

VISIPAK5
QUICK START GUIDE
v 1.0.5 EN



REVISIONS

Date	Nom	Modifications	Version
19/DEC/2023	YME / SDI	First version	1.0.0
27/MAR/2024	SDI	Corrections on the FR version	1.0.1
18/AUG/2024	AGO	Changes on chapter 3 (network cable).	1.0.2
09/DEC/2024	AGO	Added Wiegand cable recommendations	1.0.3
05/FEB/2025	AGO	Information about direct Wiegand cable length limitation	1.0.4
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.	1.0.5

1. WHAT IS DELIVERED

LPR unit and its basic accessories



Visipak5 LPR unit with the sun shield mounted.

Power: 24 VDC

Consumption: 17 W Max

PoE: Optional

Protection rating: IP67



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



One of these **compatible cables** (please note the different lengths):

1. Power only (3, 10 or 30 m)
2. Power + digital I/O (15 m)
3. Power + RS-485 / Wiegand (15 m)



The use of a **power connector cap** is mandatory when using PoE.

Other accessories:



Mounting system: wall bracket + cradle.



Free-flow mounting system: Free-flow bracket + cradle.



Pole adapter



Support PMV Birdless: allows the LPR unit to be installed in a VMS gantry (with antibird protection).



AC/DC power supply approved by SURVISION.

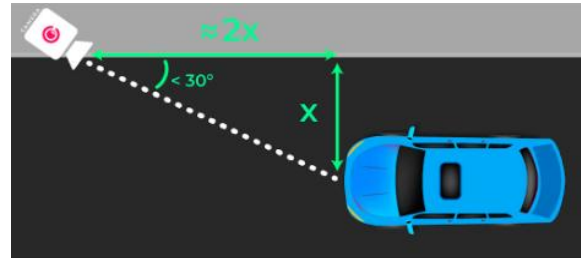
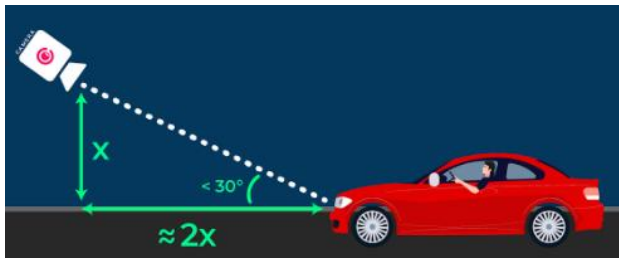
2. CAMERA POSITIONING

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 THAT THE DISTANCE BETWEEN THE VPK5 AND THE PLATE IS WITHIN THE RANGE GIVEN BELOW:**

	European (long) plates	American (short) plates
Recognition distance	From 7 to 35 m	From 7 to 28 m
Coverage width	Up to 7 m	Up to 7 m

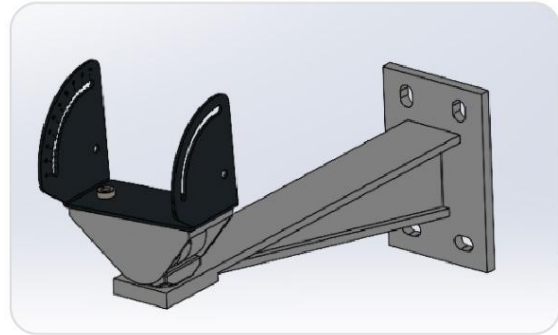
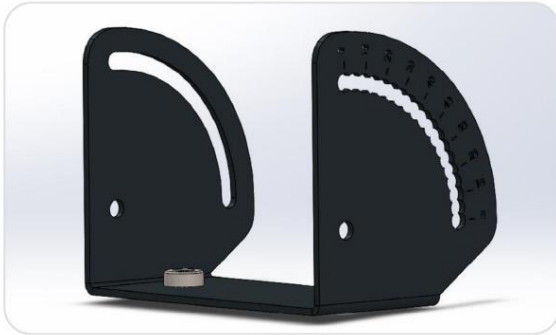
- **MAKE SURE THE 30 DEGREE ANGLE LIMITS ARE RESPECTED (BOTH VERTICAL & HORIZONTAL).**



- 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

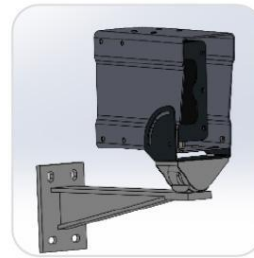
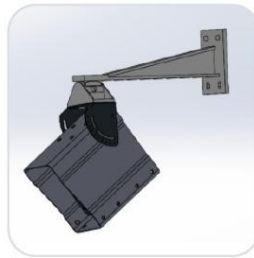
- **MOUNT THE LPR UNIT ON THE WALL OR ROOF USING THE SWIVEL PIECE** WHILE KEEPING THE BOLTS SLIGHTLY UNSCREWED TO ALLOW ADJUSTMENTS.



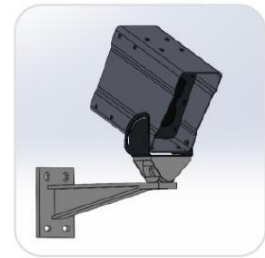
There are many different mounting configurations:



Attached from above



Attached from below



Attached to ceiling



Note: The image shows the mounting options for a vertical version of the sensor.

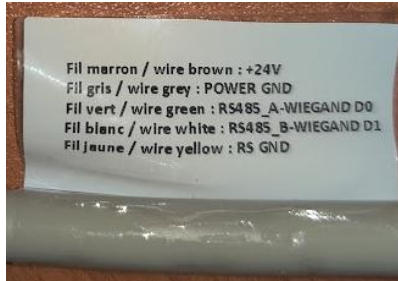
- **CONNECT THE CABLE PROVIDED** (UNLESS YOU ARE EXCLUSIVELY WIRING WITH PoE). HERE ARE THE PINOUTS FOR THE DIFFERENT CABLE OPTIONS:

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.



- **IF YOU ARE USING RS485 / Wiegand CABLE**

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

NOTE FOR WIEGAND PROTOCOL USERS: Visipak5 provides an integrated Wiegand output. However, this direct output is limited to 20 m. If you have a longer distance between the LPR unit and your access control system, please set the output mode 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).

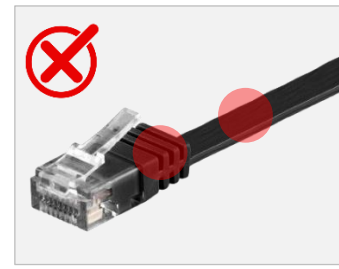
Beyond these requirements, choose the cable reference according to availability in your region while considering the specific environmental conditions of your installation, as for example: high/low temperature resistance, UV resistance or non-flammable, etc.



Example of a compatible reference (with or without PoE)



Plastic shielding is not compatible with PoE



Flat cable



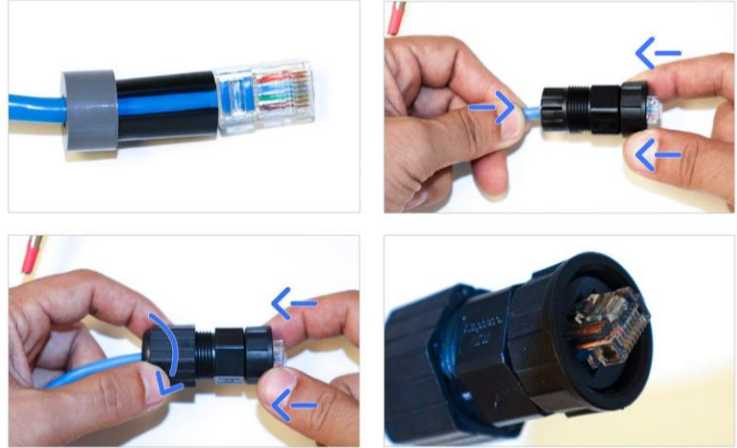
No compatible with latch protection



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.



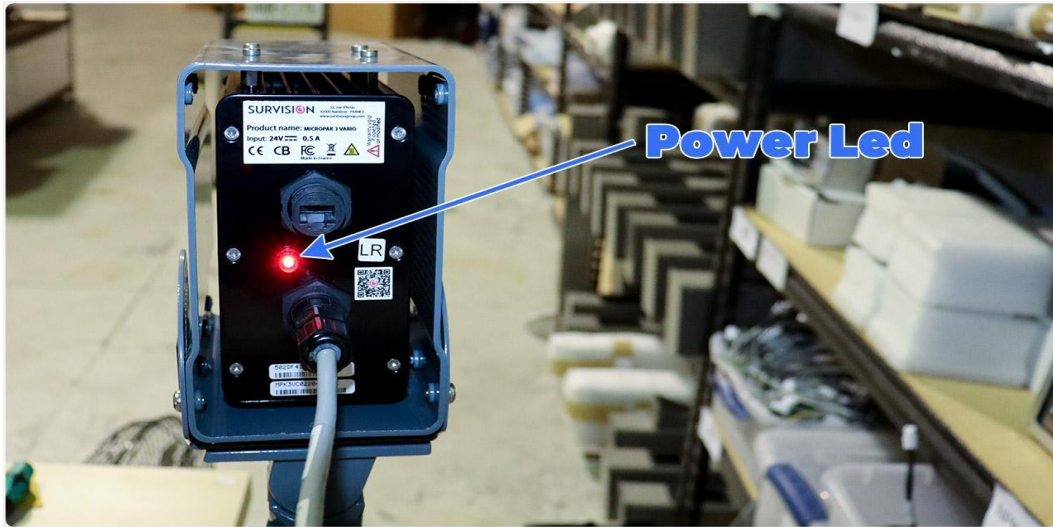
NOTE: The Visipak5 references provided with PoE capability comply with the standard IEEE 802.3at. Use only a grounded Ethernet cable (Cat6 with a shielded RJ45 connector).

NOTE: Visipak5 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



Visipak5 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

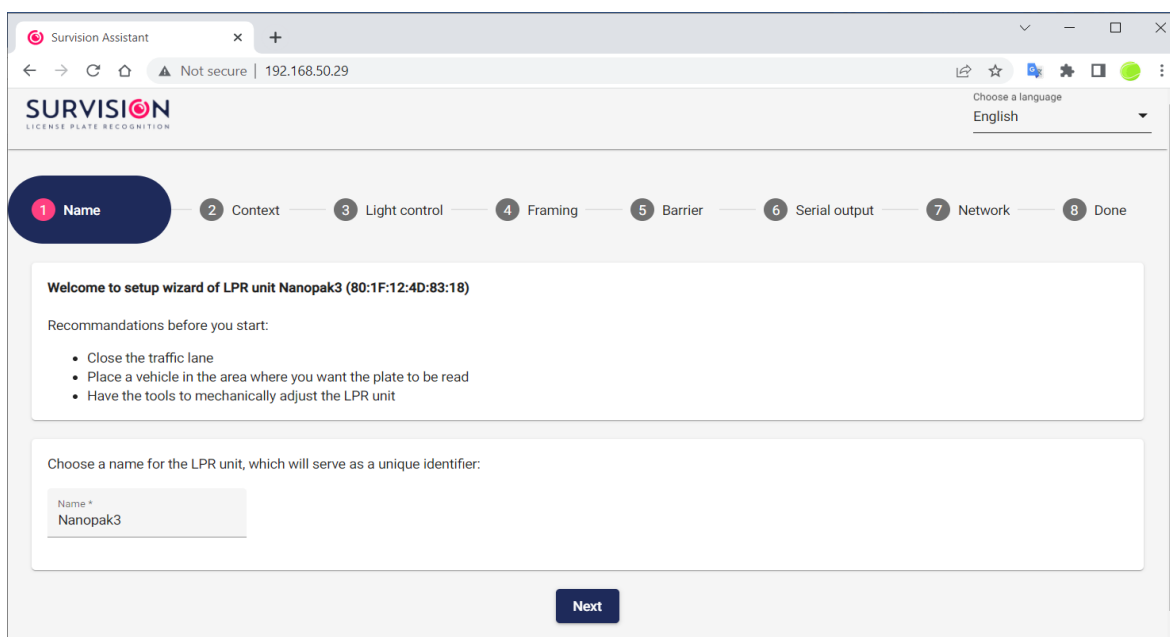
SURVISION offers 2 options for setting up your LPR unit:

Web Configuration Assistant

A web configuration wizard is available on LPR units with firmware version 2.4.0.0 and above. It will allow you to modify these basic LPR unit parameters:

- 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 access the assistant, **type the IP address of the LPR unit in any web browser** (your computer's network configuration must be able to access the camera's IP range).



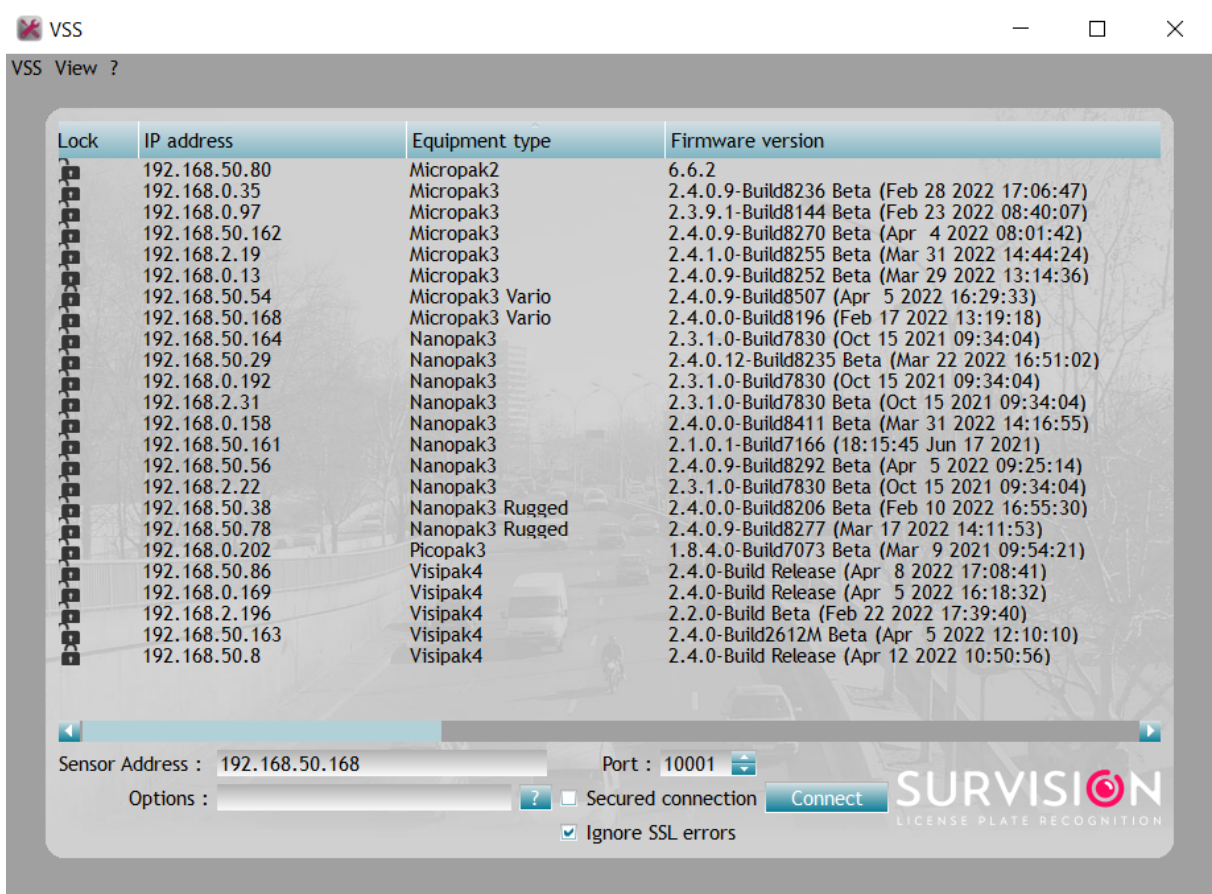
NOTE: SURVISION's LPR units have an IP address by default, which is printed in the test sheet provided. This IP address is always 192.168.0.XYZ, where XYZ is the conversion (from hexadecimal to decimal) of the two last characters of the MAC address.

VSS

VSS is a complete software tool that enables users to:

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

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



6. RECALIBRATE OPTICS

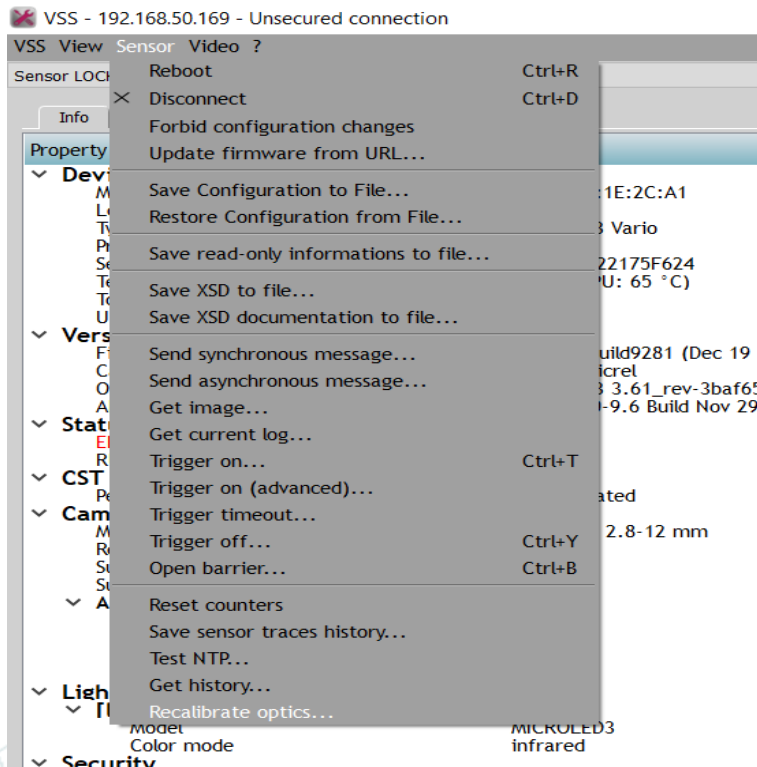
Visipak5 LPR units are equipped with a motorized lens.

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:

- Make sure that the LPR unit has a firmware version 2.6.0.1 or above.
- 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

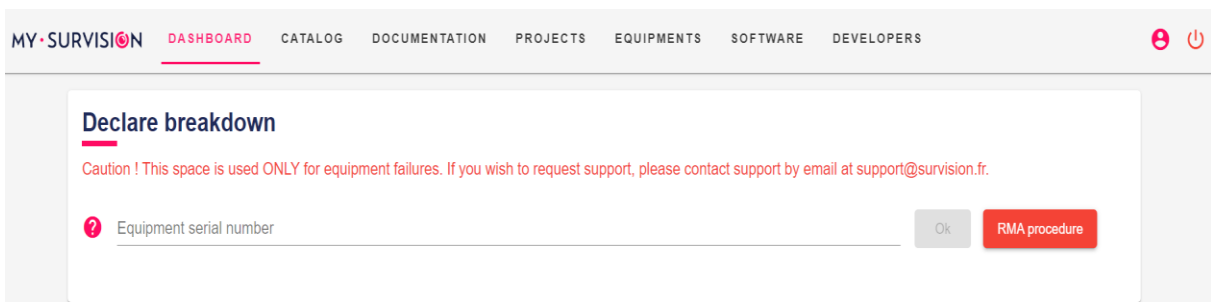
Before declaring an RMA, please make sure that you have checked and discarded all the external factors (typically power or network issues).

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.

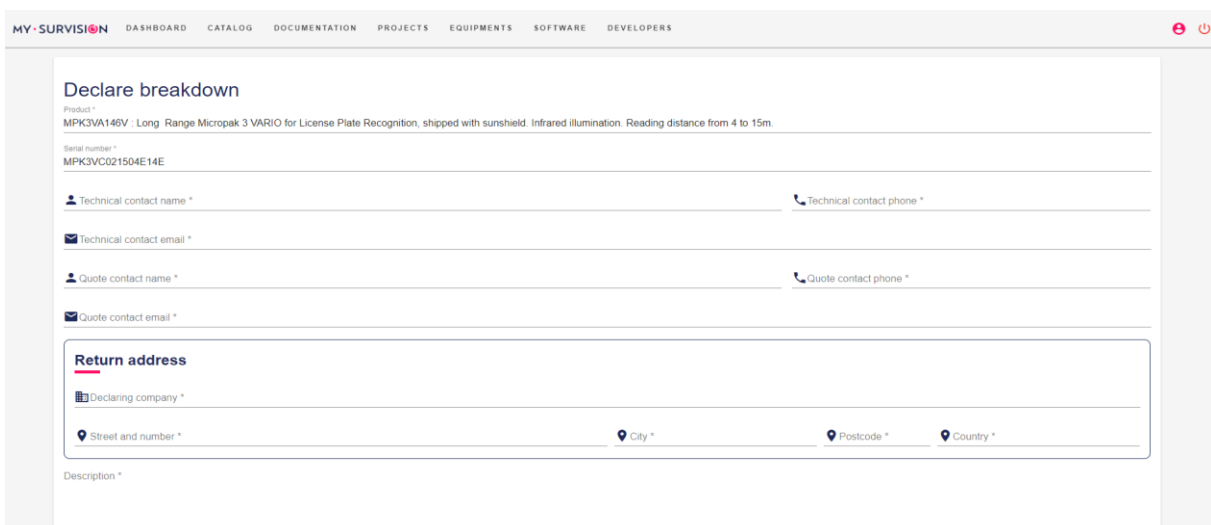
If sending the LPR unit to repair is necessary, those are the steps to follow:

- 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 'MY SURVISION DASHBOARD' with a navigation menu (CATALOG, DOCUMENTATION, PROJECTS, EQUIPMENTS, SOFTWARE, DEVELOPERS) and a user profile icon. The main content area is titled 'Declare breakdown' and includes a caution 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 text input field for 'Equipment serial number' with a red question mark icon, and two buttons: 'Ok' and 'RMA procedure'.

- 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' form with 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, Technical contact phone, Technical contact email, Quote contact name, Quote contact phone, Quote contact email, a 'Return address' section with fields for Declaring company, Street and number, City, Postcode, and Country, and a Description field.

- 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. In addition, the entire 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	Product	Serial number	Project
NMPK3VTOTA157	NMPK3VTOTA157 - Short Range Totem-Nanopak VAR	MPK3VE02277285C	OSP_13599
Delivery date	Warranty end date	MAC address	
9/30/22	8/9/23	50:2d:14:2f:18:ed	

Current breakdown

Created by	Date	Repairation under warranty	Breakdown type	Frequency
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[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 Visipak5, 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](#) :

- Visipak5 datasheet
- Visipak5 3D STEP file
- Wall bracket datasheet
- Wall bracket 3D STEP file
- Free-flow bracket datasheet
- Free-flow bracket 3D STEP file
- Pole adapter datasheet
- VSS Manual
- PVT Quick Start Guide (recording and scoring tools)

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