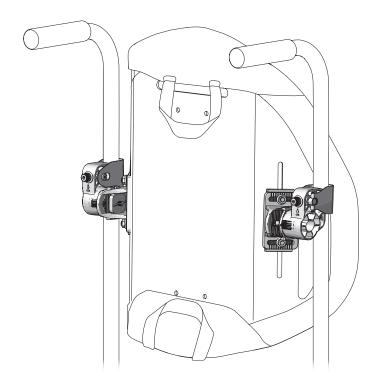


ROHO® AGILITY® Back System Fixed Hardware Operation Manual

In addition to these instructions, refer to the ROHO AGILITY Back System Operation Manual.



Supplier: This manual must be given to the user of this product.

Operator (Individual or Caregiver): Before using this product, read instructions and save for future reference.

Table of Contents Intended Use 2 Important Safety Information 2-3 Parts Detail 4 **Product Specifications** 4 **Back Shell Hardware Installation** 5 Wheelchair Compatibility 5-6 **AGILITY Installation** 6-8 Height Adjustment 8-9 Seat Depth and Angle Adjustment 10-11 Flip the Back Shell 11 **AGILITY Removal** 12 12 **Troubleshooting** 13 Maintenance Storage, Disposal and Recycling Cleaning and Disinfecting **Limited Warranty**

ROHO, Inc., 100 North Florida Avenue, Belleville, Illinois 62221-5429 U.S.A.
U.S.A.: 800-851-3449 • Fax: 888-551-3449 • Customer Care: orders.roho@permobil.com
Outside the U.S.A.: 618-277-9150 • Fax: 618-277-6518 • intlorders.roho@permobil.com • permobilus.com

ROHO products may be covered by one or more U.S. and foreign patents and trademarks, including ROHO®, AGILITY®, and shape fitting technology®. Zytel® is a registered trademark of DuPont.

ROHO, Inc. has a policy of continual product improvement and reserves the right to amend this document. A current version of this document is available at permobilus.com.

© 2016, 2018 ROHO, Inc.

Rev. 04/09/2018

Intended Use

ROHO® AGILITY® Back System Fixed Hardware (AGILITY Fixed Hardware) is intended to attach compatible ROHO AGILITY Back Systems to the wheelchair back canes. Compatible ROHO AGILITY Back Systems include:

- ROHO® AGILITY® Minimum Contour Back System (AGILITY Minimum Contour)
- ROHO® AGILITY® Mid Contour Back System (AGILITY Mid Contour)
- ROHO® AGILITY® Max Contour Back System (AGILITY Max Contour)



AGILITY Fixed Hardware is intended to be used only with ROHO AGILITY Back System that are 10, 13, and 16 in. (25.5, 33, and 40.5 cm) in height.



CONTRAINDICATION: AGILITY Fixed Hardware is NOT intended to be used on ROHO AGILITY Back Systems greater than 16 in. (40.5 cm) in height.

ROHO, Inc. recommends that a clinician, such as a doctor or therapist experienced in seating and positioning, be consulted to determine if AGILITY Fixed Hardware is appropriate for the individual's particular seating needs.

ROHO medical products are intended to be part of an overall care regimen. ROHO, Inc. recommends that a clinician make product recommendations based upon an evaluation of the individual's medical and therapeutic needs and overall condition.

Important Safety Information



✓! Warnings:

- DO NOT use the product without first reading and understanding all of the provided instructions. If you are unable to perform any tasks in this manual, seek assistance by contacting your clinician, equipment provider, distributor, or ROHO, Inc.
- Follow all instructions and safety information provided with the product and provided by the manufacturer of your wheelchair or other accessories.
- Skin/soft tissue breakdown can occur due to a number of factors, which vary by individual. Check skin frequently, at least once a day, Redness, bruising, or darker areas (when compared to normal skin) may indicate superficial or deep tissue injury and needs to be addressed. If there is any discoloration to skin/soft tissue, STOP USE immediately. If the discoloration does not disappear within 30 minutes after disuse, immediately consult a healthcare professional.
- The product should be installed by your equipment provider or clinician.
- The product must be sized correctly to the individual and the wheelchair.
- As with any addition to a wheelchair, the product may affect your wheelchair's stability. Before using the product, consult with a clinician or your equipment provider to determine whether your wheelchair should be modified.
- DO NOT lean over the top of an AGILITY Back System. Doing so may cause a change in the center of gravity, and the wheelchair could tip over.
- Use caution when installing, adjusting, or removing hardware to avoid pinching or trapping fingers in openings.
- Check daily to confirm the tightness of screws, nuts, clamps, and brackets. Retighten loose screws, following the instructions in this manual. Check daily for wear and breakage. DO NOT use the product if any part cannot be tightened or is broken. Periodically, the product should be thoroughly inspected by your equipment provider.
- DO NOT lift or push a wheelchair using any part of an AGILITY because it may become detached from the wheelchair.
- Testing or certification claims, including for flammability, may no longer apply to this device when it is combined with other products or materials. Check testing and certification claims for all products used in combination with this device.
- Altering the product or using any hardware or components other than those supplied by ROHO and compatible with your product model may result in product damage or failure and may void the warranty.

Important Safety Information, Continued

Cautions:

- Protect your AGILITY from blunt force shocks that may cause damage and/or breakage.
- The components of the AGILITY are not intended to be used separately from an AGILITY or in conjunction with other wheelchair back
- Metal components may become hot if exposed to high temperatures or cold if exposed to low temperatures.
- You may need to remove your AGILITY before folding your wheelchair.

✓! Warnings - Motor Vehicle Transportation

- Whenever possible, transfer out of your wheelchair installed with an AGILITY and into a manufacturer-installed vehicle seat, and use the vehicle's crash-tested occupant restraint system.
- ALWAYS store AGILITY safely during transport to avoid damage.
- If the product has been involved in an accident during transport, see the "Maintenance" section in this manual.
- Failure to pay attention to these warnings could result in severe injury to the individual in the wheelchair or to others.
- The AGILITY must be correctly and securely installed on the wheelchair. Follow all provided instructions and warnings.
- Install an AGILITY on a wheelchair so the individual is seated in an upright position and the wheelchair is facing forward during transportation in a motor vehicle. The AGILITY has only been crash tested on a wheelchair in the forward-facing position per the test information provided in this operation manual.
- The AGILITY must only be used with wheelchairs that comply with the performance requirements of ISO 7176-19 and that are installed, used and maintained according to the wheelchair manufacturer's instructions.
- The wheelchair with an AGILITY must be used with an effective wheelchair securement system and a properly positioned, crash-tested pelvic and shoulder-belt restraint, or Wheelchair Tiedown and Occupant Restraint System (WTORS), following the manufacturer's instructions.
- The top of an AGILITY should be positioned as close as possible to the top of the individual's shoulder to provide good support in the event of a crash. The distance between the top of the individual's shoulder and the top of the wheelchair back should not exceed 6½ in. (16.5 cm).

AGILITY with Fixed Hardware has been dynamically tested by a third-party testing facility for use in a motor vehicle and meets all applicable criteria for wheelchair seating systems proposed in Section 5.1 of ANSI/RESNA WC-4:2012 Section 20 "Wheelchair Seating Systems for Use in Motor Vehicles".

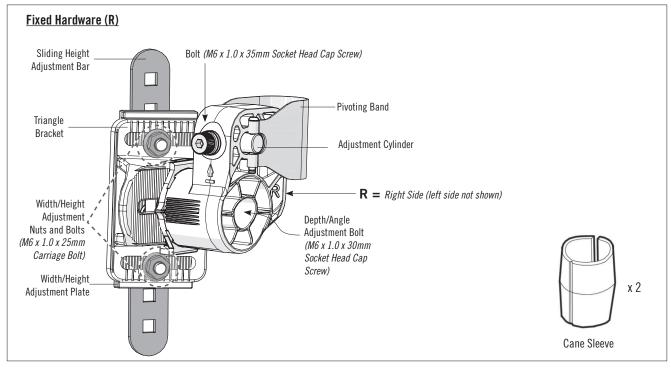
Parts Detail

This manual* references the following package contents:

Back Cane Hardware; Back Shell Hardware; Cane Sleeves; Dual Wrench, Operation Manual, Registration Card

*For additional product information, refer to the ROHO AGILITY Back System Operation Manual.

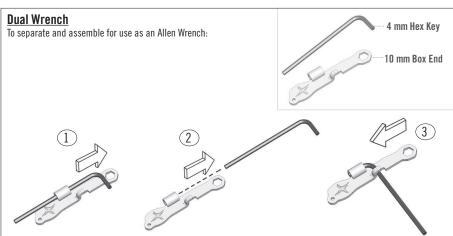
Note: A tape measure or a ruler is recommended but is not included in the package contents.







Product Registration Card



To order replacement parts, contact your product provider or ROHO, Inc.

Product Specifications

Materials: Fixed Hardware, Zytel®, glass-filled nylon, stainless steel, aluminum and polypropylene

AGILITY Fixed Hardware Weight: 1.75 lb. (0.8 kg)

Back Shell Hardware Installation

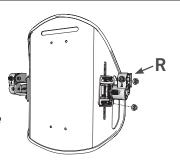
Note: If your AGILITY was provided without the back shell hardware installed, follow these instructions to install the hardware.

 Use the box end wrench to loosen and remove the width/height adjustment nuts. Repeat for both sides.

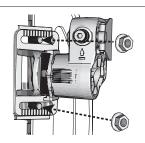


2) Place the left (L) and right (R) Fixed hardware onto the left (L) and right (R) width/height adjustment plates.

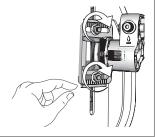
Right back shell hardware is shown.



3) Replace the width/height adjustment nuts.

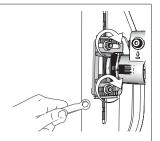


4) Finger-tighten the width/height adjustment nuts.



5) Tighten the width/height adjustment nuts with the box end wrench until snug + one-quarter turn. Repeat for both sides.

Note: If a torque wrench is available, tighten to no more than 42 ± 2 inch-pounds $(4.75 \pm .25)$ Newton-meters). Repeat for both sides.



Wheelchair Compatibility

Warning: AGILITY hardware is compatible with many wheelchairs that recline, tilt, or are angularly adjustable up to and including a back angle of 60 degrees. Beyond 60 degrees, AGILITY hardware may be damaged, the AGILITY may disconnect from your wheelchair, and you may be vulnerable to falling and serious injury. Consult a with a clinician or equipment provider to determine if AGILITY hardware is compatible with your wheelchair.

Wheelchair Cane Compatibility: Measure the diameter of your back canes.

Warning: AGILITY Fixed Hardware is NOT intended to be installed on back cane diameters < 1 in. (< 2.5 cm) without Cane Sleeves. Doing so may result in an installation that is NOT secure. Consult with a clinician or equipment provider to determine if your back canes are compatible with AGILITY Fixed Hardware.

Circular back cane diameters (A):			_	$\begin{array}{c} \longleftarrow A \longrightarrow \\ \uparrow \\ \hline \end{array}$
1 in. to < 1¼ in. (2.5 cm to < 3.0 cm)	Cane Sleeves are not required.	X		<u> </u>
¾ in. to < 1 in. (2.0 to < 2.5 cm)	Cane Sleeves are required. See Cane Sleeve Installation.			

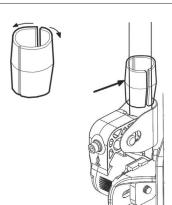
Wheelchair Compatibility

Cane Sleeve Installation (If Needed)

Warning: Cane Sleeves are required for wheelchair back cane diameters of $\frac{3}{4}$ in. to less than 1 in. (2.0 to < 2.5 cm). See Wheelchair Cane Compatiblity in Product Specifications.

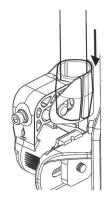
Note: If you need to use Cane Sleeves, perform the following instructions after the AGILITY has been placed onto the wheelchair canes but before tightening the bolts.

Spread open the Cane Sleeve and place it on the wheelchair cane. Slide the Cane Sleeve down inside the pivoting band. Repeat for both sides.



For both sides, tighten the bolt with the Allen wrench as directed in Installation OPTION A OF INSTALLATION OPTION B.

Note: It may be helpful to position the opening of the Cane Sleeve toward the back shell.



AGILITY Installation

STOP: If the back shell hardware is not yet installed on your AGILITY back shell, see Back Shell Hardware Installation.



✓!\ Warnings:

- DO NOT install or remove an AGILITY while the individual is seated in the wheelchair.
- DO NOT adjust the width of an AGILITY while the individual is seated in the wheelchair.
- After you install or adjust an AGILITY, and before the individual transfers into the wheelchair, make sure that all hardware is securely tightened. Refer to the recommended torque specifications.

Notes:

- The cover should be installed on the back shell before installing an AGILITY. Refer to the ROHO AGILITY Back System Operation Manual provided with your AGILITY.
- During installation and removal, provide support to the center of the back shell to help keep the left (L) and right (R) hardware even and flush up against the canes.
- Lock the wheelchair wheels before beginning installation.
- An AGILITY installation video is available at permobilus.com.

Installation Options:

Follow the instructions for Installation Option A if your wheelchair canes have push handles or other equipment that may interfere with installation.

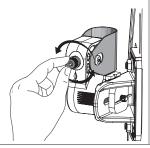
Otherwise, follow the instructions for Installation Option B.

AGILITY Installation Steps for Option A or Option B:

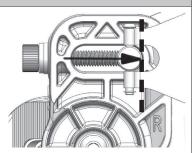
- 1. Loosen the Bolts
- 2. Place the AGILITY On the Wheelchair
- 3. Tighten the Bolts
- 4. Complete Attachment
- 5. Height Adjustment
- 6. Seat Depth and Angle Adjustment

Loosen the Bolts - Option A and Option B

1) For both sides: Loosen the bolt. Note: The end of the bolt should be flush with the adjustment cylinder.



IMPORTANT! The bolt should NOT disengage from the adjustment cylinder.

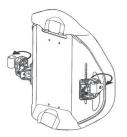


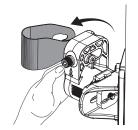
AGILITY Installation, Continued

Place the AGILITY On the Wheelchair - Option A or Option B

Installation Option A

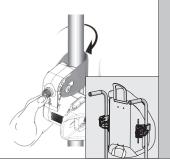
2) Push against the bolt with your thumb and pry the pivoting band away from the adjustment cylinder. Rotate the pivoting band. Repeat for the other side.





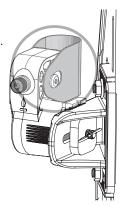
3) Place the pivoting bands around the wheelchair canes:

With your thumb against the bolt, attach the pivoting band so the narrow part of the opening is on the groove in the adjustment cylinder.

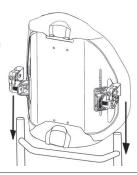


Installation Option B

2) The pivoting bands should remain attached to the adjustment cylinders.



3) Slide the pivoting bands onto the wheelchair canes.



Tighten the Bolts - Option A and Option B



IMPORTANT! Make sure the mounting hardware is flush against the wheelchair canes.

4) For both sides: Finger-tighten the bolt.

Note: As you tighten each bolt, pinch or squeeze the pivoting band to help the narrow part of the opening engage with the groove in the adjustment cylinder.



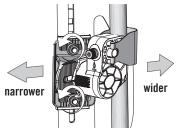




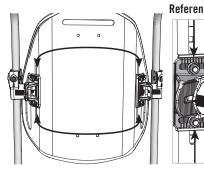
5) If you are not able to attach the hardware or tighten the bolts, you may need to adjust the width:

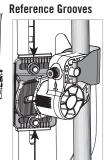
Loosen, but do not remove, the width/height adjustment nuts.

- Slide the triangle brackets forward for a wider width.
- Slide the triangle brackets backward for a narrower width.



MPORTANT! Use the reference grooves to make sure the left and right triangle brackets are in the same position on both sides.

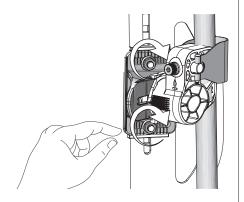




AGILITY Installation, Continued

Complete Attachment - Option A and Option B

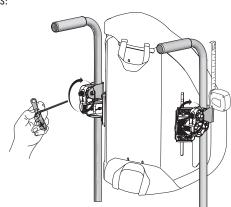
6) Finger-tighten the width/height adjustment nuts.



- **7)** Complete attachment on both sides:
 - Use a tape measure to make sure the pivoting bands are at the same height on the wheelchair canes.
 - Tighten the bolts with the Allen wrench until snug + onequarter turn.

Note: If a torque wrench is available, tighten to no more than 40 inch-pounds (4.5 Newton-meters).

c. If you need to adjust the height, see Height Adjustment.



Warning: Once installation and width adjustment is complete, make sure all hardware is securely tightened before the individual is seated in the wheelchair. Refer to the recommended torque specifications.

Height Adjustment

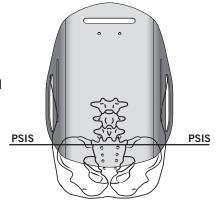
Warnings:

- If performed correctly and with caution, height adjustments may be made while the individual is in the wheelchair. If you find height adjustments too difficult or unsafe to make while the individual is in the wheelchair, have the individual transfer safely out of the wheelchair.
- If you choose to adjust the height of an AGILITY while the individual is seated in the wheelchair, you must first take the following safety precautions:
 - ✓ Make sure the wheelchair wheels are locked.
 - Make sure that all hardware is securely tightened. Refer to the recommended torque specifications.

Note: Before you adjust the height of the AGILITY, install the AGILITY on the wheelchair. See **AGILITY INSTALLATION**.

Warning: If an AGILITY is not positioned to make contact with the Posterior Superior Iliac Spine (PSIS), pelvic support and trunk control may be reduced.

Make sure that the AGILITY is positioned so that the bottom portion makes contact with the PSIS.

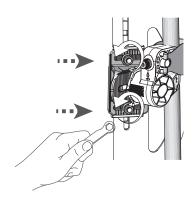


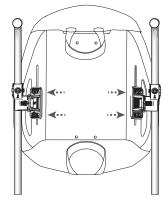
Height Adjustment, Continued

1) On both sides: Use the box end wrench to loosen the width/height adjustment nuts:

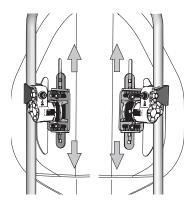
DO NOT remove the width/height adjustment nuts.

From a tight position, loosen the nuts less than the equivalent of two (2) full rotations. The nuts should be just loose enough to allow the width/height adjustment plate to slide up and down.

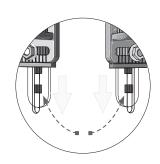




2) Slide the back shell up or down in the vertical slots to the desired height:

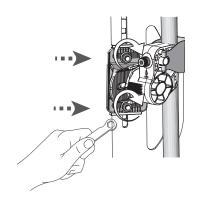


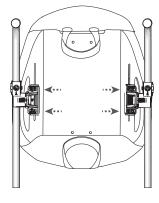
IMPORTANT! Make sure that the back shell hardware is the same height on both sides: To make sure that the left (L) back shell hardware and the right (R) back shell hardware are at the same height, count the squares that you can see when you look through the left and right vertical slots in the back shell. (The squares are part of the sliding height adjustment bar. See Parts Detail.)



Warning: Once adjustment is complete, make sure all hardware is securely tightened. Refer to the recommended torque specifications.

3) While you hold the back shell in position, use the box end wrench to tighten the width/height nuts on the width/height adjustments bolts until snug + one-quarter turn. Note: If a torque wrench is available, tighten the bolts to 42 ± 2 inch-pounds $(4.75 \pm 0.25$ Newton-meters).



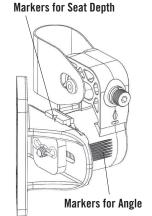


Seat Depth and Angle Adjustment

✓! Warnings:

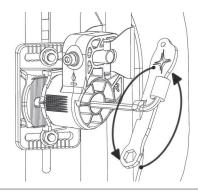
- If performed correctly and with caution, seat depth and angle adjustments may be made while the individual is in the wheelchair. If you find seat depth and angle adjustments too difficult or unsafe to make while the individual is in the wheelchair, have the individual transfer safely out of the wheelchair.
- If you choose to adjust the seat depth and angle of the AGILITY while the individual is seated in the wheelchair, you must first take the following safety precautions:
 - ✓ Make sure the wheelchair wheels are locked.
 - ✓ Make sure that all hardware is securely tightened. Refer to the recommended torque specifications.

Note: Before you adjust the seat depth and the angle of an AGILITY, install the AGILITY on the wheelchair. See AGILITY Installation.

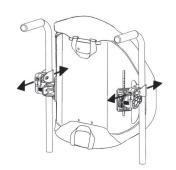


To Adjust the Seat Depth

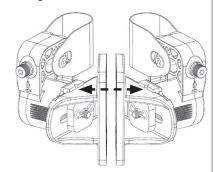
1) Use the Allen wrench to loosen the depth/angle adjustment bolts approximately three (3) full rotations.



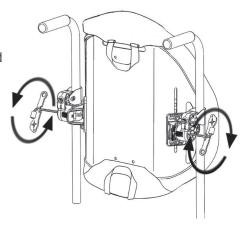
2) Slide the back shell forward or backward to the desired depth. Note: If the triangle bracket will not slide, see TROUBLESHOOTING.



3) /!\ IMPORTANT! To make sure the depth positions on both sides are equal, compare the markers on the tops of the triangle brackets.



- 4) If the AGILITY is not yet adjusted to the desired angle, continue to the next section, To Adjust the Angle.
- 5) If the AGILITY is already adjusted to the desired angle: While you hold the back shell in position, use the Allen wrench to tighten the right and left depth/angle adjustment bolts, turning until snug + one-quarter turn. Note: If a torque wrench is available, tighten the bolts to 60 \pm 4 inch-pounds (7 \pm 0.5 Newtonmeters).

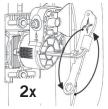


Seat Depth and Angle Adjustment, Continued

To Adjust the Angle

1) If not yet loosened, use the Allen wrench to loosen the depth/angle adjustment bolts

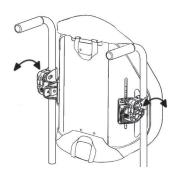
approximately two (2) full rotations.

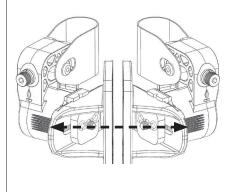


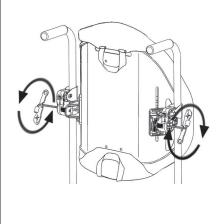
IMPORTANT! Compare the markers on the front of the fixed hardware to make sure both sides are rotated the same. Note: 5 degree increments per mark (15 degrees of anterior and posterior tilt) 3) While you hold the back shell in position, use the Allen wrench to tighten the right and left depth/angle adjustment bolts, turning until snug + one-quarter turn.

Note: If a torque wrench is available, tighten the bolts to 60 ± 4 inch-pounds (7 ± 0.5 Newton-meters)

2) Pivot the back shell.



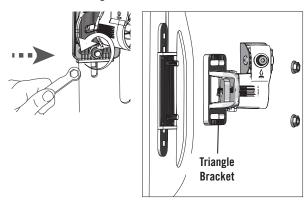




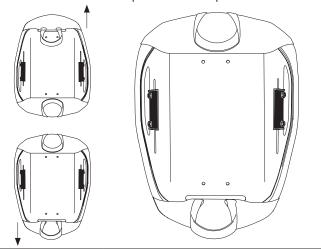
IMPORTANT! After installation and adjustment is complete, tighten hardware securely before transferring into the wheelchair. Refer to the appropriate sections in this manual for recommended torque specifications. If the individual is seated in the wheelchair, and depth and angle re-adjustments are needed, review Warnings at the beginning of this section and re-adjust as necessary. Re-tighten all hardware securely.

Flip the Back Shell

- 1) Remove the AGILITY from the wheelchair. See AGILITY REMOVAL.
- 2) Remove the back shell hardware:
 - Use the box end wrench to remove the width/height adjustment nuts.
 - Remove the triangle brackets from the back shell.



- 3) Rotate the back shell.
- **4)** Install and adjust the AGILITY. See all adjustment and installation instructions provided with the product.



AGILITY Removal



/! Warning: DO NOT remove the AGILITY while the individual is seated in the wheelchair.

Option A: If the wheelchair canes have push handles or other equipment that may interfere with installation:

- 1) Use the Allen wrench to loosen the bolt on both sides.
- 2) Unclip the pivoting band from the adjustment cylinder.
- 3) Open the pivoting band.
- 4) Remove the AGILITY from the wheelchair canes.

Note: Refer to AGILITY INSTALLATION for reference images.

Option B: If the wheelchair canes do not have push handles or other equipment that may interfere with removal:

- 1) Use the Allen wrench to loosen but do not remove the bolt on both sides.
- 2) Slide the pivoting bands off of the canes.

Troubleshooting

For additional assistance, contact your equipment provider, distributor, or ROHO, Inc.

Not able to correctly attach components during **AGILITY** INSTALLATION.

- Make sure the mounting hardware is flush against the wheelchair canes.
- Make sure that the Fixed Hardware is the same height on both sides. Use a tape measure or ruler, if necessary.
- The normal installation location of the Fixed Hardware is on the back side of the canes. If a rigidizer bar interferes with the Fixed Hardware when installed in the normal location, the Fixed Hardware may be installed on the front side of the canes. In either orientation, the left (L) and right (R) Fixed Hardware should be correctly located from the viewpoint of the installer.

Not able to correctly attach or secure components during **AGILITY** INSTALLATION.

- Make sure the mounting hardware is flush against the wheelchair canes.
- Make sure that the width is set appropriately for the wheelchair. The distance between wheelchair canes may vary. If the Fixed Hardware will not correctly attach and secure to the wheelchair canes, a width adjustment may be needed. Adjust the width as described in AGILITY Installation. It may take a few attempts to find the ideal width position for your wheelchair.
- If you are not able to secure the Fixed Hardware on the wheelchair canes, you may need to use Cane Sleeves. (See Wheelchair Cane Compatibility.)

Not able to correctly attach components during **AGILITY** Installation or HEIGHT ADJUSTMENT.

- Make sure the Fixed Hardware -- (left (L) and right (R) -- are on the correct sides.
- Make sure the width/height adjustment nuts are in the same position in the triangle brackets. Use the reference grooves as guides, which are below the horizontal slots on the triangle brackets. (See AGILITY Installation.)
- Make sure that the Fixed Hardware is the same height on both sides. For each side, count the number of squares openings that are visible in the sliding height adjustment bar (See Height Adjustment or Parts Detail.)

Not able to correctly attach components during SEAT DEPTH AND ANGLE ADJUSTMENT.

- Make sure that the left (L) and right (R) depths are equal. Compare the markers on the top of the triangle brackets.
- Make sure that the left (L) and right (R) hardware are rotated to the same angle. Compare the markers on the front of the hardware.

Maintenance



Warning: DO NOT continue to use an AGILITY if any part is broken or cannot be tightened. Periodically, the AGILITY should be thoroughly inspected by an equipment provider.

Check daily to confirm the tightness of AGILITY screws, nuts, clamps, and brackets. Retighten loose screws, following the instructions in this manual.

Storage, Disposal and Recycling

Storage: Clean and disinfect the product before storing. Store the product in a container that protects the product from moisture, contaminants and damage.

Disposal: The components of the products in this manual are associated with no known environmental hazards when properly used and when disposed of in accordance with all local/regional regulations. Incineration must be performed by a qualified, licensed waste management facility.

Recycling: Contact a local recycling agency to determine recycling options for the product. For more recycling information, contact ROHO,

Cleaning and Disinfecting

Cleaning and disinfecting are separate processes. Cleaning must precede disinfection. Before use by a different individual: clean, disinfect, and check product for proper functioning.





- DO NOT use abrasives such as steel wool or scouring pads on components of an AGILITY.
- DO NOT use cleaning products containing petroleum or organic solvents [i.e. acetone, toluene, Methyl Ethyl Ketone (MEK), naphtha, dry cleaning fluids, adhesive removers on components of an AGILITY.

To Clean Hardware: Hand wash in warm (40°C) water with soap and a sponge. Rinse with clean water. Wipe dry with a clean cloth and then allow to air dry completely.





To Disinfect Hardware: Wipe gently with a cloth dampened with a household disinfectant. Rinse with clean water. Wipe dry with a clean cloth and then allow to air dry completely.





Limited Warranty

Limited Warranty Term, from the date the product was originally purchased: Back Shell Hardware and Cane Hardware: 60 months. See also the Limited Warranty supplement provided with your product, or contact Customer Care.



ROHO SEATING + POSITIONING

Mailing/Shipping Address: 1501 South 74th Street, Belleville, IL 62223-5900, USA

Administrative Offices: 100 North Florida Avenue, Belleville, IL 62221-5429, USA

U.S.: 1-800-851-3449 Fax 1-888-551-3449 Outside U.S.: 1-618-277-9150 Fax 1-618-277-6518

permobilus.com



