



## USER MANUAL

**Stealth Products**

Seating Hardware



# Transit Knob Hardware

Stealth's User Manual and Maintenance Guide for  
Transit Knob Hardware

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 our products. You may reach us at:

**Stealth Products, LLC**

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**General**

Read and understand all instructions prior to the use of the product. Failure to adhere to instructions and warnings in this document may result in property damage, injury, or death. Product misuse due to failure of the following instructions will void the warranty.

Immediately discontinue use if any function is compromised, parts are missing, loose, or shows signs of excessive wear. Consult with your supplier for repair, adjustment, or replacement.

## Important Information!

All persons responsible for fitting, adjustment, and daily use of the devices discussed in these instructions must be familiar with and understand all safety aspects of the devices mentioned. In order for our products to be used successfully, you must:

- Read and understand all instructions and warnings.
- Maintain our products according to our instruction on care and maintenance.
- Devices should be installed and adjusted by a trained technician.

## Supplier Reference

Supplier: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

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

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

Before you install or begin using this product, it is important that you read and understand the content of these installation and operating instructions. The installation instructions will guide you through the possibilities with the Transit Knob Hardware.

Instructions are written with the expressed intent of use with standard configurations. They also contain important safety and maintenance information. For further assistance, or more advanced applications, please contact your supplier or Stealth Products at (512) 715-9995 or toll free at 1-800-965-9229.

Always keep the operating instructions in a safe place so they may be referenced as necessary.

All information, pictures, illustrations, and specifications are based on the product information that was available at the time of printing. Pictures and illustrations shown in these instructions are representative examples and are not intended to be exact depictions of the various parts of the product.

## Ordering Documentation

You can download additional copies of this User Manual on the Stealth website:

<https://stlpro.site/stealth-docs>

and search: *Transit Knob Hardware User Manual* in the search bar at the top of the page.

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 or 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: 2 years

Hardware: 5 years

Electronics: 3 years

## 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.

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Warning Labels

6.1

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 an <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.

Limited Liability

6.2

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.

Testing

6.3

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

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



## User Safety

### 7.1

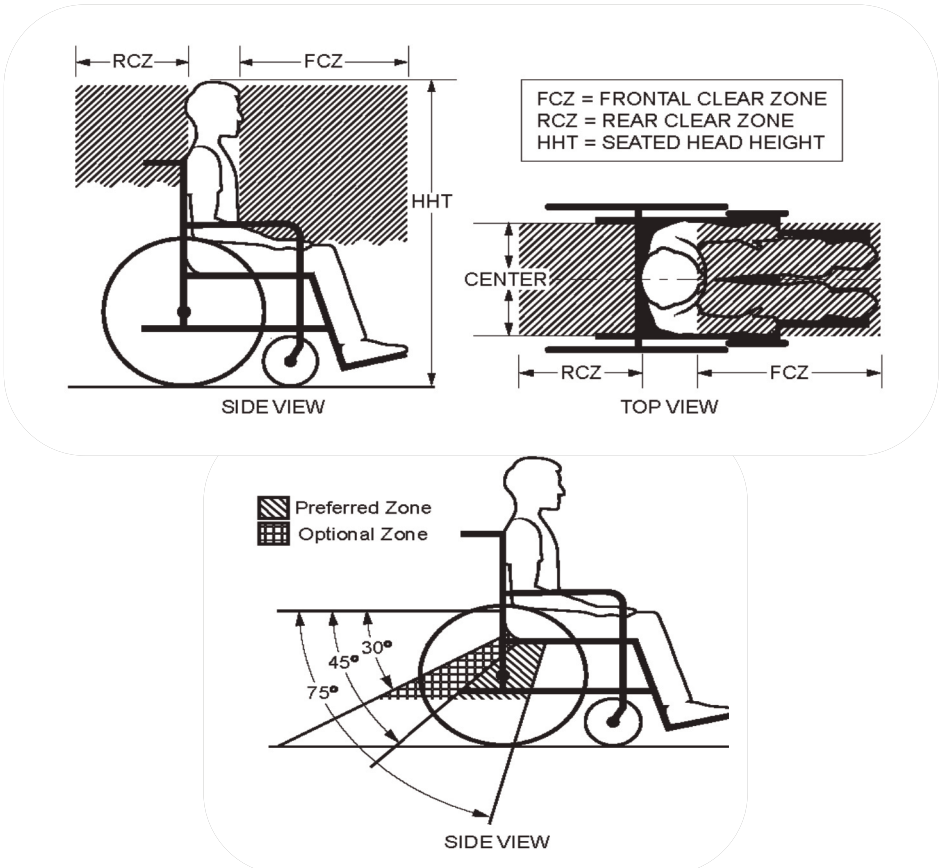
- The wheelchair user should transfer to the vehicle seat and use the vehicle installed restraint system when feasible.
- This seating system is designed only for use with wheelchair base frames that have been successfully crash tested to the frontal impact requirements of WC19.
- The wheelchair base must provide four securement points and pelvic belt anchor points that conform to the requirements of WC19.
- Always secure the wheelchair and occupant in a forward-facing position in the vehicle.
- The wheelchair should be used as indicated in the manufacturer's instructions.
- Adjustable back supports should not be reclined to more than 30 degrees to the vertical during travel in a vehicle unless necessary for the medical and postural needs of the occupant.
- Only belt restraints that comply with the provisions of ANSI/RESNA WC/Vol. 4, Section 19/ISO 7176-19 and that have been dynamically tested in accordance with this standard should be installed on the wheelchair for use as a restraint in a motor vehicle.
- During travel, postural support devices should be positioned so they don't interfere with the proper positioning of these belt restraints.
- These belts should limit occupant movement in a crash and reduce the likelihood of ejection from the vehicle and/or injurious contact with the vehicle interior.
- Belt restraints should be positioned on the wheelchair occupant in accordance with WTORS manufacturer's instructions as indicated in 6.3h.i thru 6.3h.vii.
- Trays should be removed and secured in a safe location. A clear zone around the wheelchair occupant should be utilized.
- Any alterations or substitutions should not be made to the seating system or its parts and components without consulting Stealth Products.

Chair Securement and Safety

7.2

The wheelchair occupant must be secured with dynamically crash-tested and approved pelvic and upper torso belts or with a five point child restraint harness as part of WTORS.

The pelvic belt should be angled between 45 and 75 degrees horizontally when viewed from the side. However, if the user cannot achieve this standard, an optional zone of 30-40 degrees can be utilized safely.



CAUTION

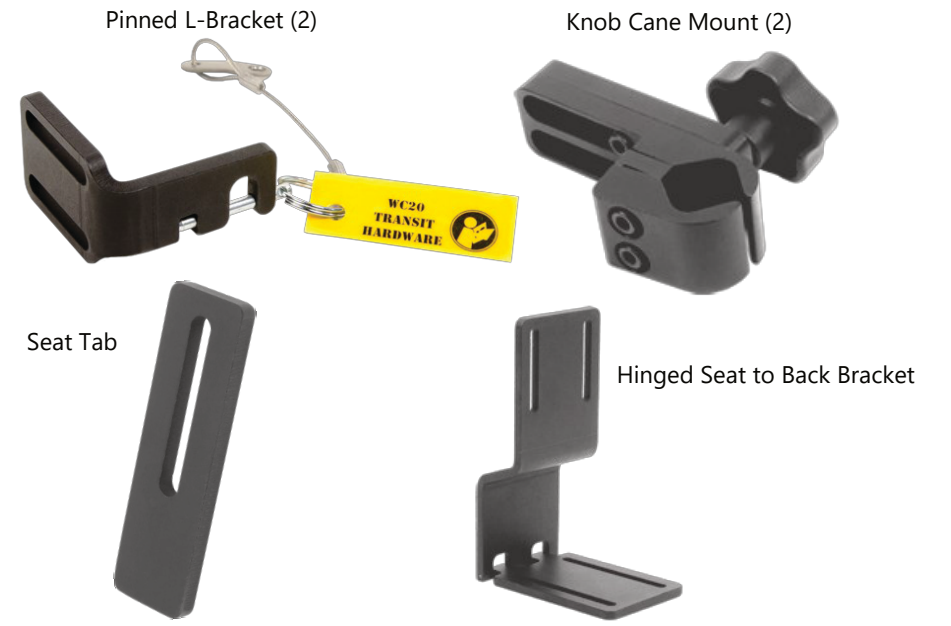
In the event that the chair is ever in an vehicular collision, check all hardware thoroughly for damage. If there are any signs of damage have a qualified tech inspect and replace the damaged components or send to Stealth Products for a complete overhaul to ensure future safety.

Transit Knob Hardware is available for seats and backs. 2 Point and 4 Point Hardware is available for each.

2 Point Knob Hardware

8.1

2 Point Knob Hardware package for backs includes the following:



- Left and right corresponding seat and back mount brackets with hardware for quick removal of the seating system from the chair.
- An optional tethered transit pin for added securement.
- Adjustable cane clamps that are to be installed to the chair frame permanently.
- Seat to Back Hinge keeps the back and seat connected.
- Seat Tabs give proper support while the rear of the seat rests on the canes.

**NOTICE**

Standard cane size is 1".

**NOTICE**

Seat to Back Bracket and Seat Tabs are available in 2 Point Hardware only.

4 Point Knob Hardware

8.2

4 Point Knob Hardware includes the following:

Pinned L-Bracket (4)



Knob Cane Mount (4)



- Left and right corresponding seat and back mount brackets with hardware for quick removal of the seating system from the chair.
- An optional tethered transit pin for added securement.
- Adjustable cane clamps that are to be installed to the chair frame permanently.

**NOTICE**

Standard cane size is 1".

**NOTICE**

Seat to Back Bracket and Seat Tabs are not included with 4 Point Hardware.

## Knob Installation

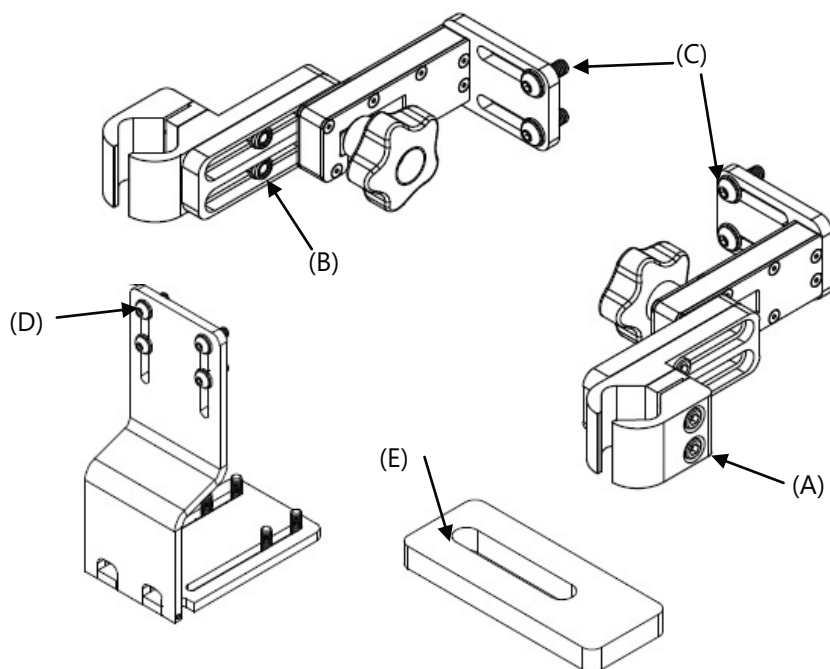
## 9.1

### 2 Point Knob Hardware includes:

- 1/4-20 x 1 1/4 Socket Head Screws (A)
- 1/4-20 x 1/2 Socket Head Screws & 1/4-20 Nylon Nuts (B)
- 1/4-20 x 3/4 Button Head Screws & 1/4-20 Flat Washers (C), (D)
- Seat Tab (E)

### NOTICE

3/16 and 5/32 T-Handles are used to install the hardware. Do not overtighten screws.

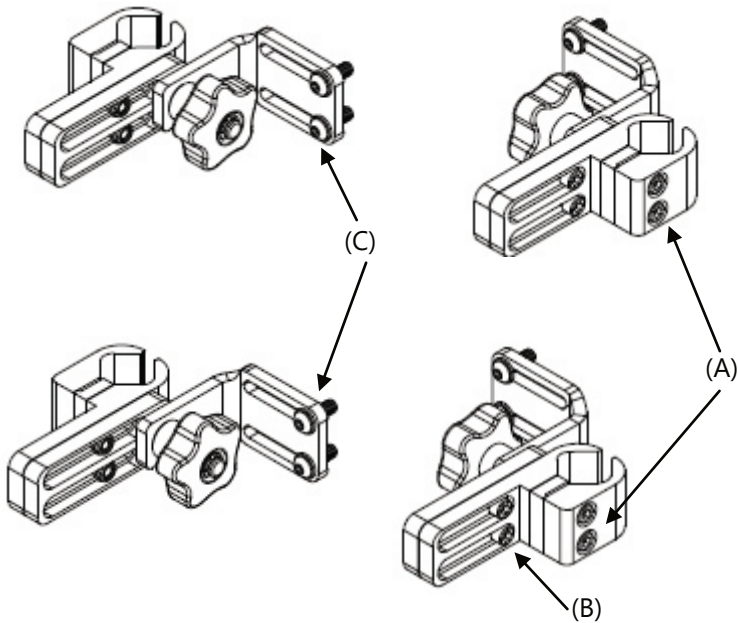


4 Point Knob Hardware includes:

- 1/4-20 x 1 1/4 Socket Head Screws (A)
- 1/4-20 x 1/2 Socket Head Screws & 1/4-20 Nylon Nuts (B)
- 1/4-20 x 3/4 Button Head Screws & 1/4-20 Flat Washers (C)

NOTICE

3/16 and 5/32 T-Handles are used to install the hardware. Do not overtighten screws.



Mounting Instructions

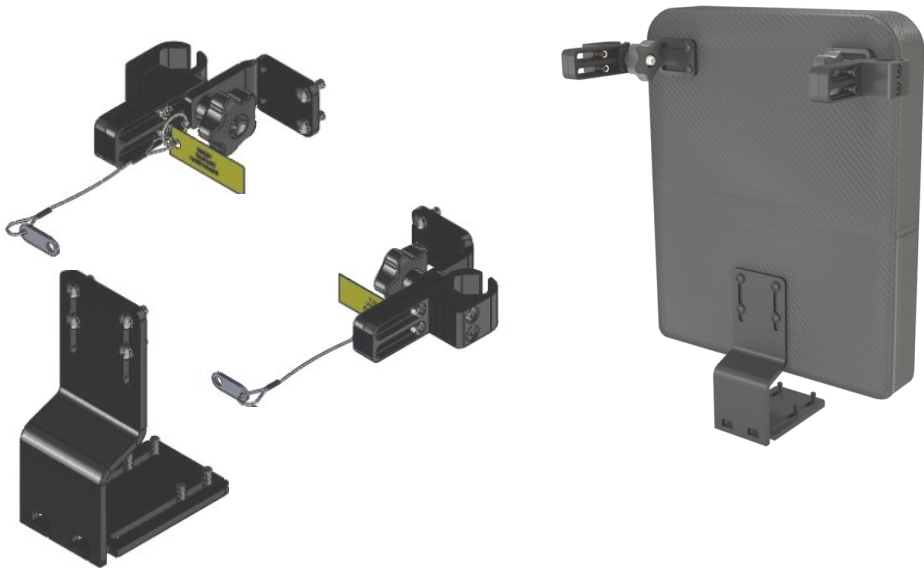
9.2

1. To mount the hardware to the canes, loosen the socket head screws (A).
2. Position the hardware at the desired location and tighten mount into position.
3. If angle adjustment is needed, loosen socket head screws (B). Set to the desired angle and retighten.
4. In order for the L-Bracket to be flush with the back, poke/burn holes through the fabric and mount the button head screws (C) to the back.

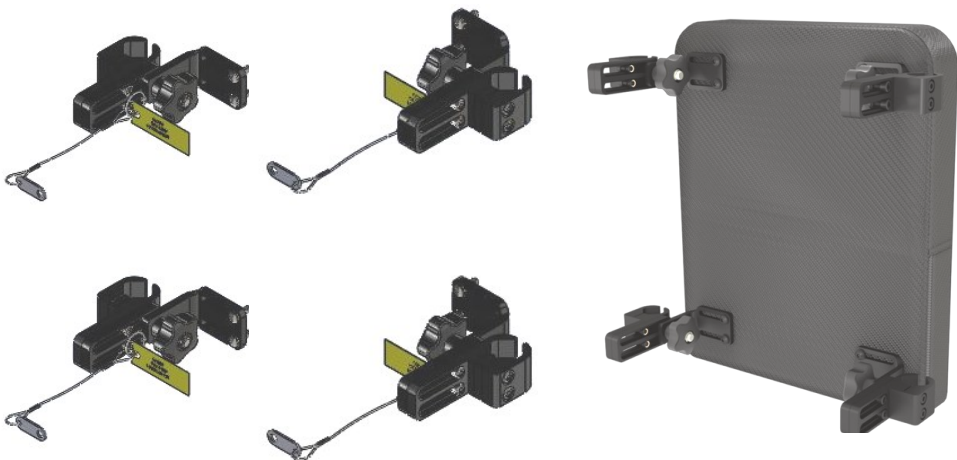
NOTICE

To mount the hardware to a seat base, follow the same mounting instructions mentioned above.

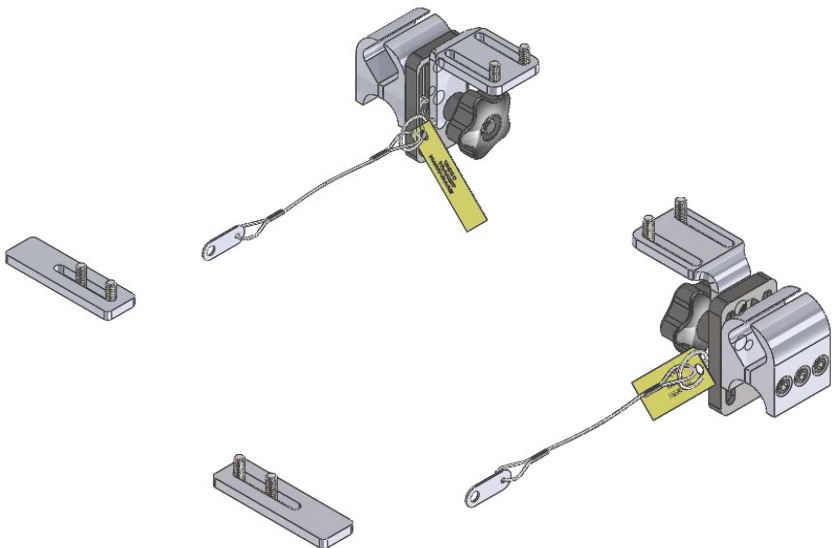
Picture shown includes full assembly of 2 Point Knob Hardware for backs.



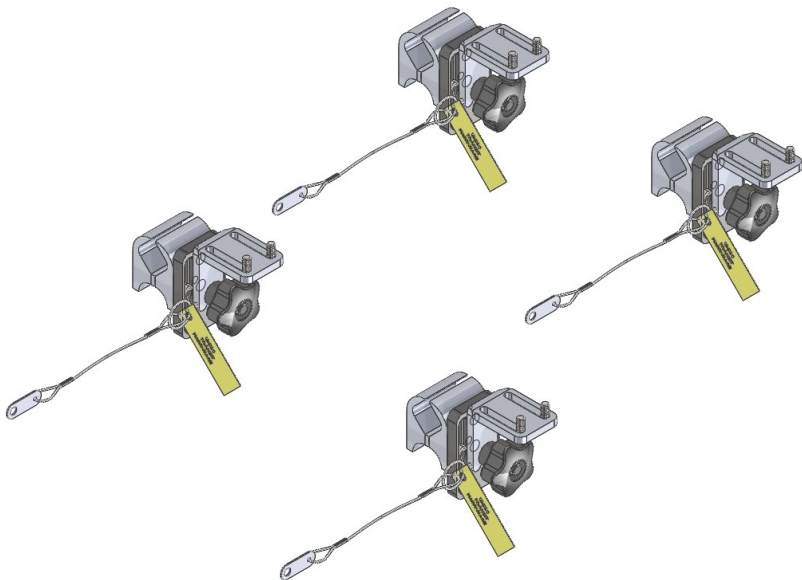
Picture shown includes full assembly of 4 Point Knob Hardware for backs.



Picture shown includes full assembly of 2 Point Knob Hardware for seats:



Picture shown includes full assembly of 4 Point Knob Hardware for seats:





Intended Use

11.1

Stealth Products Knob Hardware has been enhanced to improve securement and functionality.

Transit Pins were added to the hardware:

- To ensure secured points in the event that knob hardware could become loose during transit and detach from the chair.

SAFETY

Keep these pins attached to the chair at all times.

Testing

11.2

Our hardware has been approved and complies with the guidelines of WC20, RESNA WC-4:2009 Section 20.

To be crash test approved:

- A chair must have an approved wheelchair tie-down
- An occupant restraint system (WTORS)

NOTICE

This includes equipment installed in a motor vehicle that allows a wheelchair and/or a wheelchair seated occupant to be anchored by four points in the motor vehicle for limiting occupant movement in a motor vehicle crash.

SAFETY

Even if the client is not seated in the chair during vehicle transportation, the hardware should be approved to protect all others in the vehicle.

## Before Transit:

## 12.1

- 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 knob hardware should be snug and if transit pins are available, they should be inserted. These pins keep the chair attached to the frame even in the event that a knob were to come loose and come off the chair.

## Pre-Transit

## 12.2

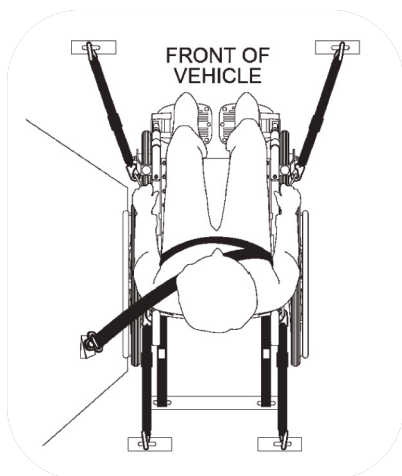
- The chair is in a forward facing position
- All hardware is checked for loose screws or damaged components
- Check that all tie-down straps are secure and restraints are not twisted
- Any loose objects are removed and placed in secure areas
- Seat belt restraints that are compliant with ANSI/RESNA WC/Vol. 4, Section 19/ISO 7176-19 are utilized

In order to meet WC20 standards, the chair must first abide by WC19 guidelines and have approved WTORS (SAE J2249). All guidelines and literature provided by the WTORS manufacturer must be followed.

## General Guidelines

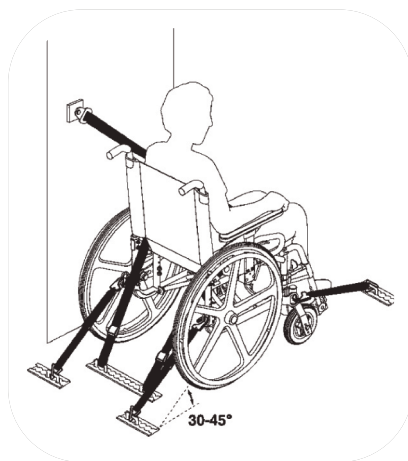
## 13.1

Always secure the wheelchair and occupant in a forward facing position in the vehicle.



- Attach the four tie-down straps only to designated, labeled transit securement points indicated by anchor symbols on the wheelchair.
- Tighten the straps to sufficiently remove all slack. Never attach tie-downs to adjustable, moving, or removable parts of the wheelchair such as armrests, front riggings, and wheels.

- Position the anchor points for the rear tie-down straps directly behind the rear securement points on the wheelchair.
- The front tie-down straps should anchor to floor points that are spaced wider than the wheelchair to provide increased lateral stability.



## Dealer Assistance

### 14.1

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

#### **WARNING**

The Transit Knob Hardware should only be prescribed and fitted by qualified health care professionals.

## User Testing

### 14.2

It is important that the customer is fully aware of the installation and how the headrest can be adjusted in order to gain the best positioning possible. As a dealer, proceed as follows:

- Explain and show the customer how you have executed the installation, and explain the function.

Have the user test the position of the Knob Hardware:

- Is the hardware in the proper position for the client?
- Can the user safely operate the chair?
- Is the placement of the hardware in an optimal position for the user?

If needed, adjust the hardware to the proper position.

Explain to the customer any possible issues and how to address them.

## Conditions of Use

### 14.3

The Transit Knob 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 conditions of use change significantly, please contact your dealer or a qualified service technician to avoid excessive wear and tear or unintended damage.

Care and Maintenance

15.1

- Periodically check the hardware for loose screws or worn parts.
- It may be required to tighten the set screw if the mechanism is loose.
- Gently remove dust and dirt with a damp cloth.

**SAFETY**

Replace or repair parts as needed.



**DANGER**

Failure to comply with these warnings could result in serious bodily harm.

a

b



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