

# TP-LINK®

## User Guide

**NC210**

**HD Wi-Fi Cloud Camera**



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<http://www.tp-link.com>

## **FCC STATEMENT**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

## **FCC RF Radiation Exposure Statement:**

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

## **CE Mark Warning**

# **CE 1588**

This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Adapter shall be installed near the equipment and shall be easily accessible.

## Caution

Please make sure the temperature for adapter will be from 0 °C to 40 °C.

## Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

- 1) This device may not cause interference, and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## Radiation Exposure Statement:

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

## Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

## Industry Canada Statement

CAN ICES-3 (B)/NMB-3(B)

## Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.

## NCC Notice

注意！

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

## BSMI Notice

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。

- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮，請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。
- 請不要私自打開機殼，不要嘗試自行維修本產品，請由授權的專業人士進行此項工作。



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## Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don't disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
- Avoid water and wet locations.
- Adapter shall be installed near the equipment and shall be easily accessible.
- The plug considered as disconnect device of adapter.



- Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have any questions, please don't hesitate to contact us.

## Explanation of the symbols on the product label

Symbol	Explanation
	DC voltage



#### RECYCLING

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.

User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.

## DECLARATION OF CONFORMITY

For the following equipment:

Product Description: **HD Wi-Fi Cloud Camera**

Model No.: **NC210**

Trademark: **TP-LINK**

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives:

Directives 1999/5/EC, Directives 2004/108/EC, Directives 2006/95/EC, Directives 1999/519/EC, Directives 2011/65/EU

The above product is in conformity with the following standards or other normative documents

**EN 300 328 V1.9.1**

**EN 301 489-1 V1.9.2 & EN 301 489-17 V2.2.1**

**EN 55022: 2010 + AC: 2011**

**EN 55024: 2010**

**EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 +A2: 2013**

**EN 61000-3-2:2014/EN61000-3-3:2013**

**EN 62311: 2008**

*The product carries the CE Mark:*

**CE 1588**

Person responsible for making this declaration:



**Yang Hongliang**

**Product Manager of International Business**

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# Chapter 1 About this Guide

This User Guide contains information for setup and management of the Cloud Camera. Please read this guide carefully before operation.

## 1.1 Conventions

In this Guide the following conventions are used:

- The camera mentioned in this Guide stands for NC210 without any explanation.
- **Bold font** indicates a button, a toolbar icon, menu or menu item.

Symbol in this Guide:

Symbol	Description
 <b>Note:</b>	Ignoring this type of note might result in a malfunction or damage to the device.

## 1.2 Overview of This Guide

Chapter	Introduction
Chapter 1 About This Guide	Introduces the guide structure and conventions.
Chapter 2 Get to know about your camera	Introduces the features, application and appearance of the camera.
Chapter 3 Set up your camera	Introduces how to quickly set up the camera using the tpCamera app and how to position your camera.
Chapter 4 Configure the Camera	Introduces how to configure the camera using the built-in web management page.

## Chapter 2 Get to know about your camera

### 2.1 Product Overview

TP-LINK Cloud Camera is a versatile solution for home and office monitoring to keep an eye on your home, kids or workplace, whatever you care for most.

TP-LINK Cloud Camera is a cloud-based Wi-Fi video monitoring device with free live streaming and remote viewing, which makes it easy to stay connected with what you care most wherever you are. You can view and manage your camera from anywhere over the Internet through the TP-LINK Cloud website or through the tpCamera app for iOS and Android devices.

Through the camera's web management page, you can view the status of the camera, and configure lots of settings of the camera, such as network setting, the cloud setting, the motion detection, and the sound detection.

With Motion Detection function, TP-LINK Cloud Camera can send you immediate notification by email or tpCamera whenever motion or sound is detected automatically, allowing you to remain aware of whatever is happening on the ground.

With a stable high speed Wi-Fi connection of up to 150Mbps for NC210, you can enjoy fluid video streaming with ease.

With the adhesive (included) or screws (not included), you can place your camera anywhere you want, on the table, the wall, or even on the ceiling.

### 2.2 Main Features

- Advanced H.264 Video - For amazingly smooth HD video streaming
- tpCamera App - Use the free tpCamera app to set up, view and manage the camera remotely with your iOS and Android devices
- TP-LINK Cloud (<http://www.tplinkcloud.com>) access for easy viewing and management
- Web-based management page for basic and advanced configurations
- Easy Setup – Connect and follow the tpCamera app's instruction to install and operate the camera within minutes
- Motion & Sound Detection - Immediate notification by email or tpCamera whenever motion or sound is detected
- Email or tpCamera app notification triggered by motion detection
- Support wireless 802.11b/g/n with speed up to 150Mbps.

## 2.3 Panel Appearance

### 2.3.1 Front Panel

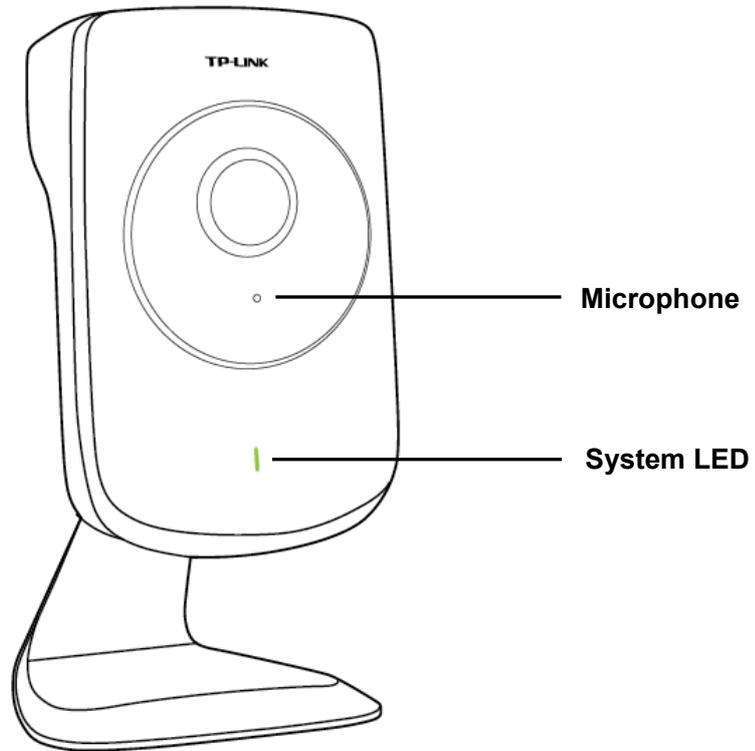


Figure 2-1 Front Panel

- **Microphone:** The camera has a built-in internal microphone. This microphone is hidden in the pinhole located on the front panel.
- **System LED:**

Status	Indication
Flashing red and green	Ready to connect.
Flashing Red	Wi-Fi not connected.
Flashing Green	Wi-Fi connected (local view only).
Solid Green	Wi-Fi connected (local & remote view).
Solid Red	System restarting.

### 2.3.2 Rear Panel

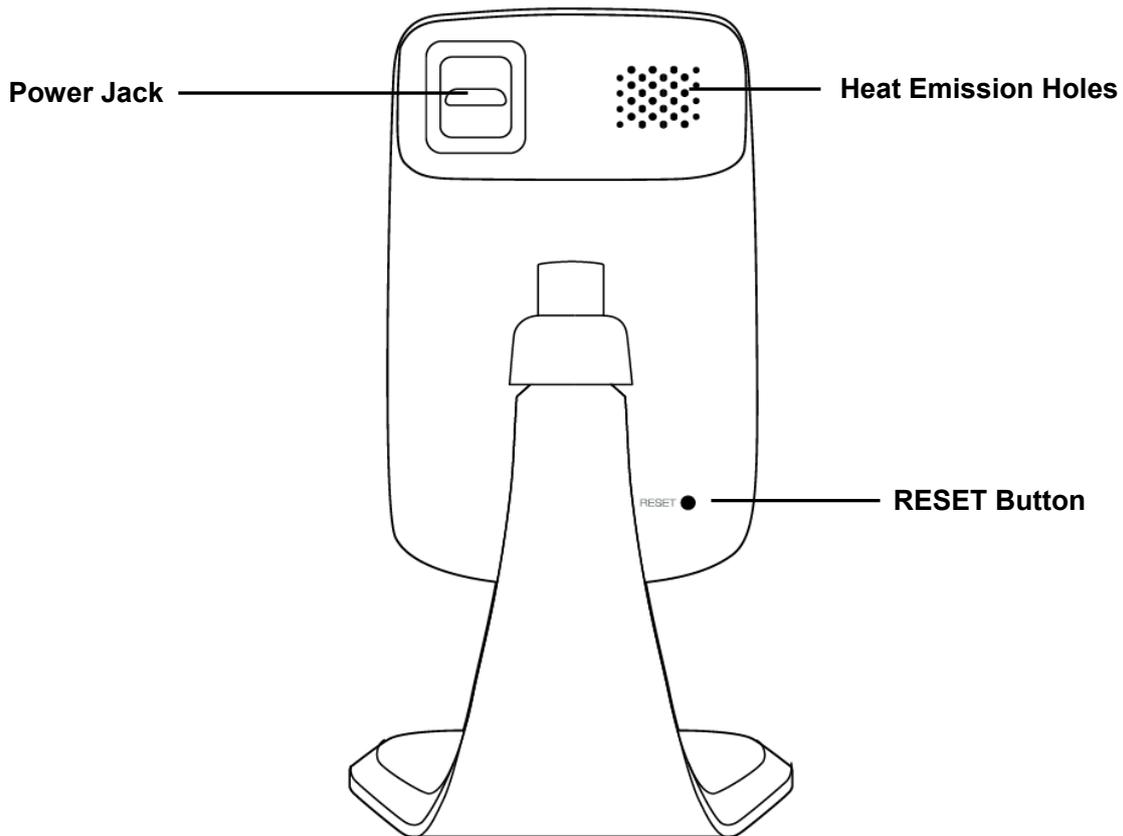


Figure 2-2 Rear Panel

- **Power Jack:** The power jack is where you connect the power adapter to the camera.
- **RESET Button:** While the camera is powered on, press the **RESET** button for 5 seconds until the System LED on the front panel turns solid red. The camera will reset and reboot.

 **Note:**

It is recommended to use a pen to press the **RESET** button on the camera. Do not use a sharp object.

- **Heat Emission Holes:** These holes are used for heat dissipation.

## Chapter 3 Set Up Your Camera

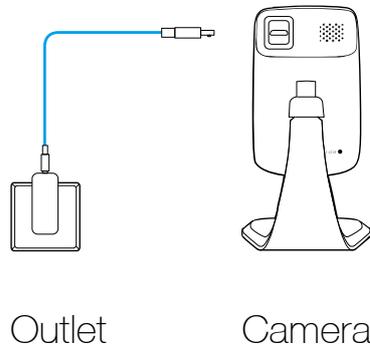
### 3.1 Set up the Camera with the tpCamera APP

You can install your camera in minutes with the free tpCamera app.

Before you start the setup process, get your smartphone and make sure that it is connected to your home network. To use the tpCamera app, your smartphone's operating system should meet these requirements: Android 4.1 or higher; iOS 7.0 or higher.

#### Step 1. Power on the camera.

Power on the camera using the provided power supply unit.



#### Step 2. Download and install the tpCamera app.

You can download the free tpCamera app from the App Store or Google play. You can also scan the QR code below to download the tpCamera app.



#### Step 3. Add the camera to your TP-LINK Cloud account.

Launch the tpCamera app, log into your TP-LINK Cloud account or create one if you do not have an account. Then follow the app instructions to add your new camera to your account.

When you reach the **My Cam** screen, you have successfully added your camera and can start to use your camera.

## 3.2 Position Your Camera

Before positioning your camera, please keep these safety guidelines in mind:

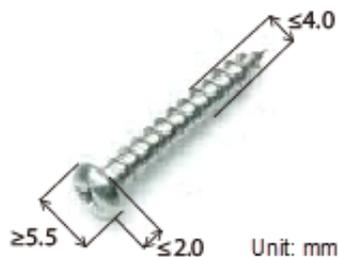
- Keep your camera out of reach of children and pets.
- Use your camera only indoors, and keep it out of direct sunlight. Make sure its operating temperature is in the range of 0-40°C (32-104°F).
- Pick a location which is close enough to a wall outlet.
- Use only the power adapter that comes with this camera in the package.

You can place your camera to your desired location. Just unplug and replug it without having to go through the app's setup again. Place the camera within the coverage of your wireless network.

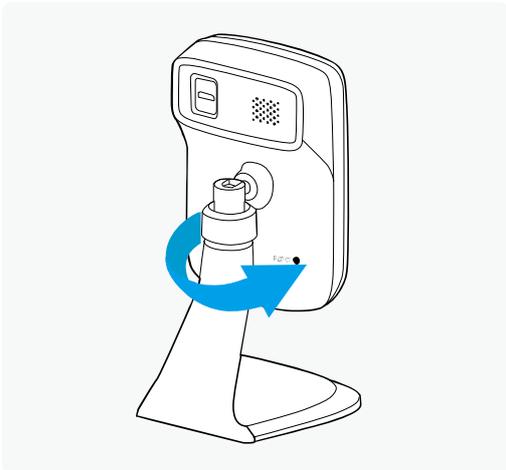
You can place the camera in various ways:

- Place it on a flat surface.
- Stick it with the included adhesive.
- Mount it as shown below.

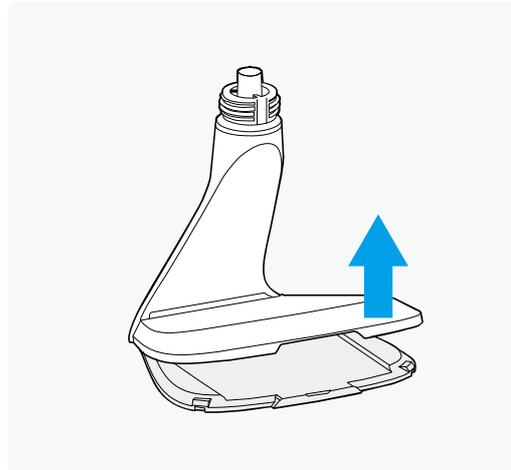
Detailed instructions on mounting your camera to a wall or ceiling are shown as follows. Before you start to mount the camera, prepare two screws which meet the following requirements.



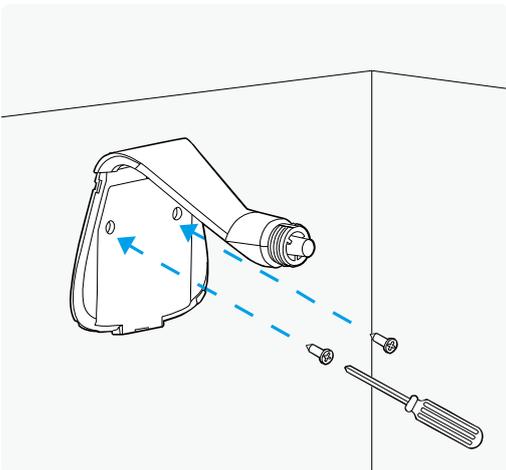
1. Unscrew the camera head.



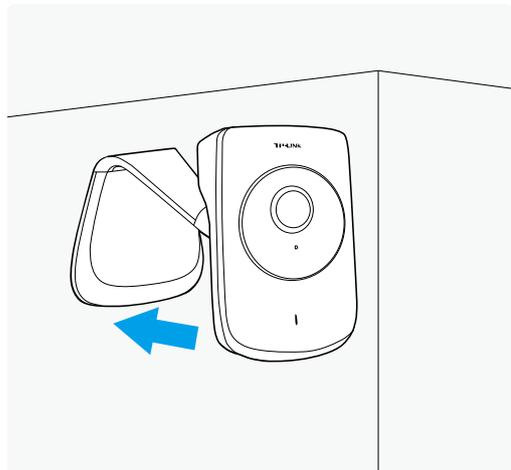
2. Remove the base cover.



3. Use two screws (not included) to secure the base.



4. Put the base cover and camera head back on.



After relocating your camera, face it towards the area you'd like to view, and then plug the power adapter into a power outlet.

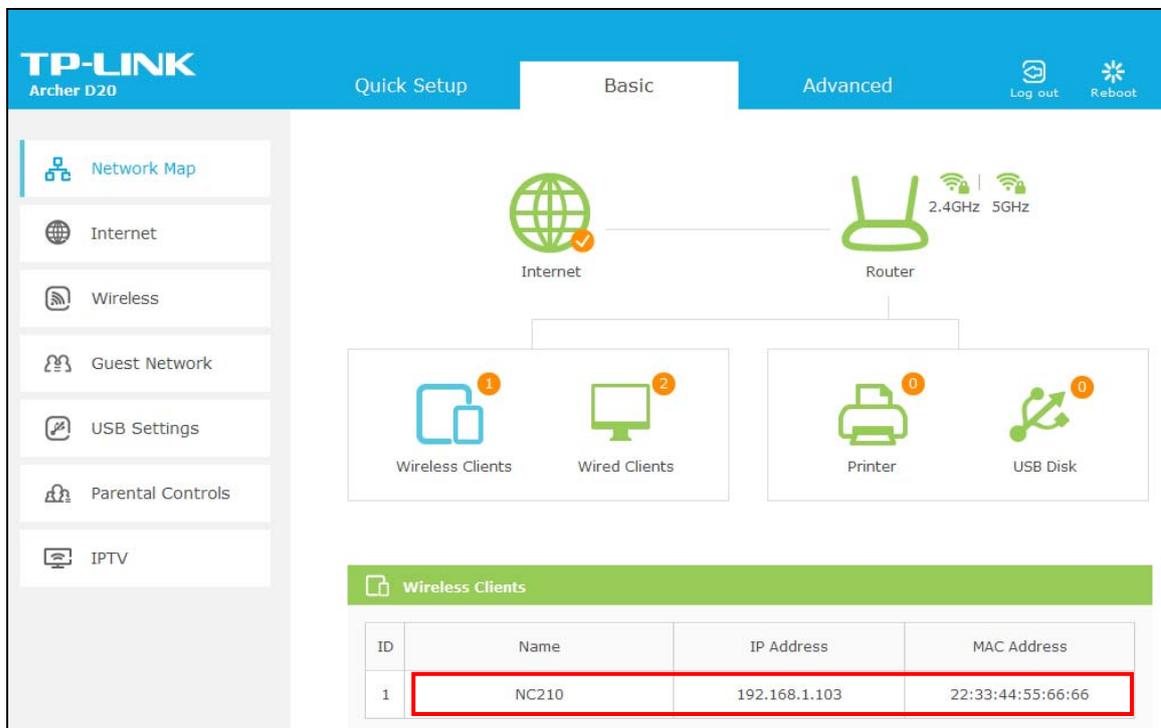
Now that you've finished positioning your camera, use the tpCamera app to check that your camera can see what you want to keep an eye on. Adjust its position if needed.

## Chapter 4 Configure Your Camera

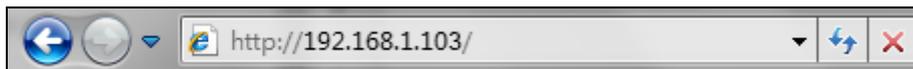
This chapter shows how to use the camera's web management page to configure the camera appropriate to your needs. In addition to the web management page, you can use the tpCamera app and TP-LINK Cloud (<http://www.tplinkcloud.com>) to view and manage your camera remotely.

### 4.1 Log in to Your Camera

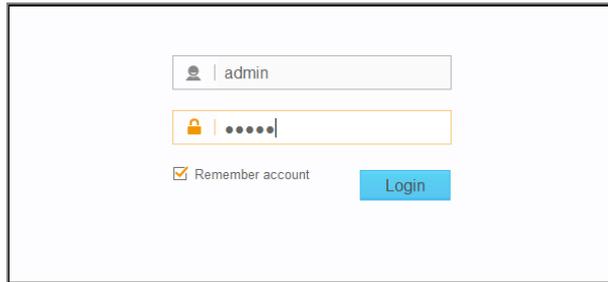
1. Make sure your camera is connected to your router wirelessly. Then connect a computer to the router via wired or wireless connection.
2. Find the management IP address of the camera from the web management page of the router. Here we use the web management page of TP-LINK Archer D20 for demonstration.



3. On a computer that connects to the same router as the camera does, open a web browser, type in the camera's IP address in the address field, and press **Enter**. Here we use `http://192.168.1.103` for demonstration.



4. Enter the default username and password (**admin/admin**). Click **Login**. The screen will display the monitor video.



The login form contains the following elements:

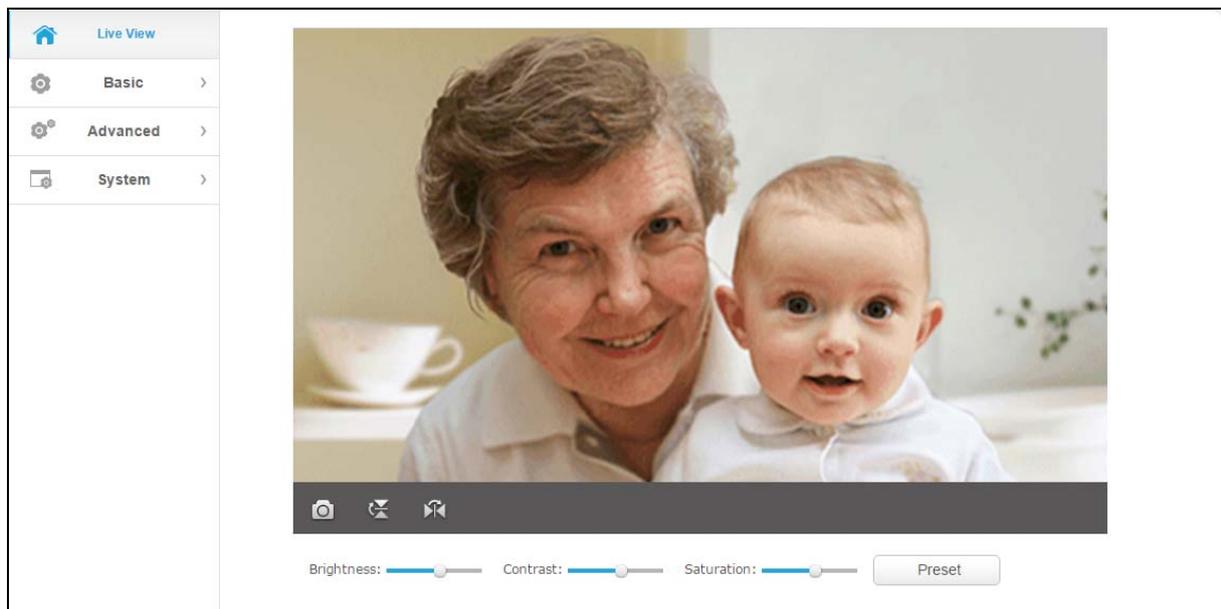
- A text input field with a user icon and the text "admin".
- A password input field with a lock icon and five dots representing the password.
- A checkbox labeled "Remember account" which is checked.
- A blue "Login" button.

**Note:**

For the administrator, the default password is “admin”. We recommend that you change it in the Account menu. (Go to “**System > Account**”)

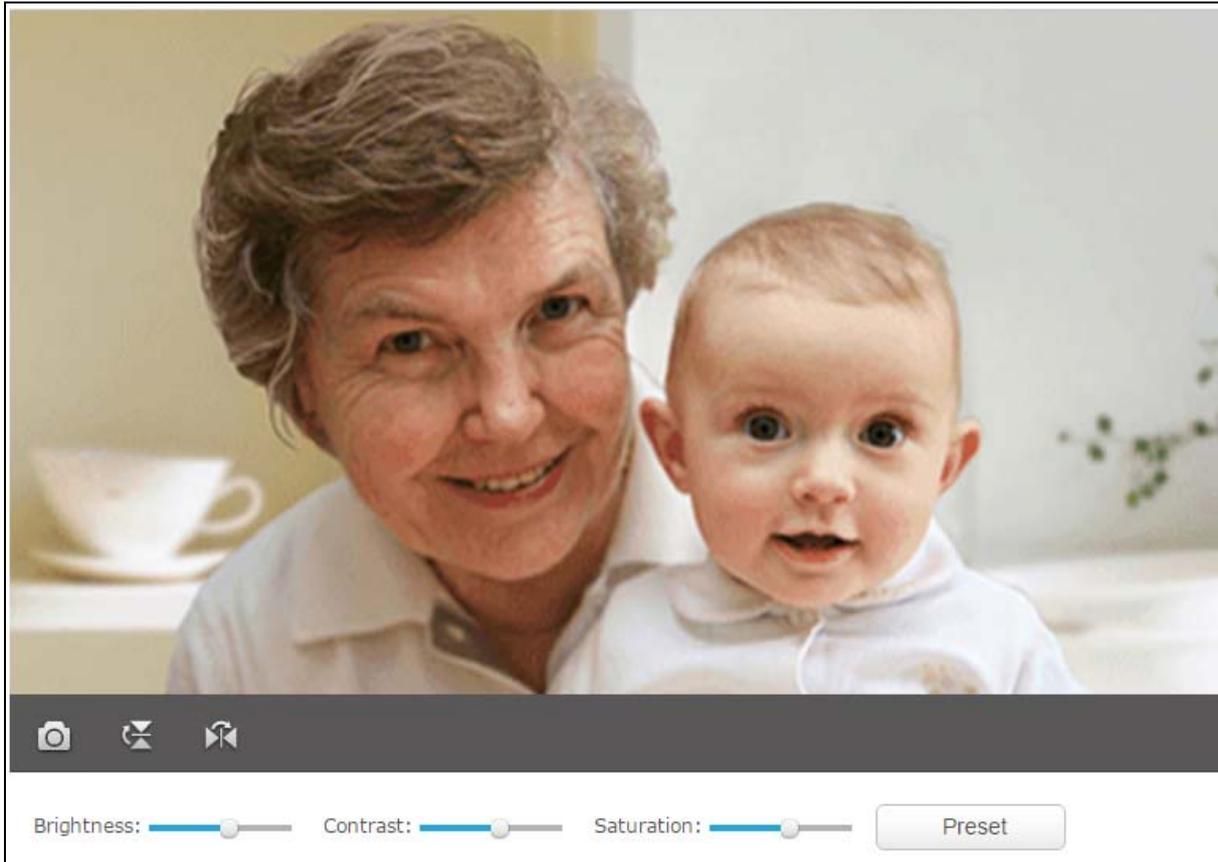
If you log in to the camera as an administrator, you can perform all the settings provided by the camera.

If you log in to the camera as a common user, you can only view the Live View. After logging as administrator, you can add up to five user accounts in the Account menu. (Go to “**System > Account**”)



## 4.2 Live View

The Live View screen shows you the live video feed from your camera. On this screen, you can capture a picture.



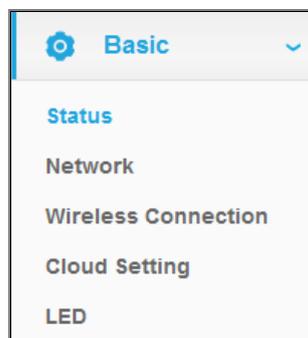
Symbols	Meaning	Note
	Click to capture a still image shot by the camera.	The image file will be automatically saved to your computer.
	Click to vertically flip the current image.	If the camera is installed upside down, Flip Image and Mirror should both be checked.  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Normal</b></p>  </div> <div style="text-align: center;"> <p><b>Mirror</b></p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p><b>Flip</b></p>  </div> <div style="text-align: center;"> <p><b>Mirror + Flip</b></p>  </div> </div>
	Click to horizontally flip the current image.	

➤ **Brightness:** Drag the **Brightness:**  slider to adjust the brightness level of camera. Large value will brighten the current displayed screen.

- **Contrast:** Drag the **Contrast:**  slider to adjust the contrast level of the camera. Large value will contrast the current displayed screen heavily.
- **Saturation:** Drag the **Saturation:**  slider to adjust the saturation level of the camera. Large value will saturate the current displayed screen to be more colorful.
- **Preset:** Click the **Preset** button to restore to factory image settings.

## 4.3 Basic

Click the **Basic** menu to display the submenus including **Status**, **Network**, **Wireless Connection**, **Cloud Setting**, and **LED**.



### 4.3.1 Basic > Status

The **Status** page displays the current configuration information of the camera. All the information is read-only.

<b>Basic</b>	
Camera Name:	NC210
Model:	NC210
Firmware:	1.0.2 Build 160204 Rel.26700
Current Viewers:	0
<b>Cloud Server</b>	
Connection Status:	Not registered
Username:	-
<b>Wireless</b>	
Connection Status:	Connected
Wireless Network Name:	TP-LINK_5913
Channel:	5
Rate/Signal Strength:	100%
Security:	WPA2-PSK
<b>Network</b>	
Connection Type:	Dynamic IP
MAC Address:	00-0C-43-76-20-21
LAN IP Address:	192.168.1.103
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1
Primary DNS Server:	192.168.1.1
Secondary DNS Server:	0.0.0.0
<b>Video Profile 1</b>	
Resolution:	1280*720
Frame Rate:	20
Image Quality:	Medium
Light Frequency:	Auto

### 4.3.2 Basic > Network

On this page, you can configure your camera's IP address which is used to access and configure the camera.

- **Dynamic IP:** Select this option when a DHCP server is installed on the network to issue IP address assignment. With this setting, the IP address of the camera is assigned automatically.

**IP Address**

Dynamic IP     Static IP

- **Static IP:** Select this option when a static or fixed IP address is obtained for the camera. A static IP address will ease your access to the camera in the future. Add your camera's static IP information to your router to avoid IP conflicts.

**IP Address**

Dynamic IP     Static IP

MAC Address: 00-0C-43-76-20-21

IP Address:

Subnet Mask:

Default Gateway:

Primary DNS Server:

Secondary DNS Server:

- **MAC Address:** Displays the Ethernet MAC address of the camera. The MAC address is read-only.
- **IP Address:** Enter a fixed IP address for the camera in dotted-decimal notation.
- **Subnet Mask:** Enter the subnet mask in dotted-decimal notation. The default value is "0.0.0.0."

- **Default Gateway:** Enter the default gateway in dotted-decimal notation.
- **Primary DNS Server:** Enter a DNS address in dotted-decimal notation.
- **Secondary DNS Server:** Enter a DNS address in dotted-decimal notation.

Click **Save** to save and enable the settings.

### 4.3.3 Basic > Wireless Connection

On this page, you can configure your camera's wireless connection.

Wireless Connection

Wireless Network List:

Wireless Network Name	Signal	Security	MAC Address
please click the Scan button to get the list.			

Password:   show password

- **Scan:** Click to scan the available wireless network. You will get or refresh the Wireless Network List as shown below.

**Wireless Connection**

Wireless Network List:

Wireless Network Name	Signal	Security	MAC Address
<input checked="" type="checkbox"/> <b>TP-LINK_5913</b>		<b>WPA2-PSK</b>	<b>40-16-9F-BF-59-13</b>
TP-LINK_D4F904		None	0C-82-68-D4-F9-04
TP-LINK_841		WPA/WPA2-PSK	40-08-41-01-10-17
CMCC-WEB		None	80-F6-2E-00-F6-20
CMCC		WPA2	80-F6-2E-00-F6-21
CMCC-FREE		None	80-F6-2E-00-F6-22
TP-LINK_0507		WPA2-PSK	00-02-03-04-05-07
TP-LINK_E837		WPA/WPA2-PSK	F8-1A-67-2E-E8-37
TP-LINK_IPTV_696F81		None	32-46-D8-69-6F-81
ChinaNet		None	FC-C8-97-49-A7-E7

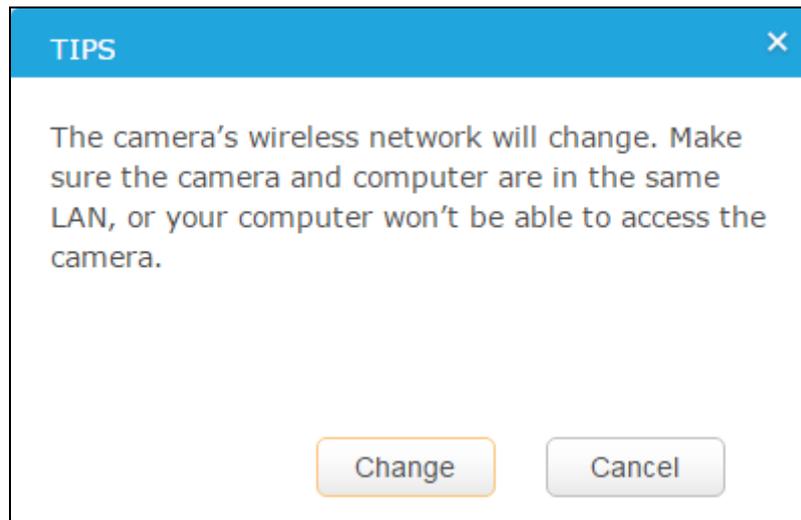
Wireless Network Name:

Password:   show password

- **Wireless Network Name:** Displays the wireless network's name. Make sure the camera and your PC connect to the same wireless network, otherwise your PC can't access the camera.
- **Signal:** Displays the strength of the wireless signal.
- **Security:** Displays the wireless network's security mode.
- **MAC Address:** Displays the MAC address of the router.

**To change the wireless network that your camera is connected to, follow the steps below:**

1. Click **Scan** to get and refresh the Wireless Network List.
2. Select a wireless network from the wireless network list.
3. If the wireless network's security mode is **None**, simply click **connect**. If the security mode requires a password, enter the wireless network's password and then click **connect**. You can select **show password** to display what you've entered.
4. A pop-up screen will prompt you for the wireless network modification. Click **Change**, then the camera will connect to the wireless network that you have selected.



5. To log into the web management page the camera, you need to connect your computer to the router that your camera is connected to. Refer to [4.1 Log in to Your Camera](#) to find the IP address of your camera and log into the camera again.

#### 4.3.4 Basic > Cloud Setting

A Cloud Camera can be viewed anytime and anywhere over the Internet with TP-LINK Cloud service. On this page, you can add the camera to your TP-LINK Cloud account.

 **Note:**

1. You can register a TP-LINK Cloud account in the tpCamera app only. If you do not get the tpCamera app, please refer to the **Step 2 Download and install the tpCamera app** in [3.1 Set up the Camera with the tpCamera APP](#) to register a TP-LINK Cloud account.
2. To add a camera to your TP-LINK Cloud account, make sure that the camera is connected to the Internet.

#### Add Your Camera to TP-LINK Cloud Account

If you already have a TP-LINK Cloud account, to add your camera to your account, just enter the TP-LINK Cloud account and password, and then click **Register**.

**Cloud Setting**

Add your camera to Cloud account

Please enter your Cloud account and password:

Account:

Password:

Camera Name:

With Cloud service, you can view your cloud cameras anytime and anywhere over the Internet. Go to [www.tplinkcloud.com](http://www.tplinkcloud.com).

- **Account:** Enter your TP-LINK Cloud account, either E-mail address or username is allowed.
- **Password:** Enter your TP-LINK Cloud account's password.
- **Camera Name:** The default value is the camera model. You can change it to an easy-to-remember one. Camera name can contain up to 31 characters. It cannot contain the following characters: \ / : = & ' " < > { }.

After your camera is registered successfully, you can go to <http://www.tplinkcloud.com> to view it.

#### 4.3.5 Basic > LED

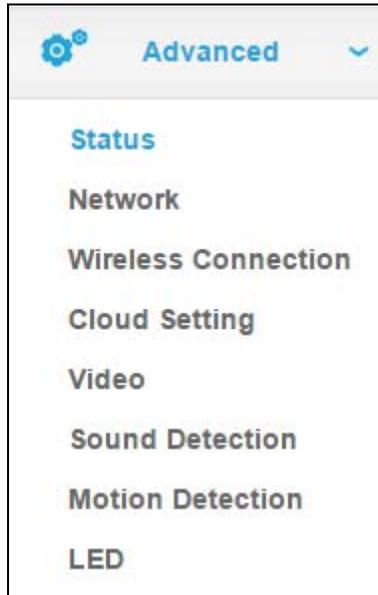
The camera's LED is on by default. If you want to turn it off, select **Off** and click **Save**.

**LED**

LED:  On  Off

#### 4.4 Advanced

Click the **Advanced** menu to display the submenus including **Status**, **Network**, **Wireless Connection**, **Cloud Setting**, **Video**, **Sound Detection**, **Motion Detection** and **LED**.



### 4.4.1 Advanced > Status

Refer to [4.3.1 Basic > Status](#).

### 4.4.2 Advanced > Network

On this page, you can configure the network settings of the camera.

**IP Address**

Dynamic IP     Static IP

Fallback IP:

---

**HTTP**

HTTP Port:

---

**Bonjour:**

Bonjour:                     Enable     Disable

Bonjour Name:              NC210-762021

---

#### IP Address

On this section, you can configure your camera's IP address which is used to access and configure the camera.

- **Dynamic IP:** Select this option when a DHCP server is installed on the network to issue IP address assignment. With this setting, the IP address of the camera is assigned automatically.

**IP Address**

Dynamic IP     Static IP

Fallback IP:

- **Fallback IP:** If the camera cannot get a dynamic IP address from a DHCP server within limited tries, the camera will assign a default IP address, 192.168.0.10, by itself as the Fallback IP address.
- **Static IP:** Select this option when a static or fixed IP address is obtained for the camera. A static IP address will ease your access to the camera in the future. Add your camera’s static IP information to your router to avoid IP conflicts.

**IP Address**

Dynamic IP     Static IP

MAC Address: 00-0C-43-76-20-21

IP Address:

Subnet Mask:

Default Gateway:

Primary DNS Server:

Secondary DNS Server:

Fallback IP:

- **MAC Address:** Displays the Ethernet MAC address of the camera. The MAC address is read-only.
- **IP Address:** Enter a fixed IP address for the camera in dotted-decimal notation.
- **Subnet Mask:** Enter the subnet mask in dotted-decimal notation. The default value is “0.0.0.0.”

- **Default Gateway:** Enter the default gateway in dotted-decimal notation.
- **Primary DNS Server:** Enter a DNS address in dotted-decimal notation.
- **Secondary DNS Server:** Enter a DNS address in dotted-decimal notation.
- **Fallback IP:** If the camera cannot get a valid static IP address, the camera will assign a default IP address, 192.168.0.10, by itself as the Fallback IP address.

**HTTP (Hypertext Transfer Protocol)**

This feature allows you to access and manage your camera via its IP address. Web browser access normally uses the standard HTTP service port 80. The camera uses HTTP port 80 by default. For greater security, you can change the port to a custom one.

When HTTP port is set to 80, you can access the camera by typing its IP address (for example, http://192.168.1.100) on a web browser. When HTTP port is set to another value (for example, 2000), you need to type http://192.168.1.100:2000 instead.

**HTTP**

---

HTTP Port:

- **HTTP Port:** The default value is 80. If you want to use a port number other than **80**, enter a port number between 1 and 65535.

**Bonjour**

Bonjour, also known as zero-configuration networking, enables automatic discovery of computers, devices, and services on IP networks. Bonjour uses industry standard IP protocols to allow devices to automatically discover each other without the need to enter IP addresses or configure DNS servers.

**Bonjour:**

Bonjour:  Enable  Disable

Bonjour Name: NC210-762021

---

- **Bonjour:** To enable or disable the Bonjour service.
- **Bonjour Name:** Displays the Bonjour name. By default, it is a combination of model and the last six characters of the camera's MAC address.

Click **Save** to save and enable the settings.

### 4.4.3 Advanced > Wireless Connection

Refer to [4.3.3 Basic > Wireless Connection](#).

### 4.4.4 Advanced > Cloud Setting

Refer to [4.3.4 Basic > Cloud Setting](#).

### 4.4.5 Advanced > Video

On this page, you can configure the video settings for your camera.

**Video**

Video Profile 1:

Coding Format	Resolution	Frame Rate	Mode	Image Quality
H.264	1280*720	20FPS <span style="float: right;">▼</span>	VBR	Medium <span style="float: right;">▼</span>

Backlight Compensation:  Enable  Disable

Light Frequency: Auto ▼

Time Stamp&On-Screen Display (OSD):  Enable  Disable

Save

- **Coding Format:** Displays the video coding format of the camera.
- **Resolution:** Displays the video resolution of the camera. Higher resolution offers better quality, but will require more bandwidth to stream.
- **Frame Rate:** Select the frame rate to use for the video stream from the drop-down list. Higher settings offer smoother video streams, but will require more bandwidth.
- **Mode:** Displays the bit rate mode of the camera. This camera uses the VBR (variable bit rate) mode. In this mode, the bit rate varies to keep consistent video quality. It allows a higher bit rate (and therefore requires more bandwidth) to be allocated to dynamic scenes while less bit rate to be allocated to static scenes.
- **Image Quality:** Select the image quality from the drop-down list: High, Medium and Low. High settings offer better quality, but it may require more bandwidth to stream.

- **Backlight Compensation:** If enabled, this feature will compensate for bright backgrounds so foreground objects aren't silhouetted.

Enabled



Disabled



- **Light Frequency:** Select the frequency used by your lighting and power to help reduce image flicker. The default setting is Auto, which is recommended.
- **Time Stamp&On-Screen Display (OSD):** If enabled, the current time of your camera, which can be set on the **System > Date/Time** page, will be displayed on the **Live View** screen. Meanwhile, you can set the OSD text to be displayed with the time stamp. We use "NC210" as the OSD text for demonstration here.

Enabled



Disabled



Click **Save** to save and enable the settings.

#### 4.4.6 Advanced > Sound Detection

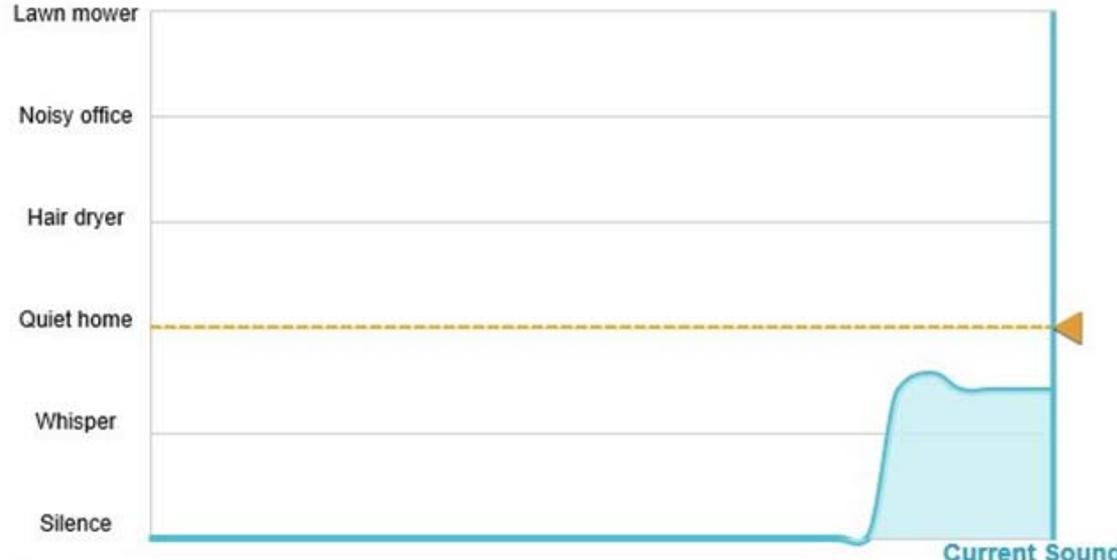
Sound detection allows your camera to detect a loud sound, which can be used to trigger snapshots.

### Sound Detection

Sound Detection:  Enable  Disable

Sensitivity: Medium ▼

Threshold: Quiet home ▼



**Tips:** You can also drag the arrow to set the threshold for sound detection

Save

- **Sound Detection:** To enable or disable the sound detection function.
- **Sensitivity:** Specify the level of difference between current sound and the threshold you set. Select one of the three levels of sensitivity from the drop-down list: High, Medium, and Low.
- **Threshold:** Select the threshold of sound level. You can also drag the arrow in the diagram to set the threshold. Snapshots will be triggered and sent to your registered Email box when current sound exceeds the threshold. And notification messages will be sent to the tpCamera app in your smartphone.

Click **Save** to save and enable the settings.

#### 4.4.7 Advanced > Motion Detection

Motion detection allows you to specify sensitivity of your camera's video to monitor for motion. When you enable this function, the whole area that you can view in this screen is being monitored.

**Motion Detection**

Motion Detection:  Enable  Disable



Sensitivity:  ▼

Save

- **Motion Detection:** To enable or disable the motion detection function.
- **Sensitivity:** Specify the level of difference between two sequential images that would indicate motion. Select one of the three levels of sensitivity from the drop-down list: High, Medium, and Low. Snapshots will be triggered and sent to your registered Email box when the motion meets the level of sensitivity. And notification messages will be sent to the tpCamera app in your smartphone.

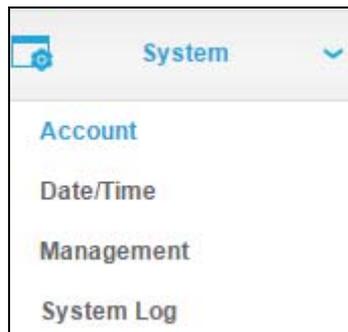
Click **Save** to save and enable the settings.

#### 4.4.8 Advanced > LED

Refer to [4.3.5 Basic > LED](#).

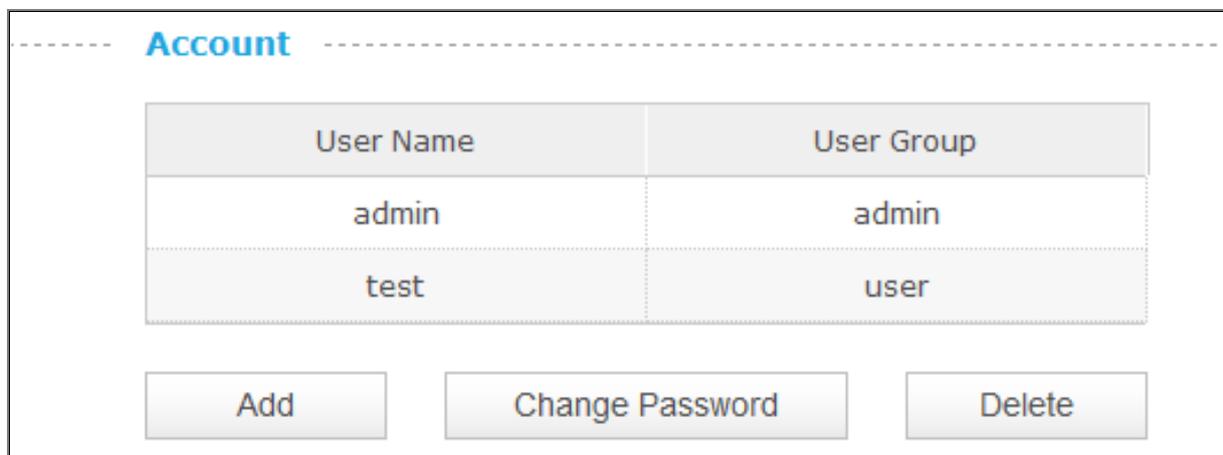
### 4.5 System

Click the **System** menu to display the submenus including **Account**, **Date/Time**, **Management**, and **System Log**.



### 4.5.1 Account

On this page, you can change the administrator's password and manage the user account(s) that are allowed to access to your camera.



- **Username:** Displays the name of user account.
- **User Group:** Displays the group that the user account is in. Different user group has different limits of authority.
  - **admin:** This group has all authority of configuration. It can only have one account: admin.
  - **user:** This group can only view the Live View. It can have up to five accounts.

#### Add a New User Account

You can create a new user account to provide viewing access for your camera's video. User accounts will only be able to access the Live View section of the web configuration page, but cannot access any other parts or change any settings.

**To add a new user account, follow the steps below:**

1. Click **Add**, and you will see the following screen.

**Account**

User Name	User Group
admin	admin

**Add a New User Account**

Username:

Password:

Confirm Password:

2. Enter a username for your new account.
3. Enter a password for your new account. The password should contain 5 to 20 characters.
4. Enter the password again to confirm it.
5. Click **Save** to save and enable the settings.

### Change Password

You can change the password of all the accounts here.

 **Note:**

The default account and password are both **admin**. Everyone who knows the camera's IP address can access the device with all configuration authority. It is necessary to change the default password if the device is intended to be accessed only by administrator.

**To change password, follow the steps below:**

1. Select a user account in the list whose password you want to change
2. Click **Change Password**, and you will see the following screen.

**Account**

User Name	User Group
admin	admin
test	user

**Change Password:**

Current User: admin

Old Password:

New Password:

Confirm Password:

3. Enter the current password in the Old Password textbox.
4. Enter a new password.
5. Enter the new password again to confirm it.
6. Click **Save** to save and enable the settings.

#### Delete a User Account

You can delete a user account except admin here. Click a user entry in the list and click **Delete**.

### 4.5.2 Date/Time

On this page, you can configure the settings of the internal system clocks for your camera.

**Date/Time**

---

**Time Configuration:**

Current Time: 2016-02-17 12:27:20

Time Zone: (GMT) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London ▼

**Automatic Time Configuration:**

Synchronize With NTP Server

NTP Service
  <<  ▼

Set NTP Server from Dynamic IP

**Set Date And Time Manually:**

Set Date And Time Manually:

---

- **Current Time:** Displays the current date and time of the camera.
- **Time Zone:** Select the time zone for the region where the camera is installed from the drop-down list.
- **Synchronize With NTP Server:** Select this option to specify the NTP server name to synchronize the date and time of the camera with those of the time server, known as the NTP (Network Time Protocol) server.
  - **NTP Service:** You can either enter a domain name of the NTP server or select one which will be filled in automatically from the drop-down list.
  - **Set NTP Server from Dynamic IP:** You can use the NTP server applied in the DHCP server on the network.
- **Set Date and Time Manually:** Select this option to set the date and time of the camera manually. If enabled, you will see the following screen:

**Date/Time**

**Time Configuration:**

Current Time: 2015-06-01 01:05:35

Time Zone: (GMT) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London

**Automatic Time Configuration:**

Synchronize With NTP Server

**Set Date And Time Manually:**

Set Date And Time Manually:

year 2015 month 06 day 01

hour 01 minute 04 second 46

Copy Your Computer's Time Settings

Save

- **Copy Your Computer's Time Settings:** Click this button to copy your computer's current time settings.

Click **Save** to save and enable the settings.

### 4.5.3 Management

On this page, you can reboot the camera, backup and restore the camera's current settings, reset factory settings, and update the camera's software.

**Reboot**

Reboot your camera:

---

**Backup and Restore**

Back up current settings:

Restore settings from a backup file:

Restore factory default settings:

---

**Update**

Upgrade from a file on your hard disk:

- **Reboot:** Click **Reboot** and then click **Reboot** on the pop-up screen to confirm. Rebooting will not change the camera's setting. After rebooting, you need to log in to this page again.
- **Backup:** Click **Backup** and follow the instructions on the browser to save the setting data file to your specified location.
- **Browse:** Click **Browse** to locate the saved backup file.
- **Restore:** Click **Restore**, and then the camera will start rebooting. The settings will be restored to the previous configuration.
- **Reset:** Click **Reset** to restore the camera to its factory defaults. Don't turn off the camera while resetting. After resetting, you need to add the camera to your TP-LINK Cloud account again, find out the IP address of your camera (refer to [4.1 Log in to Your Camera](#)), and then use the default username and password (admin/admin) to log in to this web management page.
- **Update:** Before update, download the latest firmware from the product page at <http://www.tp-link.com>, and then use decompression software to extract the file. Click **Browse** to locate the latest downloaded software file, and then click **Upgrade** to update the camera's software to the latest version. Wait for the upgrading process to complete, and the camera will reboot automatically.

 **Note:**

1. The firmware upgrade procedure must not be interrupted or the camera may be damaged.
2. The firmware upgrade procedure is always risky and do not try to upgrade new firmware if it's not necessary.

## 4.5.4 System Log

On this page, you can review any changes and events happened to your camera. The system starts logging automatically after startup.

**System Log**

Time	Module	Level	Content
2016-03-07/03:33:42	DateTime	INFO	time changed
2016-03-07/03:13:59	Cloud	INFO	msg_network_change - iip: 192.168.1.111
2015-06-01/01:00:11	DateTime	INFO	time changed
2015-06-01/01:00:11	Cloud	INFO	msg_network_change - iip: 192.168.1.111
2015-06-01/01:00:11	NetSwitch	INFO	new lan gw : 192.168.1.1.
2015-06-01/01:00:11	NetSwitch	INFO	new lan ip : 192.168.1.111.
2015-06-01/01:00:08	Bonjour	INFO	start module Bonjour Support OK
2015-06-01/01:00:08	Cloud	ERROR	P2P dameon run failed

level   module

- **Time:** Displays the time when the log event occurs. The log can get the correct time after you configure on the Date/Time page. (go to **Advanced > Date/Time**)
- **Module:** Displays the module to which the log information belongs. You can specify the module by selecting one from the Module drop-down list at the bottom.
- **Level:** Displays the severity level of the log information. You can specify the level by selecting one from the Level drop-down list at the bottom.
- **Content:** Displays the details of the log information.
- **Refresh:** Click **Refresh** to refresh the log information.
- **Save Log:** Click **Save Log** and follow the instructions on the browser to save the log as a text file named log.txt to your specified location.
- **Clear:** Click **Clear** to clear all the log information.
- **Log Control:** You may be asked to use this function when contacting our technical support for troubleshooting.

## Appendix: Specifications

<b>SYSTEM</b>	
<b>Image Sensor</b>	1/4" Progressive scan CMOS sensor
<b>Resolution</b>	1280*720
<b>Lens</b>	F: 2.0, f: 2.8mm
<b>Viewing Angle</b>	FOV=113°
<b>Video/Image</b>	
<b>Video Compression</b>	H.264
<b>Frame Rate &amp; Resolutions</b>	Up to 20 fps at 1280*720 (HD)
<b>Video Streaming</b>	Controllable frame rate and bandwidth
<b>Image</b>	Rotation: Mirror, Flip, Mirror Flip
	Configurable brightness, contrast, saturation
	Overlay capabilities: time, date, text
<b>Audio</b>	
<b>Audio Communication</b>	One-way
<b>Audio Input</b>	Built-in microphone
<b>Alarm and Event Management</b>	
<b>Input Trigger</b>	Motion detection, sound detection
<b>Notification Method</b>	E-mail, App notification
<b>Network</b>	
<b>Standards and Protocols</b>	Bonjour, TCP/IP, DHCP, ARP, ICMP, NFS, DNS, NTP, HTTP, HTTPS, TCP, UDP
<b>Security</b>	Multiple password-protected user levels
<b>Wireless</b>	
<b>Wireless Data Rate</b>	IEEE 802.11b/g/n, Up to 150Mbps

<b>Frequency</b>	2.4-2.4835GHz
<b>Wireless Encryption</b>	WEP, WPA-PSK/WPA2-PSK
<b>System Requirements</b>	
<b>Supported Browser</b>	<p>Microsoft Internet Explorer 9.0 or higher</p> <p>Firefox 4.0 or higher</p> <p>Safari 4.1.1 or higher</p> <p>Chrome 5.0 or higher</p> <p>Opera 15.0 or higher</p>
<b>Supported OS</b>	<p>Windows XP or higher</p> <p>Mac OS X 10.7 or higher</p> <p>Android 4.1 or higher</p> <p>iOS 7.0 or higher</p>
<b>General</b>	
<b>Certification</b>	CE, FCC, IC, NCC, BSMI
<b>Environment</b>	<p>Operating Temperature: 0°C ~ 40°C (32°F ~ 104°F)</p> <p>Storage Temperature: -20°C ~ 60°C (-4°F ~ 140°F)</p> <p>Operating Humidity: 10%-90% non-condensing</p> <p>Storage Humidity: 5%-90% non-condensing</p>