

**§ 393.26 Requirements for reflectors.**

(a) *Mounting.* All required reflectors shall be mounted upon the motor vehicle at a height not less than 15 inches nor more than 60 inches above the ground on which the motor vehicle stands, except that reflectors shall be mounted as high as practicable on motor vehicles which are so constructed as to make compliance with the 15-inch requirement impractical. They shall be so installed as to perform their function adequately and reliably, and except for temporary reflectors required for vehicles in driveway-towaway operations, or on projecting loads, all reflectors shall be permanently and securely mounted in workmanlike manner so as to provide the maximum of stability and the minimum likelihood of damage. Required reflectors otherwise properly mounted may be securely installed on flexible strapping or belting provided that under conditions of normal operation they reflect light in the required directions. Required temporary reflectors mounted on motor vehicles during the time they are in transit in any driveway-towaway operation must be firmly attached.

(b) *Specifications.* All required reflectors except those installed on vehicles tendered for transportation in driveway and towaway operations shall comply with FMVSS 571.108 (49 CFR 571.108) in effect at the time the vehicle was manufactured or the current FMVSS 571.108 requirements.

(c) *Certification and markings.* All reflectors required to conform to the specifications in paragraph (b) shall be certified by the manufacturer or supplier that they do so conform, by marking with the manufacturer's or supplier's name or trade name and the letters "SAE-A". The marking in each case shall be visible when the reflector is in place on the vehicle.

(d) *Retroreflective surfaces.* Retroreflective surfaces other than required reflectors may be used, provided:

(1) Designs do not resemble traffic control signs, lights, or devices, except that straight edge striping resembling a barricade pattern may be used.

(2) Designs do not tend to distort the length and/or width of the motor vehicle.

(3) Such surfaces shall be at least 3 inches from any required lamp or reflector unless of the same color as such lamp or reflector.

(4) No red color shall be used on the front of any motor vehicle, except for display of markings or placards required by § 177.823 of this title.

(5) Retroreflective license plates required by State or local authorities may be used.

[33 FR 19735, Dec. 25, 1968, as amended at 35 FR 3167, Feb. 19, 1970; 53 FR 49397, Dec. 7, 1988]

**§ 393.27 Wiring specifications.**

(a) Wiring for both low voltage (tension) and high voltage (tension) circuits shall be constructed and installed so as to meet design requirements. Wiring shall meet or exceed, both mechanically and electrically, the following SAE Standards as found in the 1985 edition of the SAE Handbook:

(1) Commercial vehicle engine ignition systems—SAE J557—High Tension Ignition Cable.

(2) Commercial vehicle battery cable—SAE J1127—Jan 80—Battery Cable.

(3) Other commercial vehicle wiring—SAE J1128—Low Tension Primary Cable.

(b) The source of power and the electrical wiring shall be of such size and characteristics as to provide the necessary voltage as the design requires to comply with FMVSS 571.108.

(c) Lamps shall be properly grounded.

NOTE: This shall not prohibit the use of the frame or other metal parts of a motor vehicle as a return ground system provided truck-tractor semitrailer/full trailer combinations are electrically connected.

[53 FR 49397, Dec. 7, 1988]

**§ 393.28 Wiring to be protected.**

(a) The wiring shall—

(1) Be so installed that connections are protected from weather, abrasion, road splash, grease, oil, fuel and chafing;

(2) Be grouped together, when possible, and protected by nonconductive tape, braid, or other covering capable of withstanding severe abrasion or