

**§ 571.123 Standard No. 123; Motorcycle controls and displays.**

S1. *Scope.* This standard specifies requirements for the location, operation, identification, and illumination of motorcycle controls and displays, and requirements for motorcycle stands and footrests.

S2. *Purpose.* The purpose of this standard is to minimize accidents caused by operator error in responding to the motoring environment, by standardizing certain motorcycle controls and displays.

S3. *Application.* This standard applies to motorcycles equipped with handlebars, except for motorcycles that are designed, and sold exclusively for use by law enforcement agencies.

S4. *Definitions.* *Clockwise* and *counterclockwise* mean opposing directions of rotation around the following axes, as applicable.

(a) The operational axis of the ignition control, viewed from in front of the ignition lock opening;

(b) The axis of the right handlebar on which the twist-grip throttle is located, viewed from the end of that handlebar;

(c) The axis perpendicular to the center of the speedometer, viewed from the operator's normal eye position.

S5. *Requirements.*

S5.1. Each motorcycle shall be equipped with a supplemental engine stop control, located and operable as specified in Table 1.

S5.2. Each motorcycle to which this standard applies shall meet the following requirements:

S5.2.1 *Control location and operation.* If any item of equipment listed in Table 1, Column 1, is provided, the control for such item shall be located as specified in Column 2, and operable as specified in Column 3. Each control located on a right handlebar shall be operable by the operator's right hand throughout its full range without removal of the operator's right hand from the throttle. Each control located on a left handlebar shall be operable by

the operator's left hand throughout its full range without removal of the operator's left hand from the handgrip. If a motorcycle with an automatic clutch is equipped with a supplemental rear brake control, the control shall be located on the left handlebar. If a motorcycle is equipped with self-proportioning or antilock braking devices utilizing a single control for front and rear brakes, the control shall be located and operable in the same manner as a rear brake control.

S5.2.2 *Display illumination and operation.* If an item of equipment listed in Table 2, Column 1, is provided, the display for such item shall be visible to a seated operator under daylight conditions, shall illuminate as specified in Column 2, and shall operate as specified in Column 3.

S5.2.3 *Control and display identification.* If an item of equipment in Table 3, Column 1, is provided, the item and its operational function shall be identified by:

(a) A symbol substantially in the form shown in Column 3; or

(b) Wording shown in both Column 2 and Column 4; or

(c) A symbol substantially in the form shown in Column 3 and wording shown in both Column 2 and Column 4.

(d) The abbreviations "M.P.H.", "km/h", "r/min", "Hi", "Lo", "L", "R", and "Res" appearing in Column 2 and Column 4 may be spelled in full. Symbols and words may be provided for equipment items where none are shown in Column 2, Column 3, and Column 4. Any identification provided shall be placed on or adjacent to the control or display position, and shall appear upright to the operator.

S5.2.4 *Stands.* A stand shall fold rearward and upward if it contacts the ground when the motorcycle is moving forward.

S5.2.5 *Footrests.* Footrests shall be provided for each designated seating position. Each footrests for a passenger other than an operator shall fold rearward and upward when not in use.

TABLE 1—MOTORCYCLE CONTROL LOCATION AND OPERATION REQUIREMENTS

Equipment control—Column 1	Location—Column 2	Operation—Column 3
1. Manual clutch or integrated clutch and gear change.	Left handlebar .....	Squeeze to disengage clutch.

TABLE 1—MOTORCYCLE CONTROL LOCATION AND OPERATION REQUIREMENTS—Continued









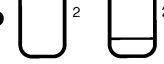
Equipment control—Column 1	Location—Column 2	Operation—Column 3
2. Foot operated gear change .....	Left foot control .....	An upward motion of the operator's toe shifts transmission toward lower numerical gear ratios (commonly referred to as "higher gears"), and a downward motion toward higher numerical gear ratios (commonly referred to as "lower gears"). If three or more gears are provided it shall not be possible to shift from the highest gear directly to the lowest gear, or vice versa.
3. Headlamp upper-lower beam control	Left handlebar .....	Up for upper beam, down for lower beam. If combined with the headlight on-off switch, means shall be provided to prevent inadvertent actuation of the "off" function.
4. Horn .....	.....do .....	Push to activate.
5. Turn signal lamps .....	Handlebars.	
6. Ignition .....	.....do .....	"Off"—counterclockwise from other positions.
7. Manual fuel shutoff control .....	.....do .....	Rotate to operate. "On" and "Off" are separated by 90 degrees of rotation. "Off" and "Reserve" (if provided) are separated by 90 degrees of rotation. Sequence order: "On"—"Off"—"Reserve".
8. Twist-grip throttle .....	Right handlebar .....	Self-closing to idle in a clockwise direction after release of hand.
9. Supplemental engine stop .....	.....do.	
10. Front wheel brake .....	.....do .....	Squeeze to engage.
11. Rear wheel brakes .....	Right foot control <sup>1</sup> .....	Depress to engage.
	Left handlebar permissible for motor-driven cycles.	

<sup>1</sup> See S5.2.1 for requirements for vehicles with a single control for front and rear brakes, and with a supplemental rear brake control.

TABLE 2—MOTORCYCLE DISPLAY ILLUMINATION AND OPERATION REQUIREMENTS

Display—Column 1	Illumination—Column 2	Operation—Column 3
1. Speedometer .....	Yes .....	The display is illuminated whenever the headlamp is activated.
2. Neutral indication .....	Green display lamp .....	The display lamp illuminates when the gear selector is in neutral position.

**Table 3  
Motorcycle Control and Display Identification Requirements**

No.	Column 1 <i>Equipment</i>	Column 2 <i>Control and Display Identification Word</i>	Column 3 <i>Control and Display Identification Symbol</i>	Column 4 <i>Identification at Appropriate Position of Control and Display</i>
1	Ignition	Ignition	—	Off
2	Supplemental Engine Stop (Off, Run)	Engine Stop		Off, Run
3	Manual Choke or Mixture Enrichment	Choke or Enrichener		—
4	Electric Starter	—		Start <sup>1</sup>
5	Headlamp Upper-Lower Beam Control	Lights		Hi, Ho
6	Horn	Horn		—
7	Turn Signal	Turn		L, R
8	Speedometer	km/h <sup>5</sup> M.P.H. <sup>4</sup>	—	km/h <sup>5</sup> M.P.H. <sup>4</sup>
9	Neutral Indicator	Neutral		—
10	Upper Beam Indicator	High Beam		—
11	Tachometer	R.P.M. or r/min.	—	—
12	Fuel Tank Shutoff Valve (Off, On, Res.)	Fuel		Off, On, Res.

- 1 Required only if electric starter is separate from ignition switch.
- 2 Framed areas may be filled.
- 3 The pair of arrows is a single symbol. When the indicators for left and right turn operate independently, however, the two arrows will be considered separate symbols and may be spaced accordingly.
- 4 M.P.H. increase in a clockwise direction. Major graduations and numerals appear at 10 mph intervals, minor graduations at the 5 mph intervals. (37 F.R. 17474–August 29, 1972. Effective: 9/1/74)
- 5 If the speedometer is graduated in miles per hour (MPH) and in kilometers per hour (km/h), the identifying words or abbreviation shall be MPH and km/h in any combination of upper or lower case letters.

[37 FR 7207, Apr. 12, 1972, as amended at 37 FR 17475, Aug. 29, 1972; 39 FR 32915, Sept. 12, 1974; 48 FR 42819, Sept. 20, 1983; 49 FR 35381, Sept. 7, 1984; 49 FR 35504, Sept. 10, 1984; 56 FR 61387, Dec. 3, 1991; 63 FR 28933, May 27, 1998; 63 FR 51001, Sept. 24, 1998]