

SD-Logger

Danlaw's SD-Logger is a one-of-a-kind, OBD-II connected device that enables real-time, dual-channel vehicle CANBUS data capture, along with GNSS position and 3-axis accelerometer data. All data is logged, time-stamped, and stored on the device's removable SD-Card for easy retrieval and analysis. The SD-Logger uses Danlaw's industry leading OBD-2 vehicle connectivity and is manufactured to automotive grade standards.

Markets

- In-Vehicle Data Logging
- OEM Vehicle Quality and Testing
- Tier-1 ECU In-Vehicle Testing
- In-Field Vehicle Issue Data Capture
- Captive Test Fleet Data Collection
- Connected Vehicle Research
- Custom Applications



Features

CAN Bus data capture via: HSCAN, MSCAN, and SWCAN

SD Card data storage (up to 128GB)

Industry-leading vehicle compatibility

Self-Installed - plug-n-go via OBD-II port

Self-Contained - no external wires

Ignition ON/OFF detection

Bluetooth Low Energy (BLE) Support

3-Axis Accelerometer - 13-bit sampling

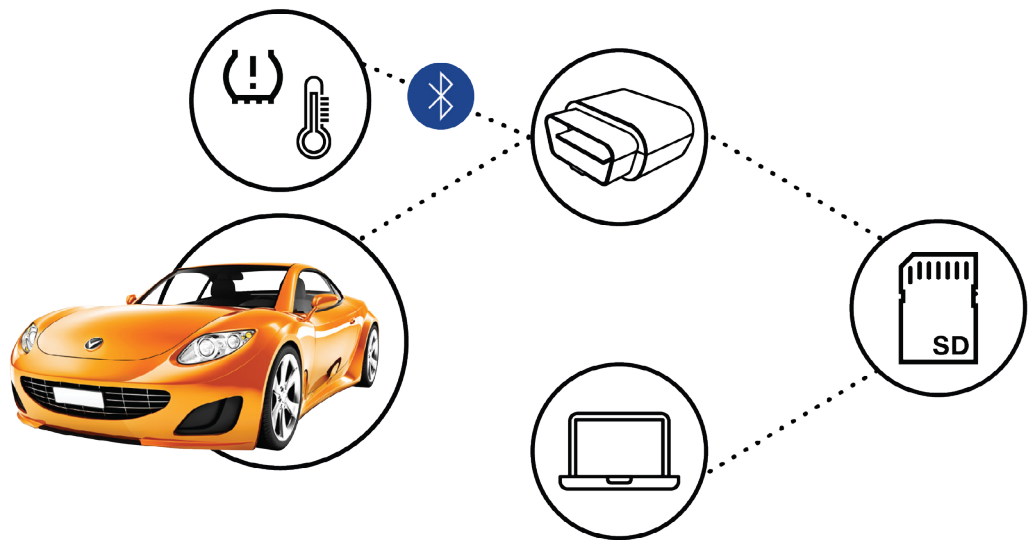
Self-Normalizing Accelerometer

56 Channel GPS/GLONASS

Easy-to-use device configuration

Same small size as 7 and 8 Series

Danlaw's SD-Logger supports HSCAN, MSCAN, and SWCAN vehicle BUS data collection via the OBD-II port. Using the SD-Logger's configuration utility, OEM's and Tier-1 suppliers can easily import DBC CAN message database files and configure the device to capture selected data. This may include CAN message IDs, signal data, GNSS position, and 3-axis accelerometer information. The device is also capable of collecting sensor data from BLE-based sensors, including TPMS and temperature monitoring sensors.



The SD-Logger device enables direct connectivity between vehicles, Bluetooth-enabled sensors, SD-enabled computers, and backend servers.

SD-Logger

Physical Characteristics

| | |
|----------------------------|--|
| Dimensions | Ultra Compact (L = 43 mm, W = 46 mm, H = 23 mm) |
| Weight | 32.1 g (1.13 oz) |
| Environment | IP64 |
| Temperature Range | -40°C to +85°C (operating) -40°C to +85°C (storage) |
| Humidity | 0% to 95% (non-condensing) (SAE J1455) |
| Shock, Vibration, and Heat | SAE J1455, SAE J1211 |

Certifications

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|---------------------------------------|----------------|
| Carrier and Regulatory Certifications | FCC Certified |
| Environmental Certifications | RoHS Compliant |

Electrical Characteristics

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|---------------------|---|
| Supply Voltage | 12V (min. 9V to max. 18V) |
| Current Consumption | <4 mA Average (sleep mode) <100 mA @ 12VDC (data upload) |
| Voltage Protection | Over and Reverse Voltage, Load Dump (J1113/11), Short Circuit, Transients (ISO 167502), ESD (J1113/13) |
| Current Protection | Internal protection (2 amps) |

Vehicle Communication

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|---------------------|--|
| Protocol Support | GMLAN, FNOS, ISO-15765, ISO-9141-2, J1850 PMW, J1850 VPW, KWP-2000, ISO-14230-4 |
| Protocol Detection | Automatic vehicle protocol recognition |
| Ignition ON Detect | Automatic wake-up from sleep mode |
| Ignition OFF Detect | Automatic sleep mode on IGN OFF (saves power) |

Wireless

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|-----------|---|
| Bluetooth | Bluetooth 4.0, BLE, Dual-Mode support, multi-phone pairing, Secure Simple Pairing (SSP), Serial Port Profile (SPP) |
| Antenna | Internal built-in Bluetooth Antenna |

GPS

| | |
|-----------------------|--|
| Receiver | 56-channel GNSS receiver and GLONASS Tracking: -162 dBm |
| Antenna | Internal built-in GNSS Antenna |
| Cold Start | <29 seconds TTFF Sensitivity -148 dBm |
| Hot Start | <1 second Sensitivity -148 dBm |
| Data Acquisition Rate | Typical 1 Hz |
| Accuracy | Position 2.5 m CEP |
| Anti-Jamming | Integrated GPS anti-jamming |

Accelerometer

| | |
|--------------------|--|
| 3-Axis | X, Y, Z output |
| Output Resolution | +/- 2, 4, 8, 16 g (13 bit max sampling) |
| Auto-Normalization | Self-Calibrating, Auto-Normalization of the data to the vehicle's direction of motion |

Miscellaneous

| | |
|--------------------------|---------------------------------|
| Installation | Self-Installed (10 sec or less) |
| Data Collection Interval | Configurable |

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