

Issued 1969-07
Reaffirmed 1996-05

Superseding J107 APR80

Submitted for recognition as an American National Standard

OPERATOR CONTROLS AND DISPLAYS ON MOTORCYCLES

Foreword—This reaffirmed document has been changed only to reflect the new SAE Technical Standards Board format.

1. **Scope**—This SAE Recommended Practice applies to two- and three-wheel motorcycles intended for highway use. Vehicles commonly known as mopeds and mini-bikes are included in this vehicle category if they are intended for highway use.
- 1.1 **Purpose**—This document is intended to provide guides toward standard location and operation of motorcycle controls and standard identification of displays to reduce the possibility of operator confusion.
2. **References**—There are no referenced publications specified herein.
3. **Definitions**—The right and left side designations in the following paragraphs refer to orientation of the vehicle with respect to the operator when seated normally on the operator's seat.
4. **Control Requirements**
 - 4.1 **Throttle Control**—The throttle control shall be hand operated and located on the right side of the handlebar. When rotated around its axis in a counterclockwise direction, as viewed from the right end of the bar, the engine speed shall be increased.
 - 4.2 **Front Wheel Brake Control**—The front wheel brake control lever shall be located on the right side of the handlebar and so arranged that the control lever can be actuated without completely removing the hand from the throttle control. This requirement applies only when the front wheel brake is controlled separately from the rear brake.
 - 4.3 **Rear Brake Control**—The rear brake control shall be operated by the right foot and so located that it is convenient to the operator when the foot is normally positioned on the foot peg or foot board. A supplemental control may be hand operated from the left handlebar when an automatic clutch or no clutch is employed. The rear brake control for mopeds may be hand operated from the left handlebar.
 - 4.4 **Clutch Control**—When equipped with a manual clutch control, the control shall be operated by the left hand of the operator. The control shall be so located that it is convenient to operate without removing the hand from the normal position.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

QUESTIONS REGARDING THIS DOCUMENT: (724) 772-8512 FAX: (724) 776-0243
TO PLACE A DOCUMENT ORDER; (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS <http://www.sae.org>

SAE J107 Reaffirmed MAY1996

4.5 Transmission Gear Change Control—The transmission gear change control shall be operated with either the left foot or, when an automatic clutch or no clutch is employed, the left hand. Each gear change position, except neutral, shall have a positive detent action. If three or more gears are provided, it shall not be possible to shift from the highest gear ratio directly to the lowest gear ratio or vice versa. For foot operated shift, an upward motion of the operator's toe shall shift the transmission toward lower numerical gear ratios (higher gears), and a downward motion toward higher numerical gear ratios (lower gears).

4.6 Additional Controls—The following controls, when provided, may be operable by either hand but shall be located so that they can be operated without complete removal of the operator's right hand from the throttle control: headlamp dimmer switch, horn control, turn signal switch, choke control (or carburetor enriching devices), reserve fuel valve control, ignition switch, and emergency engine stop.

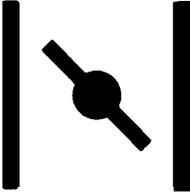
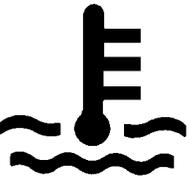
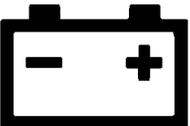
5. Display Requirements

5.1 When an indicator, control, or item of equipment listed in Figure 1 in Column 1 of Section 6 is provided, it shall be identified either by words or symbols or both. If symbols are used to illustrate the location or function of the control or indicator, the indicator or tell-tale symbol or the symbol at the appropriate position of control shall be as indicated in Column 2, and the color of the indicator or tell-tale shall be as indicated in Column 3.

6. Designation and Illustration of Symbols

Column 1		Column 2	Column 3
No.	Control, Indicator	Symbol	Color of Tell-Tale
6.1	Headlamp beam control Upper beam		Blue
	Lower beam		
6.2	Turn Signal		Amber or green
6.3	Hazard warning (alternates) {	Simultaneous operation of both arrows of 6.2 	(Above)

SAE J107 Reaffirmed MAY1996

Column 1		Column 2	Column 3
No.	Control, Indicator	Symbol	Color of Tell-Tale
6.4	Manual choke		
6.5	Horn		
6.6	Fuel		Amber
6.7	Engine coolant temperature		Red
6.8	Battery charging		Red
6.9	Engine Oil		Red
6.10	Neutral Indicator		Green

a. Framed areas of these symbols may be solid.

FIGURE 1—DISPLAY REQUIREMENTS (CONTINUED)

PREPARED BY THE SAE MOTORCYCLE COMMITTEE