Updated specifications

SAE has released new versions of the J1939DA, J1939/5, and J1939/73. These documents are part of the J1939 series specifying a CAN-based application profile for commercial vehicles and other applications.

J1939 is the standardized CAN-based solution for trucks and buses as well as marine diesel engines (Source: Adobe Stock)

The J1939 series specifies the CAN physical layer up to the application profile level. This includes parameter groups (PGs) and suspect parameters (SP), which are described in the J1939DA Excel spreadsheet. It is updated regularly. Recently, the July 2020 version has been released. It is part of the J1939 document subscription.

The updated J1939/73 standard specifies J1939 messages to accomplish diagnostic services and identifies the diagnostic connector to be used for the vehicle service tool interface. These diagnostic messages (DMs) provide the utility needed when the vehicle is being repaired. They are also used during vehicle operation by the J1939-networked ECUs (electronic control unit) to allow them to report diagnostic information and self-compensate as appropriate, based on information received. The DMs include services such as periodically broadcasting active diagnostic trouble codes (DTCs), identifying operator diagnostic lamp status, reading or clearing diagnostic trouble codes, reading or writing control module memory, providing a security function, stopping/starting message broadcasts, reporting diagnostic readiness, monitoring engine parametric data, etc. California-, EPA-, or EU-regulated OBD (on-board diagnostic) requirements are satisfied with a subset of the specified connector and the defined messages.

Additionally, SAE has released the 13-pages J1939/5 technical report. It describes the application profile for compliance with on-board diagnostic malfunction detection system requirements for marine sterndrive and inboard spark ignition engines, as mandated by the California Air Resources Board (Carb). These Otto-cycle engines are not derived from automotive diesel-cycle engines.

© CAN Newsletter Online - 2020-07-27 - www.can-newsletter.org