

Installation Guide

Mounting MD30 on trailer hitch Vaisala Mobile Detector MD30

Trailer hitch mounting with MD30REARKIT or MD30REARMOUNT

To use MD30REARKIT or MD30REARMOUNT, you need:

- Standard 50 mm (2.00 in) trailer hitch (ball) installed on your vehicle.
- 12 ... 24 VDC power input with a 2 A fuse.



WARNING! Only licensed experts who have experience in vehicle electronics may install electrical components. They must adhere to local and state legislation and regulations.

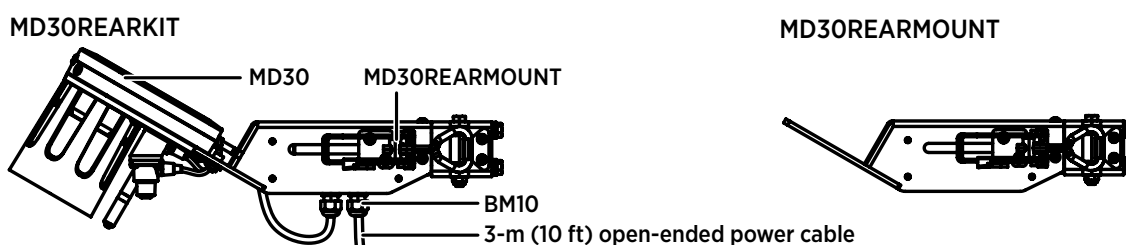


Figure 1 MD30REARKIT and MD30REARMOUNT contents

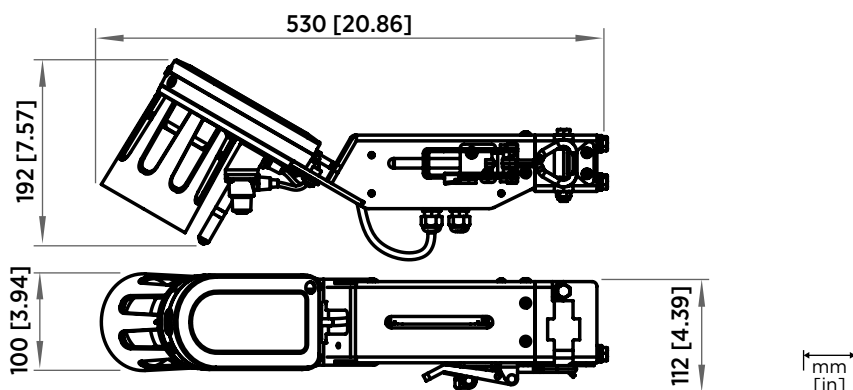


Figure 2 Trailer hitch dimensions

The mechanism is fixed. You cannot adjust the length of the mounting frame.

When mounting MD30 on the rear, Vaisala recommends that you mount the air temperature and humidity sensor HMP113 on the side of the vehicle away from exhaust gas and engine heat. For that purpose, you can order MD30EXTSET. When using MD30REARKIT or MD30REARMOUNT with MD30EXTSET:

- Remove HMP113 from MD30.
- Mount MD30REARKIT or MD30REARMOUNT.
- Mount HMP113 as instructed in *Mounting Temperature Sensors Separately Installation Guide*.



PUBLISHED BY
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Vanha Nurmijärventie 21
FI-01670 Vantaa, Finland
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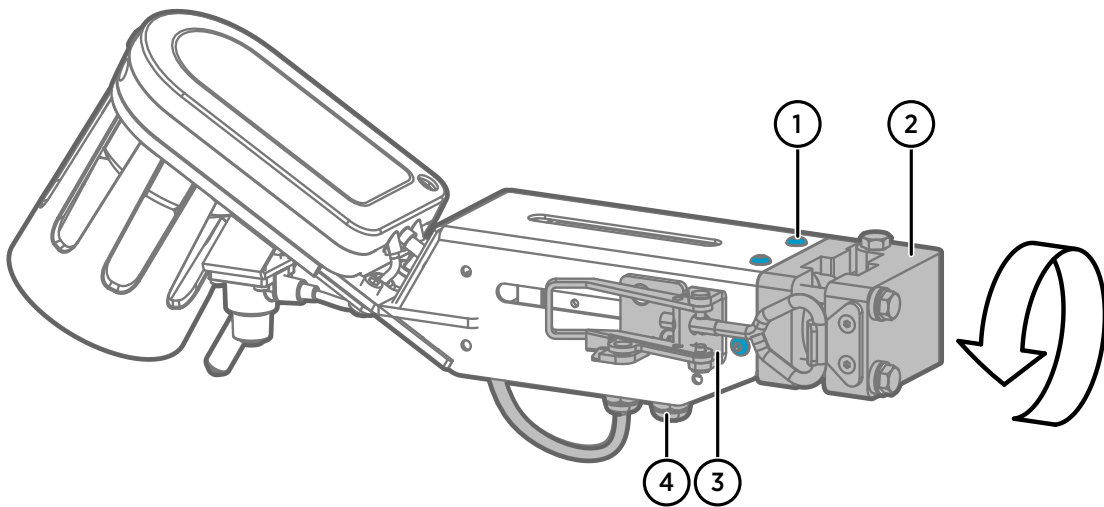
Selecting orientation



- 3-mm and 4-mm Allen keys

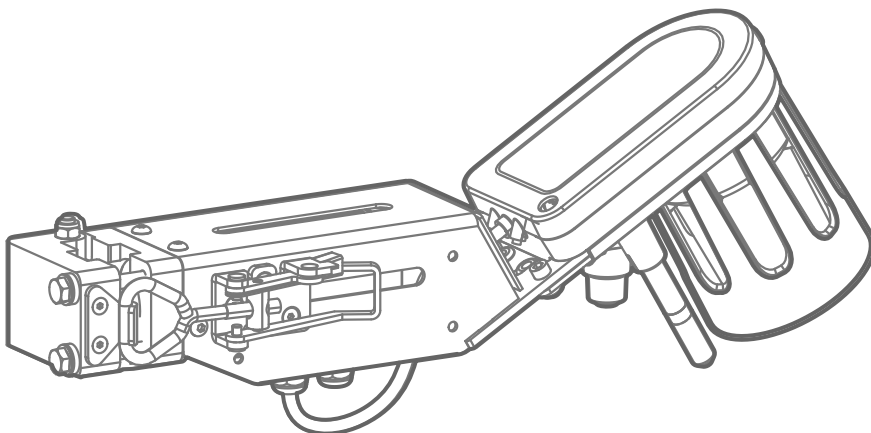
Select whether you want the sensor to face right or left when mounted in the rear. Select the orientation depending on the desired measurement area of the road surface when driving.

- If the sensor must face left, continue to [Mounting MD30 with MD30REARKIT \(page 3\)](#) or [Mounting MD30 with MD30REARMOUNT \(page 4\)](#).
- If the sensor must face right, follow this procedure.



- 1 Mounting block fixing screws (4 pcs)
- 2 Mounting block
- 3 Latch
- 4 Bluetooth module enclosure

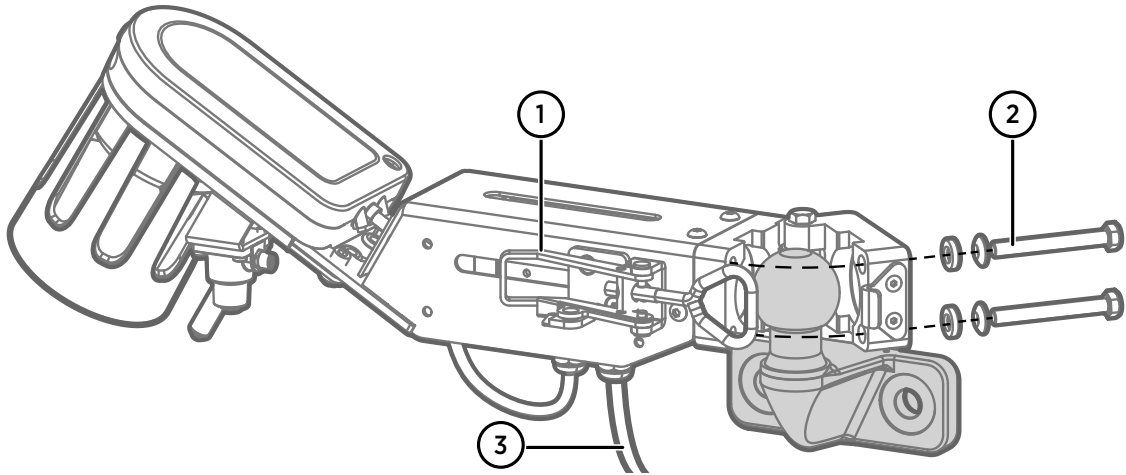
- ▶ 1. Remove the mounting block fixing screws.
- 2. Turn the mounting block upside-down.
- 3. Move the latch to the other side of the mounting frame.
- 4. Move the Bluetooth module enclosure to the other side of the mounting frame.



Mounting MD30 with MD30REARKIT



- MD30REARKIT mounting kit
- 13-mm wrench



- 1 Latch
- 2 Screws and washers
- 3 Power cable

- ▶ 1. To fix rear kit in place, close the latch and lock in place. Adjust the locking tightness by rotating the latch.
2. Secure with screws and washers.
3. Lead the open-ended power cable from the Bluetooth module enclosure to the electric system of your vehicle. The power cable contains the plus (+) and minus (-) wires. Connect them to your system. If you use an adapter, follow the instructions supplied with the adapter.
4. If there are loose cables, attach them with cable ties to the vehicle structure.



For additional protection against theft, you can use a padlock to secure the assembly to the vehicle.



If you need to secure the assembly to the vehicle with a wire rope, use the holes that are on the side of the mounting frame.

Continue the system setup with Bluetooth pairing. See *Vaisala Mobile Detector MD30 Setup Guide*.

Mounting MD30 with MD30REARMOUNT

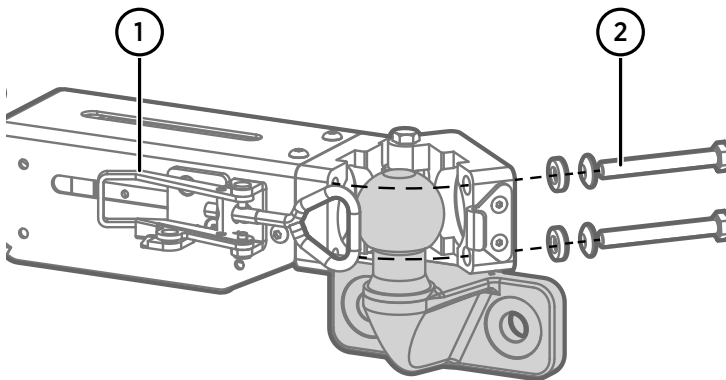


- MD30REARMOUNT mounting adapter
- 13-mm wrench

If you are mounting MD30REARMOUNT on a vehicle where the Bluetooth module enclosure is already installed in the vehicle cabin, do not move the Bluetooth module enclosure.

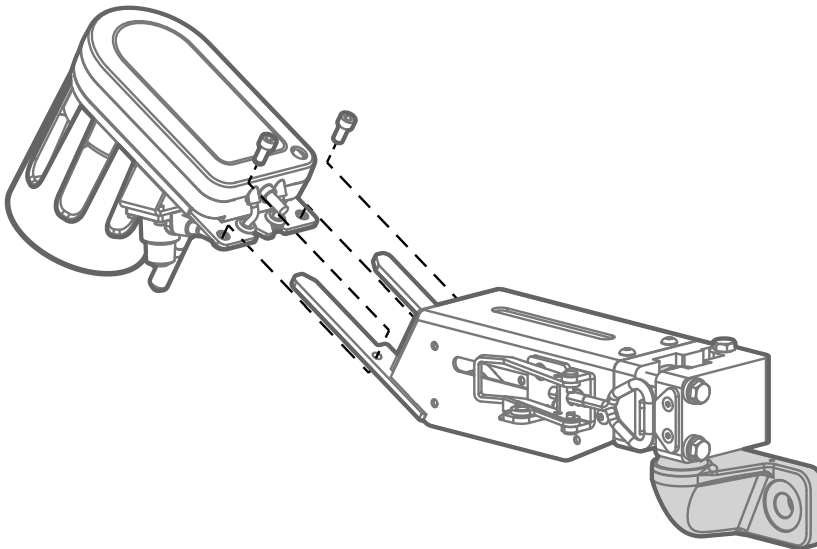
Before you start, check and adjust the orientation if needed. See [Selecting orientation \(page 2\)](#).

- ▶ 1. Mount MD30REARMOUNT on the vehicle.
Close the latch and lock in place. Adjust the locking tightness by rotating the latch. Secure with screws and washers.



- 1 Latch
- 2 Screws and washers

2. Mount the mobile sensor on the MD30REARMOUNT.



3. Connect the 8-m (26 ft) extension cable to the mobile sensor.
4. Route the cable to the Bluetooth module enclosure or other data collection system.
For cabling instructions, see *Vaisala Mobile Detector MD30 Setup Guide*.
If there are loose cables, attach them with cable ties to the vehicle structure.
5. Continue the system setup according to *Vaisala Mobile Detector MD30 Setup Guide*.