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› INSEETECH 4G LTE Tuya Smart Solar Wireless Camera User Manual

## INSEETECH WF822-Set

# INSEETECH 4G LTE Tuya Smart Solar Wireless Camera User Manual

Model: WF822-Set  
Brand: INSEETECH

## 1. INTRODUCTION

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The INSEETECH 4G LTE Tuya Smart Solar Wireless Camera is an advanced outdoor surveillance solution designed for areas without traditional power or Wi-Fi access. This manual provides essential information for setting up, operating, and maintaining your camera to ensure optimal performance and security.



Figure 1.1: INSEETECH 4G LTE Tuya Smart Solar Wireless Camera

## 2. PRODUCT FEATURES

- **Wire-Free & Solar Powered:** Operates year-round with a 10W solar panel and rechargeable battery, eliminating the need for constant power connection.
- **4G LTE Cellular Connectivity:** No Wi-Fi required, ideal for remote locations. Supports Verizon, AT&T, and T-Mobile networks.
- **2K PTZ Camera:** Offers 355° horizontal pan and 90° vertical tilt for comprehensive coverage, controllable via the Tuya app.
- **IP66 Waterproof:** Designed to withstand harsh weather conditions including heavy rain, strong winds, and snow.
- **Intelligent Motion Detection:** PIR motion detection and advanced human detection (33-49 feet range) with real-time alerts to the Tuya app. Human Body Filtering reduces false alarms.
- **2K 98ft Full Color Night Vision:** Features a 4MP HD CMOS Sensor, 6 infrared lights, and white light for clear

images in pitch-dark environments. Supports both full-color and infrared night vision modes.

- **Two-Way Audio:** Communicate with visitors or deter intruders using the built-in microphone and speaker.
- **Flexible Storage Options:** Supports cloud storage (subscription required) and local storage via a memory card (8-128GB, not included).
- **Family Share Function:** Allows sharing access with up to 50 users while maintaining main user privacy settings.

# 4G LTE Cellular Solar Security Camera, No WiFi Needed

Included a SIM Card with  
**100m / 7 days** free trial



# 4G

verizon

AT&T

T-Mobile

Figure 2.1: 4G LTE Cellular Connectivity

# 2K HD Image & Super Night Vision



Figure 2.2: 2K HD Image and Night Vision Capabilities

# Continuous Power for **365-Day** Surveillance

In low-power recording mode, the camera can work for 365 days



Figure 2.3: Solar Power for Continuous Operation

# PIR Motion Detection Instant Alert & Floodlight



PIR motion detection &  
Human body filtering



Instant Alert



Floodlight alarm



Figure 2.4: Intelligent Motion Detection and Alerts

# Two-way Audio & Waterproof

Supports 4 visitors at the same time.



Cloud Storage



Card Storage

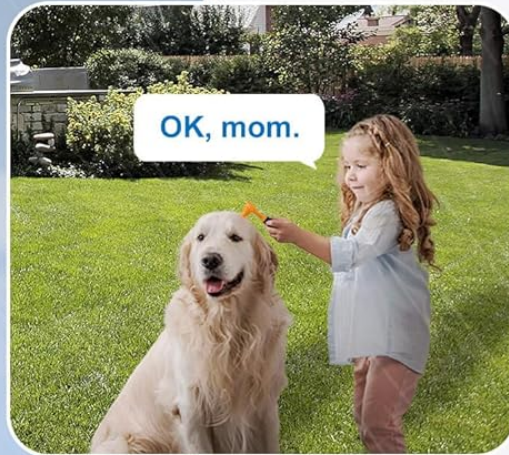


Figure 2.5: Two-Way Audio Communication

# IP66 Waterproof



Figure 2.6: IP66 Waterproof Rating

### 3. WHAT'S IN THE BOX

Your INSEETECH 4G LTE Tuya Smart Solar Wireless Camera package includes the following components:

- One Camera Unit (with integrated solar panel)
- Mounting Accessories (screws, wall anchors)
- SIM Card (with 100MB/7-day free trial)

- User Manual (this document)

Note: A memory card (8-128GB) for local storage is not included and must be purchased separately.

## 4. SETUP GUIDE

Follow these steps to set up your INSEETECH 4G LTE Tuya Smart Solar Wireless Camera:

### 4.1 Initial Preparation

1. **Charge the Camera:** Before first use, fully charge the camera's internal battery using the provided power cable. This ensures sufficient power for initial setup and operation.
2. **Insert SIM Card:** Locate the SIM card slot on the camera. Carefully insert the included 4G SIM card into the designated slot. Ensure it is correctly oriented.
3. **Insert Memory Card (Optional):** If you plan to use local storage, insert a compatible microSD card (8-128GB, not included) into the memory card slot.



Figure 4.1: SIM and Memory Card Insertion

### 4.2 App Installation and Connection

1. **Download Tuya Smart App:** Scan the QR code provided in the quick start guide or search for "Tuya Smart" in your mobile app store (iOS or Android) and download the application.
2. **Register/Log In:** Open the Tuya Smart app and register a new account or log in if you already have one.
3. **Add Device:** In the app, tap "Add Device" or the "+" icon. Select "Security & Video Surveillance" and then "Smart Camera (4G)".
4. **Scan QR Code:** Follow the in-app instructions to scan the QR code located on your camera. This will pair the camera with your account.
5. **Complete Setup:** Once paired, the app will guide you through any remaining setup steps, such as naming your camera.

### 4.3 Mounting the Camera

Choose a suitable location for your camera, ensuring the solar panel receives adequate direct sunlight (at least 2 hours per day for optimal performance). The camera offers flexible installation options:

- **Integrated Installation:** Mount the camera and solar panel together as a single unit.
- **Split Installation:** Mount the camera and solar panel separately using the extended cable, allowing you to position the solar panel in a sunnier spot while the camera is in the desired surveillance area.

Use the provided mounting screws and wall anchors to securely attach the camera to a wall, pole, or other stable surface. Ensure the camera is positioned to cover your desired monitoring area.

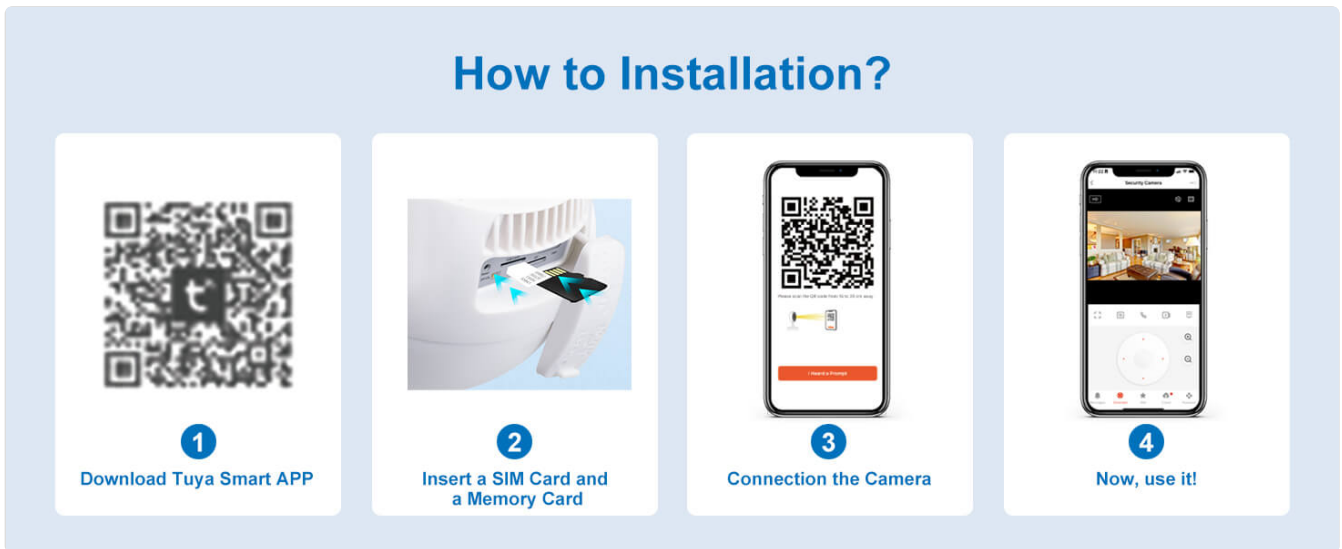


Figure 4.2: Integrated vs. Split Installation

## 5. OPERATING THE CAMERA

### 5.1 Live View and PTZ Control

Open the Tuya Smart app and select your camera from the device list. You will see a live feed from the camera. Use the on-screen controls to pan (355° horizontally) and tilt (90° vertically) the camera to adjust its viewing angle.

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Video 5.1: Overview of INSEETECH 4G LTE Cellular Wireless Solar Camera features, including PTZ control and wire-free operation.

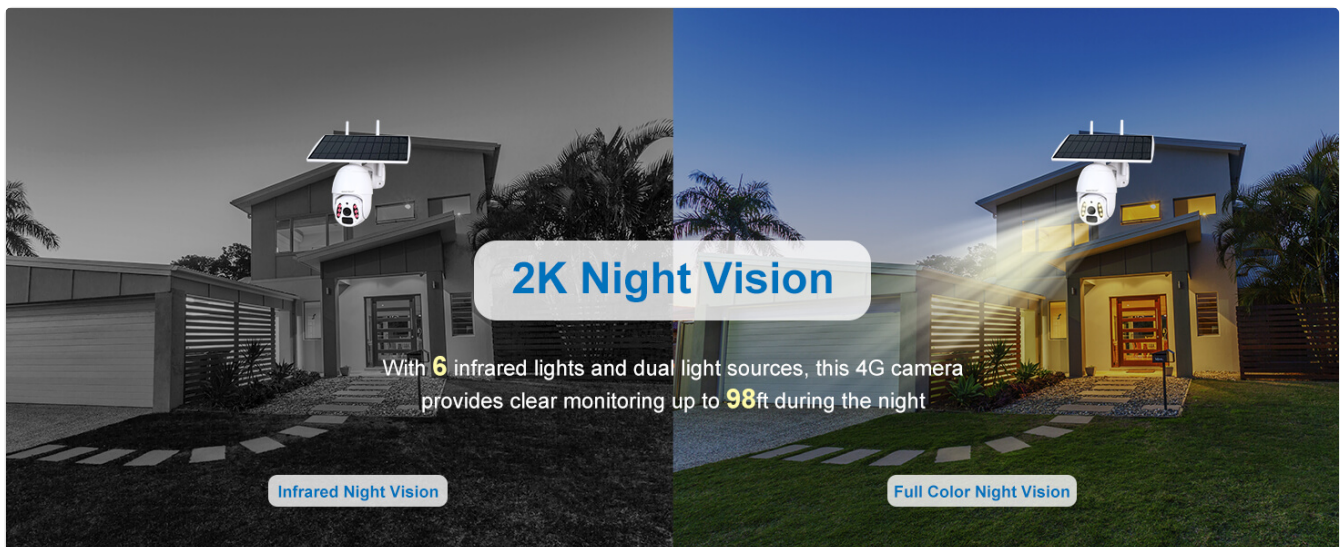


Figure 5.1: Pan and Tilt Capabilities

### 5.2 Motion Detection and Alerts

The camera uses PIR motion detection to identify movement. When motion is detected, you will receive instant alerts on your Tuya Smart app. You can enable Human Body Filtering in the app settings to reduce false alarms from animals or environmental factors.

## Waterproof IP66 & 5dBi Dual Antennas

IP66 to resist bad weather such as heavy rain, winds and snowfall. (Power switch cover, no screws)



Figure 5.2: Motion Detection Alerts

## Capturing Critical Information, Minimizing Distractions

In Low-Power Mode, the camera selectively captures motion or human movement events, minimizing the recording of irrelevant static scenes.

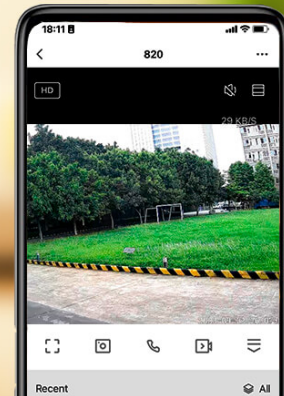


Figure 5.3: Human Detection for Reduced False Alarms

### 5.3 Night Vision Modes

The camera supports two night vision modes:

- **Infrared Night Vision:** Provides clear black and white images in low-light conditions using infrared LEDs.
- **Full Color Night Vision:** Utilizes white light to provide full-color video and images even in complete darkness. This mode can also serve as a floodlight.

You can switch between these modes in the Tuya Smart app settings.

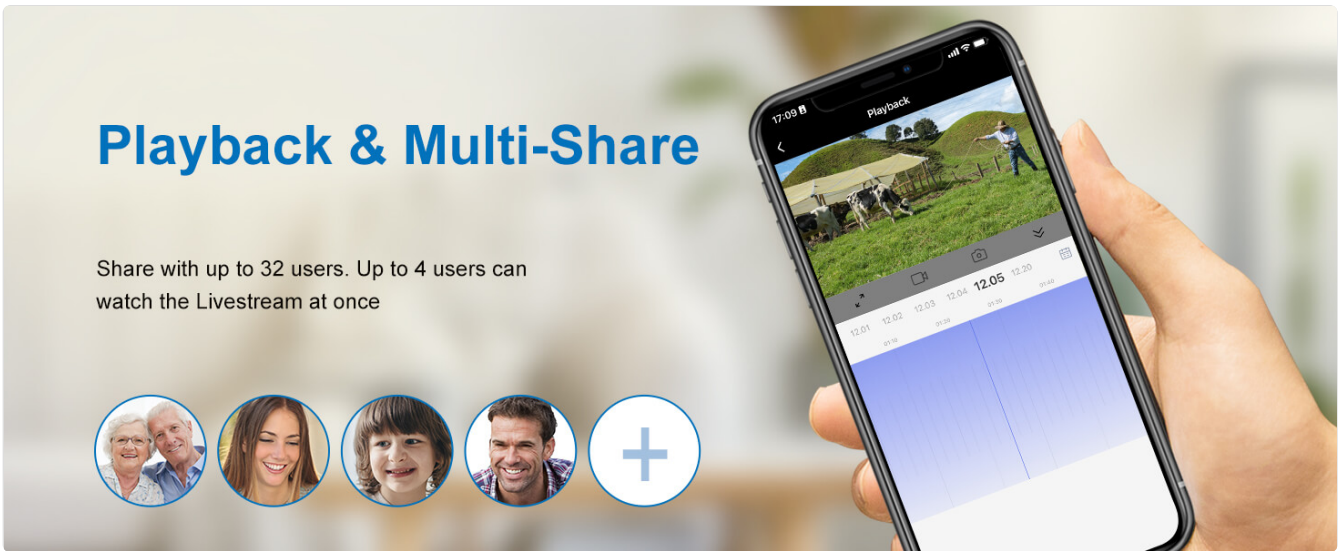


Figure 5.4: Infrared vs. Full Color Night Vision

### 5.4 Two-Way Audio

Use the two-way audio feature to communicate through the camera. Tap the microphone icon in the live view interface to speak, and listen through the camera's speaker.



Figure 5.5: Two-Way Audio Functionality

### 5.5 Playback and Multi-Share

Access recorded footage via the "Playback" option in the app. You can review events stored on your memory card or in cloud storage. The camera supports multi-user sharing, allowing up to 50 users to view the live stream and up to 4 users to watch simultaneously.



Figure 5.6: Playback and Multi-User Sharing

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Video 5.2: Real footage captured by the INSEETECH 4G SIM Card Solar Camera, demonstrating video quality and motion detection.

## 6. MAINTENANCE

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- **Solar Panel Cleaning:** Regularly wipe the solar panel with a soft, damp cloth to remove dust, dirt, or debris that may reduce charging efficiency.
- **Lens Cleaning:** Gently clean the camera lens with a microfiber cloth to ensure clear image quality. Avoid abrasive materials.
- **Firmware Updates:** Check the Tuya Smart app periodically for firmware updates. Keeping your camera's firmware updated ensures optimal performance, new features, and security enhancements.
- **Battery Health:** While solar-powered, extreme weather or prolonged periods without sunlight may affect battery levels. Monitor battery status in the app and manually charge if necessary.

## 7. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Camera not powering on.	Low battery; power switch off.	Ensure the power switch is ON. Fully charge the camera using the power adapter. Ensure solar panel is clean and receiving direct sunlight.
No 4G signal.	Poor network coverage; SIM card issue.	Relocate the camera to an area with better cellular reception. Check if the SIM card is properly inserted and activated. Contact your SIM card provider if necessary.
Motion detection not working or too many false alarms.	Incorrect sensitivity settings; environmental factors.	Adjust motion detection sensitivity in the Tuya app. Enable Human Body Filtering. Ensure camera is not pointed at moving trees or busy roads if not desired.
Cannot view live feed or playback.	Network issue; app glitch; SD card error.	Check your phone's internet connection. Restart the Tuya app. Reformat or replace the SD card if using local storage. Ensure sufficient data on SIM card.
Two-way audio not clear.	Environmental noise; microphone/speaker obstruction.	Reduce background noise. Ensure microphone and speaker are not obstructed. Check app volume settings.

## 8. SPECIFICATIONS

Feature	Detail
Model Name	WF822-Set
Indoor/Outdoor Usage	Outdoor
Power Source	Solar Powered
Connectivity Technology	Wireless (4G LTE Cellular)
Video Capture Resolution	4MP
PTZ Capabilities	355° Pan, 90° Tilt
Night Vision Range	98 Feet (Full Color & IR)
Water Resistance Level	IP66 Waterproof
Storage Options	Cloud Storage, MicroSD Card (8-128GB, not included)
Two-Way Audio	Yes
Motion Detection	PIR, Human Detection
Dimensions (L x W x H)	7.9 x 7.5 x 4.3 inches
Item Weight	3.54 pounds
Battery	1 Lithium Ion (included)
Solar Panel Wattage	10 watts

# Size for Solar Camera



Figure 8.1: Product Dimensions

## 9. WARRANTY AND SUPPORT

INSEETECH provides 24/7 customer service to assist with any issues or questions you may have regarding your 4G LTE Tuya Smart Solar Wireless Camera. Please refer to the product packaging or the official INSEETECH website for specific warranty details and contact information.

For further assistance, you may visit the official INSEETECH Store on Amazon.

