

SCHOOL BUS 8 LAMP SYSTEM

ITEM AND METHOD OF INSPECTION

POINT VALUE AND REQUIREMENT
DESCRIPTION

(#) DESIGNATES POINTS TO BE DEDUCTED

VI. Eight Lamp Warning System
A. Lamp System Inoperable

(25)A. Eight Lamp Warning System Inoperable

1. Installation

1. Installation of an eight lamp alternately flashing warning signal system must comply with Federal Motor Vehicle Safety Standards 108, Code of Federal Regulation, Title 49, Part 571, for all lamps on the exterior of the vehicle

2. Wiring

(25)2. The system must be wired so that the amber signal lamps are activated only by hand operation, and if activated, are automatically deactivated and red signal lamps are automatically activated when the bus entrance door is opened.

M.S. 169.4503

CFR49/571.108 (see Section 9)

3. Pilot Lamp

(10)3. There must be a pilot lamp which must go on when the respective amber or red systems are actuated. The pilot must either go out or flash at an altered rate in the event the system is not functioning normally.

4. Control Box

(Buses before 1/1/2005)

(10)4. The signal lamp system must include a close control box. The control box must be as small as practicable, easily demounted or partially disassembled to provide simple access for maintenance purposes, the switches and pilot lamp must be located in conformance with the following diagram:

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| 5. Installation | (10)5. a. Each alternately flashing signal lamp must be mounted with its axis substantially parallel. |
| a. Mounting | |
| b. Location | (10) b. Alternately flashing signal lamps must be mounted on the same horizontal center line and above the windshield and at the rear on the same horizontal center line so that the lower edge of the lens is not lower than the top line of the side window. The vertical and lateral vision of the front and rear alternately flashing signal lamps must not be obstructed by any part of the body or lamp-house insofar as standard bus body construction permits. |
| | CFR49/561.108
M.S. 169.4503 |
| c. Installation for new buses after 07/01/1989 | c. For new buses: 1988. In installations where there is no flat vertical portion of the body immediately surrounding entire lens of lamp, circular or square band of black approximately three inches wide, immediately below and to both sides of lens must be painted on body or roof area against which signal lamp is seen (from distance of 500 feet along axis of vehicle). Hoods over lamps are acceptable, but they do not change the paint requirement of 3" around lamp in the color of black. This applies to new buses only after May 1, 1987. |

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d. Circuit Breaker or Fuse

*NOTE: If the master switch is installed, it must be done by the consumer. Dealers may not make such a modification without recertifying same to the Federal Highway Administration. If switch is installed, it must not cut out power to any portion of any brake system that utilizes electric power for operation.

d. A separate fuse or circuit breaker, adequate to prevent damage to the system in the event of a dead short, must be proved between the power source and the master switch

e. All wiring must be a minimum of 14-gauge.

6. Options for buses

6. School buses may be equipped with the following safety equipment devices:

a. Warning System

a. A driver activated student control warning system to assist students in crossing roadways. The system must contain one high intensity flashing red signal, an audible signal, and one high intensity steady amber proceed with caution lamp. Red and amber lamp lenses must be at least 4" in diameter and no larger than 4 1/2" in diameter. The control unit system must be installed in a vertical position with red signal on top and the amber signal on the bottom. Control system unit must be mounted on the left side of the bus next to the driver and one unit must be mounted on the right side just ahead of the entrance door. The units must be wired to be activated and deactivated in conjunction with eight lamp and stop arm, and to be controlled by the entrance door switch.

Amber walk lamps of the units must be on a separate on/off switch controlled by the driver, but deactivated when the entrance door is closed.

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| b. Crossing Guard | b. The use of a crossing guard gate mounted on the front bumper to put student in view of the bus driver. |
| c. Public Address System | c. The use of an external public address system to assist students in crossing roadways. |
| d. Strobe | (5) d. Buses may be equipped with a 360 degree flashing white strobe light with a flash rate of 60-120 flashes a minute. The strobe shall be of a double flash type.

Strobes shall be permanently mounted on the longitudinal center line of the lens not less than 2 feet not more than 7 feet forward of the rear roof edge. It shall operate from a separate switch containing an indicator lamp to show when the strobe is in use. |
| | (5) e. Any of the previously stated options that are installed on a school must operate properly. |

M.S. 169.47