

V20: Vehicle accessories and equipment

Information Bulletin

Introduction

It is the driver's responsibility to ensure all accessories and equipment attached to a motor vehicle are designed and fitted in a manner which reduces the risk of injury to pedestrians and other road users that may make contact with the vehicle when either parked or in motion.

The fitment of any accessory or equipment or vehicle modification must not adversely affect the roadworthiness of the vehicle – this includes crashworthiness (ability of a structure to protect its occupants during an impact).

Internal and external protrusion standards are outlined in regulations (i.e. Australian Vehicle Standards Rules) and Australian Design Rules (ADR) (i.e. ADR 42/--- *General safety requirements* and ADR 92/--- *External projections*).

Large base radio antennas

Forward mounting of large base radio antennas should only be undertaken when it is impossible or impractical to install the antenna to the rear of the vehicle. The installation must be attached as low as is practical to ensure the large diameter section of the antenna projects above the bonnet line for the minimum distance.

To reduce vision obstructions for the driver, only one large base antenna (large diameter base) may be fitted to the front of a vehicle and must be fitted to the left side. The maximum diameter permitted is 75mm. All sharp edges or protrusions which could cause injury to anyone making contact with the device must be removed or rounded.

Antennas must not obscure any light. The visibility of all front and side lights at all viewing angles must not be reduced, and if so, additional lights must be fitted or the original light relocated in accordance with the relevant legislation or ADRs.

Ladder racks (roof racks)

Vertical upright supports may be positioned forward of the windscreen 'A' pillar if their diameter does not exceed 50mm. Supports that are in a position that may reflect the vehicle's lights back to the driver must be darkened, non-reflective finish. Ladder racks positioned forward of the windscreen should be removed when not in use.

Supports, braces and brackets must not have any sharp edges or protrusions and must not interfere with a person's normal access to the vehicle. They should not project more than 150mm from each side of the vehicle or make the vehicle more than 2.5m wide.

Any attachments or modifications to the vehicle's chassis must be in accordance with sound engineering practices or the vehicle manufacturer's recommendations. The crashworthiness (e.g. airbag deployment) of the vehicle must not be affected by the attachment or modification.

Bull bars

Bull bars must be designed and fitted so that the safety of the vehicle is not adversely affected. They must be securely mounted and supported and must not constitute a danger to other road users. Bull bars must not obstruct the vision of the driver and should not project further from the front of the vehicle than is necessary for its attachment. Bull bars should not add a significant load to the front suspension.

Bull bars must be free of sharp protrusions and all exposed sections of the bull bar and fittings must be rounded and deburred. Forward and side surfaces should be designed to reduce the risk of injury to any person who may come into contact with the bull bar.

Bull bars must not obscure any light. In particular, the visibility of indicator lights at all viewing angles must not be reduced, and if so, additional lights must be fitted or the original light relocated in accordance with the relevant legislation or Australian Design Rules. Surfaces of the bar that could reflect light from the vehicle's headlights must be non-reflective (e.g. matt black).

Vehicles fitted with an airbag or manufactured to comply with ADR 69/--- *Full Frontal Impact Occupant Protection* or both ADR 69/... and ADR 73/... - *Offset Frontal Impact Protection*, can only be fitted with a bull bar which:

- has been certified by the vehicle manufacturer as suitable for that vehicle; or
- there is evidence from the bull bar manufacturer to support compliance with the ADRs (i.e. does not interfere with the critical airbag timing mechanism, as the case may be).

Bull bars that comply with Australian Standard AS 4876.1-2002 *Motor vehicle frontal protection systems* provide a higher level of pedestrian protection.

Visual display screens

DVD screens, television receivers, visual display units or similar device may be installed in a motor vehicle if:

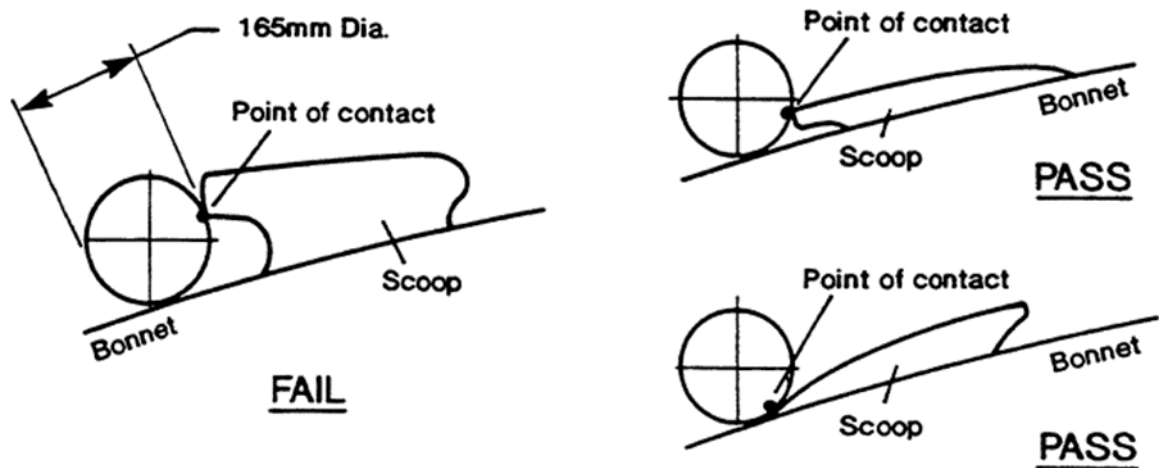
- the image on the screen is not visible to the driver from the normal driving position when the vehicle is moving unless the screen is a driver's aid (e.g. in-car navigation).
- the device does not obscure the driver's view of the road.
- the device does not impede the movement of anyone in the vehicle.
- the device does not interfere with occupant restraint systems such as head restraints, seat belts and airbags.
- the device does not increase the likelihood of injury to anyone in the vehicle.
- the image on the screen is not visible the driver of another vehicle.

**The road rules (via Rule 299) outlines the use of visual display units in motor vehicles - refer to <https://legislation.nt.gov.au/Legislation/TRAFFIC-REGULATIONS-SCHEDULE-3-ARRs-1999>

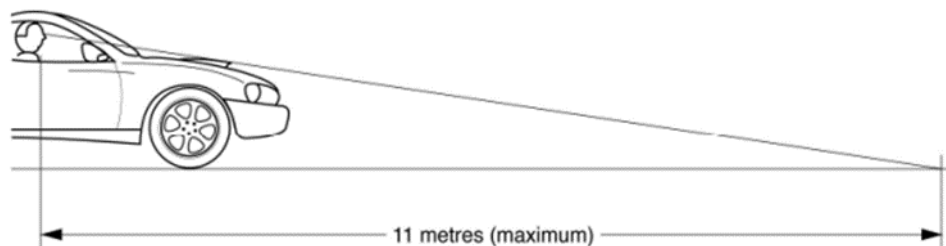
Bonnet and engine-mounted scoops

Scoops are projections that may be fitted to a vehicle provided the driver's vision is not restricted under normal driving conditions with the driver's seat located at its lowest and rearmost position. All scoops must meet the following requirements:

- When a 165mm diameter sphere is placed on the bonnet in front of the scoop (or bonnet projection) and rolled backwards until it touches the scoop, no forward point of the scoop or point of contact between the sphere and the scoop must lie above a horizontal plane passing through the centre of the sphere.



- The driver must be able to see the surface of the road 11m in front or all of the front edge of the original body when looking across the top of the scoop. For the purposes of this requirement, the driver's 'eye' position can be taken as being a point 730mm above and 270mm forward of the junction of the seat cushion and seat back with the seat in its lowest and rearmost position.



- The edges at the front of a scoop likely to contact a pedestrian in an accident shall be well rounded with a minimum of 10mm radius.
- The scoop must not have reflective surfaces that will cause glare towards the driver or other road user.
- A scoop manufactured from a plastic or fibreglass material may be fitted providing the hole in the bonnet does not substantially reduce the strength or impact resistance of the bonnet and no rigid component, such as an air cleaner or carburettor protrudes beyond the original bonnet profile.
- Holes may be cut in the bonnet for the protrusion of an air cleaner or carburettor above the bonnet line, but below the bonnet scoop, providing the bonnet scoop or raised bonnet section is manufactured from equivalent gauge mild steel, compared with that of the original bonnet.

- All edges and corners shall have a radius of not less than 5mm and of general design and construction to reduce to a minimum the risk of bodily injury to any person.
- If any bonnet reinforcing braces are cut or modified, the design of the modified bonnet must be of equal strength to the original bonnet and any sharp edges must be suitably treated.



A scoop that is affixed to the engine itself (i.e. “GT Shaker style”) may be acceptable provided it meets the general requirements applying to bonnet scoops and external protrusions as out lined in ADR 42/--- or ADR 92/--- with the additional requirements:

- Scoop material must not exceed original bonnet strength.
- Bonnet to remain sealed around scoop.
- If any bonnet reinforcing braces are cut or modified, the modified bonnet must be of equal strength to the original bonnet and any sharp edges created must be suitably rounded or treated to minimise injury risk.

Cargo barriers

There is no legislation that prevents the carriage of persons in the rear of the vehicle with a cargo barrier fitted. Recommended best practice is taken from Australian Standard AS/NZ 4034 *Motor vehicles - Cargo barriers for occupant protection* indicates that the installation of a cargo barrier shall not contravene any applicable ADR.

ADR 42/--- requires – “Vehicles must not be equipped with any interior object or fitting which, because it is pointed or has a sharp edge, is likely to increase the risk of bodily injury to any person.”

A barrier should not encroach into any vehicle occupant seating space or present a hazard to any person when accessing the vehicle. Any passengers seated rearward of a cargo barrier must be able to exit the vehicle unaided and of their own accord when required.

A barrier complying with AS/NZ 4034 should be designed for a particular vehicle make and model.

A custom-built barrier may be acceptable subject to appropriate certification to certify the design and installation of the barrier comply with acceptable standards and is fit for purpose.

Side skirts, flares and spoilers

Side skirts, front and rear spoilers may be fitted provided road clearance and air flow for brake cooling is not adversely affected. They must not be fitted so that it is likely to increase the risk of bodily injury to any person. All material is to be of a suitable thickness and be free from sharp edges or corners.

Rear spoilers must be within the body shape/outline of the mounting surface (e.g. boot outline). Minimum thickness of end plates is 4mm and they must be free of sharp edges or corners.

Minimum ground clearance and overall width dimensions apply – see [Information Bulletin V13 Vehicle Dimension Limits](#).

Accessory gauges

Any additional internal or external gauges must:

- not interfere with the field of view of the driver.
- not produce glare to the driver.
- be fitted so that pressurised fluids (i.e. oil, water) are prevented from spraying onto the windscreen.
- be fitted in such a way to reduce the risk of injury to the vehicle occupants or pedestrians.

Bicycle racks

For specific information on bicycle racks – please refer to [Information Bulletin V50 - Bicycle Carrying Racks](#)

Other vehicle accessories and equipment

Driving lights/brackets must not protrude forward from the front face of any bumper or above the top of any bull bar.

Fishing rod holders can only be fitted providing they comply with the following conditions:

- the fitting allows the driver a view of the road and of traffic to the front and sides of the vehicle.
- vehicle lighting must not be obstructed by rods or holders.
- rod holders must be either removed when they are not in use or retracted behind the profile of the bull bar with no protruding surfaces that could cause injury to a pedestrian.

More information

For more information, contact the department on 08 8924 7157 or email vehiclestandards.mvr@nt.gov.au