

Calibrating the IMU and crossfall for ViaPPS

Follow the steps below to calibrate the inertial unit (IMU) and the profile scanner.

1. Follow the driving pattern described below and perform a normal recording. The status lamp shall be green during recording.
2. Select the *Calibration* tab under *Options* found on the application toolbar following the recording in step 1.
3. Press the *Select measurement...* button and select the recording performed in step 1.
4. Do the calibration by pressing the *Perform calibration* button. The calibration can be aborted by repressing the *Perform calibration* button.
5. Verify that the calibration has been performed correctly by reading the onscreen message. If not, a new recording must be made and the whole procedure from step 1 above must be repeated.

The results of approved calibrations are stored in a log file. This log file can be viewed by pressing the *Show calibration log* button.

Driving pattern during calibration

Use a dry and leveled asphalt surface and mark a driving pattern according to the figure. The straight line of the 8 figure shall be at least 50m. Radius of the 8 figure shall be at least 10m. Place cones at the blue dots of the figure to mark the driving pattern.

Requirements for the measuring:

- Drive in a 8 number pattern. (See figure.)
- Start and stop must be at the same position on the straight line. (See the red dot on the figure)
- The driving speed must not exceed 20 km/h. Keep the driving speed as constant as possible. The calibration is not accepted if the driving speed exceeds 20 km/h.
- Perform acceleration and retardation as softly as possible.
- Drive the turns as softly and evenly as possible. The calibration is not accepted if the turns are driven with sudden car movements etc.
- Do not stop during the measurement.
- Drive three laps before stopping at the start/stop position.

