

Land Transport Rule Light-vehicle Brakes Amendment 2014

Rule 32014/4

Overview

*This overview accompanies, and sets in context, the public consultation (yellow) draft of **Land Transport Rule: Light-vehicle Brakes Amendment 2014** (Rule 32014/4). The proposed amendment Rule would mandate the fitting of electronic stability control to most new and used light vehicles entering the New Zealand vehicle fleet.*

*If you wish to comment on this draft Rule, please see the page headed 'Making a submission'. The deadline for submissions is **5pm on 22 April 2014**.*

Consultation on proposed Rule changes

The purpose of this publication is to consult on proposed changes to *Land Transport Rule: Light-vehicle Brakes 2002* (the Light-vehicle Brakes Rule).

Consultation on the proposed changes is being carried out to ensure that legislation is sound and robust and that the Rules development process takes account of the views of, and the impact on, people affected by proposed Rule changes.

The issues that are raised during consultation will be analysed and taken into account in preparing the proposed changes for the Minister's signature.

This publication, for your comment, has two parts:

- (a) an overview, which sets proposed Rule changes in context; and
- (b) the consultation (yellow) draft of *Land Transport Rule: Light-vehicle Brakes Amendment* (Rule 32014/4) ('the draft amendment Rule').

Making a submission

If you wish to make a submission on the proposed changes please read the information below.

Before making your submission

Please read the information provided in the consultation document.

Please include the following information in your submission

- the title of this document
- your name, and title if applicable
- your organisation's name if applicable
- your address – postal, and email if applicable

When making your submission

If you are not using the online form, it would be appreciated if you would ensure that you quote the subject headings or Rule references used in the consultation document.

Sending your submission

If possible, send your submission by email to rules@nzta.govt.nz and, if you wish, follow this up with a signed copy. If emailing your comments, please let us know your postal address. You can also submit your comments on the online submission form at:

<http://www.nzta.govt.nz/consultation/light-vehicle-brakes-amendment-2014/index.html>

If posting your submission, address it to

Light-vehicle Brakes Amendment 2014
Rules Team
NZ Transport Agency
Private Bag 6995
WELLINGTON 6141

Please note the deadline for submissions

The deadline for submissions is **5pm on 22 April 2014**.

Your submission is public information

Please note that the NZ Transport Agency may publish any information that you submit, and may identify you as the submitter should it publish your submission or provide it to a third party.

Please indicate clearly, therefore, if your comments are commercially sensitive, or if, for some other reason, they should not be disclosed, or the reason why you should not be identified as the submitter.

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Summary of proposed Rule changes

The following changes would be made through the proposed amendment to the Light-vehicle Brakes Rule:

1. Extend the scope of the Light-vehicle Brakes Rule to include Electronic Stability Control (ESC) requirements for light motor vehicles.
2. Introduce requirements:
 - a. for light passenger and commercial vehicles entering the New Zealand fleet to be fitted with ESC; and
 - b. for an ESC system fitted to a light passenger or commercial vehicle to be maintained in working order.
3. Phase-in the introduction of ESC requirements for light motor vehicles entering the New Zealand fleet:
 - a. new light motor vehicles entering the fleet would be required to meet ESC requirements from 1 July 2015;
 - b. ESC requirements for used light motor vehicles entering the New Zealand fleet for the first time would be phased in from 2016 to 2020.

Why are Rule changes being proposed?

Purpose of proposed amendment Rule

The purpose of the proposed amendment Rule is to improve the safety of road users by requiring imported light passenger and commercial vehicles entering the fleet to be fitted with ESC.

Background

Safer Journeys, the government's road safety strategy to 2020, aims to reduce the number of deaths and serious injuries on New Zealand roads. To achieve this aim, a safe-system approach is being taken, which looks across the entire road system to improve the safety of road users.

The *Safer Journeys Action Plan 2013-2015* includes an action to mandate ESC for all light passenger and commercial vehicles entering the fleet, which is aimed at improving the safety performance of vehicles in New Zealand,

The proposed amendment Rule results from analysis undertaken by the Ministry of Transport and the NZ Transport Agency to determine how to maximise the safety benefits of ESC in light passenger and commercial vehicles, without significantly impacting on the availability or cost of vehicles.

What is Electronic Stability Control?

Electronic Stability Control, which is also known by a range of proprietary names from different manufacturers, is a low-cost vehicle safety technology that greatly reduces the risk of a crash resulting from a driver losing control of a vehicle. The system uses sensors to detect a loss of steering control (that is, an understeer or over-steer situation) and automatically applies braking force to individual wheels to keep the vehicle on the intended path.

In recognition of its safety value, ESC has been made a mandatory fitment in most new light vehicles manufactured in Europe, the United States, Japan, South Korea and Australia.

How effective is Electronic Stability Control?

An extensive body of international research confirms that ESC is very effective in reducing loss-of-control crashes, including run-off-road and rollover crashes. While results vary by study, the collective evidence indicates that ESC has the potential to reduce crashes caused by a driver losing control of a light vehicle by about 30 percent.¹

Sports utility vehicles (SUVs) and people-movers have a greater rollover risk than other light vehicles due to their high centre of gravity. For these vehicles, the potential crash reduction that ESC offers is about 60 percent.

If a crash is unavoidable, ESC can reduce its severity by helping the vehicle to crash in a way that reduces the risk of injury to the occupants. Rather than skidding sideways into an object, a vehicle fitted with ESC is more likely to crash frontally so safety features such as bumpers, seatbelts, front air bags and head restraints are able to function properly.

Loss of control crashes in New Zealand

Over the three years to 2012, 9486 light vehicle crashes involved a driver losing control of a light vehicle. These crashes led to almost half of all road deaths in New Zealand during this period. The average annual social cost² of these crashes was \$1.27 billion (2012 dollars), which is 38 percent of the annual social cost associated with all crashes over this period.

Table 1 below details the number of crashes in which a driver lost control of a light vehicle, and the resulting casualties, from 2010 to 2012.

¹ Risk reduction based on actual crash data, comparing ESC-fitted vehicles with similar vehicles that did not have ESC. For example, see Scully, J.E. and Newstead, S.V. *Followup Evaluation of Electronic Stability Control Effectiveness in Australasia*, Monash University Accident Research Centre Report No. 306, (2010).

² Social cost is a measure of the total cost that occurs as the result of crash or injury. It includes loss of life and life quality, loss of economic output, medical costs, legal costs and vehicle damage costs.

Table 1: Crashes involving loss of control of a light vehicle (2010 to 2012)

Severity	Crashes involving loss of control		Resulting casualties	
	Number	% of all crashes	Number	% of all crash casualties
Fatal	393	46	461	48
Serious	1,778	33	2,386	37
Minor	7,315	30	10,260	32

Current level of ESC in vehicles entering New Zealand

The number of new light motor vehicles sold in New Zealand with ESC is steadily increasing, largely as a result of the international trend towards requiring this technology.

At present, about 90 percent of new light passenger vehicles and 80 percent of new light commercial vehicles sold are fitted with ESC.

The number of light motor vehicles imported into New Zealand as used vehicles, with ESC fitted, is much lower. It is estimated that only 15 percent of used passenger vehicles, and almost no used light commercial vehicles, currently imported have ESC.

However, the level of fitting of ESC on used light vehicles is expected to gradually increase over time as a result of the growing availability of ESC in source markets such as Japan.

Regulatory options to increase the uptake of ESC

Although the availability of ESC in imported new and used vehicles is expected to gradually increase, it is highly unlikely that the safety benefits of ESC will be maximised in New Zealand without legislative intervention.

Previous efforts to increase the uptake of ESC have included the promotion of ESC to the public. This was expected to encourage vehicle dealers to supply vehicles

equipped with ESC as a result of greater public demand for the technology.

Although the promotion of ESC is likely to have had some positive influence on increasing the supply of ESC-equipped vehicles in New Zealand, it is unlikely that further promotion will achieve the desired outcome of all light vehicles entering the New Zealand fleet having been manufactured with ESC. This is because, without mandating ESC, vehicles that were not manufactured with ESC are likely to continue to be sold in New Zealand for some time under the current requirements.

Requiring that ESC be fitted in most light vehicles entering the fleet is considered to be the most efficient and effective option available to ensure the uptake of ESC, and its benefits to New Zealand, are maximised .

What is the Light-vehicle Brakes Rule?

Land Transport Rule: Light-vehicle Brakes 2002 is one of a series of Rules that sets safety requirements and standards for systems and components operating in vehicles in New Zealand. The Rule specifies the types of brakes system that must be fitted in most light vehicles and the requirements for those brakes.

Why is the Rule being amended?

As ESC utilises a vehicle's brake system in its operation, the Light-vehicle Brakes Rule is the appropriate legislation in which to require the fitting of, and performance requirements for, ESC in light vehicles.

Why is the implementation of changes being phased in?

It is proposed to phase in the implementation of the proposed changes as soon as possible to ensure the benefits of mandating ESC are realised, without significantly impacting on the availability or cost of vehicles in New Zealand.

Applying ESC requirements to new vehicles is considered to be relatively straightforward because most light vehicles sold new in New Zealand are already fitted with this technology. Close substitutes are available to replace most of the remaining models which lack ESC. However, some delay in implementing the proposed changes would be needed to allow for vehicles that retailers had already ordered from the manufacturers, but which had not been shipped.

In applying ESC requirements to used vehicle imports, implementation must be carefully timed to ensure sufficient availability of ESC-equipped vehicles in source markets in order to reduce or avoid a disruption in supply. If the availability of affordable vehicles entering New Zealand were to be restricted, New Zealanders' transport needs might not be met and there is a risk that older, less-safe vehicles would remain in service for longer than otherwise.

The proposed phase-in of requirements is based on analysis undertaken by the Ministry of Transport and the NZ Transport Agency, including engagement with stakeholders, to identify optimal implementation dates for mandating ESC for new and used light vehicles entering the fleet. This analysis took into account both the benefits of a reduction in loss-of-control crashes on New Zealand roads and the potential costs of reduced availability and choice, or increased prices of vehicles for New Zealand consumers.

Who has been involved in the development of the proposed changes?

Representatives from associations in the new and used light vehicle industries were consulted in the development of this proposed amendment Rule.

Industry feedback to date has included the following concerns:

- making ESC mandatory may force importers to bring in newer, more expensive vehicles than they would otherwise import;
- that the supply of used vehicles fitted with ESC in Japan is not adequate to support current demand from New Zealand importers;

- the difficulty in identifying which vehicles have ESC fitted may make it difficult for importers to establish compliance of used vehicles prior to importation, potentially further restricting the supply of vehicles;
- requiring ESC in commercial vehicles before it is required in Australia may put pressure on some vehicle suppliers.

These concerns are addressed in the Regulatory Impact Statement, available on the Ministry of Transport website (see the Appendix to this overview).

What are we seeking your feedback on?

The NZ Transport Agency welcomes your comments on the proposed Rule changes set out in this overview and in the draft amendment Rule. When you provide your feedback, it would be helpful if you would consider and comment on the following:

- What impact would the proposals have, and on whom?
The NZ Transport Agency is particularly interested in your comments on any costs (to you or to your organisation) of implementing the proposals.
- Would any groups or individuals, in particular, be disadvantaged by the proposals, and how?
- Would any groups or individuals, in particular, benefit from the proposals, and how?
- Are there any implementation or compliance issues that would need to be considered?
- Are the proposed phase-in dates for new and used vehicles practicable?
- Is it appropriate to conduct in-service checks on affected vehicles?

Wherever possible, when making your comments please provide evidence and examples to illustrate your point.

What changes are proposed?

This section sets out the changes that are proposed to the Light-vehicle Brakes Rule.

Specific proposals in the Rule

PROPOSAL 1. Extend the scope of the Light-vehicle Brakes Rule to include ESC requirements

Details of proposed Rule changes

The objective of the proposed changes is to extend the scope of the Light-vehicle Brakes Rule to include requirements for light motor vehicles entering the fleet to be fitted with ESC.

The proposed changes would amend the scope of the Rule to include requirements for ESC systems for light vehicles, which may be identified by other descriptors (for example, Dynamic Stability Control), but would have to meet the requirements in the Rule.

Amendment Rule ref: *clause 2.1*

PROPOSAL 2. Require light passenger and light commercial vehicles to meet new ESC requirements

Details of proposed Rule changes

The objective of the proposed changes is to improve vehicle safety in the New Zealand fleet by requiring light motor vehicles to meet ESC fitting and performance requirements.

Require light vehicles to be fitted with ESC

The proposed changes would require light motor vehicles of Classes MA, MB, MC, and NA entering the New Zealand fleet for the first time to have been manufactured with an ESC system that meets the general requirements for ESC systems specified in the Rule. Vehicle classes are defined in Table A of *Land Transport Rule: Light-vehicle Brakes 2002*.

In-service requirements for vehicles fitted with ESC

The proposed changes would require that if a light motor vehicle was originally manufactured with ESC then the system would have to be maintained so as to not reduce its function or performance in the event of the driver losing control of the vehicle. This would apply to all light motor vehicles of Classes MA, MB, MC and NA originally manufactured with ESC, whether or not they were imported after the dates specified in Proposal 3 below.

Amendment Rule ref: *clauses 2.2, 2.3*

Exceptions to requirements

The proposed changes would not apply to imported light vehicles that are 20 years old or more and vehicles categorised as Immigrants' vehicles, or issued with a Special Interest Vehicle permit or motorsport authority card.

Amendment Rule ref: *clause 2.2*

PROPOSAL 3. Phase in ESC requirements from 2015 to 2020**Details of proposed Rule changes**

The objective of the proposal is to implement ESC requirements for light motor vehicles as early as practicable to ensure the uptake of ESC, and the consequent safety benefits to New Zealand, are maximised.

New light vehicles

The proposed ESC requirements for new light motor vehicles would be applied to vehicles first registered in New Zealand on or after a date 12 months after the Rule is made. (The Rule is expected to be made about 1 July 2014.)

This is considered to be the earliest practicable date to implement ESC requirements for new light motor vehicles. Although the mandating of ESC is expected to have minimal impacts on the supply and cost of new vehicles, the new vehicle industry has indicated a 12-month lead-in would be required to ensure importers of new vehicles have adequate time to source vehicles with ESC.

Imported used light vehicles

The proposal would phase-in the implementation of ESC requirements for used light vehicles to ensure an adequate supply of used vehicles fitted with ESC is available in overseas source markets.

The requirement for ESC to be fitted in used light vehicles when they are first registered in New Zealand would be phased in as set out in *Table 2* below.

Table 2: Proposed phase-in of requirements for ESC fitting in used light vehicles first registered in New Zealand

Vehicle class	First registered in New Zealand on or after
MC (eg, four-wheel-drive SUVs and off-road vehicles)	1 January 2016
MA (Passenger cars) with an engine capacity of more than 2000 cc	1 January 2018
NA (Goods), MB (Forward control passenger vehicles) and remaining MA (passenger cars)	1 January 2020

In-service requirements

The proposed in-service requirements for all light motor vehicles originally manufactured with ESC would come into force on 1 July 2015. These requirements set out the required attributes of a compliant ESC system, the requirement for the system to be maintained in good working order and for the system warning indicator or tell-tale light (usually a dashboard light) to be functional.

Amendment Rule ref: *clause 2.3*

Matters to be taken into account

The Land Transport Act 1998 (the Act) provides the legal framework for making Land Transport Rules. *Section 161* states the procedures by which the Minister makes ordinary Rules.

Application of Rule-making criteria

Proposed activity or service

Section 164(2)(b) of the Act requires that appropriate weight be given to the nature of the proposed activity or service for which the Rule is being established.

The proposed activity or service is the requirement that Electronic Stability Control be a fitment in most new and used light vehicles entering the New Zealand fleet.

Risk to land transport safety

Section 164(2)(a), (c) and (d) requires the Minister to take into account the level of risk to land transport safety in each proposed activity or service, the level of risk existing to land transport safety in general in New Zealand, and the need to maintain and improve land transport safety and security.

The introduction of ESC requirements is proposed as the technology has been proven to be effective in reducing the risk of crashes in both light passenger and light commercial vehicles.

Assisting achievement of strategic objectives for transport

Section 164(2)(e) of the Act requires that the Minister have regard, and give such weight as he or she considers appropriate in each case, to whether a proposed Rule (i) assists economic development; (ii) improves access and mobility; (iii) protects and promotes public health; and (iv) ensures environmental sustainability.

Assists economic development

The proposed amendment Rule is expected to have minimal impact on economic development.

Mandating ESC for new and imported used vehicles is not intended to reduce transport options, which would increase the costs to the public and the industry. However, there may be some impact on the cost of imported used vehicles depending on the availability in source markets of vehicles that are fitted with ESC. To ensure those impacts are minimised, the introduction of ESC requirements is to be phased-in over a period that is considered unlikely to significantly affect the supply of compliant vehicles.

Improves access and mobility

The proposed amendment Rule is unlikely to affect access and mobility. As discussed above, the proposal is not intended to reduce transport options and the proposed timetable is designed to ensure the supply and costs of vehicles are not significantly affected.

Protects and promotes public health

The proposed amendment Rule is expected to have a positive impact on public health, by reducing the numbers of deaths and injuries from loss-of-control crashes involving light vehicles.

Ensure environmental sustainability

The proposed amendment Rule is expected to have minimal effect on environmental sustainability.

The costs of proposed changes

Section 164(2)(ea) of the Act requires that the Minister have regard to the costs of implementing measures for which the Rule is being proposed. A summary of the costs and benefits of the proposed changes, together with links to the Regulatory Impact Statement on the Ministry of Transport's website, can be found in the *Appendix*.

International considerations

Section 164(2)(eb) and *(f)* of the Act requires that, in making a Rule, the Minister must have regard to New Zealand's international obligations concerning land transport safety, and the international circumstances in respect of land transport safety.

In developing this proposed amendment Rule, consideration has been given to best practice in overseas jurisdictions. New Zealand is a signatory to the *1998 United Nations Agreement on Global Technical Regulations*, and as such is required to take steps to incorporate *Global Technical Regulation 8* for Electronic Stability Control Systems into New Zealand transport legislation where appropriate.

The Light-vehicle Brakes Rule would adopt the essential aspects of the definition of ‘Electronic Stability Control System’ from the *UN/ECE Global Technical Regulation No. 8 (GTR 8) for Electronic Stability Control Systems*³. This definition has also been adopted in a number of vehicle standards used in the primary source markets for vehicles being imported into New Zealand.

How the amendment Rule fits with other legislation

Offences and penalties

Land Transport Rules do not contain offences and penalties for breaches of Rule requirements. These provisions are usually set out in regulations.

There are no consequential changes to offences and penalties regulations or fees regulations required as a result of this amendment Rule.

³ *Global Technical Regulation No.8 Electronic Stability Control Systems (ECE/TRANS/180/Add.8)*

Publication and availability of Rules

Access to consultation material

Copies of this consultation document may be obtained by calling the NZ Transport Agency Contact Centre on 0800 699 000. It is also available on the NZ Transport Agency's website at:

<http://www.nzta.govt.nz/consultation/light-vehicle-brakes-amendment-2014/index.html>

Availability of Rules

Land Transport Rules can be purchased from selected bookshops throughout New Zealand that sell legislation. They can also be inspected at the National Office and regional offices of the NZ Transport Agency. Final versions of these Rules are also available on the NZ Transport Agency's website at:

<http://www.nzta.govt.nz/resources/rules/about/>.

Information about Rules

Information about the Rules programme and process is available online at:

<http://www.nzta.govt.nz/resources/rules/about/>.

If you have not registered your interest in this proposed amendment Rule (or other draft Rules in the Rules programme), you can do so by contacting the NZ Transport Agency at our address shown in the *Making a submission* section at the front of this publication, or at:

<http://www.nzta.govt.nz/resources/rules/about/registration.html>. This includes a form for registering an interest in Rules.

Appendix

Regulatory impact of proposed Rule amendments

A Regulatory Impact Statement on the proposed Rule changes is available for you to read, should you wish, in conjunction with the overview.

The document can be downloaded from the Ministry of Transport's website at:

<http://www.transport.govt.nz/assets/Uploads/About/Documents/RIS-Mandating-ESC-for-light-vehicles.pdf>

A summary of the benefits and costs/risks of the Rule amendment proposals are set out in the attached table.

What are Land Transport Rules?

Land Transport Rules (Rules) are legislation made by the Minister of Transport or his delegate ('the Minister') under the *Land Transport Act 1998* (the Act).

The Act sets out principles and the policy framework; Rules contain detailed requirements, including standards and processes, for putting those principles and policy into operation. Rules cover a range of land transport issues. Among the outcomes that Rules aim to achieve are: safeguarding and improving land transport safety and security, improving access and mobility, assisting economic development, protecting and promoting public health and ensuring environmental sustainability.

Compliance with Rules is required because they form part of New Zealand transport law. The specific offences and penalties that apply to each Rule are set out in the Act or in regulations.

Most Rules are drafted by the NZ Transport Agency, by an arrangement with the Chief Executive of the Ministry of Transport, working closely with the Ministry of Transport's policy and legal advisors.

Rules are drafted in plain language to be understood by a wide audience and to help ensure compliance with requirements. The NZ Transport Agency is responsible for ensuring that appropriate consultation is undertaken on proposed Rules, and a draft Rule may be refined in response to submissions received.

Summary of benefits and costs by proposal

No.	Proposal	Benefits	Costs
1.	Extend the scope of the Light-vehicle Brakes Rule to include ESC requirements	<p>The primary benefit of this proposal accrues to road users, because mandating ESC for light vehicles lowers the risk of rollover or loss-of-control crashes.</p> <p>Benefits will also accrue to New Zealand in the form of reduced social costs from deaths and injuries from loss-of-control crashes.</p>	<p>This proposal is expected to create minimal impacts to new car supply and costs in New Zealand. There is sufficient availability of new vehicles fitted with ESC to avoid any issues for importers or customers.</p> <p>There may be a small increase in the cost of used light vehicles entering the New Zealand fleet, as vehicle importers will be required to import only vehicles fitted with ESC. However, as supply of ESC-equipped vehicles is slowly increasing in source markets, and the price of the technology is low, any impact on the used car market in terms of supply and price would be minimal.</p>
2.	Require most light passenger and light commercial vehicles to meet new ESC requirements		
3.	Phase in ESC requirements from 2015 to 2020	<p>Ensures the benefits of mandating ESC are realised, as soon as possible, without significantly impacting on the availability or cost of vehicles for New Zealanders.</p>	<p>The phasing-in of ESC requirements for imported used vehicles will slightly delay the realisation of the full safety benefits ESC is expected to deliver.</p> <p>The phase-in will also marginally increase the cost of implementing changes, as inspection agencies will require additional effort and support from the NZ Transport Agency to apply requirements.</p> <p>The phase-in may also make it more difficult for those who wish to register a vehicle for use in New Zealand to identify what requirements the vehicle must meet.</p>