

EmpireTech IPC-T54IR-ZE

EmpireTech IPC-T54IR-ZE 4MP IP PoE Wired Turret Camera User Manual

Model: IPC-T54IR-ZE | Brand: EmpireTech

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your EmpireTech IPC-T54IR-ZE 4MP IP PoE Wired Turret Camera. This high-performance security camera is designed for both indoor and outdoor surveillance, offering clear and detailed imaging with its advanced 1/1.8" CMOS sensor, even in low-light conditions. Featuring a motorized 2.7mm-12mm lens and a built-in microphone, it provides versatile monitoring capabilities for vehicles, people, and surrounding areas.

2. PRODUCT FEATURES

- **4MP Resolution:** Delivers high-definition video for clear and detailed surveillance.
- **1/1.8" CMOS Ultra Low Light Sensor:** Ensures superior image quality in challenging lighting conditions.
- **Motorized 2.7mm-12mm Lens:** Allows for flexible adjustment of zoom and focus to cover wide or specific areas.
- **Built-in Microphone:** Captures audio alongside video for enhanced monitoring.
- **Integrated IR LEDs:** Provides up to 40m (131.23 ft) of infrared illumination for night vision.
- **Smart AI Features:** Includes IVS (Perimeter Protection), Smart Object detection, Motion Detection, AI SSA, People Counting, Heat Map, Video Metadata, Smart Search, and Alarm Event capabilities.
- **Micro SD Card Support:** Supports up to 512 GB Micro SD card for local storage.
- **IP67 Protection:** Robust design ensures durability and resistance to outdoor weather conditions.
- **Power over Ethernet (PoE):** Simplifies installation by providing power and data through a single cable.

3. PACKAGE CONTENTS

Please verify that all items are present and in good condition upon opening the package.

- EmpireTech IPC-T54IR-ZE Turret Camera
- Mounting Plate
- Mounting Screws and Wall Anchors
- Waterproof Connector for Ethernet Cable



Figure 1: Front view of the EmpireTech IPC-T54IR-ZE Turret Camera.

4. SETUP AND INSTALLATION

4.1 Mounting the Camera

1. Select a suitable mounting location, ensuring a clear field of view and access to an Ethernet cable.
2. Use the mounting plate as a template to mark drill holes on the wall or ceiling.
3. Drill the pilot holes and insert wall anchors if necessary.
4. Secure the mounting plate to the surface using the provided screws.
5. Attach the camera body to the mounting plate, aligning the tabs and rotating to lock it in place.



Figure 2: Side view of the camera showing the mounting base.

4.2 Network Connection and Power

The IPC-T54IR-ZE camera supports Power over Ethernet (PoE), simplifying wiring by delivering both power and data through a single Ethernet cable. Connect the camera to a PoE-enabled switch or NVR.

- Connect one end of an Ethernet cable to the camera's network port. Use the waterproof connector for outdoor installations to protect the connection.
- Connect the other end of the Ethernet cable to a PoE port on your network switch or NVR.
- Alternatively, if PoE is not available, the camera can be powered via a 12V DC power adapter (not included) and connected to a standard network switch.

4.3 Initial Configuration

Upon initial connection, the camera will obtain an IP address via DHCP if available. If your network uses a different subnet or requires a static IP, you may need to use the manufacturer's configuration tool (e.g., Dahua Config Tool) to locate and adjust the camera's IP settings. Refer to the detailed software manual for specific instructions on network configuration and device initialization.

5. OPERATING INSTRUCTIONS

5.1 Accessing the Camera

Access the camera's live view and settings through a compatible Network Video Recorder (NVR), a PC with CCTV management software (e.g., Blue Iris, iSpy), or a dedicated mobile application (e.g., DMSS app). Ensure your device is on the same network as the camera.

5.2 Adjusting the Motorized Lens

The motorized vari-focal lens (2.7mm-12mm) allows you to remotely adjust the zoom and focus. This can typically be done through your NVR interface or the camera's web interface/mobile app. Adjust the lens to achieve the desired field of view and image clarity for your surveillance area.

5.3 Smart AI Features Configuration

The camera is equipped with advanced Smart AI features for intelligent monitoring:

- **IVS (Intelligent Video System):** Configure tripwires and intrusion detection zones for perimeter protection.
- **Smart Object Detection:** Differentiate between vehicles and humans to reduce false alarms.
- **Motion Detection:** Set up areas of interest for motion-triggered recording and alerts.
- **People Counting & Heat Map:** Analyze traffic flow and popular areas within the camera's view.
- **Built-in Microphone:** Enable audio recording in the camera settings to capture sound.

Detailed configuration for these features is available within the camera's web interface or through compatible NVR/software settings.

5.4 Micro SD Card Storage

The camera supports a Micro SD card up to 512 GB for local video storage. Insert the Micro SD card into the designated slot (refer to the camera diagram in the full manual for location). Format the SD card through the camera's web interface before use.

6. MAINTENANCE

- **Cleaning:** Regularly clean the camera lens and housing with a soft, damp cloth to ensure optimal image clarity. Avoid abrasive cleaners.
- **Firmware Updates:** Periodically check for and install firmware updates provided by EmpireTech to ensure optimal performance, security, and access to new features.
- **Cable Inspection:** For outdoor installations, periodically inspect the Ethernet cable and waterproof connector for any signs of wear or damage.
- **Environmental Protection:** The camera is IP67 rated for dust and water resistance. Ensure all seals are properly seated after any access to internal components (e.g., SD card slot).

7. TROUBLESHOOTING

- **Camera Not Connecting to Network:**
 - Verify the Ethernet cable connection and ensure the PoE switch/NVR is providing power.
 - Check if the camera's IP address is compatible with your network subnet. Use the manufacturer's configuration tool to scan for devices and adjust IP settings if needed (e.g., switch from static to DHCP or vice-versa).
 - Ensure no firewall rules are blocking communication.

- **Poor Image Quality at Night:**
 - Ensure the camera lens is clean.
 - Verify that the IR LEDs are active in low-light conditions.
 - Adjust camera settings for night mode or low-light sensitivity.
- **Smart AI Features Not Triggering:**
 - Review the configuration of IVS rules, motion detection zones, and object detection settings in the camera's web interface or NVR.
 - Ensure the firmware is up to date.
- **Software Incompatibility:**
 - This camera is designed for use with NVRs or dedicated CCTV software. It is not a plug-and-play consumer camera for direct app setup without proper network configuration.
 - Ensure your PC operating system and web browser are up-to-date for compatibility with configuration tools and web interfaces.

8. SPECIFICATIONS

Model Name	IPC-T54IR-ZE
Resolution	4 MP (2688 × 1520)
Image Sensor	1/1.8" CMOS
Lens Type	Motorized Vari-focal, 2.7mm-12mm
Night Vision	IR LEDs, up to 40m (131.23 ft)
Audio	Built-in Microphone
Storage	Micro SD card up to 512 GB
Connectivity	Wired (PoE)
Power Supply	12V DC / PoE (802.3af)
Power Consumption	7.5 Watts
Environmental Rating	IP67
Dimensions	4.8 x 4.8 x 4.3 inches
Weight	1.96 pounds
Operating Temperature	(Refer to full product datasheet for range)

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official EmpireTech website or contact your authorized dealer. Keep your purchase receipt for warranty claims. The manufacturer strives to provide responsive customer support for product inquiries and assistance.

