

Specification for Testing Gas Discharge Light Source Subsystem

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SPECIFICATION FOR TESTING GAS DISCHARGE LIGHT SOURCE SUBSYSTEM

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1. SCOPE

This specification is a general level subsystem light source specification that establishes test requirements of a Gas Discharge Light Source (GDLS) subsystem for use on passenger vehicles.

The completed test data to this test specification is intended to be provided to the OEM by the Tier one lamp set maker as part of the lamp assembly PPAP. Re-testing shall be required if any portion of the approved GDLS experiences a design, manufacturing or component change.

This document shall be applied to systems that meet the requirements for design, performance and validation established by government standards.

The subsystem is defined as the ballast, igniter and light source and shall be tested as a subsystem and considered one test sample for the entire test sequence. A failure of any component in the test sample shall constitute a failure of the entire sample. Substitution or replacement of only the light source shall be allowed during testing. Failure of the light source more than once in a tested system shall constitute a failure of the GDLS. *If other manufacture's components are intended to be approved for use in the GDLS, then those possible combinations of components shall be considered a new GDLS and shall also be tested.*

Additional testing may be required by individual OEM's to meet specific EMC, quality, reliability and durability objectives.

The following tests are to be performed under the following conditions:

- New light source (capsule) or ballast design
- Design or process change made to an existing capsule or ballast, which could affect the outcome of the test
- Completion of one calendar year as noted in the "ANNUAL TESTS" Table shown in the Appendix. *(Note: Production process control data, collected at a shorter interval per an approved control plan, may be substituted if approved by customer's responsible engineer and purchasing representative.)*

2. SAFETY PRECAUTIONS

HID bulbs have pressurized gas inside, may contain mercury, and require special handling. They can burst or shatter if scratched or dropped.

HID ballasts utilize high voltages to strike the arc. Use caution when handling.

Wear appropriate eye protection, gloves, and shielding when performing any tests on bulbs covered by this specification.

Use caution when handling a bulb that has recently been energized. These bulbs operate at a very high temperature.

Protect operating lamps from contact with liquid and moisture. Liquid contacting a hot bulb can cause it to shatter.

Hold the bulb only by the base. Do not touch the glass portion of the bulb with bare hands.

This specification may involve hazardous materials, operations, and equipment. This specification does not purport to address all the safety concerns associated with its use. It is the responsibility of whoever uses this specification to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2.1 HIGH VOLTAGE IDENTIFICATION/LABELING

The GDLS shall meet the requirements of SAE J1673 - High Voltage Wiring Assembly Design. If a high voltage label is used, it shall meet the requirements of ISO 2575 Symbol M06 shown here.



ISO 2575 Symbol M06

3. REFERENCE STANDARDS

In the event of a conflict between the text of this specification and the documents cited herein, the text of this specification takes precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained. The latest issue of reference documents shall apply.

- (FMVSS) Federal Motor Vehicle Safety Standard No. 108
- (CMVSS) Canada Motor Vehicle Safety Standard No. 108
- Part 564 of Federal Motor Vehicle Safety Standard No. 108
- CIE Publication 13.3 Dated 1995
- ECE-Regulation 98, Uniform Provisions Concerning The Approval Of Motor Vehicle Headlamps Equipped With Gas-Discharge Light Sources
- ECE-Regulation 99, Uniform Provisions Concerning The Approval Of Gas-Discharge Light Sources For Use In Approved Gas-Discharge Lamp Units Of Power-Driven Vehicles