ASPION ■ G-Log

Monitoring shocks and temperature

Wireless. Inexpensive. Long lasting.

Quick guide

The user manual and the ASPION G-Log Manager software are stored on the ASPION USB stick.

You can download the ASPION G-Log App for Android and iOS from the respective app stores at no cost.

Find software updates, FAQs, apps and more useful information in the ASPION customer portal at www.aspion.de.

Installing the ASPION G-Log App:
Scan the QR code with smartphone.

ASPION

Easily get started: Quick test

- Install the card reader and the PC software ASPION G-Log Manager [1].
- Place a data logger with the bottom side (label visible) on the card reader.
  Attention: Do not place the card reader on a metallic surface (e.g. PC).
- Activate a data logger with "Write sensor" and the "Standard low" profile [4].
- Create a shock: Drop the data logger from a height of approx. 25 cm.
  The data logger records a shock event as soon as a 4 g acceleration is exceeded on one axis for 10 milliseconds.
- Read out the data logger via a PC software (label visible) and/or app [5].
- Have a look at the data analysis, especially the shock details (PC software) with the shock course displayed in milliseconds on all 3 axes [6].
- Stop the data logger with the PC software to reduce battery consumption. Recorded events are deleted when recording data again.

Important: What do I need to consider before using the data logger?

- **Where do I mount the data logger?**
  It is best to mount the data logger directly on the transported goods, at a sensitive point, preferably in the upper third section: with screws, industrial adhesive tape or cable tie.
- **How sensitive is my transported good to shocks, which settings do I choose?**
  In general: The heavier the goods to be transported, the lower the threshold value, e.g.
  300 kg .. < 1 t → Standard high profile - 8 g at 20 milliseconds shock duration
  > 1 t .. 8 t → Standard medium profile - 6 g at 15 milliseconds shock duration
  > 8 t .. 15 t → Standard low profile - 4 g at 10 milliseconds shock duration
  Select a higher or lower profile for lighter/heavier goods.
- **How important are temperature values?**
  Data recording is event-based with an indication of threshold values: If the values fall above or below the set threshold value for at least 15 minutes, the data logger records a temperature event including peak temperature and average value every 10 hours at the latest.
  Please note: with the total memory capacity, you can store 286 events in total for shock, temperature and activity; if the circular buffer is full, events of a previous date will be overwritten (except for the first and further 8 peak shock details).
- **How can I retrieve the recorded data?**
  You can easily read out the data logger via the Smartphone App and directly send the data from the app via e-mail and import it into PC software. Use the included template to explain the use to your colleagues and business partners. Alternatives: Time-controlled stop or stop with the Smartphone App and PIN (only for Android).

Mounting

Mounting orientation

To correctly assign the axes in case of shock events, the mounting orientation is critical.
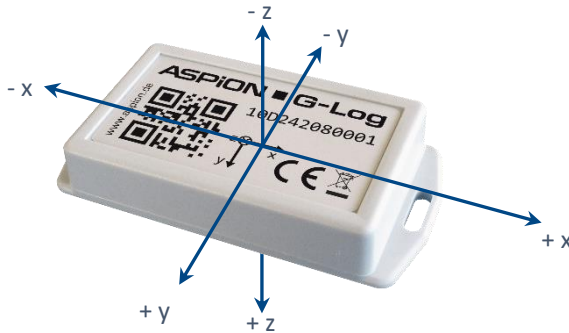
Recommended mounting

- On steel: M3 ISO 7380 FL
- On wood/sheet metal: flathead screws with a maximum thread diameter of 3.5 mm (e.g. DIN 7981)
- Maximum tightening torque: 0.4 - 0.5 Nm
- Alternatively, you can use industrial adhesive tape or cable tie

Mounting template

To easily mount the data logger, copy this mounting template (scale: 1:1).
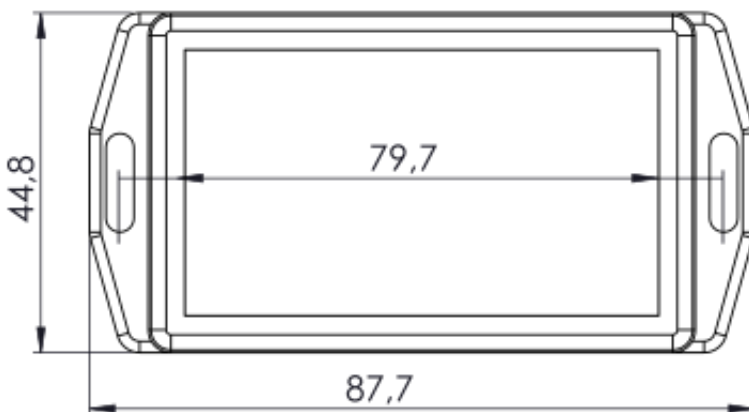
1 Installing ASPION G-Log Manager and card reader

- If the .NET framework is not set up on your computer, you must first install it:
  Execute the dotNET Framework\ndp48-x86-x64-allos-enu.exe
- Install the driver for the card reader:
  Execute the Smart Card Reader\Identiv uTrust V1.27.exe; then connect the card reader to the USB interface; place the card reader on non-metallic surface
- Installing ASPION G-Log Manager:
  Execute ASPION_G-Log_Manager_Installer.msi

After you have successfully installed the software, ASPION G-Log Manager is displayed as a link on your desktop. Start the ASPION G-Log Manager.

Please note: To install the software, you require administrator rights and write access to the program data directory. Please contact your IT if necessary.

2 Setting the data logger type via the Global settings

You can operate all ASPION data logger with the software. Define the ASPION G-Log type. The program will support you with exactly those functions you need to operate the selected type. You can adapt the selection anytime.

3 Editing profiles

Here you define the settings for the operation of a data logger. You can newly create, edit and delete profiles. Three default profiles are supplied to make orientation easier. With the settings, you can define the duration and threshold values for which an event is recorded if the values deviate from these defined thresholds. To obtain usable data, it is critical to define a profile suiting the characteristics of your transported goods.

Shock settings (see Important: What do I need to consider before using the data logger?): Battery life determines the data rate at which the accelerometer operates. The data rate is the higher, the shorter you define the lifespan of the battery. A high data rate is useful especially for the recording of short shocks.

Activity events for orientation: To monitor data logger activity and for orientation detection, a shock event is triggered at selected intervals, independent of threshold values.

Temperature thresholds: The temperature sensor measures every 5 minutes. For values outside the set thresholds, the data logger logs an event-based temperature event after 10 hours. When re-entering the permitted value range, an event is logged earlier.
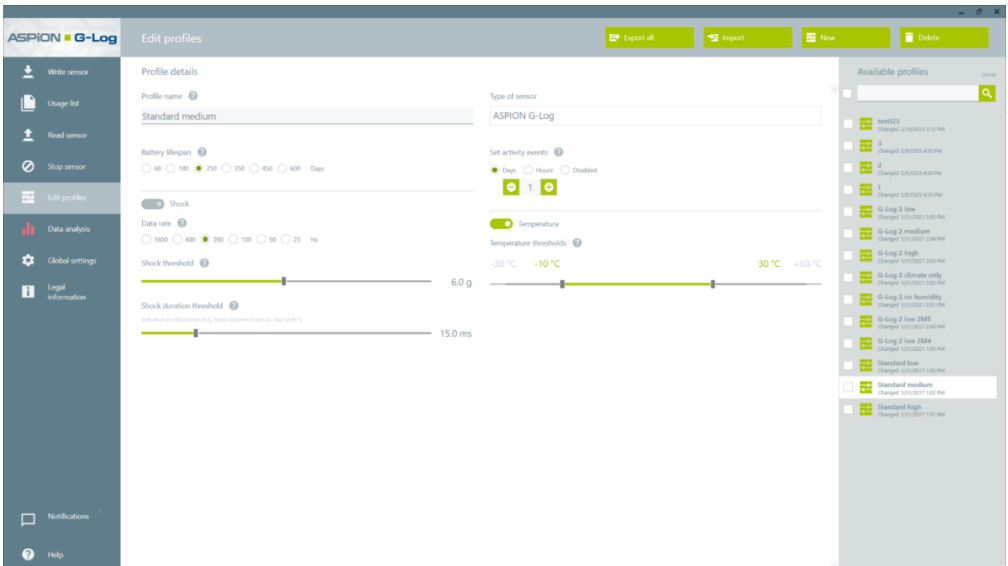
Memory capacity: The data logger stores a total of 286 events. Earlier events are overwritten in the circular buffer, but the first and the 8 peak shock values including details are permanently stored. This ensures that you can document the highest shock forces on your transported goods in detail.

Calculation table as orientation aid for the setting of activity events:

Set Interval	Memory capacity duration of approx. – without any further events
hourly	12 days
every 3 hours	36 days
every 12 hours (2 x day)	13 weeks
1 x day	40 weeks
Every 2 days	80 weeks

Tips for using profiles

If your transport is only on the road for a few days and you also want to monitor the position of the goods constantly, select a shorter interval for activity events, for example every 3 hours. For longer transports of several weeks, select a longer interval, for example, every 2 days.

For more details and tips on creating profiles, please refer to the manual.

You can make further global settings such as the extended display of shocks up to ± 24 g per axis, the control of the app, and other, in the **Global settings** area.

4 Operating the data logger

You define the details for your shipment when writing the data logger. Enter a shipment name, the start and stop times for recording events, and the transport duration if required. This function checks whether the data logger has sufficient battery capacity for the planned use. Select a profile to define the threshold values and the activity events. After data is written to the sender, you will receive a summary of the data on the data logger. The information is stored in the usage list to ensure traceability. The data logger is now ready to be mounted (see Mounting).

5 a) Reading the data logger with PC software

You receive analyzed data by reading out the data logger: Place the data logger with the bottom side (label is visible) on the card reader and follow the instructions of the program. Traffic light symbols immediately show whether shock or temperature events have occurred. You receive all information about the data in the data analysis area.

5 b) Reading the data logger with Smartphone App

In addition to the short description, you will find instructions for reading out the data logger via the App. Follow these instructions. You find these instructions on the USB stick as a customizable template for which you can pass on to colleagues, customers and service providers. You can also download them from the customer portal.

Please note: When reading out data via NFC technology, hold the data logger directly and very close to your smartphone.

**iOS App**   **Android App**
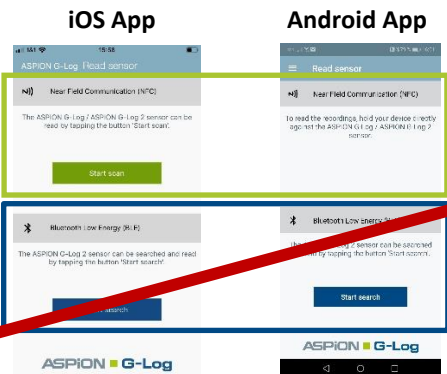
Reading out data via NFC: Hold data logger closely to smartphone – for all ASPION G-Log data logger.

Reading out data via BLE is not possible (only ASPION G-Log 2 data logger, recognizable by blue housing)
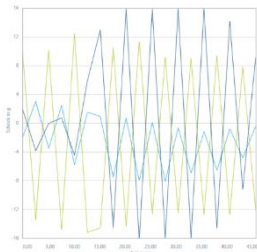
6 Data analysis

The data analysis view shows all information of a read-out data logger at a glance. Activity events are used to check the functionality during runtime. With the export function, you receive data analysis in Excel, PDF or native G-Log format displayed in the ASPION G-Log Manager.
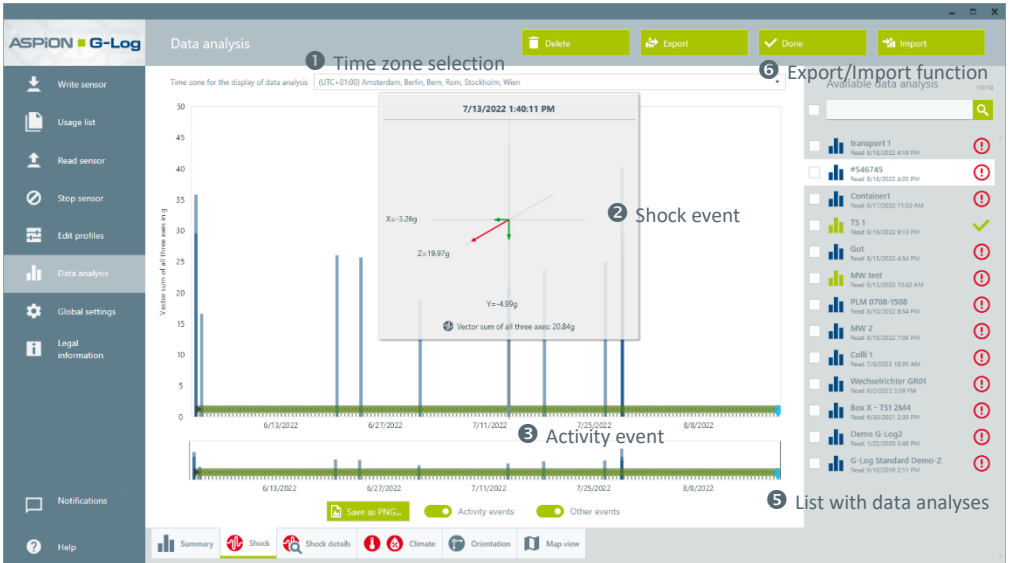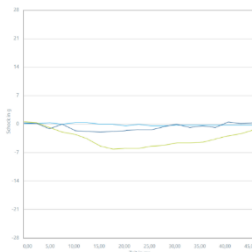

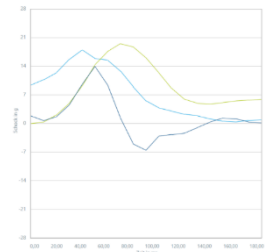❹ Select: Summary/Shock/Shock details/Temperature/Orientation/Map view

Critical details to judge shock courses are deliverd by shock details in milliseconds, e.g.

Vibration course　　　　　　Air freight transport　　　　　longer lasting shock

You will find detailed explanations of the data analyses, in particular of shock details and temperature recordings, in the user manual. We will be happy to help you to correctly interpret the data.

Further information on the analysis is available online at www.aspion.de!

Battery replacement, FAQ and support

All ASPION G-Log data loggers (from production date November 2022) can be read out even if the battery is empty. However, it is not possible to restart the device when the battery is empty. Therefore, we offer a general overhaul of the ASPION G-Log as a manufacturer's service. This includes battery replacement, firmware update, function test, if necessary replacement of the housing in case of damage and the resetting to the power-saving default condition. With that, we turn an old device into a new data logger for you.

Please send us your corresponding request via e-mail to info@aspion.de.

For help regarding questions on how to operate the data logger, please go to the ASPION customer portal at www.aspion.de.

Our support will happily help you with any further questions you may have: e-mail support@aspion.de.

Important to note

- You will find detailed explanations in the user manual.
- ASPION data logger are not designed for safety-relevant applications.
- Do not operate data logger which are visibly damaged.
- Do prevent penetration of fluids to prevent corrosion damage or a short circuit.
- Never use a data logger with leaking battery; avoid skin contact.
- The manufacturer does not assume any liability for damages which were caused due to inappropriate use or wrong operation.

Never dispose of the data logger together with domestic waste. Send the data logger back to the manufacturer or dispose of them properly as waste electrical equipment.