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PEOPLE'S REPUBLIC OF CHINA**

JT/T 883-2014

**Commercial vehicle driving dangerous warning system
technical requirements and test procedures
(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 was proposed by AND shall be under the jurisdiction of the National Road Transport Standardization Technical Committee (SAC/TC 521).

Drafting organization of this standard. Highway Research Institute of Ministry of Transport.

Participating drafting organizations of this standard. Tsinghua University State Key Laboratory of Automobile Safety and Energy Conservation, Technology Center of China FAW Co., Ltd., Dongguan Meibaoyu Automotive Intelligent Technology Co., Ltd.

1 Scope

This standard specifies the general requirements, functional requirements, performance requirements, installation and use requirements, test methods, for the driving dangerous warning system of commercial vehicles (hereinafter referred to as the warning system).

This standard is applicable to the dangerous warning system for commercial vehicles, which are equipped with the warning function of the front vehicle collision and the dangerous state of lane departure.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB 5768.3-2009 Road traffic signs and markings - Part 3.Road traffic markings

GB/T 26773-2011 Intelligent transport systems - Lane departure warning systems - Performance requirements and test procedures

JT/T 794 GNSS system for operating vehicles - Technical specification for vehicle terminals

ISO 15623.2002 Transport information and control systems - Forward vehicle collision warning systems - Performance requirements and test procedures

IEC 60825-1 Safety of laser products - Part 1.Equipment classification and requirements

3 Terms and definitions

The terms and definitions as defined in JT/T 794, GB/T 26773-2011, ISO 15623.2002, as well as the following terms and definitions, apply to this document.

3.1

Commercial vehicle driving dangerous warning system

A system, which automatically collects the speed, distance from the front vehicle, lane, other vehicle running status information, during the driving process of the commercial vehicle;

4.1 Composition of early warning system

The early warning system shall include a front vehicle collision warning module, a lane departure warning module, a data communication interface. The front vehicle collision warning module and the lane departure warning module shall transmit no less than the following information, to the on-board terminal of satellite positioning system, through

the data communication interface, respectively.

4.2 Others

The appearance, nameplate, text, graphics, signs, materials, enclosure protection of each module of the early warning system shall meet the requirements of JT/T 794.

5.1 Self-check

The early warning system shall be started, within 30 s after the vehicle is started; complete the self-check of all the main system sensors and components; clearly indicate the current working status of the early warning system, by signal lights or display screens.

5.2 Automatic calibration

For a specific vehicle, the early warning system shall be able to automatically calibrate, to compensate for normal or predictable changes in vehicle load (e.g. empty/full fuel tank, trailer with/without bucket, loaded/unloaded, one or more occupants, etc.).

5.4.2 The early warning system shall be able to detect the following lane lines, which

meet the requirements of GB 5768.3-2009.

5.4.3 When driving under normal road conditions, the early warning system shall be

able to detect lane lines, in lighting conditions such as in day, night, dusk, dawn.

5.4.4 When the driver has a tendency to change lanes or turn AND turn on the turn

signal in the correct direction, the early warning system shall not issue a lane departure warning.

5.5 Others

The early warning system shall provide the driver with a human-machine interface, including indicator lights related to the operating state of the system, alarm information of dangerous states in the form of sound/tactile/visualization, the operating/stop/fault

state of the system. Indicator lights shall clearly show status in direct sunlight and at night.

6.1 Overall performance

The early warning system and firmware shall keep working independently and stably for 24 hours. They shall meet the following performance requirements.

6.2 Others

The electrical performance, environmental adaptation performance, electromagnetic compatibility performance of the early warning system shall comply with the relevant requirements of JT/T 794.

7.1 The early warning system shall be installed, in accordance with the manufacturer's

recommendations. It shall not affect the driver's sight. It shall not be installed on surfaces, which are prone to vibration.

7.2 The main components of the early warning system, such as controllers and sensors,

shall be marked with the manufacturer's logo.

8.1 Test conditions

The test conditions are as follows.

8.2.1.3 Test procedure

The test steps are as follows.

8.2.2.1 Test method

The subject vehicle approaches, at a constant speed, the front vehicle; the speed of the front vehicle is lower than that of the subject vehicle. The test process is as shown in Figure 2.