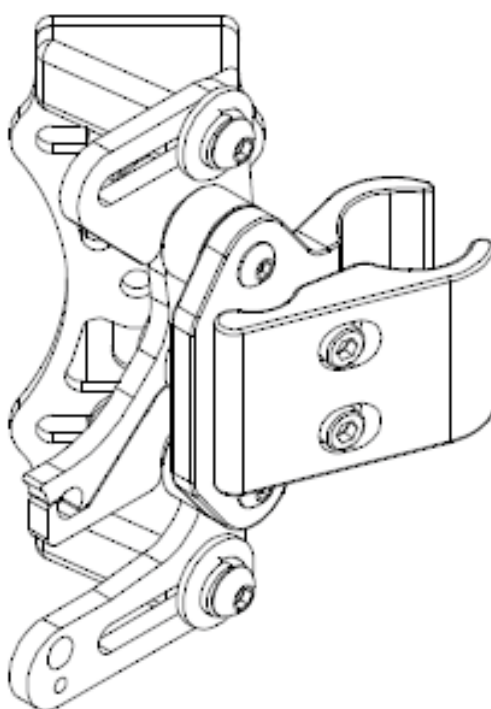
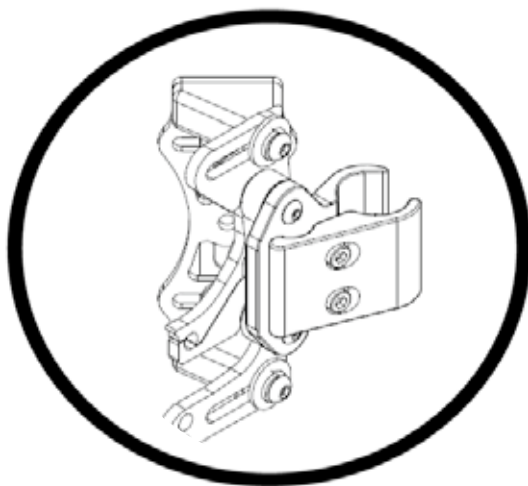




**Installation Manual**



1.0 Quick Release Mounting Hardware  
For All Aluminum & Carbon Series Back Supports



**INSTALLATION INSTRUCTIONS FOR**

**Stealth Products:** BR1102

**Compatible with**

**Stealth's:** ADI Aluminum / Carbon Fiber Backs

## 1.1 Customer Satisfaction

Stealth Products strives for 100% customer satisfaction. Your complete satisfaction is important. Please contact us with feedback or suggested changes that will help improve the quality and usability of these products. You may reach us at:



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Burnet, TX 78611

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MDSS GmbH

Schiffgraben 41




30175 Hannover, Germany



## 1.2 Warning Labels

### 1.2.1 Warning Labels

Warnings are included for the safety of the user, client, operator and property. Please read and understand what the signal words **SAFETY**, **NOTICE**, **CAUTION**, **WARNING** and **DANGER** mean, how they could affect the user, those around the user, and property.

 <b>DANGER</b>	Identifies a <b>imminent</b> situation which (if not avoided) will result in <b>severe injury, death, and property damage</b> .
 <b>WARNING</b>	Identifies a <b>potential</b> situation which (if not avoided) will result in <b>severe injury, death, and property damage</b> .
 <b>CAUTION</b>	Identifies a <b>potential</b> situation which (if not avoided) will result in <b>minor to moderate injury, and property damage</b> .
<b>NOTICE</b>	Identifies important information not related to injury, but possible <b>property damage</b> .
<b>SAFETY</b>	Indicates steps or instructions for safe practices, reminders of safe procedures, or important safety equipment that may be necessary.

### 1.2.2 Limited Liability

Stealth Products, LLC accepts no liability for personal injury or damage to property that may arise from the failure of the user or other persons to follow the recommendations, warnings, and instructions in this manual.

### 1.2.3 Testing

Initial setup and driving should be done in an open area free of obstacles until the user is fully capable of driving safely.

The product should always be tested without any person sitting in the wheelchair until every alteration of the physical installation or adjustment is complete.

**1.0 Quick Release Hardware Installation**

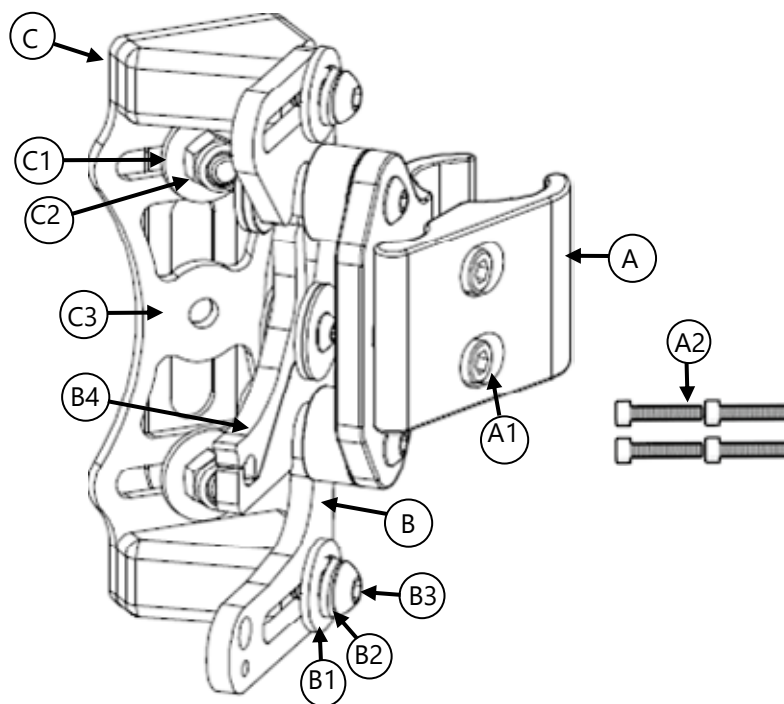
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**2.0 WC20 Approved Quick Release Hardware Installation**

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### 1.4.1 Quick Release Mounting Hardware Package

BR1102 Package

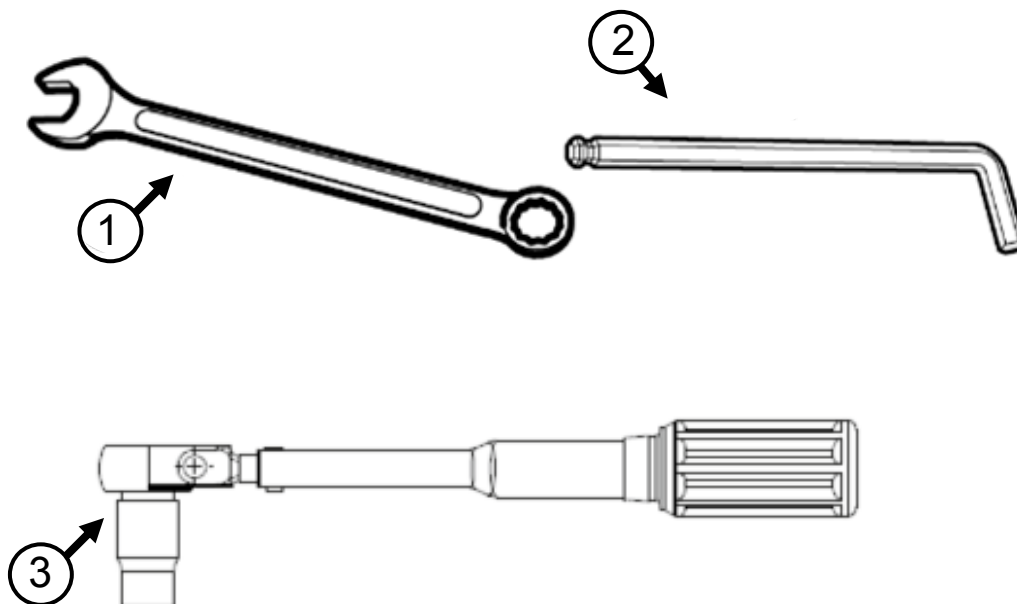


		Description
<b>A</b>	Quick Release Back Post Clamp (2)	<b>A1</b> M5 x .8 x 22mm SHS <sup>1</sup> (4)
		<b>A2</b> M5 x .8 x 25mm SSH <sup>2</sup> (4)
<b>B</b>	Quick Release Latch Assembly (2)	<b>B1</b> M6 x 18mm Fender Washer (4)
		<b>B2</b> M6 Split Washer (4)
		<b>B3</b> M6 x 1 x 20mm BHS (4)
		<b>B4</b> Locking Lever
<b>C</b>	Quick Release U Block w/Stud Plate (2)	<b>C1</b> M6 x 18mm Fender Washer (2)
		<b>C2</b> M6 x 1 Nylon Lock Nut (2)
		<b>C3</b> Stud Plate (2)

1. Used for mounting onto 3/4" and 7/8" canes.

2. Used for mounting onto a 1" cane.

### 1.4.2 Tools Required for Installation & Adjustment



Tools*		Description
1	Wrench	10mm Wrench
2	Allen Wrench/T-Handle	4mm Allen Wrench
3	Torque Wrench	Lb-in

### 1.4.3 Torque Specification

Part Number	Torque Specs
BR5001 (C2)	117in-lbs/13.2N-m
BR1100 (A2)	45.1in-lbs./5.1N-m
BR1101 (B3)	77in-lbs/8.7N-m

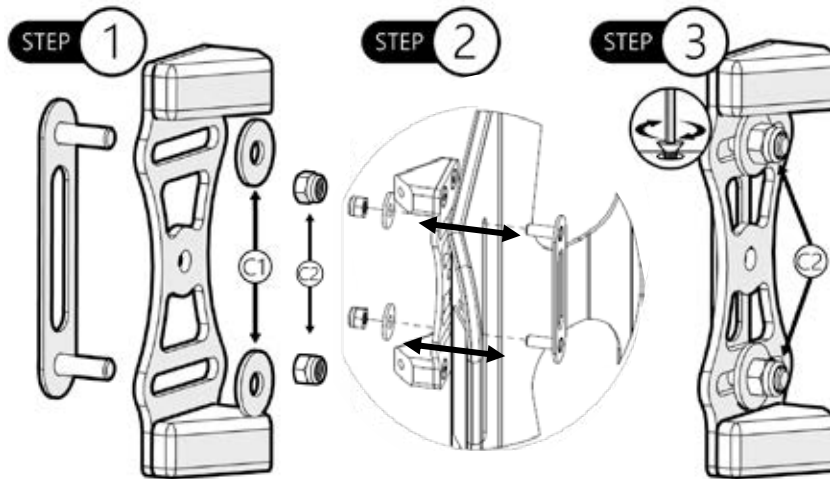
\* Tools not included in hardware package.

### 1.5.1 Installing Stud Plate and U-Block (BR5001 Package)

**Step 1:** Determine the desired location for the stud plate to be placed along the pre-cut slots in the back shell\*.

**Step 2:** Insert the stud plate onto the back. Line up the stud plate to the u-block.

**Step 3:** Tighten the lock nuts with the torque wrench to firmly secure. See *Torque Specs* in Section 4.3 for the correct torque specifications for tightening the hardware.



#### NOTICE

Installing the U-Block onto the back will be required if the hardware is purchased separately from the back. Stealth will install hardware if simultaneously ordered with the back.

#### CAUTION

Install U-Block before placing the cover over the back.

A 16" AL series shell is shown throughout the installation manual as reference. Measurements will vary based on shell type and size.

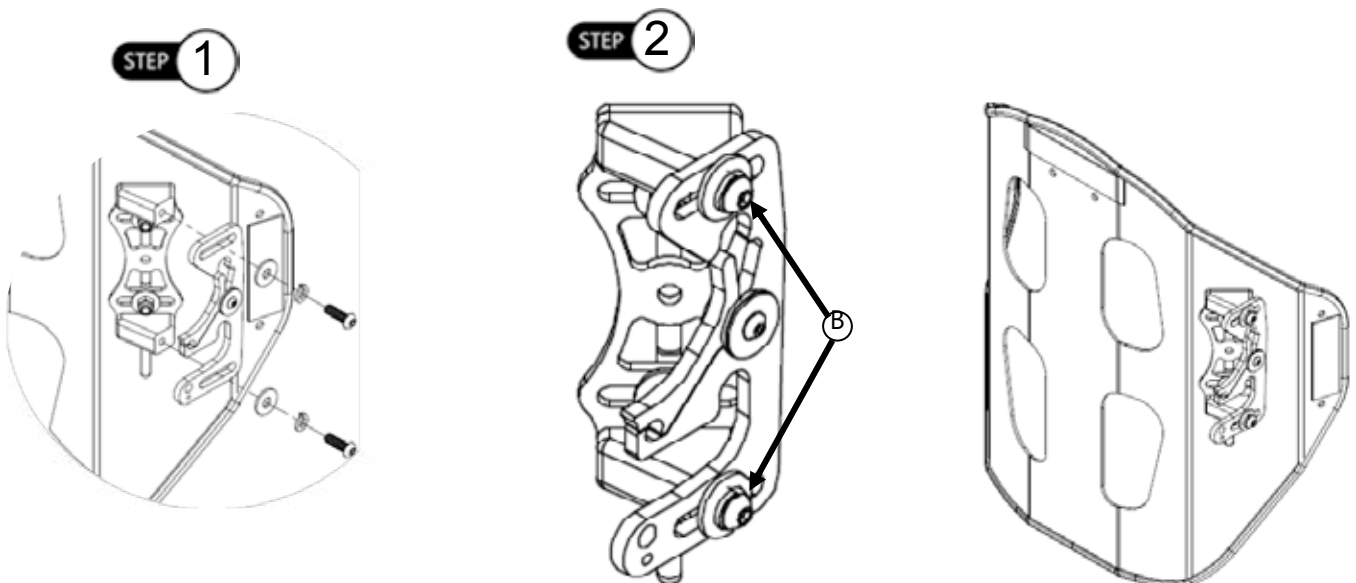
### 1.5.2 Fasten Quick Release Latch Assembly to U-Block

**Step 1:** Insert m6 screw (B3) (x2) into washers (B1, B2) and attach latch assembly to left and right side U-block, using the 4mm Allen Wrench. Before tightening M6 screw, slide latch to forward position and make any necessary adjustments.

**Step 2:** With a torque wrench, tighten M6 nuts (B3). See *Torque Specs* in Section 4.3 for the correct torque specifications for tightening the hardware.

#### NOTICE

It is essential that the included split lock washers be used at all four attachment points to maintain desired angle and depth adjustment of back.

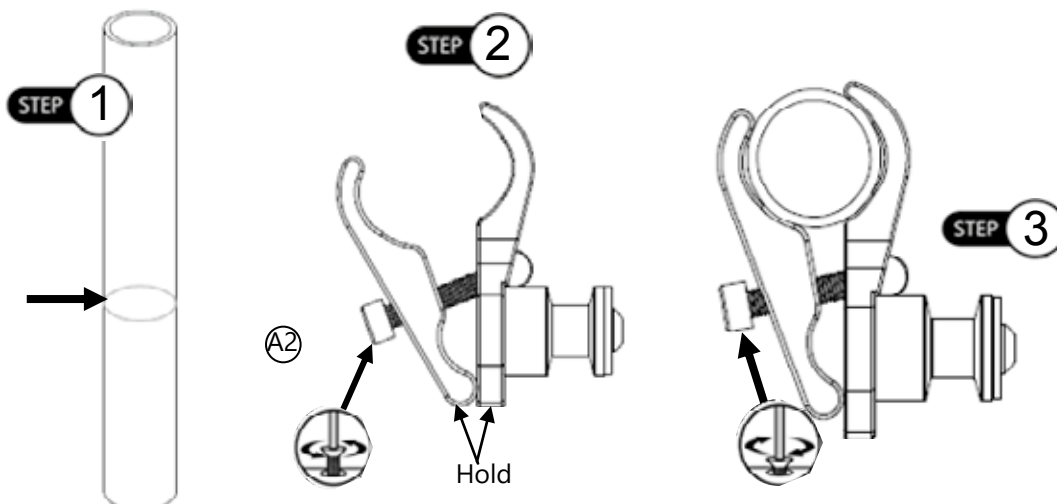


### 1.5.3 Clamp Assembly to Wheelchair Back Post

**Step 1:** Visually determine the desired height of your new ADI back support. Mark on each back post the needed location to attach clamp assemblies.

**Step 2:** Loosen the M5 screws (A2) and with two fingers, pinch and hold the back of the post clamp open in order to slide clamp assembly over top of back post (receiving post facing inward). Screws do not have to be completely removed from hardware in order to slide clamp over post.

**Step 3:** Slightly tighten each M5 screw with a 4mm Allen Wrench. Align clamp assembly parallel to the wheelchair seat base.



#### **CAUTION**

For 1" cane, use the provided 25mm socket head screws (A2).

#### **NOTICE**

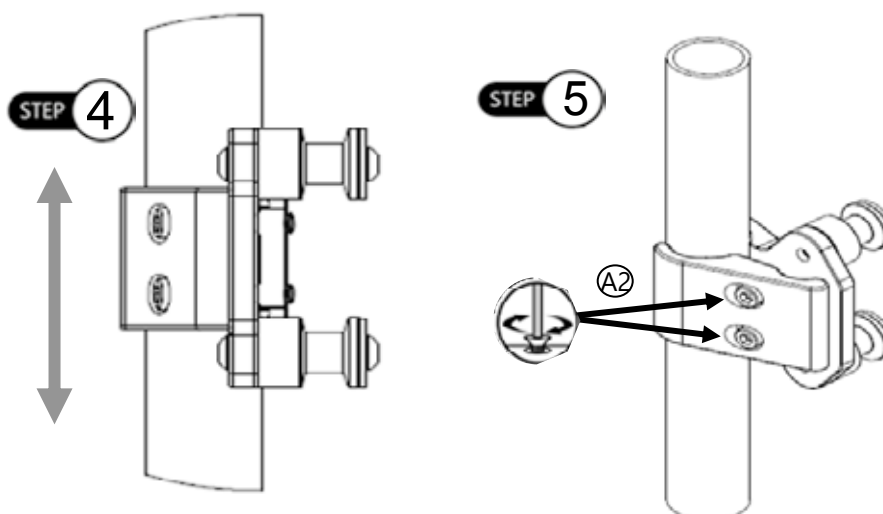
The mounting hardware should be installed at equal heights on the left and right sides, and parallel to the seat frame.

#### **NOTICE**

Tighten clamp screws, but allow for movement so you can adjust the receiving posts.

**Step 4:** To achieve proper alignment, slightly move the mounting hardware in or out and/or up or down. Make adjustments until the backrest smoothly attaches and removes from the top and bottom receiving posts.

**Step 5:** After final adjustment is complete, tighten all screws (A2) with torque wrench to the proper specifications. This will ensure secure placement and safe operation.



#### **NOTICE**

Latch centering may require width adjustment.

#### **CAUTION**

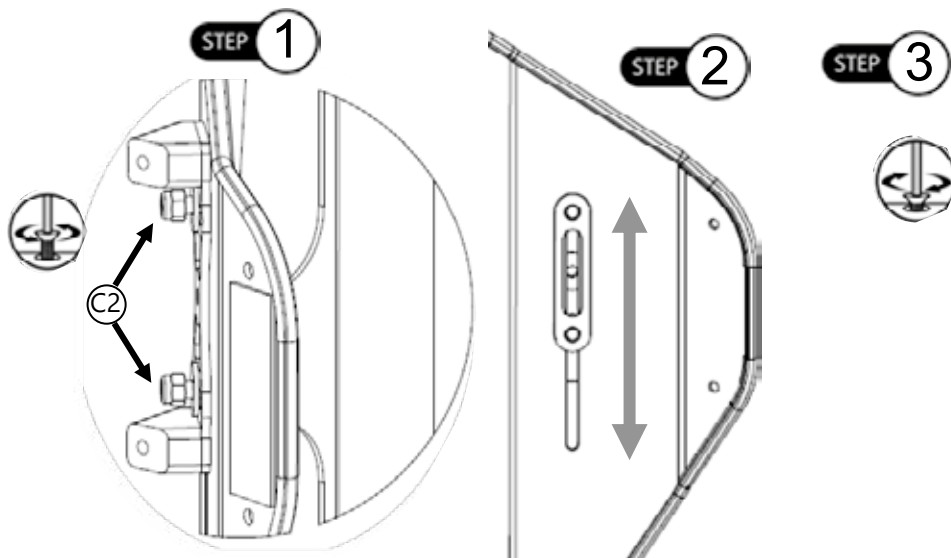
If the hardware sticks or is not smooth, you may need to realign the hardware receiving points on the posts.

### 1.5.4 Height Adjustment AL/AFT Series

**Step 1:** With a 10mm wrench, loosen M6 nuts (C2) on the stud plate.

**Step 2:** Slide stud plate up or down along the pre-cut slot in the shell in order to achieve desired height.

**Step 3:** Tighten and secure M6 nuts with torque wrench. See *Section 4.3* for torque specifications.



#### ⚠ CAUTION

Stealth does not recommend drilling holes into the CF backs to reposition the hardware to a different height.

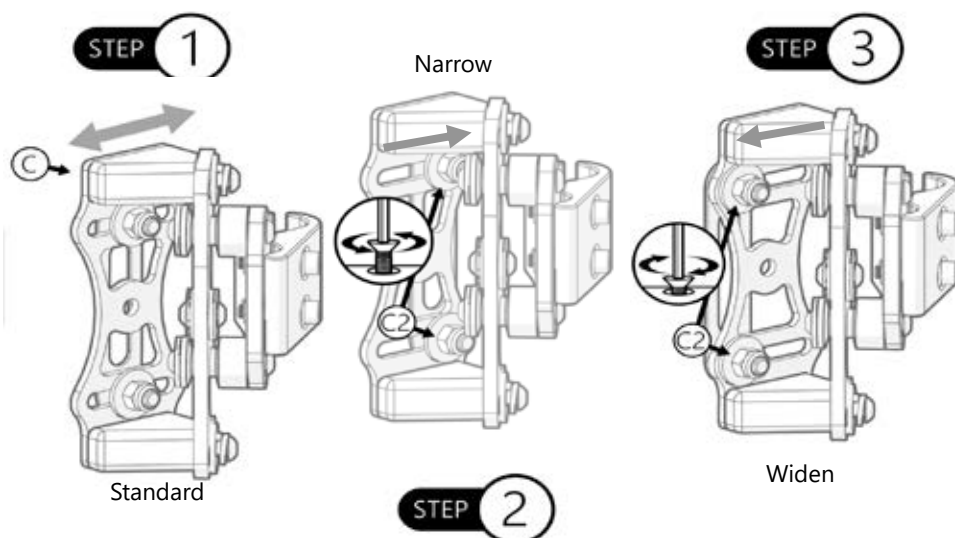
### 1.5.5 Width Adjustment

**Step 1:** On each side of the hardware, loosen the top and bottom screws (C2) on the stud plate, using a 10mm wrench.

**Step 2:** Adjust hardware inward or outward on the stud plate (C3) to achieve required chair width.

**Step 3:** After final adjustments are complete, tighten all M6 nuts with torque wrench. See *Section 4.3* for torque specifications.

\* On the CF series, a 4mm Allen Wrench is used for the inside screws.



#### NOTICE

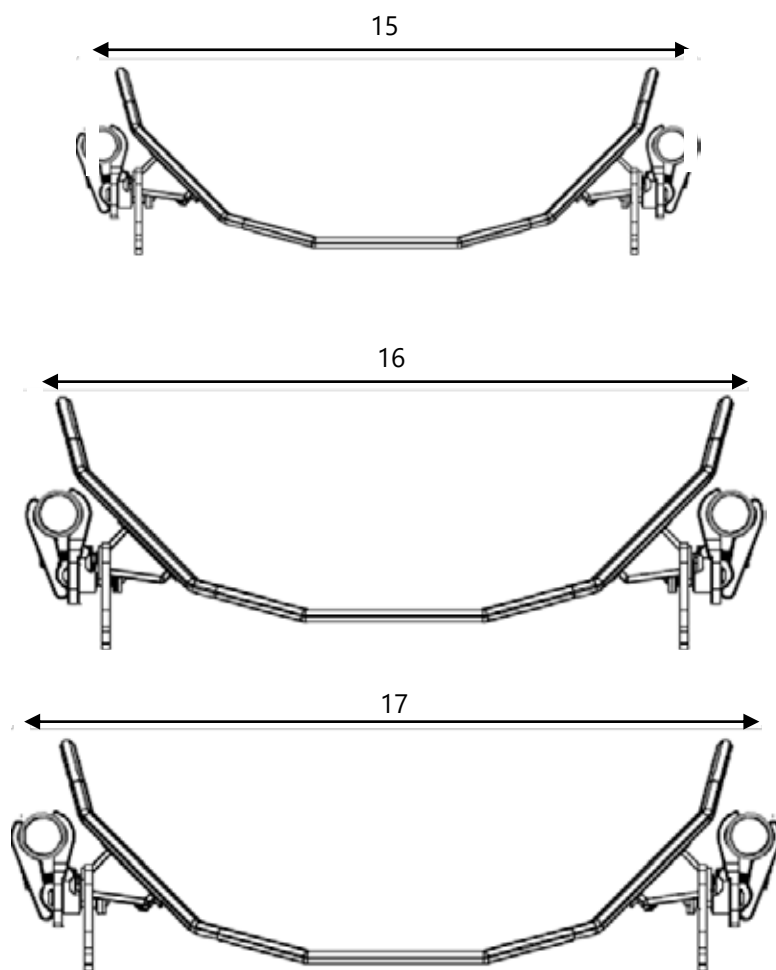
Minimum and maximum growth for the width of the hardware is 1".

#### NOTICE

AFT Series backs offer an extra inch of width adjustment (2 inches total) on the shell due to a slot pre-cut in the shell.



Minimum and maximum measurements\* for width adjustment:



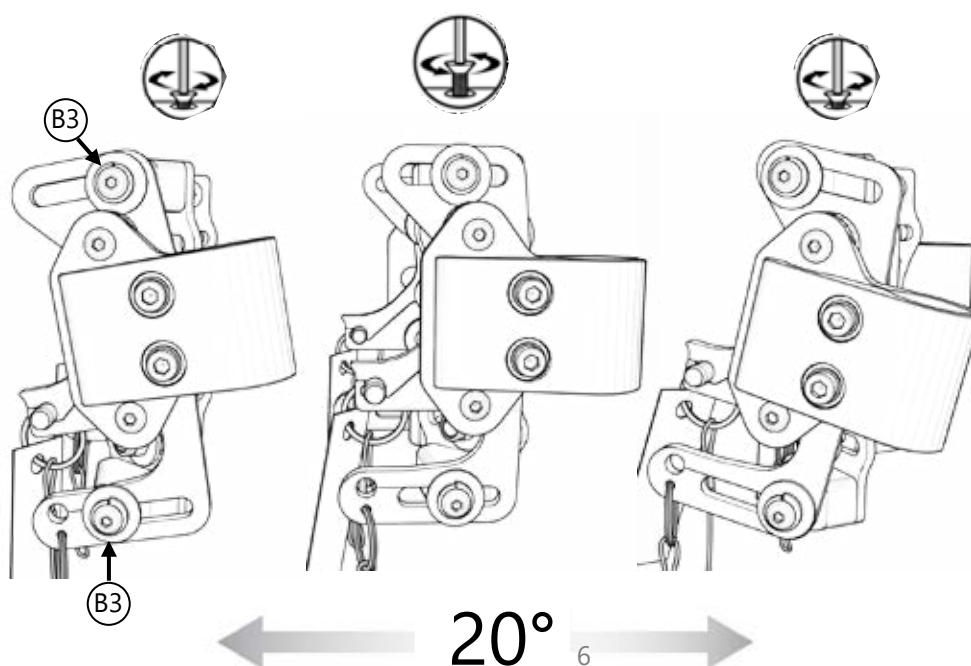
\*Measurements shown are for an 16" AL series back.

### 1.5.6 Angle Adjustment

**Step 1:** On each side of the hardware, loosen the top and bottom M6 screws (B3) with a 4mm Allen Wrench.

**Step 2:** Adjust back support to achieve desired user angle.

**Step 3:** After final adjustments are complete, tighten all screws to the proper torque specification.

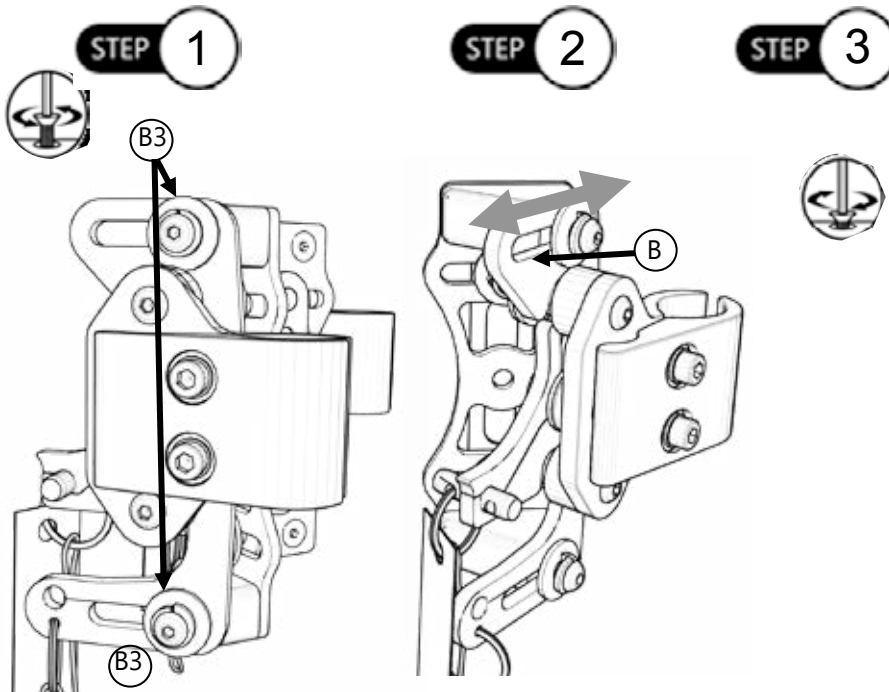


### 1.5.7 Depth Adjustment

**Step 1:** On each side of the hardware, loosen the top and bottom M6 screws (B3) with a 4mm Allen Wrench.

**Step 2:** Slide back support forward or aft along the latch assembly (B) to achieve desired depth.

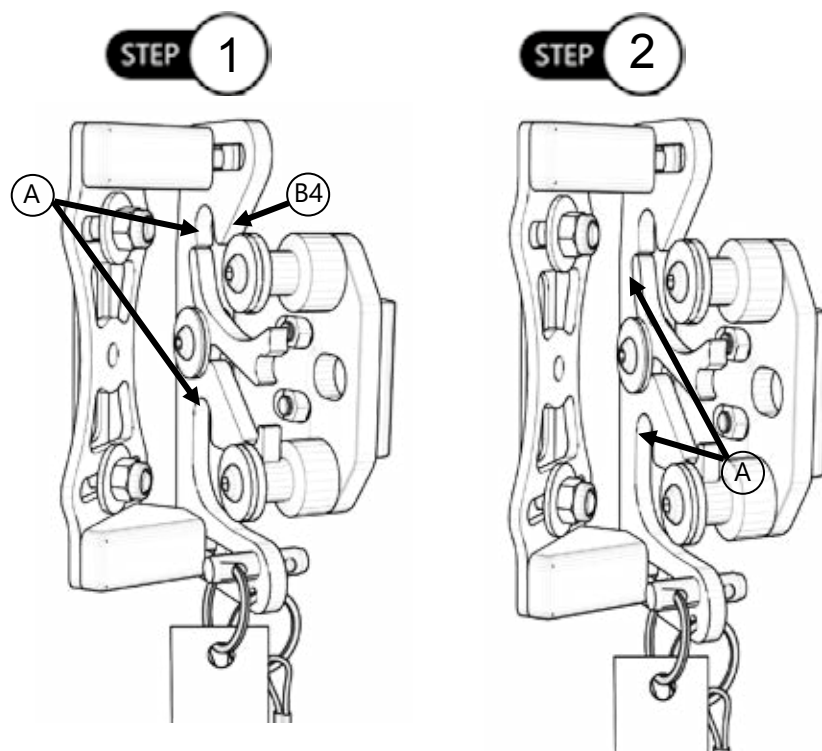
**Step 3:** After final adjustments are complete, tighten all screws to the proper torque specification.



### 1.5.8 Back Installation Onto Clamps

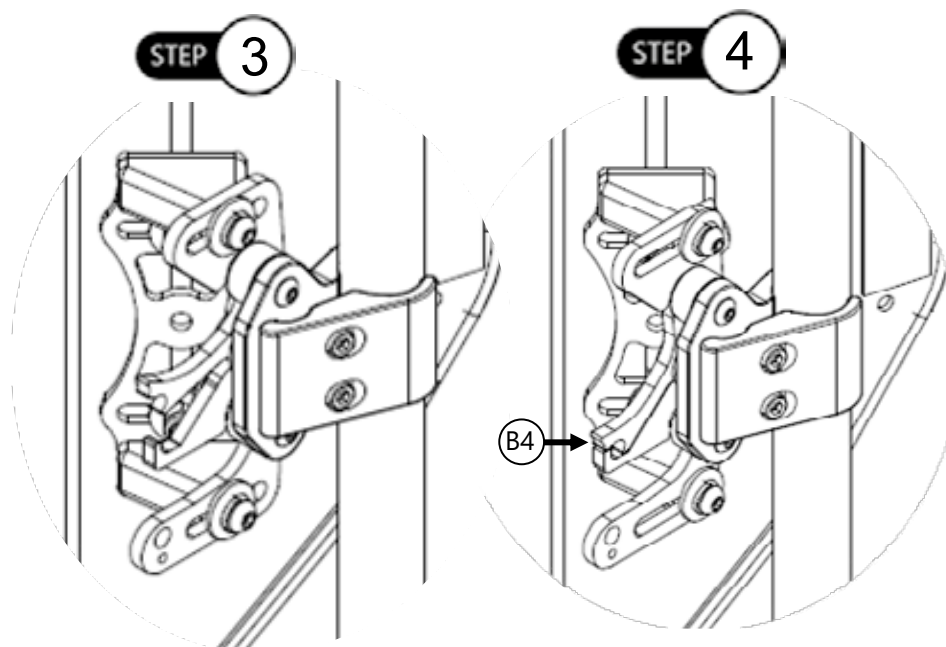
**Step 1:** With back tilted slightly forward, lower the left and right bottom hooks (B4) onto the bottom receiving posts (A).

**Step 2:** After bottom hooks are in position, tilt back support rearward until top hooks are fully engaged onto top receiving posts (A).



**Step 3:** After each receiving post is fully seated in the top and bottom hooks, manually press left and right, locking levers (B4) to the locked/down position.

**Step 4:** Lower locking levers (B4) on latch assembly and ensure hardware is securely fastened to chair and back post.



### **⚠ CAUTION**

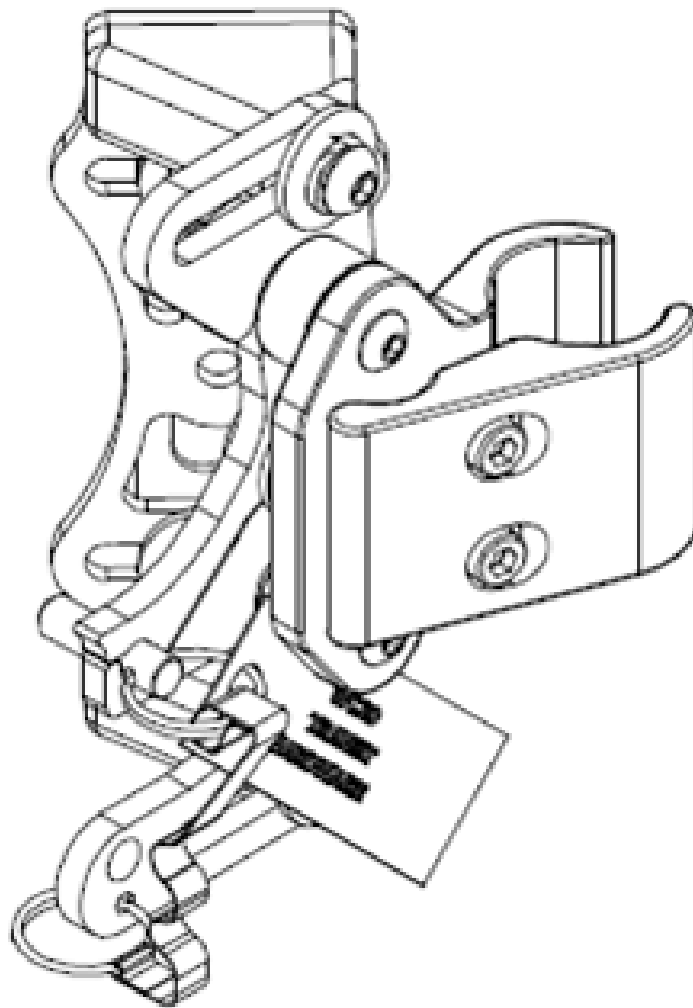
Protect all backs from blunt forces that may cause damage and/or breakage.

### **⚠ CAUTION**

If you are able to fold the back canes, the back should be in the folded position when transporting the wheelchair, especially before loading for air travel.

### **⚠ CAUTION**

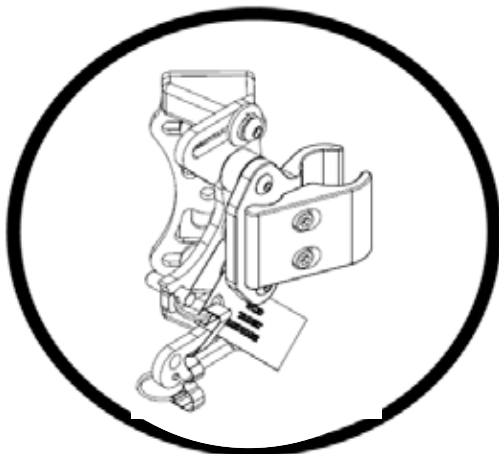
Before use, confirm locking levers are in the locked position.



## 2.0 WC20 Approved Quick Release Mounting Hardware

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For All Aluminum Back Supports



### **INSTALLATION INSTRUCTIONS FOR**

**Stealth Products:** BR1102 with BR6005

**Compatible with**

**Stealth's:** ADI Aluminum /AFT Series Backs

### 2.1.1 WC20 Quick Release Hardware

The Quick Release hardware can be ordered as a WC20 package. This includes the back post clamp and latch with the transit pin.

The Quick Release mounting hardware has met WC20 and ISO16840-4 requirements and provisions. The lock piece hardware can be ordered as a WC20 approved item with transit pins.

WC20 establishes design and performance requirements and test methods for complete seating systems that consist of a seat, back support, and attachment hardware.

#### CAUTION

**The WC20 approved Quick Release Hardware and AL/AFT backs should only be used as described in the manufacturer's instructions.**

#### NOTICE

If the BR6005 order is placed after a shell has been ordered, the corresponding label **MUST** be permanently affixed to the cover in order for the hardware to be WC20 compliant.

#### SAFETY

ADI's CF series backs are NOT WC20 approved.

## 2.2 WC20 Transit Information

### 2.2.1 Before Transit

- Clients who use wheelchairs should transfer to the vehicle seat and use the vehicle-installed occupant-restraint systems.
- Prior to transporting, always double check the tie-downs and hardware.
- On tie-downs and restraints, look for tears or worn webbing straps. Replace as necessary and never use torn straps.
- Look for damaged hooks or loose tie-down hardware.
- On the seating system, check for loose screws attaching the hardware to the seat. These should be snug and not over tightened.
- The Quick Release hardware should be securely attached to the back, and the transit pins should be properly inserted into the hardware.

#### DANGER

**The WC20 approved Quick Release hardware and the AL/AFT backs are designed specifically for occupancy when used on wheelchairs that are facing forward in motor vehicles.**

#### DANGER

The WC20 approved Quick Release hardware and AL/AFT backs have been designed to accommodate the proper use of vehicle-anchored belt restraints and the ratings of the seating systems with regard to ease of properly positioning vehicle-anchored belt restraints on the wheelchair passenger, and the degree to which proper positioning of belt restraints can be achieved.

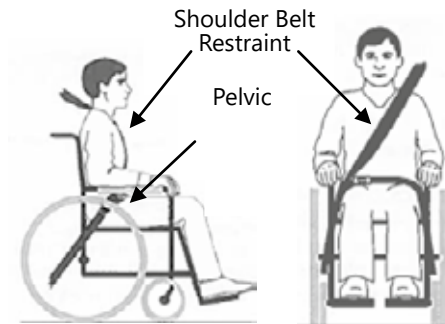
#### DANGER

Alterations or substitutions should not be made to the seating system or to its parts and components without consulting the manufacturer.

## Belt Placement

- The pelvic belt restraint should be worn low, across the front of the pelvis near the junctions of the pelvis and the thighs.
- The belt restraint buckle of three-point belt restraints should be placed in contact with the occupant's body and away from wheelchair components.
- The junction of the shoulder belt and pelvic belt of three-point-belt restraints should be located near the hip opposite the shoulder over which the diagonal belt crosses and not near the midline of the occupant.

Proper Positioning of Belts on Occupant



- Upper torso belt restraints should fit directly over, and in contact with, the middle of the shoulder.

### SAFETY

Belt restraints should be adjusted to fit as snugly as possible, consistent with user comfort.

### SAFETY

Belt restraints should be positioned on the wheelchair occupant in accordance with WTORS manufacturer's instructions.

Improper Positioning of Belts on Occupant



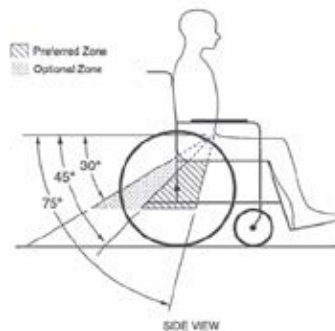
- Belt restraints should not be routed outside of the wheelchair wheels or over the wheelchair arm supports and should not be held away from the body by wheelchair components or parts.

### SAFETY

**Belt restraints should not be worn twisted in a manner that reduces the area of contact of the belt webbing with the occupant.**

Both pelvic-belt and shoulder-belt restraints that comply with RESNA WC-4:2012, Section 18 and/or 4.6,5.2, 5.3 of RESNA WC-4:2012, Section 19 should be used to limit occupant movement in a crash and reduce the likelihood of occupant ejection from the vehicle and/or injurious contact of the occupant with the vehicle interior.

The pelvic belt should be angled between 30° to 75° horizontally when viewed from the side, and ideally between 45° to 75° horizontally, as shown in the figure below.



#### ⚠ WARNING

**Back Supports with adjustable recline angles should not be tilted back more than 30° to the vertical during travel in vehicles unless necessary for the medical and postural needs of the occupant.**

#### ⚠ WARNING

**If the back support must be adjusted to an angle that is greater than 30° to the vertical during travel, the upper shoulder-belt anchor point should be adjusted rearward to maintain belt contact with the wheelchair occupant's shoulder and chest.**

## Trays

Wheelchair-mounted rigid trays that are not specifically designed for use during travel in motor vehicles should be:

- Removed and secured separately in the vehicle.
- Secured to the wheelchair so they will not break free in a crash.
- Be positioned with a gap of at least 75mm (3in.) between the back edge of the tray and the wheelchair occupant's abdomen and/or chest so as not to interfere with proper belt-restraint use.
- Have energy absorbing padding placed between the back edge of the tray and the wheelchair occupant.

### 2.3.1 User Safety

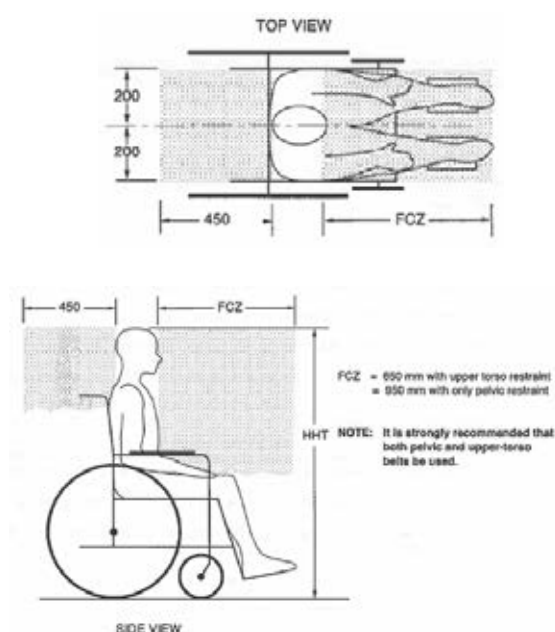
**The use of a postural pelvic belt attached to the wheelchair base or seat frame is encouraged during travel, but these belts should be positioned so that they do not interfere with the proper positioning of crashworthy belt restraints, and they should not be relied on for occupant protection in crash situations unless the postural belt has been designed to comply with, and perform to, the requirements 4.6, 5.2, and 5.3 of RESNA WC-4:2012, Section 19.**

Sufficient forward and rearward clear space should be provided around the wheelchair occupant.

The forward clear-space zone (FXZ) needs to be larger when a shoulder-belt restraint is not used.

When mounting the WC20 Quick Release hardware to your AL or AFT back, refer to the installation instructions starting on page 3.

Torque specifications for the hardware are listed in the *Parts and Accessories* section on page 2.



#### ⚠ DANGER

**The WC20 approved Quick Release Hardware and AL/AFT backs are designed ONLY for use with wheelchair frames that have been successfully crash tested to the frontal-impact requirements of RESNA WC-4:2012, Section 19.**

#### ⚠ DANGER

**The WC20 approved Quick Release Hardware and AL/AFT backs MUST be used on a wheelchair frame that provides four securement points and pelvic-belt anchor points that conform to the requirements of RESNA WC-4:2012, Section 19.**



## 2.4.1 WC20 Hardware Installation

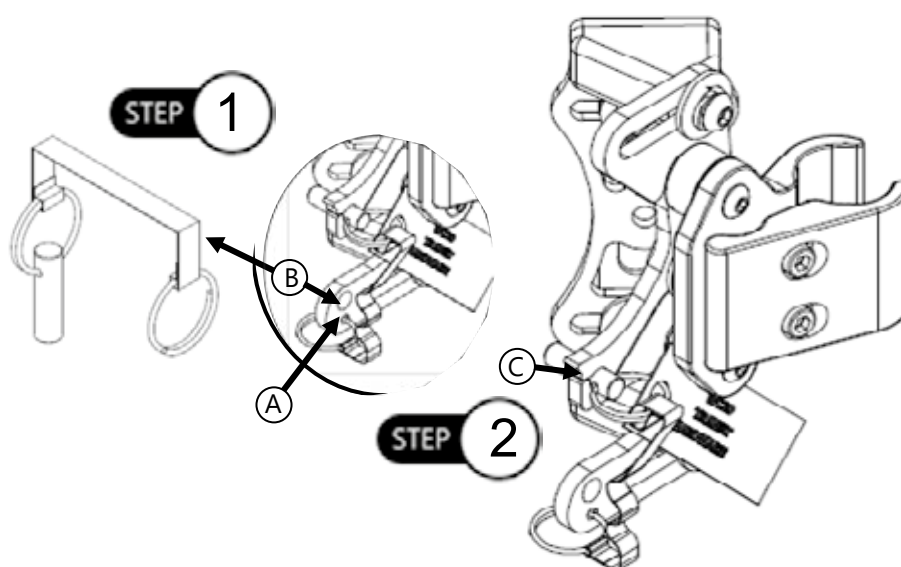
To install pin onto mounting hardware:

**Step 1:** Loop key ring (B) through the small hole at the base of the hardware (A). Ensure the key ring is securely looped through the hole.

**Step 2:** Place the pin into the latch assembly (C). Test that the latch is secure by slightly tugging. The ball on the latch should catch and not come out of the latch assembly.





### NOTICE

Ensure red lever is fully engaged before proceeding to Step 2.



## 2.4.2 Installing Label onto Cover

The WC20 Label will need to be secured to the cover of the ADI back if the WC20 pins are ordered separately from the back and hardware. The label must be sewn to cover in order to be WC20 compliant.

			
Requires WC18- Restraint WC19- Base WC20- Seat/Back per RESNA WC-4:2012/ISO 16840			
48 lb	22 kg		Minimum
275 lb	125 kg		Maximum
Stealth Products, LLC			
Date: _____			
Model: _____			
Serial: _____			
			
DO NOT REMOVE TAG!			
P9402082		March 23, 2017	

### Warning!

You must comply with the following for proper transit use!

Failure to comply may result in serious injury or death to the user!

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

Stealth Products, LLC

Date: \_\_\_\_\_

Model: \_\_\_\_\_

Serial: \_\_\_\_\_

This seating system has passed crash testing with a midsize male ATD in accordance to **RESNA WC- 4:2012/ISO16840** using methods described in Annex A of WC-4:2012, Sec.20, and has met requirements when attached to a wheelchair equipped with tie downs specified in WC-4:2012, Sec. 20.

DO NOT REMOVE TAG!

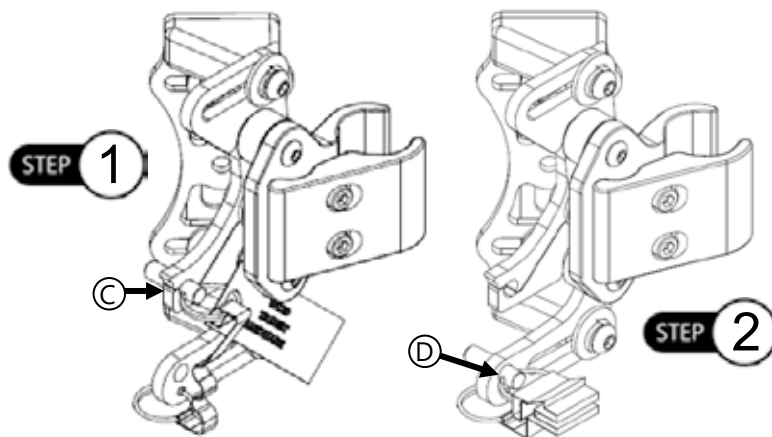
### 2.4.3 Removing the WC20 Pin

When the chair is not in transit, the pins for the Quick Release Hardware can be removed and placed in a holding spot on the hardware.

To remove the pin:

**Step 1:** Pull pin (C) from latch assembly. This may require tugging with slight force to remove the pin.

**Step 2:** Place pin in the predrilled hole (D) near the base of the hardware.



#### SAFETY

Pin should always be placed in the designated predrilled hole near the base of the hardware. Letting the pin hang freely could cause damage to the chair or injury to the user.

## 2.5 Maintenance

### 2.5.1 Cleaning

- Use a soft cloth to clean back shell.
- Hand wash foam pad cover with mild, soapy water or detergent, and let dry.
- Foam pad should not get wet.

#### ⚠ WARNING

Do not hand wash in water temperatures about 160°F (70°C).

#### ⚠ WARNING

Do not wash or machine dry.

### 2.5.2 Disinfection

- Wipe gently with a cloth dampened with a household disinfectant.
- Allow foam to air dry thoroughly.

#### ⚠ WARNING

Do not immerse the foam in water.

#### ⚠ CAUTION

Always check all mounting hardware, making sure each fastener is properly tightened before using the back support.

#### ⚠ CAUTION

250lbs (113.40 kg) user weight limit.

#### NOTICE

Altering an ADI back in any way and/or improper installation will void warranty.

### 2.6.1 Dealer Assistance

During first time use by the client, it is advised that the dealer or service technician assists and explains the set-up to the customer (the user and/or the attendant). If needed, the dealer can make final adjustments.

#### **CAUTION**

Do not attach the back with the user in the chair.

#### SAFETY

Do not attach the ADI backs with the user in the chair or use them during transportation unless you are using the WC20 approved Quick Release latch.

### 2.6.2 User Testing

It is important that the customer is fully aware of the installation, how to use it, and what can be adjusted in order to gain as much mobility as possible.

As a dealer, proceed as follows:

- Explain and show the customer how you have executed the installation, and explain the function of the hardware.
- If needed, adjust the hardware to the proper position.
- Explain to the customer possible problems and how to address them.

### 2.6.3 Conditions of Use

The ADI hardware is intended for use as installed by the dealer, in accordance to the installation instructions in this manual.

- The foreseen conditions of use are communicated by the dealer or service technician to the user and/or attendant during the first time use.
- If the usage conditions change significantly, please contact your dealer or a qualified service technician to avoid excessive wear and tear or unintended damage.
- The CF back may not fit every chair. Please consult your clinician or supplier providing your equipment.

## 2.7 Warranty

Our products are designed, manufactured, and produced to the highest of standards. If any defect in material or workmanship is found, Stealth Products will repair or replace the product at our discretion. Any implied warranty, including the implied warranties of merchantability and fitness for a particular purpose, shall not extend beyond the duration of this warranty. Stealth Products, LLC does not warrant damage due to, but not limited to:

- Misuse, abuse, or misapplication of products.
- Modification of product without written approval from Stealth Products, LLC.
- Any alteration or lack of serial number, where applicable, will automatically void this warranty.
- Stealth Products, LLC is liable for replacement parts only.
- Stealth Products, LLC is not liable for any incurred labor costs.

No person is authorized to alter, extend, or waive the warranties of Stealth Products, LLC.

Stealth Products warrants against failure due to defective materials or workmanship:

Covers: 180 days

Hardware: 5 years

Electronics: 3 years

#### 2.7.1 In Case of Product Failure

In the event of product failure covered by our warranty, please follow the procedures outlined below:

1. Call Stealth at +1 (512) 715-9995 or toll free +1-800-965-9229.
2. Request the Returns Department or obtain an RA from the Returns Department and follow department or documentation instructions.



# rehabhire & sales

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