

INITIAL SETUP SPR-200



Version: 2.0

02/09/2021



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1. Introduction

Thank you very much for choosing SLOC.

In this documentation you will learn how to put your product into operation and evaluate the data.

We at SLOC are always trying to make our products as simple and intuitive as possible. However, should you encounter any problems, we are at your disposal.

E-Mail address: support@sloc.one

1.1. Commissioning steps

The following steps must be completed to successfully configure the SLOC device:

1. Visit support.sloc.one
2. Download the commissioning documentation
3. Login/registration in the SDM portal ([Chapter 2.1](#))
4. SDM app installation on the Android device ([Chapter 2.2](#))
5. Wake up the SLOCs with the magnet ([Chapter 3](#))
6. Configuration of the SLOC with the SDM app ([Chapter 4](#))
7. Check data transmission ([Chapter 5](#))
8. Mounting the SLOCs on the vehicle ([Chapter 6](#))
9. Data evaluation via CSV, REST-API or Power BI ([Chapter 7](#))

1.2. Helpful documents

[Download SLOC Software-Manual](#)



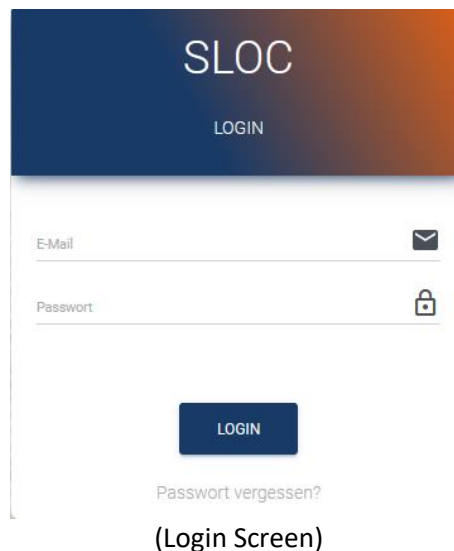
2. SLOC Device Management (SDM)

SLOC Device Management consists of a web portal (<https://sdm.sloc.one/>) and an Android app, which is needed for the configuration.

2.1. First login to the SDM portal

If you purchase your products through SLOC, you have been sent a registration email to register in the SDM portal and assign a password.

If you purchase the product via an external platform, please use the e-mail address with which the order was placed. You will find the password in the product packaging on the enclosed info sheet. You will then receive a registration link and can assign your password.



(Login Screen)



(SDM-Portal Homepage)

2.2. App Download & Installation

The app can be downloaded to a smartphone/tablet via the SLOC Support Center (<https://support.sloc.one>) by clicking on your product (SPR-200) and then downloading the APK file. This can be done directly from the smartphone/tablet or via a PC and USB cable. Afterwards the app can be installed.

For more information on APK installation, please refer to chapter 3 of the [SLOC Software Manual](#) at support.sloc.one.

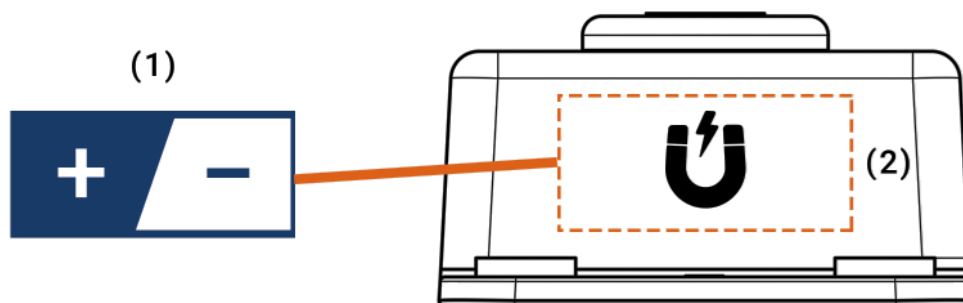


3. SLOC activating/deactivating

3.1. Activating

To configure a SLOC, the transport mode of the SLOC must first be deactivated and/or the BLE visibility must be activated.

To do this, the magnet (included in the scope of delivery) must be placed on that side of the SLOC for at least 2s and, if necessary, moved back and forth on which the magnet symbol is shown (see illustration).



3.2. Deactivating BLE Visibility

BLE communication is automatically disabled after 60 seconds. After that it can be reactivated with the magnet (see chapter 3.1).

3.3. Transport mode

The transport mode is the mode in which the SLOC is sent (i.e. the SLOC measures and sends no data and consumes no power).

To put an activated SLOC back into transport mode, select the SLOC in the SDM app and click the button "Transportmode on" under "ADVANCE".

4. SLOC Configuration

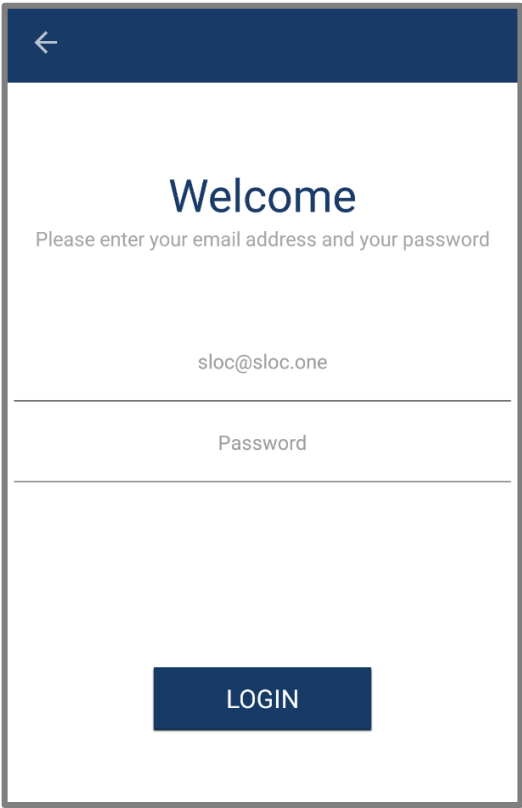
On the following pages the configuration is explained step by step with pictures.

IMPORTANT:

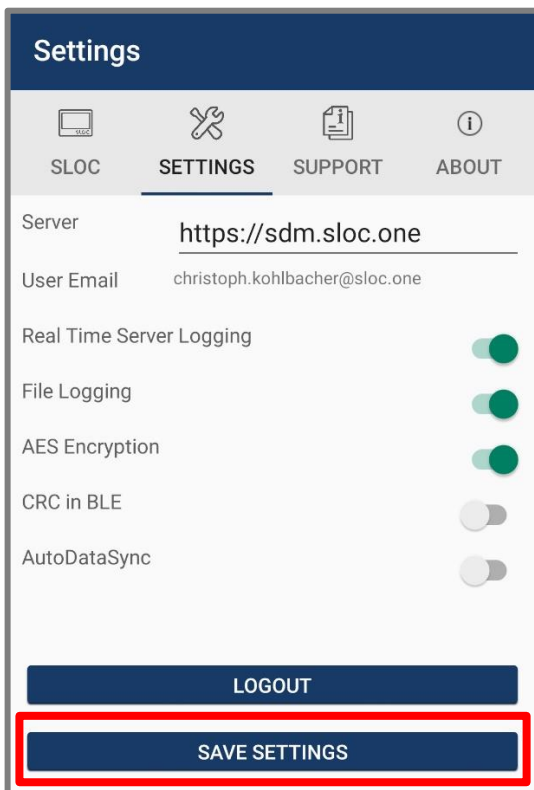
Be sure to configure the SLOC before assembly (see Chapter 5) and check the data transmission (see Chapter 4).

NOTE:

The BLE of the SLOC is deactivated after 60 seconds. If a SLOC is no longer accessible while using the app, wake it up again with the magnet (see chapter 2.1.).

	Registration in the SDM App: Use SLOC Device Management login data (see Chapter 1).
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1. SETTINGS:

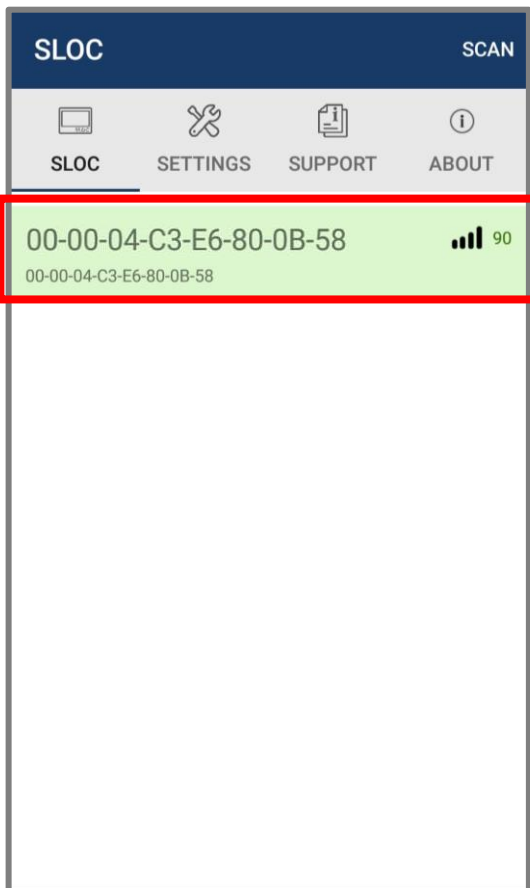
- Server must be <https://sdm.sloc.one>
- Other settings as in the picture on the left
- API Key, Organization UUID, Organization and Privileges vary depending on the app token used



2. Scan environment for SLOCs:

Wake up SLOC (see Chapter 2)
Then → **click on SCAN**





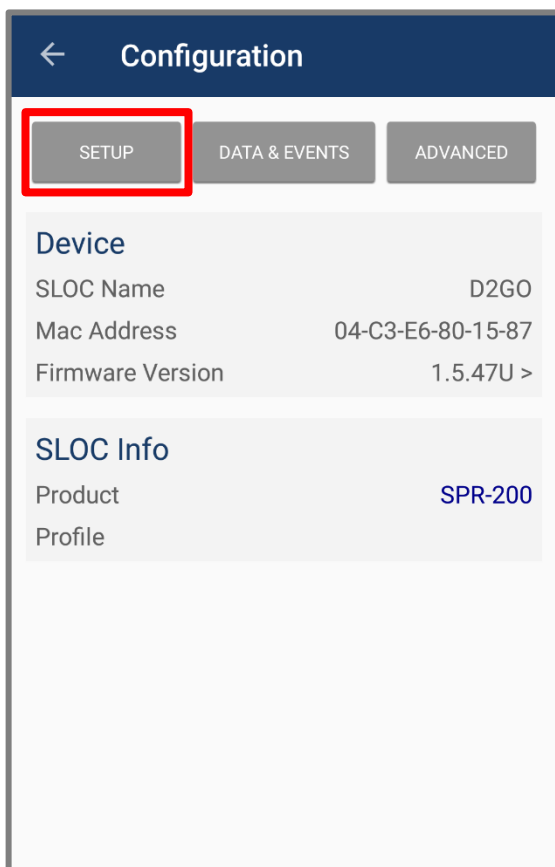
3. SLOC Selection:

→ **Selection of the SLOC**

→ using the MAC address
(see sticker on SLOC)

Note:

The BLE of the SLOC is deactivated after 60 seconds. If the app cannot establish a connection, the SLOC must be reactivated with the magnet.



4. HOMEPAGE - SLOC

→ **Click on SETUP**

Note:

If the SLOC has never been configured before, step 5 (setup page 1/2) is displayed directly.



← Configuration

SLOC Setup
MAC: 00-00-04-C3-E6-80-15-87

Common

Product: SPR-200

Profile: Tap to select Profile

Name: New SLOC

Location: B67c 1a, 8010 Graz, Österreich

SAVE

5. SETUP 1/2:

Product:

SPR-200 (cannot be changed)

Profile:

Select profile

(currently only "Universal Forklift" available)

Name:

Can be changed as desired

Location:

Optionally a location can be entered

→ Click next to **LOCATION**

← SLOC Setup - Location

CURRENT LOCATION VIA GPS

Location

Street: Waltendorfer Gürtel 2

Zip Code: 8010

City: Graz

Country: Österreich

GPS

FROM LOCATION INFORMATION

Latitude: 47.06277

Longitude: 15.45710

SAVE CANCEL

Note: Steps 6-7 are only displayed when clicking next to LOCATION and can be skipped if no location is desired.

6. LOCATION 1/2:

Variant 1 (directly at the location):

→ Switch on GPS

→ Click on **CURRENT LOCATION VIA GPS**

→ Wait - GPS needs some seconds

Variant 2 (in preparation):

→ Enter address

→ exactly according to the following scheme:

Address: house number, postal code, city, country

→ Click on **FROM LOCATION INFORMATION**

→ wait until GPS coordinates are loaded



← SLOC Setup - Location

CURRENT LOCATION VIA GPS

Location

Street Waltendorfer Gürtel 2

Zip Code 8010

City Graz

Country Österreich

GPS FROM LOCATION INFORMATION

Latitude 47.06277

Longitude 15.45710

SAVE CANCEL

7. LOCATION 2/2:

→ Check the address for
„Current Location via GPS“

→ if the address is not correct, change it manually

→ Click on **SAVE**

← Configuration

SLOC Setup

MAC: 00-00-04-C3-E6-80-15-87

Common

Product SPR-200

Profile Tap to select Profile

Name New SLOC

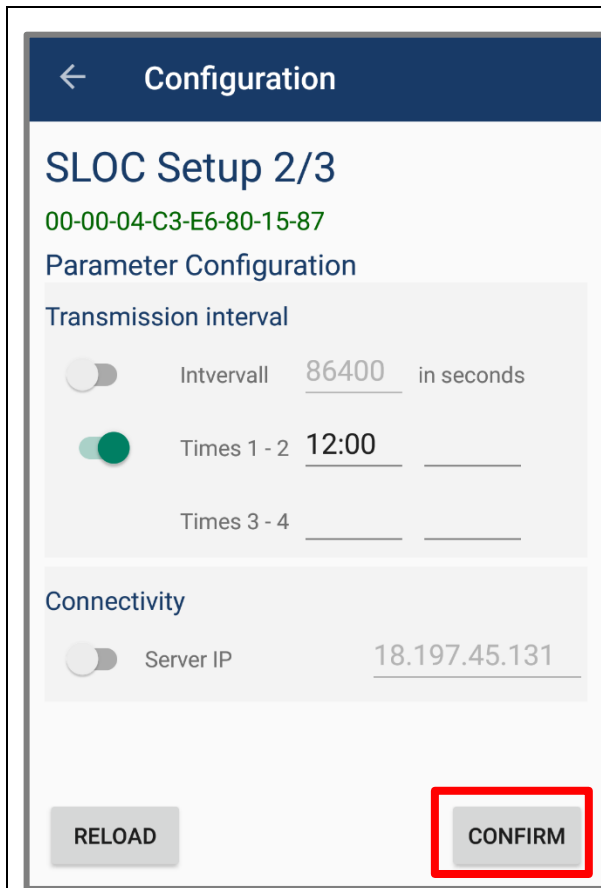
Location B67c 1a, 8010 Graz, Österreich

SAVE

8. SETUP 1/2

→ Click on **SAVE**





The screenshot shows the 'Configuration' screen for 'SLOC Setup 2/3'. The device ID '00-00-04-C3-E6-80-15-87' is displayed. Under 'Parameter Configuration', the 'Transmission interval' section has a toggle switch turned on, with 'Intervall' set to '86400' in seconds. Below it, 'Times 1 - 2' is set to '12:00'. The 'Connectivity' section has a toggle switch turned on, with 'Server IP' set to '18.197.45.131'. At the bottom, there are two buttons: 'RELOAD' and 'CONFIRM'. The 'CONFIRM' button is highlighted with a red rectangle.

9. SETUP 2/3:

Interval:

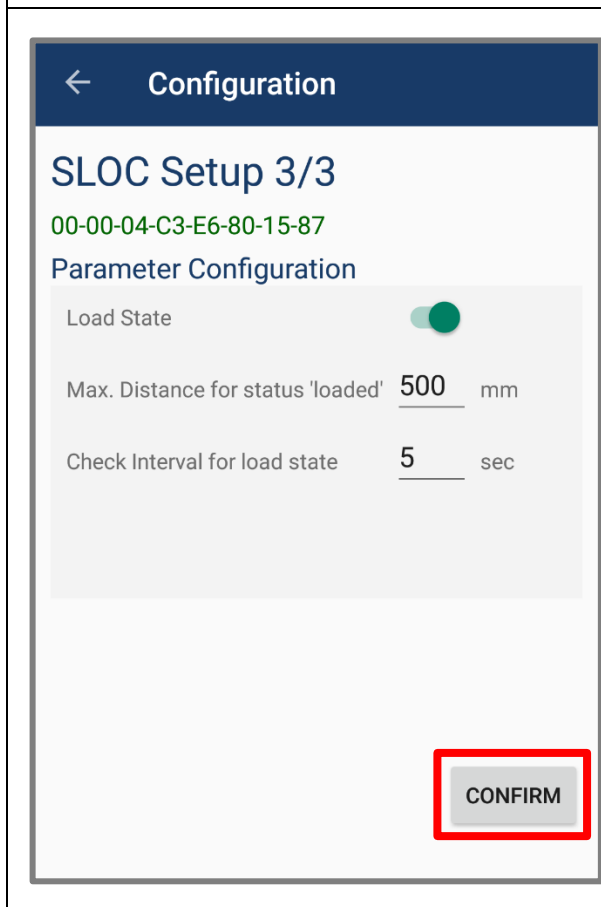
If "Interval" is activated the SLOC always sends after the interval has expired (in seconds).

Times:

If "Times" is activated, up to 4 times (hh:mm) can be entered at which the SLOC should send.

Note:

Not both variants can be selected



The screenshot shows the 'Configuration' screen for 'SLOC Setup 3/3'. The device ID '00-00-04-C3-E6-80-15-87' is displayed. Under 'Parameter Configuration', the 'Load State' toggle switch is turned on. Below it, 'Max. Distance for status 'loaded'' is set to '500' mm. Further down, 'Check Interval for load state' is set to '5' sec. At the bottom, there is a 'CONFIRM' button highlighted with a red rectangle.

10. SETUP 3/3

Loading status (activated/deactivated):

Only when "Load State" is activated can further settings be made.

Max. Distance for load change:

Enter the distance (in mm) from which the load state is considered "loaded".

Control interval for the load measurement:

Input at which interval (in sec) the loading condition should be measured.

Note: Measurement only takes place during movement.

→ Click on **CONFIRM**



← Configuration

SETUP DATA & EVENTS ADVANCED

Device

SLOC Name D2GO

Mac Address 04-C3-E6-80-15-87

Firmware Version 1.5.47U >

SLOC Info

Product SPR-200

Profile

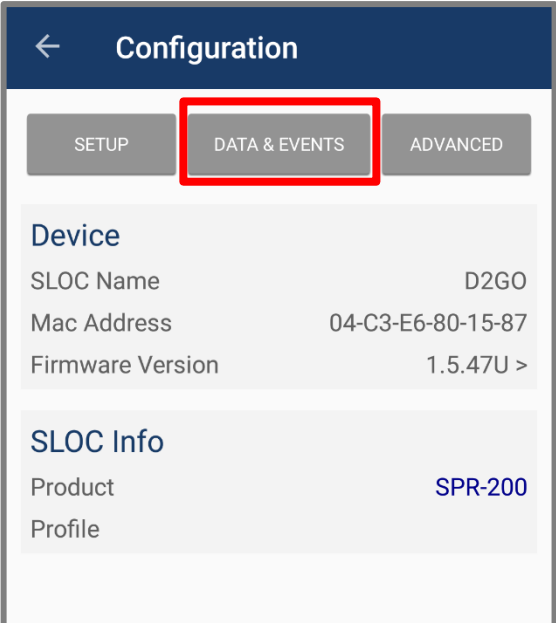
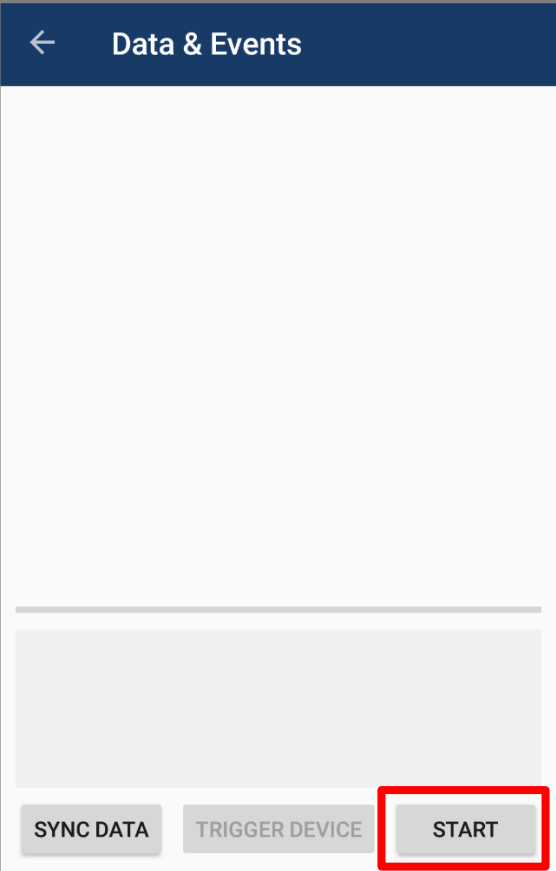
16. CONFIGURATION COMPLETED

Before assembly (see Chapter 5), the data transmission should be checked (see Chapter 4).

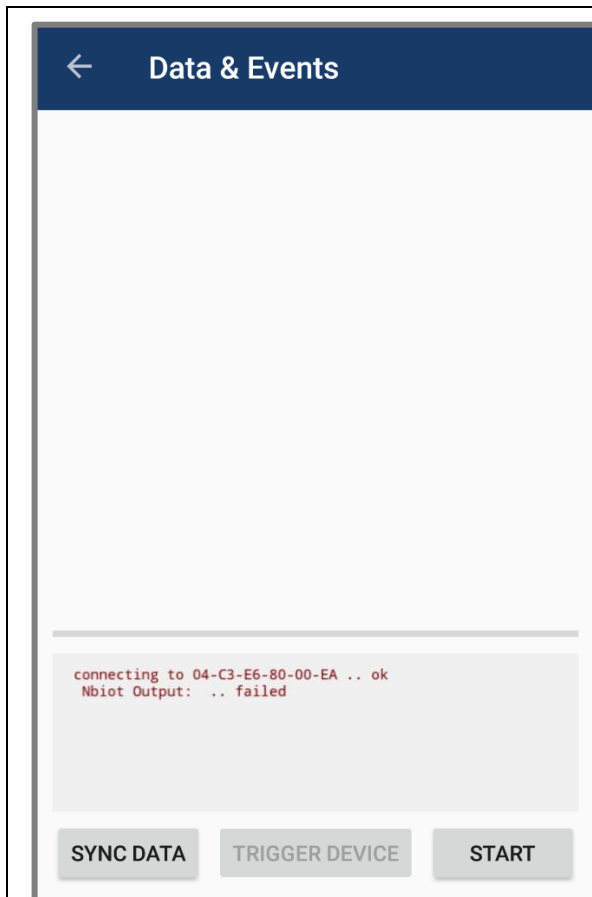


5. Check data transmission

5.1. Start data transfer with NB-IoT

	<u>11. DATA & EVENTS 1/4</u> → Click on DATA & EVENTS
	<u>12. DATA & EVENTS 2/4</u> → Click on START (triggers a NB-IoT data transfer)

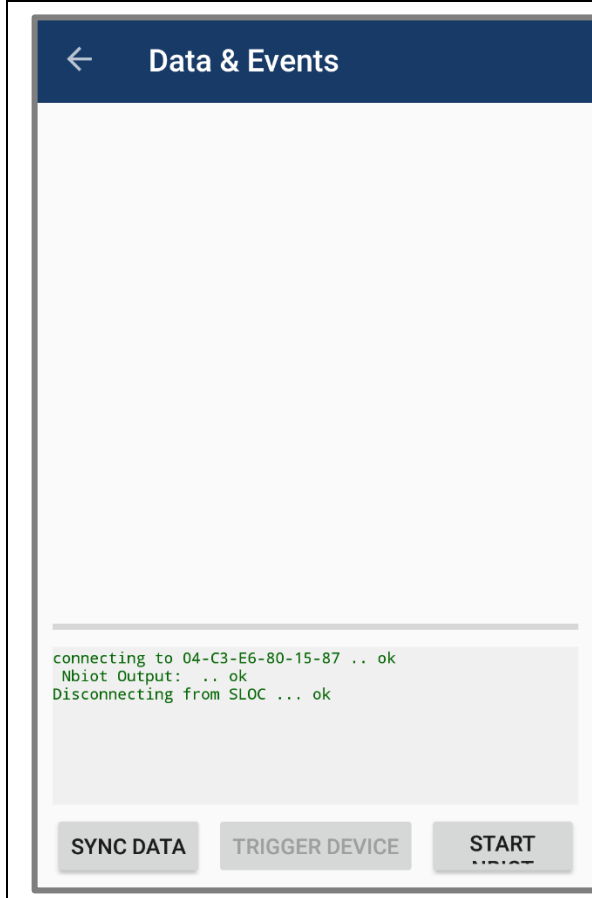




13. DATA & EVENTS 3/4

If "NB-IoT Output ... failed" click on "START" again.

If "failed" is still displayed after several repetitions, please use "Sync Data" (see step 15).



14. DATA & EVENTS 4/4

When "NB-IoT Output ... ok" is displayed, the NB-IoT transfer has started.

A check after a few minutes in the SDM portal is recommended (see Chapter 4).

If no data arrive at the SDM portal, please continue with "Sync Data" (see step 15).

Note:

NB-IoT transfers can take up to 20 minutes.



5.2. Data transmission with BLE and Smartphone/Tablet

	<u>15. BLE SYNC DATA</u> If no data arrives at the SDM portal via Start (i.e. with NB-IoT) → Click on SYNC DATA (= Transmission via BLE & Internet of the smartphone/tablet) During the transfer, the number of payloads already transferred and the total number of payloads is displayed. After successful transfer the data is removed from SLOC and the transfer is terminated.
--	--



5.3. Checking data transmission in the SDM portal

To check if the SLOC has transferred its data with NB-IoT, the following steps must be applied:

→ Click on SLOCs (1)

→ Search SLOC (2)

→ Select SLOC (3)

SLOCs Overview

MAC	Product	Profile	Location	Name	Firmware	Target Firmware	Box ID
0081F9934DA8	SLOC-Develop		Waltendorfer Gürtel 2, 8010 Graz	test			
0081F9935366	SSC-100			geb test 2			
0081F993A553	SSC-100			Alec-temp-test			
0081F993AC4C	SWB-100	240L Europlast	Waltendorfer Gürtel 2, 8010 Graz	Stanley Test			
0081F993B03E	SWB-100	240L Europlast		attach 20min			
0081F993B09E	SWB-100	240L Europlast		SS-SEND-PROD			
0081F993B9B9	SSC-100			Temp Tes Geha			
0081F993BF9F	SWB-100	240L Europlast		A1 LWM2M			
0081F993BFA4	SWB-100	240L Europlast		rain test 2			
0081F993C1A5	SWB-100	240L Europlast		Rain test			
0081F993C1E9	SWB-100	3000L Walzinger		test current 3min	1.4.37		
0081F993C1EA	SWB-100	1100L Werkstaettenabfaelle		profilidst			

→ Click on data (4)

A1 LWM2M | SWB-100 | 0081F993BF9F

INFORMATION **DATA** SETTINGS HEALTH CHECK PROTOCOL

Last Fill Level

Battery Level

Last Lid State: Open

Last Trash Emptied

27.03.2019 03:39:47

General Information

Name	A1 LWM2M
Organisation	SLOC GmbH
Product	SWB-100
Profile	240L Europlast

Detail Information

Setup Date	06.03.2019 08:49:52
Production Date	06.03.2019 08:49:52
Batch	No data available
Sim ID	No data available



Check data transmission (5)

current 3min SWB-100 0081F993C1E9		
Data		
Previous		
Received time	Recorded time	Event
Search...		
02.03.2020 09:38:36	02.03.2020 09:38:25	Firmware Version
02.03.2020 09:38:29	02.03.2020 09:38:04	NB Signal Quality
02.03.2020 09:38:28	02.03.2020 09:37:51	NB Start Attach
02.03.2020 09:38:27	02.03.2020 09:37:34	NB Task Start
02.03.2020 09:38:26	02.03.2020 09:37:34	Debug Log
02.03.2020 09:38:25	02.03.2020 09:37:34	Fill Level
02.03.2020 09:38:25	02.03.2020 09:37:34	Lid State
02.03.2020 09:38:25	02.03.2020 09:37:34	Top Lid Angle
02.03.2020 09:38:25	02.03.2020 09:37:34	Top Lid Openings

The receive time (red frame) can be used to check whether the SLOC has transferred data to the SDM portal after clicking "START" (see step 12). If no data has arrived in the SDM portal after a waiting time of 20 minutes, there might be no NB-IoT reception.

If no NB-IoT reception is available, the data must be transferred to the portal via the SDM app and a smartphone/tablet with Internet connection "DATA SYNC" (see step 15).

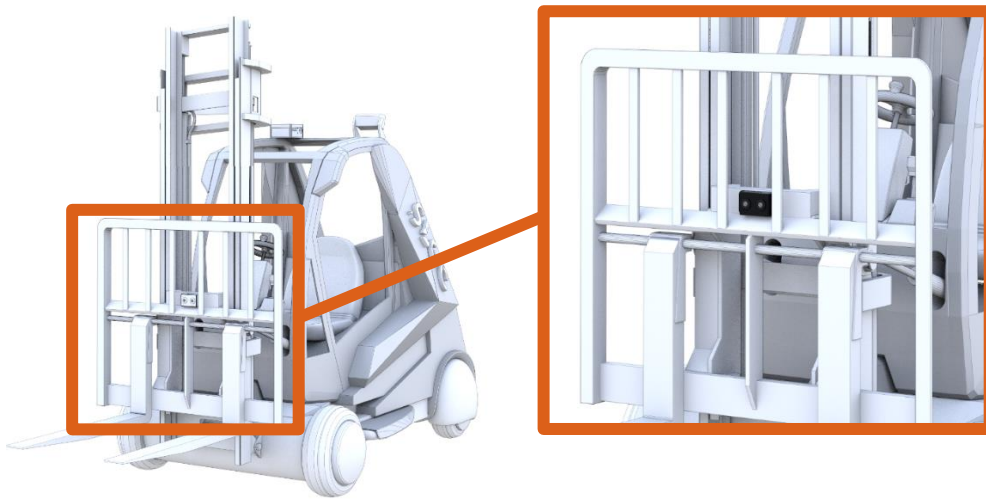


6. Mounting

The SLOC is mounted in the center of the fork using SLOC Easy Mount brackets (see chapter 6.2) or cable ties (see illustrations).

Mounting instructions:

- The SLOC must be mounted with the logo visible at the top
- Distance between sensor and pallet / container should be at least 5cm
- The measuring range of the ultrasound must not be blocked by an object



SLOC Easy Mount:

- 2 SLOC Easy Mount brackets are included in delivery.
- With these brackets an easy installation is guaranteed.
- The SLOC can be quickly removed thanks to the clip holder and e.g. batteries can be changed.



Mounting with cable ties:



7. Data evaluation

To evaluate the SLOC data, a CSV export, a REST-API interface and a Power BI evaluation are available.

7.1. CSV Export:

See Software Manual chapter 2.10.2.

[Download SLOC Software-Manual](#)

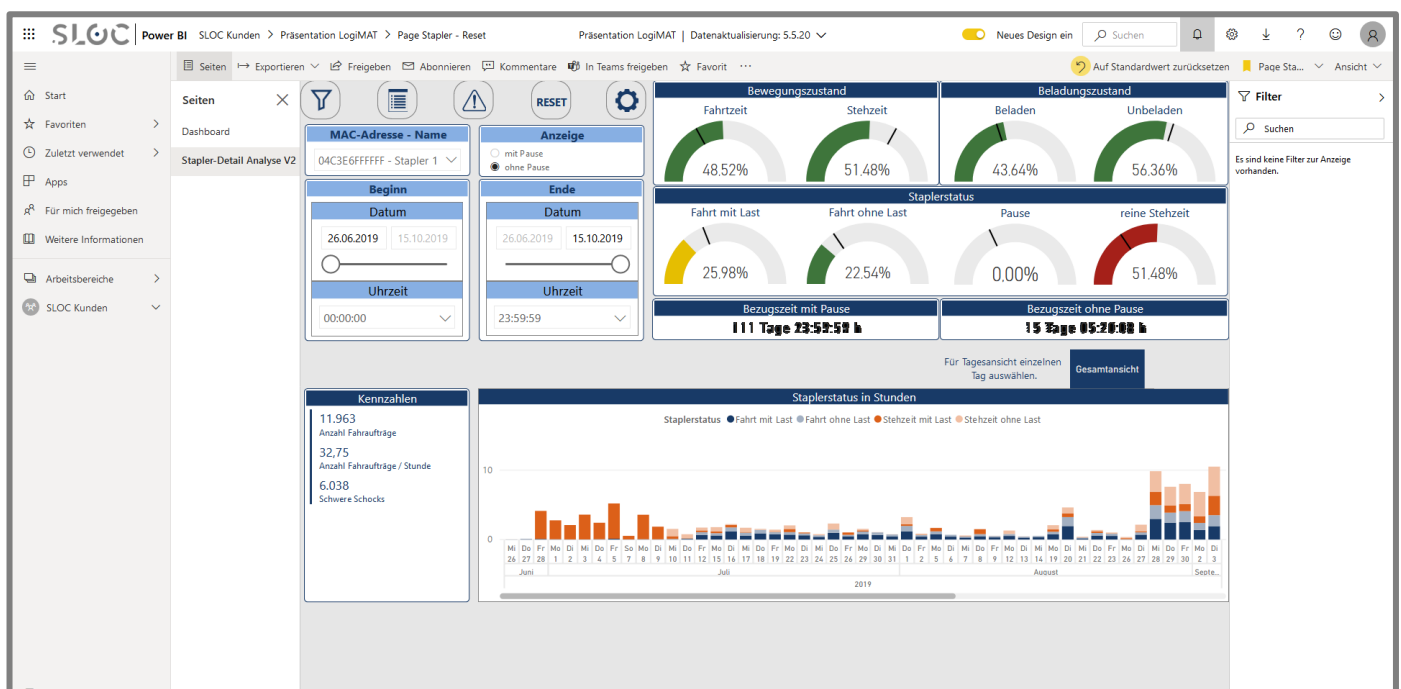
7.2. REST-API Interface:

[Download SLOC interface documentation](#)

7.3. Power BI:

[Link to Power BI](#)

Log in to Power BI (your access data has been sent to you by SLOC) and click on the button "Stacker Analysis". On the following report page you can evaluate the data of your SLOC.



8. Legal regulations

8.1. Declaration of conformity

Any changes or modifications not expressly approved by SLOC could void the user's authority to operate this equipment. There are no serviceable parts included.

EC – Konformitätserklärung / EC – Declaration of Conformity

SLOC GmbH Waltendorfer Gürtel 2, 8010 Graz, Austria, +43 316 395 396, office@sloc.one

SLOC GmbH hereby declares that the product

Basic Model:	SLOC-200-1
Hardware Type:	SLOC-200 ALL Components
Series:	200
Side Models:	SWB-200, SSC-200, SPR-200, STR-200, SLC-200, SCT-200, SMO-200

to which this declaration relates is in accordance with the provision of the following directives:

2014/53/EU Radio Equipment Directive-RED

2011/65/EU ROHS Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment and is in conformity with the following standards or other normative documents:

EN 62368-1:2014/AC:2015	Audio/video, information and communication technology equipment — Part 1: Safety requirements Electromagnetic compatibility and radio spectrum Matters (ERM); Part 1: Common technical requirements
EN 62311:2008	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz-300 GHz))
EN 301 489-1 V1.9.2	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
EN 301 489-3 V1.6.1	Electromagnetic compatibility and Radio spectrum Matters (ERM), Electromagnetic Compatibility (EMC) standard for radio equipment and services, -- Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz
EN 301 489-52 V1.1.0	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment
EN 300 440 V2.1.1	Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range
EN 301 511 V12.5.1	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU
EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances



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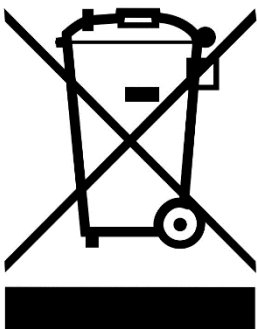
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8.3. Disposal



This symbol on the product, the batteries or the packaging means that this product and the batteries it contains must not be disposed of with household waste. Instead, you must dispose of the products and batteries at an appropriate collection point for the recycling of batteries, waste electrical and electronic equipment..

Separate collection and recycling contributes to the preservation of natural resources and prevents harm to human health and the environment from hazardous substances that can be released during the improper disposal of batteries and electrical and electronic equipment.

For more information about collection points for batteries, electrical and electronic equipment, contact your city/municipality administration, waste disposal company, or the dealer from whom you purchased this product.

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