

MICROPAK5 QUICKSTART GUIDE

v 1.0.3 EN



REVISIONS

Date	Name	Modifications	Version
29/JUL/2024	AGO	First version released	1.0.0
12/DEC/2024	AGO	Added Wiegand cable recommendations	1.0.1
05/FEB/2025	AGO	Information about direct Wiegand cable length limitation	1.0.2
09/SEP/2025	AGO	New Chapter 7, "MAINTENANCE TIPS". Added comment on chapter 3 on how to correctly tighten the Ethernet connector. Maximum distance of the direct Wiegand output modified.	1.0.3

1. WHAT'S DELIVERED?



Micropak5 LPR unit, with the sun shield already mounted.

Power: 24 VDC or PoE+ (for specific item numbers).

Consumption: 8W Max.

Protection rating: IP67



One of these **compatible cables**:

- a) Power only
- b) Power + digital I/O
- c) Power + RS-485/Wiegand

(For those clients who order PoE compatible units, none of these cables are strictly necessary unless they must use the digital I/O or the serial ports).



The **RJ45 cover**, to ensure the protection of the network connector.



Power connector cap, mandatory when using PoE.

Optional accessories (must be ordered separately):



Wall bracket



Pole adapter



AC/DC power supply approved by SURVISION.

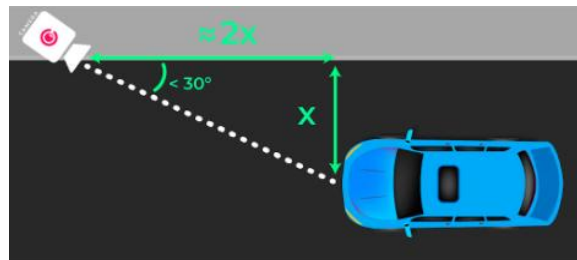
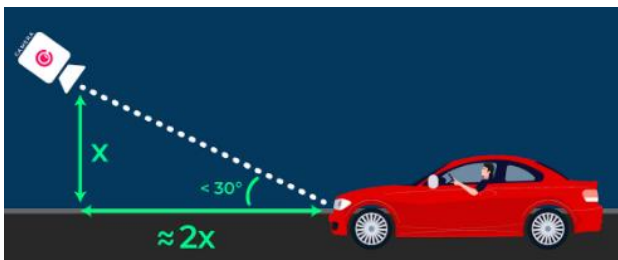
2. CAMERA POSITIONING

The best placement for the LPR unit depends on many factors. In case of any doubts, do not hesitate to contact our Support team to help you decide. However, here are some of the basic steps and rules.

- **DECIDE IN WHICH ZONE THE LICENSE PLATE SHOULD BE READ.**
- **CHECK THE DISTANCE CHART OF YOUR MICROPAK5 MODEL.**

	European plates (long)	American plates (short)
MPK5 Short Range	From 2 to 7,5 m (6.5 to 24,5 ft)	From 1.5 to 5,5 m (5 to 18 ft)
MPK5 Long Range	From 4 to 15 m (13 to 49 ft)	From 2,5 to 10 m (8 to 32 ft)
Coverage width	Up to 4 m (13 ft)	Up to 3 m (10 ft)

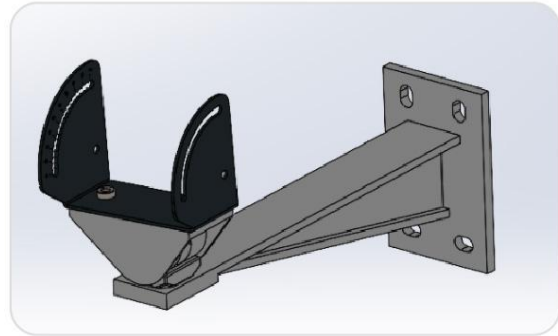
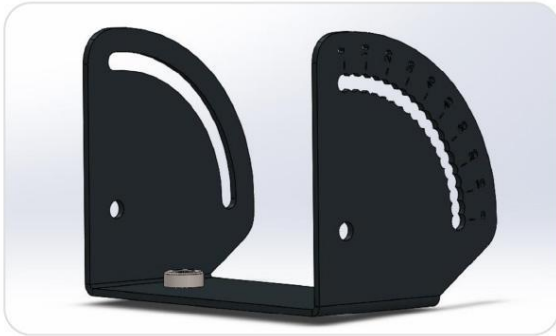
- **MAKE SURE THE 30 DEGREE ANGLE LIMITS ARE RESPECTED (BOTH VERTICAL & HORIZONTAL).**



- ONCE THE INSTALLATION SPOT IS DECIDED BASED ON THE PREVIOUS STEPS, **ATTACH THE BRACKETS USING APPROPRIATE EQUIPMENT (BOLTS, CLAMPS, etc.).**

3. LPR UNIT INSTALLATION AND WIRING

- **MOUNT THE LPR UNIT ON THE WALL, CEILING OR POLE USING THE SWIVEL PIECE** WHILE KEEPING THE BOLTS SLIGHTLY UNSCREWED TO ALLOW ADJUSTMENTS.



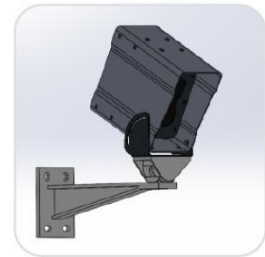
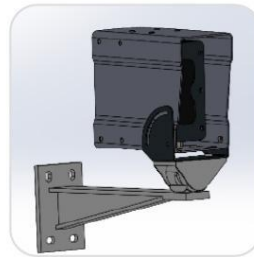
There are many different mounting possibilities:



Attached from above



Attached from below



Attached to ceiling

- **CONNECT THE CABLE PROVIDED** (UNLESS YOU ARE EXCLUSIVELY WIRING WITH PoE). HERE ARE THE PINOUTS FOR THE DIFFERENT CABLE OPTIONS:

POWER ONLY	
BROWN	24 VDC
BLUE	GROUND

POWER + RS485	
BROWN	24 VDC
GREY	GROUND
GREEN	RS-485 A // Wiegand D0
WHITE	RS-485 B // Wiegand D1
YELLOW	RS GND

POWER + RELAY	
BROWN	24 VDC
WHITE	GROUND
GREEN	RELAY OUT A
YELLOW	RELAY OUT B

WARNING! Despite our efforts, colors may differ from the above. However, all cables come with an attached sticker with the pinouts.



WARNING! Do not connect the RS485/Wiegand output to 24VDC or any other power supply. However, you must connect the GND of the 24VDC power supply to the output of your RS485/WIEGAND device to ensure common GND.

NOTE FOR WIEGAND PROTOCOL USERS: Micropak5 provides an integrated Wiegand output, unlike Micropak3 where an external electronic board was needed for the RS-485 to Wiegand conversion.

However, this direct output is limited to 20 m, which matches the length of the longer cable that Survision provides (ref. S101064).

If you have a longer distance between the LPR unit and your access control system, please keep using the old layout (output mode set to RS-485 and the electronic conversion board ref. S103029).

- **CONNECT A NETWORK CABLE** (NOT PROVIDED), USING THE RJ45 PROTECTIVE COVER (INCLUDED).

SURVISION's minimum requirements, to ensure proper operation, are as follows:

- Minimum **Cat 5e FTP** round cable with a diameter of **between 5 mm and 6.5 mm** to ensure that the protective cover is securely adjusted.
- Network cable design compatible with the protective cover with no elements that prevent correct and reliable assembly: no protective latch or cap, no locking pin, no sleeve, not angled (see the images below).

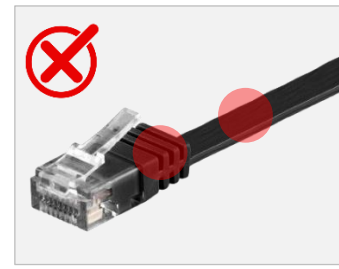
Beyond these requirements, choose the cable reference according to availability in your region while considering the specific environmental conditions of your installation, as for example: high/low temperature resistance, UV resistance or non-flammable, etc.



Example of a compatible reference (with or without PoE)



Plastic shielding is not compatible with PoE



Flat cable



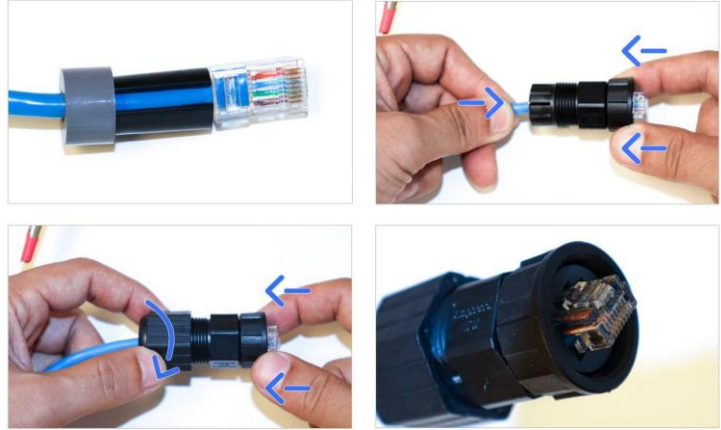
Not compatible with latch protection



WARNING!

The protective cover is essential to protect the network cable from water filtration.

The tightening torque must be between 0.8 and 1.5 N·m.



WARNING!

During installation, ensure that the rubber insert forms a continuous ring around the cable. This guarantees proper compression and a watertight seal in line with specifications.



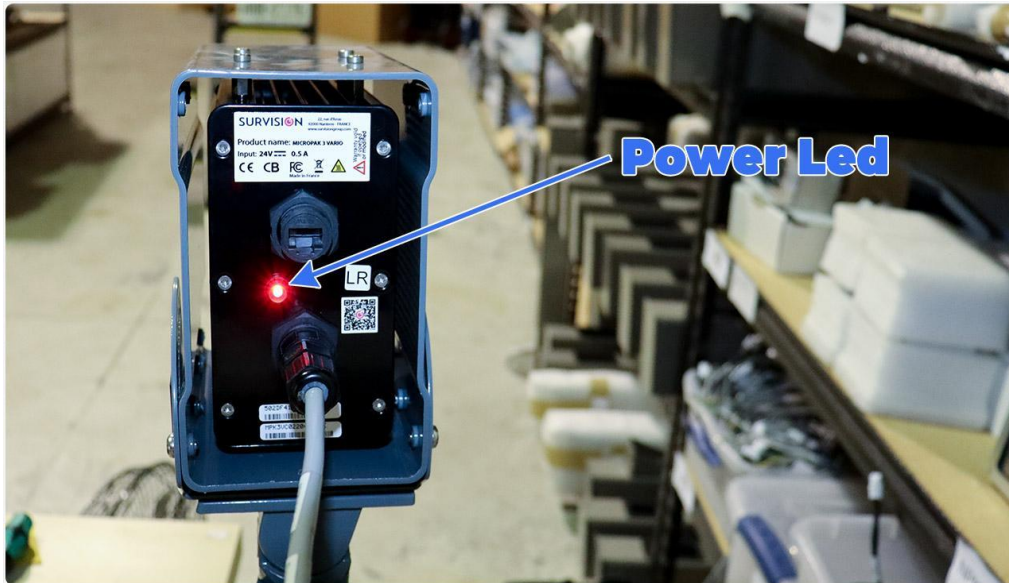
NOTE: The Micropak5 references provided with PoE capability comply with the standard IEEE 802.3at. Use only a grounded Ethernet cable (Cat6 with a shielded RJ45 connector).

NOTE: Micropak5 with PoE option can be connected to both PoE and 24VDC at the same time. If one type of power supply is cut off, the other takes over automatically.



NOTE: wiring the network cable is highly recommended even for those users whose operation relies on serial protocols (serial, Wiegand or OSDP). An Ethernet connection will grant the possibility of troubleshooting properly in case of problems.

4. POWER ON



Micropak5 has a status LED on its rear face. When the LPR unit is powered on, the normal cycle of this red LED should be as follows:

- **LED ON** for less than 30 seconds.
- Then, **LED OFF** blinking regularly (every 5 seconds approx.)

In the event of a problem, the light can follow one of these patterns.

Case 1: The LED never turns on when powering the unit. Please check the connection and power source.

Case 2: The LED remains on. Please contact support to check if the camera can be repaired.

Case 3:

- LED ON for less than 30 seconds,
- Then LED OFF, blinking regularly (every 5 seconds approx.),
- Then LED ON for less than 30 seconds,
- Then LED OFF, blinking regularly (every 5 seconds approx.),
- Pattern being repeated in a loop.

Please contact support to check if the camera can be repaired.

5. CONFIGURATION

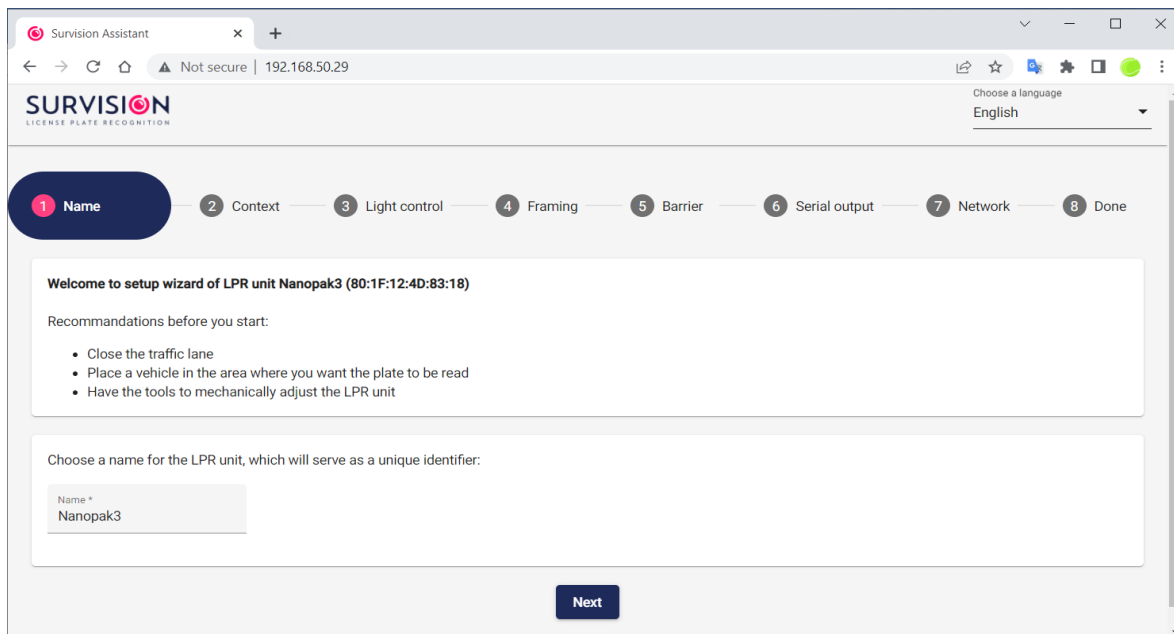
Survision offers 2 options for setting up your LPR unit:

1. The web Configuration Assistant:

A web configuration wizard is available on Micropak5 LPR units. It will allow you to modify these basic LPR unit settings:

- LPR unit name
- Recognition context (geographical area)
- Light control (choose the best settings based on the type of lane)
- Framing (guided setting of camera aim, zoom and focus)
- Barrier (activate the digital output, if needed)
- Serial output (activate the RS-485 output, if needed)
- Network (IP address)

To reach the Assistant, **just type the IP address of the LPR unit on any web browser**, assuming the network configuration of your computer lets you reach the LPR unit's IP range.



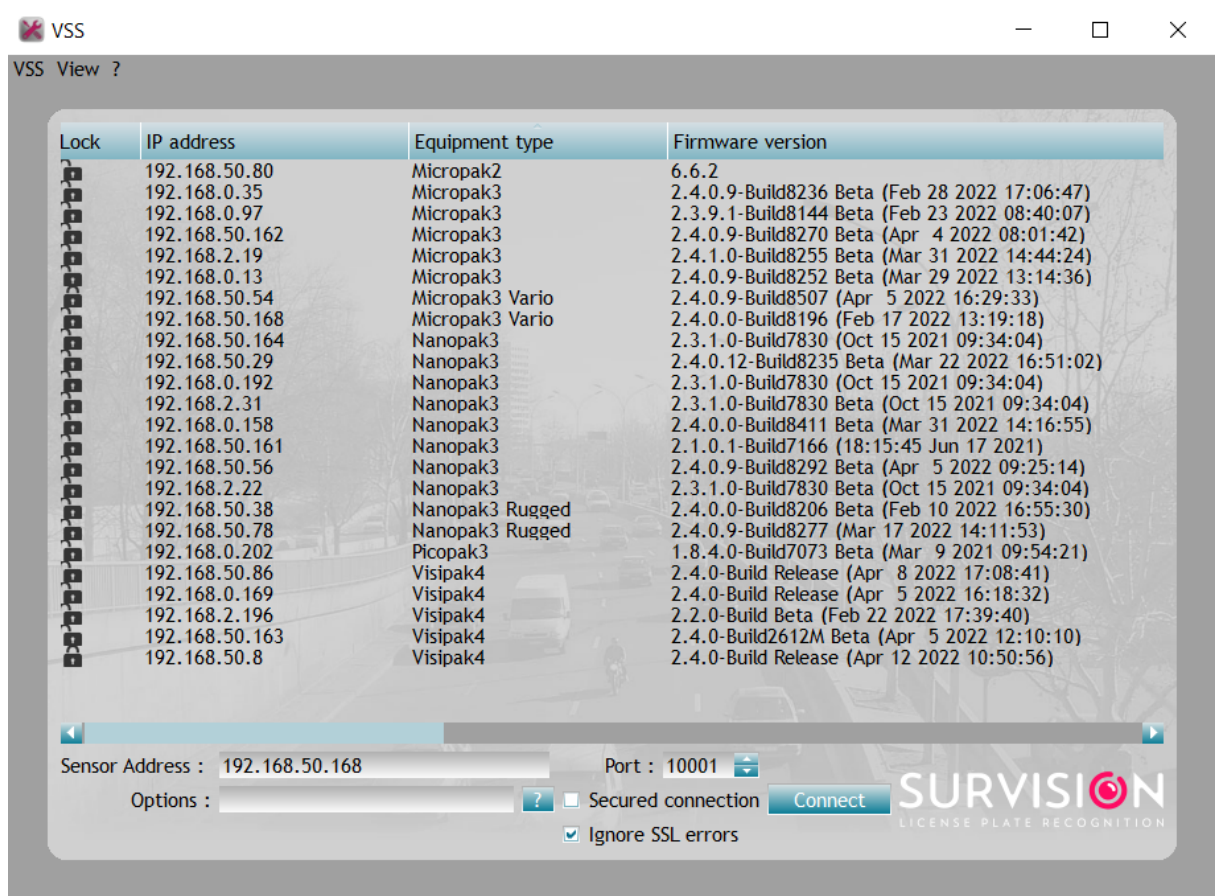
NOTE: Survision's LPR units have an IP address by default, which is printed in the test sheet provided. This IP address is always 192.168.0.XYZ, where XYZ is the conversion (from hexadecimal to decimal) of the two last characters of the MAC address.

2. VSS

VSS is a complete software tool that enables users to:

- Modify all the parameters of an LPR unit (network, OCR, communications, etc.).
- Receive video stream and information detected by the LPR unit.
- Record the video stream, including detections and configuration of the LPR units.
- Test all the features of the LPR units.

For more information, download VSS and its manual from [My Survision](#).



6. RECALIBRATE OPTICS

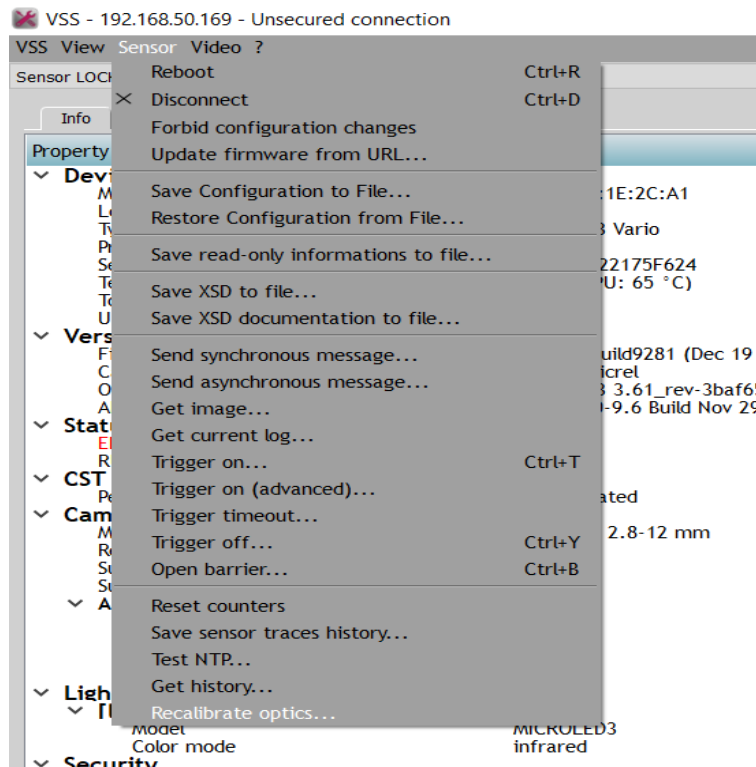
Micropak5 LPR units are equipped with a motorized lens.

Occasionally, the optical position may be altered due to vibrations during transport and, as a result, the zoom and focus levels displayed on the configuration tools may not be real. This effect has the following consequences:

- The minimum/maximum zoom levels that you can set are not the actual minimum/maximum that the lens can achieve.
- For certain levels of zoom it becomes very difficult to set a focus level that gives a sharp image.

To solve this and other malfunctioning of the motorized lenses:

- Using VSS (v7.6.2 or higher), run the "Recalibrate optics" command, found in the "Sensor" drop-down menu. See image below. This action automatically resets the zoom to minimum, ensuring that the optics have the correct reference values.



7. MAINTENANCE TIPS

Once correctly installed, Survision's LPR units require no maintenance other than cleaning their front panel (infrared filter or other). This is explained in the following section.

It is also important to check for anything that could alter the field of view and obstruct the view of the license plate. Here are a few examples: spider webs in front of the camera, vegetation growing and blocking the view of vehicles, billboards installed near the camera, etc.

Cleaning

What to use?

Synthetic microfiber wipes with no added chemicals. A mixture of isopropyl alcohol and water (*) as described below. Clean, dry hands (we recommend using powder-free, disposable silicone or vinyl gloves).

How to use it?

Rinse the surface thoroughly. Lightly dampen the wipe. Clean the surface by wiping from the center towards the edges. Use a dry wipe immediately after wet cleaning. Repeat wet and dry wiping if cleaning has not removed contaminants.

(*) Mixtures of IPA (isopropanol) and distilled water in ratios between 30/70% and 70/30%. Do not use cleaning products containing solvents, alcohol, or acetone.

8. RMA AND RETURN TIPS

Before declaring an RMA, please make sure that you have checked and discarded all the external factors (typically power or network issues).

Also make sure that your problem is not related to a known bug that may have been solved in a firmware version more recent than the one running in your LPR unit.

Do not hesitate to confirm the failure with our Technical Support team in case of doubts.

If sending the LPR unit to repair is necessary, those are the steps to follow:

- Connect to [MySurvision](#) and type the serial number of the faulty unit in the dedicated box that you will find on the Dashboard tab.

The screenshot shows the 'DASHBOARD' tab selected in the navigation menu. The main content area is titled 'Declare breakdown' and includes a red warning message: 'Caution ! This space is used ONLY for equipment failures. If you wish to request support, please contact support by email at support@survision.fr.' Below this is a form field labeled 'Equipment serial number' with a red question mark icon to its left. To the right of the input field are two buttons: a grey 'Ok' button and a red 'RMA procedure' button.

- Fill the Declaration sheet that will appear next and click on “Declare breakdown” once you have completed all the fields.

The screenshot shows the 'Declare breakdown' declaration sheet. It contains the following fields:

- Product ***: MPK3VA146V - Long Range Micropak 3 VARIO for License Plate Recognition, shipped with sunshield. Infrared illumination. Reading distance from 4 to 15m.
- Serial number ***: MPK3VC021504E14E
- Technical contact name *** and **Technical contact phone ***
- Technical contact email ***
- Quote contact name *** and **Quote contact phone ***
- Quote contact email ***
- Return address** section with:
 - Declaring company ***
 - Street and number ***, **City ***, **Postcode ***, and **Country ***
- Description ***

- Once done, this LPR unit will appear on the list “Dysfunctional equipment” at the bottom of the same Dashboard tab.
- By clicking on a specific LPR unit a dedicated page will open, where you will be able to confirm its shipping (optional) or cancel the breakdown declaration. Additionally, all the history can be tracked at the bottom of this page.

MY SURVISION DASHBOARD CATALOG DOCUMENTATION PROJECTS EQUIPMENTS SOFTWARE DEVELOPERS

Status : To be diagnosed
Received : 1/9/23
To repair before : 2/6/23

Informations

Reference NMPK3VTOTA157	Product NMPK3VTOTA157 - Short Range Totem-Nanopak VAR	Serial number MPK3VE02277285C	Project OSP_13599
Delivery date 9/30/22	Warranty end date 8/9/23	MAC address 50:2d:f4:2f:f8:ed	

Current breakdown

Created by: _____ Date: _____ Repairation under warranty: _____ Breakdown type: _____ Frequency: _____

[Delete breakdown](#) [Print breakdown declaration](#)

- All the status changes that will follow are under SURVISION’s control and you will always be informed via e-mail as well.
- To return the Micropak5, only use appropriate packaging, suitable for the transport of optoelectronic equipment. On request, SURVISION can provide specific packaging designed to guarantee the protection of sensors during transport.

9. TECHNICAL SUPPORT

In case you have any questions or if you need access to our client portal to download some of our software tools, please open a support ticket by sending an e-mail to one of the addresses below. Our team will reach out to you in less than 24 hours.

support@survision.fr support@survisiongroup.com

10. RELATED DOCUMENTS

Here is a list of related documents that you can find on MySurvision:

- MICROPAK5 DATASHEET
- MICROPAK5 CERTIFICATES (CE, ROHS)
- MICROPAK3 VARIO 3D DESIGN (valid for MPK5)
- BRACKET MICROPAK3 3D DESIGN (valid for MPK5)
- BRACKET MICROPAK3 DATASHEET (valid for MPK5)
- POLE ADAPTER DATASHEET
- VSS Manual (main configuration and testing tool)
- PVT Quick Start Guide (recording and scoring tools)

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