Logger X Device Manual

DB SCHENKER

Find out more about Logger X.

Introduction

These are the main characteristics of Logger X:

1. The Logger X is a **logging** device. Loggers do not transmit any live-data or location. Scan the device at the destination to upload you data to the IoT platform.

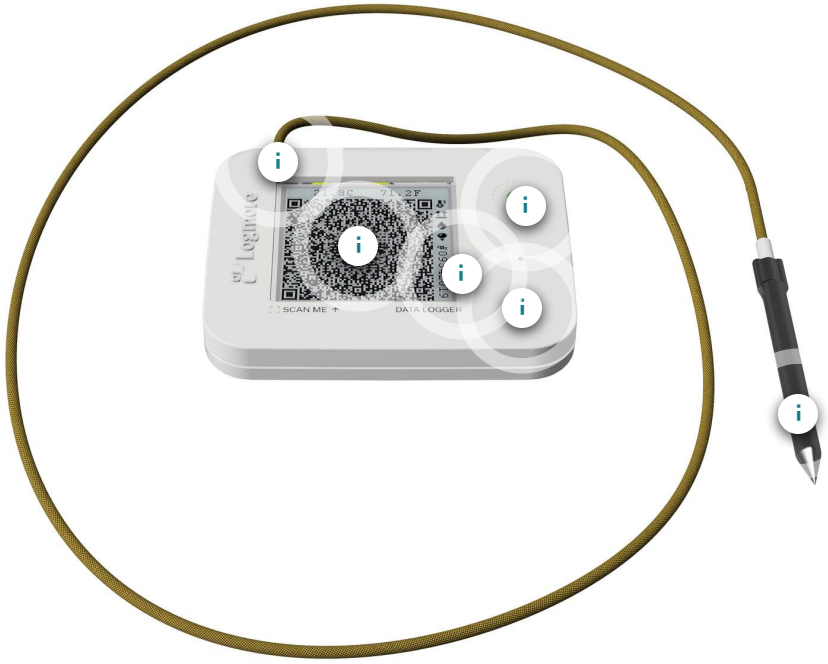
2. The Logger X is purchased as a **one-way** device. It can be disposed of afterwards.

3. The Logger X can be used for ocean, land and air transports. It is equipped with an **external probe** and ideal for monitoring extreme temperatures from -100°C to 110°C.

Chapter 2 of 7

Device Components

Check out all components of the Logger X on the graphic below:



Button

The logger has one button. The duration of a button press determines what function is activated.

Short press = up to 1.99 seconds
Long press = 2.0 to 10.0 seconds

Button press actions:

- **Logger activation:**
  Long press to **activate** the Logger.
- **Standard screen**:
  Short press to refresh the display.

  Next short press to go to the history screen.
- **History screen**:
  Short press to show the next history page.

  To read all information, continue with short presses until you reach the end of the history (The screen will now display: "End of history. Returning live.").

Return to the standard screen with another short press, or wait until the device automatically returns to the standard screen after 20 seconds.

- Long press to open the **configuration mode**. This action is only needed for configuration purposes. Please contact corp.sm.ess.Smartboxservice@dbschenker.com for help.

Battery

The battery used in the loggers is a standard lithium coin battery.

The battery can neither be changed nor charged.

External Probe

Place this probe inside the cargo to measure temperatures between -100°C and 110°C.

Temperature sensor

This sensor can measure temperatures from -100°C to 110°C.

Note that the **operating range of the logger itself is -40°C to 60°C**. Place the external probe inside the cargo and keep the logger itself **outside** the extreme temperature area.

Dynamic QR code

Scan the QR code with your mobile phone to upload the data from the logger to the IoT platform.

Real-time clock

Each logger has a real time clock, so every measurement is recorded with the correct time. The time cannot be altered during the upload.

The real time clock has an accuracy of ± 5 seconds.

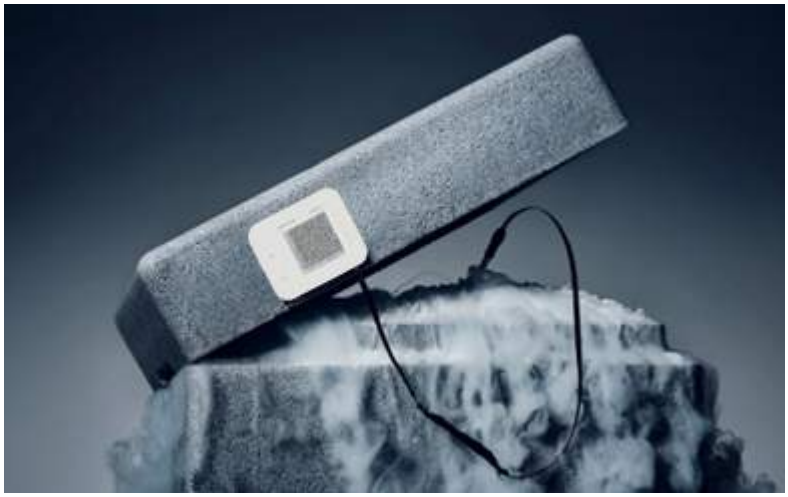
Activate and Mount the Logger

1. Press the button to **activate** the logger.

2. **Mount** the device:
The back of the logger is self-adhesive. Stick the logger to a smooth surface. The logger should be placed close to the the box / product code label, so that the person handling the cargo at destination will notice the device.

   If the the logger does not stick, use some additional adhesive tape on the back of the device. Do not use any adhesive tape on the front as this would cover the QR code.

   Place the external probe inside the cargo to measure extreme temperatures (see picture below).



Unmount Device

When the shipment has reached its destination or the battery life has reached its end, remove the logger by pulling it off.

Do not forget to upload the logger data to the IoT platform before you take the device out of use.

Access Data

At the end of the shipment you must upload the logger data to the IoT platform.

If you need the coordinates of the location, enable the GPS of your phone before you scan at the collection or destination point as described below.

Open history screen

Press the button 2 times to go to the history screen.

Scan and upload all history data

One QR code can hold only a limited amount of data. To upload all data of a trip it is not sufficient to only scan the QR code that is immediately visible, but you must also scan all history QR codes. Use a short press on the button of the logger to advance through the history QR codes. Scan all history QR codes that are available on the logger.

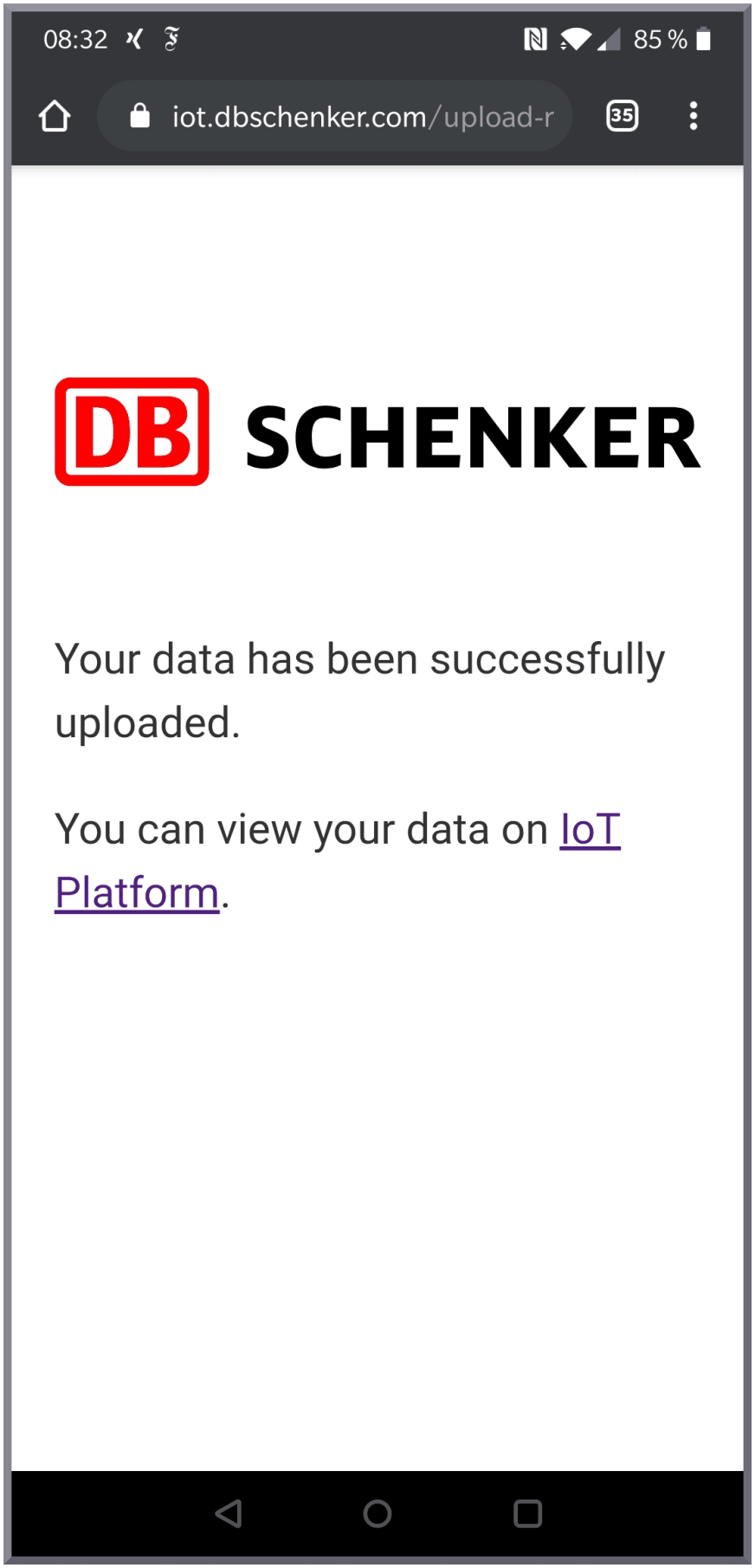
How are the QR codes scanned?

You will need any mobile phone or tablet with a working internet connection. Turn on internet and localization in your mobile device before proceeding with the QR code scanning.

- iPhones are by default equipped with a QR reader, it is sufficient to open the camera and point it at the QR code shown on the Logger in order to scan it. This is also true for some Android phones.
- For some Android phones you may need to install a QR Code Reader app of your choice first. Then use the QR Code Reader app to scan the QR code on the logger (either using the camera or from the QR Code Reader app).

After scanning the QR Code, the data will be uploaded to the Cloud and will then be accessible in the IoT platform.

A successful upload of data will be confirmed by the following screen:


08:32
85 %
iot.dbschenker.com/upload-r
35
DB SCHENKER
Your data has been successfully uploaded.
You can view your data on IoT Platform.

Watch the following video to see how the QR code is scanned successfully:

Take Logger Out of Use

The battery used in the logger is a standard “Lithium Coin” battery which **cannot be replaced or charged.**

When the battery power runs out, the logger will stop logging and the screen will not be updated any more. The last screen will remain visible. A small battery power reserve allows you to still read the full history in warm conditions (~ 20 °C). When the power reserve has been used up, the data will not be readable any more.

When the battery has run out, the logger must be disposed of properly. Follow the rules of your country for electronic waste.

Technical Details

Sensors	• Temperature Operating range: -25°C to 60°C; -100°C to +100C with external probe; Accuracy: ±0.5°C • Light (upon request before shipping) • For more sensor options please contact IoT team
Battery & Charging	• 280 mAh CR2430 lithium coin cell battery • Not rechargeable • 2 years battery life at 15 minutes measurement interval (modifiable) • Up to 50.000 measurements in total – 1.000 per QR code depending on the settings
Cellular Connectivity	• Non-transmitting, depends on the QR - code reading device

Dimensions & Weight	• 47,9 x 45,4 x 6,1 mm • 15 g
IP Rating	• 67
Certifications	• CE • FCC • NIST traceable • GDP & 21 CFR part 11 compliant • IATA DGR compliant