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INTERNATIONAL
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SURFACE VEHICLE STANDARD

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Superseding J914 NOV87

(R) SIDE TURN SIGNAL LAMPS FOR VEHICLES LESS THAN 12 m IN LENGTH

1. Scope—This SAE Standard provides installation requirements, test procedures, design guidelines, and performance requirements for side turn signal lamps for vehicles less than 12 m in length.

2. References

2.1 Applicable Documents—The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J567—Lamp Bulb Retention System
SAE J575—Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less Than 2032 mm in Overall Width
SAE J576—Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices
SAE J578—Color Specification
SAE J588—Turn Signal Lamps for Use on Motor Vehicles Less Than 2032 mm in Overall Width
SAE J759—Lighting Identification Code

2.2 Related Publication—The following publication is provided for information purposes only and is not a required part of this specification.

2.2.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J2039—Side Turn Signal Lamps for Large Vehicles

3. Definition

3.1 Side Turn Signal Lamp—A lighting device normally mounted on the side of a vehicle at or near the front, and used as part of the turn signal system to indicate a change in direction by means of a flashing warning signal on the side toward which the vehicle operator intends to turn or maneuver.

NOTE—Side turn signals, when used, are supplemental to, and should not be confused with turn signals described in SAE J588, which, in some cases, may be mounted on the side of the vehicle.

4. Lighting Identification Code—Side Turn Signal Lamps for use on vehicles less than 12 m in length may be identified by the code "E2" in accordance with SAE J759.

5. Tests

5.1 SAE J575 is a part of this document. The following tests are applicable with modifications as indicated:

5.1.1 VIBRATION TEST

5.1.2 MOISTURE TEST

5.1.3 DUST TEST

5.1.4 CORROSION TEST

5.1.5 PHOTOMETRIC TEST

5.1.5.1 Photometric tests shall be made with the photometer at a distance of at least 3 m from the lamp. The H-V axis shall be taken as the horizontal line through the light source and normal to the longitudinal axis of the vehicle.

5.1.5.2 Photometric measurements shall be made with the bulb filament steadily burning.

5.1.6 WARPAGE TEST ON DEVICES WITH PLASTIC COMPONENTS

5.2 Color Test—SAE J578 is part of this document.

6. Requirements

6.1 Performance Requirements—A device when tested in accordance with the test procedures specified in Section 5 shall meet the following requirements:

6.1.1 VIBRATION—SAE J575

6.1.2 MOISTURE—SAE J575

6.1.3 DUST—SAE J575

6.1.4 CORROSION—SAE J575

6.1.5 PHOTOMETRY—SAE J575

6.1.5.1 The lamp under test shall meet the photometric performance requirements contained in Table 1 and its footnotes. The summation of luminous intensity measurements at the specified test points in a zone shall be at least the value shown.

6.1.6 WARPAGE—SAE J575

6.1.7 COLOR—The color of the light from a side turn signal lamp shall be yellow, as specified in SAE J578.

TABLE 1—PHOTOMETRIC PERFORMANCE REQUIREMENTS[1,2,3]

Position (Degrees)	Minimum Zone Total (Candela)
15U-30L	2.4
5U-30L	
H-30L	
5D-30L	
15U-70L	2.4
5U-70L	
H-70L	
5D-70L	

[1] Angles shown are for lamps mounted on left-hand side of vehicle. For lamps mounted on right-hand side, substitute right-hand angles.

[2] The measured value for any test point shall not be less than 60% of the minimum value for that test point specified in Table 2.

[3] Maximum candela at any test point: 200.

TABLE 2—PHOTOMETRIC DESIGN GUIDELINES[1,2]

Position (Degrees)	Minimum (Candela)
15U-30L	0.6
15U-70L	0.6
5U-30L	0.6
5U-70L	0.6
H-30L	0.6
H-70L	0.6
5D-30L	0.6
5D-70L	0.6

[1] Angles shown are for lamps mounted on left-hand side of vehicle. For lamps mounted on right-hand side, substitute right-hand angles.

[2] Maximum candela at any test point: 200.

6.2 Material Requirements—Plastic materials used in optical parts shall meet the requirements of SAE J576.

6.3 Installation Requirements

6.3.1 Visibility and photometric performance of the side turn signal lamp within the test angles shown in Tables 1 and 2 shall not be obstructed by any portion of the vehicle unless the lamp is designed to comply with all requirements when the obstruction is considered.

6.3.2 Side turn signal lamps shall flash simultaneously or alternately with the required front turn signal lamps.

6.3.3 Side turn signal lamps shall be mounted on vehicles with a length of less than 12 m at a height of no more than 1220 mm and no less than 500 mm.

7. Guidelines

7.1 Photometric design guidelines for side turn signal lamps, when tested in accordance with 5.1.5 of this document are contained in Table 2 and its footnotes.

7.2 Installation Guidelines—The following guidelines apply to the side turn signal lamps as used on the vehicle and shall not be considered to be part of the requirements.

7.2.1 Side turn signal lamps should be located as close to the front of the vehicle as practicable.

7.2.2 The electrical wiring in the vehicle should be adequate to supply design voltage to the lamp filament.

7.2.3 Installation of lamps on vehicles should be such that the effect of dirt, grime, and/or snow accumulation on optical surfaces is minimized.

7.2.4 Where it is expected that lamps must perform in extremely severe environments, such as off-highway, mining or fuel haulage, or where it is expected that they will be totally immersed in water, the user should specify lamps specifically designed for such use.

8. Notes

8.1 Marginal Indicia—The (R) is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. If the symbol is next to the report title, it indicates a complete revision of the report.

PREPARED BY THE SAE LIGHTING COORDINATING COMMITTEE AND THE
SAE SIGNALING AND MARKING DEVICES STANDARDS COMMITTEE

APPENDIX A

As a matter of information, attention is called to SAE J567 for requirements and gauges to be used in socket design.