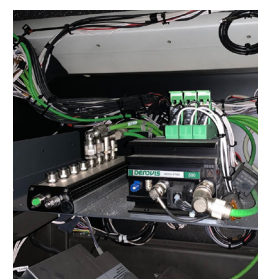


VERIFY YOUR DATA

Data Tester

When you procure new buses, you need to ensure that they meet the requirements of the contract. They must have the right technical properties, but also the content of the data interfaces is important as they supply your IT systems with important informa-

tion. As it stands today, these digital interfaces cannot simply be checked. This is where the Data Tester can help you with a simple plug and play solution that gives you a report with the information you need in just 3 steps.



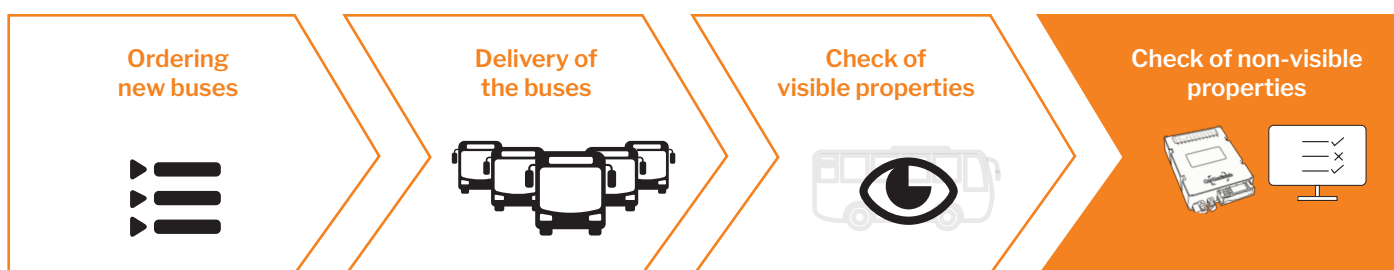
Visible properties

| | |
|---------------|--|
| Color | |
| Doors | |
| Accessibility | |

Non-visible properties

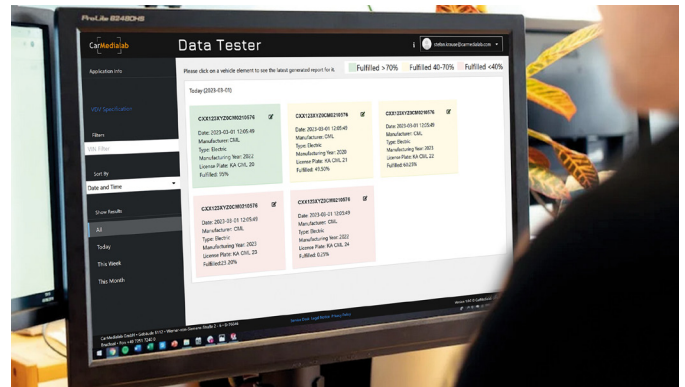
| | |
|--------------|--|
| Data flow | |
| Battery data | |
| Service data | |

Bus delivery procedure



What is the Data Tester?

The Data Tester is a set consisting of a data logger and app that gives you a breakdown of the quality characteristics of your data in 3 steps within minutes. Connect. Click. Download. Promise.



Overview of the different buses.

Dashboard: Degree of fulfillment of my data

In this dashboard you can find individual vehicles which were test driven while data was being sent from the bus. By selecting a certain bus, you can see the degree

of fulfillment of the vehicle. If the degree of fulfillment is low, you can use the report to apply for any shortcomings to be rectified.

| Bus 1 | Bus 2 | Bus 3 |
|---|--|--|
| <p>CXX123XYZOCM0210576 </p> <p>Date: 2023-03-01 12:05:49 Manufacturer: CML Type: Electric Manufacturing Year: 2022 License Plate: KA CML 20 Fulfilled: 95 %</p> | <p>CXX123XYZOCM0210576 </p> <p>Date: 2023-03-01 12:05:49 Manufacturer: CML Type: Electric Manufacturing Year: 2020 License Plate: KA CML 21 Fulfilled: 49.50 %</p> | <p>CXX123XYZOCM0210576 </p> <p>Date: 2023-03-01 12:05:49 Manufacturer: CML Type: Electric Manufacturing Year: 2023 License Plate: KA CML 22 Fulfilled: 23.20 %</p> |
| Fulfilled >70 % | Fulfilled 40 - 70 % | Fulfilled < 40 % |

Easy to use



Why is data quality important?

The applications powered by vehicle data can only be as good as the quality of the data. Reliability is the be-all and end-all for fleet operators. Data helps at this point to make better decisions, among other things.

The basis for this is decided when purchasing the vehicle: What data is available and how? Here is an example of an evaluation of the signal “temperature interior”.

| Bus | Data | Evaluation | |
|-----|-------------|--|--------|
| 1 | 270 °C | Data point present, but implausible | ✗ bad |
| 2 | 25,36789 °C | Data point present, but wrong resolution | ✗ bad |
| 3 | 21,5 °C | Data point present, plausible | ✓ good |

Data quality without Data Tester

When checking the delivery, non-meaningful error messages of the vehicles appear, because no good data content is available. Some error messages are general, such as “malfunction/general failure”. This data is not of sufficient quality.

| | |
|---|-----------------------------|
| ✗ | N/A |
| ⚠ | Malfunction/general failure |
| ✗ | Malfunction/general failure |

Better data quality with Data Tester

With better data quality you receive good quality error messages. You can see detailed descriptions: when the error happened, how many times it happened and exactly which components are affected. You get a good estimate of the technical condition of the vehicle.

| | |
|---|--|
| ⚠ | Variable Valve Timing and/or Control (mode: data erratic, intermittent or incorrect) |
| ⚠ | Engine Position Sensor (mode: data erratic, intermittent or incorrect) |
| ⚠ | Engine Coolant Level 1 (mode: received network data in error) |

Signal quality and fulfillment level

| Indicator | Bus 1 | Bus 2 | Bus 3 |
|--|-------|-------|-------|
| Number of signals: OK | 180 | 220 | 203 |
| Number of non-available signals | 56 | 10 | 30 |
| Number of signals: NOK | 57 | 45 | 22 |
| Absolute fulfill ratio > 70 %, 40 – 70 %, < 40 % | 37 % | 75 % | 67 % |







Signals with quality deficiencies

| VDV Signal Name | Data sample |
|------------------------------|-------------|
| Vehicle weight total | 2.900 kg |
| Engine coolant temperature | 5 °C |
| Retarder Torque relative | 1300 % |
| High-voltage battery Voltage | 23 V |
| Brake Pedal position | -5 % |
| Temperature interior | 270 °C |

Your benefit

Simply connect in the bus, start the test drive and get good data via the web application. A tool with which you

can automatically and reliably test new buses. Our customer service will be happy to answer any questions.

| | | |
|---|--|---|
|  <p>Service</p> <p>Experts for vehicle data with personal support right by your side.</p> |  <p>Plug and Play</p> <p>Connect, open app, download report. Simple and efficient.</p> |  <p>Multiple use</p> <p>One system for all buses.</p> |
|  <p>Detailed error analysis</p> <p>Breakdown of faulty data in detail.</p> |  <p>Remote</p> <p>Check your data, no matter when, no matter where.</p> |  <p>All in one package</p> <p>Data logger, cable set, app and manual in one case.</p> |

Data Tester Package



Data Logger

- + Antenna
- + Connection cable
- + Access to the web application
- + Practical storage case

Contact

We are pleased to inform you about our products and services.
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