

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

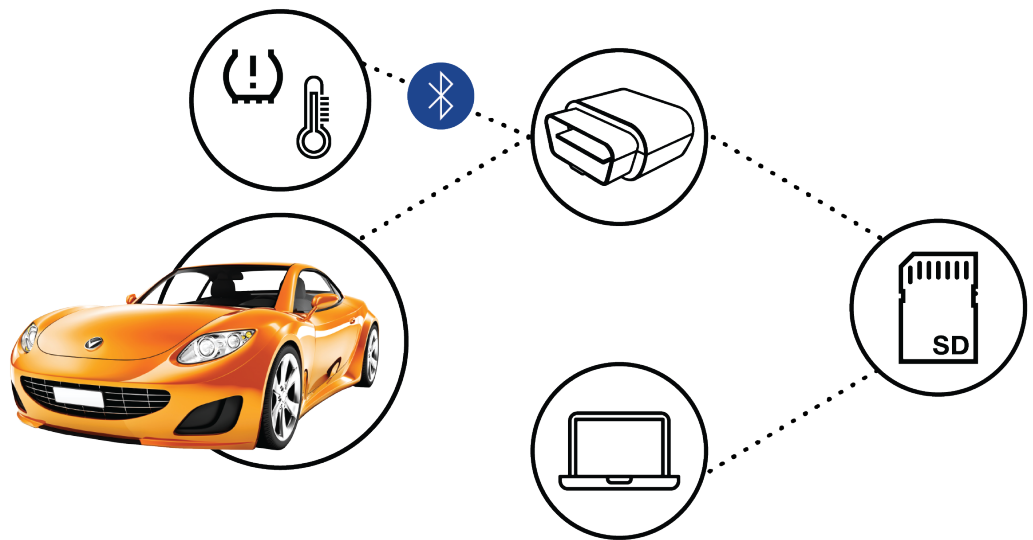
Self-Normalizing Accelerometer

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.

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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

Carrier and Regulatory Certifications	FCC Certified
Environmental Certifications	RoHS Compliant

Electrical Characteristics

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

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

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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