



NSAI
Standards

Irish Standard
I.S. EN 1949:2011

Specification for the installation of LPG systems for habitation purposes in leisure accommodation vehicles and accommodation purposes in other vehicles

I.S. EN 1949:2011

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:
EN 1949:2002

<i>This document is based on:</i> EN 1949:2011 EN 1949:2002/A1:2005	<i>Published:</i> 23 February, 2011 13 July, 2005
---	---

This document was published under the authority of the NSAI and comes into effect on: 23 February, 2011

ICS number:
43.100
97.200.30

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

Specification for the installation of LPG systems for habitation
purposes in leisure accommodation vehicles and
accommodation purposes in other vehicles

Spécifications relatives aux installations des systèmes GPL
pour les besoins domestiques dans les véhicules
habitables de loisirs et dans les autres véhicules

Festlegungen für die Installation von Flüssiggasanlagen in
bewohnbaren Freizeitfahrzeugen und zu Wohnzwecken in
anderen Fahrzeugen

This European Standard was approved by CEN on 1 January 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 General requirements.....	9
4.1 General.....	9
4.2 Dynamic loads.....	9
4.3 Tightness	10
4.3.1 Requirements	10
4.3.2 Test.....	10
4.4 Second LPG supply	10
5 Cylinder compartments.....	10
5.1 General.....	10
5.2 Cylinder compartments with internal access	12
5.3 Cylinders secured outside the vehicle	12
5.4 Requirements for the construction of cylinder compartments	13
5.5 Ventilation for cylinder compartments.....	13
5.6 Cylinder compartments with internal access and low capacity cylinders	13
5.7 Electric equipment in cylinder compartments.....	14
6 Pressure regulation systems and working pressures	14
6.1 Pressure regulation systems.....	14
6.2 Marking of the working pressure	16
6.3 Devices to protect against over-pressure	16
6.4 Connection of pressure regulators to rigid pipework - Low pressure supply	16
6.5 Connection of a dual cylinder system.....	16
6.6 Connection of an external LPG supply by means of a plug-in connector.....	16
7 Components	18
7.1 Hoses/Hose assemblies	18
7.2 Pipes	18
7.3 Pipe fittings	19
7.4 Jointing materials	21
7.5 Shut-off valves	21
7.6 Manual change over valve	21
8 Installation design	21
8.1 General.....	21
8.2 Protection against mechanical damage	22
8.3 Avoidance of corrosion.....	22
8.4 Pipe sizing	22
8.5 Pipe fittings	22
8.6 Positioning of LPG pipes near to other services	22
8.7 Fixing	22
8.8 Shut-off valves	22
8.9 Equipotential bonding of LPG pipes.....	23
9 Connection of appliances to the LPG supply installation	23
10 Appliances	24
10.1 Suitability of appliances.....	24
10.2 Installations	24

10.3	Space heaters	24
10.3.1	Space heating appliances in caravans, motor caravans and other road vehicles	24
10.3.2	Space heating appliances in caravan holiday homes	24
10.4	Water heaters	25
10.4.1	Water heaters in caravans, motor caravans and other road vehicles	25
10.4.2	Water heaters in caravan holiday homes	25
10.5	Cooking appliances	26
10.6	Refrigerators	26
10.7	Gas lights	26
10.8	LPG fuel cells	26
10.9	LPG power generators	26
11	Flueing	27
11.1	Flues	27
11.2	Flue terminals	27
11.3	Weather protection	29
11.4	Draught diverters	29
11.5	Accessibility of flues	29
12	Installation of LPG tanks supplying LPG appliances	29
12.1	Requirements regarding the LPG tank and accessories	29
12.2	Installation of the LPG tank and system requirements	30
13	User's handbook	31
Annex A	(informative) National situations in the Member States	33
Annex B	(informative) Countries where underfloor flue is not permitted	34
Annex C	(informative) Manufacturer declaration	35
Bibliography	37

Foreword

This document (EN 1949:2011) has been prepared by Technical Committee CEN/TC 181 "Dedicated liquefied petroleum gas appliances", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1949:2002.

Principal changes made to EN 1949:2002 and EN 1949:2002/A1:2005:

- a) more than one gas supply is permitted in a vehicle;
- b) hard soldering redefined;
- c) the provision of a certificate of tightness testing is no longer mandated;
- d) tightness criteria for high pressure parts of the gas system not verified in the standard tightness test are specified;
- e) requirements for electric cables in gas cylinder compartments have been revised;
- f) lengths of hoses and hoses assemblies have been clarified;
- g) basic requirements for installation of fuel cells added;
- h) basic requirements for installation of power generators added (including second supply line);
- i) requirements for plug in connector gas supplies added;
- j) options for new member states added;
- k) requirements for LPG tank installation added.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-