

CAN Data Logger CL1000, CL2000 (+RTC)



General Features

- **Functionality:** Functions as both a data logger and a real-time CAN interface.
- **Status Indication:** Equipped with three externally visible LEDs to display logger status.
- **Firmware:** Free firmware updates available, enabling new features.
- **Software:** Includes free software for converting files to ASC/TRC formats on Windows and Linux.
- **Analysis Tools:** Bundled with SavvyCAN, open source software for streaming and analyzing CAN data, including DBC decoding for Windows and Linux.
- **File Accessibility:** Configuration (.INI) and log (.TXT) files are accessible with standard text editors or scripts on both Windows and Linux.
- **Certifications:** Certified to CE, FCC, IC, and RoHS standards.

CAN Bus Capabilities

- **Standard Compliance:** Follows ISO 11898-2 physical layer standard.
- **Identifier Support:** Compatible with CAN 2.0A (11-Bit ID) and 2.0B (29-Bit ID) specifications.
- **Bit Rate:** Supports bit rates up to 1 Mbps, with manual or automatic configuration.
- **Auto-Detection:** Capable of automatically detecting bit rates.
- **Protocol Support:** Protocol-independent, allowing logging of CAN, J1939, CANopen, OBD2, and more.
- **Message Filtering:** Advanced message filtering on four configurable channels.
- **Silent Mode:** Silent mode available, ensuring the device does not affect CAN-bus transmission.
- **Fail-safes:** The device does not terminate the CAN-bus internally.

Data Logging Features

- **Real-Time Clock:** CL1000 – no; CL2000 - yes

- **Storage:** Uses a replaceable 8 GB SD card, with optional support for up to 32 GB.
- **Time Stamping:** Built-in real-time clock provides 1 ms resolution time stamps for CAN messages.
- **Control Signals:** Logging state can be toggled during runtime using CAN-bus control messages.
- **Heartbeat:** Supports periodic heartbeat signals to indicate logger status.
- **Cyclic Logging:** Enables cyclic logging, overwriting the oldest log file when storage is full.
- **Down Sampling:** Allows CAN ID-specific down-sampling to reduce message frequency in logs.
- **Transmit Capability:** Can transmit up to 20 customized CAN bus messages (including OBD2), with full real-time transmit control via USB.
- **File System:** Uses the standard FAT file system.
- **Frame Rate:** Can log or stream approximately 800–1000 frames per second without data loss; for higher busloads, a CANedge device is recommended.

Power Supply

- **CAN Connector:** Power can be supplied through the DB9 CAN connector (for logging/streaming) or via USB (for data extraction).
- **Voltage Range:** Accepts CAN bus power input from +7.0V to +32V DC.
- **Protection:** Features reverse voltage and transient voltage pulse protection on CAN-bus power supply.
- **USB Power:** USB provides +5.0V DC for data extraction and configuration.
- **Power Consumption:** The logger operates at approximately 1 W.

Mechanical & Environmental

- **Enclosure:** Robust and compact design.
- **Dimensions:** Measures 66.7 x 42.7 x 23.5 mm (L x W x H).
- **Weight:** Weighs 45 grams.
- **Connectors:** Standard D-sub 9 (DB9) connector for CAN interfaces (OBD2, J1939, or generic adaptors available).
- **USB:** Standard mini USB (B) connector for data extraction and streaming (cable not included).
- **Operating Temperature:** Designed to operate from -20°C to +65°C.
- **Real-Time Clock:** Built-in clock with calendar and battery backup; date and time are recorded in log files. Battery lasts over two years.
- **IP Rating:** Rated IP40 for ingress protection.