The Engineering Society For Advancing Mobility Land Sea Air and Space®

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SAE J1167 JUN84

Motorcycle Stop Lamp Switch

SAE Recommended Practice
Completely Revised June 1984

an American National Standard

The Engineering Society For Advancing Mobility Land Sea Air and Space®
400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

SPECIALIZED VEHICLE PRACTICE

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SAE J1167

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MOTORCYCLE STOP LAMP SWITCH

1. SCOPE:

This SAE Recommended Practice establishes test procedures and performance requirements for stop lamp switches intended for use in an AC or a DC circuit on motorcycles. In service use may impose specific conditions on the switch which can affect its functional life. Those conditions should be replicated, as necessary, during the testing described in this document to ensure the adequate functioning of the device.

2. DEFINITION:

2.1 A motorcycle stop lamp switch is a device used to energize the stop lamp circuit on a motorcycle with operator actuation of the brake control.

2.2 Motorcycle Classes: For motorcycle class definitions, see SAE J213a (March 1972).

2.3 For the tests described in this recommended practice, the switch shall be operated at 6.4 DC volts for a 6 V circuit and 12.8 DC volts for a 12 V circuit. These voltages shall be measured at the terminals.[1]

2.4 As used in this document, one cycle shall be defined as the energizing and de-energizing of the stop lamp circuit with the switch mechanism working throughout its designed travel and/or pressure.

[1]If wiring is an integral part of the switch, the voltage drop measurement shall be made including 76 mm (3 in) of wire on each side of the switch.

3. TEMPERATURE TEST:

3.1 To ensure basic function, the switch shall be operated for 10 cycles at design electrical load at each of the following temperatures:

24 ± 5.5°C	(75 ± 10°F)
74 + 0, -2.8°C	(165 + 0, -5°F)
-32 + 2.8, -0°C	(25 + 5, -0°F)

This is to be done after a 1 h exposure at each temperature. The switch shall be electrically and mechanically operable during each of these cycles.

3.2 The voltage drop at the terminals[1] shall be measured before and at the end of this test. The voltage drop shall not, at either time, exceed the following values, using the average of three consecutive readings at design load:

6 V Circuit	0.30 V
12 V Circuit	0.40 V

3.3 This same switch shall be used for the endurance test described below.

4. ENDURANCE TEST: (see paragraph 3.3)

4.1 The switch shall be set up to operate its design electrical load.

4.2 The switch shall be operated for the number of cycles and at the temperature described in paragraph 4.4.

4.3 The voltage drop at the terminals[1] shall be measured before and at the end of this test. The voltage drop shall not, at either time, exceed the following values, using the average of three consecutive readings at design load:

6 V Circuit	0.30 V
12 V Circuit	0.40 V

4.4 The switch shall be capable of satisfactory operation during the following number of operations at 24 ± 5.5°C (75 ± 10°F):

Class A and D motorcycles - 100 000 operations
Class B and C motorcycles - 50 000 operations

5. OTHER TESTS:

The switch shall be subjected to the following tests in SAE J575 JUL83 and shall meet the requirements therein. A separate switch from that used in Sections 3 and 4 may be used in each of the following tests:

Section 4.2 - Moisture Test
Section 4.4 - Corrosion Test