



# Nuage – Sedeo Combination

TECHNICAL GUIDE

EN

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## Nuage PLS

Nuage PLS  
Nuage PLS Active  
Nusage Active XS



Ibis Push chassis, Self Propelled  
PowerSupport and PowerDrive



Puma 20 / 40  
Puma Yes



Sedeo Pro  
Sedeo Original



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This manual describes how to use Keizer's Nuage PLS seating system in combination with Sunrise Medical HCM's Ibis wheelchair with Sedeo Pro seating system.

If you want to use the Nuage PLS seating system in a different combination, ask Keizer about the options and for the appropriate manual.

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## 1 Introduction

### 1.1 This manual

This technical manual explains the mounting of Nuage PLS, Nuage PLS Active and Nuage PLS Active XS seating systems onto the Breezy Ibis manual wheelchair and Puma Power wheelchairs with Sedeo Pro or Sedeo Original seat frames. The mounting can be done with a number of standard parts, supplied with the seating system. For each wheelchair frame model a different setting is needed, if in doubt either contact Sunrise Medical or Revalidatiestoffeerderij Keizer B.V.

Mechanics who do the mounting and repairs on the Nuage seating systems or wheelchairs must be well trained and familiar with the repair methods and the maintenance of the Nuage PLS seating systems and Breezy/Quickie Wheelchairs. Reference must be made to the Nuage, Breezy Ibis and Puma Owners Manuals and technical manuals. Always make sure that the work is carried out safely.

The combination of the Nuage PLS, PLS Active and PLS Active XS with the Breezy Ibis, Puma 20/50, Puma Yes and Sedeo Original and Pro meet the requirements of the Transit standard ISO7176-19.

The following specifications are important when ordering parts:

- Model\*
- ID-number\*
- Part number
- Name of the part concerned

\*This information is provided on the identification plate. See 'Identification of the product'.

#### Available documentation

This manual will help you to combine (mount) the Nuage PLS seating systems to both the Breezy Ibis and Quickie Puma wheelchairs which **MUST** have Sedeo Pro or Sedeo Original seating frames. Other relevant document available / required to service the seating system are the user manuals and technical manuals.

#### Service and technical support

For information concerning specific settings, maintenance or repair works please contact:

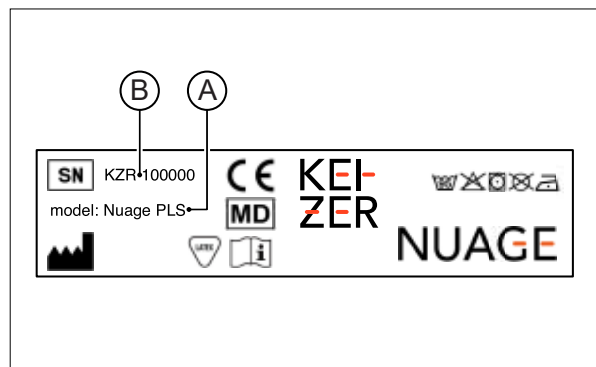
Nuage PLS - Revalidatiestoffeerderij Keizer B.V.

Ibis and Puma wheelchairs - Sunrise Medical Customer Service department.

They are always prepared to help you. Ensure you have at hand:

- Model
- ID-number

### 1.2 Identification of the product



The identification plate contains the following data:

- A. Model
- B. Identification number

See for the location of the identification plate 'markings on the seating system', chapter 2.3

See for the location of the identification plate 'markings on the wheelchair'. Chapter 2.4.

### 1.3 Symbols used in this manual

#### Note!

Pointing out possible problems to the user.

#### ⚠ Caution!

Advice for the user to prevent damage to the product.

#### ⚠ Warning!

Warnings for the user to prevent personal injury.

Not following these instructions may result in physical injury, damage to the product or damage to the environment!

## 2 Safety

### 2.1 Personnel qualification

Repairs may only be carried out by trained, experienced or authorised service technicians.

During the execution of their work, they are at all times fully responsible for the fulfilment of locally applicable safety guidelines and standards.

Temporary employees and persons in training may only carry out repair and replacement work under the supervision of an authorised service technician.

### 2.2 Moving parts

A seating system and wheelchair have moving and rotating parts. Contact with moving parts may result in serious physical injury or damage to the seating system or wheelchair. Contact with the moving parts should be avoided. Identify moving parts in a specific configuration before starting service operations and refer to other applicable service manuals.

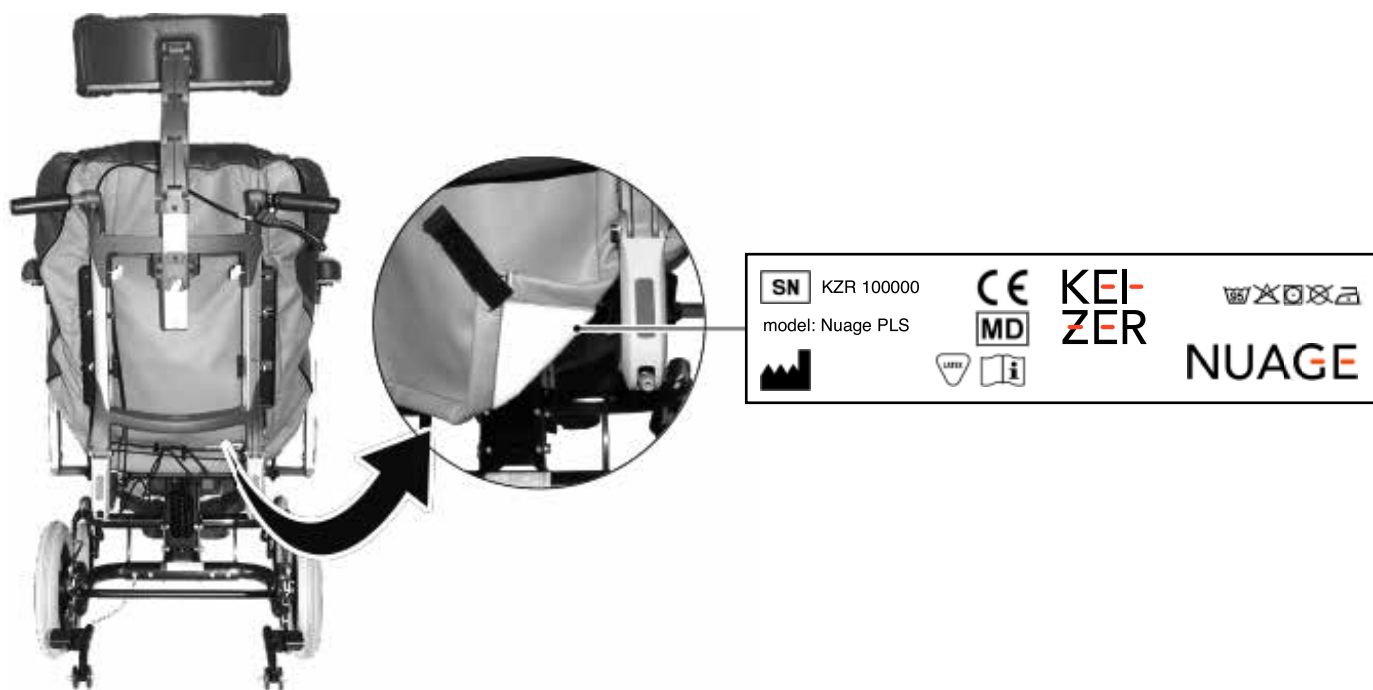
### 2.3 Markings on the seating system

Never remove or cover up the markings, symbols and instructions affixed to the seating system. These safety measures must remain present and clearly legible throughout the entire lifespan of the seating system.

Replace or repair any markings, symbols or instructions that have become illegible or damaged immediately. Please contact your dealer for assistance.

#### Product labels

The following sticker/label can be found on the product:



#### **⚠ Warning!**

*Lighted cigarettes and/or burning matches dropped onto the Nuage PLS seating system can cause a fire resulting in death, serious injury, or damage.*

*Wheelchair occupants are at particular risk of death or serious injury from these fires and resulting fumes because they may not have the ability to move away from the wheelchair.*

*DO NOT smoke or use open flames while using this seating system.*

## 2.4 Marking on the Wheelchairs

Never remove or cover up the markings, symbols and instructions affixed to the seating system. These safety measures must remain present and clearly legible throughout the entire lifespan of the seating system.

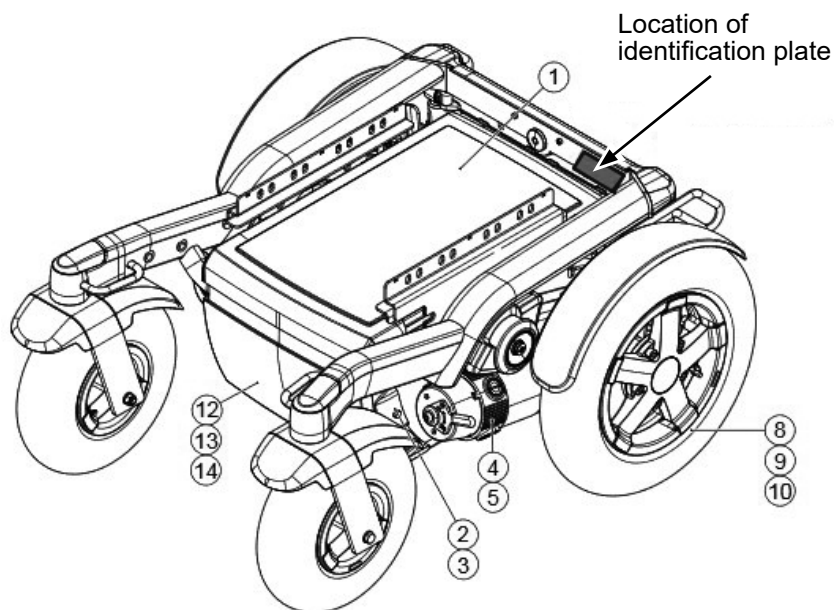
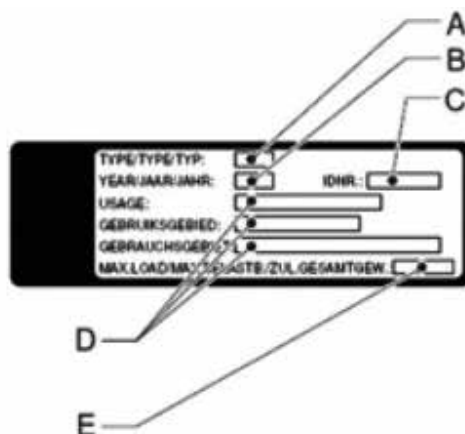
Replace or repair any markings, symbols or instructions that have become illegible or damaged immediately. Please contact your dealer for assistance.

### Product labels

The following sticker/label can be found on the product:

The identification plate contains the following data:

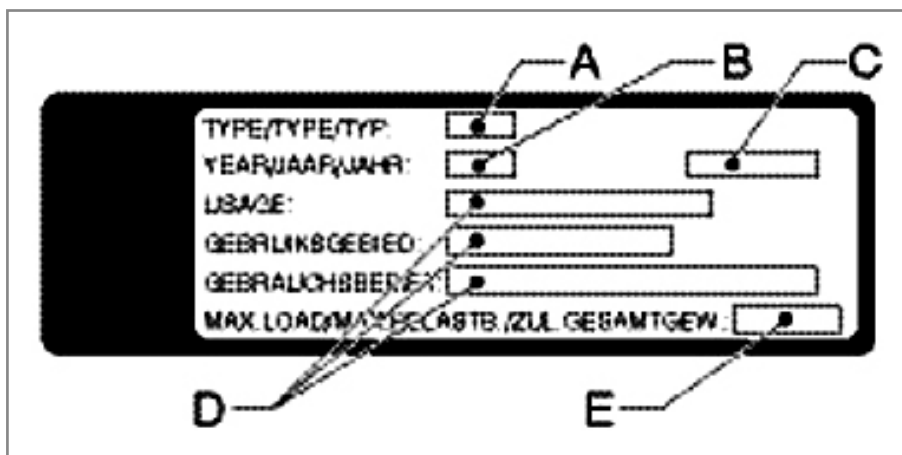
- A. Model
- B. Year of manufacture
- C. Identification number
- D. Use area indoors or outdoors
- E. Maximum load in kg



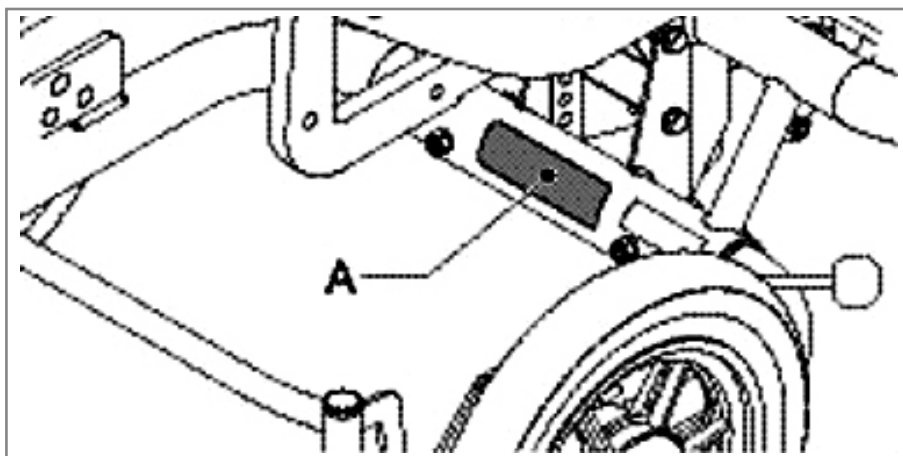
## 2.5 Identification of the product

The identification plate contains the following data:

- A. Model
- B. Year of manufacture
- C. Identification number
- D. Use area indoors or outdoors
- E. Maximum load in kg



The location of the identification plate is indicated with A.



### **⚠ Warning!**

*Lighted cigarettes and/or burning matches dropped onto the Nuage PLS seating system can cause a fire resulting in death, serious injury, or damage.*

*Wheelchair occupants are at particular risk of death or serious injury from these fires and resulting fumes because they may not have the ability to move away from the wheelchair.*

*DO NOT smoke or use open flames while using this seating system.*



### 3 Parts in box and tools to use

#### 3.1 Parts in box

##### Nuage PLS seating system

- Six shell segments (2x backrest segments, 2x seating segments, 2x calf segments)
- Cover complete, incl. spaghetti stuffing
- Webbing, set for back
- Webbing, set for seat
- Threshold Cushion
- User manual

##### **Note!**

*Box does not include mounting sets. These interfaces are specific to the wheelchair model used to carry the seating system and need to be ordered separately. Choose a system mounting set, a calf plate mounting set and optionally a headrest mounting set.*

##### Nuage PLS Active seating system

- Four shell segments (2x backrest segments, 2x seating segments)
- Cover complete, incl. spaghetti stuffing
- Webbing, set for back
- Webbing, set for seat
- Threshold Cushion
- User manual

##### **Note!**

*Box does not include mounting sets. These interfaces are specific to the wheelchair model used to carry the seating system and need to be ordered separately. Choose a system mounting set and optionally a calf plate mounting set and a headrest mounting set.*

##### Nuage PLS Active XS seating system

- Four shell segments (2x backrest segments, 2x seating segments)
- Cover complete, incl. spaghetti stuffing
- Webbing, set for back
- Webbing, set for seat
- Threshold Cushion
- User manual

##### **Note!**

*Box does not include mounting sets. These interfaces are specific to the wheelchair model used to carry the seating system and need to be ordered separately. Choose a system mounting set and optionally a calf plate mounting set and a headrest mounting set.*

#### Mounting sets

Parts in mounting sets vary per wheelchair model. Order the appropriate sets compatible with your wheelchair model or contact Sunrise Medical for tailor solutions.

#### 3.2 Tools to use

The tools below are needed for various mechanical settings and maintenance:

Quantity	Description	Size (mm)
1	Open-end spanner	10 / 13
1	Torque wrench	T30
1	Allen key	5

#### **Caution!**

*Use only high-quality tools for the adjustment(s) described.*

## 4 Nuage systems

This technical manual applies to:

1. Nuage PLS
2. Nuage PLS Active
3. Nuage PLS Active XS
4. Nuage PLS with integrated abduction cushion
5. Nuage PLS Active with integrated abduction cushion
6. Nuage PLS Active XS with integrated abduction cushion



## 5 Mounting sets

The mounting set must be chosen in accordance with the wheelchair model. This technical manual applies to wheelchairs with a Sedeo seating system. Therefore one of the mounting sets below must be used:

- Mounting set Nuage PLS series for Sedeo Pro
- Mounting set Nuage PLS series for Sedeo Original
- Mounting set Nuage PLS series for Sedeo Pro with orthosis backrest

And optional:

- Mounting central calf support for Sedeo Pro
- Mounting central calf support for Sedeo Original
- Mounting headrest support for Sedeo Pro
- Mounting headrest support for Sedeo Original

## 6 Mounting instructions

### 6.1 Glossary

Nuage PLS	Seating system for full body and leg support of passive users with strongly reduced postural stability.
Nuage PLS Active	Seating shell for combined body support and stimulation of (postural) activity in semi-passive users with reduced postural stability.
Nuage PLS Active XS	Seating shell for combined body support and stimulation of (postural) activity in semi-passive children or small adults with reduced postural stability.
Nuage PLS series	refers to all above mentioned seating systems.
Mounting set	Wheelchair model specific mounting interface, mounted between a wheelchair frame and a Nuage PLS seating system.
Shell part	Curved laminated beechwood parts, partially covered with Velcro hook material. Webbing – Adjustable seat and back webbing straps with Velcro loop material.
Cover complete	Preformed PU coated seat cover with soft filled cushion pockets, moulding to the body shape.
Spaghetti stuffing	Cushion filling material (mix of multifiber pellets and pinfoam latex).
Contour cushion	Cylinder-shaped sturdy foam cushion

### 6.2 Maintenance plan

The maintenance plan is a reference guide for maintenance and inspection of the Nuage PLS seating systems. Below, we have indicated what needs to be checked, how often this should be done and by whom: user (or caregiver) / dealer.

		User (or caregiver)	Dealer
Daily	Check hygiene of covers and other surfaces	X	
Every 6 months	Check adjustments		X
	Overall inspection		X

### 6.3 Compatibility with specific wheelchairs and seating systems

Nuage PLS series seating systems are compatible with the Ibis and Puma Wheelchairs with Sedeo Pro or Sedeo Original. Mounting requires standard Nuage parts plus wheelchair frame specific mounting sets, used as an interface between the frame and the Nuage seating system. Specific mounting sets are available for Ibis and Puma wheelchairs with Sedeo Pro or Sedeo Original seat frame.

The Nuage may be mounted to other wheelchairs, if this is required then Revalidatiestoffeenderij Keizer B.V. should be contacted for instructions..

When fitting a wheelchair with Nuage PLS, check for possible interference with the wheelchair adjustment settings. The use of Nuage PLS series seating systems can cause restrictions to the adjustment range of wheelchair settings, specifically the backrest recline angle.

#### Caution!

*Interference might cause damage to the wheelchair or seating system, depending on factors such as seat depth, seat width, use of leg rests, etc.*

## 6.4 Assembly instructions – Nuage PLS series on Ibis and Puma 20/40 wheelchairs with Sedeo Pro

This chapter covers illustrated assembly instructions.

Every separate visual instruction is prefaced with:

- Preparation instructions
- Relevant article numbers
- Tools used
- Info (suggestions and advice to help you carry out tasks or procedures more easily)
- Notices (extra notes covering information you need when executing the specific task)

## 6.5 Mounting the seat shell parts

### Preparation

- Use Sedeo removable armrests with extended armrest sockets.
- Temporarily remove the Sedeo armrests.
- Adjust the Sedeo seat depth to maximum depth for easy access.  
If applicable, also adjust the width of the Sedeo leg rest supports to maximum width.

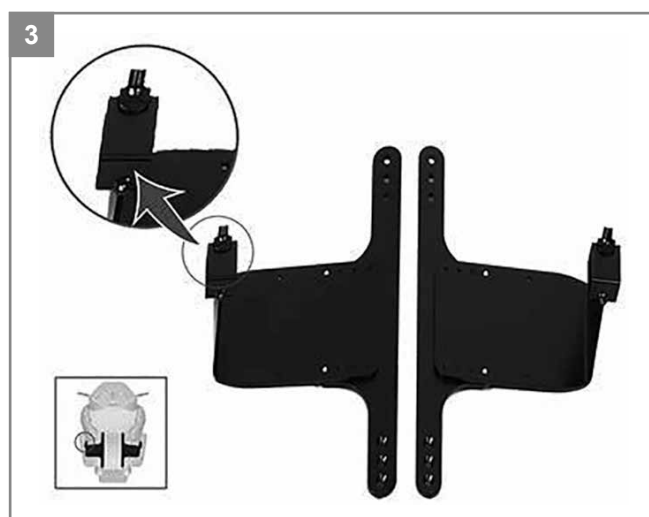
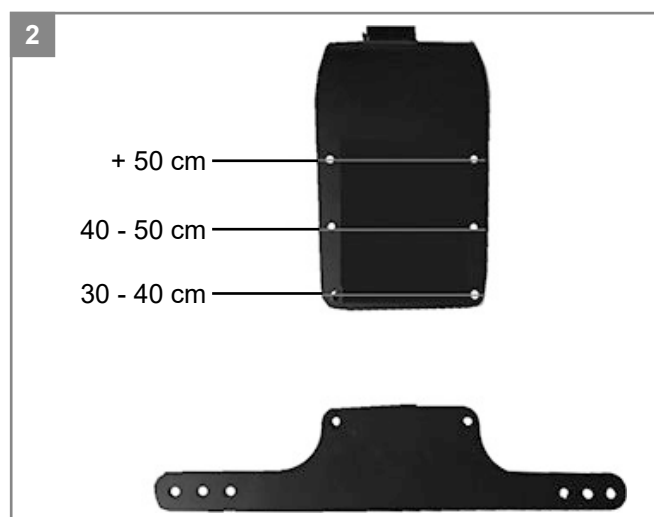
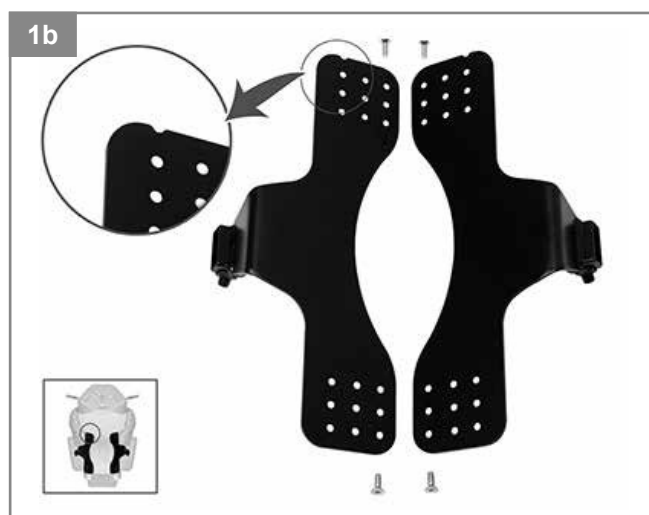
### Instructions:

The following operations are required to mount the seat shell parts:

- Identify the metal parts for mounting the seat shells and identify left and right metal part.  
(Sedeo Pro = picture 2, Sedeo Original is 1B)
- Identify left / right seat shell and back / front of the shells: large curved recesses are situated at the front.
- Bolt the T-shaped metal part to the rounded metal part, using the appropriate screw holes: middle row for a seat width of 40-50cm, inner row for a seat width of +50 cm, outer row for a seat width of 30-40 cm.
- Position the metal parts on the seat shells, small protrusions pointing to the back.
- Bolt the T-shaped metal parts to the seat shells with hex bolts.
- Position the metal parts with shell parts attached on the Sedeo Pro seat frame, aligning them with the extended armrest holders.
- Screw the metal parts to the seat frame.
- Adjust the seat width according to the instructions in the user manual and tightening the fixation screws.

### Tools used

- Torque wrench T30
- Allen key 5
- Open-end spanner 10 / 13



## 6.6 Mounting the back shell parts

### Instructions

The following operations are required to mount the back shell parts:

- Identify the metal parts for mounting the back shells. (Picture 1 = Sedeo Pro, 1B is Sedeo Original and orthosis backframe Sedeo Pro)
- Identify left and right metal part.
- Screw the metal parts to the Sedeo backrest frame. Identify left and right back shell.
- Adjust the backrest angle to an angle between 95 and 110°.
- Screw the back shell parts on the metal parts.
- Adjust the back shell parts according to the instructions in the user manual.

### Tools used:

- Torque wrench T30
- Allen key 5
- Open-end spanner 10 / 13

1b



1



2



3



## 6.7 Fitting the webbing

### Preparation

- Adjust the seat width and backrest width according to the instructions in the user manual.
- Identify the back webbing set: six webbing straps with adjustable buckles plus one simple webbing strap.
- Identify the seat webbing set: four webbing straps with adjustable buckles and four simple webbing straps.

### Instructions

- The following operations are required to fit the back webbing:
- Loop the simple webbing strap through the top recesses in the shell parts and attach on the outside of the backrest shells with Velcro.
- Loop the adjustable webbing straps through the other recesses (two per strap per side) and attach on the outside of the backrest shells with Velcro.
- Use the buckles and Velcro to adjust the strap tension.
- For detailed information please refer to the user manual.

### The following operations are required to fit the seat webbing:

- Please refer to the **Nuage owner's manual** for these instructions .



## 6.8 Mounting the calf plates

### Instructions Sedeo pro

The following operations are required to mount the calf plates on a Sedeo Pro central legrest:

1. Use the bolts to attach the calf support mounting to the Sedeo Pro central legrest.
2. Mount the metal rod (15 x 15) on the calf support mounting set, (use distance bushes).
3. Fixate the calf plates on the calf support tubes screwing four Torx socket head screws in the designated holes in the calf plates.
4. Place the calf support bushes on the metal rod and attach with the bolts.

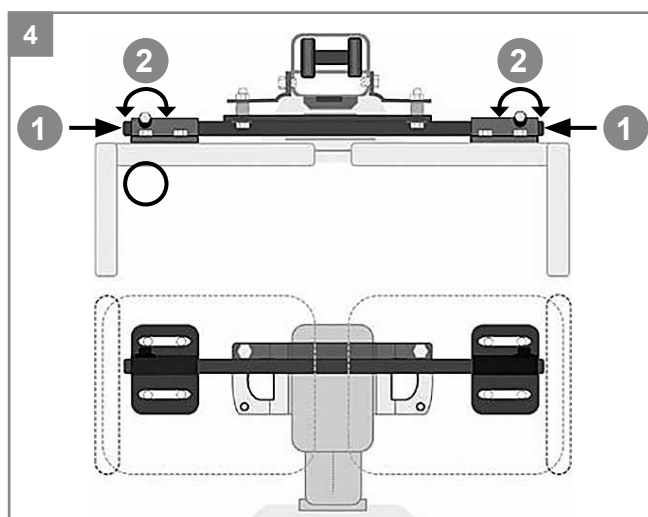
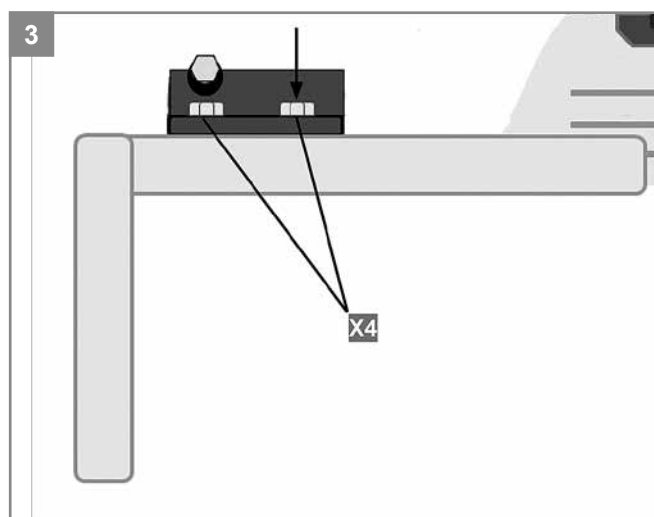
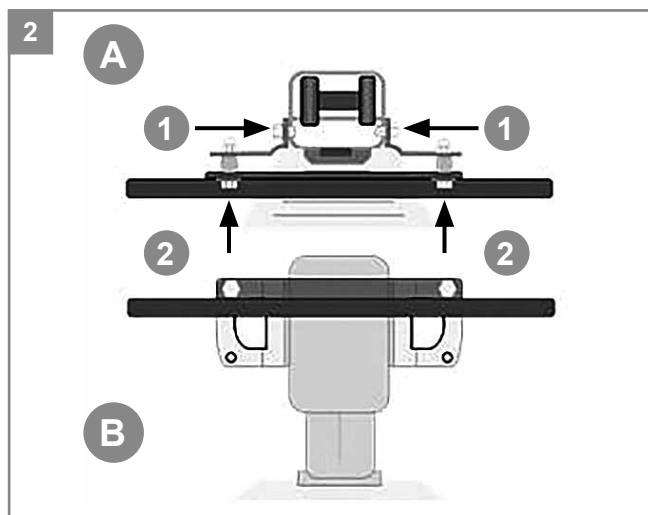
**NOTE:** Frame 2: A = Top View, B = Front View.

### Instructions Sedeo Original:

- Use the bolts to attach the calf support mounting to the Sedeo Original central legrest
- Fixate the calf plates on the calf support tubes screwing four Torx socket head screws in the designated holes in the calf plates.
- Place the calf support bushes on the metal rod and attach with the bolts.

### Tools used:

- Torque wrench T30
- Allen key 5
- Open-end spanner 10 / 13





## 6.9 Fitting the cover

### Instructions

The following operations are required to assemble the fit the cover:

- Drape the stretch cover over the seat, positioning the padded cushion inserts inside the contours of the seat and backrest shells.
- Temporarily lift the back flap of the cover
- At the back of the cover, pull on the elastic cords in the cover seams.
- Use the cord lock stoppers to tighten the cord.
- Knot the elastic cord.
- Close the back flap.
- Tighten the flap by attaching the Velcro straps in the flap corners to the Velcro hook material on the seat shell.



## 6.10 Mounting the foot plate

### Instructions

The following operations are required to mount a Nuage PLS series footplate on a Sedeo foot plate:

- Pinch holes for the bolts in the footplate cover.
- Place the Nuage PLS series footplate and the Sedeo footplate upside down.
- Drill four holes in the Sedeo footplate.
- Attach the Sedeo footplate to the Nuage PLS series footplate tightening the four bolts in the four designated holes with an open-end spanner.

### Tools used

- Drill
- Screw driver
- Open-end spanner 10 / 13



## 6.11 Mounting and placing armrest pads

### Preparations

Use Sedeo removable armrests with extended (except for the Nuage Active XS) armrest sockets and armrest upper parts.

### Instructions

The following operations are required to mount and place the Nuage PLS series armrest pads on Sedeo removable armrests:

- Pinch holes for the bolts in the armrest pad covers.
- Mount Sedeo clamp nuts on the armrest pad screwing Torx socket head screw in the designated holes.
- Slide the clamp nuts in the slot of the armrest receiver.
- Tighten the Torx socket head screws.
- Place the armrest in the armrest holder and tighten the handle.

### Tools used

- Screw driver
- Allen key 5



## 6.12 Mounting and placing a headrest

### Instructions

The following operations are required to mount and place the headrest:

- Attach the headrest to the Sedeo headrest metal parts screwing two Torx socket head screws in the designated holes in the Nuage PLS series headrest.
- Slide the headrest metal parts in the headrest receiver on the wheelchair push bar.

### Tools used

- Torque wrench T30



## 7 Troubleshooting

Possible cause	Check
Seating system not working as it should	Contact Revalidatiestoffeerderij Keizer B.V.
Problems with assembling or adjusting the seating system correctly	Contact Revalidatiestoffeerderij Keizer B.V. Contact Sunrise Medical customer service
Problems with the Ibis or Puma wheelchair	Contact Sunrise Medical customer service

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