



Transport Canada Transports Canada

**UNCLASSIFIED
SAFETY & SECURITY
AA-2017-455723
RDIMS # 12711355**

Memorandum to the Minister of Transport

Daytime Running Lights

For Information

Purpose:

The purpose of this note is to provide information on the current status and requirements on vehicle lighting, including daytime running lights, rear daytime running lights and phantom vehicles. This note also includes information on the status of the upcoming changes to the requirements.

Background:

Section 108 of the *Motor Vehicle Safety Regulations* (MVSR) requires that all vehicles, built after December 1989, be equipped with front daytime running lights (DRL). These lamps must be automatically activated when the vehicle is in operation under daylight conditions.

Canada was the first country to require automatic front DRL on all new vehicles. The United Nations regulations that forms the basis for national regulations in over 40 industrialized countries around the world included the mandatory fitment of automatic DRL beginning in February 2011.

When front daytime running lights were introduced in 1989, Transport Canada demonstrated that installing and operating the new lights would significantly reduce injuries and property damage from frontal collisions. It was not possible to justify the requirement for constant illumination of vehicle night-time tail lamps as rear daytime running lights.

At that time, the vehicle dash boards were only illuminated once the vehicle head lights were activated. Thus, it was a natural trigger for the driver to turn on their head lights if they could not clearly see their dash board. However, modern vehicles have dash boards that are always illuminated. As a result, it is often not possible for the driver to detect when their full running lights are not illuminated.

This creates "phantom vehicles". Phantom vehicles are those travelling at night, at dusk, or inclement weather, using only the DRL, with no illuminated lamps at the rear of the vehicle. The vehicle's illuminated dash board can give the driver a false sense that their outside lights are activated, when they are not.

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The department has received a continuous high influx of letters from the driving public raising concerns about the increasing amount of phantom vehicles on the roads.

Analysis and Considerations:

While phantom vehicles may be frustrating to other drivers, there is still no documented evidence that vehicle collisions are caused by a lack of rear daytime running lights or delayed activation of vehicle night-time lights. Many vehicles have automatic lighting systems that turn on all necessary lighting when required, however this is not required in the Canadian safety regulations.

No jurisdiction requires vehicle tail lamps to be illuminated all the time, as there is no benefit during the day. Even when low energy consuming light sources are to be used, many environmentalists object to the all-time illumination of tail lights during the day, as they are seen as an additional load on vehicle power consumption and generate pollution.

The advent of dash boards that are always illuminated has resulted in situations where drivers are not following the highway traffic acts, such as Ontario's (R.S.O. 1990, c. H.8, s. 62 (1)), which require that exterior lights be illuminated at prescribed times, for example; this results in possibly unsafe and unlawful situations for the driver.

Furthermore, these phantom vehicles also pose a safety risk to other road users as they are only seen at the last minute or when other lights are illuminated (i.e. brake lights), decreasing the available time for these other road users to react as they try to avoid a collision. The department needs to find a solution that will ensure that drivers can properly see and be seen at night.

Stakeholder Consultations:

An amendment to MVSR section 108 was published in the *Canada Gazette*, Part I on February 27, 2016 (<http://www.gazette.gc.ca/rp-pr/p1/2016/2016-02-27/html/reg2-eng.php>)

The proposal included a requirement mitigating phantom vehicles with a proposed mandatory compliance date of September 1, 2020. As part of the proposal, manufacturers may:

- install automatic lighting systems,
- install rear daytime running lights or,
- they must ensure that the vehicle does not have an illuminated dashboard when the low beam lamps are not illuminated.

During the 75 day consultation period, comments were received and reviewed.

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Next Steps:

The completion of the amendment has been delayed as the stakeholders (the Global Automakers of Canada and the Canadian Vehicle Manufacturers' Association) have requested that Transport Canada include new alternative testing requirements for complex advanced lighting systems as part of the amended regulation.

The review of these new requirements has taken longer than anticipated, as there is no consensus amongst stakeholders regarding the new differing technical standards.

It is anticipated that the amendment in the *Canada Gazette, Part II* [REDACTED]

The publication of the amendment in the *Canada Gazette, Part II* is anticipated to occur in the fall 2017.

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Michael Keenan
Deputy Minister of Transport


Helena Borges
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Key Messages

- **Section 108 of the *Motor Vehicle Safety Regulations (MVSR)* requires that all vehicles, built after December 1989, be equipped with front daytime running lights. These lamps must be automatically activated when the vehicle is in operation under daylight conditions.**
- **When front daytime running lights were introduced in 1989, Transport Canada demonstrated that installing and operating the new lights would significantly reduce injuries and property damage from frontal collisions. It was not possible to justify the requirement for constant illumination of vehicle night-time tail lamps as rear daytime running lights.**
- **Phantom vehicles are those travelling at night, at dusk, or inclement weather, using only the front daytime running lights, with no illuminated lamps at the rear of the vehicle. The vehicle's illuminated dash board can give the driver a false sense that their outside lights are activated, when they are not.**
- **It is anticipated that the phantom vehicle issue that will be addressed in the *Canada Gazette, Part II***