

UAM Monitor Handling Manual



Revision history

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1. Introduction

This document describes the operation and functions of the monitoring application “UAM Monitor” (hereafter referred to as “this app”) for the Safety Laser Scanner (hereafter referred to as “UAM” or “the sensor”).

【Note】

- **Membership registration on company's official website is required to use this application.**
After logging in, members can obtain a license key from the URL below.
<https://www.hokuyo-aut.jp/search//single.php?serial=259>
- Read the sensor specification carefully before use.
- The images shown in this document are for illustration purposes only and may differ from the actual display.
- All information in this manual is subject to change without prior notice.
- For the product related enquires, contact the nearest distributor or fill in the Contact form on the company's official website. <https://www.hokuyo-aut.co.jp/support/>

1.1. About UAM Monitor

This app allows monitoring the UAM's measurement data, operating parameters and input-output status.

1.2. System requirements

OS: Android OS 13.0 / iOS 15.0 or above

Display: 4.7inch or large

Memory: 8GB or more

1.3. Supported Products

The app supports following UAM models:

Model	Firmware version
UAM-05LP	2.4.0 or later
UAM-05LPA	1.0.0 or later
UAM-05LECA	1.0.0 or later



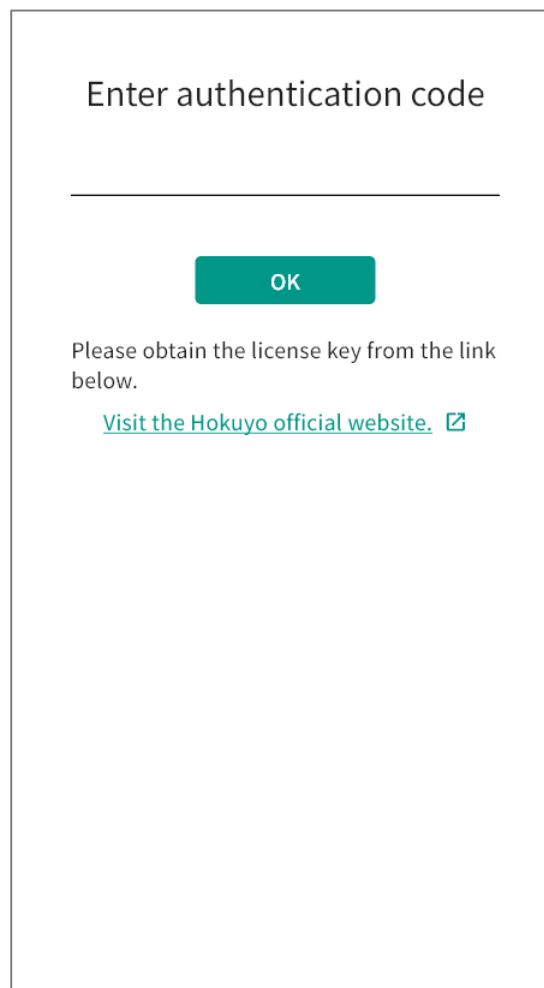
2. Launching the Application

This app can be downloaded and installed from the Google Play Store or the App Store.

2.1. Perform license authentication

License authentication page will appear when launching the application for the first time. Enter the license key and tap “OK”. If authentication is successful, this page will not appear on subsequent launches.

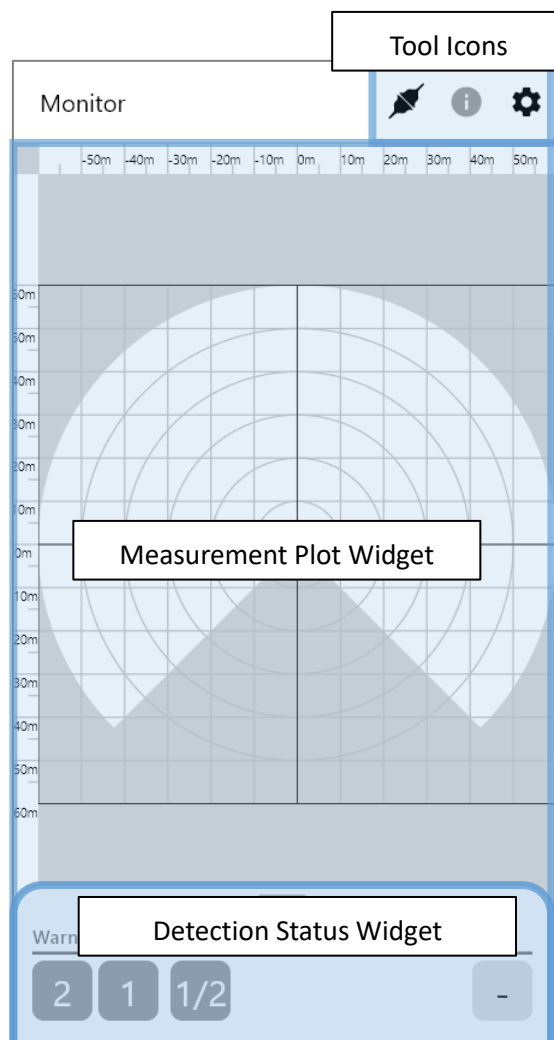
Note: License key can be obtained from the member’s page on the company’s official website.



The screenshot shows a white rectangular dialog box with a thin gray border. At the top, the text "Enter authentication code" is centered in a black sans-serif font. Below this text is a horizontal line indicating where to enter the code. In the center of the dialog is a teal-colored button with the text "OK" in white. Below the button, the text "Please obtain the license key from the link below." is displayed. Underneath this is a teal-colored hyperlink that reads "Visit the Hokuyo official website." followed by a small teal square icon containing a white external link symbol.

2.2. Screen Description

This section describes the screen displayed after launching the app and successfully completing the license authentication.



■ Tool Icons

The functions of each icon are as follows:

Icon	Name	Operation
	Connect	Displays the sensor connection dialog (see section 3.2).
	Disconnect	Terminates communication with the sensor.
	Sensor Information	Displays the sensor information dialog (see section 4.4).
	Application Settings	Displays the application settings screen (see section 5.1).

■ Measurement Plot Widget

It displays the distance data and the operating area obtained from the connected sensor. For details, see section 4.1.

■ Detection Status Widget

It displays the detection output state received from the connected sensor. Swiping the widget upward reveals additional status information. For details, see Sections 4.2 and 4.3.



3. Connecting to the Sensor

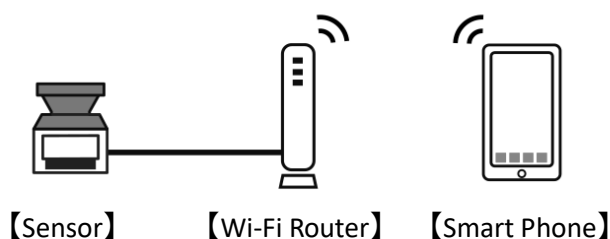
This section describes the procedure for establishing communication with the sensor.

Note: When connecting the UAM-05LP or UAM-05LPA, an optional Ethernet cable (Model: UAM-ENET, sold separately) is required.

3.1. Communication setting of the device

Depending on the type of connection, the mobile device must be configured with the appropriate communication setting.

3.1.1. Connect via Wi-Fi

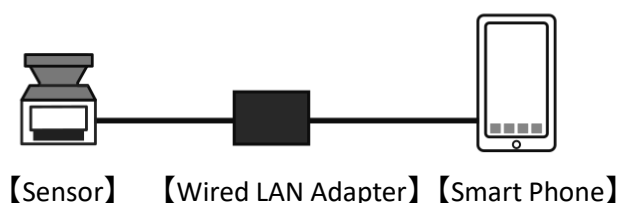


To connect the sensor via Wi-Fi, prepare a Wi-Fi router and perform the following steps to enable the wireless communication.

Note: For UAM-05LECA, a router with static routing capability is required.

1. Connect the sensor to the Wi-Fi router via Ethernet cable and power on the router.
2. On the mobile device, open “Settings” -> “Wi-Fi”, and enable the Wi-Fi function. From the list of available networks, select and connect to the Wi-Fi network to which the sensor is connected.

3.1.2. Connect via Ethernet



A wired Ethernet connection with the sensor is only supported by iPhone/iPad devices. Prepare a wired LAN adapter compatible with the mobile device model, then follow the steps below to enable communication.

Note: Wired communication between Android devices and the sensor is not supported.

1. Connect the LAN adapter to the mobile device using a LAN cable, then insert the sensor’s Ethernet cable into the adapter’s LAN port.
2. On the device, open “Settings” -> “Ethernet”, then select “Configure IP” -> “Manual”.
3. Enter values for “IP Address” and “Subnet Mask” such that the device is on the same network as the sensor. Finally, tap “Save”. (“Router” field does not need to be filled in.)

Ex. When sensor’s IP address is 192.168.0.10

Device IP address: 192.168.0.100

Device Subnet mask: 255.255.255.0



3.2. Communication Settings in the App

Tap the “Connect” icon  at the top of the screen to open the “Sensor Connection Dialog”.



Enter the IP address of the sensor in “IP Address” line and tap “Connect.”

When the connection is successfully established with the sensor, loading its configuration and measurement data will begin automatically.

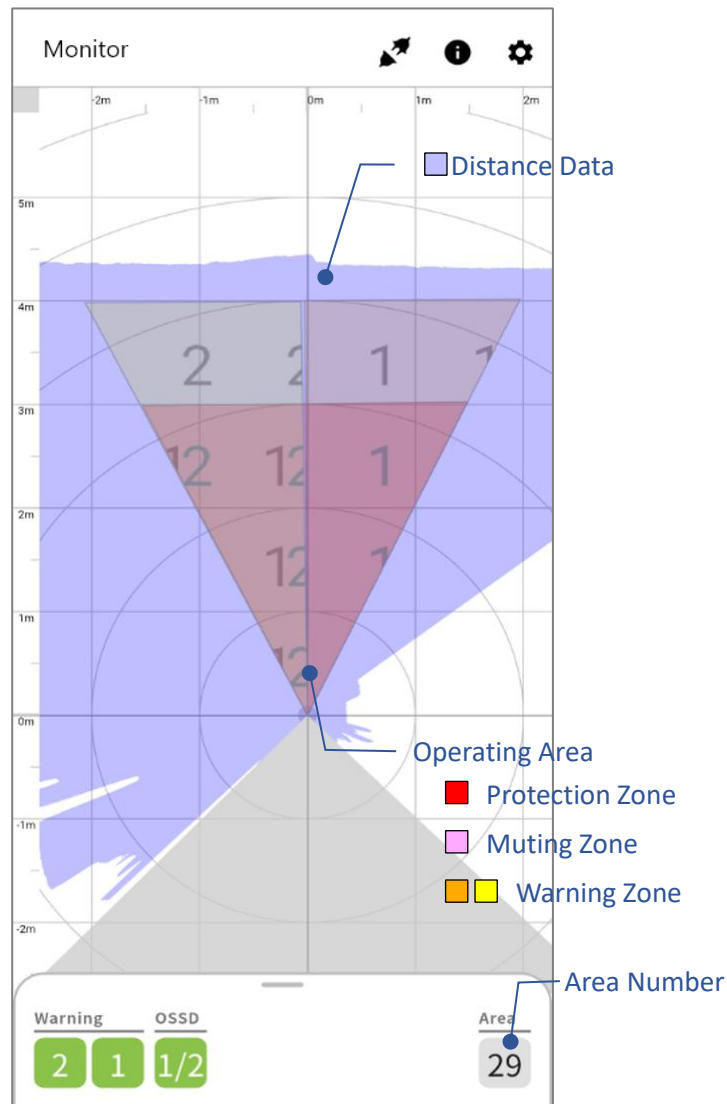
To terminate communication, tap the “Disconnect” icon .

4. Monitoring Measurement Data

This section explains the functions related to the sensor's measurement data and detection status display.

4.1. Checking Distance Data and Scanning Area

When the connection is established with the sensor, its distance data and the operating area are displayed on the measurement plot.



The following gestures are supported in the measurement plot:

Pinch-in / Pinch-out: Zoom in / Zoom out

Drag: Move the view

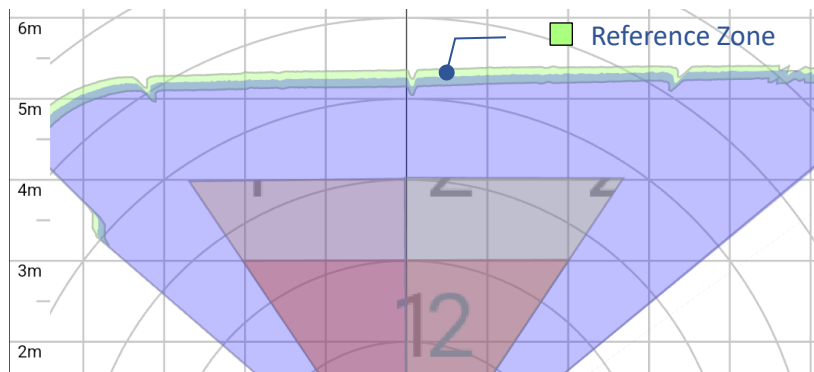
Two-finger rotation: Rotate field of view

■ Scanning Area

Different zones of the operating area are displayed in the following colors.

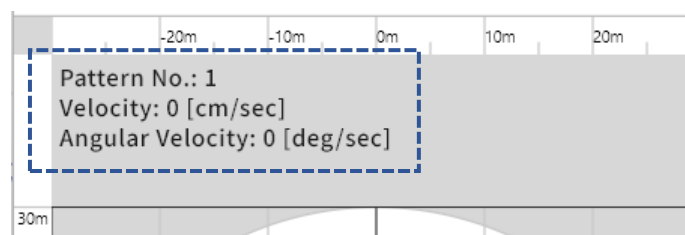
Model	Region	Color
UAM-05LP / UAM-05LPA	Protection Zone 1, 2	Red
	Warning Zone 1	Orange
	Warning Zone 2	Yellow
UAM-05LECA	Protection Zone 1~5	Red
	Warning Zone 1~4	Yellow
	Muting Zone	Pink
	Reference Zone	Light green

Ex. Reference zone display



■ Encoder Input Information

If the sensor is using encoder input function, the operating pattern number and encoder velocity are displayed in the upper-left area of the measurement plot.



Note: Angular velocity is displayed only when the sensor is operating with 4 encoders.

4.2. Checking Detection Outputs

In the connected state, the detection status widget at the bottom of the screen displays the sensor's output signal states.

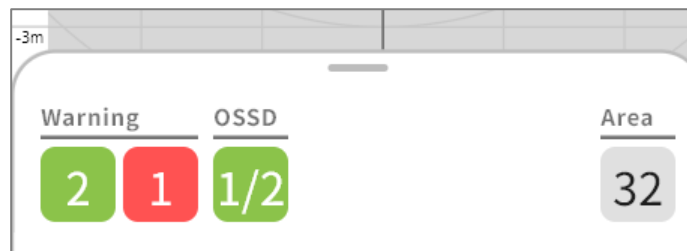
■ : Output ON (No detection)

■ : Output OFF (Detection)

The number of outputs displayed varies depending on the sensor configuration.

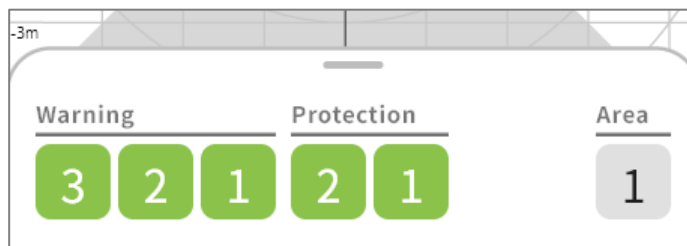
■ Example Display for UAM-05LP / UAM-05LPA

The number of Warning and OSSD outputs displayed depends on the sensor's operating mode.



■ Example Display for UAM-05LECA

The number of Warning and Protection outputs displayed depends on the number of corresponding zones configured in the operating area.



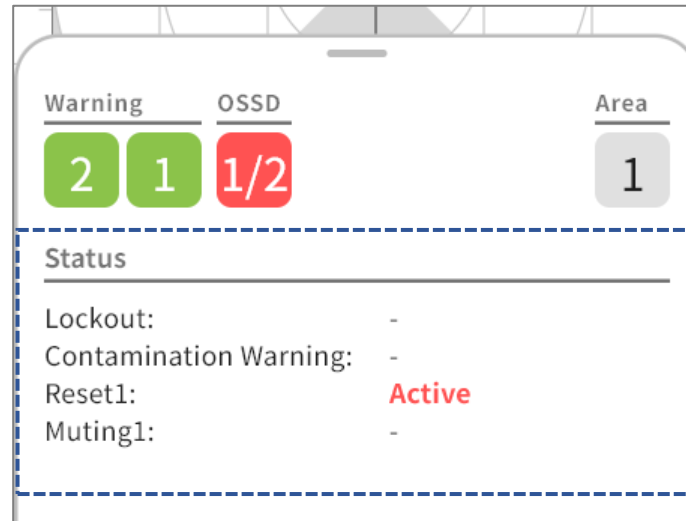
■ Example Display When an Error Occurs

If the sensor goes into an error state, the corresponding error code is displayed on the widget.



4.3. Checking Detection Status

In the connected state, swiping the detection status widget upward displays the states of additional functions (Lockout / Contamination Warning / Reset / Muting).

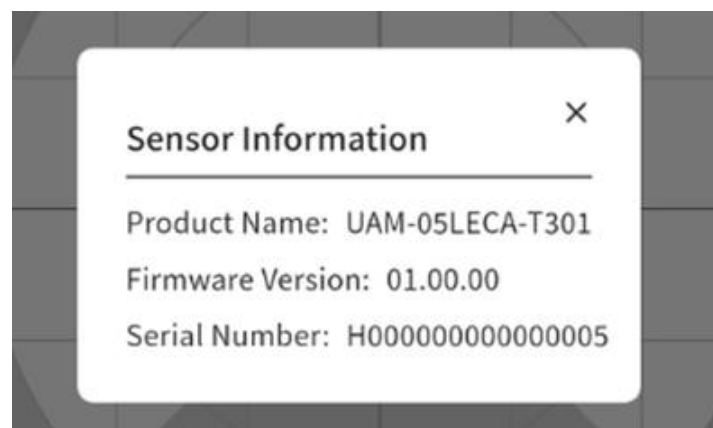


Each status is shown as **Active** or – (hyphen).

Reset and Muting states are displayed only when the sensor is operating with the corresponding functions enabled.

4.4. Checking Sensor Information

In the connected state, tap the “Sensor Information” icon  at the top of the screen to open the “Sensor Information Dialog”.



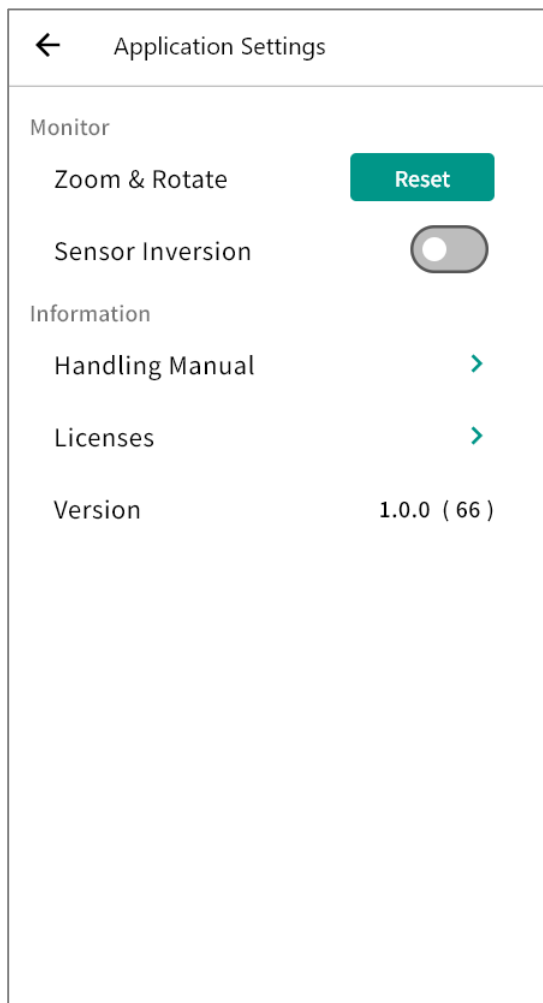
It shows the product name (model), serial number, and firmware version of the connected sensor.

5. Other Functions

This section describes additional functions of this app.

5.1. Application Settings

Tap the “App Settings” icon  at the top of the screen to display the Application Settings screen.



■ Monitor

Customizes the measurement plot

Zoom / Rotation:

Tapping the Reset button initializes the zoom level and rotation angle of the measurement plot.

Sensor Rotation:

Setting this switch to ON inverts both the distance data and scanning area shown in the measurement plot.

■ Information

Displays version information and related details.



6. Troubleshooting

If any issues occur while using this app, refer to the following table for troubleshooting.

Situation	Possible reason	Solution suggestion
Unable to connect with the sensor	The sensor is not powered on.	Make sure the power supply is ON.
		Check the supplied voltage.
		Check the condition of the power supply cable.
	Cable is damaged.	Replace the cable with a new one.
	Configuration is incomplete.	Reconfigure the sensor using the “UAM Project Designer” configuration tool, available from the company’s official website.
	Network settings on the mobile device are incorrect.	Check the communication settings on the device. →see section 3.1
Measurement data is not displayed	The sensor is in an error state or lockout state.	The IP address entered in the Sensor Connection Dialog does not match the sensor’s IP address.
		Verify the sensor's IP address. You can confirm it via USB interface using the “UAM Project Designer” tool, available from the company’s official website.
		Check the supplied voltage.
		Check the condition of the power supply cable.
Distance data is reversed left–right	The sensor is in an error state or lockout state.	Check the error number displayed in this app, remove the cause, then restart the sensor. →see section 4.2
		For details on error codes, refer to the user’s manual of the connected sensor model.
Distance data is reversed left–right	The sensor installation orientation does not match the monitor display.	If the sensor is installed upside down, turn “Sensor Rotation” ON on the monitor settings. →see section 5.1

