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**Technical systems and aids for disabled or handicapped persons — Wheelchair tie-down securement and occupant restraint systems —Part 3: Docking type tie-down securement systems**

*Titre — Titre — Partie n: Titre de la partie*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10542-3 was prepared by Technical Committee ISO/TC 173, Technical Systems and Aids for Disabled or Handicapped Persons, Subcommittee SC 1, *Wheelchairs*. It supplements and is to be used in conjunction with ISO 10542-1.

ISO 10542 consists of the following parts, under the general title Wheelchair ~~tie-down~~securement and occupant-restraint systems :

- Part 1: ~~General requirements~~Requirements and test methods for all systems,
- Part 2: Four-point strap-type ~~tie-down~~securement systems,
- Also in the programme of work are:
- Part 4: Clamping ~~type tie-down~~securement systems,
- Part 5: Systems for specific wheelchairs.

Annex A, is a normative part of this part of ISO 10542. Annex B is an informative part.

## Introduction

Providing effective protection for the wheelchair-seated occupant of a motor vehicle usually requires that after-market equipment be installed to secure the wheelchair and restrain the person in the wheelchair. ISO 10542-1 gives specifies requirements and test methods for all wheelchair tiedown (securement) and occupant restraint systems. The provisions of ISO 10542-1 apply as amended and supplemented by this part of ISO 10542 for wheelchair tiedown and occupant-restraint systems (WTORS) that use a manual or powered docking system to ~~tiedown~~ secure the wheelchair.

At the time of the drafting of this standard, Ddocking ~~tiedown~~securement devices ~~are~~were most often used to allow wheelchair users to independently secure their wheelchairs in private vehicles. Extending the use of docking ~~tiedown~~securement devices to public vehicles places the added demand that docking devices engage with, and safely secure, a wide range of wheelchair types. Therefore, this standard also contains a specification for a universal docking interface geometry (UDIG). When adopted by both the wheelchair and wheelchair securement industries the UDIG specification will allow the user increased independence in wheelchair securement while using ~~public vehicles a wide~~ range of vehicles. It should also reduce the time required for loading and unloading wheelchair passengers.

Although the term “tiedown” appears within the subtitle of the ISO 10452 series, use of the alternate term “securement” was deemed preferable for this docking standard as the term “tiedown” suggests or implies a strap-type tiedown system or device.