

97-GP SERIES

CANCELLATION
March 1971

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standards
for

AUTOMOTIVE VEHICLE SAFETY

Standards 97-GP-101 to 97-GP-301 inclusive, covering safety features for automotive vehicles, have been cancelled. They have been replaced by the Motor Vehicle Safety Regulations of the Ministry of Transport, which are available from Information Canada.

Publication 97-GP, Guide to Traffic Safety, has also been cancelled.

97-GP-108a
23 September 1968
Effective Date
1 January 1969
AMENDMENT NO. 1
4 December 1968

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard

for

LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT -
PASSENGER CARS, MULTIPURPOSE PASSENGER VEHICLES,
TRUCKS, BUSES, TRAILERS AND MOTORCYCLES

TABLE III - EQUIPMENT

For the seventh item in the table, Backup lamp, change the requirement from "2 white" to "1 white".

TABLE IV - EQUIPMENT LOCATION

For the seventh item in Column 1, Backup lamp, change the last four lines in Column 2 to read:

"longitudinal axis of the vehicle 3 ft. to the rear of the vehicle and extending 3 ft. beyond each side of the vehicle."



CANADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

STANDARD

FOR

LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT -
PASSENGER CARS, MULTIPURPOSE PASSENGER VEHICLES,
TRUCKS, BUSES, TRAILERS AND MOTORCYCLES

97-GP-108a

23 SEPTEMBER 1968

EFFECTIVE DATE

1 JANUARY 1969

SUPERSEDES 97-GP-108

24 MAY 1968

THIS STANDARD SPECIFIES REQUIREMENTS FOR LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT, FOR SIGNALLING AND TO ENABLE SAFE OPERATION IN DARKNESS AND OTHER CONDITIONS OF REDUCED VISIBILITY.

DEPARTMENT OF DEFENCE PRODUCTION, OTTAWA, CANADA

97-GP-108a
23 September 1968
Effective Date
1 January 1969
Supersedes 97-GP-108
24 May 1968

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard

for

LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT -
PASSENGER CARS, MULTIPURPOSE PASSENGER VEHICLES,
TRUCKS, BUSES, TRAILERS AND MOTORCYCLES

1. PURPOSE AND SCOPE

1.1 This standard specifies requirements for lamps, reflective devices and associated equipment, for signalling and to enable safe operation in darkness and other conditions of reduced visibility.

2. APPLICABLE PUBLICATIONS

2.1 The following publications are applicable to this standard:

- 2.1.1 Society of Automotive Engineers (SAE)
- J564a - Headlamp Beam Switching, April 1964
 - J565a - Semi-Automatic Headlamp Beam Switching Devices, April 1965
 - J567b - Bulb Sockets, August 1965
 - J579a - Sealed Beam Headlamp Units for Motor Vehicles, August 1965
 - J580a - Sealed Beam Headlamp, June 1966
 - J584 - Motorcycle and Motor Driven Cycle Headlamps, April 1964
 - J585c - Tail Lamps, June 1966
 - J586b - Stop Lamps, June 1966
 - J587b - License Plate Lamps, April 1964
 - J588d - Turn Signal Lamps, June 1966
 - J589 - Turn Signal Operating Unit, April 1964
 - J590b - Automotive Turn Signal Flashers, October 1965
 - J592b - Side Marker, Identification Lamps, Clearance Lamps, April 1964
 - J593b - Backup Lamps, May 1966
 - J594c - Reflex Reflectors, February 1965
 - J822 - Wedge Base Type Socket, April 1962
 - J887 - School Bus Red Signal Lamp, July 1964
 - J910 - Vehicular Hazard Warning Signal Operating Unit, January 1966
 - J945 - Vehicular Hazard Warning Signal Flasher, February 1966

- 2.1.2 United States Federal Specification (USFS)
L-S-300, Sheetting and Tape, Reflective, Nonexposed Lens,
Adhesive Backing, 7 September 1965.

3. APPLICABILITY

- 3.1 This standard applies to:

Passenger cars
Multipurpose passenger vehicles
Trucks
Buses
Trailers
Motorcycles.

- 3.2 This standard does not apply to pole trailers and converter dollies.

4. DETAIL REQUIREMENTS

4.1 Equipment

- 4.1.1 Except as provided in par. 4.1.1.1 through 4.1.1.11, vehicles shall be equipped with lamps, reflective devices, and associated equipment, in the number of units and designed to conform to the standards specified in:

(a) Table I, for multipurpose passenger vehicles, trucks, trailers and buses, 80 or more inches in over-all width.

(b) Table III, for passenger cars, motorcycles, and multipurpose passenger vehicles, trucks, trailers and buses, less than 80 inches in over-all width.

- 4.1.1.1 Truck tractors need not be equipped with turn-signal lamps mounted on the rear if the turn-signal lamps at or near the front are so constructed (double-faced) and so located that they are visible to overtaking passing drivers.

- 4.1.1.2 Intermediate side-marker lamps and intermediate reflex reflectors are required only on vehicles 80 or more inches in over-all width and 30 or more feet in over-all length.

- 4.1.1.3 Reflective material conforming to USFS L-S-300 may be used in lieu of the side reflex reflectors, provided that this material, as used on the vehicle, meets the performance standards in Table I of SAE J594c.

- 4.1.1.4 Truck tractors less than 80 inches in over-all width need not be equipped with more than two red Class A reflex reflectors (mounted on the rear), nor with any red rear side-marker devices.

- 4.1.1.5 Passenger cars manufactured before 1 January 1970 shall be equipped with either two Class B red reflex reflectors or two Class A red reflex reflectors on the rear of the vehicle.
- 4.1.1.6 Passenger cars, multipurpose passenger vehicles, trucks, trailers and buses less than 80 inches in over-all width, manufactured before 1 January 1970, shall be equipped on each side of the vehicle with at least one of the following combinations:
- (a) 1 (red) Class A and 1 (amber) Class A reflex reflector;
 - (b) 1 red and 1 amber side-marker lamp;
 - (c) 1 red side-marker lamp and 1 (amber) Class A reflex reflector;
 - (d) 1 (red) Class A reflex reflector and 1 amber side-marker lamp.
- 4.1.1.7 Passenger cars manufactured before 1 January 1970 shall be equipped with turn-signal lamps that provide Class B photometric values and Class B effective projected illuminated areas. Passenger cars manufactured on or after 1 January 1970 shall be equipped with turn-signal lamps that provide Class A photometric values and Class B effective projected illuminated areas. If a multiple-compartment lamp or multiple lamps are used to meet this requirement, the effective projected illuminated area of each compartment or lamp shall be not less than that of a Class B lamp, and photometric requirements of Class B or Class A, as applicable, shall be provided by one or a combination of the compartments or lamps.
- 4.1.1.8 Passenger cars and multipurpose passenger vehicles, trucks, trailers and buses less than 80 inches in over-all width, and less than 30 feet in over-all length, shall be equipped with side-marker lamps conforming to SAE J592b, except that the photometric minimum candlepower requirements specified therein may be met for inboard test points at a distance of 15 feet from the vehicle and on a vertical plane that is perpendicular to the longitudinal axis of the vehicle and located midway between the front and rear side-marker lamps.
- 4.1.1.9 Boat trailers need not be equipped with front and rear clearance lamps located as specified in Table II, provided amber (to front) and red (to rear) clearance lamps are located on each side at or near the midpoint between front and rear of the trailer and indicate the extreme width of the trailer.

- 4.1.1.10 Two or more license-plate lamps and two or more back-up lamps may be used to fulfill the requirements specified in Tables I and III for a single license-plate lamp and a single back-up lamp, respectively.
- 4.1.1.11 Wedge base type bulb sockets conforming to SAE J822 may be used in lieu of the bulb sockets specified by SAE J567b.
- 4.1.2 No additional lamp, reflective device or associated equipment shall be installed if it impairs the effectiveness of the required equipment.
- 4.1.3 School Buses
- 4.1.3.1 School buses shall be equipped with a system of either:
- (a) Four red signal lamps designed to conform to SAE J887 and four amber signal lamps designed to conform to that standard, except for color and except that the candle-power requirement shall be $2\frac{1}{2}$ times that specified; or
 - (b) Four red signal lamps designed to conform to SAE J887.
- 4.1.3.2 The red and amber signal lamp system specified in 4.1.3.1 (a) shall be installed in accordance with SAE J887, except that:
- (a) An amber signal lamp shall be located near each red signal lamp, at the same level, but closer to the vertical center-line of the bus; and
 - (b) The system of red and amber signal lamps shall be wired so that:
 - (i) The amber lamps are energized manually; and
 - (ii) The red signal lamps are automatically energized, and the amber signal lamps are automatically de-energized when the bus entrance door is opened.
- 4.1.3.3 The red signal lamp system specified in 4.1.3.1 (b) shall be installed in accordance with SAE J887.
- 4.2 Location of Lamps and Reflectors
- 4.2.1 Except as provided in 4.2.1.1 through 4.2.1.3, lamps, reflective devices and associated equipment required by 4.1 shall be installed in accordance with:
- (a) Table II for multipurpose passenger vehicles, trucks, trailers and buses 80 or more inches in over-all width.

- (b) Table IV for passenger cars, motorcycles, and for multipurpose passenger vehicles, trucks, trailers and buses less than 80 inches in over-all width.

- 4.2.1.1 On tractor-trailer combination vehicles 80 or more inches in over-all width, the requirement that intermediate side reflex reflectors and intermediate side-marker lamps be located at or near the midpoint between the forward and aft side reflex reflectors, and forward and aft side-marker lamps, respectively, applies only to the trailer.
- 4.2.1.2 On truck tractors, the red rear reflex reflectors may be mounted on the back of the cab.
- 4.2.1.3 The visibility provision for a back-up lamp may be fulfilled by two or more lamps functioning as a system.
- 4.2.1.4 On trailers, the amber front side reflex reflectors and amber front side-marker lamps may be located as far forward as practicable, exclusive of the trailer tongue.

4.3 Lamp Combinations and Equipment Combinations - Two or more lamps, reflective devices, and items of associated equipment may be combined if the requirements for each lamp, reflective device, and item of associated equipment are met, except that:

- (a) No turn-signal lamp may be combined optically with any lamp (other than a stop lamp) that produces more than one-fifth the light intensity of the turn-signal lamp at test points of H-V, H-5L, H-5R, and 5U-V, nor more than one-third the intensity at any other test point on or above the horizontal.
- (b) No turn-signal lamp may be combined optically with a stop lamp unless the stop lamp is extinguished when the turn-signal is flashing.
- (c) No clearance lamp may be combined optically with any tail lamp or identification lamp on multipurpose passenger vehicles, trucks, trailers and buses 80 or more inches in over-all width.

4.4 Special Wiring Requirements

- 4.4.1 A means for switching between lower and upper headlamp beams shall be provided in accordance with SAE J564a or SAE J565a.
- 4.4.2 A means for indicating to the driver when the upper beams of headlamps are on shall be provided in accordance with SAE J564a except that the signal color need not be red.

- 4.4.3 As a minimum, the tail lamps shall be illuminated when the headlamps are illuminated, except when the headlamps are being flashed.
- 4.4.4 Except as provided in 4.4.4.1 through 4.4.4.3, stoplamps shall be actuated upon application of any service or emergency brakes.
- 4.4.4.1 Stoplamps need not be actuated upon application of the parking brake. If the emergency brake system is used also as a parking brake, the stoplamp need not be actuated when the vehicle is parked.
- 4.4.4.2 Stoplamps on a towing vehicle need not be actuated upon application of brakes to the towed vehicle only.
- 4.4.4.3 Stoplamps on a towed vehicle need not be actuated if the towed vehicle becomes separated from the towing vehicle.
- 4.4.5 The vehicular hazard warning signal operating unit shall operate independently of the ignition or equivalent switch, and when energized, shall cause to flash simultaneously sufficient turn-signal lamps located in accordance with Table II or Table IV, as applicable, to meet the turn-signal lamp photometric requirements in 4.1.1.7.
- 4.4.6 On all vehicles required by this standard to be equipped with a back-up lamp, the back-up lamp shall be illuminated when the ignition or equivalent switch is energized and reverse gear is engaged.
- 4.4.7 Except on vehicles using variable load flashers, a means for indicating to the driver that the turn-signal system is energized shall be provided in accordance with SAE J588d.

4.5 Lighting Display - When energized, each lamp specified in Tables I and III shall, in normal operation, be steady burning, except turn-signal lamps and hazard warning signal lamps, which shall flash. However, normally steady-burning lamps may be capable of being individually flashed for signalling purposes.

5. NOTES

5.1 The requirements in this standard are identical with those in United States Federal Motor Vehicle Safety Standard No. 108, Lamps, Reflective Devices, and Associated Equipment - Passenger Cars, Multi-purpose Passenger Vehicles, Trucks, Buses, Trailers and Motorcycles, 1 January 1969, and changes in that standard will be duly incorporated in CGSB Standard 97-GP-108a.

5.2 Certification to U.S. Standard No. 108 applicable at date of manufacture will certify conformance to CGSB Standard 97-GP-108.

5.3 Publications listed in Section 2 are available from the Canadian Government Specifications Board.

5.4 Further related information may be found in the CGSB Guide to Traffic Safety, also available from the Canadian Government Specifications Board.

Withdrawn/Retirée

Correspondence regarding this standard should be addressed to the Canadian Government Specifications Board, c/o Department of Defence Production, Ottawa 4, Canada.

TABLE 1 - EQUIPMENT
MULTIPURPOSE PASSENGER VEHICLES, TRUCKS, TRAILERS AND BUSES, OF 80 OR MORE
INCHES OVERALL WIDTH

Item	Number and color in accordance with SAE J578, required on			In accordance with SAE standard or recommended practice
	Multipurpose passenger vehicles, trucks (other than truck tractors), and buses	Trailers	Truck tractors	
Headlamps	2 white, 7-in., Type 2 headlamp units; or 2 white, 5 $\frac{1}{2}$ -in., Type 1 headlamp units and 2 white, 5 $\frac{1}{2}$ -in. Type 2 headlamp units.		Same as trucks and buses	J580, and J579
Taillamps	2 red	2 red	2 red	J585
Stop lamps	2 red or amber	2 red or amber	2 red or amber	J586
License plate lamp	1 white	1 white	1 white	J587
Reflex reflectors	4 Class A red; 2 Class A amber	4 Class A red; 2 Class A amber	2 Class A red (on rear); 2 Class A amber	J594
Side-marker lamps	2 red; 2 amber	2 red; 2 amber	2 amber	J592
Backup lamp	1 white		1 white	J593
Turn-signal lamps	2 Class A red or amber; 2 Class A amber	2 Class A red or amber	2 Class A red or amber; 2 Class A amber	J588
Turn-signal operating unit	1		1	J589
Turn-signal flasher	1		1	J590
Vehicular hazard warning signal oper- ating unit	1		1	J910
Vehicular hazard warning signal flasher	1		1	J945
Identifica- tion lamps	3 amber and 3 red	3 red	3 amber	J592
Clearance lamps	2 amber and 2 red	2 amber and 2 red	2 amber	J592
Intermediate side-marker lamps	2 amber	2 amber		J592
Intermediate reflex reflectors	2 Class A amber	2 Class A amber		J594

TABLE II - LOCATION OF EQUIPMENT

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Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of 80 or more inches overall width

Item	Location on			Height above road surface measured from center of item on vehicle at curb weight
	Multipurpose passenger vehicles, trucks (other than truck tractors), and buses	Trailers	Truck tractors	
Headlamps	Type 1 headlamps at the same height, 1 on each side of the vertical centerline; Type 2 headlamps at the same height, 1 on each side of the vertical centerline, as far apart as practicable		Same as trucks and buses.	Not less than 24 in., nor more than 54 in.
Taillamps	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable	Not less than 15 in., nor more than 72 in.
Stop lamps	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable	Not less than 15 in., nor more than 72 in.
License plate lamp	At rear license plate	At rear license plate	At rear license plate	
Reflex reflectors	2 red on rear, 1 on each side of the vertical centerline, as far apart as practicable and at the same level. 2 red on sides, 1 on each side as far aft as practicable. 2 amber on sides, 1 on each side as far forward as practicable	2 red on rear, 1 on each side of the vertical centerline, as far apart as practicable and at the same level. 2 red on sides, 1 on each side as far aft as practicable 2 amber on sides, 1 on each side as far forward as practicable	2 red on rear, 1 on each side of the vertical centerline, as far apart as practicable and at the same level.* 2 amber on sides, 1 on each side as far forward as practicable	Not less than 15 in., nor more than 60 in.
Side-marker lamps	On each side: 1 red lamp as far to the rear as practicable and 1 amber lamp as far forward as practicable	On each side: 1 red lamp as far to the rear as practicable and 1 amber lamp as far forward as practicable	On each side: 1 amber lamp as far forward as practicable	Not less than 15 in.

* See 4.2.1.2

(continued)

TABLE II - LOCATION OF EQUIPMENT (Continued)

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(2)

Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of 80 or more inches overall width

Item	Location on			Height above road surface measured from center of item on vehicle at curb weight
	Multipurpose passenger vehicles, trucks (other than truck tractors), and buses	Trailers	Truck tractors	
Backup lamp	On rear, so that the optical center of the lens surface is visible from any eye point elevation from 2 ft. to 6 ft. above the horizontal plane on which the vehicle is standing and from any position in the area rearward of a vertical plane, perpendicular to the longitudinal axis of the vehicle 3 ft. to the rear of the vehicle, and extending 3 ft. beyond each side of the vehicle.		On rear, so that the optical center of the lens surface is visible from any eye point elevation from 2 ft. to 6 ft. above the horizontal plane on which the vehicle is standing, and from any position in the area rearward of a vertical plane, perpendicular to the longitudinal axis of the vehicle 3 ft. to the rear of the vehicle, and extending 3 ft. beyond each side of the vehicle.	
Turn-signal lamps	At or near the front: 1 amber on each side of the vertical centerline, at the same level, and as far apart as practicable. On rear: 1 red or amber on each side of the vertical centerline, at the same level, and as far apart as practicable	On rear: 1 red or amber on each side of the vertical centerline, at the same level, and as far apart as practicable.	At or near the front: 1 amber on each side of the vertical centerline, at the same level, and as far apart as practicable. On rear: 1 red or amber on each side of the vertical centerline, at the same level, and as far apart as practicable	Not less than 15 in.
Identification lamps	On front and rear: 3 lamps, amber in front, red in rear, grouped in a horizontal row, with lamp centers spaced not less than 6 in., nor more than 12 in., apart and mounted as close as practicable to the vertical centerline.	On rear: 3 red lamps grouped in a horizontal row with lamp centers spaced not less than 6 in., nor more than 12 in. apart and mounted as close as practicable to the vertical centerline	On front: 3 amber lamps grouped in a horizontal row with lamp centers spaced not less than 6 in., nor more than 12 in., apart and mounted as close as practicable to the vertical centerline.	On front only: No part of the lamps or mountings may extend below the top of the vehicle's windshield.

(continued)

TABLE II - LOCATION OF EQUIPMENT (Continued)

(3)

Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of 80 or more inches overall width

Item	Location on			Height above road surface measured from center of item on vehicle at curb weight
	Multipurpose passenger vehicles, trucks (other than truck tractors) and buses	Trailers	Truck tractors	
Clearance lamps	On front and rear: 1 amber lamp in front, 1 red lamp in rear, as near as practicable to the upper left and right extreme edges of the vehicle. When the rear identification lamps are mounted at the extreme height of the vehicle, rear clearance lamps may be mounted at optional heights.	On front and rear: 1 amber lamp in front, 1 red lamp in rear, as near as practicable to the upper left and right extreme edges of the vehicle. When the rear identification lamps are mounted at the extreme height of the vehicle, rear clearance lamps may be mounted at optional heights.	On front: 1 amber lamp as near as practicable to the upper left and right extreme edges of the vehicle.	Not less than 15 in.
Intermediate side-marker lamps	On each side: amber lamp located at or near the midpoint between the forward and aft side marker lamps.	On each side: amber lamp located at or near the midpoint between the forward and aft side marker lamps.		
Intermediate side reflex reflectors	On each side: 1 amber located at or near the midpoint between the forward and aft side reflex reflectors.	On each side: 1 amber located at or near the midpoint between the forward and aft side reflex reflectors.		Not less than 15 in., nor more than 60 in.

TABLE III - EQUIPMENT

97-GP-108a

Passenger Cars; Motorcycles; and Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of less than 80 inches overall width

Item	Number and color in accordance with SAE J578 required on			In accordance with SAE standard or recommended practice
	Passenger cars, multipurpose passenger vehicles, trucks and buses	Trailers	Motorcycles	
Headlamps	2 white, 7-in., Type 2 headlamp units; or 2 white, 5 $\frac{3}{4}$ -in., Type 1 headlamp units and 2 white, 5 $\frac{3}{4}$ -in. Type 2 headlamp units.		1 white	J580 and J579 J584
Taillamps	2 red	2 red	1 red	J585
Stop lamps	2 red or amber	2 red or amber	1 red or amber	J586
License plate lamp	1 white	1 white	1 white	J587
Parking lamps	2 amber			J592
Reflex Reflectors	4 Class A red; 2 Class A amber*	4 Class A red; 2 Class A amber*	3 Class B red; 2 Class B amber	J594
Side-marker lamps	2 red; 2 amber**	2 red; 2 amber**		J592
Backup lamp	2 white			J593
Turn-signal lamps	2 Class A red or amber; 2 Class A amber*	2 Class A red or amber		J588
Turn-signal operating unit	1			J589
Turn-signal flasher	1			J590
Vehicular hazard warning signal operating unit	1			J910
Vehicular hazard warning signal flasher	1			J945

* See 4.1.1.5 and 4.1.1.6

** See 4.1.1.6

* See 4.1.1.7

TABLE IV - EQUIPMENT LOCATION

Passenger Cars; Motorcycles; and Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of less than 80 inches overall width

Item Col. 1	Location on		Height above road surface measured from centre of item on vehicle at curb weight Col. 4
	Passenger cars, multipurpose passenger vehicles, trucks, trailers and buses Col. 2	Motorcycles Col. 3	
Headlamps	Type 1 headlamps at the same height, 1 on each side of the vertical centerline; Type 2 headlamps at the same height, 1 on each side of the vertical centerline, as far apart as practicable.	On front centerline, except that if two lamps are used, they may be symmetrically disposed about the front centerline.	Not less than 24 in., nor more than 54 in.
Taillamps	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable.	On rear centerline except that, if two lamps are used, they may be symmetrically disposed about the rear centerline.	Not less than 15 in., nor more than 72 in.
Stop lamps	On the rear, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable.	On rear centerline except that, if two lamps are used, they may be symmetrically disposed about the rear centerline.	Not less than 15 in., nor more than 72 in.
License plate lamp	At rear license plate.	At rear license plate.	
Parking Lamp	On front, 1 on each side of the vertical centerline, at the same level, and as far apart as practicable.		Not less than 15 in., nor more than 72 in.
Reflex Reflectors	2 red- on rear, 1 on each side of the vertical centerline as far apart as practicable and at the same level.* 2 red - 1 on each side as far aft as practicable.** 2 amber - 1 on each side as far forward as practicable.**	1 red on rear centerline except that, if two reflectors are used on the rear, they may be symmetrically disposed about the centerline. 2 red - 1 on each side, as far aft as practicable. 2 amber - 1 on each side as far forward as practicable.	Not less than 15 in., nor more than 60 in.
Backup Lamp	On rear, so that the optical center of the lens surface is visible from any eye point elevation from 2 ft. to 6 ft. above the horizontal plane on which the vehicle is standing, and from any position in the area rearward of a vertical plane, perpendicular to the longitudinal axis of the vehicle, and extending 3 ft. beyond each side of the vehicle.		

* See 4.1.1.5
** See 4.1.1.6

(continued)

TABLE IV - EQUIPMENT LOCATION (continued)

(2)

Passenger Cars; Motorcycles; and Multipurpose Passenger Vehicles, Trucks, Trailers,
and Buses, of less than 80 inches overall width

Item Col. 1	Location on		Height above road surface measured from centre of item on vehicle at curb weight Col. 4
	Passenger cars, Multipurpose passenger vehicles, trucks, trailers and buses Col. 2	Motorcycles Col. 3	
Turn-signal lamps*	At or near the front: one amber on each side of the vertical centerline, at the same level, and as far apart as practicable.** On rear: 1 red or amber on each side of the vertical centerline, at the same level, and as far apart as practicable.**		Not less than 15 in.
Side-marker lamps	On each side: 1 red lamp as far to the rear as practicable and 1 amber lamp as far forward as practicable.†		Not less than 15 in.

* Front turn signal lamps not required for trailers

** See 4.1.1.7

† See 4.1.1.6