ElderWatching Product Manual

LonRock ElderWatching is an AI-powered edge computing device designed specifically for eldercare scenarios. This smart system analyzes video streams from IP surveillance cameras to detect key conditions such as elderly individuals falling, sitting on the ground for extended periods, or wheelchair users remaining motionless.

The ElderWatching connects to IP cameras via the ONVIF protocol, supporting one camera at a time, with the ability to cycle through multiple cameras through configuration (Patrol Mode). It seamlessly integrates into existing surveillance systems without the need to replace or reinstall cameras. This makes it particularly suitable for eldercare facilities to monitor outdoor or less-patrolled areas such as corridors and stairwells, helping to enhance safety and reduce response time in emergency situations.

Parameters

Model: LRK-Carehome66A-Z		
Camera Connection	Interface Protocol	ONVIF
	Video Encoding	H.264/H.265
	Resolution	720P ~ 5MP
	Input Method	Ethernet Port ETH0
	Additional Notes	High light sensitivity, short exposure time
Data Storage	Storage Method	TF Card required (saves ~45s video before and after new target detection)
	Backup Method	USB drive backup
Alarm Interface	Output	Visual signal (LED) Audio alert (buzzer) Push notifications with snapshots to alarm platform
Human-Machine Interaction	Device Discovery	Windows 10 or later device discovery tool
	Configuration	Web browser access
	PC Interface	Ethernet Port (ETH0)
Physical Design	Ethernet Ports	Single ports (ETH0)
	Power Supply	5V/3A，12W
	Dimensions	90x60x30mm
	Net Weight	200g
	Working Temperature	0℃ ~ 55℃
	Working Humidity	10%—90%

Appearance:

Size Comparison with a Hard Drive

Accessories

Includes a TYPE-C 5V/3A power adapter and a TF card.

Camera Requirements

The ElderWatching connects to IP cameras via Ethernet, requiring:
Support for ONVIF protocol.
Video encoding in H.264 or H.265.
Compatibility with resolutions ranging from 720P to 5MP.

Performance Note:

Lower resolutions (e.g., 1080P, 720P) with shorter exposure times yield better recognition accuracy, especially in low-light conditions (e.g., dawn or dusk).

Operating Instructions

1. Preparation

- Ensure the IP cameras and ElderWatching are on the same subnet.
- A TF card is required to store alarm data and enable related functions.

2. Startup

Connect the 5V/3A power supply.

Connect ElderWatching to the ethernet where the IP cameras are working.

The device automatically searches for or connects to the specified camera if both devices are on the **same subnet**.

Note: If the ElderWatching and the IP cameras are not on the same subnet, please connect a laptop to the ElderWatching via Ethernet and manually adjust the IP address settings to ensure proper communication.

3. Indicator Lights

Small Indicators:

Red (Power): Solid on when powered.

Green (System Status): Blinks during normal operation.

Large Indicators:

Left (Target Detection):

Illuminates upon detection of an anomaly and deactivates once the alarm condition concludes.

Right (Data Input):

Blinks "5s on, 1s off" when receiving camera video.

4. Management

Connect to the ElderWatching using a Windows PC and configure its IP address via the device discovery tool.

Access the web interface by entering the ElderWatching's IP in a browser.

Key Web Interface Features:

- Observation Management.
- Live status Monitoring.
- Device parameter adjustments.
- Live video display.
- Playback of alarm events and statistics.

5. Factory Default Configuration

- Ethernet port (ETH0) default IP address: 192.168.0.6
- Default device login password for browser: 123456

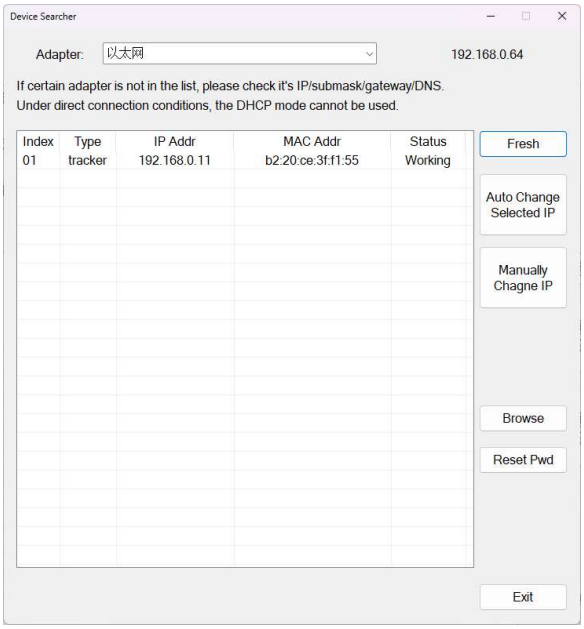
Windows Software

1. Device Discovery Tool

- The ElderWatching PC Discovery Tool allows users to search for and modify the IP addresses.
- If the PC has multiple network connections, please select the network interface connected to the ElderWatching under the "Adapter" section at the top.
- This tool does not automatically detect changes in device connections. If a new device is connected, click the "Fresh" button to re-scan the network.

- The ElderWatching is operated via a web browser. User can double-click an entry in the device list to open the login page in browser, or select an entry and click the "Browse" button to access the login interface.
- If you forget the browser login password for the ElderWatching, click the "Reset Pwd" button to restore it to the factory default password: **123456**.

GUI of the ElderWatching Discovery Tool



2. Playback Software

The ElderWatching PC playback software ports the web playback function of LonRock Vehicle Recognizer to the Windows platform. Playback is done using backup data from ElderWatching stored on a USB drive. Through alarm event lists, video playback, and statistical analysis, it helps users efficiently query and manage device recognition data.

Web Function Introduction

To operate the elderly care device, users need to log in to the identifier's IP address via a browser. The web interface provides five major functional modules at the top:
Observation Management, Live Monitoring, Config, Preview, and Playback.

- **Observation Management:** Configure camera connection methods and select the types of abnormal behaviors to be recognized.
- **Live Monitoring:** Displays the system's real-time monitoring status and alarm information.
- **Config:** Adjust system parameters, including IP address, login password, alarm platform, etc.
- **Preview:** Displays the live video feed from the connected IP camera along with its IP address.
- **Playback:** Review historical alarm events and related video recordings.

Key Features of the Browser Page

Observation Management

On the "Observation Management" page, users can choose between patrol mode or specified camera mode to manage the connected video sources.

Note: Patrol mode does not switch camera feeds frame by frame; instead, each camera feed is monitored for at least 5 minutes before switching to the next one. This approach ensures each camera's footage is thoroughly analyzed, reducing false alarms or missed detections.

Live Monitoring

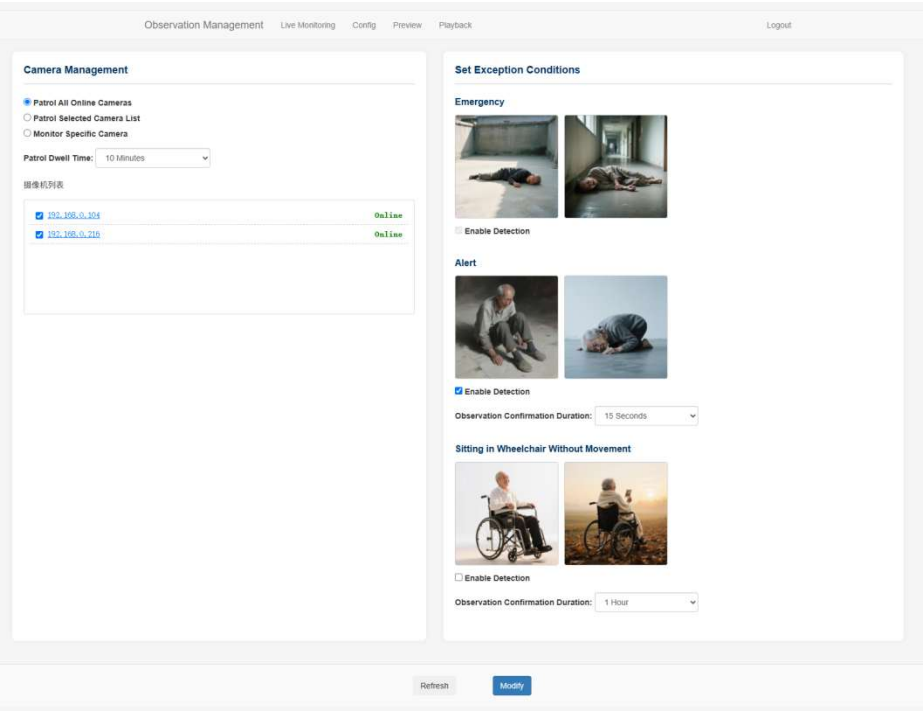
The "Live Monitoring" page displays only text status information by default. Under normal conditions, camera video will not automatically display unless the user manually clicks the "Show Video" button. When the system detects abnormal behavior, the webpage will automatically pop up a live video feed, which will close automatically 3 minutes after the abnormality ends.

Config

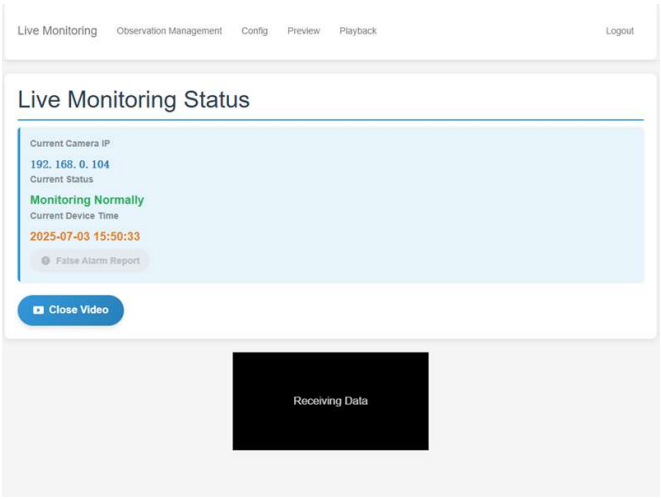
The following functions in the "Config" page deserve special attention:

- Alarm Platform Integration: Supports connection to third-party alarm systems; abnormal events detected by the system can be automatically pushed to external platforms.
- Recognition Model and Firmware Management: Supports replacement of recognition models and system firmware upgrades. These are advanced functions and should not be used frequently unless necessary. Users can check and update recognition models online via the "System Information" module.
- Device Reboot or Shutdown: In the "Factory Reset" section, buttons are provided for device reboot and shutdown to facilitate remote maintenance and management.

The GUI of "Observation Management" page



The GUI of "Live Monitoring" Page



Troubleshooting (FAQ)

Q: In the ElderWatching's Patrol Mode, does the system switch to the next camera after analyzing just a single frame?

A: No.

While "frame-by-frame patrol" might seem efficient in theory—allowing the system to quickly access each camera—it is not suitable for real-world behavior recognition scenarios. To ensure accurate, consistent, and effective analysis, the ElderWatching uses a time-based patrol mechanism, where each camera is monitored continuously for at least 5 minutes before switching to the next.

Users can manually select a specific camera by choosing its IP address from the list on the "Observation Management" page to view its live feed.

If the selected camera is already part of the patrol list, the system will remain focused on that camera for continued monitoring even after the live preview is closed.

Q: Why does the playback video from the ElderWatching seem like it's playing in fast motion?

A: The ElderWatching focuses on object detection and tracking within video streams, and then composes output video based on recognized frames. Since the input frame rate of the IP camera is not fixed—typically 20–30 FPS in good lighting, and sometimes below 10 FPS in poor lighting—the resulting playback frame rate also varies. This may create the impression of fast motion or uneven playback. In short, the ElderWatching prioritizes recognition and statistical accuracy over exact video timing, while ensuring system stability.

Q: The ElderWatching is working normally, but I can't find it using the PC Discovery tool. Why?

A: If you're sure the ElderWatching is functioning properly, but the PC or laptop can't find it using the discovery tool, please check the following:

1. Ensure that the network selected at the top of the detection tool matches the network used by the ElderWatching. Also check if the IP address of your PC appears on the same row.

   Laptops often have multiple active network interfaces (e.g., Wi-Fi and Ethernet). If the selected interface is not on the same subnet as the ElderWatching, it won't be discovered.

Additionally, if the selected interface does not have an IP address assigned, the device cannot be found. In that case, assign a static IP address to your PC manually.

2. If the network includes a firewall or if the router has built-in security filtering, it may block either the broadcast command from the detection tool or the ElderWatching's response.

In this case, try connecting your PC directly to the ElderWatching or switch to a network without firewalls.

Q: Why can I access the ElderWatching's web interface in a browser, but the device discovery tool can't find the device?

A: This is likely due to a firewall on the router within the local network. It may block broadcast commands from the detection tool, while standard HTTP browser traffic is still allowed.

Q: My camera supports ONVIF and uses H.264/H.265, but the ElderWatching doesn't display any image. Why?

A: Even if your IP camera supports ONVIF and uses H.264/H.265, you need to ensure that the camera and the ElderWatching are on the same subnet.

For example, if the camera's IP address is 192.168.1.108, the ElderWatching's corresponding port should also use an IP like 192.168.1.xxx.

Another possibility is that the IP address of the ElderWatching device conflicts with the IP address of another device on the local network, which can cause data transmission issues.

Q: What if I forget the login password for the ElderWatching r?

A: You can use the **ElderWatching's discovery tool** to search for the device, then click "Reset Pwd" button to restore the password to the factory default: 123456.