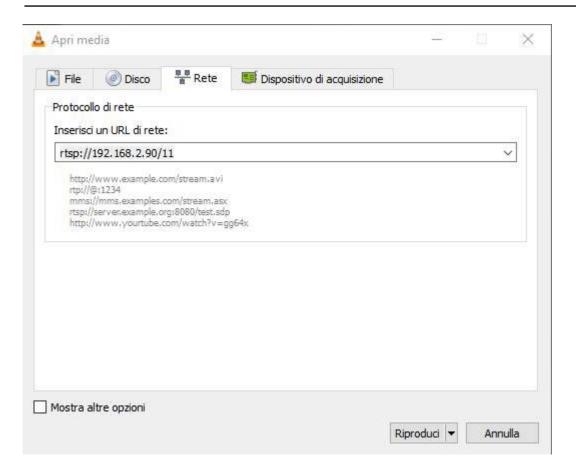
Right awayasfor example, work with the VLC player:



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## **Access with ONVIF NVR**

The RY series IP cameras are cameras designed for be connected to NVR network video recorders. To do this, the ONVIF standard is used which cameras fully support.



To connect the cameras to ONVIF NVRs you need to do
Refer to the manuals of the recording equipment. As a rule, NVRs recognize in
automatic communication parameters to communicate with the cameras.

If manual entry is required, please note that the RY series cameras use the**brings**8080 to communicate with NVRs on the onvif protocol.

#### **ATTENTION**

When uploading a RY camera to an NVR it is best to NEVER KEEP the credentials (user and passwords) proposed by the NVR, even if they appear correct, but always overwrite both of them manually.

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## Web access with P2P

Connecting to these cameras via the Internet is usually not done by calling directly the individual cameras but by connecting them to the NVR. For this type of connection you need to refer to the NVR manual.

And yet it is also possible to connect directly to the cameras.

To make this connection easier, even without having a static IP, and without configure the router ports, the cameras have support for a P2P cloud server.

Every user of a RY series camera purchases together with it the possibility of enjoying free of charge of a CLOUD service available online to make the connection via Internet made easy.

This service allows you to solve the two main problems in the Internet connection to the DVR, i.e.:

- Subscribing to a DDNS service if you don't have a fixed Internet IP
- Router Port Mapping

#### **ACTIVATION OF CLOUD SERVICES**

The first operation to be done in order to use cloud servers and enable server management cloud in the camera configuration.

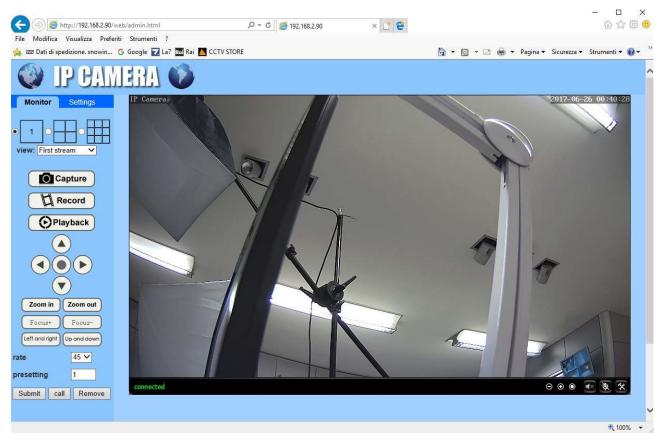
To later enable or disable the cloud server, proceed as follows:

1. Connect to the camera with the Internet browser as shown in the previous chapters

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2. Select the SETTINGS folder, then, in the left menu, open the NETWORK/P2P page



3. The camera you purchased is already registered in the CLOUD server and is marked with a unique Serial Number (UID) that you see on this page. To enable the cloud service move the selector to ON and press APPLY



## P2P web access from PC

To connect to the Internet with a computer using the P2P cloud, use the HIP2P program.

CLIENT that you can download from our website in the SOFTWARE | IP CAMERAS | RY SERIES section.

To connect to the Internet using the HIP2P program, proceed as follows:

1. Launch the program.

As with the IPCamera program described above, the factory credentials are:

USER: admin

PASSWORD: leave blank



2. The program provides for the management of areas within which to insert the cameras. It is a

This function is useful for dividing the system if it consists of many cameras. As before

what you need to do is create an area where you can put the cameras.

Press the CONFIGURATION button,

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then click ADD AREA and type the name you prefer.



3. Now you need to add the camera by operating in the settings and in the DEVICE section MANAGEMENT. You should not use the IP address, but the UID code that you were able to detect in the P2P configuration as seen above. Press INPUT UID and enter the data as in the example below. You need to enter the camera UID as you read it on the page. browser, then a name of your choice to distinguish the camera and finally the login credentials to the camera which are factory:

USER: admin

PASSWORD: admin

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4. Now you can return to the live viewing area by clicking the icon at the top

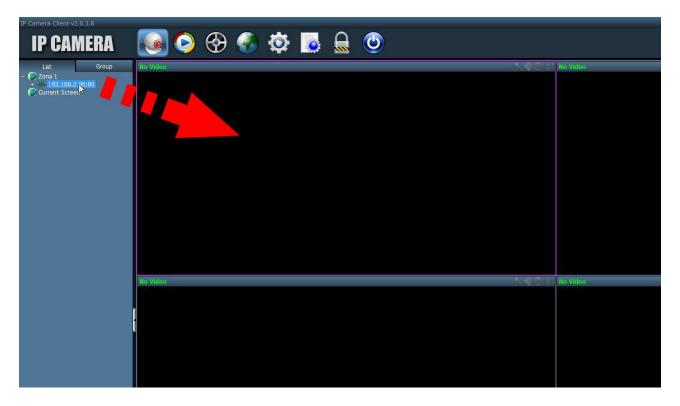


On the left you will find your area with the camera you added inside. Drag it with the mouse in a visual frame.

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## Web access with P2P from APP

You can connect to the cameras via the Internet using the P2P cloud and the application **CAMHI**available for Android and iOS and can be downloaded for free from Google Play or the Apple Store.



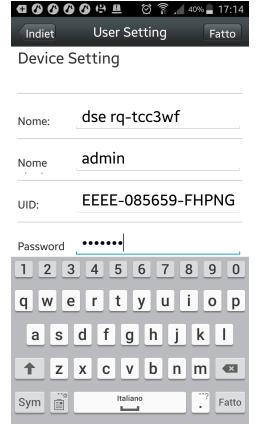
You can install the application on both smartphones and tablets.

To use the application, proceed as follows:

- 1. Launch the application and press the + ADD CAMERA symbol.
- 2. Enter the connection data. You can enter a name of your choice that distinguishes the camera, then the UID code that you detect in the network configuration with Internet Explorer as seen above, finally the username and password which by default are:

NAME: admin

PASSWORD: admin



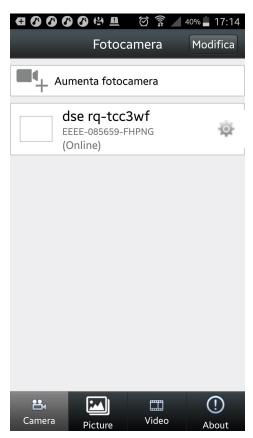
3. You will now find the camera in the camera list. Make sure the text "Camera" appears.

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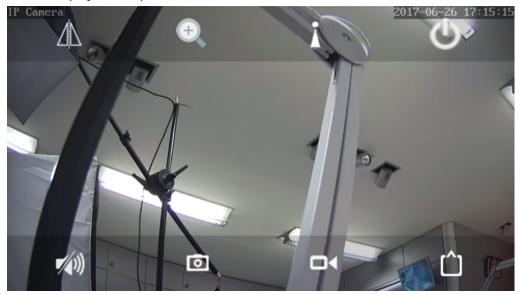
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ONLINE which means the camera has been detected as connected to the cloud server.



4. To start live playback, tap the camera.



5. You can take photos or record videos by tapping the camera icon.

To listen to the audio, tap the speaker icon. You can flip the image with the triangle icon. horizontally or vertically. Press the power icon to exit live view.

Of particular importance is the square icon at the bottom right where you can choose whether to receive the lighter (LOW) mobile stream or the high-resolution main stream

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(MAX). This last option should only be used on a local network or with Internet connections to High performance. The other icons in this window are not active on these models.

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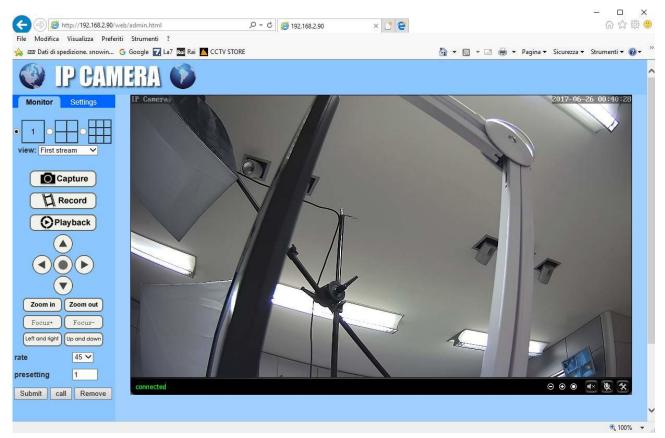
# **Advanced configuration**

The configuration of more specific camera parameters can be done via the browser.

Typically, making these adjustments is not necessary in most applications.

Log in with your browser as seen above.

The settings shown in this section may vary depending on the camera model.



Then choose the SETTINGS tab where all the camera settings are contained.

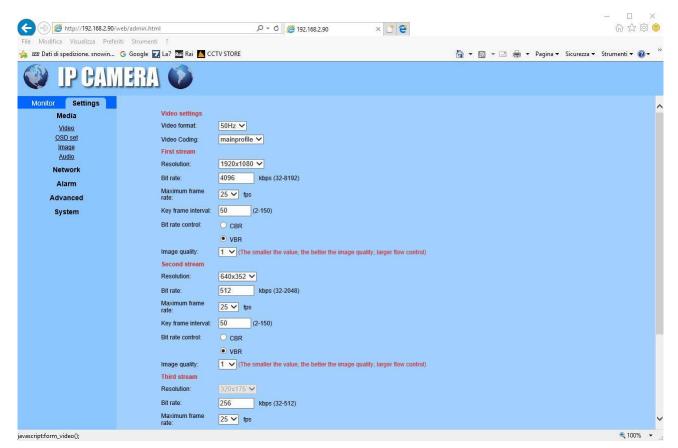
#### **MEDIA/VIDEO**

On this page you can set up the camera's video streams. The camera can handle 3 Video streaming + one streaming for mobile devices. From the connected client you can choose which stream to receive based on the available bandwidth.

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For each stream you can set the resolution (e.g. 1920x1080), the bit rate or bandwidth occupied (a higher bandwidth corresponds to less compression and therefore better quality), the frame rate or number of frames/second (max 25/30 f/sec which corresponds to real-time video) and finally the type of bitrate control (VBR=variable or CBR=constant).

The first stream is the one used by the NVR and the equipment on the network.

local. It's best to leave it at the highest quality levels.

The other streams are used with limited available bandwidth. You can leave the factory settings at unless the bandwidth available via the web is really limited and you don't feel the need to further reduce the bandwidth used.

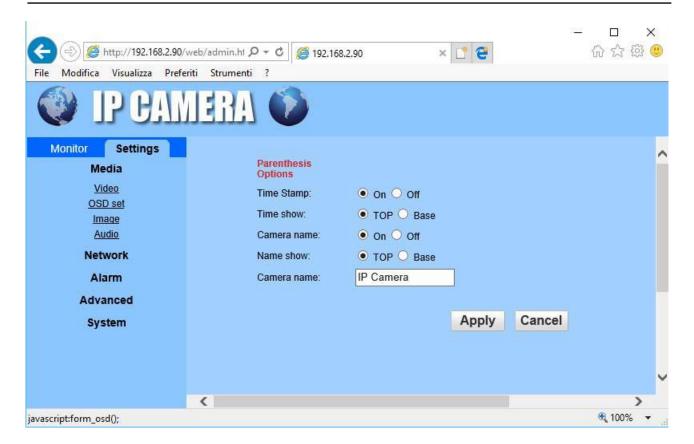
#### MEDIA/OSD SET

In this section you can define what information to display in overlay:

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TIME STAMP - time and date overlay

TIME SHOW – shows the date at the top (TOP) or bottom (BASE)

CAMERA NAME - displays the name of the camera

NAME SHOW – shows the name at the top (TOP) or bottom (BASE)

CAMERA NAME - type the name you want to assign to the camera

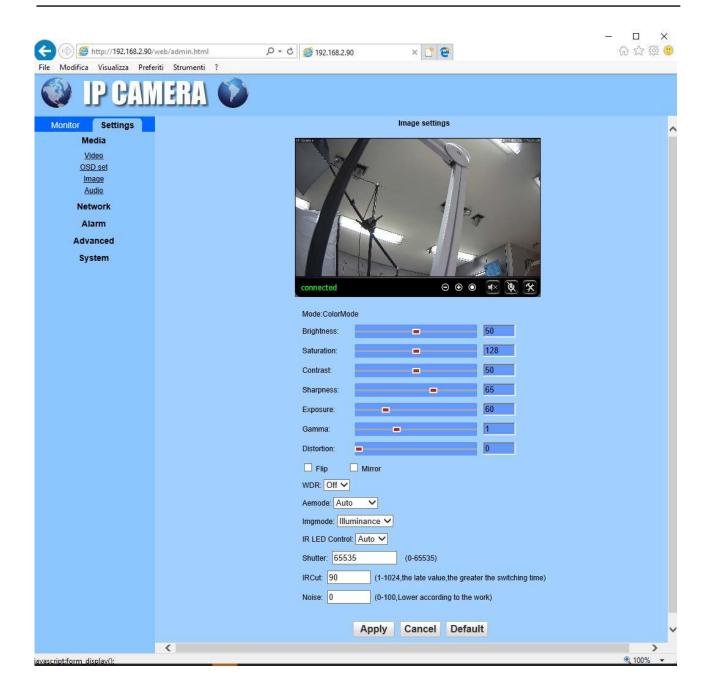
#### MEDIA/IMAGE

In this section you can adjust the image

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SLIDERS - Use the sliders to adjust the visual parameters

FLIP/MIRROR - Flips the image horizontally or vertically.

WDR - Wide Dynamic Range - Improves viewing of areas with different brightness levels

AEMODE - Adjusts the operation of the electronic shutter (automatic, internal, external)

IMGMODE - Not used

IR LED - Set the image to B/W or color or with automatic day/night switching

SHUTTER - Not used

IRCUT - Not used

NOISE - Electronic video noise reduction (0-100)

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#### **MEDIA/AUDIO**

In this section you can adjust the audio. Some cameras have an external input. to connect a microphone.



AUDIO TYPE - Defines audio compression G711 or G726

ON/OFF - Activates audio on the camera's 3 video streams

INPUT - Select MIC for microphone input

INPUT/OUTPUT VOLUME - Adjusts the sensitivity and volume of the audio input

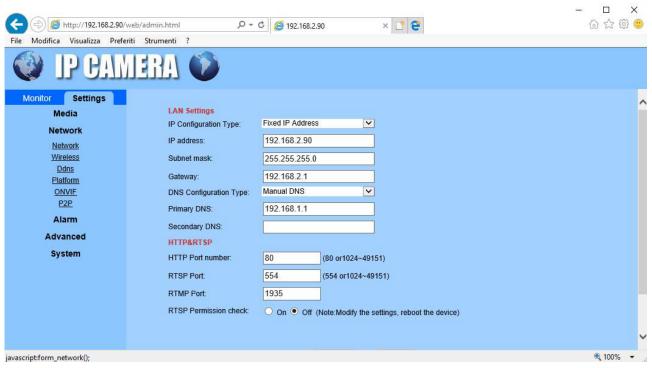
### **NETWORK/NETWORK**

In this section you set the network parameters of the camera

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Typically these parameters are programmed during installation with the IPCamera program.

In this window you can modify them if necessary, taking care to do so in a way that aware that changing these settings normally leads to having to adjust even client devices to maintain the connection.

**IP TYPE**: The cameras support both manual IP address assignment and automatic assignment by a DHCP server on the network. This is generally not done used because it could cause the camera address to change over time.

**IP ADDRESS/SUBNETMASK/GATEWAY**: These are the classic parameters that allow the peripheral to communicate with its network. Normally these parameters are assigned during installation with IPCamera software as illustrated in the installation manual. If If you enter the data manually, the camera must share the first 3 numbers.

of the IP address with the rest of the network (e.g. 192.168.0.xxx) and also the subnet mask (usually 255.255.255.0). The gateway is the IP address of the device that allows access to the Internet, of It controls a router and is almost always number 1 on the network (e.g. 192.168.0.1)

**DNS TYPE**–Defines whether to enter the DNS manually or retrieve it from the router automatically **DNS**–It is the DNS server address that allows the camera to interpret the website addresses web. If this address is invalid the camera cannot contact websites such as for example our P2P server or the NTP server for time.

You can enter the DNS server address of your Internet Service Provider (ISP) or other servers Online DNS like Google's (8.8.8.8).

#### **DOORS**

Here you can change, if necessary, the communication ports that the camera uses in the

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network dialogue.

HTTP PORT-This is the port used by the camera to connect to browsers. The port 80 by default is the one normally used by browsers unless you specify a different port. If change this port you will need to indicate the new port in the address bar of the browser at every connection. For example, to connect to the address 192.168.2.120 on port 72 should be called http://192.168.2.120:72

**RTSP PORT**: This is the port used for video streaming with RTSP protocol to clients such as VLC, REALPLAYER etc. Factory: 554

**RTMP PORT**-This port is used in encrypted security communications.

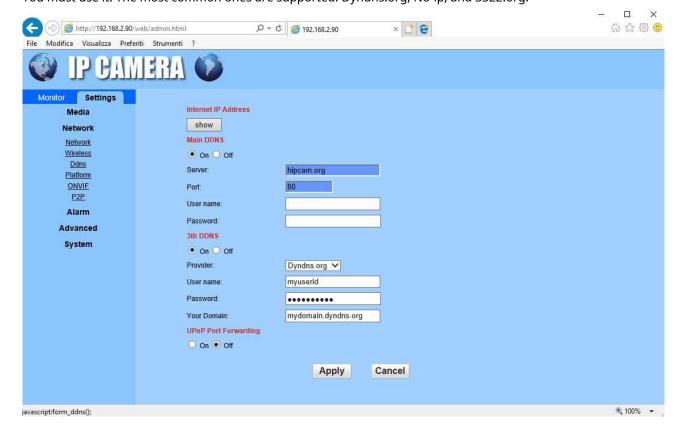
**RTSP Permission Check**–Enable if you want to require authentication before sending RTSP video

#### **NETWORK/WIRELESS**

In this section you set up the connection to the wifi network as explained previously

#### **NETWORK/DDNS**

In this section you can set up the connection to a DDNS server, if any. This feature, Although still active, it is now overtaken by the convenient P2P function of the cameras. In this window you can enter the credentials of the DDNS server if for some reason You must use it. The most common ones are supported: Dyndns.org, No-ip, and 3322.org.



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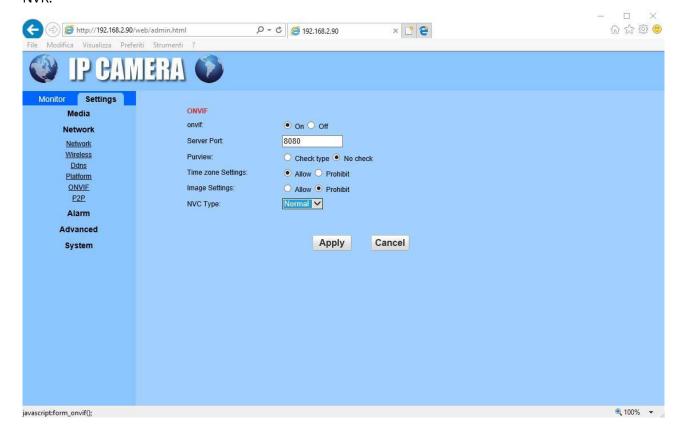
#### **NETWORK/PLATFORM**

Not used

#### **NETWORK/ONVIF**

In this section you can adjust some features in the management of the onvif protocol used by the camera to communicate with the NVRs.

It is recommended not to change these parameters unless you want to optimize the dialogue with your NVR.



### **NETWORK/P2P**

Management of the connection with P2P servers already described previously in this manual

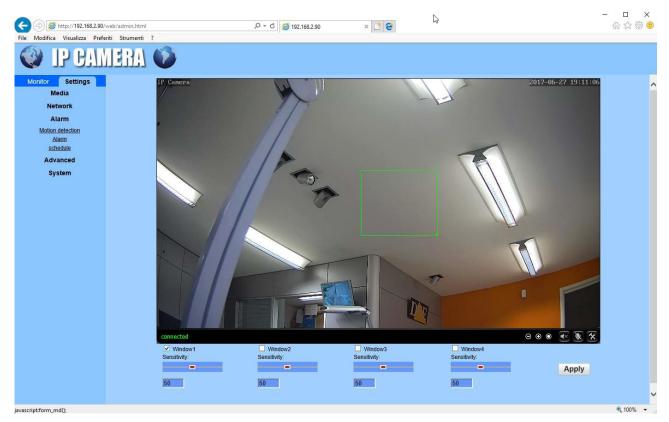
#### **ALARM/MOTION DETECTION**

These cameras can detect the presence of movement in the field of view and trigger of alarm actions. This function is called Motion Detection. It is a function that usually It is done by the NVR for greater convenience, but the cameras are also able to support it. To use motion detection you need to set a detection area

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The detection area is drawn by dragging the mouse. The cameras can manage 4 detection areas. different detections. For each one you can set the detection sensitivity with the slider.

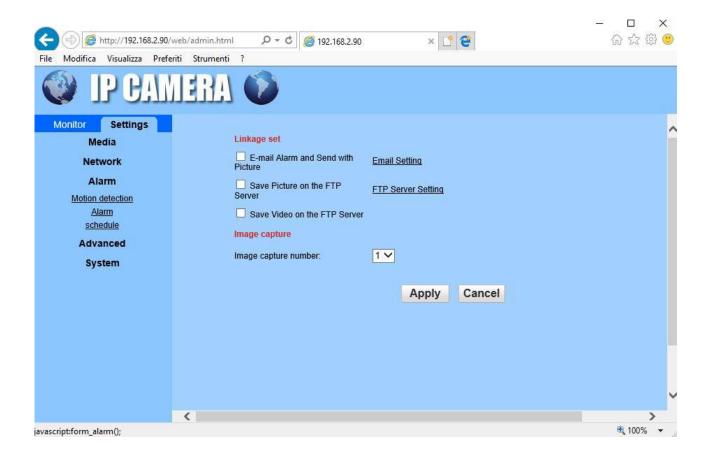
#### ALARM/ALARM

This section allows you to define which alarm actions the camera should perform in case of Motion alarm. You can send emails and upload files to FTP servers.

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E-MAIL ALARM – Enable to send alarm emails in case of motion detection. The email will be attached photo at the time of detection.

EMAIL SETTING – This link opens a popup where you can enter your email sending data. You must enter the name of the SMTP server and the port to use (check with your internet provider), the address recipient (SEND TO) and the one you want to appear as the sender (SENDER), finally the subject and the email text. There is a TEST button to test the connection.

SAVE PICTURE ON FTP – Enable to send the motion event photo to an FTP server net.

FTP SETTING - This link opens a popup where you can enter your FTP server information. You must enter the FTP server address, port (usually 21) and login credentials. You can specify the folder where to save the files.

SAVE VIDEO ON FTP – If you enable this option the camera sends a short 15 minute video seconds relating to the event in addition to the alarm photos.

IMAGE CAPTURE NUMBER – Here you define how many photos to take in case of motion alarm and then send them via email or ftp (1 to 3).

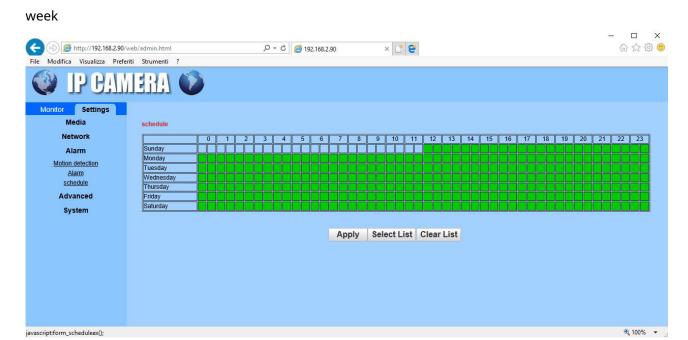
#### **ALARM/SCHEDULE**

This section allows you to enable motion detection only in certain time slots of the day.

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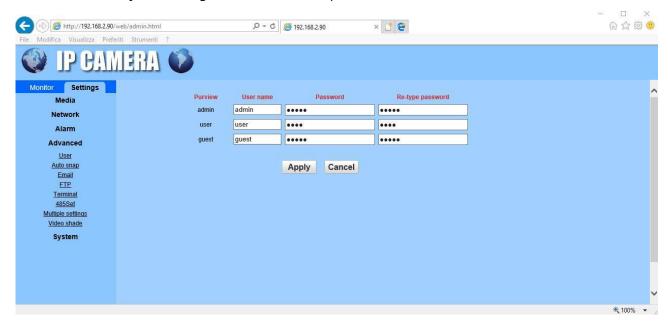
The green boxes represent the time slots where the detection will be active.

SELECT LIST - Activate all time slots

CLEAR LIST - Disable all time slots

#### ADVANCED/USER

This section allows you to change the camera access passwords.



The camera can manage 3 passwords which are factory set

- 1. admin/admin This is the administrator password with access to all functions
- 2. user/user This is the user password that allows all the live functions but not the configuration

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3. guest/guest – This is the guest password that only allows you to view the live image In these boxes you can change your username and password as you wish, taking care not to forget them.

#### **ADVANCED/AUTO SNAP**

This feature is very convenient if you use the camera to update the image of a site Internet for example for a webcam service. Thanks to this function the camera sends a frame to an ftp server at regular time intervals.



FTP SNAP INTERVAL – You can set the time interval between one send and the next. The interval is very wide: from 5 to 86,400 seconds.

SAVE PICTURE - Enables sending frames via FTP

FTP – Allows you to enter your FTP server information. You must enter the FTP server address and port. (usually 21) and your login credentials. You can specify the folder where you want to save the files.

#### ADVANCED/TERMINAL

Not used

#### **ADVANCED/485 SET**

Not used

#### **ADVANCED/LAN SEARCH**

Not used

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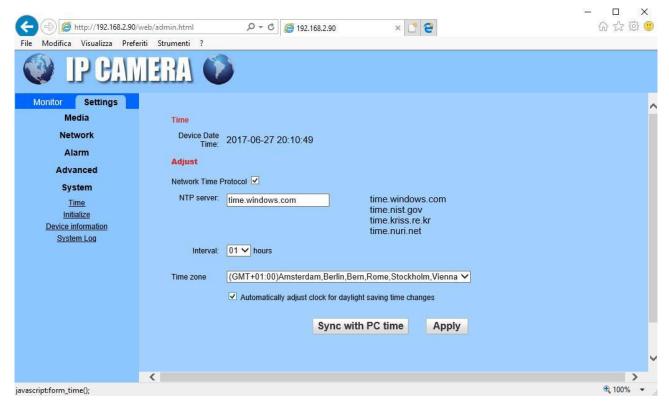


#### ADVANCED/VIDEO SHADE

Not used

#### SYSTEM/TIME

This section allows you to change the time displayed by the camera overlay



TIME - Displays the current date and time stored in the camera

NETWORK TIME PROTOCOL (NTP) - By selecting this option you can make the

The camera automatically synchronizes the time and date via the Internet with an NTP (Network Time Protocol) server.

Time Protocol) chosen from those available in the list. This is a very valid option because allows you to always keep the time correct. For synchronization to occur, you need to that the network to which the camera is connected has Internet access and that in network configurations, the gateway (usually the router address xxxx.1) and the server are present DNS (Google 8.8.8.8 recommended).

INTERVAL – Indicates the synchronization frequency with the server.

TIME ZONE – Select your reference time zone. For Italy, GMT+1.

AUTOMATICALLY ADJUST CLOCK FOR DST - Select this option to have the

camera changes its time automatically when daylight saving time changes.

SYNC WITH PC TIME - Pressing this button the camera automatically synchronizes the

date and time with the computer you are using.

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#### **SYSTEM/INITIALIZE**

This section allows some maintenance functions



LENS - Not used

REBOOT - Reboot the camera

FACTORY DEFAULT - Restore factory parameters

BACKUP SETTING - Exports the camera configuration to a .BIN file that can be saved on your

Local PC

RESTORE – Allows you to reload the previously saved camera configuration

UPGRADE - Allows you to update the camera firmware

#### SYSTEM/DEVICE INFORMATION

This section is for informational purposes only and shows all the camera status data.

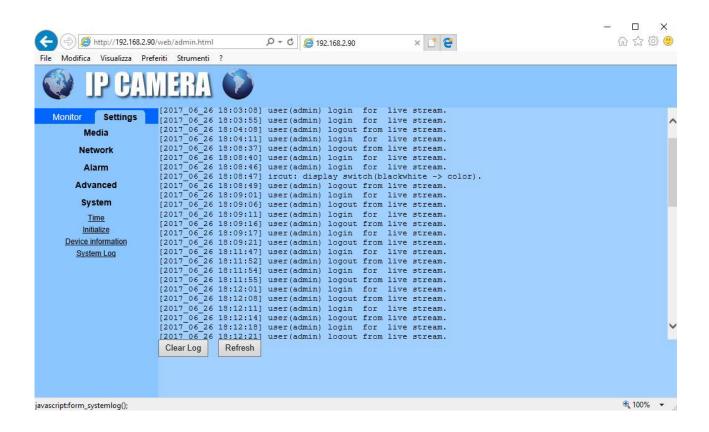
### SYSTEM/SYSTEM LOG

This section contains the camera's event memory

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# Restore factory configuration

If you've messed around too much with the adjustments and now you can't get the vision anymore correct license plate settings you can restore factory settings.

The factory settings are the most suitable for most applications and

They almost always allow the license plate to be read in all situations.

To restore factory settings, locate the button on the camera board

RESET, located above the screen, and hold it for 3 seconds. The reset restores all the

factory configurations preserving only the network configuration.