

# 2 Point Static Harness

User Manual



EN Instructions for fitting and use

Thank you for choosing

# 2 Point Static Harness 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 and occupant restraints is a continuous process. Applications are added on a regular basis. For more details contact BraunAbility or look on the BraunAbility website.



*These products have been designed to secure the passenger only and must only be used where the wheelchair has already been secured with a separate wheelchair tie-down system.*



*In addition to the details given in these instructions, users of BraunAbility restraints must refer to the wheelchair manufacturer's 'Instructions for Use in Transport' for full details of tie-down attachment points on the wheelchair, plus any other specific instructions relating to use in transport.*



*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.*



## 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 occupant restraints 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 does becomes cut, contaminated or frayed.
- Any restraints 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 this tie-down, 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 tie-down 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.

### Before installing and using the occupant restraints

- 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 400 mm behind and 650 mm, (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 200 mm of clear space either side of the wheelchair centre line. If these clear space dimensions cannot be provided then any 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 this tie-down 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.

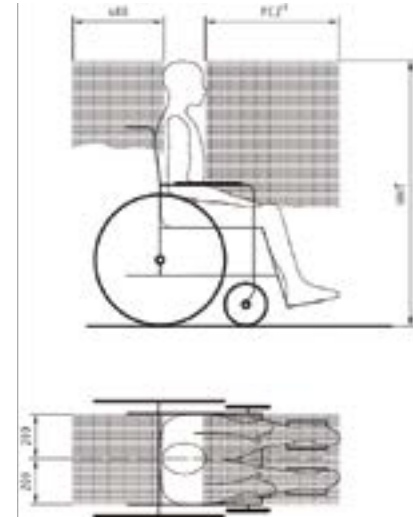


Figure A

# Fit and use

## Fitting and using the 2 point static harness

1. The rail will have been installed in the vehicle in accordance with their own and the vehicle converter's instruction. Position wheelchair within vehicle as required.
2. A suitable wheelchair tie-down must be used to secure the wheelchair before fitting the passenger restraint.
3. Position yourself behind the wheelchair, hold the complete harness by the centre buckle (Fig 1A), letting the straps and clips hang in vertical position. Make sure the black lap belt straps (Fig 2B) are in front of the red shoulder belt webbing (Fig 2C) and place the harness webbing on the floor.
4. The ATF clips (Fig 2D) must be located in the rail at about 41 cm from the rear of the wheelchair frame. To attach the clip, press on the ribbed part of the ATF and push firmly towards the wheelchair until the yellow clip drops and locks into place. **IMPORTANT:** Check the plungers are fully engaged on both sides.
5. Again making sure the black lap belt webbing (Fig 2B) is facing forward and the shoulder harness adjustment (Fig 2E) is on the left, unclip the lap belt and shoulder strap buckles (Fig 1F). Place the lap belt around the passenger and clip back together.
6. Position the lap belt buckle centrally on to the passenger at the pelvis and adjust to fit by pulling straps evenly (Fig 1G).
7. Take the red shoulder straps (Fig 2C), keeping these straight with red press button of buckles facing out, place over shoulders of passenger and clip to lap belt tongues (Fig 1H).
8. From the rear, pull red adjustment webbing strap (Fig 2E) through adjuster to tension the shoulder straps, and push belt tidy (Fig 2I) upwards, allowing the passenger to move forward approximately 75mm (3 inc).



### Removing the harness

1. Release the shoulder strap buckles (Fig 1H) and the lap buckle (Fig 1A), remove shoulder straps then lap belt.
2. Clip lap belt and shoulder strap buckles back together.
3. To release the harness from the rail, lift the yellow retaining clip fully and pull away from the wheelchair. Repeat operation on other side.
4. Fold up harness and stow safely.
5. By removing the harness in the sequences mentioned above, it is ready to be correctly used again.
6. In an emergency, the 2 point harness can be quickly released by undoing the centre buckle (Fig. 1A), enabling the harness to fall away to the floor, freeing the passenger.



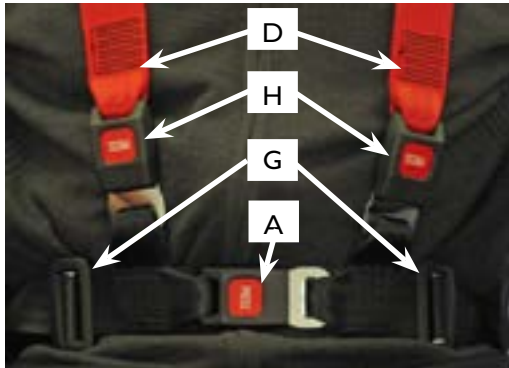


Figure 1

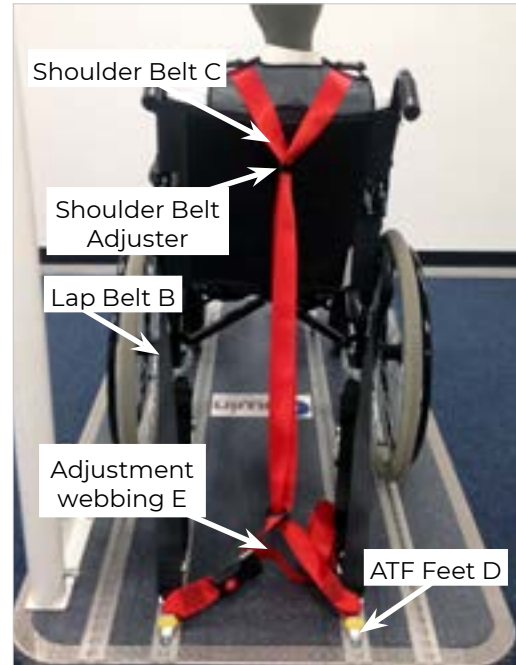


Figure 2

## After care

### Equipment storage and maintenance

- Store the restraint safely off the floor to avoid damage and ensure that it cannot become a projectile in an accident. This can be achieved by using wall mounted storage bag such as SLR111.
- Regularly inspect the restraint systems for damage, wear or malfunction. If any problems are identified replace it immediately.
- When not in use, keep loose occupant webbing ends connected to their corresponding buckle sleeves, etc, to prevent them from becoming tripping hazards and from flailing around when the vehicle is in motion.
- 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 buckles, karabiners fittings or floor anchors 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.

## After care

### 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

## Manufacturer /

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## Declares that the products /

SHA, SHJ

## 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  
R.107.06  
2007/46/EC

BraunAbility, Martock, 18 March 2019



Rob Butcher  
Director of Engineering



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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