tp-link | tapo




# User Guide

## Outdoor Security Wi-Fi Camera
## Tapo C320WS

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# About This Guide

This guide provides a brief introduction to the Outdoor Security Wi-Fi Camera and the Tapo app, as well as regulatory information.

Please note that features available in Tapo may vary by model and software version. Tapo availability may also vary by region. All images, steps, and descriptions in this guide are only examples and may not reflect your actual Tapo Camera experience.

## Conventions

In this guide, the following convention is used:

| Convention | Description |
|---|---|
| Blue | Key information appears in teal, including management page text such as menus, items, buttons and so on. |
| Underline | Hyperlinks are in teal and underlined. You can click to redirect to a website. |
| Note: | Ignoring this type of note might result in a malfunction or damage to the device. |

## More Info

- Specifications can be found on the product page at https://www.tapo.com.
- Our Technical Support and troubleshooting information can be found at https://www.tapo.com/support/.
- The camera setup video and waterproof cable attachments video can be found at https://www.tp-link.com/support/setup-video/.

# Introduction

Different from the black and white view of normal cameras, Tapo C320WS is equipped with the high resolution sensor and the fill light, catching more colors. The highly-sensitive starlight sensor captures higher-quality images even in low-light conditions. The integrated spotlights help enhance your security view with vivid colors even at night.

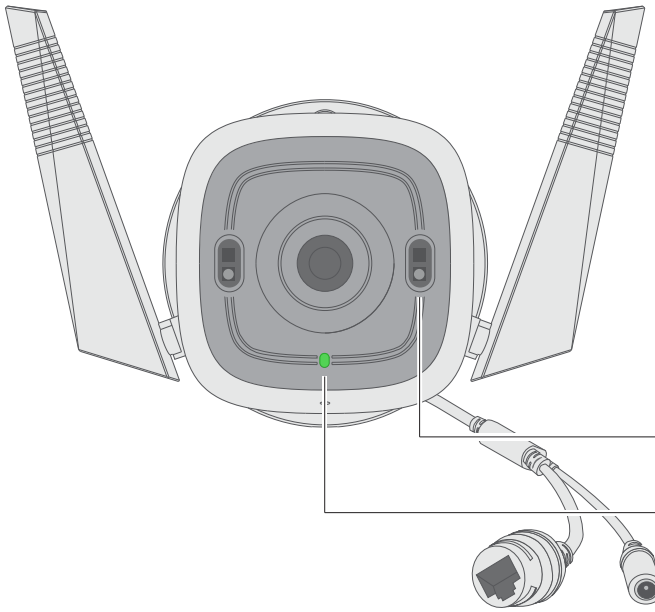
The Tapo camera always protects what you love most. Receive notifications and check feeds when someone crosses a boundary, enters an area you've set, or obstructs the camera. The automatic siren system will trigger sound as alarm to frighten away unwanted visitors.

- 2K High Definition – Sharp and clear 4MP high-resolution video delivers more delicate details.
- Full-Time Color – Enhance your security view with vivid colors even at night with the integrated spotlights.
- Starlight Sensor – The highly-sensitive starlight sensor captures higher-quality images even in low-light conditions.
- Motion Detection – Get instant notifications when your camera detects motion.
- Line-Crossing Detection – Set a boundary and receive an alert anytime a person crosses it from either or both directions.
- Area Intrusion Detection – Set customized activity zones around key areas for more focused monitoring.
- Camera Tampering – Receive alerts when someone obstructs the camera.
- Wired or Wireless Networking – Connect the camera to your network through Ethernet or Wi-Fi for more flexible installation.
- Weatherproof – Helps Tapo C320WS perform well even in harsh environments with rain and dust.
- Two-Way Audio – Communicate with others with the built-in microphone and speaker.
- Local Storage (up to 256 GB) – Stores 4MP video directly to a local microSD card, offering convenient access to your video footage.

*microSD card needs to be purchased separately.

# Appearance

## Front Panel



**MIC**

**MicroSD Card Slot**

Insert a microSD card for local recording

**RESET**

Hold for 5s to reset Wi-Fi
Hold for 10s to factory reset your camera

**Speaker**

**White Light LED** **IR LED**

**System LED**

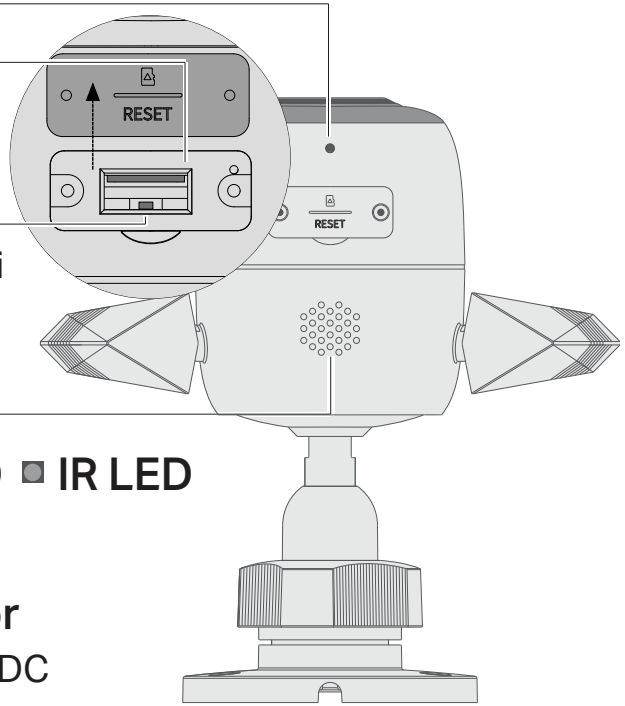
**DC Power Connector**

Used to connect to a 9V DC power adapter

**Ethernet Port**

Used to connect to a network device

## Bottom Panel



# System LED Description




| | |
|---|---|
| **Solid red** | Starting up |
| **Blinking red and green** (for Wi-Fi setup) | Ready for setup |
| **Blinking red slowly** (for Wi-Fi setup) | Connecting to Wi-Fi |
| **Solid amber** | Connected to Wi-Fi or wired network |
| **Solid green** | Connected to TP-Link Cloud server |
| **Blinking red quickly** | Camera resetting |
| **Blinking green quickly** | Camera updating |

# Set Up Your Camera

Follow the steps below to get started with your new camera, or you can follow the setup video at https://www.tp-link.com/support/setup-video/.

## Step 1. Download Tapo App

Get the Tapo app from the App Store or Google Play, or by scanning the QR code below.

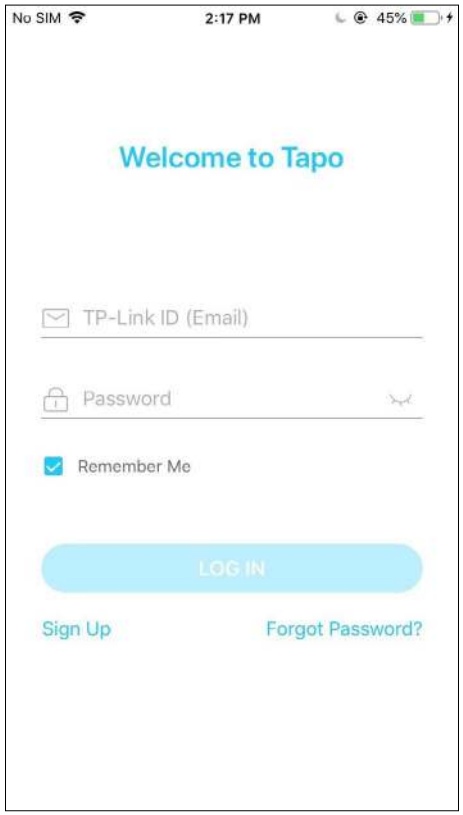
Download on the App Store

GET IT ON Google Play

OR

## Step 2. Log In

Open the app, and log in with your TP-Link ID. If you don't have an account, create one first.




## Step 3. Add Your Camera

Tap the ⊕ button in the app and select your model.



## Step 4. Configure Camera

Follow app instructions to set up your camera via wired or wireless connection (for setup only), and add it to your home network. After setup, you can use your camera via wired connection or wirelessly.

**Note:** For Wireless setup, if your camera is connected to your router via an Ethernet cable, please unplug the cable first.



# Set Up Using Amazon Frustration-Free Setup

## What is Amazon Frustration-Free Setup?

Amazon Frustration-Free Setup can help connect and set up Tapo smart devices in fewer steps, without having to remember and re-enter your Wi-Fi password on each device.

To use this feature, confirm the following:

- The new Tapo device supports Amazon FFS.
- You have an Amazon FFS enabled Alexa device or router.
- You have saved your Wi-Fi information to Amazon by using Alexa echo.
- Your Tapo device and router are on the same network as your Alexa echo.

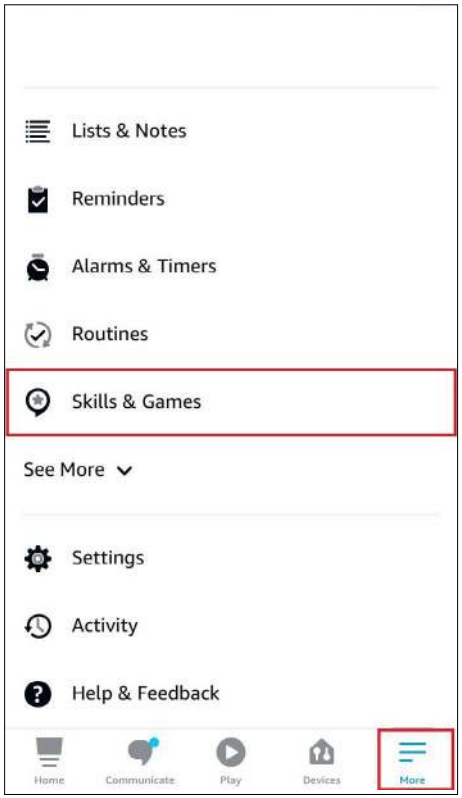
## LED Indications during Amazon Frustration-Free Setup

| LED | Status |
|---|---|
| Blinking amber and green | Ready for setup |
| Blinking amber | FFS setup in progress |
| Solid green | Working properly |

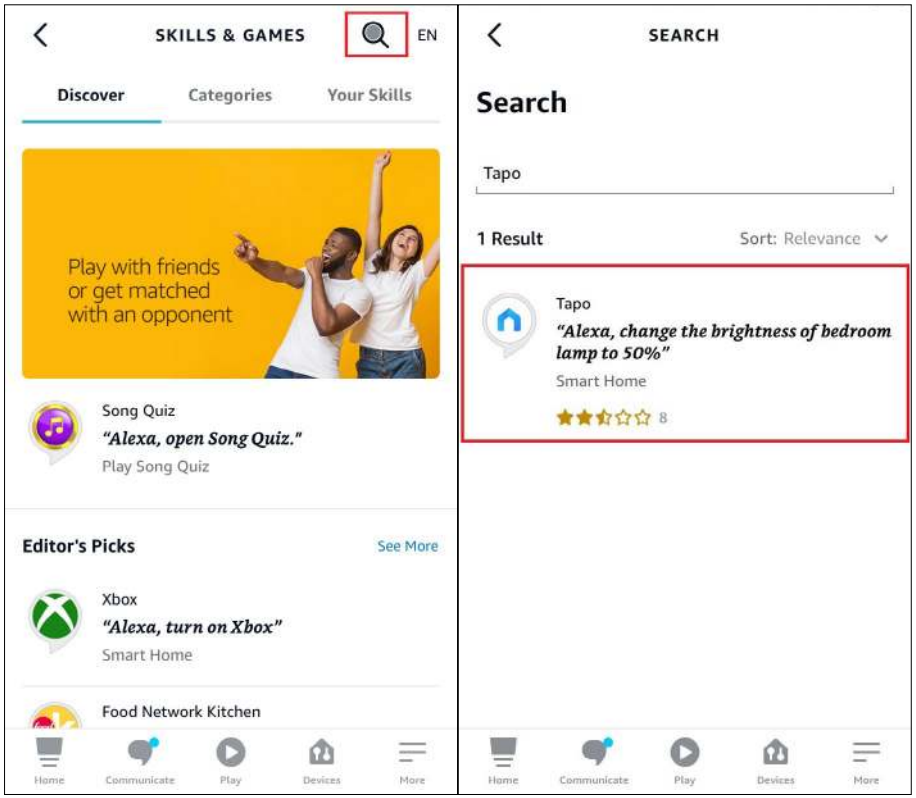
If the LED does not turn solid green after a long time, you can try to add the Tapo device manually. (Press the Reset button on your Tapo device once. Then open the Tapo app, tap the + button on the page, select your device model, and follow the app instructions. )

# How to use Amazon Frustration-Free Setup with Tapo devices

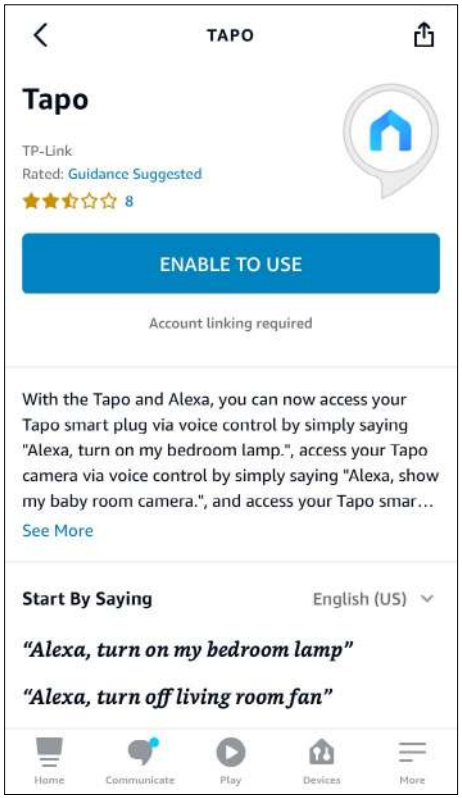
1. Open the Amazon Alexa app. Then tap More and select Skills & Games.



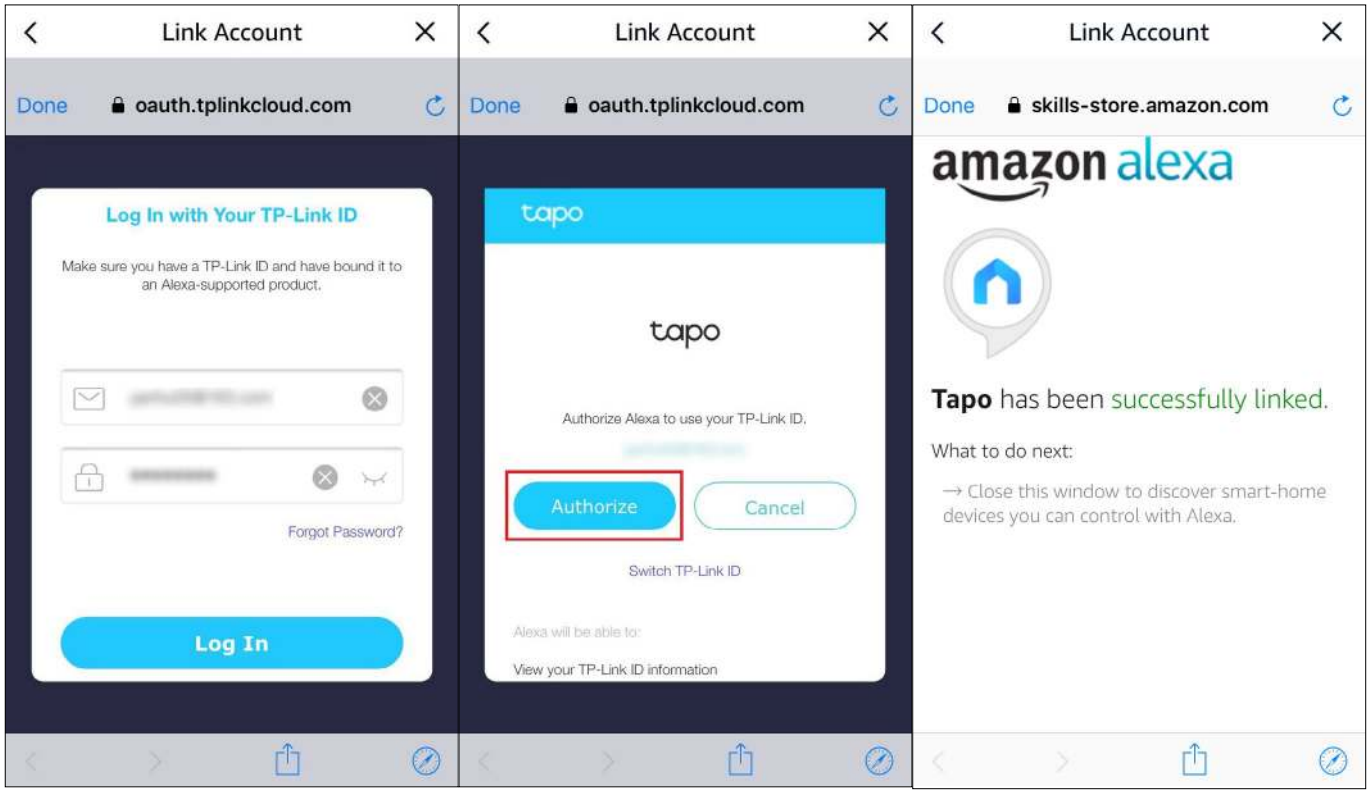

2. Enter Tapo in the search bar and choose Tapo.



3. Tap the ENABLE TO USE button.




4. Log in with your TP-Link ID that has bound to your Tapo device, and tap Authorize. After authorized successfully, the message Tapo has been successfully linked will come up.



5. Plug in your Tapo device and the setup will complete automatically in two minutes.

For setting up more Tapo devices, just plug in and enjoy!

### Done!

If this device displays on the Home page in the Tapo app, it indicates this device has been successfully associated with your Amazon account and joined your Wi-Fi network automatically.

If this device does not display on the Home page in the Tapo app, try setting it up manually. (Tap the + button on the page, select your device model, and then follow the app instructions.)

# Install a microSD Card

Follow the steps below to install the microSD card for local recording, or follow the installation video at https://www.tp-link.com/support/setup-video/.
You can go to Camera Settings > microSD Card in the Tapo app to check the card status or format your card.

1. Loosen the screws on the back panel and remove the cover.




2. Identify the direction of the microSD card and carefully insert the card into the slot. Push in the card until you hear a clicking sound.





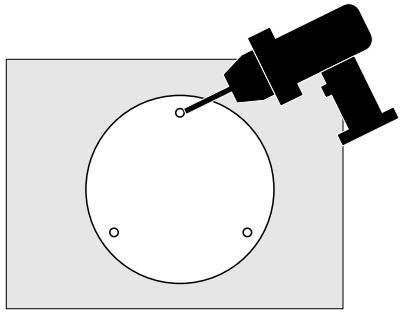
# Mount Your Camera

When you finish adding your camera in the Tapo app, you can place your camera on a flat surface, or mount it on a wall or ceiling with the provided mounting template and screws.

Follow the steps below to mount your new camera, or follow the setup video at https://www.tp-link.com/support/setup-video/.

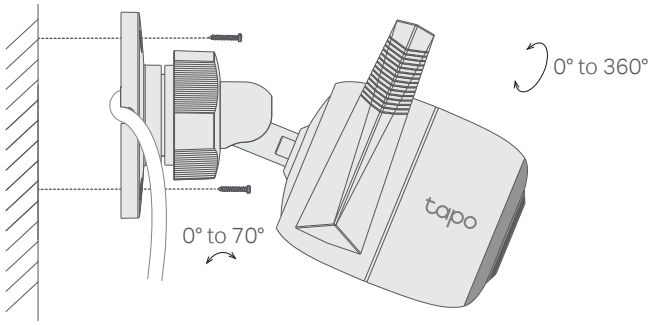
## Step 1. Drill Holes

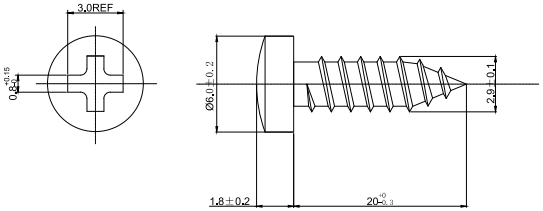
Stick the mounting template to the desired mounting place. Drill 3 screw holes according to the template.



## Step 2. Mount Camera

Insert three anchors into the holes and use the screws to affix the camera over the anchors.



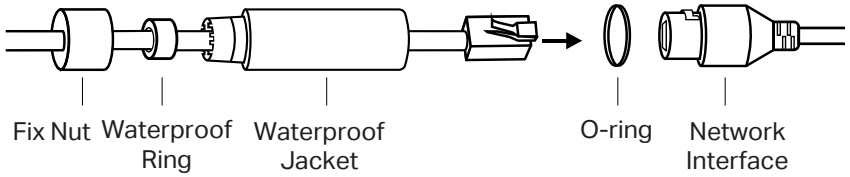
# Install Waterproof Items

When the camera is installed outdoors, please install waterproof items to waterproof your camera. Make sure each part is securely attached and the water-proofing rings are flush to keep out water.

Follow the steps below to install waterproof items, or follow the installation video at https://www.tp-link.com/support/setup-video/.

## Install Waterproof Cable Attachments

Install the waterproof cable attachments for the network interface when the camera is installed outdoors.

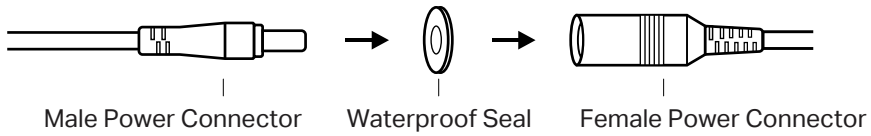



1. Route the network cable through the following components in order: fix nut, waterproof ring, and then the waterproof jacket.
2. Insert the waterproof ring into the waterproof jacket.
3. Fix the O-ring to the network interface of the camera and connect the network cables.
4. Attach the network interface with the waterproof jacket, then twist to lock. Rotate the fix nut to secure it to the waterproof jacket.

**Done!** The network interface is now waterproof.

## Install Waterproof Seal for Power Connectors

Install the waterproof seal for the power connectors when the camera is installed outdoors.

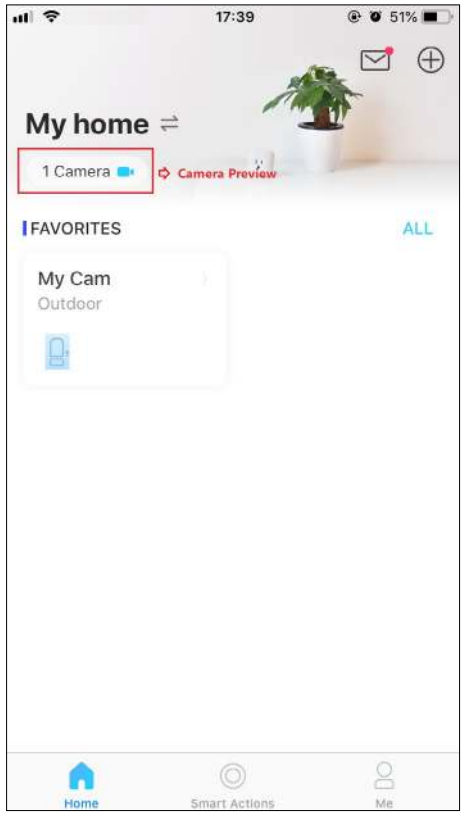


# Main Camera Controls

After you successfully set up the camera, you will see your camera listed on the home page. You can view and manage your camera from anywhere at any time with the Tapo app.

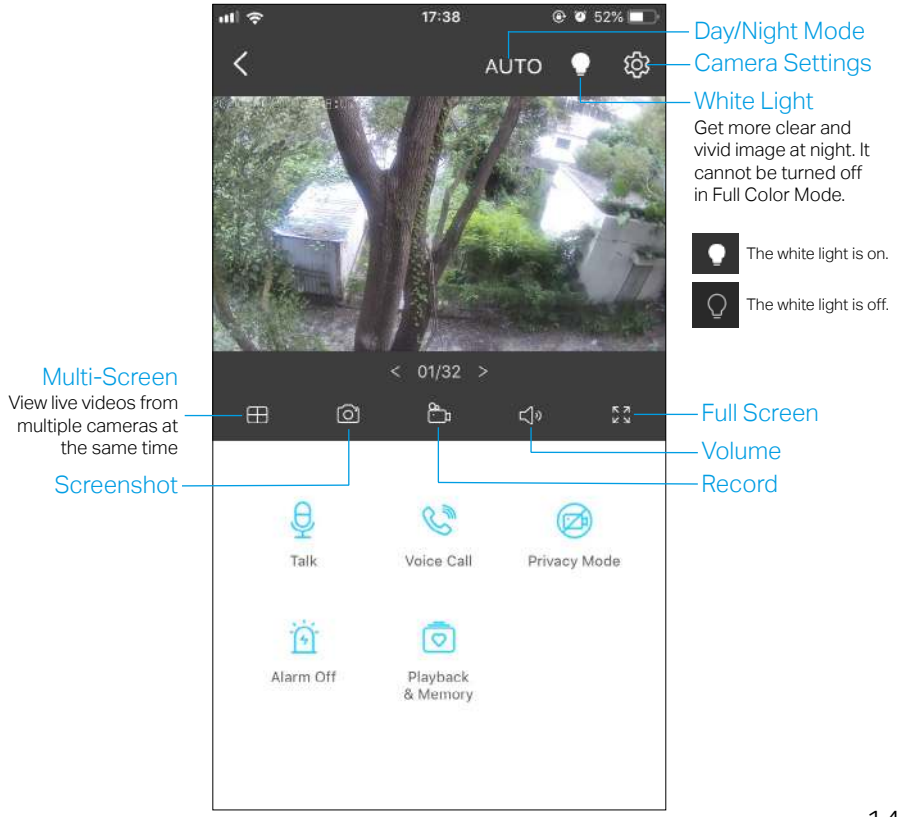
## Home Page

This page lists all your cameras you've added and you can view them directly and manage them easily. Tap the camera or go to Camera Preview > Manage to enter the Live View page.



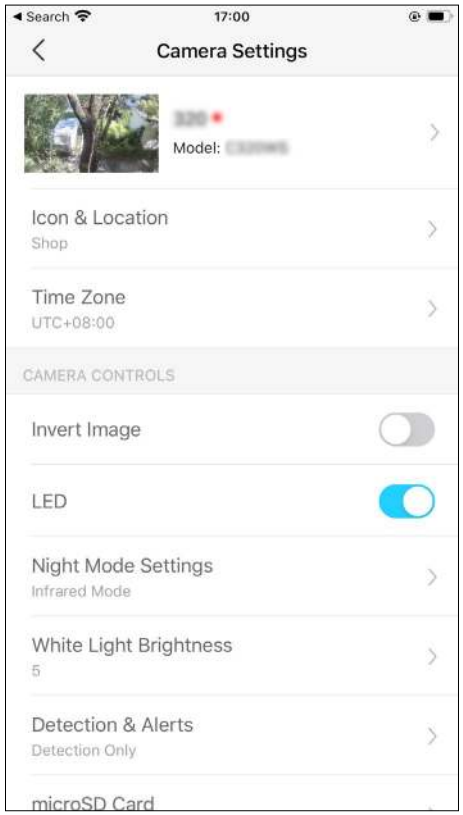

## Live View

Talk or Voice Call: Communicate with loved ones
Privacy Mode: Enable to temporarily shut down the surveillance for privacy
Alarm On/Off: Turn on to get noticed when motion detected
Playback & Memory: Check all recordings and saved moments



## Camera Settings

On Live View page, tap to enter the Camera Settings page. You can change your camera name, set Night Mode settings, customize detection settings and recording schedules, turn on/off notifications, set activity zones, remove camera, etc.



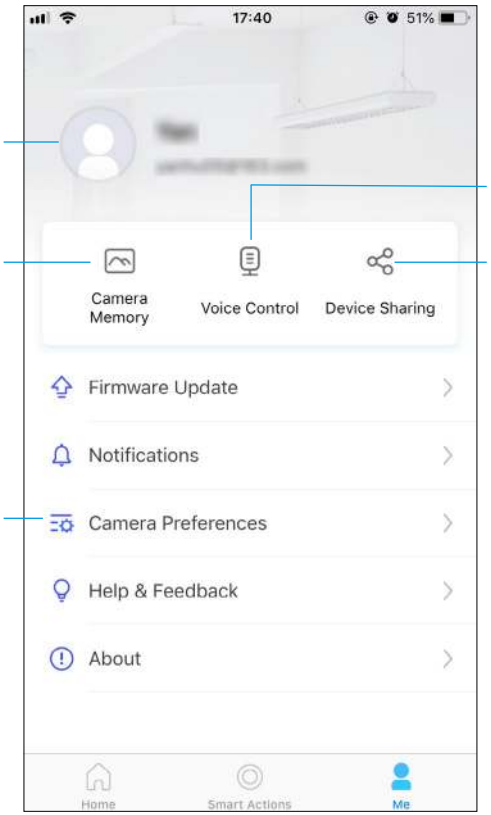

## Me

On this page, you can edit your account, quickly check the memorable moments you saved, or find the FAQs of using smart camera and basic info related to the Tapo app.

**Account Info**
Change your avatar, edit your name, or modify the password

**Camera Memory**
Photos and videos you took will appear here

**Camera Preferences**
You can choose to display the Live or Speed tag on the screen for all your Tapo cameras




**Voice Control**
Set up connections with third-party services to control your Tapo devices by voice

**Device Sharing**
Share your Tapo devices to your family members to manage devices together

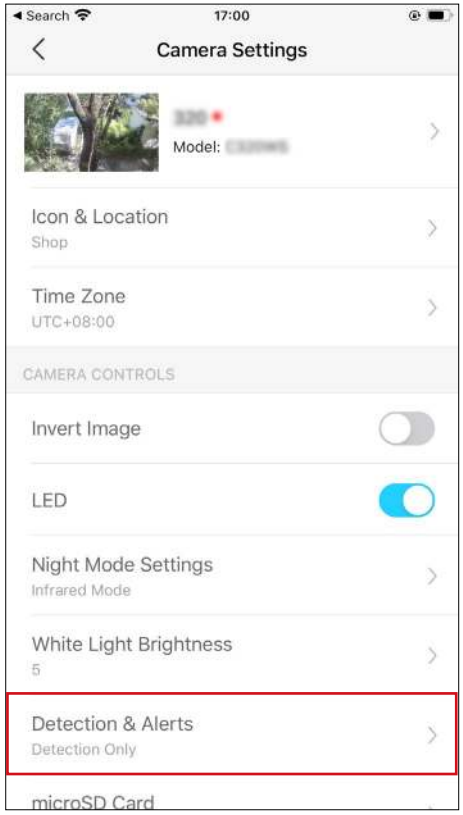
# Camera Detection & Alerts

Receive notifications and check feeds when the camera detects a motion, or when someone crosses a boundary, enters an area you've set, or obstructs the camera. Insert a microSD card to record the clips when activity detected. Otherwise, you can only receive the notifications.

**Note:** Initialize the SD card on the Tapo app before using it.

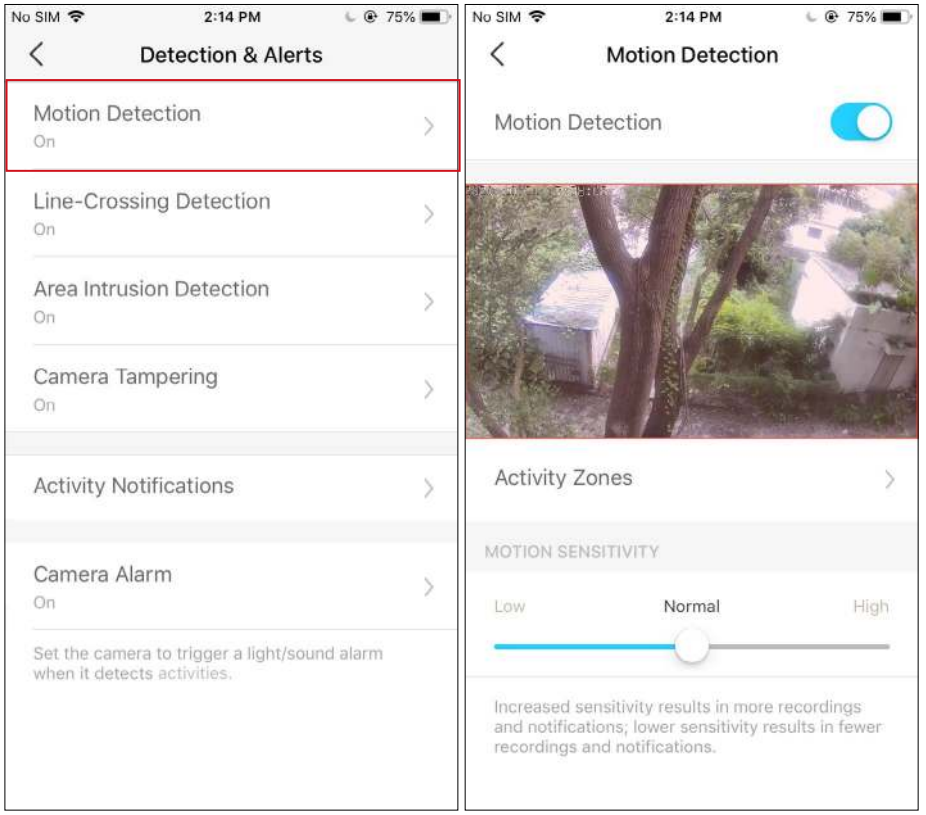
## Step 1: Turn On Detection

Go to Camera Settings page and tap Detection & Alerts to turn on the detection and customize its alert settings.



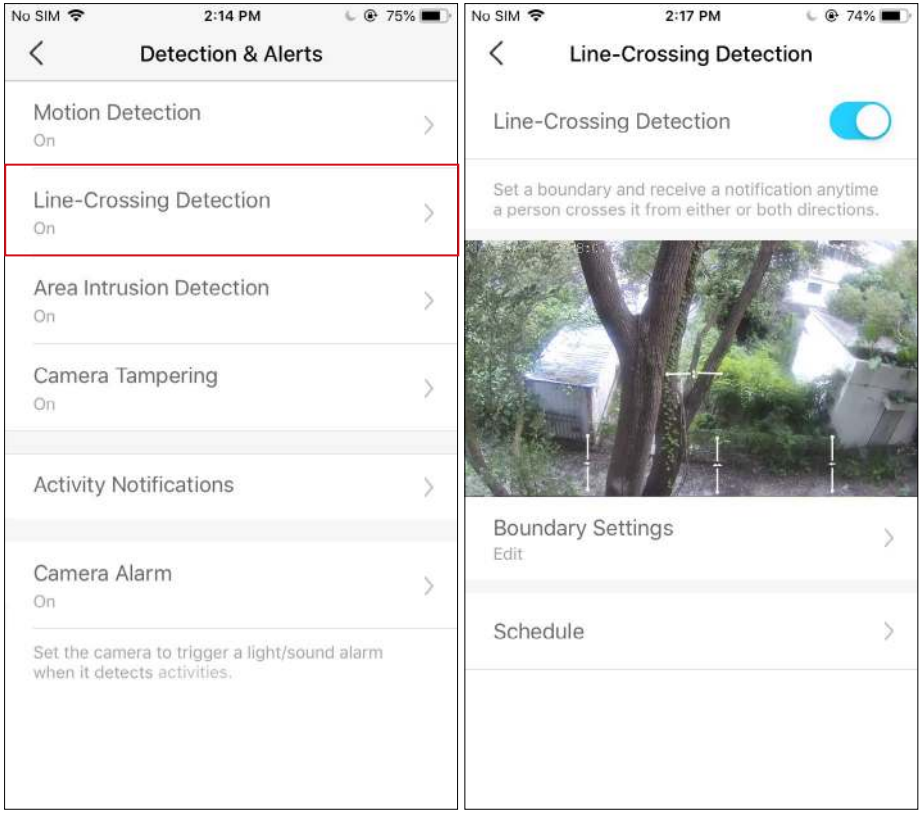

## Motion Detection

When your camera detects motion, it will send you notifications or even sound an alarm. You can personalize your own experience by setting motion zones to only capture what happens in the area that you set and adjusting motion sensitivity.



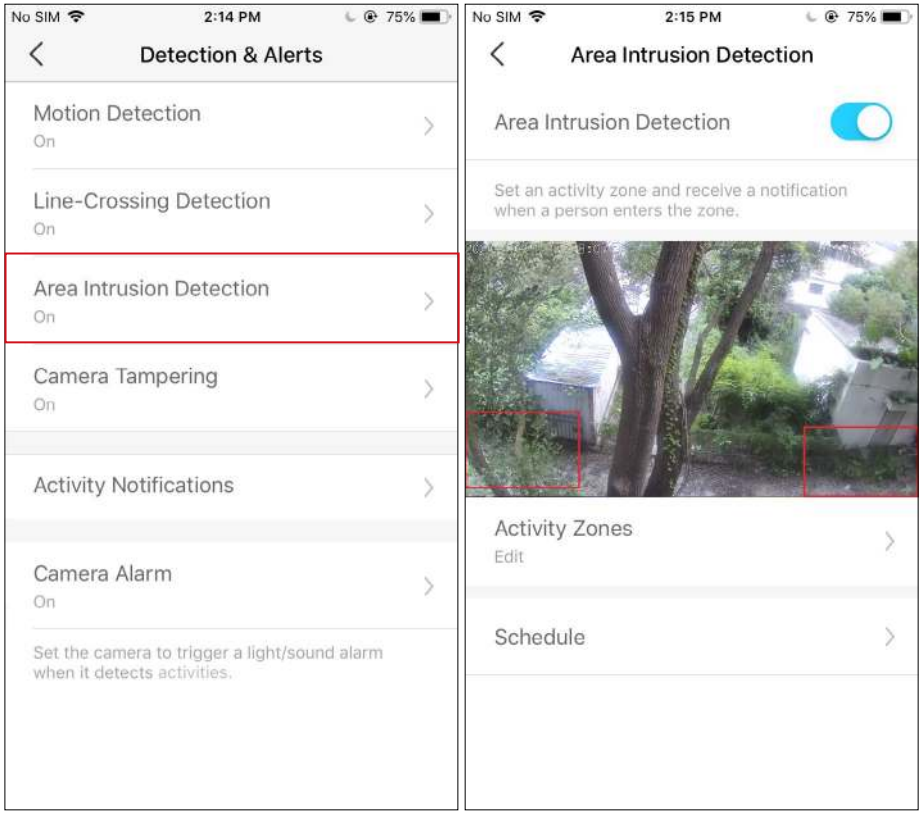
## Line-Crossing Detection

Add one or more lines that should not be crossed, then if the set line is crossed, the camera will send you notifications or even sound an alarm. You can also set the crossing direction and detection schedule. It is ideal for fence detection, property monitoring, and parking areas.



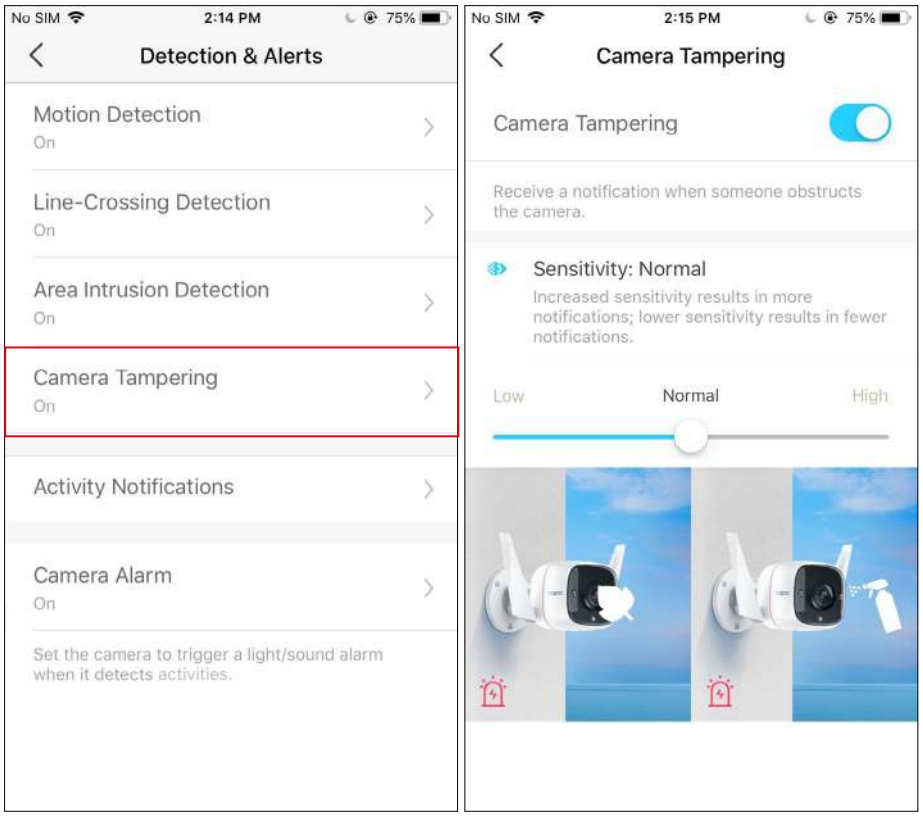

## Area Intrusion Detection

Add one or more activity zones, then when the camera detects someone enters the set zones, the camera will send you notifications or even sound an alarm. You can set the detection schedule as needed.



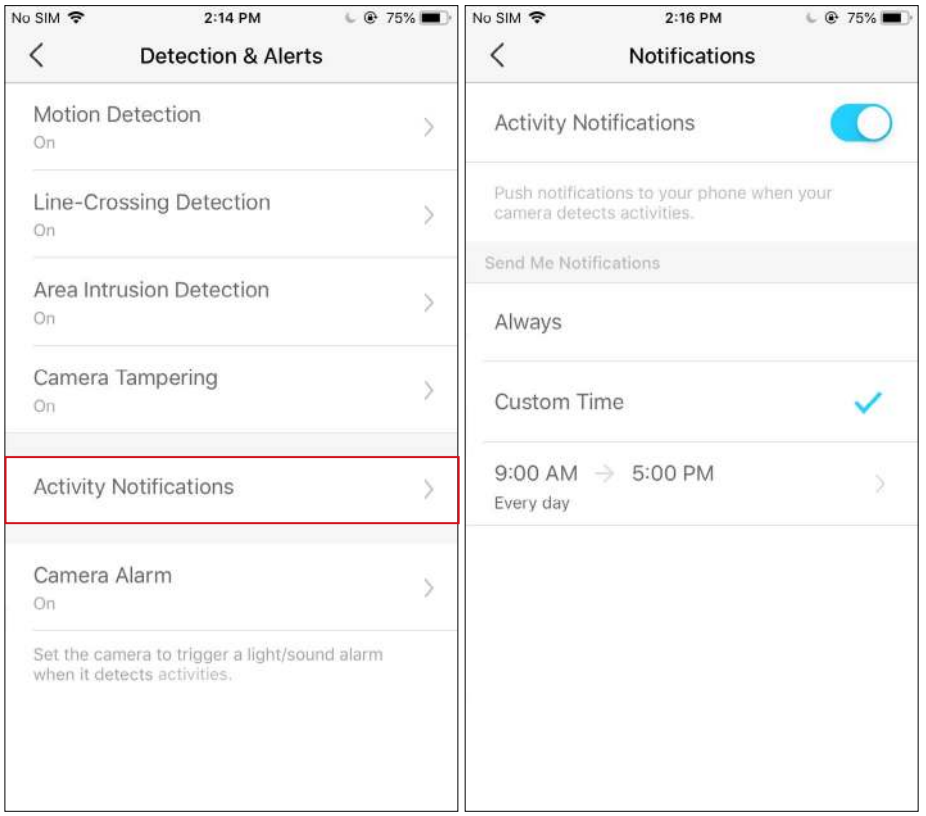
## Camera Tampering Detection

When the camera view is blocked, it will send you notifications or even sound an alarm. You can adjust the detection sensitivity. Increased sensitivity results in more recordings and notifications.



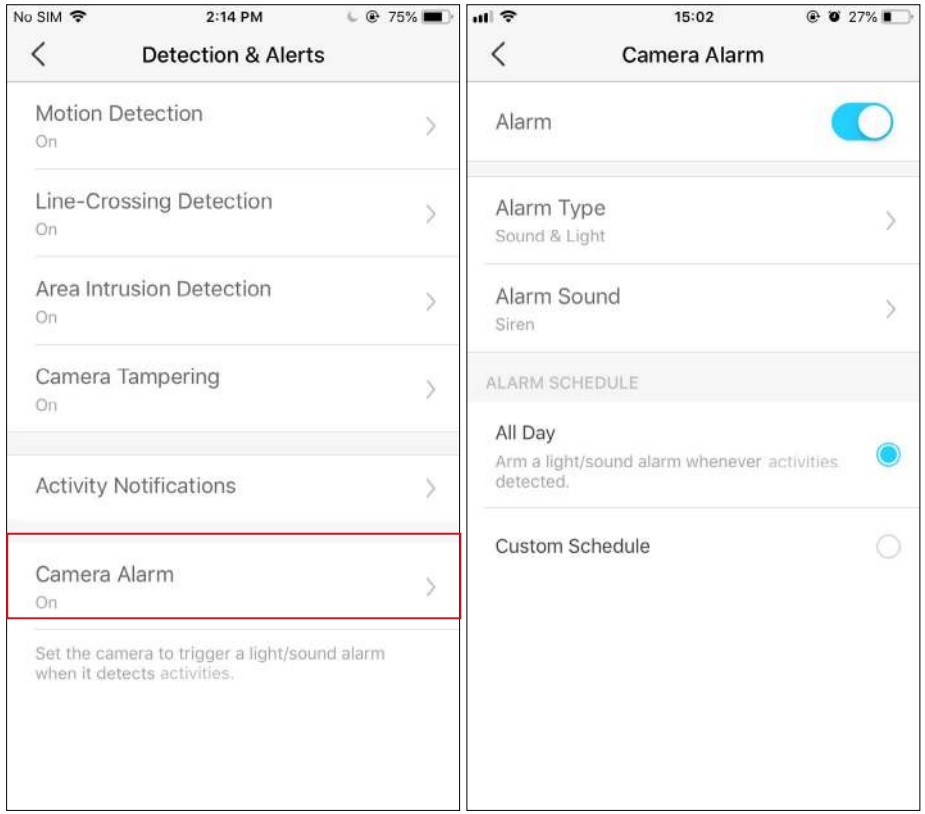

## Step 2: Turn On Activity Notifications

Turn on Activity Notifications to get instant alerts when your camera detects activities. You can customize the time when the camera sends you notifications.



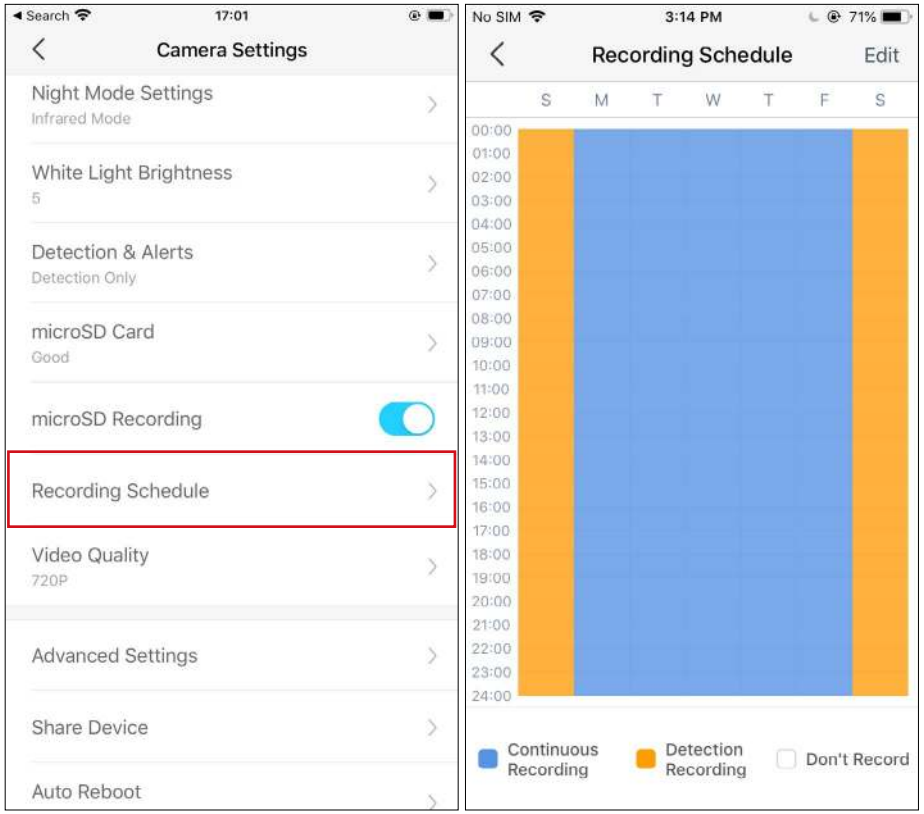
## **Step 3:** Customize Alarm Settings

Customize Camera Alarm settings to trigger a light/sound alarm to frighten away unwanted visitors when your camera detects activities. You can also set the Alarm Schedule as needed.




## **Step 4:** Set Recording Schedule

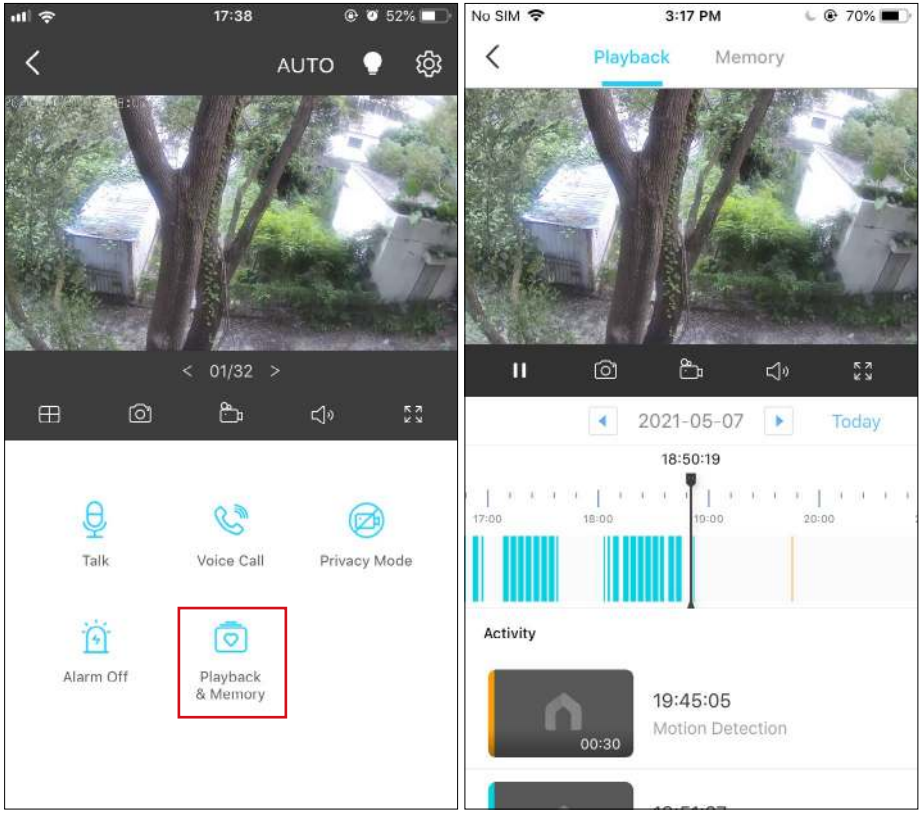
After editing the detection settings for the camera, you can set the Recording Schedule for Detection Recording.



## **Step 5:** Check Recordings

On the Live View page, tap Playback & Memory to find all recordings. Tap the colored sections or the video clips below to check the activity detected.

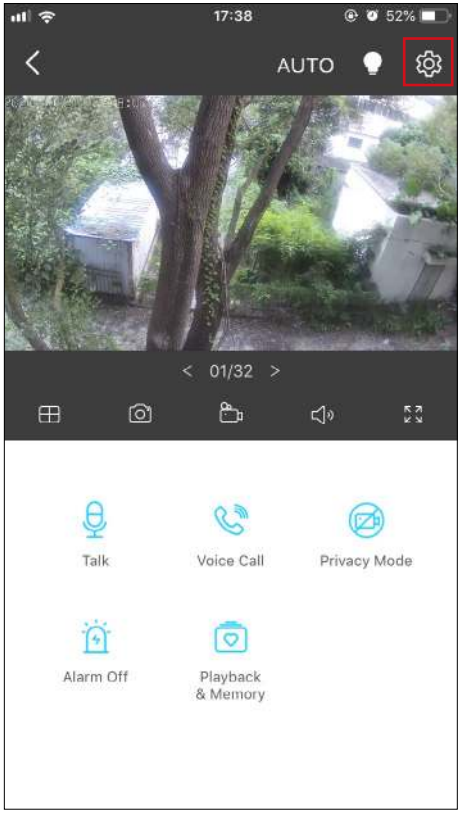
**Note:** The microSD card is needed for recordings. Initialize the SD card on the app before using it.



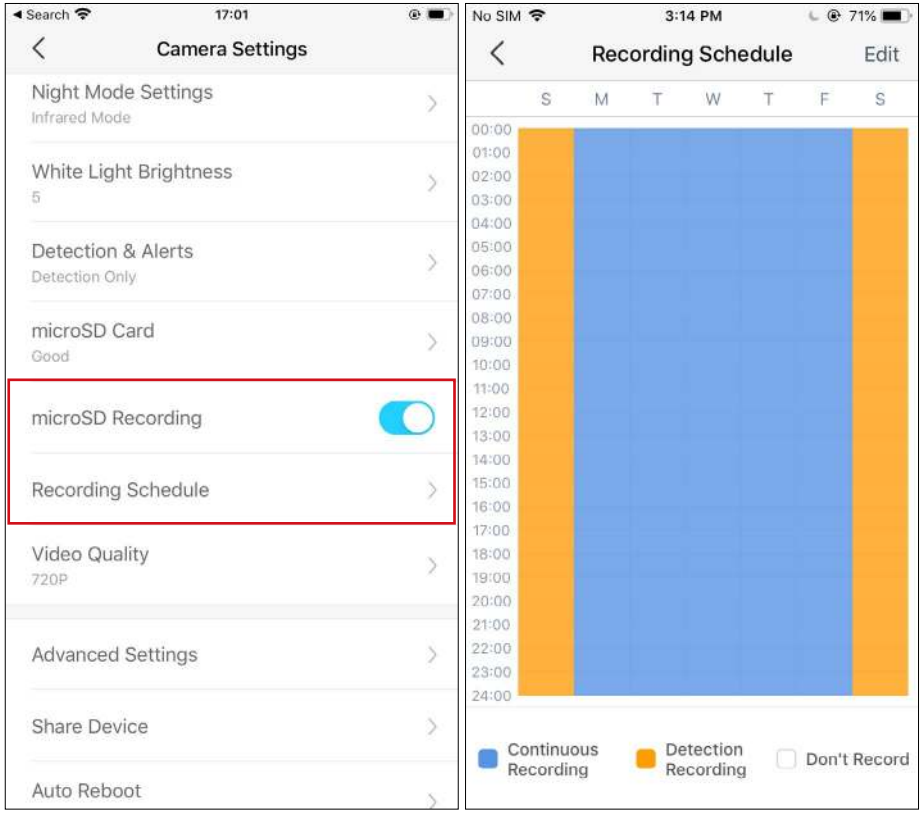
# 24-hour Recordings

The microSD card is needed for 24-hour recording and it's suggested to initialize the SD card on the app before using it.

1. On the Live View page, tap ⚙ to enter the Camera Settings page.




2. Toggle on to enable the microSD Recording function and set the Recording Schedule for Continuous Recording (24-hour Recording) as needed.



3. On the Live View page, tap Playback & Memory to find all recordings. Tap the colored sections or the video clips below to check the activity detected.

Note: The microSD card is needed for recordings. Initialize the SD card on the app before using it.

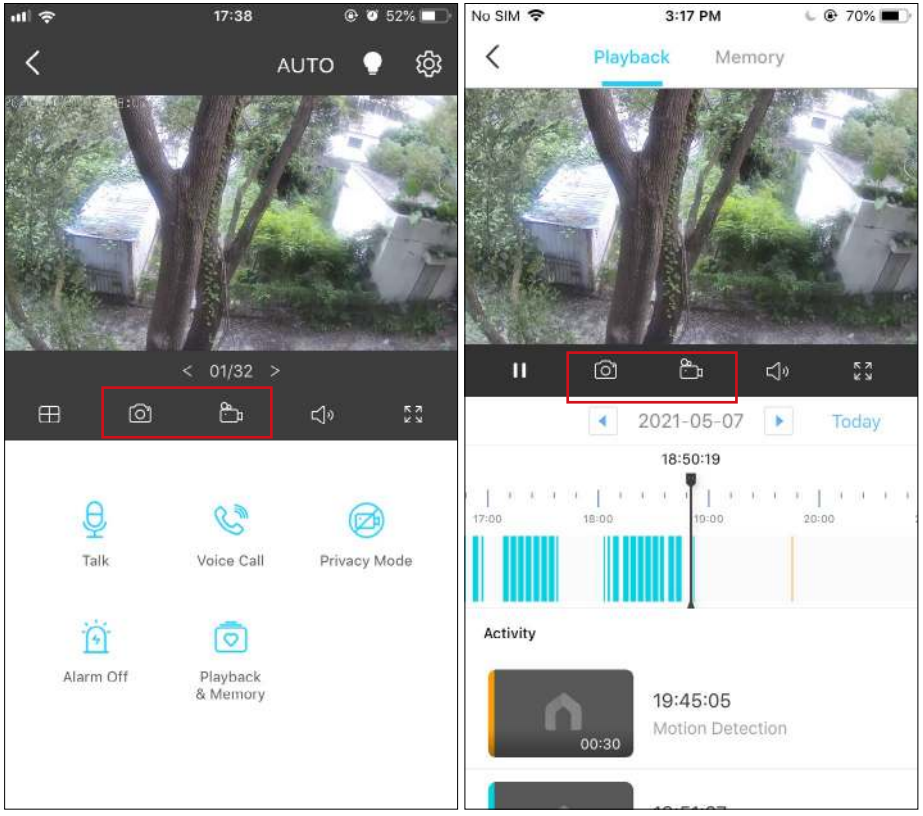




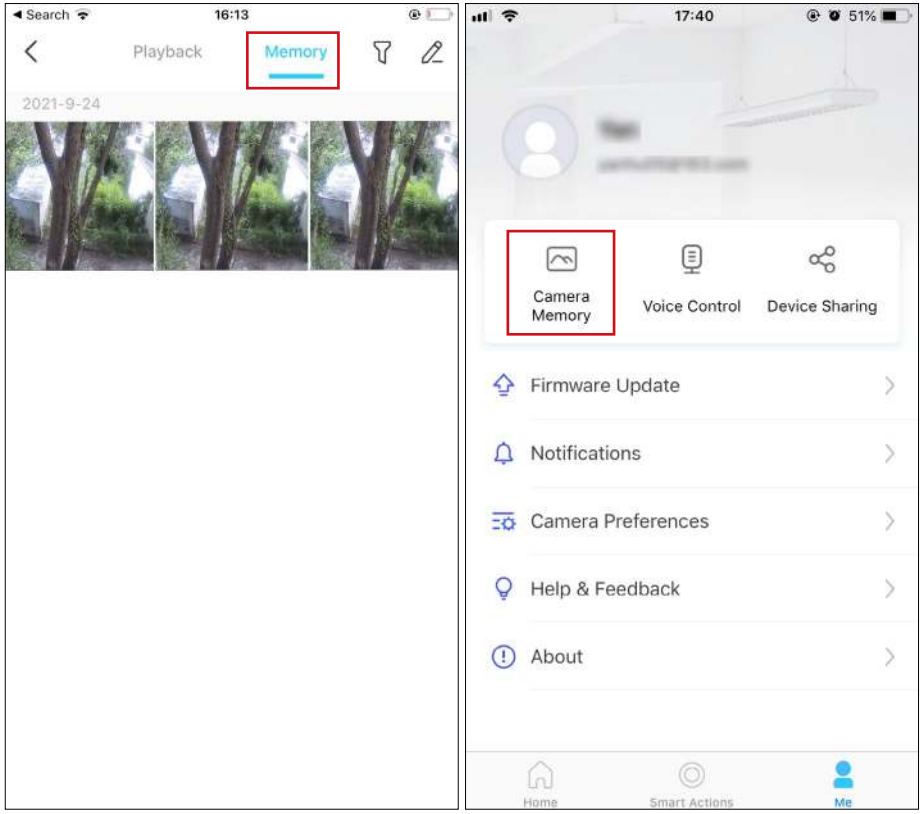

# Manual Recording

When watching live or playback, you can take screenshots and record video clips anytime you want. Photos and videos you take will appear in the Memory page, and you can download them to your phone or share with your family.

1. On the Live View or Playback page, tap to take photos and tap to record video clips.




2. Go to LIVE View page, tap Playback & Memory and enter Memory page, or go to Me > Camera Memory to view, download, and share photos and videos you take.

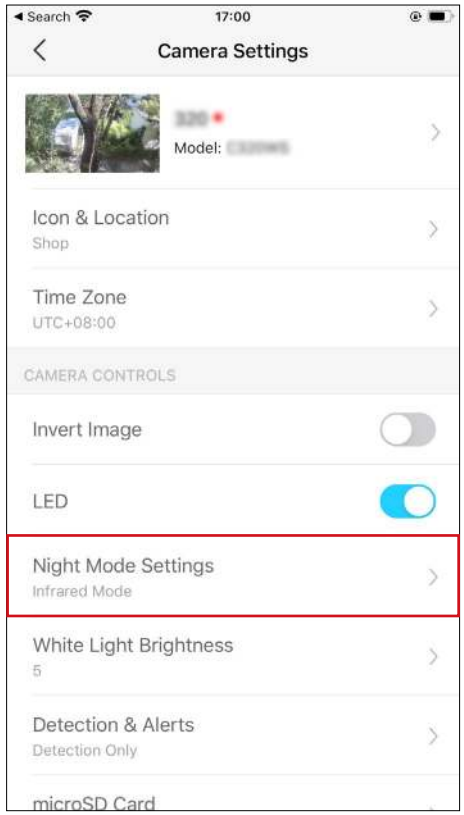


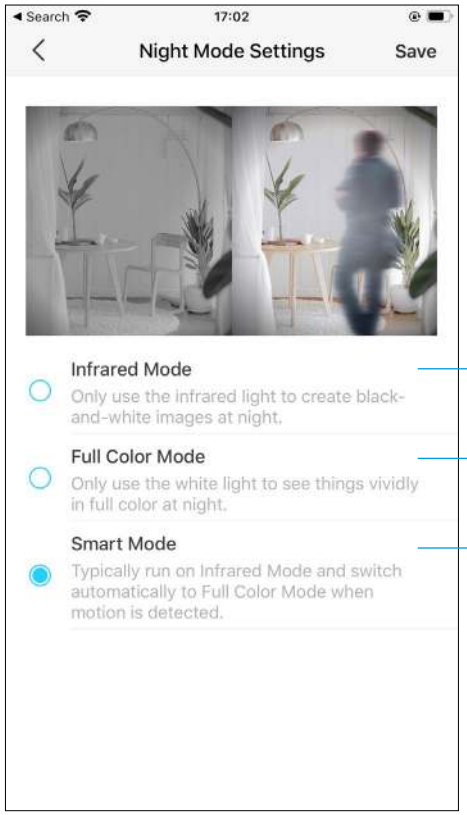
# Night Vision Mode

Unlike standard cameras' black and white night view, Tapo C320WS is equipped with a high-resolution sensor and spotlight, helping enhance your security view with vivid colors even at night. You can choose a preferred night mode and adjust the white light brightness as needed.

## 1. Select Night Mode

Go to Camera Settings > Night Mode Settings, and select your preferred night mode.



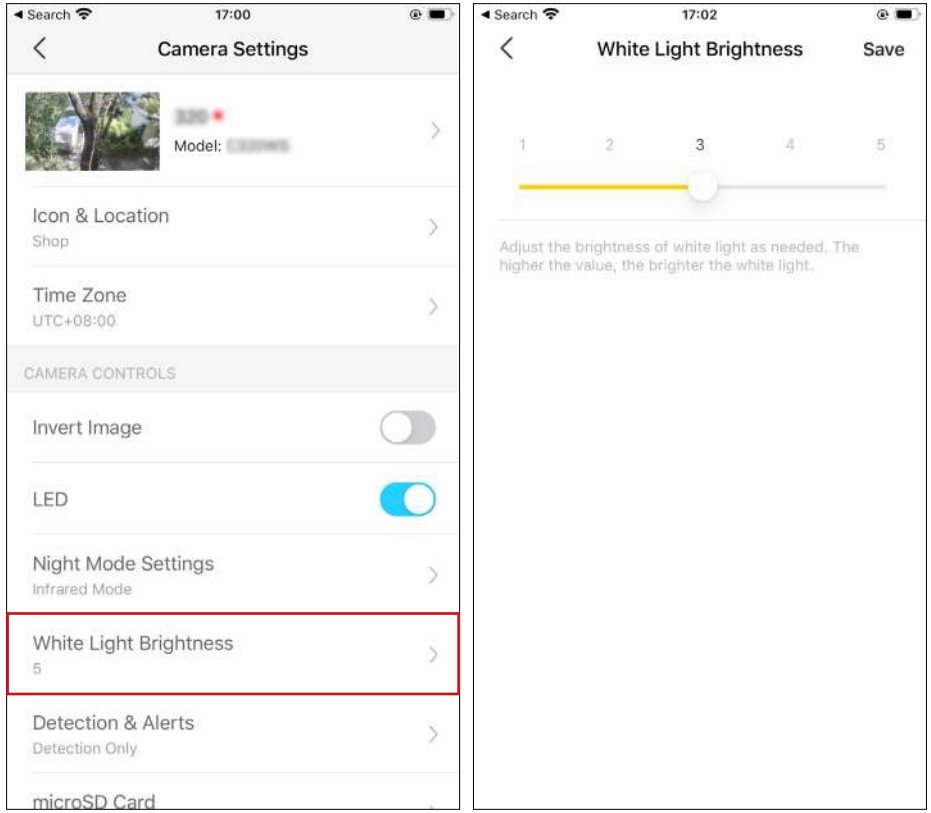

**Infrared Mode**
Only use the infrared light to create black-and-white images at night.

**Full Color Mode**
Only use the white light to see things vividly in full color at night. The white light will be on.

**Smart Mode**
Typically run on Infrared Mode and switch automatically to Full Color Mode when motion is detected. The white light will be on in Full Color Mode.

## 2. Adjust White Light Brightness

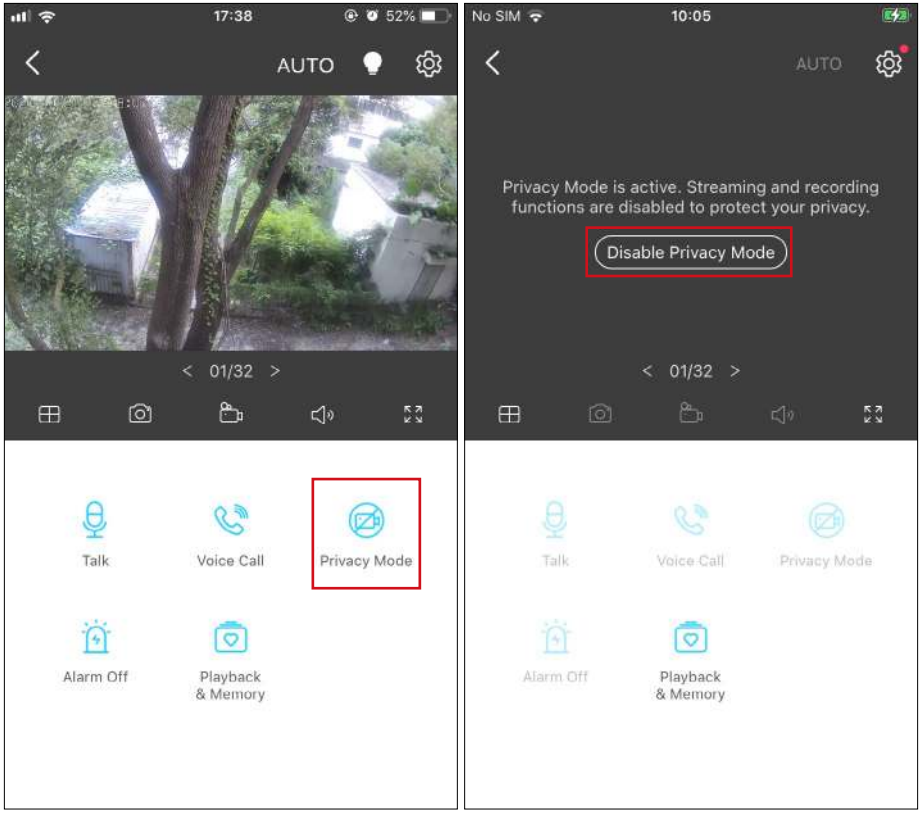
Go to Camera Settings > White Light Brightness to adjust the brightness. The higher the value, the brighter the white light.



# Privacy Mode

On the Live View page, tap  to enable the Privacy Mode. When enabled, streaming and recording functions will be temporarily disabled to protect your privacy. You can tap Disable Privacy Mode to exit Privacy Mode and the camera will be back to work.





# How to Reset Your Camera

Follow the steps below to reset your camera via the Reset button, or follow the installation video at https://www.tp-link.com/support/setup-video/.
You can also go to Camera Settings in the Tapo app and tap Remove Device at the bottom to factory reset your camera.

1. Loosen the screws on the back panel and remove the cover.




2. Press and hold the Reset button for 5 seconds until the LED blinks red to reset Wi-Fi information only;
   Press and hold the Reset button for at least 10 seconds until the LED blinks red quickly to reset your camera to factory default settings.



# Authentication

## FCC compliance information statement

**Product Name: Outdoor Security Wi-Fi Camera**

**Model Number: Tapo C320WS**

| Component Name | Model |
|---|---|
| AC ADAPTER | T090060-2B1 |

**Responsible Party:**

**TP-Link USA Corporation**

Address: 10 Mauchly, Irvine, CA 926181

Website: http://www.tp-link.com/us/

Tel: +1 626 333 0234

Fax: +1 909 527 6804

E-mail: sales.usa@tp-link.com

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:

- 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."

We, **TP-Link USA Corporation**, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

**Issue Date:** 2021-09-10

## FCC compliance information statement

**Product Name: AC ADAPTER**
**Model Number: T090060-2B1**
**Responsible Party:**
**TP-Link USA Corporation**
Address: 10 Mauchly, Irvine, CA 926181
Website: http://www.tp-link.com/us/
Tel: +1 626 333 0234
Fax: +1 909 527 6804
E-mail: sales.usa@tp-link.com

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:

- 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.

We, **TP-Link USA Corporation**, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

**Issue Date:** 2021-11-18

## CE Mark Warning

CE

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.

## OPERATING FREQUENCY (the maximum transmitted power)

2412MHz—2472MHz (20dBm)

## EU Declaration of Conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC, 2011/65/EU and (EU)2015/863.

The original EU declaration of conformity may be found at https://www.tapo.com/en/support/ce/

## RF Exposure Information

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

The device complies with RF specifications when the device used at 20 cm from your body.

UK CA

## UKCA Declaration of Conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of the Radio Equipment Regulations 2017.

The original UK declaration of conformity may be found at https://www.tapo.com/support/ukca/

## Canadian Compliance Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.

2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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, meme 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

LP0002低功率射頻器材技術規範_章節3.8.2

取得審驗證明之低功率射頻器材，非經核准，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及功能。

低功率射頻器材之使用不得影響飛航安全及干擾合法通信；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。

前述合法通信，指依電信管理法規定作業之無線電通信。

低功率射頻器材須忍受合法通信或工業、科學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。

### 限用物質含有情況標示聲明書

| 設備名稱：Outdoor Security Wi-Fi Camera<br>Equipment name | | | | | | 型號（型式）：Tapo C320WS<br>Type designation (Type) |
|---|---|---|---|---|---|---|
| 單元<br>Unit | 限用物質及其化學符號<br>Restricted substances and its chemical symbols | | | | | |
| | 鉛<br>Lead<br>(Pb) | 汞<br>Mercury<br>(Hg) | 鎘<br>Cadmium<br>(Cd) | 六價鉻<br>Hexavalent chromium<br>($Cr^{+6}$) | 多溴聯苯<br>Polybrominated biphenyls<br>(PBB) | 多溴二苯醚<br>Polybrominated diphenyl ethers<br>(PBDE) |
| PCB | ○ | ○ | ○ | ○ | ○ | ○ |
| 外殼 | ○ | ○ | ○ | ○ | ○ | ○ |
| 電源供應器 | — | ○ | ○ | ○ | ○ | ○ |
| 其他及其配件 | — | ○ | ○ | ○ | ○ | ○ |

| |
|---|
| 備考 1.〝超出 0.1 wt %〞及〝超出 0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值 |
| Note 1: “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition. |
| 備考 2.〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。 |
| Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence. |
| 備考 3.〝—〞係指該項限用物質為排除項目。 |
| Note 3: The “—” indicates that the restricted substance corresponds to the exemption. |

Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.

EAC

## Safety Information

- Keep the device away from fire or hot environments. DO NOT immerse in water or any other liquid.
- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended
- Do not use the device where wireless devices are not allowed.
- Adapter shall be easily accessible.
- 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.

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

## Explanation of the symbols on the product label

| Symbol | Explanation |
|---|---|
|  | DC voltage |
|  | Indoor use only |
|  | RECYCLING<br>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.<br>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. |