

A photograph showing a man in a wheelchair positioned on the metal ramp of a bus. The man is wearing a light-colored t-shirt and dark pants. The wheelchair is black with a prominent orange reflective light on the front wheel. The bus interior is visible, showing a yellow handrail. The scene is set outdoors during the day, with trees and a building in the background. The overall lighting is warm and bright, suggesting a sunny day.

Wheelchair and Occupant Restraint System

Outstanding technology, maximum safety

The highest quality, flexibility and reliability in every aspect are the foundation of our safety belt solutions. These values are always on our minds, as we set our sights on the future. By refining our technology and standards we are able to offer our customers maximum precision and safety.

This quality orientated approach encourages us to perfect our technologies and turns us

from a small family business in Europe into a global market leader.

In addition, we are a green company that sets its priorities on sustainability and environmental protection during development and in the implementation of our technologies.





Competence provides safety

We have been consistently developing our technologies as well as our internal processes for 85 years, in order to fulfill our responsibility to you and the passenger. After all, one thing is clear: safety never stops.



Don't worry about rules and regulations

We homologate our products at the recognized approval authorities and use accredited test institutes to comply with the international regulations ISO 10542 and ECE R16 and the American recommendation SAE J2249.



Optimum solutions at a fair price

Our standardized modular system offers optimum solutions which have proven themselves for years. Our bespoke solutions in contrast are customized to your requirements. We always seek a swift and economical implementation of your wishes.

Tested quality is our standard

The ECE regulation No. 16 and the ISO 10542 are international testing standards that regulate the structure and testing of safety belt systems. All innovations and new technologies are to be made, tested and labelled according to the proven performance requirements. These standards give customers security and are therefore anchored deep in our business culture. Thereby they have the greatest priority in our product development. With our certification according to ISO/TS 16949, we are committed to the highest quality standards of the automotive industry.



The Wheelchair and Occupant Restraint System

The true quality of a Wheelchair and Occupant Restraint System is proven in its daily use. We have developed the concept of our system based on this premise. The system adapts itself to your individual requirements and combines existing solutions efficiently with customised products. Due to increased ergonomic handling and the ease of operation, the Wheelchair and Occupant Restraint System sets new standards in usability and performance. The system offers two passenger solutions: either with a single 3-point automatic belt commonly found in automobiles, or with a two-part 3-point belt made up from two static adjustable lap-belts and an automatic shoulder-belt.

The advantages of the Wheelchair and Occupant Restraint System

- » sophisticated technologies, self-tightening (only by automatic belts)
- » high convenience, ergonomic handling and ease of use
- » optional extras available (adapter loop for a multitude of wheelchairs, storage bag)
- » system independent wheelchair tie-down
- » individual solutions
- » exceptionally durable
- » space saving and weight optimized system



Select your Wheelchair and Occupant Restraint System:

① Wheelchair restraint front

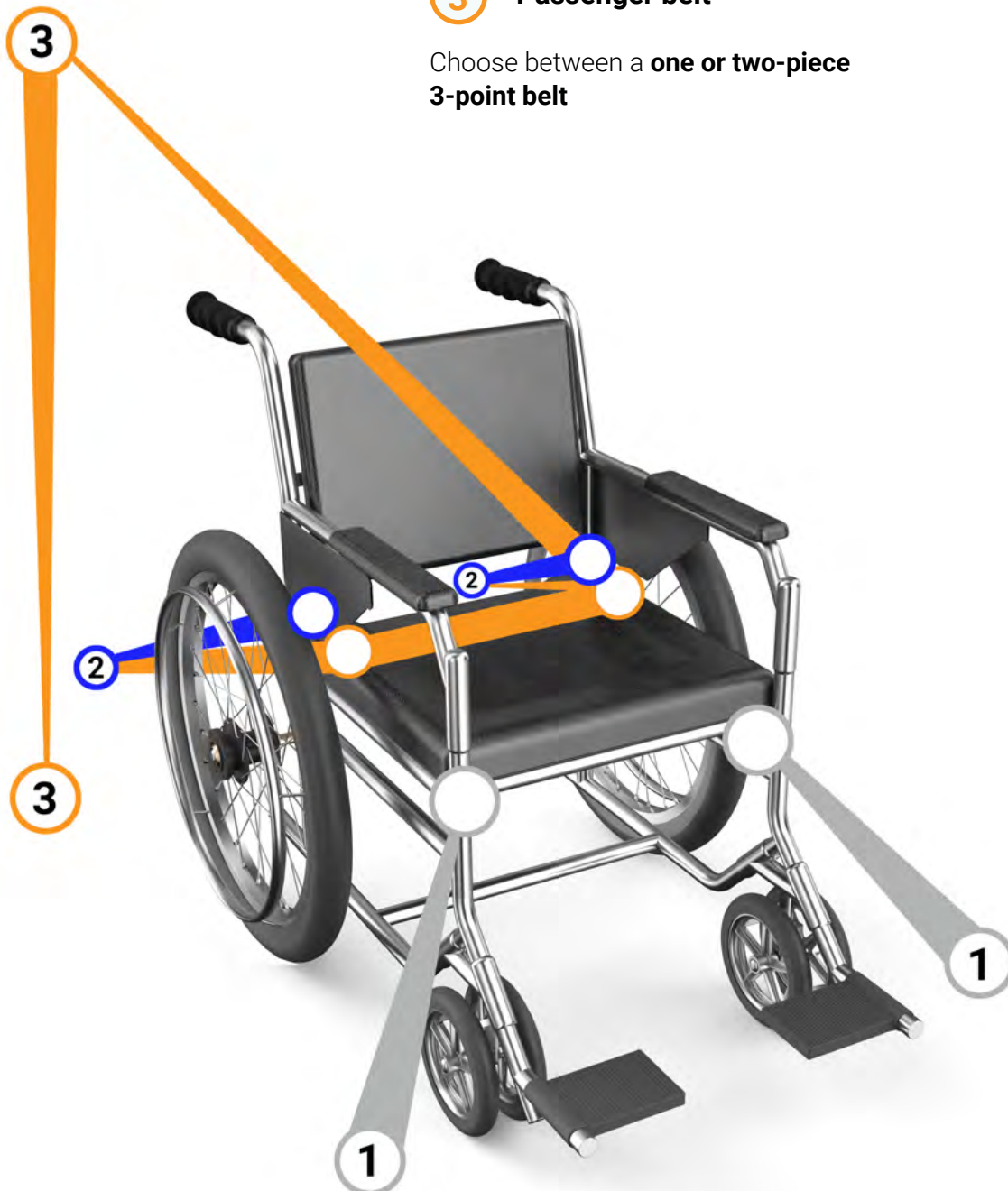
Choose between **rail or point anchorages** and **static or automatic belts**

② Wheelchair restraint rear

Choose between **rail or point anchorages**

③ Passenger belt

Choose between a **one or two-piece 3-point belt**



Anchorage systems

Flexibility, comfort and ergonomic are the greatest strengths of the Wheelchair and Occupant Restraint System. The wheelchair is seamlessly fitted in the vehicle through the attachment procedure. We always ensure the process is as comfortable and ergonomic as possible.

The wide variety of designs and product variations can be easily and quickly adapted to your individual requirements. An optimum securing of the wheelchair can be guaranteed even in complex and space restricted vehicles.



Choose your anchorage system



Rail attachment

The wheelchair anchorage belts are mounted with robust fittings – the connecting component between the retractor and the floor rail – to two cargo style rails that are fitted in the vehicle. Through this, quick and variable positioning in different conditions is possible and passenger transportation companies can adapt their vehicles hassle-free to carry wheelchair passengers. After all, the rails can be used to fix seats as well as wheelchairs.

- » more space for flexible positioning
- » rails have to be fixed first of all
- » in-house developed fitting for front and rear use, which mounts homogenously in metric and imperial rails
- » the fitting has optimum force transfer to the rail
- » effortlessly adjustable even in the tightest of spots
- » optional customer logo possible on release lever (quantity dependant)



Point attachment

The safe and stable solution for the fixed attachment in the vehicle. The system is fixed to a threaded base plate. Compact spaces can be advantageously used due to the ideal construction and the ISO 10542 tested static fastening system of the point attachments. The ergonomic structure of the release lever allows for operation with only one hand.

- » simple one-handed use
- » low-profile
- » optional customer logo possible on release lever (quantity dependant)

Our rail attachment is suitable for two different systems:

Surface mount rails – adaptive system

For quick mounting on vehicle floors – screwed onto the top surface of the floor.

Low profile rails – integrated system

For permanent integration in the vehicle floor – no interfering edges!

Wheelchair restraints

With our static and automatic systems we offer two certified solutions that best fit your individual everyday tasks and also guarantee maximum safety.



Automatic restraint system

Extremely accurate adjustments can be made thanks to the special fine ratcheting (24 teeth) of the automatic restraint system. This secure fixing system guarantees a smooth and stable journey. The Wheelchair and Occupant Restraint System also provides the opportunity to add your own branding; for example you can change the colour of the retractor housing to your choice or add your own logo (quantity dependant).

How it works

- 1 Hook on the front belt
- 2 Hook on the rear belt
- 3 Move the wheelchair slightly back and forth, and the belts will tighten automatically.



1 Front wheelchair restraint



or



Static belt

Rail system: part no. 10-RH
Point system: part no. 10-PH

The length of this cost-effective solution can be predetermined before the passenger starts their trip. The static belt fulfils all safety standards and offers quality at an attractive price-performance ratio.

- » cost-effective option
- » manual tensioning of the static belt

Automatic belt

Rail system: part no. 50-RH
Point system: part no. 50-PH

Our specially designed Hercules retractor with impact resistant plastic covers secures the wheelchair in seconds.

- » fine ratcheting with 24 teeth
- » self-tightening
- » allows for precise adjustments
- » robust plastic housing

2 Rear wheelchair restraint

Automatic belt with handwheel

Rail system: part no. 80-RH
Point system: part no. 80-PH

The Hercules plus retractor with impact resistant plastic housing includes a self-tightening system with additional manual tensioning handwheel to fix the wheelchair securely in the vehicle with few movements. The handwheel is easy to operate and requires little force.

- » fine ratcheting with 24 teeth
- » self-locking with additional manual tensioning
- » precise adjustments possible
- » robust plastic housing



Why are only automatic belts available for the rear restraints?

The test standard ISO 10542 stipulates that the wheelchair is fixed with an automatic restraint, therefore we don't offer a static system for rear wheelchair restraint.

Passenger restraints

We are setting new standards of passenger safety with our tested restraint systems, one-piece 3-point belt system and two-piece 3-point restraint system. The passenger is secured by means of a one-piece 3-point belt comparable to those found in a car or a combination of a statically dual-adjustable lap belt and an automatic diagonal shoulder belt (two-piece 3-point belt).

- » different buckle types help prevent incorrect usage of the diagonal belt
- » height adjuster for 3-point and diagonal belts (optional)
- » simple attachment to the rear wheelchair retractors
- » effortless use due to ergonomically formed attachment points on the rear wheelchair retractors



3 Choose your passenger restraint

One-piece 3-point belt system

Part no. 92-LD

The one-piece 3-point belt system is comparable with that of a safety belt in an everyday car. The 3-point belt efficiently secures the passenger without significantly reducing their freedom of movement.

- » comfortable and easy use of the belt
- » quick release process
- » fastening of the lap belt on the rear wheelchair retractors

———— or ————

Two-piece 3-point belt system

2-Point lap belt: part no. 91-LB

Diagonal belt: part no. 96-DB

The two-piece 3-point belt system represents easy handling. The belt system allows you to fasten the lap belt separately from the diagonal shoulder belt. The system is supplied with a separately adjustable lap belt including a small connector together with a separate diagonal belt.

- » simple and minimal contact with passengers
- » supplied with two individual belts:
 - 2-point lap belt
 - diagonal shoulder belt
- » fastening of the lap belt on the rear wheelchair retractors
- » fastening of the shoulder belt on the lap belt with a dedicated buckle



According to ISO 10542, the exclusive use of a lap belt is not sufficient, therefore we offer our two-piece 3-point belt system only in combination with the diagonal shoulder belt.

Accessories

Adapter loop

Part no. 99-MA

If the hook cannot be directly mounted to the wheelchair, then the adapter loops can be secured to the wheelchair and the hooks attached to the loops.



Continuously variable height adjuster

Part no. 99-HA

We offer a continuously variable height adjuster for the 3-point or the shoulder belt for enhanced comfort. Tested according to ISO 10542.



Storage bag

Part no. 99-SB

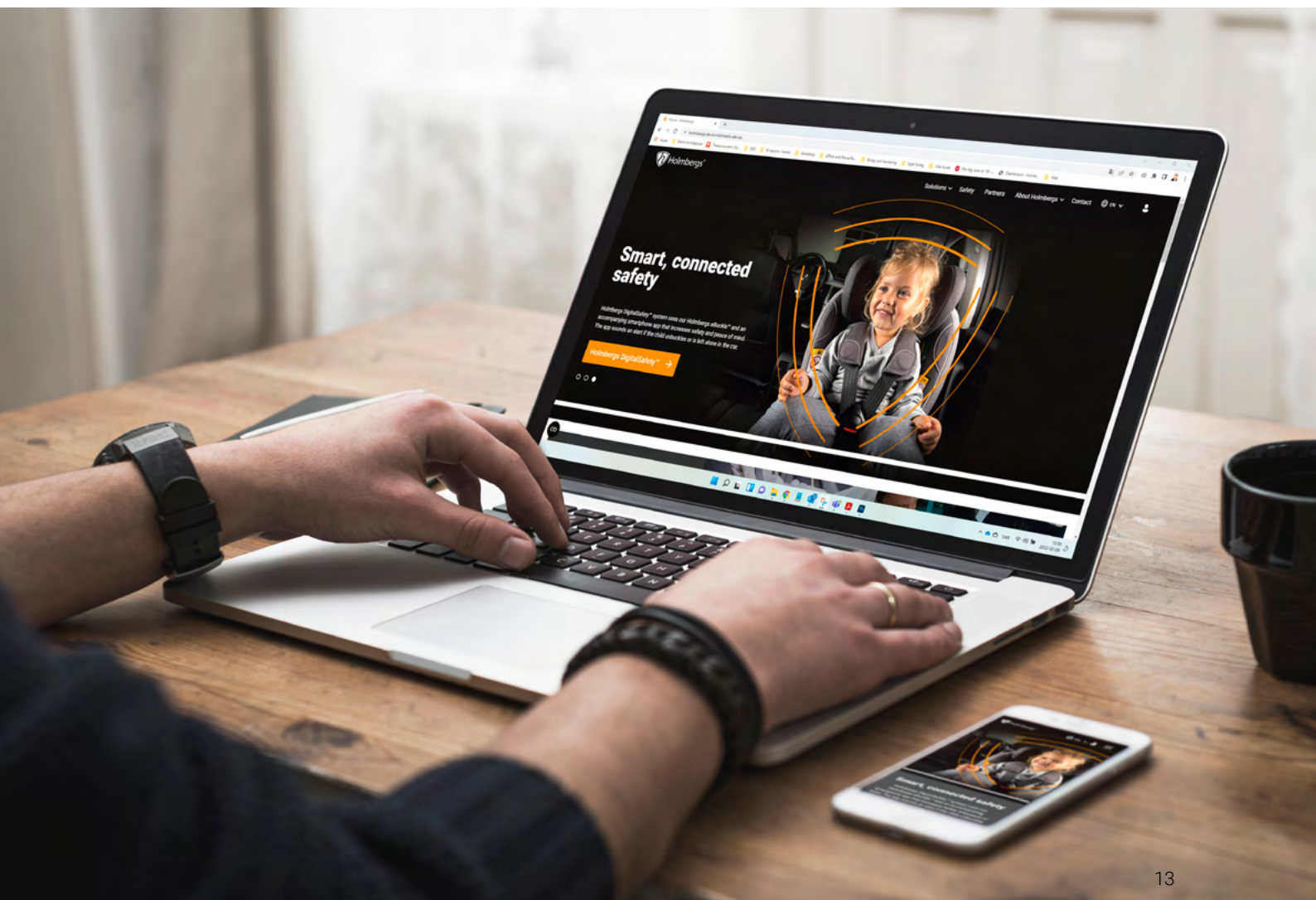
A reliable and safe storage for your valuable Wheelchair and Occupant Restraint System products. All components are at home in this robust closable bag. It can be wall-mounted if desired so that the journey goes even more safely.



Visit us online

Do you have any questions about our products? Would you like to get a deeper insight into the manufacturing and our technology? Our homepage contains lots of great extras that you will definitely find interesting. Our support team can offer you technical assistance, tips for use or servicing and support in the sales process. Visit our webpage to find out more!

www.holmbergs.se



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