

MICROPAK3 VARIO QUICKSTART GUIDE

v 1.3 EN



REVISIONS

Date	Name	Modifications	Version
14/03/2022	AGO	First draft	DRAFT
25/01/2023	AGO	First version released	1.0.0
04/07/2023	AGO	Correction on cable Power + Relay	1.0.1
28/11/2023	YME	Notice on RS485 connexion, recommendations on return of equipment	1.0.2
16/08/2024	AGO	Changes on chapter 3 (network cable). QSG version simplified to X.Y	1.3

1. WHAT'S DELIVERED?



Micropak3 VARIO LPR unit, with the sun shield already mounted.

Power: 24 VDC

Consumption: 15W Max.

PoE: not available

Protection rating: IP67



One of these **compatible cables**:

1. Power only
2. Power + digital I/O
3. Power + RS-485



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

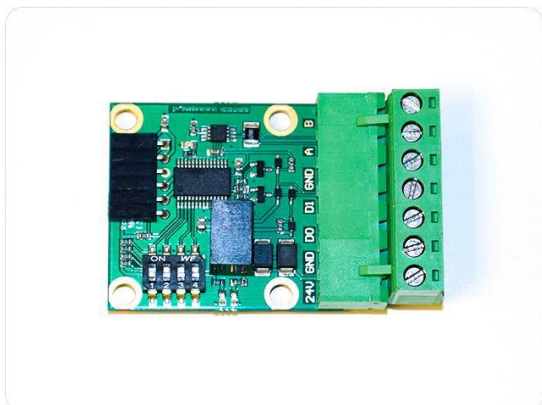
Other accessories:



Wall bracket



Pole adapter



Wiegand card: Electronic board to convert the RS-485 output into Wiegand protocol. Must be purchased with cable option 3.



AC/DC power supply

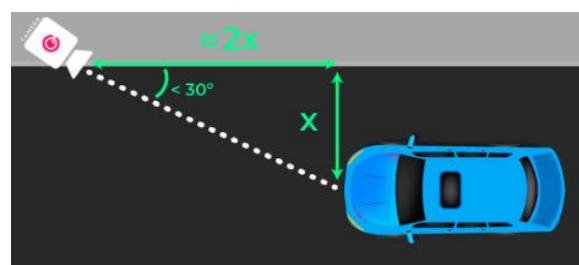
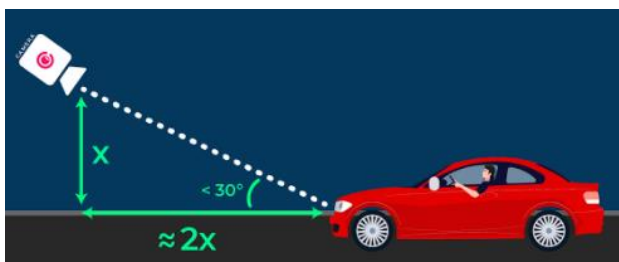
2. CAMERA POSITIONING

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 WHAT AREA YOU'D LIKE THE LICENSE PLATE TO BE DETECTED.**
- **CHECK THE DISTANCE CHART OF YOUR MPK3 VARIO MODEL.**

	European plates (long)	American plates (short)
MPK3 VARIO Short Range	From 2 to 6 m (6.5 to 20 ft)	From 1.5 to 4,5 m (5 to 15 ft)
MPK3 VARIO Long Range	From 4 to 15,5 m (13 to 51 ft)	From 2.5 to 10,5 m (8 to 35 ft)
Coverage width	Up to 4 m (13 ft)	Un to 3 m (10 ft)

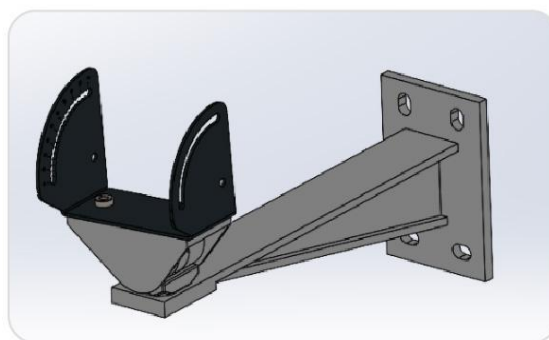
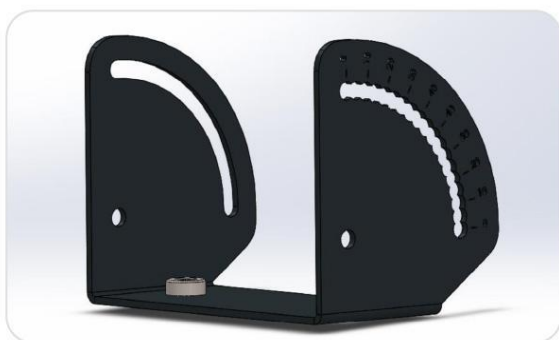
- **MAKE SURE THE 30 DEGREE ANGLE LIMITS ARE RESPECTED (BOTH VERTICAL & HORIZONTAL).**



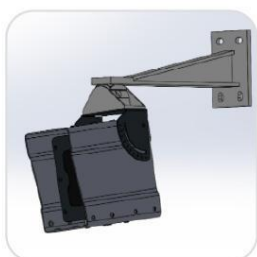
- **ONCE THE INSTALLATION SPOT IS DECIDED BASED ON THE PREVIOUS STES, IT'S TIME TO ATTACH THE BRACKETS WITH THE SUPPLIED HARDWARE (BOLTS, CLAMPS, ETC.)**

3. LPR UNIT INSTALLATION AND CABLING

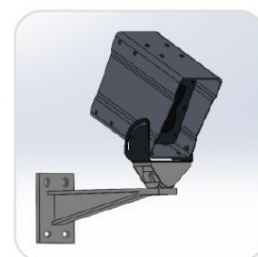
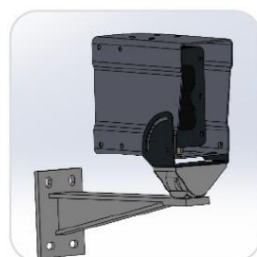
- **MOUNT THE LPR UNIT ON THE WALL BRACKET** USING THE SWIVELING PIECE, LEAVING THE BOLTS A BIT LOOSE FOR FURTHER ADJUSTMENT.



You have different mounting options:



Attached from above



Attached from below



Attached to ceiling

- **CONNECT THE CABLE PROVIDED.** HERE ARE THE PINOUTS FOR THE DIFFERENT OPTIONS:

POWER ONLY	
BROWN	24 VDC
BLUE	GROUND

POWER + RS485	
BROWN	24 VDC
GREY	GROUND
GREEN	RS485 A
WHITE	RS485 B
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.



NOTE: For details on the installation of the Wiegand converter, please download the “Wiegand Implementation Guide” from [My Survision](#), tab Documentation.

WARNING ! Do not connect the RS485 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 module.

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

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).

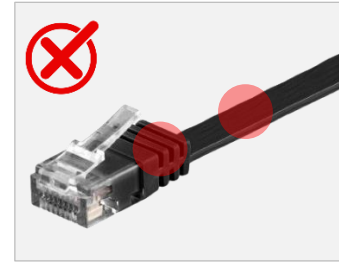
Beyond these requirements, choose the cable reference according to availability in your region while considering the specific environmental conditions of your installation, as for example: high/low temperature resistance, UV resistance or non-flammable, etc.



Example of a compatible reference (with or without PoE)



Plastic shielding is not compatible with PoE



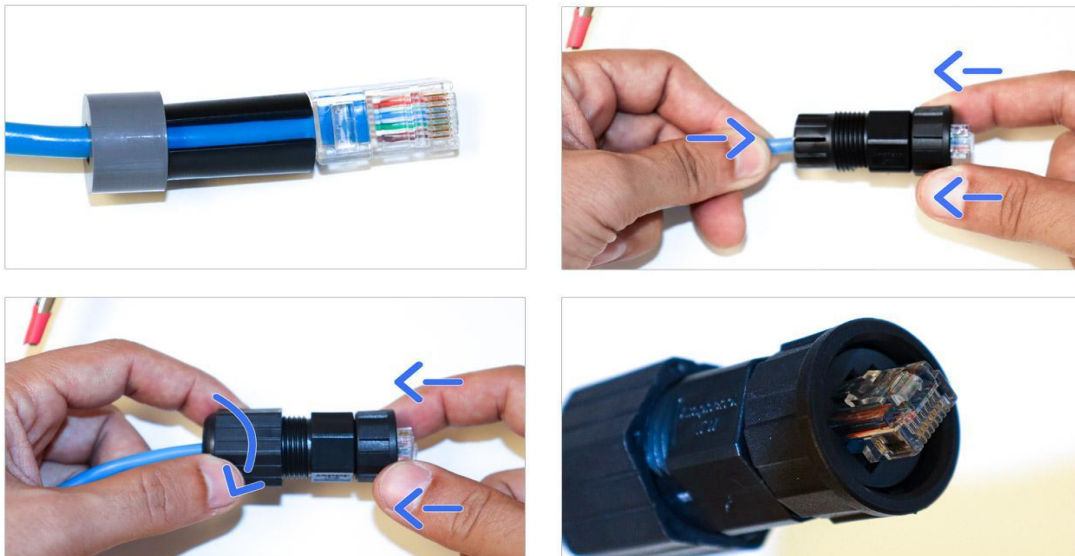
Flat cable



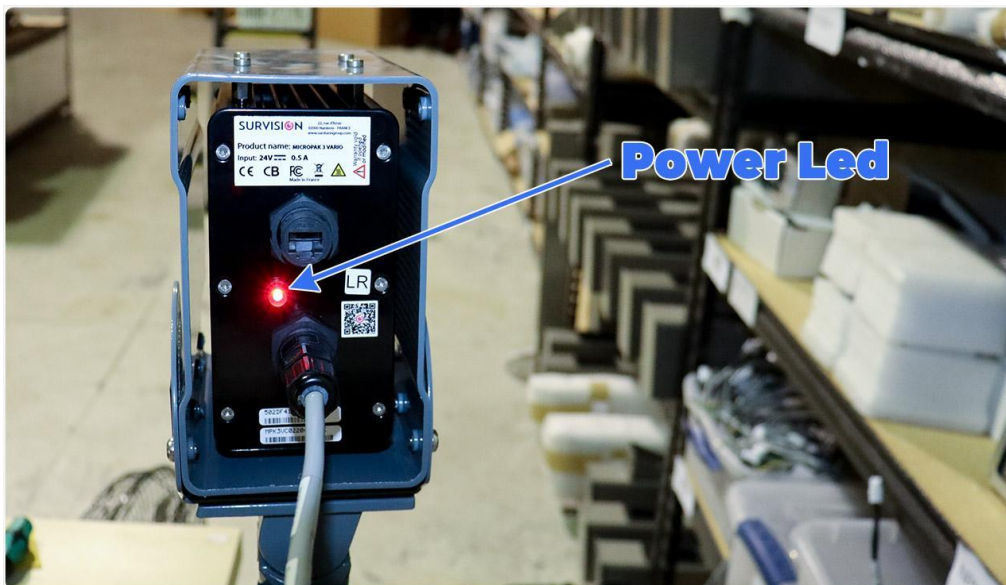
No compatible with latch protection

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.

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. Please contact our support team if you encounter any problems during assembly.



4. POWER ON



Micropak3 VARIO has a status LED on its rear face. When the 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.)

However, if the LED cycle is one of those described below, please contact our Support Dept.

Case 1: The LED never turns on when powering the unit.

Case 2: LED ON permanently.

Case 3:

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

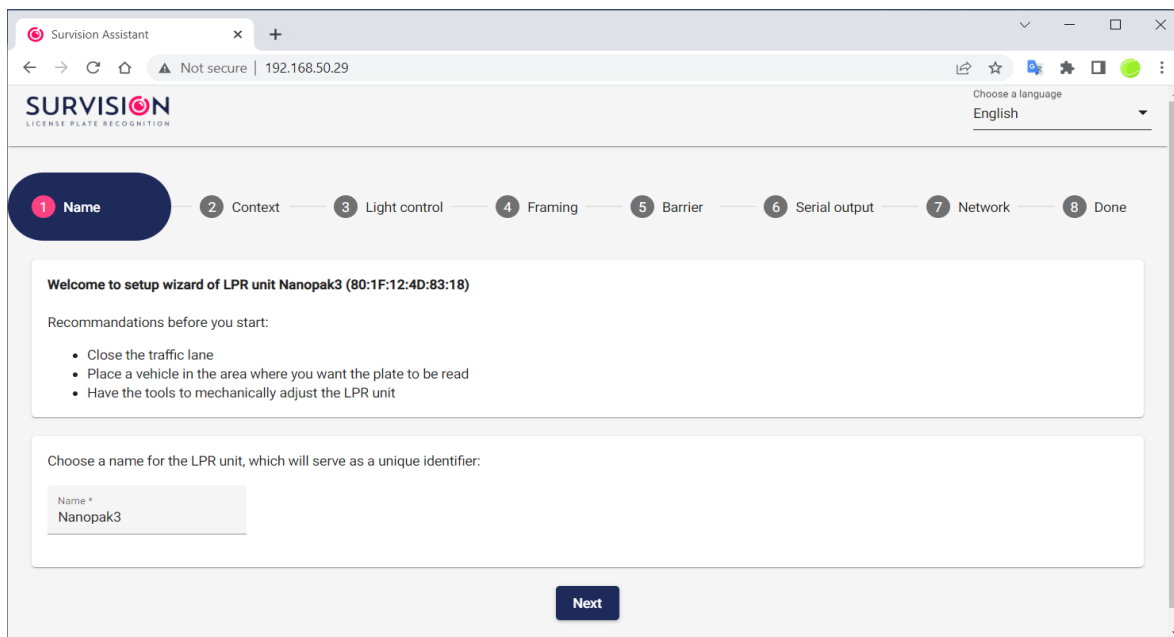
5. CONFIGURATION

Survision offers 2 options for setting up your LPR unit:

1. The 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 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 access the Assistant, just type the IP address of the LPR unit in any web browser, assuming the network configuration of your computer lets you reach the LPR unit's IP range.

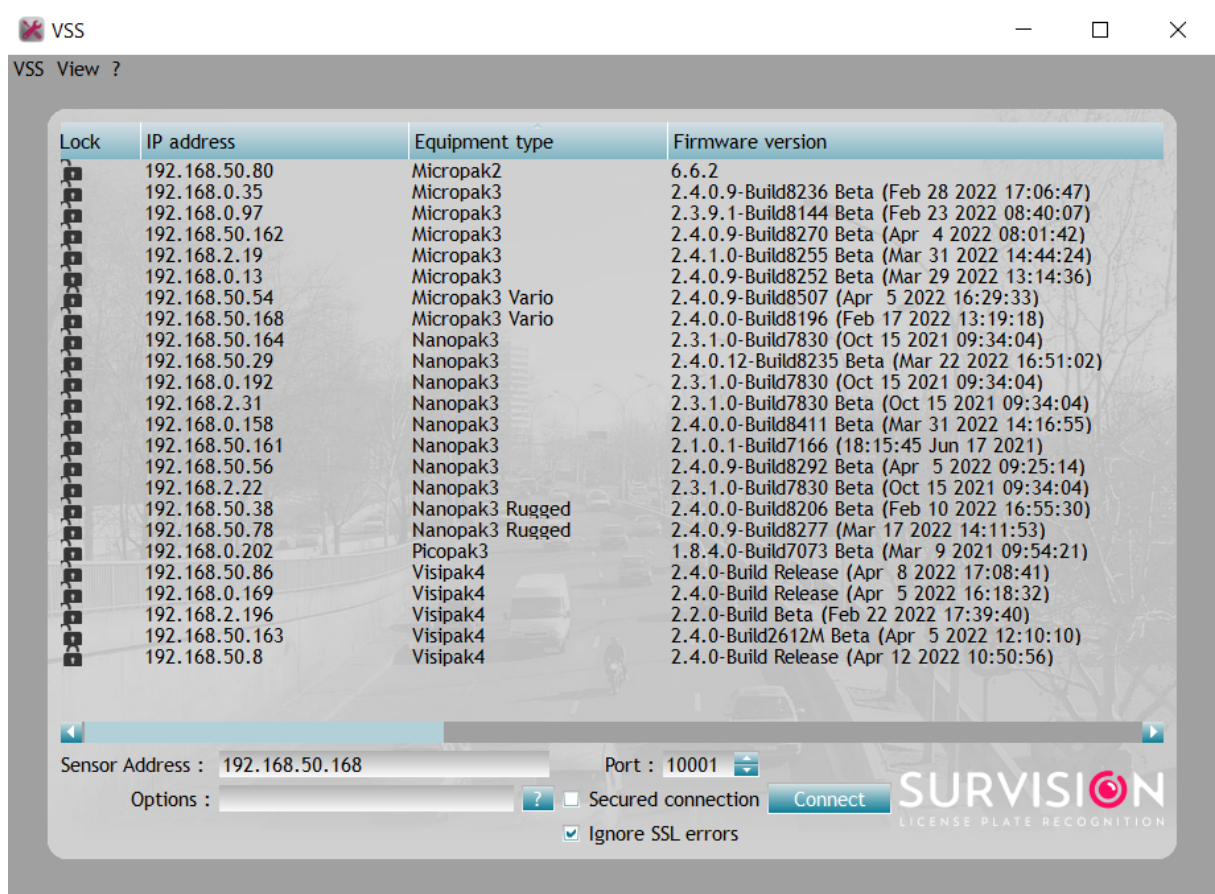
NOTE: Survision's LPR units have an IP address by default, which is printed in the test sheet provided. This IP address is always 192.168.0.XYZ, where XYZ is the conversion (from hexadecimal to decimal) of the two last characters of the MAC address.

2. VSS

A complete software tool that allows you to:

- Modify all the parameters of an LPR unit (network, OCR, communications).
- Receive the video stream and all the detection information from the LPR unit.
- Record the video stream, including all 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

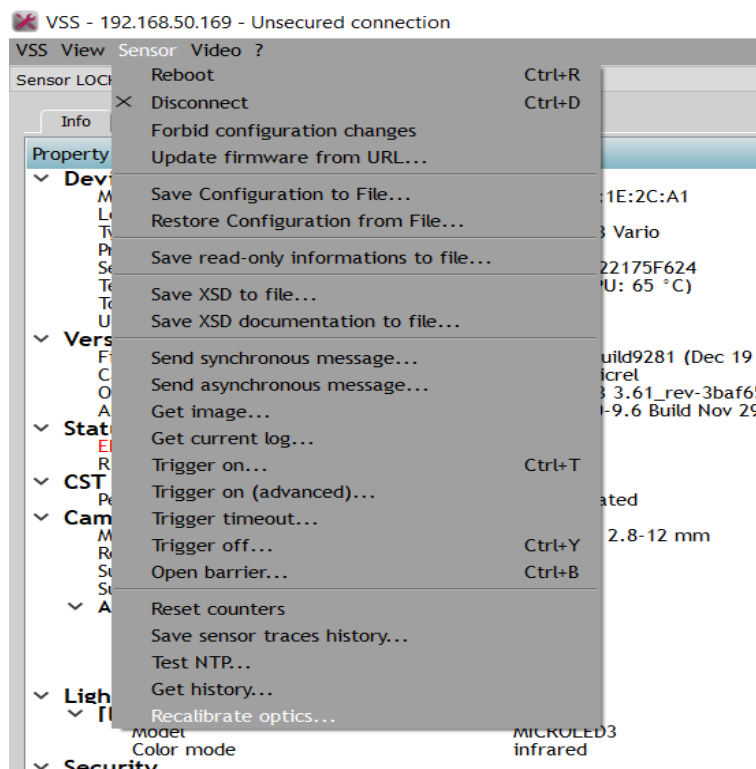
Micropak3 VARIO LPR units are equipped with a motorized lens.

Occasionally, the factory settings may be altered due to vibrations during the transport and therefore, the zoom and focus levels displayed on the configuration tools may not be real. This may cause two problems:

- the minimum/maximum zoom levels that you can setup 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.

In order 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 above), run the "Recalibrate Optics" command that you can find in the "Sensor" drop down menu. See image below. This will bring the zoom to the minimum automatically. Once done, it is granted that the lens has the correct reference factory values and it can now be set up with no issues.



7. 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.

Assuming that 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 MySurvision dashboard with the 'DASHBOARD' tab selected. 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 form with a label 'Equipment serial number' and a red 'RMA procedure' button.

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

The screenshot shows the 'Declare breakdown' form with the following filled-in details: 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: [blank], Technical contact phone: [blank], Technical contact email: [blank]. Quote contact name: [blank], Quote contact phone: [blank], Quote contact email: [blank]. Return address: Declaring company: [blank], Street and number: [blank], City: [blank], Postcode: [blank], Country: [blank]. Description: [blank].

- 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’ll 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.

The screenshot displays the Survision web interface for a specific LPR unit. At the top, a navigation bar includes 'MY SURVISION', 'DASHBOARD', 'CATALOG', 'DOCUMENTATION', 'PROJECTS', 'EQUIPMENTS', 'SOFTWARE', and 'DEVELOPERS'. The main content area features a status indicator 'Status : To be diagnosed' with a sub-status 'Received : 1/9/23' and 'To repair before : 2/6/23'. Below this, an 'Informations' section contains fields for 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), and MAC address (50:2d:14:2f:18:ed). A 'Current breakdown' section at the bottom includes a table with columns for Created by, Date, Reparation under warranty, Breakdown type, and Frequency. Action buttons for 'Delete breakdown' and 'Print breakdown declaration' are visible on the right.

- All the status changes that will follow are under Survision’s control and you will always be informed via e-mail as well.
- Micropak3 VARIO does not have strict rules in terms of return packaging. However, we recommend using bubble wrap to avoid scratches and avoid sending any mounting brackets with the LPR unit.

8. TECHNICAL SUPPORT

In case of doubts 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

9. RELATED DOCUMENTS

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

- **Micropak3 VARIO data sheet**
- **Micropak3 VARIO 3D STEP file**
- **Wall bracket data sheet**
- **Wall bracket 3D STEP file**
- **Pole adapter data sheet**
- **MPK3 VARIO vs former MPK3 12-16-25**
- **VSS Manual**
- **PVT Quick Start Guide (recording and scoring tools)**

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