

SEATBELT EXTENSIONS



User Manual

EN Instructions for fitting and use

Thank you for choosing

Seatbelt Extensions from BraunAbility!

The following manual is an important part of the product, providing you with information on how to achieve maximum performance and safe operation. Keep the manual in a safe place so that you can refer to it when necessary.

If you have any questions about your equipment, please contact us.

Once again, thank you for placing your confidence in our products!



Safe vehicle adaptation solutions
*For your safety BraunAbility products are
designed and tested according to current
directives and standards.*

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Safety Information

Limitation of use

The development of BraunAbility wheelchair tie-down is a continuous process. Applications are added on a regular basis. For more details contact BraunAbility or look on the BraunAbility website.



These seatbelt extensions have been manufactured for your specific needs and vehicle.



The seatbelt extensions are only to be use in conjunction with an occupant restraint for wheelchair passenger.



When not in use it must be removed from the original vehicle seatbelt.



It should not be used in any other vehicle. This is particularly important as newer vehicles might be fitted with pyrotechnic seatbelt buckle pre-tensioners, where the use of the seatbelt extension could inhibit the operation of the device.



Wheelchair users and their carers must make sure that their wheelchair is recommended for use in transport, including any 'add-on' components such as power tilt or recline options.

Seatbelt extensions



Safety Information

General guidance

- Wheelchair Accessories that have not been approved by the Wheelchair Manufacturer must be removed from the wheelchair and secured in the vehicle during transport to reduce the potential for injury. Refer to 'Instructions For Use in Transport' provided with the wheelchair or contact wheelchair manufacturer for further guidance.
- These wheelchair accessories comply with all applicable requirements of ISO 10542, including a 48km/h, 20g frontal impact test using a forward facing 85kg surrogate wheelchair and an ATD (test dummy) with a mass of 76.3kg. The test dummy was restrained by both a pelvic and upper-torso restraint. Use of a pelvic only belt may compromise the performance of the WTORS system and should be avoided.
- If the installation is to be used with an occupant head rest anchored to the vehicle, then a vehicle-anchored back rest must be provided to minimise rearward deflection of the wheelchair seatback, preventing neck injury.
- Regular inspection of all parts is recommended and the equipment should be used only if all components are in good condition.
- **Warning:** protect webbing from contacting sharp edges and corners. Replace equipment if the webbing becomes cut, contaminated or frayed.

- Any equipment which have been subjected to a crash situation from which the vehicle must be towed should, in the interest of safety, be replaced.
- Do not attempt to modify the equipment. For further advice on the installation and use of these accessories please contact BraunAbility. Please read this manual fully before use.
- Avoid contact with corrosive liquids. Care should be taken to prevent contamination of the webbing with polishes, oils and chemicals.
- The restraint kit anchorages should be installed by an experienced technician/vehicle converter. Anchorages should not be installed into unsound materials such as corroded metal, wood, plastic and fibre glass panels, without additional and suitable reinforcement.
- The equipment has been tested in a configuration similar to that recommended by BraunAbility and any deviation from the recommendations here is the responsibility of the installer/user. These instructions refer use with both our rails and Solo anchors, however the equipment may be used with any BraunAbility proprietary rail product.

Before fitting and using the seatbelt extensions

- Ensure that the wheelchair is correctly maintained and that the settings of any adjustable parts are made according to 'Instructions for Use in Transport'.
- Whenever possible remove any items of luggage etc that may be attached to the wheelchair and secure or store separately during transport in order to reduce the potential for injury to other passengers travelling in the vehicle.
- Extra care must be exercised when using vehicle boarding aids such as passenger lifts or ramps during the loading process. Refer to 'Instructions For Use' for information on safe slopes.
- Position the wheelchair facing forward - centrally in the designated region of the vehicle.
Ensure the wheelchair brakes are applied.
- To minimise the potential for head injuries in an impact, allow a clear space of at least 400mm behind and 650mm, (FCZ, front clear zone), in front of the head of the wheelchair user, (Fig A). The shoulder belt anchorage must be roof or side-wall anchored at a height level such that the belt webbing passes over the midpoint of the occupant shoulder and at a height that is at or just above the level of the occupants shoulders so as not to impose downward loads on the spine.
- A height provision (HHT) ranging from 1000mm to 1550mm should be made, depending on the size of the passenger. There should also be 200mm of clear space either side of the wheelchair centre line. If these clear space dimensions cannot be provided then any structure protruding in this space should be adequately padded and comply with impact performance requirements of ECE Regulation 21 'FMVSS 201'. All vehicle padding should comply with the flammability requirements of ECE Regulation 118 'FMVSS 302'.

Note: seated head height (HHT) ranges from as low as 1000mm for a 6-year-old child to 1550mm for a tall adult.

- Wheelchair users, their carers and family are advised to check vehicle specifications to ensure that sufficient floor space is available to accommodate the wheelchair and tie-down system. These distances are based upon the desire to maintain clear zones for potential head excursions of occupants provided with both upper and lower torso restraints.
- Users of heavy powered wheelchairs are also advised to check vehicle carrying capacity. If in doubt consult the vehicle supplier for further details.
- Any airbag, as fitted to the vehicle, shall be used only as a supplementary occupant restraint if designed to be used in combination with the wheelchair tie-down.
- Installers of these accessories should take note of any vehicle airbag position when planning the installation. Airbags can cause serious injury if a wheelchair-seated occupant is seated too close to an airbag position. If in doubt contact the vehicle manufacturer or your National Automotive Regulatory Body for advice.

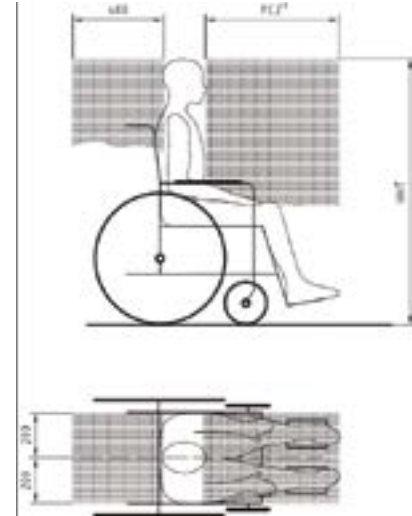


Figure A

Fit and use

Fitting and using the seatbelt extensions

1. The double inertia belt and stalk (not supplied) should be fitted in the vehicle floor as per instructions given in the user manual for that product.
2. Pull the black webbing on the occupant reel upwards and unfasten the tongue from the red webbing buckle.
3. Fasten the buckle on the seatbelt extension to the tongue on the lap belt webbing.
4. Position the black webbing and the seatbelt extension across the passenger to form the lap belt and insert the tongue on the seatbelt extension into the buckle on the stalk.
5. Ensure the lap belt lays low on the pelvis of the occupant, running as close as possible over the hips on both sides.
6. Fit the shoulder belt as indicated in the occupant restraint manual.

Removing the seatbelt extensions

1. Release the shoulder belt as indicated in the occupant restraint manual.
2. Disconnect the seatbelt extension tongue from the stalk buckle and unfasten the seatbelt extension buckle from the lap belt tongue.
3. Remove lap belt as indicated in the occupant restraint manual.
4. Store the seatbelt extension safely.



After care

Equipment storage and maintenance

- Store the seatbelt extension safely off the floor to avoid damage and ensure that it cannot become a projectile in an accident. This can be achieved by using a wall mounted storage bag such as SLR111.
- Regularly inspect the seatbelt extension for damage, wear or malfunction. If any problems are identified replace it immediately.
- All webbing and components can be cleaned as necessary, but care should be taken to prevent contamination of the webbings with polishes, oils and chemicals, particularly battery acid.
- To clean the straps use warm soapy water and a clean soft cloth. Rinse with clear water and allow to air dry. To disinfect, use a mild spray disinfectant and do not use products containing bleach.
- **Important: when cleaning or disinfecting, do not immerse or flood seatbelt extension, in the disinfectant or water.**
- If the vehicle is involved in an accident when any restraints are deployed, remove them from service and replace immediately. If in doubt please contact BraunAbility.

Warranty

BraunAbility products are extensively tested using BraunAbility anchorage systems, and our full warranty normally only applies to BraunAbility equipment when used with BraunAbility branded anchorages or as instructed.

BraunAbility have also participated in test programs with other manufacturers anchorage products and will support warranty on the BraunAbility products when used in conjunction with such jointly tested systems.

For further details on specific applications please contact the Sales Office. In other situations, using BraunAbility products, for which BraunAbility has not participated in a joint test program, a limited BraunAbility warranty will apply.

Declaration of conformity

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Declares that the products /

EX200, EX300, EX400, EX500, EX700

Conforms to following directives standards and regulations /

214/2014/EU Paragraphs 2.3.1 and 2.3.2
ISO 10542:2012
RESNA WC-4 2012 Section 18
2001/85/EC
R.107.06
2007/46/EC

BraunAbility, Martock, 3rd June 2019

A handwritten signature in dark ink, appearing to read 'Rob Butcher', with a long horizontal stroke extending to the right.

Rob Butcher
Director of Engineering

Declaration of conformity



Accredited by URS as testing laboratory in accordance with ISO/IEC 17025:2005
Quality system certified in accordance with ISO 9001:2008

Illustrations, descriptions and specifications in the user manual are based on current product information.
BraunAbility UK Ltd reserves the right to make alterations without previous notice.
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