

### Updating MD30 software

The MD30 software update overwrites the previous MD30 firmware version with a new version.

#### Software update package

The most recent software update package is available as a ZIP file at

<https://www.vaisala.com/en/support/md30>.

The ZIP file contains:

- MD30 firmware
- Release notes document
- Update tool
- *Updating MD30 Software Quick Guide* (this document)
- OSS licenses document for MD30 firmware

#### Update options

The following update options are available:

- MD30 and Vaisala RoadAI system: use a Bluetooth connection to update the MD30 software.
- MD30 and other data collection system: use a Bluetooth connection or a cable connection to update the MD30 software.



Software update over Bluetooth requires a Bluetooth module.

#### Updating over Bluetooth connection



#### Updating over cable connection

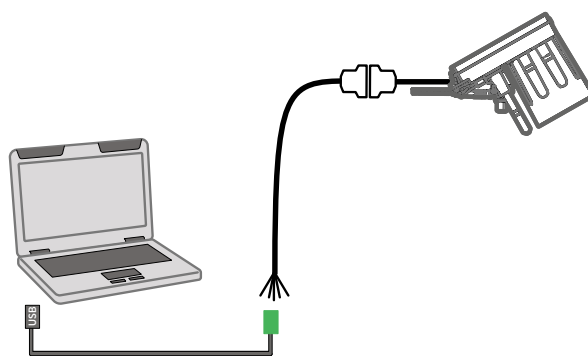



Figure 1 MD30 firmware update options

#### More information

- [Updating MD30 software over Bluetooth connection \(page 2\)](#)
- [Updating MD30 software over cable connection \(page 6\)](#)

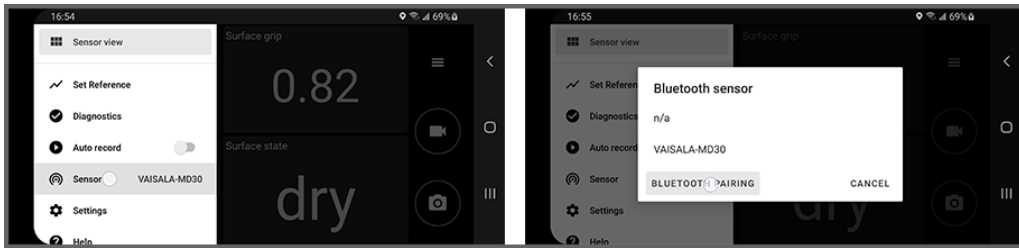


# Updating MD30 software over Bluetooth connection

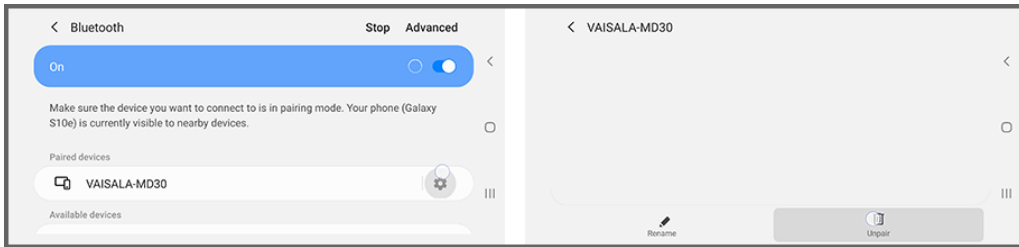
 • Laptop with Windows 10 operating system and Bluetooth

During the software update, MD30 must be connected to a power supply.

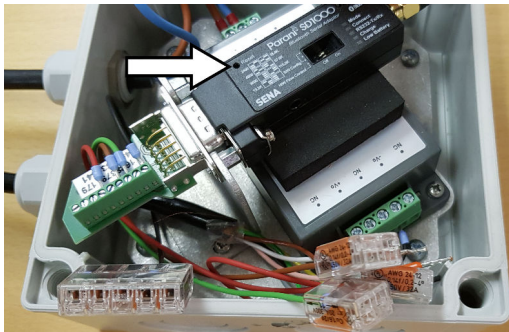
- ▶ 1. Download and extract the ZIP package on your laptop.
- 2. Remove pairing between the RoadAI mobile phone and the Bluetooth module.
  - a. In the RoadAI app, select **Sensor > Bluetooth pairing**.



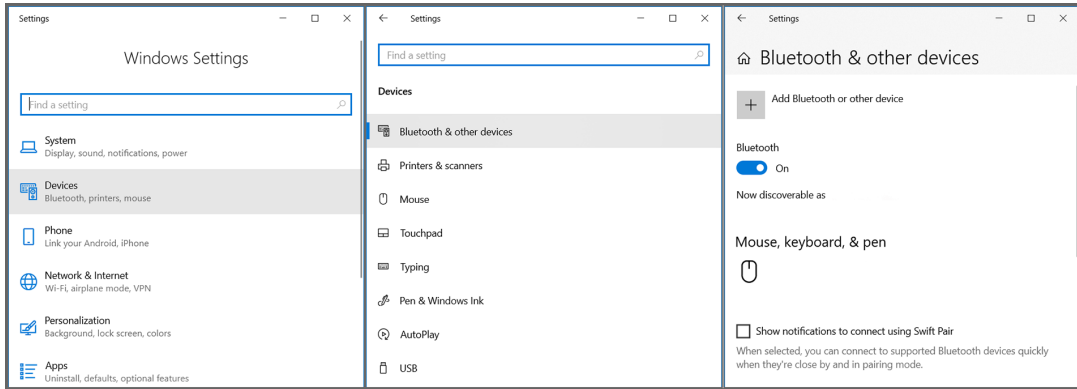
- b. In **Paired devices**, select the Bluetooth module and the settings icon. Select **Unpair**.



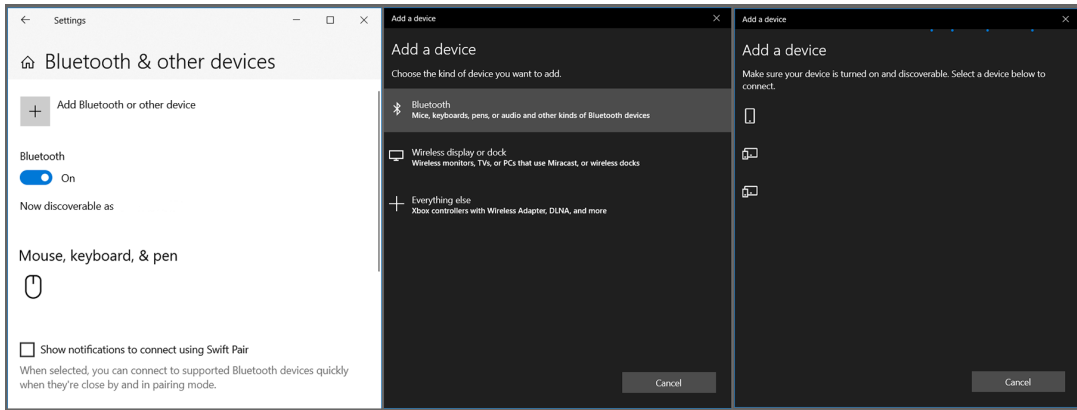
- 3. Restart the Bluetooth module.
  - BM10 and BM10-NA Bluetooth modules:**
    - a. Disconnect the power cable from the vehicle power outlet.
    - b. Reconnect the power cable.
  - BM10-RW Bluetooth module:**
    - a. Remove the lid of the Bluetooth module enclosure.
    - b. Use a paper clip or similar to push the **Reset** button in the Bluetooth module.



- 4. Enable Bluetooth on your laptop. Select **Start > Settings > Devices > Bluetooth & other devices**. In **Bluetooth**, turn Bluetooth on.

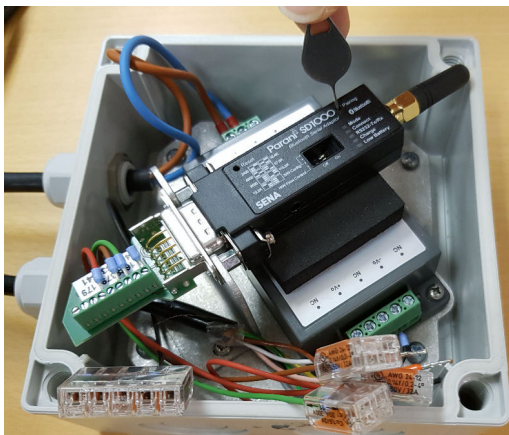


- 5. Pair your laptop with the Bluetooth module. In the **Bluetooth** window, select **Add Bluetooth or other device** and, in **Add a device**, select **Bluetooth**, and the device. Select **Done**.



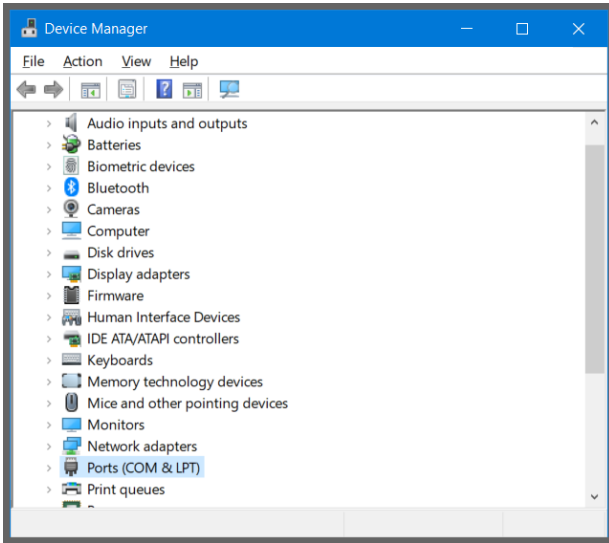
The BM10-RW Bluetooth module requires the following additional actions:

- a. Push the **Pairing** button in the Bluetooth module for a few seconds. The **Mode** button blinks 3 times to indicate that pairing is possible.



- b. When prompted for the PIN code, use PIN **1234**. If the pairing does not succeed, push **Reset** and try pairing the devices again.

- 6. When paired, the Bluetooth module is shown as a port on your laptop. To check the port number, select **Start > Device Manager > Ports (COM & LPT)**.



- 7. On your laptop, select **Start > Command Prompt**.
- 8. Go to the folder where you extracted the ZIP package and double-click *UpdateClient.exe*.
- 9. When prompted for the port, type the port to which the Bluetooth module is connected. For example:

```
Serial port name [COM0]: COM3
```

- 10. Select the firmware file using the number indicated in the beginning of the row. For example:

```
Potential images in working directory:  
[1]          1.1.0  MD30_Customer_release_1.1.0.fw  
Select a number or '0' for other files:  
>
```

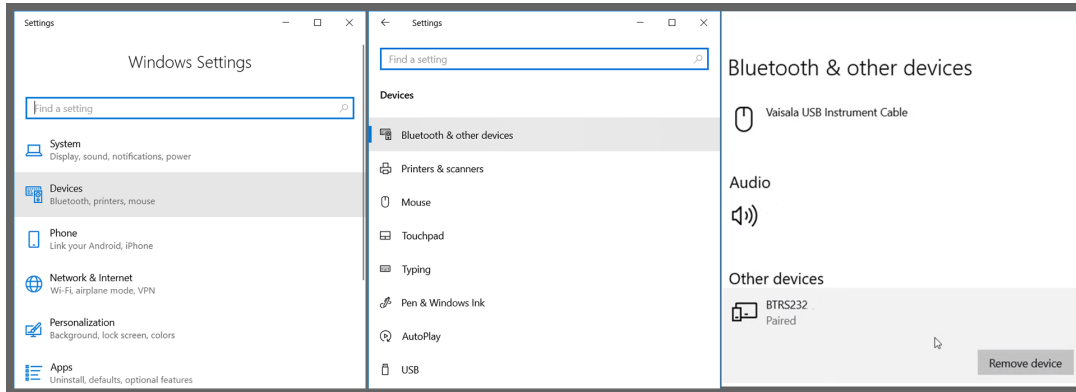
```
> 1
```

The update takes a couple of minutes.

- 11. When this message is displayed, press **ENTER**. The software update is done.


```
Running OK  
Current SW version: [version]  
  
Press ENTER to exit
```

- Remove pairing between your laptop and the Bluetooth module.  
On your laptop, select **Start > Settings > Devices > Bluetooth & other devices**. Scroll down to **Other devices**, select the device, and **Remove device**.



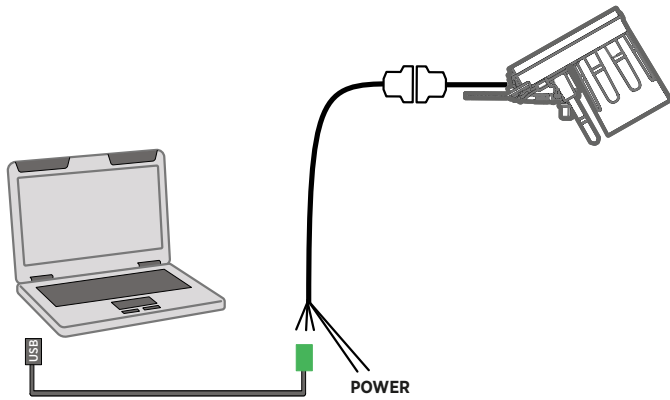
- Pair the Bluetooth module with the RoadAI phone.  
For instructions, see *Vaisala Mobile Detector MD30 Setup Guide*.

# Updating MD30 software over cable connection

-  Laptop with Windows 10 operating system
- Serial-to-USB cable for laptop connection (240884)

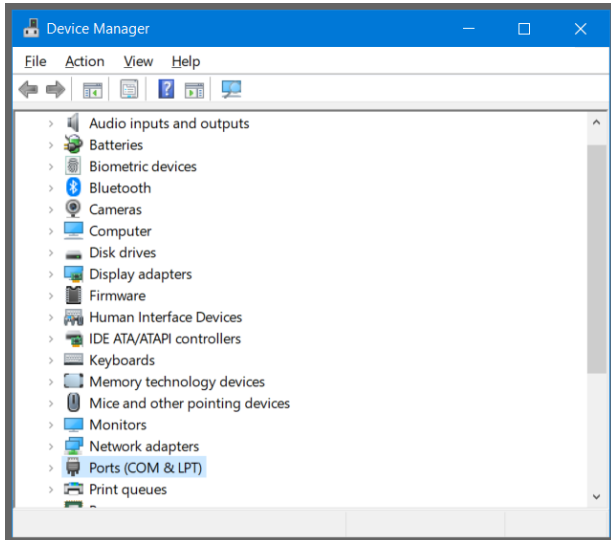
During the software update, MD30 must be connected to a power supply.

- ▶ 1. Download and extract the ZIP package on your laptop.
2. Remove the 8-m (26-ft) extension cable from your data collection system.
3. Connect the extension cable wires to the screw terminal of the serial-to-USB cable as follows (pins 1, 2, and 4).



Pin	Label, serial-to-USB cable	Wire color, MD30 extension cable
1	RS-232 Tx	Brown
2	RS-232 Rx	Green
3	-	-
4	GND OUT	Yellow
5	-	-
6	-	-

4. Connect the USB cable to your laptop.
5. When prompted, define the port to which MD30 is connected.  
To check the port, select **Start > Device Manager > Ports (COM & LPT)**



6. On your laptop, select **Start > Command Prompt**.
7. Go to the folder where you extracted the ZIP package and double-click *UpdateClient.exe*.

- When prompted for the port, type the port to which the sensor is connected. For example:

```
Serial port name [COM0]: COM3
```

Command Prompt lists the files that are in the directory.

- Select the firmware file using the number indicated in the beginning of the row. For example:

```
Potential images in working directory:  
[1]          1.1.0 MD30_Customer_release_1.1.0.fw  
Select a number or '0' for other files:  
>
```

```
> 1
```

The update takes a couple of minutes, depending on the port speed.

- When this message is displayed, press **ENTER**. The software update is done.

```
Running OK  
Current SW version: [version]  
  
Press ENTER to exit
```

- Disconnect the wires from the screw terminal, and connect the 8-m (26-ft) extension cable back to your data collection system.  
For instructions, see *Vaisala Mobile Detector MD30 Setup Guide*.