SURFACE VEHICLE RECOMMENDED PRACTICE

J2728™ NOV2020

Issued 2010-06
Revised 2020-11

Superseding J2728 JUN2010

(R) Heavy Vehicle Event Data Recorder (HVEDR)

RATIONALE

This document is being revised in order to reflect the current market situation and expected developments and to organize information previously contained in SAE J2728 into separate documents that are topically focused.

TABLE OF CONTENTS

1. SCOPE 2

2. REFERENCES 2
2.1 Applicable Documents 2
2.1.1 SAE Publications 2
2.1.2 Other Applicable Publications 2
2.2 Related Publications 3
2.2.1 SAE Publications 3
2.2.2 Other Related Publications 3

3. GLOSSARY OF TERMS 3
4. NOTES 4
4.1 Revision Indicator 4

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

For more information on this standard, visit
https://www.sae.org/standards/content/J2728_202011

1. SCOPE

This document provides nomenclature and references to related documents for heavy vehicle event data recorders (HVEDR) for heavy-duty (HD) ground wheeled vehicles.

The SAE J2728 series of documents consists of the following:

SAE J2728-1, which provides recommendation for data content and formatting, as well as HV-specific conditions for data recording.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J670 Vehicle Dynamics Terminology

SAE J1455 Recommended Environmental Practices for Electronic Equipment Design in Heavy-Duty Vehicle Applications

SAE J1587 Electronic Data Interchange Between Microcomputer Systems in Heavy-Duty Vehicle Applications

SAE J1708 Serial Data Communications Between Microcomputer Systems in Heavy-Duty Vehicle Applications

SAE J1939-13 Off-Board Diagnostic Connector

SAE J1939-71 Vehicle Application Layer

SAE J1939-73 Application Layer - Diagnostics

SAE J2728-1 Heavy Vehicle Event Data Recorder (HVEDR) - Data and Triggers

2.1.2 Other Applicable Publications

IETF RFC 4180, Common Format and MIME Type for Comma-Separated Values (CSV) Files, Internet Engineering Task Force (IETF) Request for Comments (RFC) 4180, http://tools.ietf.org/html/rfc4180, October, 2005, accessed December 2007.

TMC RP1210C Windows Communication API

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J1698 Event Data Recorder

SAE J1698-1 Event Data Recorder - Output Data Definition

SAE J1698-2 Event Data Recorder - Retrieval Tool Protocol

2.2.2 Other Related Publications

TMC RP1214 Guidelines for Event Data Collection, Storage and Retrieval

3. GLOSSARY OF TERMS

3.1 DATA ELEMENT

A data element is a numerical or textual representation of a physical or functional state of a vehicle or component.

3.2 DATA EXTRACTION TOOL

The data extraction tool comprises the hardware and software used to extract event data from the HVEDR. The main functions of the data extraction tool are to: (1) establish a communication link with the HVEDR memory device (typically using the vehicle's data port, or directly to a specific ECU), (2) extract event data from the HVEDR, and (3) convert the event data into the SAE J2728-specified format.

3.3 DATA FORMAT CONVERSION

Data format conversion is a process performed by the data extraction tool to convert native event data stored in an ECU into standardized SAE J2728-specified event data output.

3.4 DATA NETWORK

A data network is a means of communicating between ECUs. The SAE J2728 standard often refers to the network defined by SAE J1939, although others may be used.

3.5 DATA PORT

The data port is the physical connector through which the data extraction tool offloads HVEDR data. For heavy vehicles, the data port is commonly the "off-board diagnostic" (OBD) electrical connector as defined by SAE J1939-13, although others such as RP1226 or SAE J1962 may also be available. These contain pins for accessing data networks.

3.6 ELECTRONIC CONTROL UNIT (ECU)

An electronic control unit (ECU) is an electronic subsystem that manages the functions of a vehicle system or components. ECUs are often called electronic control modules, or ECMs, or simply modules.

3.7 EVENT

An event is a point in time, during the operation of a heavy vehicle, in which one or more threshold trigger criteria are met, causing the HVEDR to log data surrounding the event.