



# Welcome.

## **Mounting instructions for roof and front wall Track-Solar iot**

This handbook compiles all the essential information required for a smooth startup/commissioning.

Prefer digital? The **installation guide is also available online** — always up to date, always within reach.



**IoTgo® Track-Solar IoT**

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# 1

# Introduction

## Purpose of this document

This document serves as the technical guide for workshops on how to mount Track-Solar tracking modules onto logistics assets. The Track-Solar product family consists of several variants — this mounting guide applies to the “Track-Solar” product variants “iot.” Furthermore, this guide assumes that Track-Solar is equipped with a click-mount (either metal or plastic) and that Track-Solar is secured to the click-mount using a locking screw or metal cable tie.

The suggested work steps in this document may not fully comply with all occupational safety requirements — the responsibility for adhering to these regulations lies solely with the installing personnel. G+D IoT Solutions GmbH guarantees proper operation and support only if the tracking modules are professionally installed according to this mounting guide and tested for functionality.

Immediately before and after installation, the proper function of the modules must be verified using the G+D IoT Solutions GmbH pairing app “mecPAIR” for Android smartphones (separate coordination and user manual available upon request) or in consultation with G+D IoT Solutions GmbH support (+49-89-374085-22).

After installation, it is mandatory that G+D IoT Solutions GmbH is provided with the identification number of the logistics asset — without or with an incorrect identification number, no logical assignment (“pairing”) of the telematics unit to the logistics asset can be made on the tracking platform “mecFLEET.” Without (correct) logical assignment, it is impossible to determine on which logistics asset the “Track-Solar” is installed.

For factory installations, the assignment can also be done via a production list — however, the production process must ensure that no mix-up or confusion occurs in the assignment of units to logistics assets.

## Note on the two types of click mounts (metal and plastic):

There are two click mounts made from different materials with different characteristics. Both variants are glued onto/with the logistics asset and are never removed again. The plastic mount is intended for standard use. It is made of the same durable, high-quality special plastic as the “Track-Solar” housing. This mount is more cost-effective than the metal click mount and offers fewer features. The metal variant provides a mounting sensor, a total height that is 2mm lower, and branch protection (a small ramp in the direction of travel that deflects branches away from the telematics unit). Both mounts fulfill their main purpose excellently: permanent fixation of the telematics unit to the logistics asset while allowing simple and quick serviceability.

## Applications:

Tracking of...

- Swap bodies
- Containers
- Trailers
- Rental vehicles
- Fleets of mobile assets of all kinds

# 2 Required tools

- Drill (with appropriate extension cable and power supply) or a powerful cordless drill/driver
- For the “riveting” variant: steel drill bit for 4mm rivet hole
- For the “riveting” variant: rivet gun for blind rivets (2.7mm shaft pin)
- For the “screwing” variant: suitable bit for the head of the self-tapping screws
- Cleaning cloth
- Ladder (for roof installation)
- Caulking gun for industrial adhesive (e.g., for Sabatack 750)

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# Overview of individual parts

## For the “riveting” and “screwing” variants:

- One “Track-Solar” with click mount (plastic or metal)

## For the “riveting” variant:

- 4 CERTO blind rivets, 4.0 mm for 4.1 mm drill holes (length either 2.5 mm – 5.0 mm or 4.5 mm – 6.5 mm)

## For the “screwing” variant:

- 4 self-tapping screws, nominal diameter 3.9 mm, length 6–8 mm
- 1 industrial adhesive “Sabatack 750” white or equivalent adhesives → important for bonding the mount

## Note:

The length of the blind rivets or the self-tapping screws depends on the thickness of the metal roof or the front panel of the logistics asset. The specified lengths assume a thickness of up to 2 mm. After screwing in the self-tapping screws, their ends may need to be clipped off inside if they extend too far inward.

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## General installation instruction

In general, the module must always be installed in a way that ensures sufficient sunlight exposure to recharge the buffer batteries of "Track-Solar." Depending on the duration of sunshine, this may vary from region to region. No warranty is provided for the function if this positioning requirement is not met. The recommended mounting position for "Track-Solar" is horizontally on the roof, between the second and third corrugation from the front. If no corrugations are present (e.g., smooth surface), then approximately in this area. The installation should be in the outer third (i.e., towards the edge) on either side of the logistics asset.

**Exception:** The "Track-Solar iot" with door sensor option may alternatively be installed in a corrugation near the doors. The mounting should still be in the outer third (i.e., towards the edge) on either side of the logistics asset (i.e., not in the middle). For trailers/semi-trailers, Track-Solar can also be mounted vertically on the front wall. This is useful for EDSCHA tarpaulins.

**Rule for installation:** as high and centered as possible (to prevent the driver's cab from shearing off the Track-Solar telematics unit). In addition to either screwing or riveting, the click mount is glued in both variants.

**Important:** The solar panel of "Track-Solar" is slightly tilted to one side. The "Track-Solar" logo on the product can be used as a reference point. At the letter "m," the solar panel is lower than at the letter "R." The product is mounted crosswise to the direction of travel, with the lower solar panel side facing forward, i.e., "m" in front / "R" at the back, to ensure optimal self-cleaning.



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## Installation description

Steps	Description of the installation step
1	<b>Shake the unit before installation. Function test via the G+D IoT Solutions GmbH Mobile Pairing Tool</b>
2	<b>Position Track-Solar on the roof of the logistics object where the telematics unit is to be installed</b>
3	<b>Clean chips and dirt from the contact area of the telematics unit. There must be no parts, particles or swarf between the "Track-Solar" click mount and the roof or bulkhead</b>
4	<b>Drill the four pilot holes of the "Track-Solar" click bracket and the rivet holes on the asset's roof (e.g., swap body) to 4.1 mm at the specified positions. Immediately after drilling, loosely insert a blind rivet to prevent the bracket from shifting. The bracket's mounting tabs may have two holes (newer versions only the 1 mm marking): an internal 4 mm hole and an external 1 mm marking. Drill out the 1 mm marking to insert the rivet, ensuring precise alignment with the roof hole without enlarging it. Therefore, drill through bracket and roof in one step.</b>
5	<b>Apply adhesive to the underside of the click bracket in a continuous serpentine pattern, covering the entire surface. Around or directly on the drill holes, place a generous drop of adhesive. Before riveting, check that all holes in the roof and bracket are perfectly aligned—this step can be skipped if blind rivets have already been loosely inserted. Finally, press the bracket firmly into place.</b>
6	<b>Apply a drop of sealant/adhesive into the open rivet holes or, in the case of screw connections, before inserting the screw from above.</b>
7	<b>Riveting: Secure the "Track-Solar" bracket using a rivet gun and four rivets through the aligned holes in the bracket and the roof or front wall. Screwing: Fully tighten the four self-tapping screws until they reach their stop.</b>
8	<b>Insert blind rivets through the bracket into the holes.</b>
9	<b>Remove any dirt or debris from the solar panel.</b>
10	<b>Track-Solar successfully installed!</b>

# 6 Pictures



Image: Click mount metal and plastic viewed from above



Image: Click mount metal and plastic viewed from below



Image: Track-Solar standard version



**FCC Caution:**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.