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**B109-01**  
*(reaffirmed 2012)*

# Natural gas for vehicles installation code

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# Update No. 1

## B109-01

### February 2005

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**Title:** *Natural Gas for Vehicles Installation Code* — originally published June 2001

The following revisions have been formally approved and are marked by the symbol delta ( $\Delta$ ) in the margin on the attached replacement pages. The change to Clause 2.3.2 in French Update No. 1 does not apply to the English Standard.

<b>Revised</b>	Preface
<b>New</b>	None
<b>Deleted</b>	None

CSA B109-01 originally consisted of **36 pages** (xi preliminary and 25 text), each dated **June 2001**. It now consists of the following pages:

<b>June 2001</b>	iii–viii, xi and 1–25
<b>February 2005</b>	ix and x

- Update your copy by inserting these revised pages.
- Keep the pages you remove for reference.

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# Δ Preface

This is the first edition of CSA Standard B109, *Natural Gas for Vehicles Installation Code*. It provides requirements that supersede those of CAN/CSA-B149.4, published by the Canadian Gas Association.

In 1958 the Canadian Standards Association published the first edition of CSA Standard B149, *Installation Code for Gas Burning Appliances and Equipment*. It was superseded by editions published in 1962, 1966, and 1971. In 1974 the Canadian Gas Association was accredited by the Standards Council of Canada as the standards development organization responsible for preparing standards for gas-burning appliances and equipment, and in this connection took over responsibility for the B149 Code.

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- (a) The provincial enforcing authorities for the other B149 Codes were not necessarily the enforcing body for NGV vehicle conversions. It was therefore felt reasonable to locate these provisions in a separate Code for those other enforcing authorities to adopt.
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This document was prepared by the CSA B109 Subcommittee on the Natural Gas for Vehicles Installation Code and was formally approved by the Interim CSA Steering Committee on Natural Gas Powered Vehicles and Fuelling and the Interprovincial Gas Advisory Council.

June 2001

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- (5) All enquiries regarding this Standard, including requests for interpretation, should be addressed to Canadian Standards Association, 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3.

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*CSA Standard*

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***Natural Gas for Vehicles***  
***Installation Code***



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June 2001

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*Requests for interpretation should*

- (a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
- (b) provide an explanation of circumstances surrounding the actual field condition; and*
- (c) be phrased where possible to permit a specific "yes" or "no" answer.*

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# B109-01

## Natural Gas for Vehicles Installation Code

### 1. Scope

#### 1.1

This Code applies to the installation, servicing, and repair of natural gas fuel systems on self-propelled vehicles for the provision of motive power.

#### 1.2

This Code does not apply to

- (a) stationary engines;
- (b) mobile equipment using natural gas as a fuel for other than propulsion;
- (c) LNG vaporizers and LNG fuel storage systems;
- (d) electronic components of a fuel management system; and
- (e) storage or utilization of natural gas on boats or trains.

#### 1.3

In this Code, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Code; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Code. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Legends to equations and figures are considered requirements.

### 2. Definitions, Reference Publications, and Abbreviations

#### 2.1 Definitions

The following definitions apply in this Code:

**Accessory** — a part capable of performing an independent function(s) and contributing to the operations of the equipment that it serves.

**Approved** — acceptable to the authority enforcing this Code.

**Authority enforcing this Code** — the governmental body responsible for the enforcement of any part of this Code or the official or agency designated by that body to exercise such a function.

**Certified** —

**Self-certified** — the evaluation procedure completed by the manufacturer for construction, marking, and test requirements of the equipment for a particular installation under the program recognized by the authority enforcing this Code.