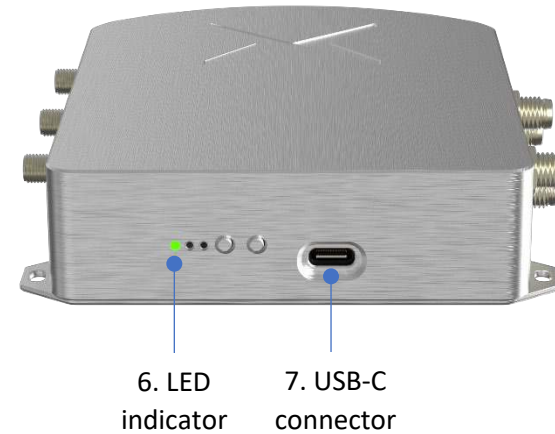
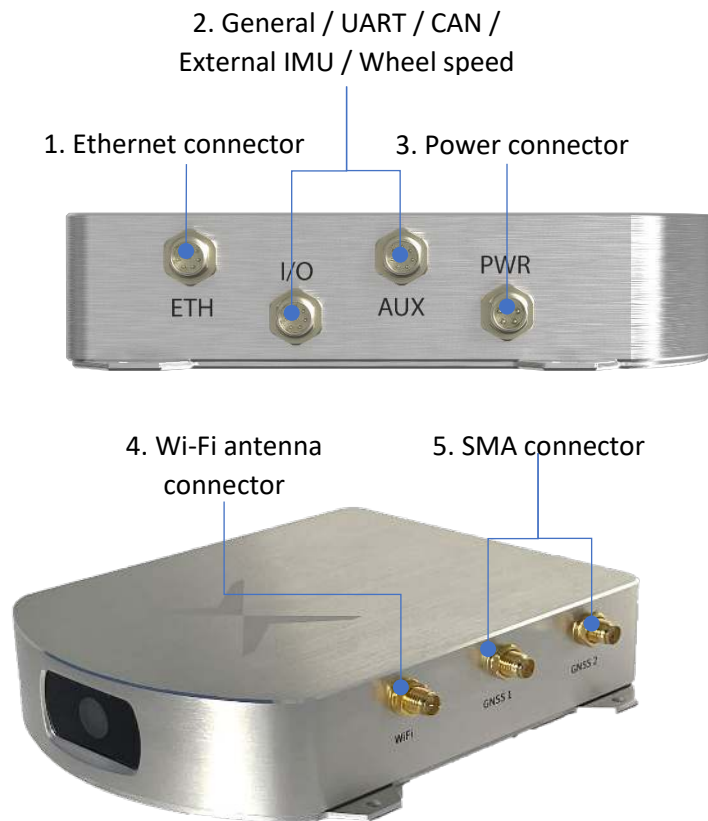


# Quick Start Guide

For Vision-RTK 2 Starter Kit

## Overview



## Starter kit contents

- Vision-RTK 2
- Aluminum bar
- Battery charger
- Shielded ethernet cable
- 2 GNSS antennas
- Battery
- SMA cables
- Power supply cable

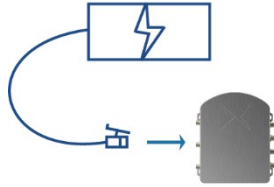
## Additional requirements

- Internet hotspot
- RTK NTRIP subscription<sup>1</sup>

<sup>1</sup> VRS service providing RTCM3 MSM messages for all four constellations via NTRIP v1 required.

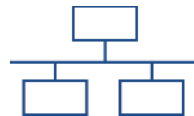
## Setup

- a. Connect the Vision-RTK 2 to the power supply connector (3). The voltage supply level should be between 5-36 VDC, typically 1.5A@5V.



- b. Connect the Vision-RTK 2 to a PC and access the web interface using one of the following options:

1. Ethernet: connect via the Ethernet port (1). Access the web interface with the address <http://10.0.2.1>



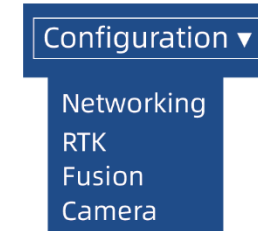
2. Wi-Fi: connect to the Wi-Fi SSID with the same reference name as the Vision-RTK 2 (e.g. fp-5cbaa2) and use the password "1234567890". Access the web interface with the address <http://10.0.1.1>



- c. In the section Configuration:

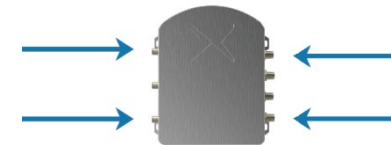
1. Networking, connect to an available Wi-Fi network with internet access.

2. RTK, configure an NTRIP account to receive RTK corrections.
3. Fusion, adjust the options for the specific application (e.g. Tuning mode).

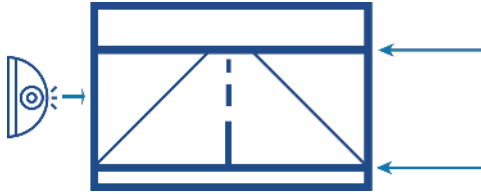


- d. Ensure the following points:

1. The Vision-RTK 2 is rigidly attached to the vehicle. For initial tests, it is recommended to mount the sensor and antennas on the provided aluminum bar to ensure the correct extrinsic parameters.



2. In Configuration → Camera, the camera view is not covered and is not dominated by static scenes like the sky or hood of the car. Adjust the cutout at the bottom or top part of the camera view if it has static objects like a vehicle hood so that these are obscured.



## Additional information

For more information about the Vision-RTK 2, contact Fixposition support:

<https://www.fixposition.com/contact>

See also: IMU biases calibration – Initialization procedure

- e. In the section *Positioning* → *Fusion Status*, enable the real-time positioning with the blue Start button. The Vision-RTK 2 initialization requires to be outdoors with RTK fix solutions.

Start

- f. Drive 2-3 minutes in RTK fix with some dynamic movement to converge the IMU biases (e.g. driving a figure eight).



## Interfaces

The Vision-RTK 2 evaluation kit provides a UART connector for transferring data in serial mode and a Wi-Fi connection or an Ethernet port for transferring data in TCP/IP mode. The data is published with a custom Fixposition format. Additional formats can be selected in the section *Configuration* → *Fusion*.