Operator Controls and Displays on Motorcycles — SAE J107 APR80

SAE Recommended Practice
Completely Revised April 1980

THIS IS A PREPRINT WHICH IS SUBJECT TO REVISIONS AND CORRECTIONS. THE FINAL VERSION WILL APPEAR IN THE 1981 EDITION OF THE SAE HANDBOOK.

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φ OPERATOR CONTROLS AND DISPLAYS ON MOTORCYCLES—SAE J107 APR80

SAE Recommended Practice

Report of the Motorcycle Committee, approved July 1969, completely revised April 1980. Rationale statement available.

1. Purpose—This SAE Recommended Practice 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. Scope—This 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.

3. Definition—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.

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).

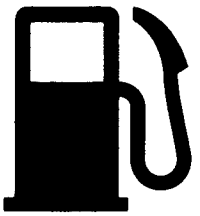
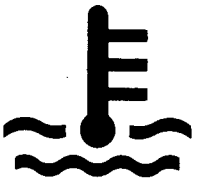
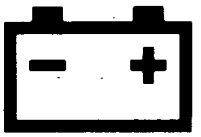
4.6 Additional Controls—The following controls, when provided, may be operable by either hand but shall be located so that they can be operated without complete removal of the operator's right hand from the throttle control: headlamp dimmer switch, horn control, turn signal switch, choke control (or 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 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

The φ symbol 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.

	COLUMN 1		COLUMN 2	COLUMN 3
No.	**Control, Indicator, or Tell-Tale Designation**		**Symbol**	**Color of Tell-Tale**
6.1	Headlamp beam control	Upper beam	a 	Blue
		Lower beam	a 	
6.2	Turn signal		a 	Amber or green
6.3	Hazard warning	(alternates)	Simultaneous operation of both arrows of 6.2	(Above)
			a 	Red
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		a 	Red
6.10	Neutral indicator		N	Green

[a] Framed areas of these symbols may be solid.