

LIGHTING EQUIPMENT LOCATION REQUIREMENTS FOR TRUCKS, BUSES, MULTI-PURPOSE VEHICLES (MPVS)

IMPORTANT NOTE: Every lamp, reflex reflector, and conspicuity treatment (device) must be permanently attached in the location specified below and must comply with all applicable requirements prescribed for it by FMVSS/CMVSS 108. The face of any device on the front/rear and sides should be, respectively perpendicular and parallel to vehicle centerline, unless it is photometrically certified at installation angle. No part of the vehicle shall prevent any device from meeting its prescribed requirements unless an auxiliary device meeting all prescribed requirements is installed. In Canada: Manufacturers and importers of vehicles must have the proper certification test records demonstrating compliance of lighting components with all prescribed requirements.

BASIC EQUIPMENT REQUIRED ON ALL TRUCKS, BUSES & MPVS

Area	DESCRIPTION				MANDATORY REQUIREMENTS			
	Equipment	(SAE Lens Coding)	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground	
1	Headlamps - Lower Beam	(H, HR) Attention: US: "DOT" lettering required on lens Attention: US & Canada: light source code required on lens	Forward road illumination	Minimum 2	White	On the front - symmetrical - as far apart as practicable (If 4 lamp system - outboard or above upper beams)	560-1370 (22-54)	
	Headlamps - Upper Beam	(H, HR) Attention: US: "DOT" lettering required on lens Attention: US & Canada: light source code required on lens	Forward road illumination	Minimum 2	White	On the front - symmetrical (If 4 lamp system - inboard or below lower beams)	560-1370 (22-54)	
	Parking Lamps-Attention: Required only on vehicles less than 2032mm wide	(P)	Indicate parked vehicle	Minimum 2	White or Yellow	Front - symmetrical - as far apart as practicable	380-1530 (15-60)	
	Daytime Running Lamps - Attention: for Canada required, for US optional.	(Y2) Attention: for US, "DRL" lettering required on lens if device is not headlamp	Indicate in-use vehicle	Minimum 2	White or Yellow	Front - symmetrical - as far apart as practicable	380 (15) minimum Maximum depends on type of DRL	
	Front Turn Signal/Hazard Warning Lamps	(I)	Indicate direction of turn / identify disabled vehicle	Minimum 2	Yellow	Front - symmetrical - as far apart as practicable	380-2110 (15-83)	
2	Front Clearance Lamps- Attention: Required for vehicles 2032mm wide or wider	(P2, PC* or P3*, PC2) <i>*photometrically certified at installation angle</i>	Show vehicle's width	Minimum 2	Yellow	At widest point - symmetrical - on the front or near the front - facing forward	As high as practicable	

3	Front Identification Lamps (ID)	(P2 or P3)	Indicate presence of a wide vehicle	Exactly 3	Yellow	on the front - center - horizontally spaced 150 mm (6 in.) to 300 mm (12 in.) apart	As high as practicable or on top of cab
4a	Front Side Marker Lamps	(P2, PC* or P3, PC2*) <i>*photometrically certified at installation angle</i>		Minimum 2	Yellow	Each side at front - as far forward as practicable	380 (15) minimum
4b	Front Side Reflex Reflectors	(A)	Front and Rear side marker lamps / side	Minimum 2	Yellow	At front - symmetrical - as far forward as practicable - facing sideward	380-1530 (15-60)
5a	Rear Side Marker Lamps **	(P2, PC* or P3, PC2*) <i>*photometrically certified at installation angle</i>	reflex reflector indicate vehicle's presence and length	Minimum 2	Red	Each side at rear - as far back as practicable	380 (15) minimum
5b	Rear Side Reflex Reflectors** <i>** not required on Truck Tractors</i>	(A)		Minimum 2	Red	Each side at rear - as far back as practicable - facing sideward	380-1530 (15-60)
6	Rear Clearance Lamps Attention: Required for vehicles 2032mm wide or wider, but not required on Truck Tractors	(P2, PC* or P3, PC2*) <i>*photometrically certified at installation angle</i>	Show vehicle's width - MAY NOT be combined with tail lamps	Minimum 2	Red	At widest point - symmetrical - on the rear or near the rear - facing rearward	As high as practicable- may be lower only if rear ID lamps are at the top
7	Rear Identification Lamps (ID) Attention: Required for vehicles 2032mm wide or wider, but not required on Truck Tractors	(P2 or P3)	Indicate presence of a wide vehicle	Exactly 3	Red	Rear - center - horizontally spaced 150 mm (6 in.) to 300 mm (12 in.) apart, facing rearward	<i>in Canada</i> : at the top - maybe lower if door header narrower than 25mm <i>in USA:</i> as high as practicable
8	Tail Lamps	(T)	Indicate vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical - as far apart as practicable	380-1830 (15-72)
	Stop Lamps	(S)	Indicate braking	Minimum 2	Red	On the rear - symmetrical - as far apart as practicable	380-1830 (15-72)
	Rear Turn Signal/Hazard Warning Lamps	(I)	Indicate direction of turn/ identifies disabled veh.	Minimum 2	Red or Yellow	On the rear - symmetrical - as far apart as practicable	380-2110 (15-83)
	Rear Reflex Reflectors	(A)	Show vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical - as far apart as practicable - facing rearward	380-1530 (15-60)
9	Backup Lamp	(R)	Illuminate ground	Minimum	White	Rear	No requirement

			behind the vehicle and alert road users	1		
10	License Plate Lamp(s)	(L)	Illuminates license plate	Minimum 1	White	On the rear - above or at the sides of license plate
11	Center High Mounted Stop Lamp Attention: Required for vehicles less than 2032mm wide and 4536kg	(U3)	Indicates braking	Minimum 1	Red	On the rear - centerline of the vehicle

ADDITIONAL EQUIPMENT FOR SPECIFIC VEHICLES

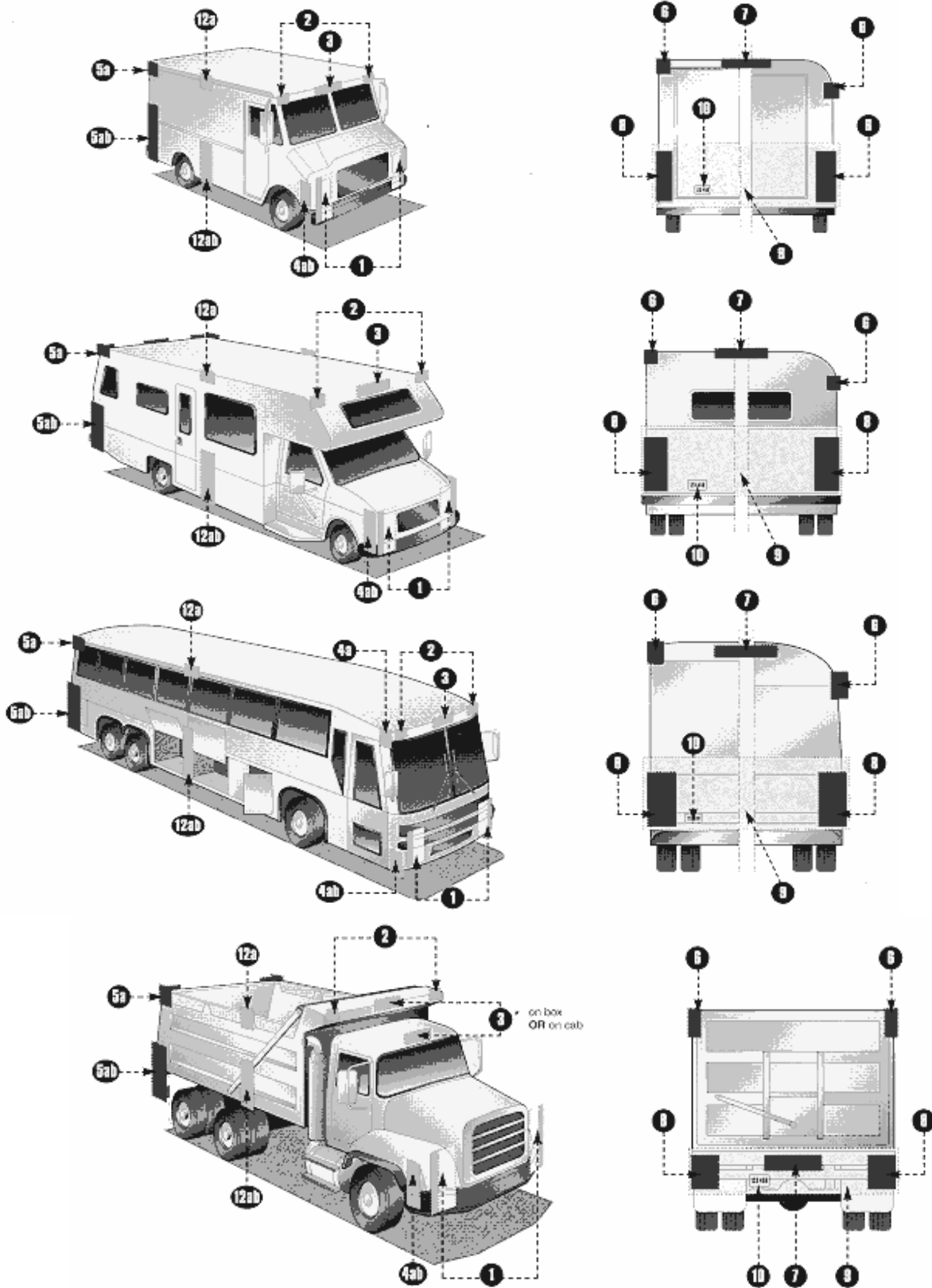
VEHICLES 9.1 m (30 ft.) LONG OR LONGER

DESCRIPTION			MANDATORY REQUIREMENTS				
Area	Equipment	(SAE Lens Coding)	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground
12a	Intermediate Side Marker Lamps	(P2 or PC)	Indicate presence of a long vehicle	Minimum 2	Yellow	Each side near center	380 (15) minimum
12b	Intermediate Side Reflex Reflectors	(A)	Indicate presence of a long vehicle	Minimum 2	Yellow	Each side near center - facing sideward	380-1530 (15-60)

TRUCK TRACTORS

DESCRIPTION			MANDATORY REQUIREMENTS				
Area	Conspicuity Treatment	DOT Code	Quantity	Color	Location	Height	Options
13	Rear Upper Body Marking	DOT-C, DOT-C2, DOT-C3, or DOT-C4	Exactly 2 pairs of 300mm long strips	White	Rear upper corners of cab - facing rearward	As high as practicable excluding fairings	
14	Rear Marking	DOT-C, DOT-C2, DOT-C3, or DOT-C4	Exactly 2 sections of min. 600mm each	Red/White	Rear - facing rearward - on fenders, on mud flaps brackets, or within 300mm below of the top of mud flaps	As horizontal as practicable and not higher than 1525 mm from the ground	If mud flaps not used - on the cab or frame mounted brackets

Diagram - Position of Required Lighting for Trucks, Buses and MPVs



TRAILERS: FEDERAL LIGHTING EQUIPMENT LOCATION REQUIREMENTS

IMPORTANT NOTE: Every lamp, reflex reflector, and conspicuity treatment (device) must be permanently attached in the location specified below and must comply with all applicable requirements prescribed for it by FMVSS/CMVSS 108. The face of any device on the front/rear and sides should be, respectively perpendicular and parallel to vehicle centerline, unless it is photometrically certified at installation angle. No part of the vehicle shall prevent any device from meeting its prescribed requirements unless an auxiliary device meeting all prescribed requirements is installed. In Canada: Manufacturers and importers of vehicles must have the proper certification test records demonstrating compliance of lighting components with all prescribed requirements.

BASIC EQUIPMENT REQUIRED ON ALL TRAILERS

Area	DESCRIPTION				MANDATORY REQUIREMENTS			
	Equipment	(SAE Lens Coding)	Functional Purpose	Quantity	Color	Location	Height mm (in.) from the ground	
1	Tail Lamps	(T)	Indicate vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical - as far apart as practicable	380-1830 (15-72)	
	Stop Lamps	(S)	Indicate braking	Minimum 2	Red	On the rear - symmetrical - as far apart as practicable	380-1830 (15-72)	
	Rear Turn Signal Lamps	(I)	Indicate direction of turn	Minimum 2	Red or Yellow	On the rear - symmetrical - as far apart as practicable	380-2110 (15-83)	
	Rear Reflex Reflectors	(A)	Indicate vehicle's presence and width	Minimum 2	Red	On the rear - symmetrical - as far apart as practicable-facing rearward	380-1530 (15-60)	
	License Plate Lamp(s)	(L)	Illuminates license plate	Minimum 1	White	On the rear - above or at the sides of license plate	No requirement	
3	Rear Side Marker Lamps	(P2, PC* or P3, PC2*) <i>*photometrically certified at installation angle</i>	Front and rear side marker lamps / side reflex reflectors indicate vehicle's presence and length	Minimum 2	Red	Each side at rear - as far back as practicable	380-1530 (15-60) no max. for veh. under 2.032m(80") wide	
	Rear Side Reflex Reflectors	(A)		Minimum 2	Red	Each side at rear - as far back as practicable facing sideward	380-1530 (15-60)	
4a	Front Side Marker Lamps	(P2, PC* or P3, PC2*) <i>* photometrically certified at installation angle</i>		Minimum 2	Yellow	Each side at front - as far forward as practicable	380 (15) minimum	
4b	Front Side Reflex Reflectors	(A)		Minimum 2	Yellow	Each side at front - as far forward as practicable facing sideward	380-1530 (15-60)	

ADDITIONAL EQUIPMENT FOR TRAILERS EXCEEDING THE FOLLOWING PARAMETERS

LENGTH 9.1 m (30 ft.) OR LONGER

		DESCRIPTION			MANDATORY REQUIREMENTS			
					Quantity	Color	Location	Height mm (in.) from the ground
Area	Equipment	(SAE Lens Coding)	Functional Purpose					
5a	Intermediate Side Marker Lamps	(P2 or P3)	Indicate presence of a long vehicle	Minimum 2	Yellow	Each side near center - facing sideward	380 (15) minimum	
5b	Intermediate Side Reflex Reflectors	(A)	Indicate presence of a long vehicle	Minimum 2	Yellow	Each side near center - facing sideward	380-1530 (15-60)	

WIDTH 2.032 m (80 in.) OR WIDER

		DESCRIPTION			MANDATORY REQUIREMENTS			
					Quantity	Color	Location	Height
Area	Equipment	(SAE Lens Coding)	Functional Purpose	Quantity	Color	Location	Height	
6	Rear Clearance Lamps	(P2, PC* or P3, PC2*) * <i>photometrically certified at installation angle</i>	Show vehicle's width - MAY NOT be combined with tail lamps	Minimum 2	Red	At widest point - symmetrical - on the rear or near the rear - facing rearward	As high as practicable - may be lower only if ID lamps are at the top	
7	Rear Identification Lamps	(P2 or P3)	Indicate presence of a wide vehicle	Exactly 3	Red	On the rear - center, facing rearward - horizontally spaced 150 mm (6 in.) to 300 mm (12 in.) apart	<u>in Canada</u> : at the top - maybe lower if door header narrower than 25 mm <u>in USA</u> : as high as practicable	
8	Front Clearance Lamps	(P2, PC* or P3, PC2*) * <i>photometrically certified at installation angle</i>	Show vehicle's width	Minimum 2	Yellow	At widest point - symmetrical - as far forward as practicable - facing forward	As high as practicable	

WIDTH 2.032 m (80 in.) OR WIDER AND GVWR 4536 kg (10,000 lb.) OR MORE

MANDATORY REQUIREMENTS							
Area	DESCRIPTION	DOT Coding	Quantity	Color	Location	Height	OPTIONS
9	Rear Upper Body Marking	DOT-C, DOT-C2, DOT-C3, or DOT-C4	Exactly 2 pairs of 300mm long strips	White	On the rear upper corners - facing rearward	At the top	Reflex reflectors may not be required if they are replaced, in their required location, with conspicuity treatment <u>Optional in Canada</u>
10	Bumper Bar Marking		Continuous	Red/White	On the rear bumper bar's horizontal element - full width - facing rearward	No requirement	Rear lower body and side conspicuity treatment may also be solid white, solid yellow, or white and yellow.
11	Rear Lower Body Marking		Continuous	Red/White <i>see options</i>	On the rear - full width of the vehicle - facing rearward	As horizontal as practicable and as close as practicable to the range of 375 to 1525 mm from the ground	
12	Side Marking		<i>see location</i>	Red/White <i>see options</i>	Each side - facing sideward - continuous, or evenly spaced over minimum of 50% of length, starts and ends as close to the front and rear of vehicle as practicable	As horizontal as practicable and as close as practicable to the range of 375 to 1525 mm from the ground	

Diagram – Position of Required Lighting for Trailers

