

# ASPiON ■ L-Track

Multisensor data logger with live tracking

Transport monitoring in all dimensions

Live. Worldwide. Sustainable



## Quick guide

ASPiON L-Track and ASPiON Cloud

Detailed user manual:  
in the ASPiON Cloud in the user menu

**FAQs and Support:**  
[www.aspion.de/ltrack.faq](http://www.aspion.de/ltrack.faq)

## 1. Your easy quick start

### Step 1: Set up ASPION Cloud [4]

- Log in to the ASPION Cloud with your access data [4.1].
- Start with the initial setup of the cloud by:
  - Creating groups and assigning devices [4.3]
  - Activate shock & GPS settings and configure the device [4.7]
  - Setting alarms and notifications [4.5].

### Step 2: Activate device

- Activate a device by pulling off the red "Remove label".  
Note: Make sure that there is enough light on the light sensor to activate the device. In poor lighting conditions, shine a flashlight on the light sensor for a few seconds.
- After just a few minutes, the device has synchronized with the ASPION Cloud and the first measurement data can be viewed [4.6]. In the standard configuration, a measurement is then taken every hour on the hour and data is transferred to the ASPION Cloud every 8 hours.

## 2. Important: preliminary considerations for implementation

### ■ Where is the data logger mounted?

Ideally directly on the transported goods, in a sensitive location, preferably in the upper third: with screws, industrial adhesive tape, cable ties or magnets [3].

### ■ How sensitive are my transported goods to shocks, which setting do I choose? [4.4]

As a general rule, the heavier the transported goods, the lower the threshold value, e.g.

0,3 t to 1 t → Default profile High - 8 g with a shock duration of 20 milliseconds

1 t to 8 t → Default profile Medium - 6 g with a shock duration of 15 milliseconds

8 t to 15 t → Default profile Low - 4 g with a shock duration of 10 milliseconds

For lighter / heavier goods, select higher or lower accordingly.

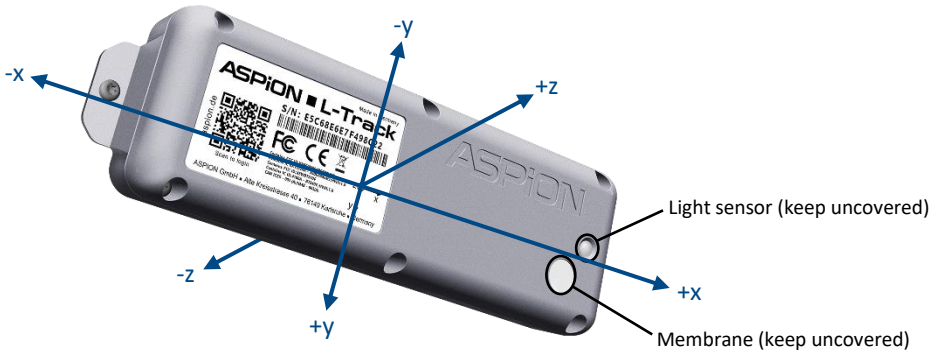
### ■ For which events do I want to be informed?

You can use Smart Rules [4.5] to define the sensors (measured values) for which alarms are logged and the threshold value at which you receive an email notification.

### 3. Assembly, packaging and restriction of mobile radio transmission

#### Mounting direction

To ensure that you can correctly assign the axes in the event of shock events, note the alignments during installation.



#### Recommended mounting

- on steel: M4 ISO 7380 FL
- on wood / sheet metal: Flat-head screws max. 3.9 mm thread diameter (e.g. DIN 7981)
- Tightening torque 0.4 - 0.5 Nm
- Alternatives: Industrial adhesive tape (e.g. from 3M), cable ties or magnets (available as assembled magnet set)

#### Packaging and possible restrictions on mobile phone transmission

- To record temperature and humidity, make sure that the white membrane on the top of the ASPiON L-Track is not covered when packing the device. If lux values are to be recorded via the light sensor, keep the adjacent light sensor uncovered.
- If you use corrosion protection packaging made of shielding material (e.g. aluminum foil), this creates a Faraday cage, which prevents mobile phone transmission. You can prevent this by excluding a small area, ideally close to the device, from the shielding, for example by installing a viewing/inspection window (e.g. Hermann window). **This is the only way to ensure mobile radio transmission when using corrosion protection packaging.**

## 4. ASPION Cloud

The ASPION Cloud is used to manage devices including configuration, alarms and email notifications as well as for the administration of users and authorizations:

<https://portal.iot.aspion.cloud/>

### 4.1 User login

To log in to the ASPION Cloud, click on the link you received by email from the ASPION Cloud. Then choose your own password for your login. Next, log in to the ASPION Cloud with your access data.

### 4.2 ASPION Cockpit – Homepage

After logging in, you will find yourself in the ASPION Cockpit with an overview of alarms and a map showing the current location and status of your devices. Further content:

- **Top menu bar:** Shows which area you are in, e.g. ASPION Cockpit
- **Search:** Find devices or groups easily
- **Application Switcher:** Switch between the ASPION Cockpit and ASPION Administration areas (visible depending on rights)
- **User menu:** Edit User settings, Support, User manual and Logout.



### 4.3 Navigation and groups

In the ASPION Cloud, you can sort and manage your devices easily and conveniently using groups - just like folder structures in a file system.

**ASPION** Lexa Tooling

ASPION - COCKPIT

Home

Lexa Tooling

All Devices

GM Eur (FEBA)

Lg: Globex Milling

Lg: Nitro Liquids SE

Messe Stuttgart

NL SA (FP9)

Groups & Devices Overview Smart rules

Lexa Tooling

Created 15 Jan 2024, 11:13:42

Last updated 30 Apr 2024, 13:49:57

Groups (No items) 4 of 4 items

Name	Devices	Alarms
All Devices	7	13
Lg: Globex Milling	1	1
Lg: Nitro Liquids SE	3	1
Messe Stuttgart	3	1

1 - 4 of 4

Devices (No items) 2 of 2 items

Name	Model	Serial number	End of su...	Configu...	Last Location	Bat...	Remaining Capacity	Last Trans...	Alarms	
GM Eur (FEBA)	L-Track	19BED2993609FEBA	11/07/2024	10 min	Standard	Germany, Baden-Württemberg, Karlsruhe	37.0%	405 Days   09.06.2025	30 Apr 2024, 13:30:18	1
NL SA (FP9)	L-Track	192674B291A85FP9	12/19/2024	1 h	Standard	Germany, Rheinland-Pfalz, Bad Bergzabern	73.6%	606 Days   15.07.2026	30 Apr 2024, 11:00:41	0

- ① Use the main navigation bar on the left to navigate to the groups.
- ② In the **Groups & Devices** tab you will find general information about the current group. The **Overview** tab shows all alarms from this and all subordinate groups as well as a map with all locations of devices that are directly in this group. Use Smart rules to create alarms and email notifications [4.5].
- ③ Create a new group; this will be subordinate to the current group. Assign a name and then add devices to the group (activate via the selection box). You can update the assignment of devices at any time using the **Add device** button.
- ④ The group list shows a table with all selected attributes of the groups. Attributes can be edited using the **Configure columns** button.
- ⑤ On the right-hand side you will find buttons for deleting groups when you move the cursor over the line.
- ⑥ Shows a list of active alarms for each subgroup and each device. Threshold values for alarms are determined on a device-specific basis using the Smart Rules [4.5].
- ⑦ The device list behaves in the same way as the group list. If you move to the right edge of the line, you will find the **Configure** and **Unassign** buttons ⑧.
 

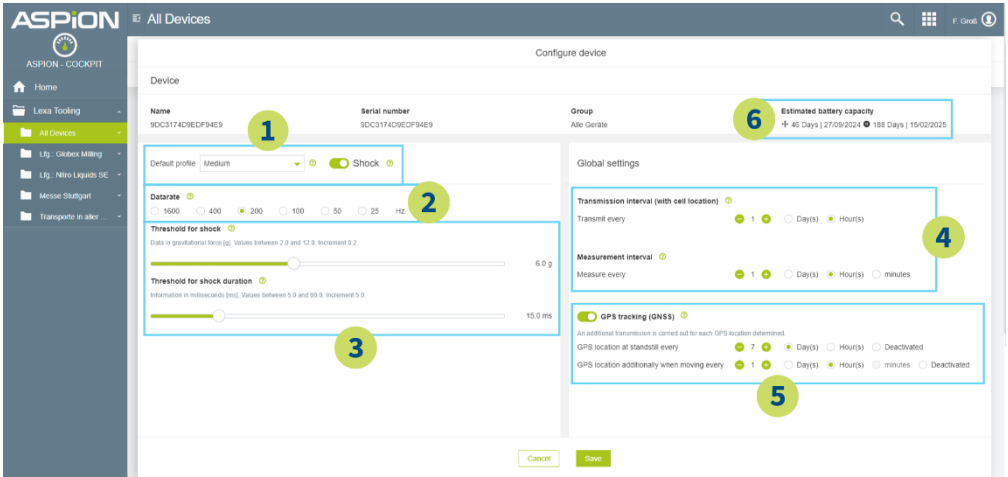
**Configure:** Configuration screen for shock detection opens [4.4].

**Unassign:** Removes the device from this group. This function is not available in the "All devices" group.

#### 4.4 Device configuration and shock activation

If required, activate shock detection and GPS tracking in the device configuration and configure the transmission and measurement interval. Follow the preliminary considerations for implementation [2]. You can access the configuration via a device list [4.3, point 8]. The device configuration screen opens.

Note: Wait a few hours after receiving the invitation email to the ASPiON Cloud before setting up the device configuration.



- ① **Default profile:** Shock detection is deactivated by default. To activate it, select a profile from the drop-down menu (recommended, see [2]) or make your own settings.
- ② **Data rate:** Use the data rate to determine the measurement frequency of the acceleration sensor. A high data rate has a negative effect on battery life.
- ③ **Threshold for shock and shock duration:** Set the threshold values (g-force and duration in ms) for shock detection. Note: Use the standard profiles as a guide to avoid recording a large number of events.
- ④ **Transmission & measurement interval:** Choose how often the device transmits the measurement data to the cloud (and thus obtains an approximate location) and at what interval it measures.
- ⑤ **GPS tracking:** GPS provides you with a precise location in addition to the mobile phone location. Set independently of each other
  - the GPS location at standstill, which records the GPS location at a fixed interval
  - and the GPS location when moving, which only records the GPS location when the device is moving.
- ⑥ Shows the expected battery life of the device based on the current configuration. If GPS is active when moving, two runtime scenarios are displayed: the battery life with continuous movement and the runtime without movement.

After saving the settings, the status in the Configuration column of the device list is updated and synchronized with the device during the next transmission.

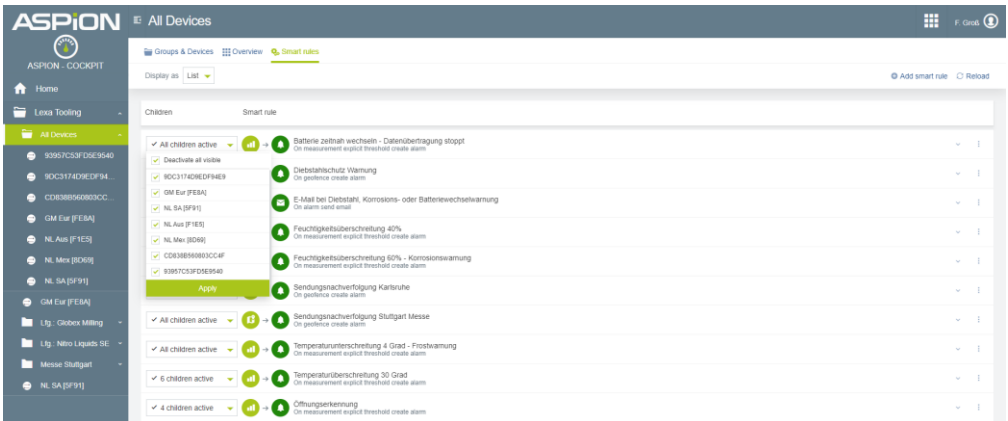
## 4.5 Smart rules, alarms & notifications

Smart rules allow you to automatically monitor the data of your devices, define threshold values for alarms and set up automatic email notifications. The following three variants are available:

- **On measurement explicit threshold create alarm:** Allows you to set self-selected thresholds for any measured value.
- **On geofence create alarm:** Monitors the location for a self-selected geographical area.
- **On alarm send email:** Informs by email in the event of an alarm occurring.

Alarms that have occurred appear at device level in the Alarm overview tab or at group level in the Overview area and can be edited there.

Note: The **Smart Rules** tab in the "All devices" folder contains templates that make it easier to create and customize Smart Rules. Use the drop-down menu in the top left-hand corner "Display as" to change the view. Detailed descriptions of the Smart Rules can be found in the manual!



**Customize Smart Rule:** Use the 3-dot menu to edit, duplicate or delete a Smart Rule.

**Apply Smart rule for devices:** Select the devices from the drop-down menu on the left-hand side and click on the **Apply** button. Make sure that it is switched on (at the top of the view when editing the Smart Rule). Enabled

**Create a new Smart Rule:** Duplicate an existing Smart Rule (recommended) or click on the **Add smart rule** button.

### On measurement explicit threshold create alarm

- ① **Rule name:** Assign a comprehensible and meaningful name (e.g.: "Temperature has risen above 30 °C"). This name appears in alarms.
- ② **On threshold:** Select which value is to be checked (e.g: *Temperature (°C) - Climate sensor*). **The following two fields *Fragment* and *Series* are filled in automatically. Do not change them.** This is followed by two input fields with which you first define the lower and then the upper limit value (e.g.: 30 and 999 → An alarm is generated at any temperature above 30 °C).
- ③ **Create alarm:** In the first field of this section, you define the alarm type. This is equivalent to a unique identification number and is relevant for the email notification. The second text field is the alarm name. Select a meaningful name. This text is displayed in the alarm overview and in the email text (e.g.: "Temperature above 30 °C").
- ④ Click on the **Create** button to activate the Smart Rule. The rule created applies to all devices that are directly assigned to this group. Then adjust the devices using the drop-down menu if necessary.

### On geofence create alarm

- ① **Rule name** and ④ as described above
- ② **On geofence violation:** Use the **Edit geofence** button to set the geographical area to be monitored. To do this, click several times on the map.
- ③ **Create alarm:** Specify when the alarm is triggered (e.g. "When leaving"). You can also select the severity of the alarm. Other fields as above.

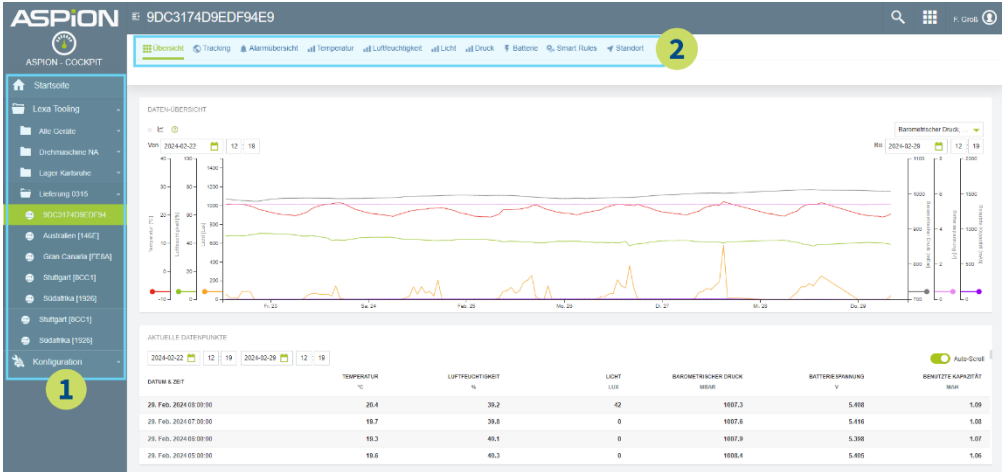
### Send email on alarm:

- ① **Rule name** and ④ as described above
- ② **On alarm matching:** Select the alarm type for the email notifications. You have assigned these designations yourself when creating the respective Smart Rule (see ③ for the first two Smart Rule types).
- ③ **Send email:** Enter the recipient, subject and content of the email notification. You can insert certain data into the body text of an email using keywords in the format "#{keyword}". More information can be found in the user manual.



## 4.6 Analysis and device details

Clicking on a device takes you to the **Overview** tab and provides further details.



① The selected device is highlighted in green in the left-hand main navigation bar.

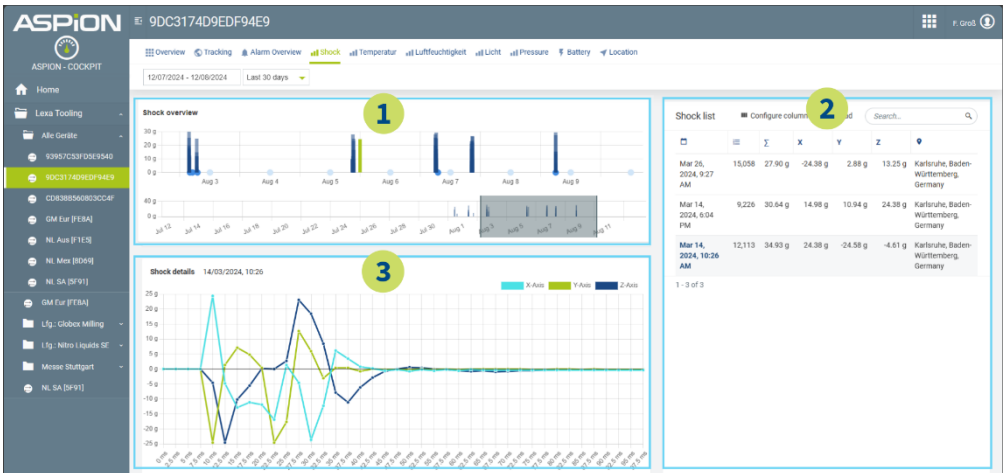
② The top menu bar shows the name of the selected device and the various **details** as follows:

- **Overview:** Shows all measured values for the selected time period in the diagram and table.
- **Tracking:** Visualizes the transport route with location information over the selected time period [4.8].
- **Alarm overview:** Lists all alarms of the device divided into active, confirmed and historical [4.5].
- **Shock:** Shows all shock events that have occurred (for analysis, see [4.7]).
- **Temperature/Humidity/Light/Pressure/Battery:** Shows the respective measured values and their progression over time as a diagram and in tabular form.

## 4.7 Shock, shock details and evaluation

Clicking on the **Shock** tab displays a diagram with data for all shocks and an extended list with the associated shock details. These are important for the evaluation of a shock event, taking into account the location of the shock.

Detailed explanations of the evaluations, in particular of shock details, can be found in the manual and online at [www.aspion.de/en](http://www.aspion.de/en) under "Data logger analysis".

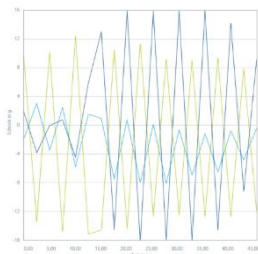


① **Shock overview:** Visualizes all shocks in a bar chart over time. The height of the bar shows the vector sum of all axes in g. Mouse-over provides further details on the time, height and direction of the axes. The device orientation becomes visible with a mouse-over on the blue circles.

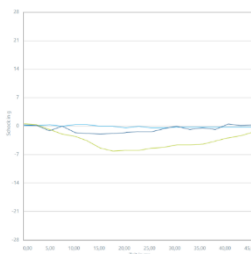
② **Shock list:** Table on the right provides further details on each shock event and shows in the columns from left to right:

- The exact time of the shock with date and time.
- The shock intensity: A meaningful indicator of the severity of the shock. Rule of thumb: The higher the value in comparison to the other shocks, the more intense.
- The maximum acceleration/force effect per axis in g.
- The recorded location closest in time to the recorded shock event with further details on the time of the recorded location on mouse-over.

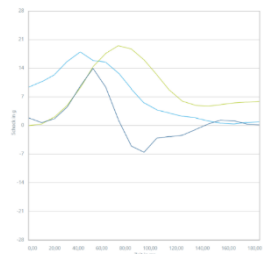
③ **Shock details:** Selecting a shock in the bar chart or on the right-hand side of the table opens the respective shock details. These show the progression of all three axes in milliseconds. They are decisive for the shock evaluation. Example:



Vibration course



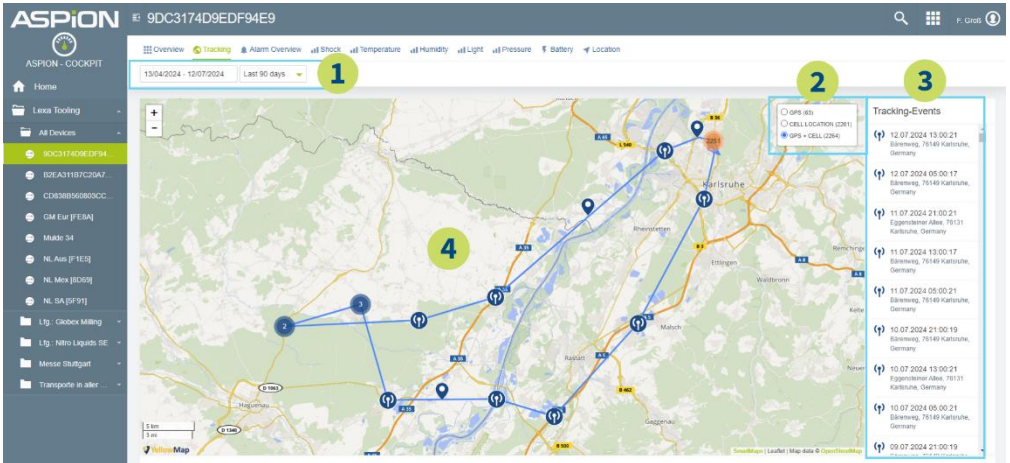
Air freight transport



longer lasting shock

## 4.8 Tracking with map

Click on the **Tracking** tab to display a map view with the location history.



- ① Select the date for the display or a date range (e.g. Last 90 days).
- ② Filter the tracking events by cellular or GPS coordinates.
- ③ The list shows the tracking events in the selected time period or according to the filter. Clicking on an entry adjusts the map view.
- ④ The transport history is visualized for the entire selected time period.

## 5. Shipping instructions / transport instructions

### Approvals and standards

The ASPiON L-Track is compliant with the following directives (see label):

- CE / ROHS / REACH / WEEE
- RED (EU)
- FCC (USA)
- IC (Canada)
- WPC (India)

### Export information

- Goods tariff number: 9031 8080
- Country of origin: EU (DE)
- Battery information: Standard AA Batteries on delivery not subject to labeling requirements

Important: Transportation by air freight in activated condition is not permitted. Air freight approval is planned.

## 6. Battery replacement

The ASPION L-Track uses four AA 1.5V alkaline batteries. These can be replaced by the user. Alternatively, lithium AA 1.5V batteries can be used (hazardous goods guidelines must be observed). Replace the batteries as follows:

1. Open the housing on the top: to do this, loosen the screws with a Torx T10 screwdriver.
2. Remove the batteries with a blunt non-metallic object (e.g. plastic ballpoint pen) from the holder. Avoid contact with the electronics.
3. Insert four new AA 1.5V batteries (alkaline or lithium) into the holders. Observe the correct polarity.
4. Screw the housing shut with a maximum tightening torque of 0.5 Nm. Improper handling will invalidate the warranty; the housing may also leak and water ingress may destroy the device.

## 7. Important notes

- You will find detailed explanations in the user manual.
- The ASPION L-Track is not designed for safety-relevant applications.
- Do not operate sensors 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.

Further information can be found at [www.aspion.de/en/aspion-l-track-faq-support/](http://www.aspion.de/en/aspion-l-track-faq-support/)

Detailed descriptions can be found in the manual in the ASPION Cloud under ASPION Help. Our support team will be happy to provide you with further assistance: [support@aspion.de](mailto:support@aspion.de).