

VIRM: Entry certification (new light vehicles) amendment

10 December 2023 amendment preview

November 2023

2-1 Standards Compliance

Lighting

The list of approved standards for lighting and signalling components was recently updated in the *VIRM: Entry certification*. We're now copying the list across to the *VIRM: Entry certification (new light vehicles)* so the manuals are aligned.

At the same time, we'll match the list of standards for installation of lighting equipment.

This means we're removing and replacing the current list of standards under the following headings on this page.

- Headlamps
- Forward-facing and rearward-facing position lamps
- Direction indicator lamps
- Stop lamps
- High-mounted stop lamps
- Registration-plate illumination lamps
- Rearward-facing retroreflectors
- Daytime running lamps
- Front fog lamps
- Rear fog lamps
- Reversing lamps
- Side-marker lamps
- End-outline marker lamps
- Installation of lighting equipment

The content we're replacing is included in full at the end of this document, for reference.

New content


Lighting

All lighting and signalling components must meet one of the standards listed in [Table 2-1-5](#).

All installations of lighting and signalling equipment must meet one of the standards listed in [Table 2-1-6](#).

Table 2-1-5 List of approved standards for lighting and signalling components

New UN/ECE Regulations 148, 149, 150 have been introduced for lighting standards, which amend and replace or incorporate a number of the older Regulations.

While the Land Transport Rule: Vehicle Lighting 2004 is yet to be updated, these new Regulations are accepted by Waka Kotahi as alternatives (Note 3 ) to many UN/ECE Regulations below (such as 4, 6, 7) which are currently incorporated in the Rule.

	UN-ECE Regulation no.	EEC/EC Directive	FMVSS	ADR	Japan
Headlamps	1 31 82 5 56 98 8 57 112 20 72 113 76 123 149	76/761 89/517 99/17	108	46 54 55 77	JIS D5500 JIS D5504 TS for headlamps Article 32
Front fog lamps	19 149	76/762 99/18	108	50	JIS D5500 TS for front fog lamps Article 33
Daytime running lamps	87 148		108	45 76	
Forward-facing position lamps	7 50 148	76/758 89/516 97/30	108	49 53	TS for clearance lamps TS for front end-outline marker lamps TS for front and rear position lamps JIS D5500 Article 34
Rearward-facing position lamps	7 50 148	76/758 89/516 97/30	108	49 53	TS for front and rear position lamps TS for tail lamps TS for rear end-outline marker lamps JIS D5500 Article 34
Rearward-facing retroreflectors	3 150	76/757 87/354 97/29	108	47	TS for rear reflex reflectors TS for large-sized rear reflex reflectors JIS D5500 Article 38
Direction indicator lamps	6 50 148	76/759 89/277 99/15	108	6 53	TS for direction indicator lamps JIS D5500 Article 41

Stop lamps	7 50 148	76/758 89/516 97/30	108	49 53	TS for stop lamps JIS D5500 Article 39
High-mounted stop lamps	7 148	76/758 89/516 97/30	108	60, or 49	TS for auxiliary stop lamps JIS D5500 Article 39
Registration plate lamps	4 50 148	76/760 97/31	108	48 53	TS for number plate lamps JIS D5500 Article 36
Reversing lamps	23 148	77/539 97/32	108	1	TS for back-up lamps JIS D5500 Article 40
Rear fog lamps	38 148	77/538	108	52	JIS D5500 TS for rear fog lamps Article 37
Retroreflective material	104 150		108		
Side-marker lamps	91 148	76/758 89/516 97/30	108	45 74	JIS D5500 TS for side-marker lamps Article 35
End-outline marker lamps	7 148	76/758 89/516 97/30	108	49	JIS D5500 TS for front end-outline marker lamps TS for rear end-outline marker lamps Article 37

Note 3

New UN/ECE regulations can be accepted as alternatives to a number of older Regulations.

The new regulations are the outcome of the World Forum for Harmonization of Vehicle Regulations (WP.29) decision to simplify the lighting and light-signalling Regulations based on the initial proposal by the European Union and Japan.

New UN/ECE Regulation	Combines previous UN Regulations	Uniform provisions concerning
148	4, 6, 7, 23, 38, 50, 77, 87 and 91	The approval of light-signalling devices (lamps) for power-driven vehicles and their trailers.
149	19, 98, 112, 113, 119 and 123	The approval of road illumination devices (lamps) and systems for power-driven vehicles.
150	3, 27, 69, 70 and 104	The approval of retro-reflective devices and markings for power-driven vehicles and their trailers.

Table 2-1-6. Approved standards for installation of lighting and signalling

	UN-ECE Regulation no	EEC/EC Directive	FMVSS	ADR	Japan
Installation of lighting equipment	48 74 53 86	76/756 93/92 80/233 82/244 83/276 84/8 89/278 91/663 97/28 2000/73 78/933 2007/35 2008/89	108	13 19	Safety Regulations for Road Vehicles, chapter II Article 32–42 Technical Standard (TS) Attachment 52

Replaced content

Headlamps

Headlamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 1**, Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing beam and/or a driving beam and equipped with filament lamps of categories R2 [and/or HS1] (E/ECE324-E/ECE/TRANS/505/Add.1)
- **UN/ECE Regulation No. 5**, Uniform provisions for the approval of motor vehicle 'sealed beam' headlamps (SB) emitting a European asymmetrical passing beam or a driving beam or both (E/ECE324-E/ECE/TRANS/505/Add.4)
- **UN/ECE Regulation No. 8**, Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with halogen filament lamps (H1, h4, H3, HB3, HB4, H7 and/or H8) (E/ECE324-E/ECE/TRANS/505/Add.7)
- **UN/ECE Regulation No. 20**, Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with halogen filament lamps (H4 lamps) (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.19)
- **UN/ECE Regulation No. 31**, Uniform provisions concerning the approval of halogen sealed-beam unit (HSB unit) motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.30)
- **UN/ECE Regulation No. 56**, Uniform provisions concerning the approval of headlamps for mopeds and vehicles treated as such (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.55)
- **UN/ECE Regulation No. 57**, Uniform provisions concerning the approval of headlamps for motor cycles and vehicles treated as such (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.56)
- **UN/ECE Regulation No. 72**, Uniform provisions concerning the approval of motorcycle headlamps emitting an asymmetrical passing beam and a driving beam and equipped with halogen lamps (HS1 lamps) (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.71)
- **UN/ECE Regulation No. 76**, Uniform provisions concerning the approval of headlamps for mopeds emitting a driving beam and a passing beam (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.75)
- **UN/ECE Regulation No. 82**, Uniform provisions concerning the approval of moped headlamps equipped with filament halogen lamps (HS2) (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.81)
- **UN/ECE Regulation No. 98**, Uniform provisions concerning the approval of motor vehicle headlamps equipped with gas-discharge light sources (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.97)
- **UN/ECE Regulation No. 112**, Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps (E/ECE 324-E/ECE/TRANS/505/Add.111)
- **UN/ECE Regulation No. 113**, Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps (E/ECE 324-E/ECE/TRANS/505/Add.112)
- **Council Directive 76/761/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to motor-vehicle headlamps which function as main-beam and/or dipped-beam headlamps and to incandescent electric filament lamps for such headlamps
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 46**, Headlamps
- **Australian Design Rule 54**, Headlamps for Mopeds
- **Australian Design Rule 55**, Headlamps for Motorcycles
- **Australian Design Rule 77**, Gas-Discharge Headlamps
- **Technical Standard for Headlamps**
- **Japanese Industrial Standard D 5504**, Sealed Beam Headlamp Units for Motor Vehicles
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 32**.

Forward-facing and rearward-facing position lamps

Forward-facing and rearward-facing position lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 7**, Uniform provisions concerning the approval of front- and rear-position (side) lamps, stop lamps and end-outline marker lamps for motor vehicles (except motorcycles) and their trailers (E/ECE324-E/ECE/TRANS/505/Add.6)
- **UN/ECE Regulation No. 50**, Uniform provisions concerning the approval of front-position lamps, rear-position lamps, stop lamps, direction indicators and rear-registration-plate illuminating devices for mopeds, motor cycles and vehicles treated as such (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.49)
- **Council Directive 76/758/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to end-outline marker lamps, front-position (side) lamps, rear-position (side) lamps and stop lamps for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 49**, Forward-Facing and Rearward-Facing Position (Side) Lamps, Stop Lamps and End-Outline Marker Lamps
- **Australian Design Rule 53**, Front- and Rear-Position Lamps, Stop Lamps, Direction Indicators and Rear-Registration-Plate Lamps for L-Group Vehicles
- **Technical Standard for Clearance Lamps**
- **Technical Standard for Front End-Outline Marker Lamps**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 34**.

Direction indicator lamps

Direction indicator lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 6**, Uniform provisions concerning the approval of direction indicators for motor vehicles and their trailers (E/ECE324-E/ECE/TRANS/505/Add.5)
- **UN/ECE Regulation No. 50**, Uniform provisions concerning the approval of front-position lamps, rear-position lamps, stop lamps, direction indicators and rear-registration-plate illuminating devices for mopeds, motor cycles and vehicles treated as such (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.49)
- **Council Directive 76/759/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to direction-indicator lamps for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 6**, Direction Indicators
- **Australian Design Rule 53**, Front- and Rear-Position Lamps, Stop Lamps, Direction Indicators and Rear-Registration-Plate Lamps for L-Group Vehicles
- **Technical Standard for Direction Indicators**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 41**.

Stop lamps

Stop lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 7**, Uniform provisions concerning the approval of front- and rear-position (side) lamps, stop lamps and end-outline marker lamps for motor vehicles (except motorcycles) and their trailers (E/ECE324-E/ECE/TRANS/505/Add.6)
- **UN/ECE Regulation No. 50**, Uniform provisions concerning the approval of front-position lamps, rear-position lamps, stop lamps, direction indicators and rear-registration-plate illuminating devices for mopeds, motorcycles and vehicles treated as such (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.49)
- **Council Directive 76/758/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to end-outline marker lamps, front-position (side) lamps, rear-position (side) lamps and stop lamps for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 49**, Forward-Facing and Rearward-Facing Position (side) Lamps, Stop Lamps and End-Outline Marker Lamps
- **Australian Design Rule 53**, Forward-Facing and Rearward-Facing Position Lamps, Stop Lamps, Direction-Indicator Lamps and Rear-Registration-Plate Lamps for L-Group Vehicles
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 39**.

High-mounted stop lamps

High-mounted stop lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 7**, Uniform provisions concerning the approval of front- and rear-position (side) lamps, stop lamps and end-outline marker lamps for motor vehicles (except motorcycles) and their trailers (E/ECE324-E/ECE/TRANS/505/Add.6)
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 60, Centre High-Mounted Stop Lamp[s]**
- **Technical Standard for Auxiliary Stop Lamps**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 39**.

Registration-plate illumination lamps

Registration-plate illumination lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 4**, Uniform provisions for the approval of devices for the illumination of rear registration plates of motor vehicles (except motorcycles) and their trailers (E/ECE324-E/ECE/TRANS/505/Add.3)
- **UN/ECE Regulation No. 50**, Uniform provisions concerning the approval of forward-facing position lamps, rearward-facing position lamps, stop lamps, direction indicators and rear-registration-plate illuminating devices for mopeds, motorcycles and vehicles treated as such (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.49)
- **Council Directive 76/760/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to the rear-registration-plate lamps for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 48**, Devices for Illumination of Registration Plates
- **Australian Design Rule 53**, Forward-Facing and Rearward-Facing Position Lamps, Stop Lamps, Direction-Indicator Lamps and Rear-Registration-Plate Lamps for L-Group Vehicles
- **Technical Standard for Number Plate Lamps**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 36**.

Rearward-facing retroreflectors

Rearward-facing retroreflectors must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 3**, Uniform provisions concerning the approval of retroreflecting devices for power-driven vehicles and their trailers (E/ECE324-E/ECE/TRANS/505/Add.2)
- **Council Directive 76/757/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to reflex reflectors for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 47**, Retro Reflectors
- **Technical Standard for Rear Reflex Reflectors**
- **Technical Standard for Large-Sized Rear Reflex Reflectors**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices.

Daytime running lamps

Daytime running lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 87**, Uniform provisions concerning the approval of daytime running lamps for power-driven vehicles (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.86)
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 45**, Lighting and Light-Signalling Devices Not Covered by ECE Regulations.
- **Australian Design Rule 76**, Daytime Running Lamps.

Front fog lamps

Front fog lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 19**, Uniform provisions concerning the approval of motor vehicle fog lamps (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.18)
- **Council Directive 76/762/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to front fog lamps for motor vehicles and filament lamps for such lamps
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 50**, Front Fog Lamps
- **Technical Standard for Front Fog Lamps**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 33**.

Rear fog lamps

Rear fog lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 38**, Uniform provisions concerning the approval of rear fog lamps for power-driven vehicles and their trailers (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.37)
- **Council Directive 77/538/EEC of 28 June 1977** on the approximation of the laws of the Member States relating to rear fog lamps for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 52**, Rear Fog Lamps
- **Technical Standard for Rear Fog Lamps**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 37**.

Reversing lamps

Reversing lamps must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No. 23**, Uniform provisions concerning the approval of reversing lights for power-driven vehicles and their trailers (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.22)
- **Council Directive 77/539/EEC of 28 June 1977** on the approximation of the laws of the Member States relating to reversing lamps for motor vehicles and their trailers
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 1**, Reversing Lamps
- **Technical Standard for Backup Lamps**
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 40**.

Side-marker lamps

- **UN/ECE Regulation No. 91**, Uniform provisions concerning the approval of side-marker lamps for motor vehicles and their trailers (E/ECE324-E/ECE/TRANS/505/Add.90)
- **Council Directive 76/758/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to end-outline marker lamps, front-position (side) lamps, rear position (side) lamps and stop lamps for motor vehicles and their trailers
- **Australian Design Rule 45**, Lighting and Light-Signalling Devices Not Covered by ECE Regulations.
- **Australian Design Rule 74**, Side Marker Lamps
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Technical Standard for Side Marker Lamps** (Japan)
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 35**.

End-outline marker lamps

- **UN/ECE Regulation No. 7**, Uniform provisions concerning the approval of front- and rear-position (side) lamps, stop lamps and end-outline marker lamps for motor vehicles (except motorcycles) and their trailers (E/ECE324-E/ECE/TRANS/505/Add.6)
- **Council Directive 76/758/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to end-outline marker lamps, front-position (side) lamps, rear-position (side) lamps and stop lamps for motor vehicles and their trailers
- **Australian Design Rule 49**, Front- and Rear-Position (Side) Lamps, Stop Lamps and End-Outline Marker Lamps
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Technical Standard for Front End Outline Marker Lamps** (Japan)
- **Technical Standard for Rear End Outline Marker Lamps** (Japan)
- **Japanese Industrial Standard D 5500**, Automobile Parts – Lighting and Light Signalling Devices
- **Japan article 37**.

Installation of lighting equipment

The installation of lighting equipment must meet one of these standards (or a more recent version):

- **UN/ECE Regulation No 48**, Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices (E/ECE324-E/ECE/TRANS/505/Rev.1/Add.47)
- **UN/ECE Regulation No. 53**, Uniform provisions concerning the approval of motorcycles with regard to the installation of lighting and light-signalling devices (E/ECE324-E/ECE/TRANS/Rev.1/Add.52)
- **UN/ECE Regulation No. 74**, Uniform provisions concerning the approval of mopeds with regard to the installation of lighting and light-signalling devices (E/ECE324-E/ECE/TRANS/Rev.1/Add.73)
- **UN/ECE Regulation No. 86**, Uniform provisions concerning the approval of agricultural or forestry tractors with regard to the installation of lighting and light-signalling devices (E/ECE324-E/ECE/TRANS/Rev.1/Add.85)
- **Council Directive 76/756/EEC of 27 July 1976** on the approximation of the laws of the Member States relating to the installation of lighting and light-signalling devices on motor vehicles and their trailers
- **Council Directive 93/92/EEC of 29 October 1993** in the installation of lighting and light-signalling devices on two- or three-wheel motor vehicles
- **Federal Motor Vehicle Safety Standard No. 108**, Lamps, Reflective Devices and Associated Equipment
- **Australian Design Rule 13**, Installation of Lighting and Light-Signalling Devices on Other Than L-Group Vehicles
- **Australian Design Rule 19**, Installation of Lighting and Light-Signalling Devices on L-Group Vehicles
- **Safety Regulations for Road Vehicles**, Chapter II (Japan)
- **Japan article 32–42**.