

Sirix

R5

Autonomous Security Box

Installation Guide



Copyright & usage restrictions

Sirix's Autonomous Security Box

Second edition.

Published: September 2024



This manual or guide is intended exclusively to assist Sirix's customers in the effective utilization of Sirix's products. Unauthorized use of this manual or guide, including the information contained herein, is strictly prohibited. Reproduction of this manual or guide, in whole or in part, without the express written consent of Sirix, is also prohibited.

*Copyright 2024 by Sirix. All rights reserved.

Produced in Canada. Specifications are subject to change without notice.

Warranty statement

Warranty coverage. Sirix (the "Seller") warrants to the Buyer that the parts supplied by the Seller will be free from defects in material and workmanship for the lifetime of the product, beginning from the date of shipment. The Seller's sole obligation under this warranty will be, at the Seller's option, to either replace or repair the defective goods. This constitutes the Buyer's exclusive remedy for breach of this warranty.

Exclusions. This warranty does not extend to goods that have been subjected to misuse, neglect, accidents, improper installation, or maintenance, or to goods that have been altered or repaired by anyone other than an authorized representative of Sirix.

Warranty limitations. Apart from the above warranty, the Seller makes no other warranties, either express or implied, with respect to the product. Specifically, the Seller disclaims any implied warranties of merchantability and fitness for a particular purpose. Some states, provinces, or countries do not allow limitations on the duration of an implied warranty, so the above limitations or exclusions may not apply. However, any implied warranty of merchantability or fitness is limited to the lifetime duration of this written warranty. This warranty gives specific legal rights, and other rights may exist which vary from state to state, province to province, or country to country.

Sirix Pro lifetime guarantee. Access to our Autonomous Security Box is exclusive to customers enrolled in Sirix Pro. This enrollment, a prerequisite for acquiring rental services, ensures lifetime remote support for problem resolution. Sirix Pro is designed to provide comprehensive troubleshooting and issue resolution remotely. Please note that this guarantee does not cover on-site assistance; for physical support and installation issues, customers are advised to consult directly with their security installer.

Exclusive remedies. The remedies provided herein are the Buyer's sole & exclusive remedies. In no event shall the Seller be liable for any direct, indirect, special, incidental, or consequential damages. The above limitations or exclusions may not apply in some areas.

Table of contents

Pre-installation preparation	05
Installation	08
Post-installation setup procedures	09
Limitations	10
Troubleshooting	11
Maintenance	12
Specification sheet	13

Introduction

The Sirix’s Autonomous Security Box is designed for quick deployment to secure outdoor areas. This system includes three AI-enabled cameras for remote video monitoring, offering intelligent detection and analysis of security events. The box is equipped with one or more horn loudspeakers for audible alerts and voice interventions, enhancing its response capabilities.

Incorporating LTE communication, the box ensures reliable, high-speed wireless connectivity essential for transmitting surveillance data. A strobe light is also integrated for visual alerts, contributing to the effectiveness of the perimeter security.

This security tool is adaptable, with options for additional devices (various types of cameras, loudspeakers, sensors, radar, etc.) based on site requirements, ensuring comprehensive coverage and protection.

Pre-installation preparation

1. **Inspect the box:** Check for any hardware damage upon delivery.
2. **Contact support:** Email Sirix at support@sirixmonitoring.com to arrange initial testing and schedule your installation. Include your site name and box number.
3. **Installation day:** Once the box is plugged in, call Sirix at [1-866-765-6667](tel:1-866-765-6667). Provide the box number, and we'll send you a link to adjust the camera views.



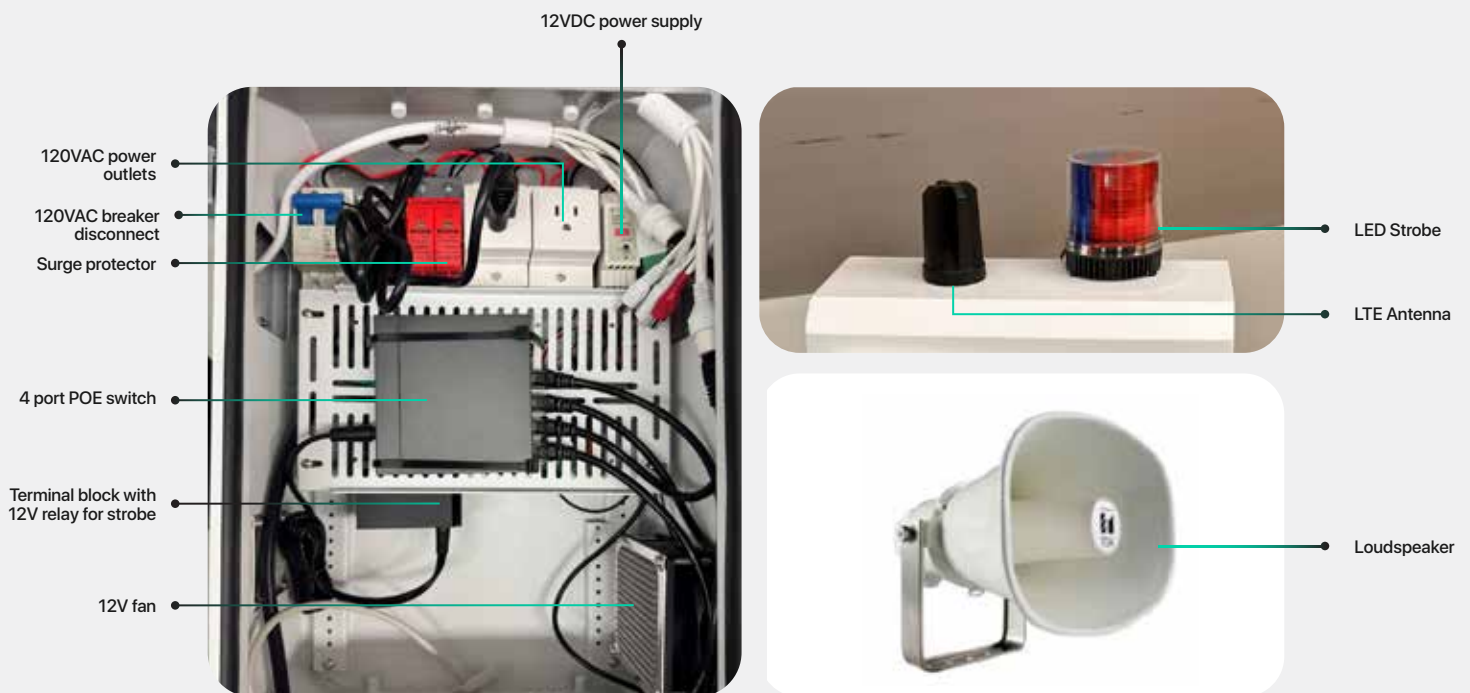
Installation. Electrical connection.

The NEMA 4 enclosure needs to be connected to a 120VAC, 50/60 Hz electrical circuit, which must be safeguarded by a 15A circuit breaker.

Connect the loudspeaker to the NEMA 4 enclosure using the CAT6 cable provided. Then, mount it following the instructions for your chosen mounting option.

NOTE: Installation of this unit must be carried out by a certified electrician.

Components



*Not shown in the image but included in all R4 boxes:
Temperature control unit.



External view of the box



Internal view of the box



Camera adjustment screws for vertical and horizontal positioning



Power cords for box activation.



Box lock

Installation

See below for the three versatile mounting options available for the Sirix’s Autonomous Security Box: pole-mounted A, pole-mounted B, wall-mounted, and floor-type installations.



Pole-mounted A

Mounting hardware & accessories:

- Set of 2 semi-circle hoops
- 4 nuts
- 4 screws

Note: This mounting option is suitable for poles with diameters of 76 mm, 89 mm, or 114 mm.



Pole-mounted B

Mounting hardware & accessories:

- 1.2M or 1.8M Hoop
- One set of 2 universal clips
- 2 tie bands

For poles of various shapes:

- The 1.2M mount is suitable for poles with diameters ranging from 50mm to 360mm.
- The 1.8M mount is compatible with poles having diameters between 220mm and 550mm.



Wall-mounted

Mounting hardware & accessories:

- Set of 2 big hangers
- Set of 2 small hangers
- 4 nuts
- 4 screws

Dimensions	
Model	SASB-3R3T
Overall Size (W*H*D)	300*400*150mm
Inner Size (W*H*D)	250*350*140mm
Weight (kg)	22kg



Floor-type

Stainless steel base specifications:

- Height: 20 cm
- **Color Options:** Choose between white or dark gray

Note: This base is compatible with the following models: V1-3425, V1-4520, V1-4530, V1-4630, N2-4620, V2-4620, 15U-6845.

Post-installation setup procedures

01

Camera adjustment

Use the adjustment screws to position the cameras' field of view (FOV) horizontally, vertically, and rotationally as desired.

02

Angle confirmation

Once the cameras are adjusted, confirm that the angles are correct with the Sirix Onboarding Department.

03

Masking & detection zone setup

After angle confirmation, the Onboarding Department will set up the masking and detection zones.

04

Voice down test

Conduct a test of the loudspeaker to adjust the volume and ensure the sound clarity.

05

Walk test

Perform walk tests to verify the effectiveness of the detection zones and confirm that alarms are being received at the Sirix Command Center.

***Routine maintenance recommendation.**

Periodic walk and voice down tests are recommended to ensure the system is functioning properly and remains in good working order.

Limitations

Key information for optimal performance with Sirix's Autonomous Security Box.

Overlapping of cameras.

When two cameras are positioned to detect the same zone from different angles, it is said that the cameras are overlapping.

This practice is critical since it doubles the likelihood of detection in these zones. For example, if one camera misses the intruder because the detection angle is too steep and the visible area of the individual's body is too small for the camera to categorize it as human, another camera detecting the same zone from a different angle may catch the trespasser.

Camera coverage.

How far can your Autonomous Security Box's cameras see and detect intrusions?

To answer this question correctly, you need to know these THREE BASIC VALUES:

- › The minimum pixel per meter (ppm) required to classify an object correctly is 20PPM.
- › The megapixel value used by the AI engine is 480p.
- › Cameras have a detection range of 20 to 60 meters, depending on the horizontal field of view (HFOV), which refers to the width of the zoom.

For more details on camera coverage, contact a Sirix security specialist or visit: <https://www.jvsg.com/calculators/cctv-lens-calculator/>

Object detection function.

Object detection is a computer vision technique that enables cameras to identify and locate objects, such as people or vehicles, within their field of view. The system analyzes the video feed using advanced algorithms and triggers an alarm when a human or vehicle is detected, tracking it as long as it remains in view. For detection to occur, the object must stay in the camera's field of view for at least 2 seconds.

Lighting.

Ensure all monitored areas are well-lit to capture clear images for security monitoring. To prevent glare, avoid positioning lights directly in front of your Autonomous Security Box's cameras. Also, steer clear of locations with drastic daylight changes or reflective surfaces, as they can reduce detection accuracy.

Troubleshooting

SASB not communicating with the command center.

If the SASB appears disconnected, disconnect the power and wait for 5 minutes before checking if the service has reconnected.

Lost camera signal.

To resolve a lost signal from a camera, reboot the POE switch. This is done by disconnecting the power source from the switch, waiting for 5 minutes, and then verifying if the camera signal has been restored.

Non-functional speaker or no voice downs heard.

Similar to the camera signal issue, reboot the POE switch by disconnecting its power source. Wait for 5 minutes before checking if the speaker functionality and voice downs are restored.

No power to SASB after disconnection.

Check the red lights on the "Service Disconnect" switch. If one or both lights are off, it could indicate that the power source is not supplying power to the SASB, or the fuses may need replacing. Use the spare fuses provided with the box for replacement.

Maintenance

The integrated system, featuring the NEMA 4 enclosure and AI-powered cameras, requires minimal maintenance. However, we recommend cleaning the camera lenses twice a year for optimal performance, though this isn't mandatory. In environments with high temperatures, strong winds, dust, or near motorways and construction sites, more frequent cleaning may be needed. During routine or unscheduled site inspections, perform the following checks when opening the enclosure:



Enclosure integrity

Examine the top of the enclosure, especially around the external antenna mount, for any signs of leaks.



Rust inspection

Look for any signs of rusting on the enclosure.



Camera mounting area.

Check the door where the camera is mounted for leak indications.



Seal condition.

Inspect the door seal for any broken or dented areas that could compromise the enclosure's integrity.



Electrical connection

Regularly verify the integrity of the power cable, looking for any cuts, damage, or signs of wear that could impact functionality.

Specification sheet

For detailed specifications of each component in the Sirix's Autonomous Security Box, please refer to the corresponding links provided next to each item listed below.



TP-LINK 5-PORT GIGABIT EASY SMART SWITCH WITH 4-PORT POE+

*Model may vary based on availability.

- > 5 Ports
- > Gigabit Ethernet
- > 10/100/1000Base-T
- > Layer 2 Supported
- > 4.34 W Power Consumption
- > 120 W PoE Budget
- > Twisted Pair
- > PoE Ports

TELTONIKA RUT241

4G/LTE WiFi Industrial Cellular Router

TELTONIKA PR1KCO28

Combo MIMO Mobile/GNSS/WiFi Roof SMA Antenna

BULLET B7Z2812IP5MP-AI-N

<https://gsdgroup.ca/en/bullet/517-b7z2812ip5mp-ai-n>

PTZ PTZD4XIP4MP-AI

<https://gsdgroup.ca/en/total-view/609-ptzd4xip4mp-ai>

SPEAKER SIP 30W

Features:

- > Supports PoE and comply with IEEE802.3bt (PoE++).
- > The network horn loudspeaker integrated with network audio decoding, digital amplifier.
- > Empowered by high-speed dual-core (ARM + DSP) chip of industrial grade, startup in less than 1s.
- > IP67 water-proof horn speaker at 30W rated power.
- > Supports MP3,WMA,WAV and more decoding.
- > With a standard RJ45 network interface and supports online firmware upgrade from long distance.
- > CE & RoHS complied.
- > Supports SIP, ONVIF and VMS compatible with most of the platforms like Milestone, NX and more.
- > With built-in SD for recorded voice messages.

Sirix

For any questions or assistance with your Sirix's Autonomous Security Box, please contact our support team. We are dedicated to prompt problem resolution and mutual success.

info@sirixmonitoring.com | 1-855-788-1919 (24/7 SOC)

