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**Bus Electromagnetic Glass Breaker
(English Translation)**

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Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard was proposed by the Science and Technology Department of MOT.

This Standard shall be under the jurisdiction of Bus Subcommittee of the National Technical Committee for Standardization of Automobile (SAC/TC 114/SC22).

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Bus Electromagnetic Glass Breaker

1 Scope

This Standard specifies the technical requirements, test methods, inspection rules, marking, package, transportation and storage of bus electromagnetic glass breaker. This Standard is applicable to the bus electromagnetic glass breaker, which breaks the bus emergency window tempered glass with thickness no greater than 5mm.

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) are applicable to this document.

GB/T 191 Packaging - Pictorial Marking for Handling of Goods

GB/T 2423.1 Environmental Testing for Electric and Electronic and Electronic Products - Part 2. Test Methods - Tests A. Cold

GB/T 2423.2 Environmental Testing - Part 2. Test Methods - Tests B. Dry Heat

GB/T 2423.17 Basic Environmental Testing Procedures for Electric and Electronic Products Test Ka. Salt Mist

GB/T 2829 Sampling Procedures and Tables for Periodic Inspection by Attributes (Apply to Inspection of Stability for Productive Process)

GB/T 3785.1 Electroacoustics - Sound Level Meters - Part 1. Specifications

GB 7258 Safety Specifications for Power-Driven Vehicles Operating on Roads

GB 9656 Safety Glazing Materials for Road Vehicles

GB/T 15173 Electroacoustics - Sound Calibrators

GB/T 18655 Vehicles Boats and Internal Combustion Engines - Radio Disturbance Characteristics - Limits and Methods of Measurement for the Protection of on-Board Receivers

3 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1 Bus electromagnetic glass breaker

A device that applies the principle of electromagnetic induction, the electromagnetic force generated by the electromagnetic coil after energization to push the impact head of the movable iron core in the coil to break the tempered glass of the bus emergency window. Generally, it consists of the impact head, electromagnetic coil, casing, control switch, manual breaking mechanism of the window, etc.

4.1.1 The nominal voltage of the bus electromagnetic glass breaker (hereinafter referred to as "product") is 12V or 24V; when it is 12V, the working voltage range is 9V~16V; when it is 24V, the working voltage range is 18V~32V.

4.1.5 After the product is power on, start the control switch; the tempered glass of the
car emergency window shall be broken within 1s effectively.

4.1.6 In addition to the corresponding electromagnetic glass breaking function, the

product shall also have the manual glass breaking function, which shall be used repeatedly. The product's manual glass breaker is equipped with alarm device; when starting the manual glass breaking function, the alarm device shall sound an alarm.

4.1.7 After the product breaks the glass, the product impact head shall be free of
deformation or falling off; there is no crack or looseness at each joint of the casing.

4.2.1 The control switch shall be installed in a position that is easy for the driver of the

vehicle to handle; and shall have an operational icon prompt.

4.3.1 The product impact head axis shall be perpendicular to the window glass plane.

The product shall be installed on the column or beam of the bus emergency window;

the installation height shall be within the range of 1000mm~1700mm above the bus floor.

4.4 Flame resistance

The flame resistance of the non-metallic materials in product shall conform to the provisions of GB 7258.

4.5 Product protection performance

The product protection performance shall meet the requirements of 3.6 in QC/T 413-2002.

4.7 Product insulation withstand voltage performance

The product insulation withstand voltage performance shall meet the requirements of

4.8.1 Electromagnetic immunity

The product electromagnetic immunity shall meet the requirements of 3.9 in QC/T 413-2002.

4.8.2 Electromagnetic disturbance

The product electromagnetic disturbance shall conform to the provisions of GB 18655.

4.12 Product resistance to salt spray

The product shall take the test on resistance to salt spray as per the requirements of GB/T 2423.17; the duration of the test shall be at least 96h. After the test on resistance to salt spray of the product, the product function shall meet the requirements for Class-C defined in GB/T 28046.1-2011.

4.15 Product noise

When the product works, the maximum noise generated by itself and measured at 1.2m away from the product shall not exceed 86dB(A).

5.1.2.1 Production of test device. select the area at least 4.0x105mm² (such area can

embed a rectangle of 500mmx700mm); tempered glass with thickness of 5mm