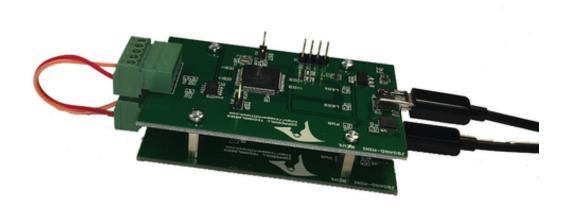


SAE J1939 Starter Kit And Network Simulator for Bench-Testing Vehicle Applications



The SAE J1939 Starter Kit by Copperhill Technologies is the perfect learning tool for the newcomer as well as the expert to get familiar with the details of the SAE J1939 protocol. The combination of user-friendly simulation hardware and software, including a readable SAE J1939 reference provides a pleasing contrast to working through the SAE J1939 Standards Collection.

GREENFIELD, Mass. - **June 1, 2021** - <u>PRLog</u> -- The <u>SAE J1939 Starter Kit and Network Simulator</u> allows the experienced engineer and the beginner to experiment with SAE J1939 data communication without the need of connecting to a real-world J1939 network, such as a diesel engine.

It may sound obvious, but in order to establish a network, you need at least two nodes. That fact applies especially to CAN/SAE J1939, where the <u>CAN Bus</u> controller will shut down after transmitting data without receiving a response. Consequently, the SAE J1939 Starter Kit and Network Simulator consists of two <u>SAE J1939</u> nodes, namely our <u>JCOM.J1939.USB-B</u>, an SAE J1939 ECU Simulator Board with USB Port.

The JCOM.J1939.USB-B gateway board is a high-performance, low-latency vehicle network adapter for SAE J1939 applications. The board supports the full SAE J1939 protocol according to J1939/81 Network Management (Address Claiming) and J1939/21 Transport Protocol (TP). The serial communication protocol between the board and the control system is well documented and thus allows the porting to any computer system with a serial connection. Working source code libraries exist for Windows (C# under Visual Studio), Linux and its derivatives (C++ using Code::Blocks), and the Raspberry Pi (C using the standard gcc compiler).

The idea behind the network simulator is to connect both nodes to the same PC (two PCs will do, too) and running two separate instances of our JCOM1939 Monitor Software after assigning the boards to their corresponding COM port.

The JCOM1939 Monitor Software is the perfect tool to monitor, analyze, record, and simulate SAE J1939

data traffic. This comprehensive and easy-to-use, easy-to-understand Windows software displays not only SAE J1939 data traffic; it also allows to scan the network, simulate an ECU (incl. full node address negotiation features), respond to data requests, record data traffic, simulate digital and analog signals, and more.

JCOM1939 Monitor Software Features

- FREE download
- ECU Simulation Setup (Preferred Node Address, Negotiable Address Range, NAME, and more)
- Filter J1939 PGNs for Display
- Design J1939 PGNs for Transmission (Data and Request Messages)
- Design J1939 PGNs for Request Responses
- Simulate Digital and Analog Signals
- Scan a J1939 Network (Number of Nodes, Node IDs, NAMEs)
- Record SAE J1939 Data Traffic
- Simulate SAE J1939 Data Traffic
- Check Gateway Status (Error Messages, Software/Hardware Version)
- Set Gateway Parameters (Heartbeat Frequency, Message Acknowledgment)
- Free Updates

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Industry <u>Agriculture, Automotive, Computers, Defense, Electronics</u>

Tags Sae J1939, Can-bus, Starter Kit, Network Management, Fleet Management, Telematics, Transport

Protocol, Simulator, Recorder, Ecu

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