



Department of  
Environment and  
Conservation (NSW)



managing

# vehicle noise

our environment

*it's a living thing*

## Managing noise from vehicles

This brochure is about noise from motor vehicles, ways in which you can avoid having a noisy vehicle and what the law says when noise becomes offensive.

### Control of road traffic noise

Approximately one in five Australians are affected by road traffic noise, which is the most pervasive and widespread noise in towns and cities. Vehicle noise includes noise from exhaust systems, horns, brakes and sound systems.

Operators and owners are responsible for ensuring noise from their vehicles is kept within reasonable levels. The Protection of the Environment Operations (Noise Control) Regulation 2000 (the Regulation) contains requirements to prevent high noise levels from vehicles due to lack of maintenance, deliberate tampering or inappropriate use.

This Regulation can be viewed at: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au)

Australian Road Rule 291 requires that vehicles do not emit 'unnecessary noise' such as noise from intentional wheel spins and 'doughnuts'. The Police can impose two demerit points and a fine.

The RTA also has additional noise control legislation it can use for noise checks on heavy vehicles at heavy vehicle inspection stations.

### Who enforces the noise control regulation

The Environment Protection Authority (EPA)\*, Police officers and in some instances, local council officers, have the power to enforce the Regulation.

Table 1 gives a list of offences and the penalties for committing them.

\*The EPA is a statutory body with specific powers under environment protection legislation. In September 2003, the EPA became part of the Department of Environment and Conservation (NSW).

**Table 1: Summary of offences**

<b>Offence</b>	<b>Penalty Individual/corporation</b>	<b>Enforcing authority</b>
<b>Protection of the Environment Operations (Noise Control) Regulation 2000</b>		
Using a vehicle on the road that exceeds the prescribed noise limit (clause 13):		
• up to 5 decibels	\$150/\$300	EPA
• between 5 and 15 decibels	\$250/\$500	EPA
• greater than 15 decibels	\$500/\$1000	EPA
Using a vehicle that emits offensive noise in a place that is not a road (e.g. trail bikes) (clause 14)	\$200/\$400	Council/EPA/Police
Using a refrigeration unit on a vehicle, after a warning has been given, between 8 pm and 8 am on a Saturday, Sunday or public holiday, or between 8 pm and 7 am on any other day (clause 15)	\$200/\$400	Council/EPA/Police
Causing or permitting offensive noise to be emitted from a motor vehicle sound system (clauses 17 and 17A)	\$150/\$200  Two demerit points in addition to a fine	Council/EPA/Police  Police
Causing or permitting a vehicle to be used when its noise control equipment is defective or not in place (clause 18)	\$200/\$400	EPA/Police
Removing, altering or rendering less effective the noise control equipment of a motor vehicle (clause 18)	\$200/\$400	EPA/Police
Causing or permitting a motorcycle to be used with unlabelled noise control equipment (clause 19)	\$200/\$400	EPA/Police

**Table 1: Summary of offences (continued)**

<b>Offence</b>	<b>Penalty Individual/corporation</b>	<b>Enforcing authority</b>
Modifying or repairing an engine so the exhaust system noise level exceeds the prescribed level or altering an air intake system or exhaust system so the noise level exceeds the noise limit (clause 20)	\$200/\$400	EPA
<b>Protection of the Environment Operations Act 1997</b>		
Selling a vehicle that emits noise in excess of the level prescribed in clause 13 of the Regulation for that class of vehicle (section 136)	\$200/\$400	EPA
Selling a vehicle that emits noise over 5 dB(A) in excess of the level prescribed in clause 13 of the Regulation for that class of vehicle (section 136)	\$400/\$800	EPA
Selling a motor vehicle horn or intruder alarm that emits noise in excess of the level prescribed in clauses 8 and 10 respectively (section 136)	\$300/\$600	EPA
<b>Australian Road Rule 291</b>		
Operating a vehicle to produce unnecessary noise, e.g. intentional wheel spins	\$206	Police

**Defect Notices**

For most of the above offences, a defect notice can also be issued. If the defect is not remedied, registration can be cancelled.

## Exhaust noise from vehicles

Exhaust noise from vehicles should not exceed the prescribed exhaust noise levels. These are given in Schedule 1 of the Regulation. Levels are established from a set testing procedure also described in the Regulation. For most cars, the relevant exhaust noise limit is 90 decibels and for motorcycles, 94 decibels.

The Department of Environment and Conservation (DEC) is currently considering how the implementation of the new Australian Design Rule 83/00, introducing new vehicle noise limits for vehicles manufactured on or after 1 January 2005, will affect NSW noise legislation.

When noise limits in the Regulation are exceeded, authorised officers from DEC can issue **penalty notices** for offences. There is a tiered scale for fines—the louder the exhaust noise from vehicles, the greater the penalty (see Table 1).

You can ensure that the exhaust noise from your vehicle is acceptable by regularly maintaining your exhaust equipment (i.e. mufflers) and avoiding non-standard parts.

## Defective mufflers

Vehicle owners and operators should ensure that their vehicles are not fitted with defective mufflers (referred to as 'noise control equipment' in Clause 18 of the Regulation). Defective noise control equipment is defined as:

- equipment that allows the emission of more noise than the original noise control equipment fitted by the vehicle manufacturer, or
- equipment that has been modified in a way that makes it less effective than it would have been without the modification, or
- equipment that allows gas to escape from a place other than the intended exhaust outlet, or
- if the equipment concerned comprises a system of mufflers – the system contains fewer mufflers – than the original system fitted by the manufacturer.



Listen to the exhaust system when buying a vehicle. If the vehicle sounds noisier than unmodified vehicles of the same make and model, its system may have been altered. If in doubt, make inquiries. The system should be replaced with a quieter system when:

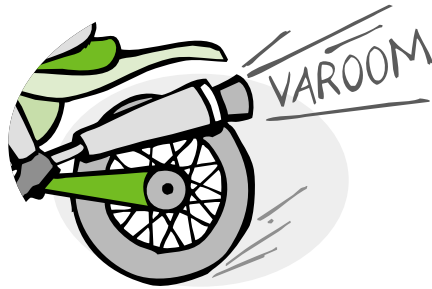
- the exhaust system has been replaced with an excessively loud system such as a sports system, or
- the baffles have been altered or removed from the muffler so the vehicle is noisier.

Get the noise level checked by a licensed muffler repairer. Contact the Motor Vehicle Repair Industry Authority (02 9712 2200) to find a local repairer. Remember that more noise does not mean more power.

### Labelling of motorcycle exhaust systems

Motorcycle owners and riders should have exhaust systems that are specifically designed and manufactured for their make and model, as these are usually the best and quietest systems available.

Motorcycles manufactured on or after 1 July 1988 must have a label with information on noise, as required by Australian Design Rules 39/00. The label must be attached to the motorcycle and



must include the motorcycle noise level in dB(A), the correct engine rpm, the manufacturer of the exhaust system and a relevant trade description. The exhaust system itself should be marked with information that corresponds to the trade description in the label.

For exhaust systems bought after the motorcycle is purchased (except original specification items manufactured by the motorcycle manufacturer), i.e. after-market mufflers and systems, the muffler itself should have a label that contains the information specified in the previous paragraph, and also include the model for which the exhaust system was designed, to demonstrate that it is compatible with the motorcycle.

In both cases the noise level shown on the label should indicate that the motorcycle complies with the noise limit of 94 decibels (for motorcycles manufactured after July 1988).

Clause 19 of the Regulation requires this labelling when motor cycles are ridden on public roads and road-related areas (definitions of road-related areas is at clause 4 of the Regulation).

### Noise from filters and valves

Avoid fitting your vehicle with a pod-type air filter. This filter increases engine induction noise and may also increase exhaust gas pollution. Under clause 20 of the Regulation, it is an offence to modify an engine's air intake when it results in an engine noise level exceeding the maximum level specified in the Regulation.

Do not fit blow-off valves that vent directly into the atmosphere. Blow-off valves that vent back into the induction system are allowed.

Waste gate valves are non-standard pressure release valves for turbochargers. These devices increase the noise from engines and can cause disturbance. If you are fitting these valves, ensure they do not vent directly into the atmosphere but into the exhaust system upstream of any mufflers.

### Noise from gear drives and belts

Care should be taken when fitting engine gear drives or non-standard engine and auxiliary belt drives such as alternator belts. Non-standard gears and belts can emit an annoying high-pitched whine. It is an offence under clause 20 for any gear or belt modification to increase the noise level of the engine so it exceeds the noise level prescribed in the Regulation.

### Selling your vehicle

Under section 136 of the *Protection of the Environment Operations Act 1997*, you must ensure that the exhaust system and other noise control equipment of your vehicle are not defective *before* selling it.

Under clause 6 of the Regulation it is an offence to sell a motor vehicle:

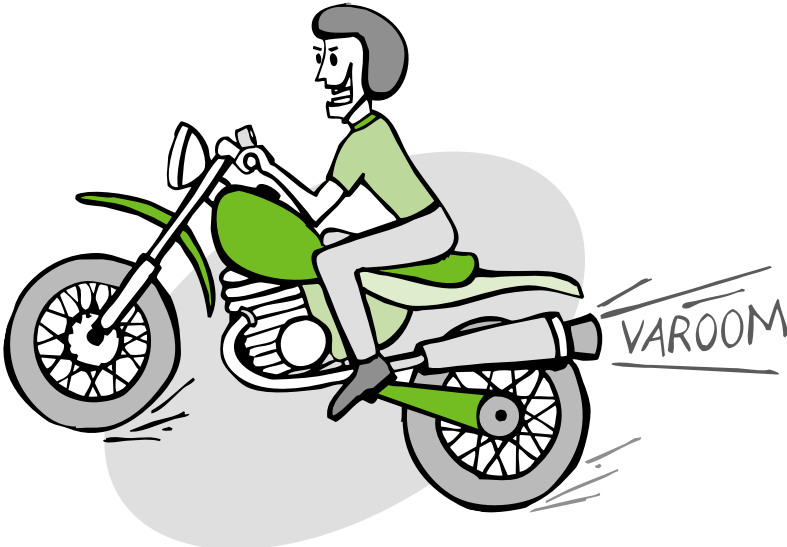
- with a louder exhaust system than the one for which the vehicle was originally designed
- with a horn or intruder alarm that exceeds noise limits prescribed in the Regulation.

## Noise from off-road vehicles

Off-road motorcycles and other vehicles often operate with less effective mufflers than road vehicles, and can annoy pedestrians and residents when trails pass near residential areas. Schedule 1 of the Regulation specifies a noise limit of 100 decibels for motor vehicles operating off-road. Clause 14 of the Regulation places additional requirements on off-road vehicles not to produce offensive noise.

Offensive noise is defined as noise:

- (a) that by reason of its level, nature, character or quality, or the time at which it was made or any other circumstance:
  - (i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or
  - (ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.



It is important to operate trail bikes and four-wheel drive vehicles quietly when they are near properties and residential areas. Unregistered trail bikes should never be used on:

- roads
- footpaths
- nature strips
- areas open to the public and designated for use by cyclists or animals
- shoulders of roads
- areas that are not roads that are open to the public for driving, riding and parking of vehicles.

Owners of offending vehicles who are not stopped and who receive a penalty notice in the mail will need to nominate the driver in control of the vehicle at the time of the alleged offence.

### Noise from motor vehicle horns

Horns cannot be installed or used if they exhibit non-standard characteristics or are louder than the level in clause 21 of the Regulation. A horn should emit noise at a single non-varying loudness and pitch at a noise level of between 85 dB(A) and 120 dB(A).

Police and Emergency Service vehicles are exempt.



Horns should be used as traffic warning devices only and not as a means of relieving driver stress or frustration.

### Noise from vehicle sound systems

Sound systems that can produce very high levels of sound are often fitted to vehicles. Of particular concern are the low frequency noise levels generated when music is being played. Low frequency noise (or booming noise) can penetrate buildings more easily than high frequency or mid-frequency noise and annoy surrounding residents, vehicle drivers and pedestrians.

Clauses 17 and 17A of the Regulation contain penalties for offensive noise produced by vehicle sound systems (see definition of 'offensive noise' under 'Noise from off-road vehicles'). As a guide, if the sound can be clearly heard outside the vehicle and contains low frequency noise, it is likely to be offensive.

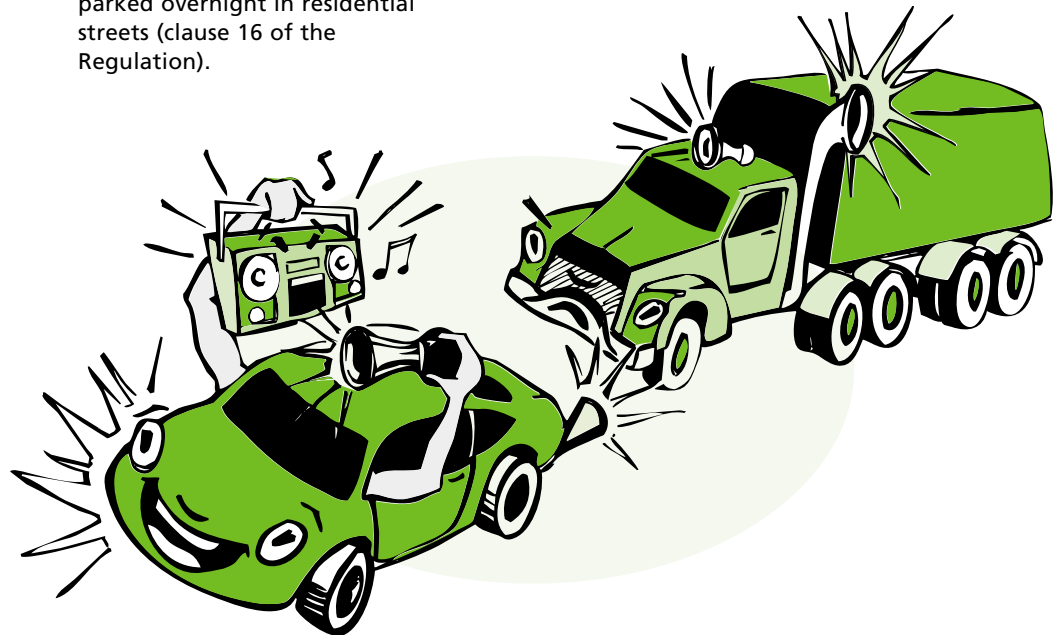
Under clause 17, a person who causes a motor vehicle sound system to emit offensive noise can be issued a \$150 penalty notice by the council, an authorised DEC officer or Police. In addition, they can get 2 demerit points on their driver's licence.

Owners of vehicles who receive penalty notices and were not driving the vehicle at the time of the alleged offence, may nominate the driver.

### Noise from refrigeration units

Refrigeration units can cause disturbance when trucks are parked overnight in residential streets (clause 16 of the Regulation).

Refrigeration units fitted to vehicles such as trucks should not be audible inside any home (regardless of whether windows in the home are open or closed) before 8 am or after 8 pm on any Saturday, Sunday or public holiday, or before 7 am or after 8 pm on any other day. Drivers contravening this rule can be warned about the noise and may be issued with a penalty notice if they do not heed the warning.

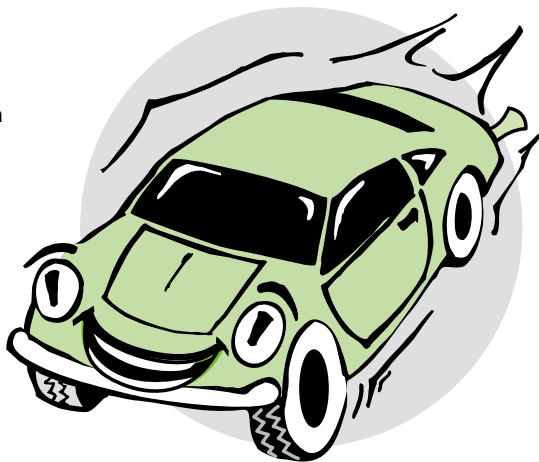


## Noise from engine or compression brakes

Noise from engine or compression brakes can be intrusive, especially at night. Heavy vehicle drivers should avoid using exhaust brakes, engine compression or 'jake' brakes near residential areas and noise sensitive areas such as hospitals and schools, unless they are necessary for safety reasons.

## Nine ways to avoid having a noisy vehicle

- Use horns for collision avoidance only.
- Don't fit pod-type air cleaners, or vented-to-atmosphere waste gates or blow-off valves, to your engine.
- Avoid excessive acceleration and unnecessary sudden braking.
- Use car sound systems responsibly.
- Avoid making offensive noise when operating off-road motor vehicles.
- Ensure that your exhaust system is in good order.
- Use exhaust systems that are the same as those originally designed for the vehicle.
- Be aware of the noise sensitivity of the areas you are passing through.
- Limit exhaust and compression braking, and the use of truck refrigeration units, in residential and sensitive areas.



## **Contact details**

**Department of Transport and  
Regional Services (DOTARS)**

Tel: (02) 6274 7111

**National Transport Commission**

Tel: (03) 9236 5000

**Police Customer Assistance Unit**

Tel: 1800 622 571

**Department of Environment and  
Conservation (DEC)**

Pollution Line: 131 555 (local call  
cost—NSW only) or  
(02) 9995 5000

**Roads and Traffic Authority**

Tel: 131 782 (local call cost)

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