

GSS 5GV Vibration Monitor

FOR STRUCTURAL AND OCCUPANT MONITORING



Thank you for choosing the GSS 5GV Vibration Monitor.

This Quick Guide takes you from unboxing to your first measurement in MeasurEye. For the complete functionality of the device, please refer to the User Manual.

1. Before You Start

- Create your free MeasurEye account at app.measureeye.com
- The battery pack is factory-installed — see [4. Battery Compartment](#)
- The SIM card (1nce) is already inserted — check mobile coverage at the site
- Keep the magnet with lanyard at hand — it powers the device on and off

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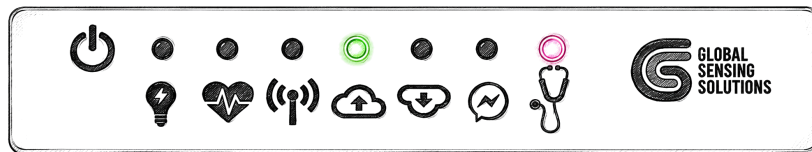
Need more? Scan for the User Manual
or contact us at info@nti-audio.com

2. Powering the 5GV

The 5GV is powered on and off using the magnet included with your kit — no buttons need to be pressed.

2.1 POWER ON

- 1 Hold the magnet against the power symbol on the side of the device for about one second.
- 2 The power indicator glows red while the magnet is held; once removed, it turns green to confirm the unit is powering up.
- 3 If the indicator does not start blinking green, repeat the process, holding the magnet in place a little longer.



2.2 POWER OFF

- 1 Hold the magnet against the power symbol for 3 to 5 seconds. The indicator turns green to confirm the request and stays lit until all outstanding tasks are complete.
- 2 Remove the magnet once the indicator shows a mix of red and green — the device then finishes powering down.

The device can also be powered off via a command sent over SMS, MQTT, Bluetooth or the USB serial port.

STATUS INDICATORS

	Power Symbol	Position the magnet here to power the device on and off.
	Power	Solid red indicates power on; solid green indicates powering off.
	Heartbeat	Flashing green every 5 seconds when the device is operational.
	Communication	Flashing green every 5 seconds when communications are operational.
	Upload	Flashing green during uploads.
	Download	Flashing green during downloads.
	SMS	Flashing green when sending or receiving SMS messages.
	Sensor	Flashing green every 5 seconds when the sensor is operational.

3. Getting your first results with MeasurEye



MeasurEye is NTi Audio's cloud platform for monitoring and insights — gather, secure, combine and alert on environmental data in real time. Six steps take you from account to first measurement.

1 Create your account

- Go to app.measureye.com and click **Sign up**
- Enter your email address and choose a password (min. 8 characters, mixed case, numbers and symbols)
- Click **Continue** and confirm the verification email

2 Create a company

- Open **Create Company** and give the company a name
- Enter the billing address (street, postal code, city, country)
- Accept the Privacy Policy and Terms of Use, then click **Create Company**

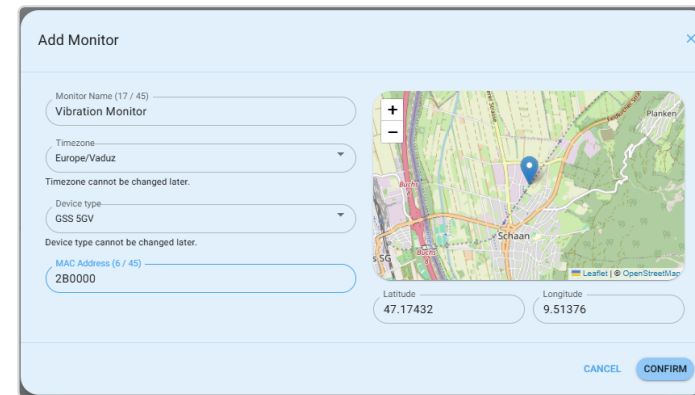
3 Create a project

- Give the project a name
- Set the project timezone — inherited by every monitor and cannot be changed later
- Set a default map location — new monitors are placed here and can be repositioned

4 Prepare the 5GV Vibration Monitor

- Attach the L-shaped (90°) antenna to the GSM plug and the straight antenna to the Bluetooth (0°) plug
- Turn on the device with the magnet — see [2. Powering the 5GV](#)

5 Add a monitor

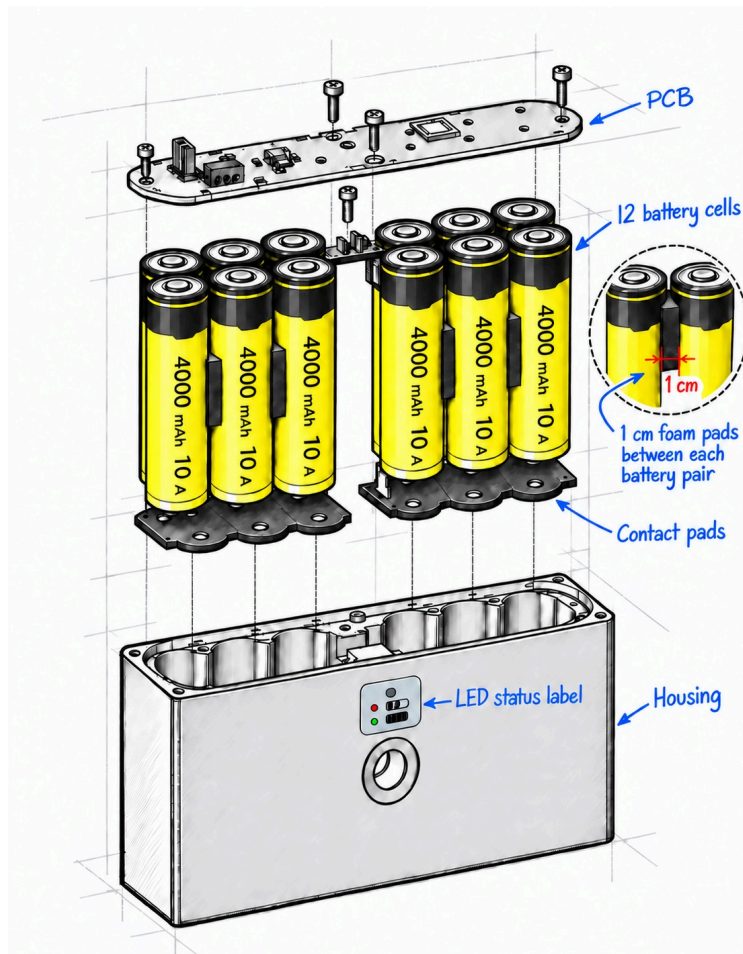


- Click **Add Monitor** and give it a name
- Confirm the timezone (inherited from the project)
- Select device type **GSS 5GV** — cannot be changed later
- Enter the device's MAC Address
- Adjust the map pin if needed, then click **Confirm**
- MeasurEye connects to the device automatically, usually within a minute

6 Select your monitoring configuration

- Select Structural Damage or Occupant Comfort
- Structural Damage standards: DIN 4150-3, IN1226, Circulaire 1986, SBR A:2017, BS 5228-2, ÖNORM S9020, RI8507/OSM, Custom Mode
- Occupant Comfort standards: DIN 4150-2:2025, DIN 4150-2:1999, Real Decree, UNI 9614, Spectrum (1/3 octave), BS 6472-1
- Select the threshold and review the Threshold Curve Preview
- Adjust the Vibration Monitor Settings for the selected standard

4. Battery Compartment



Your GSS 5GV ships with its battery pack installed — 12× Nitecore NL1840HP 18650 Li-ion cells (173 Wh total). Open the compartment only for inspection or a certified pack replacement; improper reassembly can compromise the O-ring and the IP67 rating.

1 Open the case

Loosen the corner M4 hex capture screws (highlighted) and separate the two halves. Disconnect the ribbon cable to the battery board.

2 Remove the battery board (PCB)

Undo the 4 screws — 2 on the centerline, 2 on the sides — to reach the pack underneath.

3 Respect the cell orientation

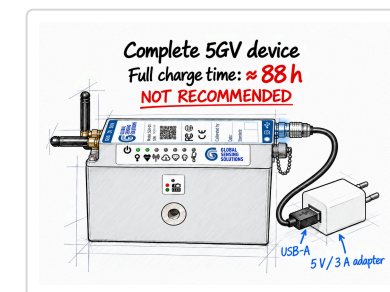
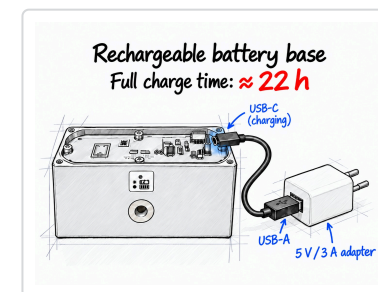
Two rows of six on the contact pads, as shown. Reversed cells can damage the protection circuit.

4 Close the case

Align the board with the case protrusions, secure the 4 screws, reconnect the ribbon cable and tighten the M4 screws.



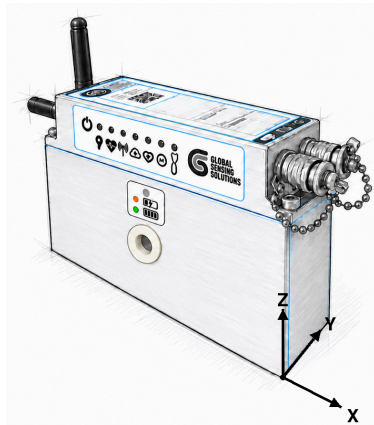
Charging — 5 V / 3 A USB adapter. Use the rechargeable battery base (USB-C); charging through the assembled device's LEMO connector works but is slow.



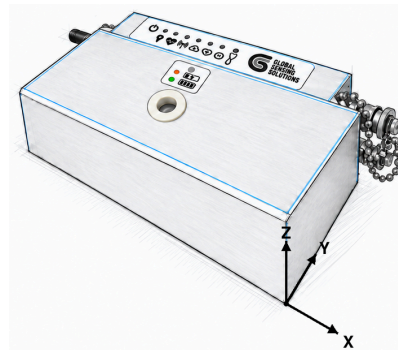
5. Advanced Applications

5.1 AUTO-ORIENTATION (Z-AXIS FOLLOWS GRAVITY)

The 5GV can be positioned vertically or horizontally mounted. It will automatically orient itself using gravity to determine the Z-axis, so no correction is needed.



Vertical mounting

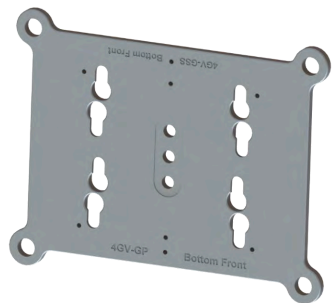


Horizontal mounting

5.2 ON-SITE MOUNTING

The 5GV offers two mounting solutions, both secured with an M8 anchor bolt:

5.2.1 Wall Mounting



- Plate fixed to the target surface; 5GV secured to it via the M8 anchor bolt through the battery compartment hole
- Included with your 5GV Vibration Monitor
- Additional plates available as a spare part, NTi # 600 070 010

5.2.2 Ground Mounting Plate



- Optional accessory for ground-level installations, NTi # 600 070 016, built to DIN 45669-2:2005
- Fixed via the M8 anchor bolt through the central hole, same as the wall mounting plate
- Supplied with 3 round feet (hard surfaces) and 3 spike feet (grass or soil)

5.3 DEVELOPMENT AND INTEGRATION

If you plan to create your own application or incorporate the 5GV into an existing tool, this is possible via our API — including real-time data publication, event mode with SMS alerting, and autonomous mode via MQTT/SMS with push FTP. Below are some of the possibilities:

STRUCTURAL DAMAGE ASSESSMENT

- Peak Particle Velocity & Dominant Frequency (ZC/FFT)
- Filters for ISEE, DIN 4150-3, BS 7385, AS 2817-2, ÖNORM S 9012 +10 standards

OCCUPANT PROTECTION

- VDV according to BS 6472
- AWT according to ISO 2631
- KBFT according to DIN 4150-2
- 1/3-octave spectrum (velocity, acceleration, dBV)

For further information, please consult the user manual or get in contact with us



6. Safety Instructions

In the following, you will find important information on the safe operation of the device. Read and follow these safety notes and instructions. Keep the instructions for future reference and ensure they are available to all persons using the device.



DANGER! Threats for children

Make sure that plastic covers, packaging, etc. are disposed of properly and are not within the reach of babies and small children. Danger of suffocation! Ensure that children do not detach any small parts from the device (e.g. antennas, magnet, screws or mounting feet). They could swallow the parts and choke on them! Do not allow children to use electrical equipment unsupervised.



DANGER! Fire, explosion or burn hazard

The device contains a Li-ion battery pack (12× 18650 cells). Do not short-circuit, damage, heat, burn or disassemble the battery pack. Follow the cell manufacturer's instructions. Only charge with a suitable 5 V / 3 A USB adapter as described in section 4, and match the cell orientation exactly if the pack is ever reinstalled.



NOTE! Operating conditions

The device is rated IP67 for outdoor use only when the case is closed and the connector cap is fitted. Do not open the battery compartment outside of the procedure in section 4 — improper reassembly can compromise the O-ring seal. Operating temperature –40 °C to +85 °C. Ensure the device is securely fixed with the M8 anchor bolt before leaving it unattended on site.

CE / FCC Declaration of Conformity

Manufacturer. Hereby, Global Sensing Solutions (GSS) Limited, Room 605 Bonham Commercial Centre, 44-46 Bonham Strand West, Hong Kong, declares that the radio equipment type **5GV-nnn / VEVA III-nnn** is in compliance with Directive 2014/53/EU (RED) and Directive 2011/65/EU (RoHS). The full text of the EU declaration of conformity is available at the following internet address:

www.nti-audio.com

RF	ETSI EN 301 511 V12.5.1 · ETSI EN 301 908-1 V15.1.1 · ETSI EN 301 908-13 V13.2.1 · ETSI EN 303 413 V1.2.1 · ETSI EN 300 328 V2.2.2
EMC	ETSI EN 301 489-1 V2.2.3 · ETSI EN 301 489-17 V3.2.4 · ETSI EN 301 489-19 V2.1.1 · ETSI EN 301 489-52 V1.2.1
Safety	EN IEC 62368-1:2020 + A11:2020
Health	EN IEC 62311:2020 · EN 50665:2017

The product code “-nnn” indicates customer-specific modifications, which remain within the scope of the declaration. The declaration becomes invalid if modifications to the instrument are carried out without the written approval of the manufacturer.

Authorized representative. NTi Audio AG, Im alten Riet 102, 9494 Schaan, Liechtenstein, is the manufacturer's authorized representative in accordance with Article 11 of Directive 2014/53/EU. NTi Audio keeps the EU declaration of conformity and the technical documentation at the disposal of the national market surveillance authorities and supplies them on reasoned request.



H. Prettnner, CEO · NTi Audio AG
Schaan, 28 September 2026