

PIN STATIC SEAT BELT OCCUPANT RESTRAINT



User Manual

Applicable to product P-LBS
UI12360A
EN Instructions for fitting and use

Thank you for choosing

PIN Static Seat Belt 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 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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"Declaration of conformity" at the end of the manual.

Safety information

Limitation of use

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



The BraunAbility occupant restraint kit is designed to be used with only the BraunAbility wheelchair tie downs, to secure an occupant when facing forward in a wheelchair and must be as instructed.



In addition to the details given in these instructions, users of BraunAbility occupant restraint kits 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 caregivers must make sure that their wheelchair is recommended for use in transport, including any 'add-on' components such as power tilt or recline options.



LBS



P-LBS



P-STK

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 occupant restraints comply with all applicable requirements of ISO 10542, including a 30mph (48kp/h), 20g frontal impact test using a forward facing surrogate wheelchair and an ATD (test dummy) with a mass of 76.3kg (168lb). 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 wheelchair tie-down and occupant restraint system (WTORS) and should be avoided.
- If the installation is to be used with an occupant headrest anchored to the vehicle, then a vehicle-anchored back rest must be provided to minimize 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, frayed, or contaminated with polishes, oils or chemicals, particularly battery acid.

- 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 occupant restraint system, 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 wheelchair 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 fiber glass panels, without additional and suitable reinforcement.
- The equipment has been tested in a configuration recommended by BraunAbility and any deviation from the recommendations here is the responsibility of the installer/user.

Before installing the occupant restraint kits

- 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 traveling in the vehicle.
- Position the wheelchair facing forward - centrally in the designated region of the vehicle.
Ensure the wheelchair brakes are applied.
- To minimize the potential for head injuries in an impact, allow a clear space of at least 450mm (18in) behind and 650mm (26in), (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 (39in) to 1550mm (61in) should be made, depending on the size of the passenger. There should also be 200mm (8in) of clear space either side of the wheelchair center line. If these clear space dimensions cannot be provided then any structure protruding into this area 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 (39in) for a 6-year-old child to 1550mm (61in) for a tall adult.

- Wheelchair users, their caregivers 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 WTORS.
- Installers of this occupant restraint system 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.

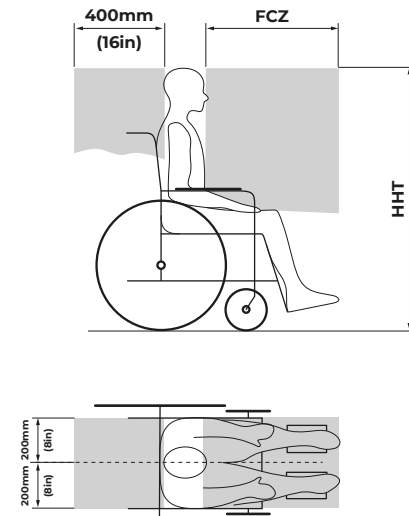


Figure A

Fit and use

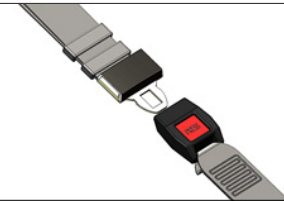
Fitting the occupant restraint kits



- BraunAbility recommends the use of a 3-point occupant restraint system to provide greater protection in case of an impact. However, we also recognize that some vehicle layout/designs or specific postural or medical conditions do not allow certain styles of seatbelts to be used easily. This system is not RESNA WC-4 Section 18 compliant if used in a 2-point configuration.
- In accordance with international regulations, our occupant restraints are designed to be used for passengers weighing 22kg (48lb) or above. If the passenger weighs less than 22kg (48lb), we recommend that a suitable, and appropriately tested child restraint seat is used. This may involve a secondary seat belt restraint as recommended by the original seat manufacturer.

Fit and use

PIN 3 point occupant belt



1. The 3rd point upper anchorage will have been installed in the vehicle in accordance with our own and the vehicle converter's instruction.
2. Connect the female connector, of the lap belt with tongue to the wheelchair tie-down with the male connector, (Fig. 1A), furthest away from the 3rd point upper anchorage, (Fig. 1E). Connect the female connector, of the lap belt with buckle to the wheelchair tie-down with male connector, (Fig. 1B), nearest to the 3rd point upper anchorage, (Fig. 1E).
3. Draw the lap belts around around the occupant and clip the lap belt tongue into the lap belt buckle, (Fig. 1C), sitting centrally to the occupant. Adjust as firmly as possible, consistent with user comfort, such that the lap belt sits low over the front of the pelvis and bears over the bony part of the body, not wheelchair components.
4. Connect the shoulder belt's female pin connector with the lap belt with tongue's male connector, (Fig. 1D).
5. Adjust the length of the shoulder belt so the female connector connects with the 3rd point upper anchorage's male connector, (Fig. 1E).
6. The lap belt anchor points should be positioned to achieve belt angles of 30° or more to the horizontal and preferably between 45° and 75° in order to fit low across the pelvis, reducing the possibility of the belt loading the abdomen, (Fig. 2). The pelvic restraint is designed to bear upon the bony structure of the body and should be worn low across the front of the pelvis with any junctions between the pelvic and shoulder restraints located near the wearers hips.

Removing the occupant restraint

1. Disconnect the female connector point from the male connector point on the lap buckle, (Fig. 1C).
2. Disconnect the torso belt's female connector point from the 3rd point male connector fixing, (Fig. 1D).
3. Disconnect the two lap belt connector points from the wheelchair restraint, (Fig. 1A & B), and remove the restraint from the occupant. Store safely.

Fit and use

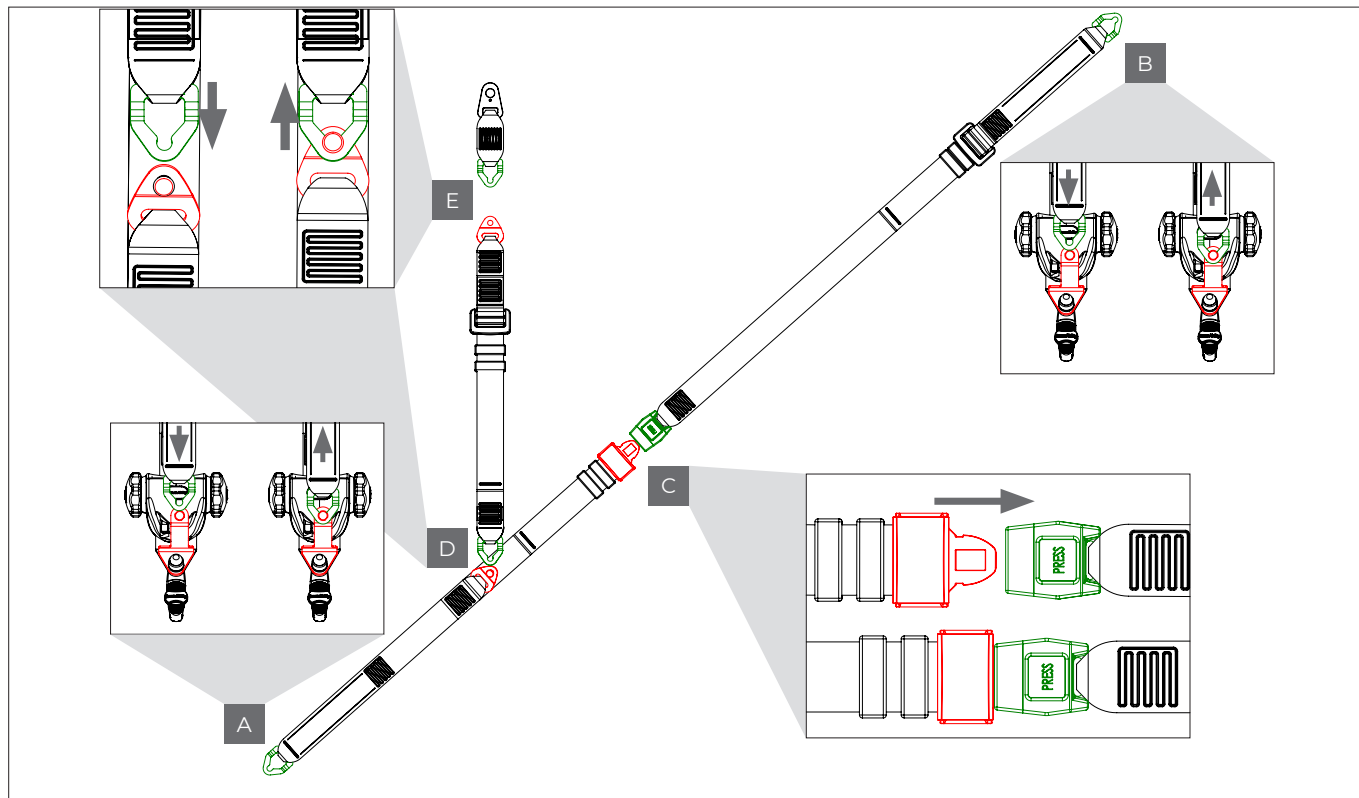
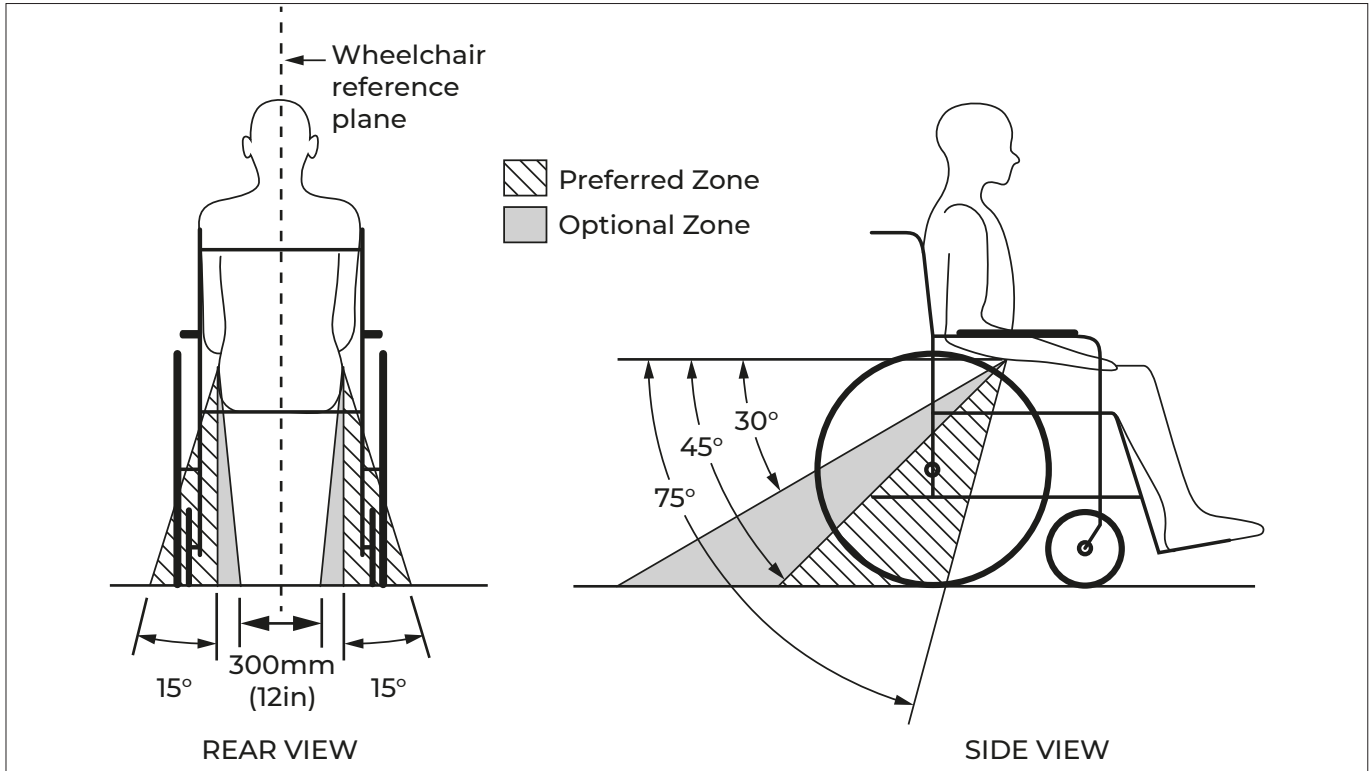


Figure 1



Fit and use

Figure 2

Fit and use

PIN 2 point occupant lap belt



1. Connect the female connector, of the lap belt with tongue to the wheelchair tie-down with the male connector, (Fig. 3A). Connect the female connector, of the lap belt with buckle to the wheelchair tie-down with male connector, (Fig. 3B).
2. Draw the lap belts around around the occupant and clip the lap belt tongue into the lap belt buckle, (Fig. 3C), sitting centrally to the occupant. Adjust as firmly as possible, consistent with user comfort, such that the lap belt sits low over the front of the pelvis and bears over the bony part of the body, not wheelchair components.
3. The lap belt anchor points should be positioned to achieve belt angles of 30° or more to the horizontal and preferably between 45° and 75° in order to fit low across the pelvis, reducing the possibility of the belt loading the abdomen, (Fig. 2). The pelvic restraint is designed to bear upon the bony structure of the body and should be worn low across the front of the pelvis with any junctions between the pelvic and shoulder restraints located near the wearers hips.

Removing the occupant restraint

1. Disconnect the female connector point from the male connector point on the lap buckle, (Fig. 3C).
2. Disconnect the two lap belt connector points from the wheelchair restraint, (Fig. 3A & B), and remove the restraint from the occupant. Store safely.

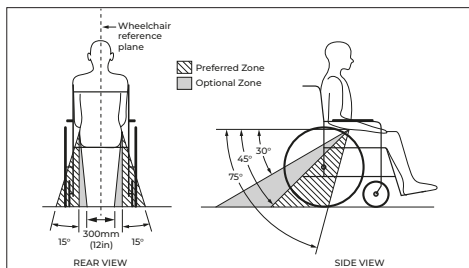
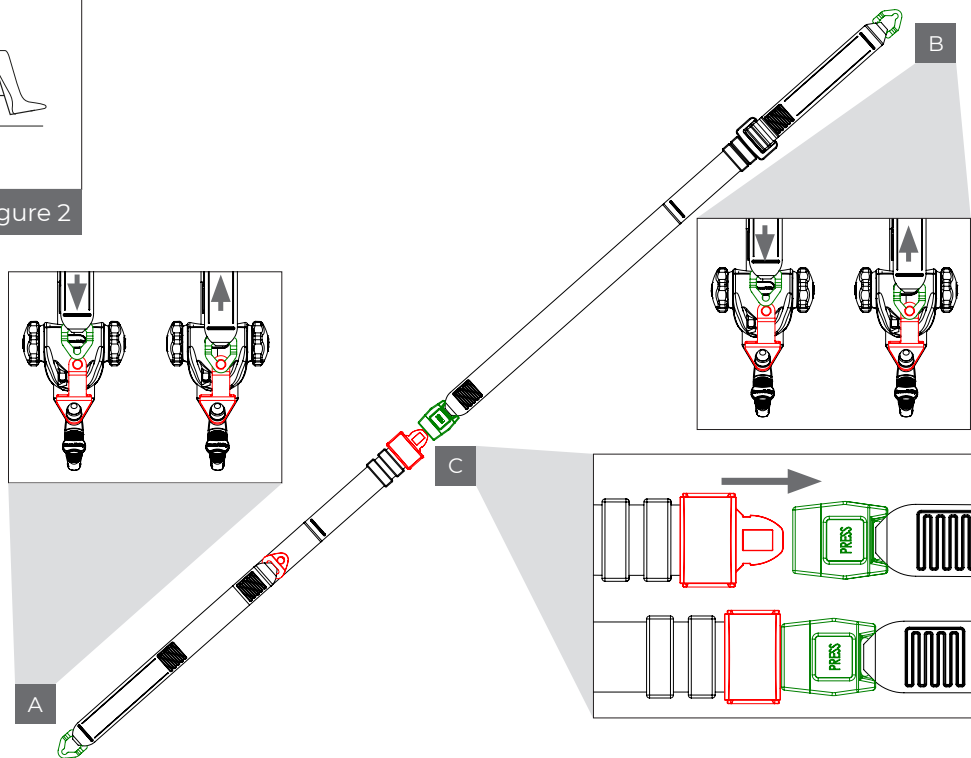


Figure 2



Fit and use

Figure 3

Fit and use

Classic 2 point occupant lap belt



1. Connect the tongue, of the lap belt with tongue to the wheelchair tie-down buckle, (Fig. 4A). Connect the tongue, of the lap belt with buckle to the wheelchair tie-down buckle, (Fig. 4B).
2. Draw the lap belts around around the occupant and clip the lap belt tongue into the lap belt buckle, (Fig. 4C), sitting centrally to the occupant. Adjust as firmly as possible, consistent with user comfort, such that the lap belt sits low over the front of the pelvis and bears over the bony part of the body, not wheelchair components.
3. The lap belt anchor points should be positioned to achieve belt angles of 30° or more to the horizontal and preferably between 45° and 75° in order to fit low across the pelvis, reducing the possibility of the belt loading the abdomen, (Fig. 2). The pelvic restraint is designed to bear upon the bony structure of the body and should be worn low across the front of the pelvis with any junctions between the pelvic and shoulder restraints located near the wearers hips.

Removing the occupant restraint

1. Disconnect the female connector point from the male connector point on the lap buckle, (Fig. 4C).
2. Disconnect the two lap belt connector points from the wheelchair restraint, (Fig. 4A & B), and remove the restraint from the occupant. Store safely.

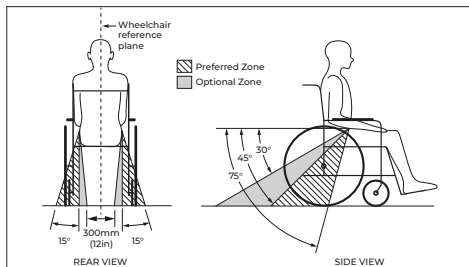


Figure 2

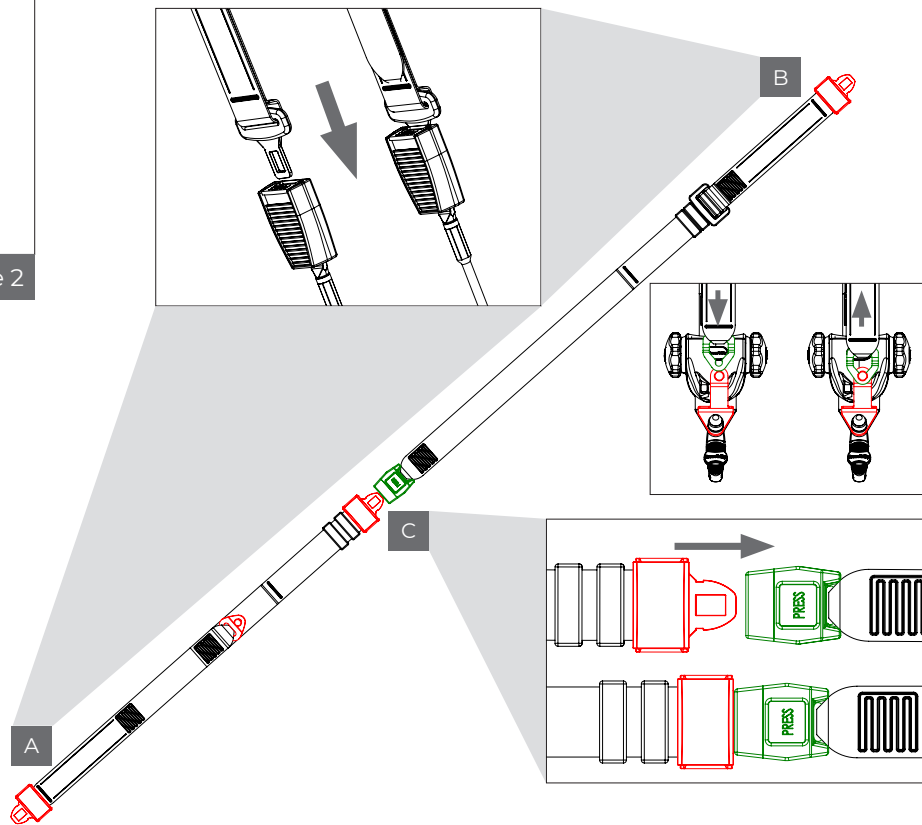


Figure 4

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 a wall mounted storage bag such as SLR111.
- Regularly inspect the wheelchair restraint systems for damage, wear or malfunction. If any problems are identified replace components immediately.
- When not in use, keep loose occupant webbing ends connected to their corresponding buckle sleeves, etc, to prevent them from becoming trip 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, karabiner 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.

Declaration of conformity

Manufacturer /

BraunAbility UK Ltd
Unwin House
The Horseshoe Coat Road
Martock, Somerset, TA12 6EY,
UK

Phone: +44 1935 827740
Email: info@braunability.eu
www.braunability.eu

Declares that the products /

P-LBS, P-STK

Conforms to following directives standards and regulations /

214/2013/ EU Paragraphs 2.3.1 and 2.3.2
ISO 10542:2012
RESNA WC-4 2012 Section 18
2001/85/EC
R.107.06
DIN 75078
2018-858-EU

BraunAbility, June 2021

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.



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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BraunAbility UK Ltd
Unwin House
The Horseshoe, Coat Road
Martock, Somerset, TA12 6EY,
UK

Phone: +44 1935 827740
Email: info@braunability.eu
www.braunability.eu