



IEEE Standard for Motor Vehicle Event Data Recorders (MVEDRs)

Amendment 1: MVEDR Connector Lockout Apparatus (MVEDRCLA)

IEEE Vehicular Technology Society

Sponsored by the
Land Transportation Committee

IEEE
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Abstract: This amendment adds information pertaining to motor vehicle event data recorder connector lockout apparatus (MVEDRCLA) by revision.

Keywords: communication equipment, crash data, crash data recorder (CDR), data transfer, data transmission, diagnostic link connector (DLC), diagnostic programs, diagnostic testing, EEPROM, EEPROM data, electronic control unit (ECU), electronic equipment and components, electronic scan tools, event data recorder (EDR), information exchange, litigation, nonvolatile memory, nonvolatile memory data, OBD2 or OBDII, odometer clocking, odometer fraud, odometer spun, odometer tampering, onboard network data security, power control module (PCM) and/or electronic control unit (ECU) flashing, road vehicle components, road vehicle engineering, road vehicles, SAE J1962 connectors, vehicle components, vehicle crash data, vehicle identification number (VIN) tampering and/or theft

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Introduction

This introduction is not part of IEEE Std 1616a-2010, IEEE Standard for Motor Vehicle Event Data Recorders (MVEDRs)—Amendment 1: MVEDR Connector Lockout Apparatus (MVEDRCLA).

In the United States, an estimated 80 million motor vehicles already use some type of event-recording equipment that collects not only acceleration and deceleration speed but also braking and steering data. Proponents of standard data recorders hope the crash data they collect will be a useful complement to accident information gathered from victims and eyewitnesses.

However, the implementation of event data recorders (EDRs) has not been without controversy. The United States Department of Transportation (USDOT) Docket Management System (DMS) contains over 1000 submissions reflecting the pros and cons of a decade-long debate amongst automakers, government regulators, safety and privacy advocates, and the public.

The National Highway Traffic Safety Administration (NHTSA) Rule on Event Data Recorders (49 CFR 563 [Bxx]) does not address issues generally within the realm of state law, such as the following:^a

- The ownership of EDR data
- How EDR data can be used/discovered in civil litigation
- How EDR data may be used in criminal proceedings
- Whether EDR data may be obtained by the police without a warrant
- Whether EDR data may be developed into a driver-monitoring tool
- The nature and extent that private parties will have or may contract for access to EDR data

These issues are being addressed by state legislatures. There are many types of recorders. Some continuously record data, overwriting the previous few minutes until a crash stops them, and others are activated by crash-like events (such as a sudden change of velocity or angular momentum) and continue to record until the crash is over. EDRs can record whether or not brakes were used, the speed at the time of impact, the steering angle, and whether seat belts were worn during the crash. While EDR information can be useful in determining the cause of a crash, a lockout gives you the reassurance of knowing that you have control of crash data. The "black box" will still work exactly as it is designed to. However, with a motor vehicle event data recorder connector lockout apparatus (MVEDRCLA), the vehicle owner (and only the vehicle owner) determine when and who sees the data and, thus, control how it is used. Ownership of EDR data is a matter of state law. Generally, the owner of the vehicle is considered to be the rightful owner; however, courts can subpoena crash data. Crash data can be used in civil and criminal court cases. This amendment seeks to maintain privacy, prevent tampering, avoid odometer fraud, limit data access, and enhance safety by using a MVEDRCLA.

While many vehicle purchasers are not aware these devices are in their vehicles, most are unaware of the nature and potential use of the information collected by their EDR. Data collected by EDRs, without the driver's knowledge, has been used in civil and criminal cases in several states and in Canada. At least one automotive insurance company is considering basing policy rates on EDR data. Auto manufacturers could use EDR data to void warranties. The possibilities are endless.

Several states have already passed laws requiring disclosure of the existence of an EDR in a vehicle, and protection of a driver's privacy by requiring the owner's permission or a court order before downloading the EDR data. It is generally agreed that the owner of a vehicle also owns the EDR data as they have purchased the technology when they bought their vehicle. When consumers drive off the lot with a new car, they own more than just the vehicle; they own the information their vehicle generates and stores.

^a The numbers in brackets correspond to those of the bibliography in Annex E.