A-Type Device Manual

DB SCHENKER

Find out more about the A-Type.

Introduction

These are the main characteristics of the A-Type:

1   The A-Type is a real-time **tracking** device.

2   The A-Type is a **leased** device and must be returned. If you cannot return the device, a loss fee will be charged.

3   The A-Type is an **all-rounder** that can be used for ocean, land and air transports.

Device Components

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

Further Sensors

- Temperature

- Humidity

- Shock

- Vibration

- Tilt

MODE button

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

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

ON/OFF Status LED

Yellow light=

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

Green light=

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

Red light=

When you press the MODE button for 4 seconds, the device is turned off. This is indicated by a red light. Additionally, the light will flash in red when the device is charged and charging level is below 10%.

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.

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.

USB Port

The A-Type has a USB-C charging port.

Mount and Activate A-Type (Using Door Sensor)

If the door alarm of the A-Type is used, then you must attach the device to the right or left wall of the cargo / container using double-sided tape. In order for the laser to detect door openings correctly, follow the mounting instructions below:

Mount the device

1   Place the device on the wall using double-sided tape on the back of the device, so that the laser sensor (next to charging slot) points towards the movable part of the door, and the front label of the device is visible. There must be a **minimum distance of 10 cm and a maximum distance of 15 cm towards the door** (see illustration below).

2   Make sure that the surface is even between the device and the door and there are not obstacles obstructing the view. Otherwise, the laser sensor might calibrate to some other object located between the door and the device.

3   Make sure that the device is securely fastened so that it cannot move in any direction. If you use additional tape, make sure not to cover the laser sensor.
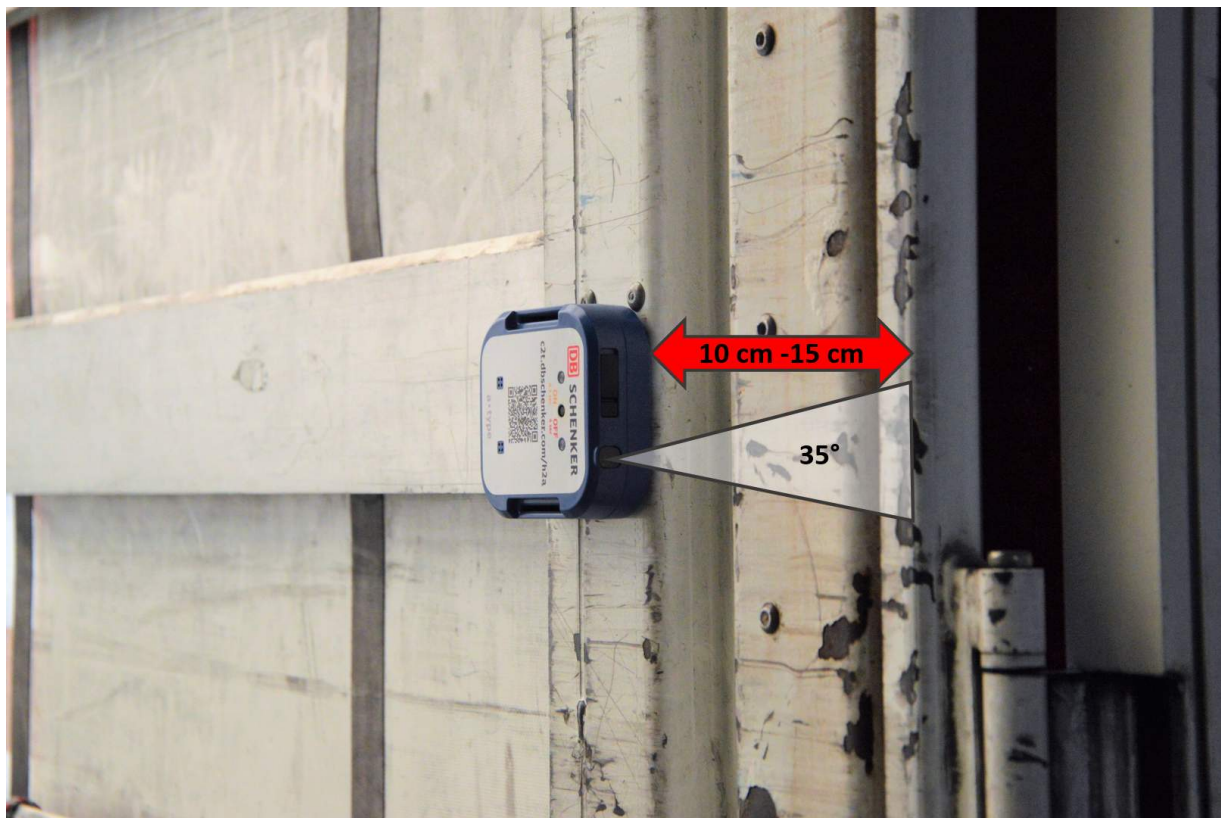
Activate the device

1	Briefly push the MODE button with a pen (see picture below).
2	The ON/OFF status LED will now flash yellow every 3 seconds.
3	The device will start the calibration of the door sensor. The calibration will take 60 seconds.
4	Close the door within these 60 seconds.

Mount and Activate A-Type (Without Door Sensor)

Activate the Device

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

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

Attach the A-Type to the cargo

- The A-Type can be attached on the inside walls of the truck / container.

- If there are pallets in the truck / container it can be attached to the asset itself or to the bottom of the pallet.

- If there are single boxes in the truck / container it can be attached to the inner and outer surface as shown in the pictures, or you can even put it loose into the box (but then the tilt sensor will not show correct values).

- If you want to use the A-type as a GPS tracking device, you can also place it in the driver's cab in a truck.

These are the methods you can use to attach the A-Type:

DOUBLE-SIDED TAPE	SHRINK WRAP	VELCRO OR ZIP TIE	MAGNETIC HOLDER

1. Put double-sided adhesive tape on the device.

2. Attach the device upright on any smooth surface.

DOUBLE-SIDED TAPE	SHRINK WRAP	VELCRO OR ZIP TIE	MAGNETIC HOLDER

Wrap the A-type on the pallet with packaging foil, so that the device is upright.

If you want to make sure that humidity, temperature, and light are measured correctly, make sure that these sensors are not covered by foil.

DOUBLE-SIDED TAPE	SHRINK WRAP	VELCRO OR ZIP TIE	MAGNETIC HOLDER

Use Velcro or zip tie to attach the A-Type to the cargo, e.g. at the bottom of pallets or suitable loading units, so that the device is upright .

| DOUBLE-SIDED TAPE | SHRINK WRAP | VELCRO OR ZIP TIE | MAGNETIC HOLDER |

1. Secure right slot of the device into the corresponding bracket.

2. Pull the clip on the other side and click the second slot into the holder.

The device is now securely fixed into the magnetic holder.

Unmount and Deactivate Device

Unmount the device

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

1   Open the container / truck door.

2   Pull the device from the location where it was mounted and remove the adhesive.

Deactivate the device

1   Push the MODE button with a pen and hold it for 4 seconds, until the status LED shows a red light.

2   The status LED will flash in red 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
- total number of returning devices
- the serial numbers of the returning devices (starts with SXXJ)
- dimensions of return package (length x width x height)
- weight of return package

3   We will send you all relevant labels and documents, i.e.
- shipping labels
- commercial documents (Commercial invoice must be printed 3 times)
- 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 35 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 34 A-Types are shipped together.

Step 1

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

Step 2

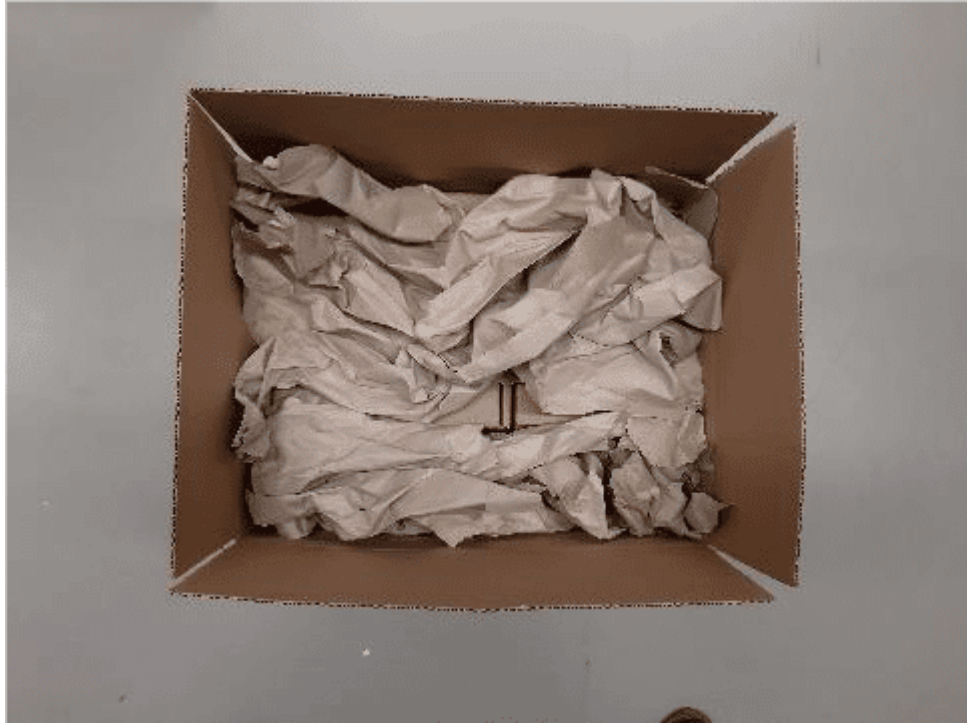Before you close the box, fill all spaces with stuffing paper or bubble wrap.

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 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 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.

A-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 (3-dimensional shock detection) - Vibration - Tilt - Door sensor

Battery & Charging	- Lithium Ion 82 days battery life at 1 hour communication frequency - Rechargeable and reusable with USB-C

Cellular Connectivity	4G/3G/2G - GPRS - EDGE
Dimensions & Weight	3,3 x 9,7 x 10,4 cm 310 g
IP Rating	65
Certifications	- CE - FCC - UN38.3 - DO160G - IEC62133

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.

When the device detects its location in an airplane, cellular communication (GSM/3G/LTE) is disabled from take-off to landing.

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.