T-Type Device Manual

DB SCHENKER

Find out more about the T-Type.

Introduction

These are the main characteristics of T-Type:

1. The T-Type is a **real-time tracking** device.
2. The T-Type is a **leased** device and must be returned. If you cannot return the device, a loss fee will be charged.
3. The T-Type can be used for **ocean, rail and land transports**. It has a perfect design for container doors and is ideal for tracking containers of any kind. The GPS antenna on the outside of the container allows accurate tracking for use cases that have high security requirements.

Chapter 2 of 8

Device Components

Check out all T-Type components on the graphic below:

Green Battery Indicator LEDs

The LEDs will flash in green while the device is charging and will show solid green when the device is fully charged.

The charging level of the battery can be read from the LEDs:

4 LED = 95% or more
3 LED = 75% -94%
2 LED = 50% - 74%
1 LED = 25% - 49%
0 LED = 25% or less

Light sensor

The light sensor can be used to detect door openings.

It can be used instead of the door sensor or in combination with it.

Tilt Sensor

Tilt indicates the angle of the device.

- If the device is installed correctly, the tilt will initially be recorded at 0°.
- If the container is tilted, this deviation will be recorded.

ON/OFF status LED

Yellow light

The LED will flash in yellow every 3 seconds while it is active.

Red light

When you press the MODE button for 4 seconds, the device is turned off. This is indicated by a red light.

MODE button

Press this button to turn the device on. The status LED will now flash in yellow every 3 seconds.

To turn the device off, press the MODE button for 4 seconds. The status LED below the button will show a red light.

Further Sensors

- temperature
- humidity
- shock
- vibration

USB-Port

Micro-USB or USB-C charging port (depends on the version). The USB port is protected by a rubber cover.

Door Sensor (laser)

The laser measures the distance to the door.

If the distance between the device and the door changes during the trip (because the door has been opened), the device detects this and sends an "open door" alert.

Activate Device

1. Briefly push the MODE button with a pen (see picture below).
2. The ON/OFF status LED below will now flash yellow every 3 seconds.

If there is no flashing when you click the MODE button, although the battery is fully charged, contact connect2track@dbschenker.com for help.


SCHENKE
Need instructions?
Go to: c2t.dbschenker.c /h2t
or scan here:
ON
0.1 sec
OFF
4 sec
t.type
CHARGE HERE
place t-type on right wall between the hinges
do not place at hinge
IMEI: 861311009982561

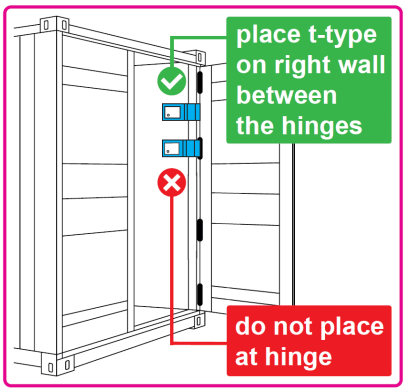
Mount Device

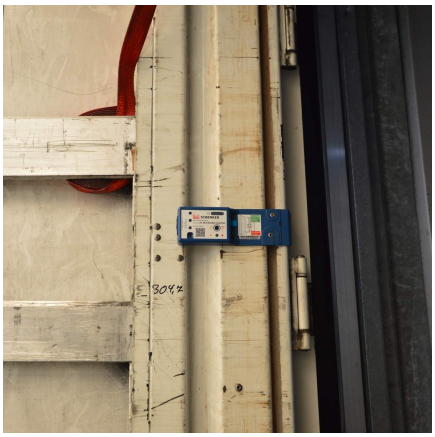
1. Make sure the **device is activated before you attach it to a container** (See previous chapter how to activate T-Type).

2. Place the device on the right wall of the container, on the door frame below the upper hinge, as high as possible (see pictures below):
- The device is fixed, when the integrated magnets stick to the wall.
- The lip of the device must be placed outside the operating area of the hinge.

3. Close the door and check that the device transmits data to the IoT platform. Otherwise the shipper has no guarantee that the device is working correctly.
It may take up to 10 minutes after the door has been closed for the T-Type to transmit its status to the server.

4. If after 10 minutes no data has been received, repeat the following steps:
- Open the door and make sure that device is activated.
- Close the door again.
- Recheck the status on the IoT platform.





Using Additional Fixation

The T-Type is magnetic and usually does not need any additional fixation.

In the following situation you need tape as an additional fixation:

- If the container is not magnetic
- If the magnet of the device is too weak (older models of T-Type)

If you use tape to additionally secure the device, make sure not to cover the Door Sensor with tape.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or scan here:
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CHARGE HERE
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do not place at hinge
IMEI: 861311009982561
Door sensor
Tape only between these lines

Unmount and Deactivate Device

The shipper must inform the person in charge at the destination of the container, where the tracking device is fixed and make sure that this person removes the device.

Unmount the device

1. Open the container door.
2. Pull the device from the container wall. In general, the device is fastened by magnets only. In some cases, the device is taped to the container wall.

Deactivate the device

1. Push the MODE button with a pen and hold it until the ON/OFF status LED shows a red light.
2. The ON/OFF status LED will flash in red for a few seconds and will then switch off.

To view your data, visit the IoT Platform in eSchenker. There you can see the progress of your shipments and the telemetry data.

Return Device

In case the device is not needed anymore and you want to return the device, please follow the steps below:

1. Pack the devices according to the packaging instructions below.

2. Send an email to connect2track@dbschenker.com with information about
- pick-up address
- contact person
- type of returning devices
- the serial numbers of the returning devices (starts with SXXJ)
- total number of returning devices
- packaging size of shipment
- weight of shipment

3. We will send you all relevant labels and documents, i.e.
- shipping labels
- commercial documents (you must print 3 copies of the commercial invoice)
- if needed, battery declaration (IATA permitted)

4. Make sure to attach all shipment documents (see picture below) and the return label to the package.

5. Contact your local parcel service provider (for example UPS) in order to arrange a pick-up.

Packing Instructions

When you pack the devices, observe the following rules:

- Make sure **all devices are deactivated** (see previous chapter).
- **Fix devices in their position**: do not leave any empty spaces in which the devices could move.
- **Use sufficient padding**: use stuffing paper or bubble wrap to protect the devices.
- If you place devices on top of each other, place a sufficient layer of stuffing paper or bubble wrap between the layers.

- **If you ship more than 15 devices, use double corrugated board for packing**: single corrugated board does not guarantee safety during longer transport distances. You can ship up to 30 devices together.

- **If you ship more than 30 devices, pack the devices in 4-6 packs individually** (single corrugated board is sufficient for that) and then in an outer packaging (double corrugated board). If this is not possible, divide the devices into smaller shipments and pack as described in the previous point. **You can ship a maximum of 61 devices together**.

- After you have packed the devices, **place one printout of shipping documents on the outside of box**: Documentation should contain proforma-invoice, packing list and certificate of origin and UN3481-sticker with the telephone number of the sender. **Place a copy of the shipping documents inside the box**.

Packing Process

Have a look at a packing process. This is an example where 36 T-Types are shipped together.

Step 2

Step 1

Make sure no empty space is given to the devices to move. Devices must be fixed in their positions.

Step 3

Step 2

Before you close the box, fill all spaces with stuffing paper or bubble wrap.

Step 4

Step 3

For the outer packaging use double corrugated board, as you are sending more than 30 devices.

In this example we have packed one large box of double corrugated board, with 6 small boxes inside (2 layers of 3 boxes each).

Step 5

Step 4

Place one printout / copy of the shipping documents inside the box before you close it. Documentation should contain proforma-invoice, packing list, certificate of origin and UN3481-sticker with telephone number of the sender.

Step 6

Step 5

After the devices have been packed, place one printout of shipping documents and the return label (not visible on picture) on the outer side of box.

Summary

Always follow the rules given at the beginning of this chapter. What packing material is required, depends on the number of devices you are sending.

T-Type Technical Details

Sensors	• Light
	• Temperature
	  ◦ Operating range: -30°C to 65°C
	  ◦ Accuracy:
	  ±0.3°C (25°C to 45°C)
	  ±1.0°C (0°C to 65°C)
	  ±2.0°C (-30°C to 65°C)
	• Humidity
	• Shock
	• Vibration
	• Tilt
	• Door sensor

Battery & Charging	• Lithium Ion • 24 days battery life at 1 hour communication frequency (adjustable) • Rechargeable with USB-C

Cellular Connectivity	• 4G/3G/2G
Dimensions & Weight	• 220 x 71 x 55 mm • 350 g
IP Rating	• 65
Certifications	• CE • MSDS • UN38.3 • RoHS

General Safety Precautions

Do Not Operate Where Prohibited

Do not allow the device to operate where wireless phone use is prohibited or where doing so may cause interference or danger. Examples include, but are not limited to, operation in hospitals and near blasting sites.

Interference

Like all wireless devices, this device may encounter interference that may affect its performance.

Qualified Service

This device contains no parts that can be replaced or serviced by the user. Do not open it under any circumstance.

If a device does not function, contact connect2track@dbschenker.com regarding repair or replacement.