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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 26776-2011

**Road vehicles -- Alarm systems for commercial vehicles of
maximum authorized total mass greater than 3.5 t**

(English Translation)

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Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard uses redrafting method to modify and adopt ISO 15763:2002 "Road vehicles - Alarm systems for buses and commercial vehicles of maximum authorized total mass greater than 3.5t".

The technical differences and reasons between this Standard and ISO 15763:2002 are as follows:

- changed ISO 10605 used as reference to GB/T 19951 that is identically adopted in China;
- changed 70/388/EEC used as reference to GB 15742 that is same in relevant technical contents;
- CISPR 12 quoted is the vehicle standard while this system shall use the component test method. Therefore, used GB 18655 to replace CISPR 25;
- changed IEC 60068-2-11 to GB/T 2423.17 that is identically adopted in China;
- changed IEC 60068-2-29 to GB/T 2423.6 that is identically adopted in China;
- deleted ISO 7637-1 (the part about terms in ISO 7637-1) because the test pulse in

5.10.1 corresponds to ISO 7637-2;

- changed ISO 7637-2 to GB/T 21437.2 that is identically adopted in China;
- deleted the relevant content used as reference in ISO 512 as well as relevant contents in ISO 15763:2002 because ISO 512 has been abolished;
- deleted ISO 1176 and ISO 3833, because these two standards have been transformed and the content is well known to the industry, it is unnecessary to cite them again;
- to be consistent with GB/T 3730.1, commercial vehicles (including passenger cars, semi-trailer tractors and trucks) are used in the standard name and scope, and the word "buses" is deleted;
- the definition of key is not easy to understand, the definition of scanner is inaccurate, and it is not necessary to define these two words, so delete them;
- the subclauses 5.11 and 5.14 in ISO 15763:2002 are both tests for sound warning devices. This standard incorporates the sound level test of the original text 5.14 into 5.11, which is easier to understand and operate;
- IEC 60529 is changed to ISO 20653, the protection standard specially used for Road vehicles - Alarm systems for commercial vehicles of maximum authorized total mass greater than 3.5t

1 Scope

This Standard specifies the terms, performance requirements and test methods for alarm systems for commercial vehicles (VAS) of maximum authorized total mass greater than 3.5t.

This Standard applies to vehicle alarm systems that test/detect and warn of abnormal opening of doors, trunk lids, engine hoods, panic situations, cab tilting and trailer decoupling or power failure, including the vehicle alarm system of original vehicle equipment and the vehicle alarm system that is subsequently installed.

Annex A gives 3 test examples for the functional test of the volumetric protection system.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 2423.6, Environmental testing for electric and electronic products - Part 2: Test methods - Test Eb and guidance: Bump (GB/T 2423.6-1995, idt IEC 60068-2-29:1987)

GB/T 2423.17, Environmental testing for electric and electronic products - Part 2: Test method - Test Ka: Salt mist (GB/T 2423.17-2008, IEC 60068-2-11:1981, IDT)

GB 15742, Performance requirements and test methods of horn for motor vehicles

GB 18655, Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers (GB 18655-2002, idt IEC/CISPR 25:1995)

GB/T 19951, Road vehicles - Disturbances test methods for electrical/electronic component from electrostatic discharge (GB/T 19951-2005, ISO 10605:2001, IDT)

GB/T 21437.2, Road vehicles - Test method of electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only (GB/T 21437.2-2008, ISO 7637-2:2004, IDT)

a part of the system that enables the VAS to start working or stop working

3.8 warning device

a system component that alerts on alarm condition

3.9 panic warning device

a system component that enables the warning device to immediately enter the alarm condition regardless of whether the VAS is set or unset

3.10 status display

a system component that shows VAS status

3.11 immobilizer

a system component that prevents the use of the vehicle's own engine

3.12 perimeter protection

system functions designed to detect and warn of improper opening of doors, trunk lids, hoods, panic exits, cab tilt, and trailer decoupling or power loss

3.13 volumetric protection

system functions designed to detect intrusions into the cab/passenger compartment and actions inside

4.1 System description

The VAS shall include one or more detectors/sensors, a control unit with means for setting/unsetting and triggering the alarm, power supply and alarm means.

The VAS shall include at least one audible warning device. It can also include light alarm or wireless warning device (wireless warning device shall comply with relevant regulations on the use and management of wireless equipment), or a combination of the above-mentioned alarms. It may also include light indicators that provide VAS status or status change information, immobilizer, and other equipment that meets the requirements of this Standard. Figure 1 is a schematic diagram of the required (solid lines) or recommended (dotted lines) components of the system and their connections.

g) The power is off.

All VAS components shall be compatible with each other and shall not affect the performance of the vehicle when the alarm is removed. Regardless of setting or unsetting the alarm, the status of the VAS cannot be changed at will. Do not operate or stop working under the influence of any other warning device. When a power outage occurs, the VAS must not change its status after power is restored. The failure of any sound and light warning device shall not affect the normal operation of the rest of the VAS. VAS components are designed, manufactured and installed to minimize the possibility of false alarms. All VASs shall prevent unauthorized users from easily and