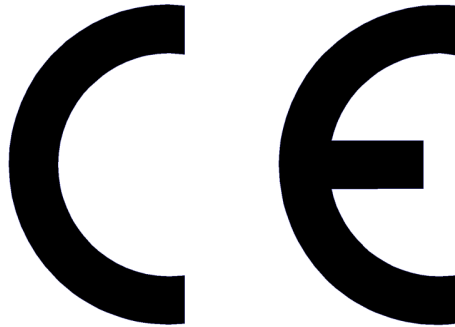




DECLARATION OF CONFORMITY



The manufacturer

Neatech.it

Via A. de Curtis 4/A, 80040, Cercola (NA), Italy

declares that

**the wheelchair EVO 1
(reference code: S045)**

**other names: EVO-1, EVO 1, EVO-1 FWD, EVO-1 RWD, EVO 1 FWD, EVO 1 RWD,
PEGASUS EVO 1**

satisfies the requirements laid down by the European Directive 93/42;

according to the criteria for classification of Annex IX of this Directive, it is classified as:

class I medical device

It also complies with the requirement of the harmonized standards:

UNI EN 12182 – Technical aids for disabled person

UNI EN 12184 – Electrically powered wheelchairs, scooters and their chargers - Requirements and test methods

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Symbols in this manual



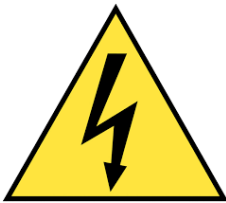
WARNING

This symbol means presence of danger for the user or damage for the product. Always follow instructions when this symbol is present.



PINCH HAZARD

This symbol means presence of pinch hazard.



ELECTRICAL WARNING

This symbol means presence of danger related to the presence of electrical energy. Please pay special attention when this symbol is present.



INFORMATION

This symbol means general information intended to simplify or best explain the use of the product.



CONTACT INFORMATION

This symbol means the need of contacting an authorized service center or the manufacturer.



TEMPERATURE

The temperature of some surfaces may increase when the product is exposed to external heat sources as direct sunlight.



TIPPING HAZARD

Tipping hazard is strongly reduced because of the design of the product according to EN 12182.

In any case, please pay special attention during the adjustments and use of the product to prevent any damage to the user or product itself.

Any transport on a slope greater than the maximum safety slope can be dangerous.

Please don't seat on armrests.



ANTI-TIP DEVICES

Using anti-tippers substantially reduces your risk of falling over, which can cause serious injury. The Anti-Tippers will keep you from falling over, but they will limit your ability to be pulled up curbs and some other maneuvers.

IT IS NOT POSSIBLE TO HAVE THIS WHEELCHAIR WITHOUT ANTITIP DEVICES.



Center of balance of the wheelchair and so its stability can be affected by:

- User position
- Use of a backpack
- Tilting of the seat



PINCH HAZARD

Make sure your feet do not hang up or get caught in the space between the footrests. In general, make sure you have proper space in areas you will travel through to minimize pinching or entrapment of body parts.

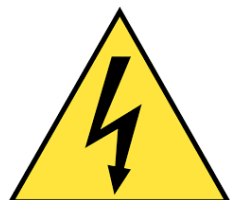
ELECTROMAGNETIC RADIATION DANGER

The behavior of the wheelchair while driving may be affected by electromagnetic fields created by transceivers such as: Citizens band (CB) radios, walkie-talkies, fire and police radios, cellular phones, lap-top computers, commercial radio and television broadcast antennas. PLEASE USE CAUTION in the presence of these devices.

Electromagnetic radiation can cause your chair, without warning, to:

- release its brakes
- move by itself
- move in unintended directions

If any of these occur, it could result in severe injury to you or others. Electromagnetic radiation can damage the control system of your chair. There is no way to know the effect on electromagnetic immunity if you add accessories or modify this chair. Any change to your chair may increase the risk related to electromagnetic radiation. Parts from other suppliers have unknown electromagnetic properties. **The wheelchair might disturb the operation of devices in its environment.**



INFORMATION

For information on how to obtain information and instructions in a format appropriate for use by visually impaired people please contact the manufacturer.

Service manual is intended for technical personnel to maintain and repair wheelchairs. It is important to follow the instructions contained in this manual in order to professionally work with the product.

The qualified personnel who works with wheelchairs must comply with all provisions of occupational safety and common sense in order to preserve his own safety.

The manufacturer declines all responsibility for any accidents occurring during the working with the product.

WARNING: It is prohibited to use the product or its parts for any purpose other than that indicated. For a correct use please follow the instructions given in this manual. The manufacturer disclaims any responsibility for damages caused by improper use of the product.

The manufacturer disclaims any responsibility for inappropriate selection of product model and configuration.

Information in this manual may be subject to change without notice. All information, pictures and specifications are based on the product details that were available at the time of preparation of this document. They are representative examples and they are not intended to be exactly as the actual product.

MODIFICATIONS

Any unauthorized modification to the product may increase the risk of personal injury and damage to the product itself. All modifications should be done by an authorized service center.

Do not use any unauthorized accessories or spare parts on the product. Do not use the product in combination with other medical devices without first having considered any risk due to combination of more products.

MANUFACTURER

For any need not expressly explained in this manual, please contact the manufacturer.

Neatech.it SRL

via A. de Curtis 4/A, 80040, Cercola (NA), Italy

www.neatech.it – info@neatech.it - +39 081 555 1946

INCIDENT REPORTING

If an incident occurs, please contact an authorized service center. For a list of authorized service center please contact the manufacturer.



DISPOSING

This product and all its components can not be treated as household waste. For more detailed information on how recycling and disposal this product contact your local waste disposal service.

1 PRODUCT INFORMATION

Evo1 is a strong wheelchair, incredibly steady and made of high quality components for a comfortable and safe driving performance anywhere you go.

Evo1 has a a minimal and well thought design, extremely compact and ideal for both indoor and outdoor use, due to its small dimensions and the turning radius reduced to the minimum.

It is available with front or rear wheel drive and a wide range of options and alternative driving systems.

The chassis is available in 2 sizes: small 49 cm and large 55 cm.

There is a choice of 16 colors, combinable so you can easily add a personal touch to the wheelchair.

The modular seat structure is highly customizable, according to your own specific needs and it can grow and develop together with the young user, with a wide range of interchangeable support and positioning options.

Total wheelchair weight	MAX 125 kg
Maximum user weight	MAX 150 kg
Seat width	MIN 300 mm – MAX 460 mm
Batteries	2x 12 V 35 Ah / 2x 12 V 50 Ah
Charger	6 A
Power module	VR2 60 A / Rnet 80 A
Motors	2x 220 W

2 PREPARATION FOR FIRST USE

2.1 Checks to be made on delivery

- Check for the integrity of the original packaging.
- Check for any anomalies on shipping documents.
- Check for the functionality and integrity of the device in all its parts, at the time of delivery or immediately thereafter, to ensure that no damage has resulted from a careless transport.
- Make sure the surface of the device is not damaged, scratched, bent, etc.
- Any fault or damage found must be immediately reported on the shipping documents and promptly communicated to the shipper.

2.2 Unpacking

Inside the box there are:

- Evo1 wheelchair
- Documents and manual
- Charger

The wheelchair is delivered already mounted and ready to use. Before starting to use the wheelchair please check if all described components are present. **If not, please contact as soon as possible the vendor.**



PACKAGING DISPOSAL

To properly recycle the packaging materials follow instructions provided by your local waste disposal service.

2.1 Software description

The wheelchair, according to specific configuration, can be equipped with Rnet system or VR2 system.

The software of the wheelchair can be categorized into these classes:

- Kernel software of power module.

There is no required access, modification or customization of this part of the software



In case a reprogramming of the wheelchair is required, please contact the manufacturer to have instructions and the most suitable version of the software.

In case of problems with this part of the software please contact the manufacturer.

- Software parameters of the wheelchair.

This part of the software is made by the manufacturer. It is intended to assure driving and seating function of the wheelchair. It is responsibility of the manufacturer to correct program parameters regarding the structure of the wheelchair.

Qualified personnel of an authorized service center are able to customize this part of the software to best fulfill single user requirements.



Programming must be conducted only by qualified personnel with in-depth knowledge of the wheelchair and power module system.
Any change to this part of the software may result in a hazardous situation for the user.

3 ADJUSTMENTS

3.1 List of adjustments

Type of operation	
A	Operation intended to be performed by the user.
B	Operation intended to be performed by an assistant.
C	Operation intended to be performed by an authorized service center.

Table 1

Adjustment	Type of operation
Seat depth	B - Assistant
Backrest angle	B - Assistant
Armrests depth	B - Assistant
Armrests height	B - Assistant
Sidepad height	B - Assistant
Footplates height	B - Assistant
Footplates angle and depth	B - Assistant
Joystick position	B - Assistant
Calf support position	B - Assistant
Legrest angle	B - Assistant

Table 2

3.2 Seat depth

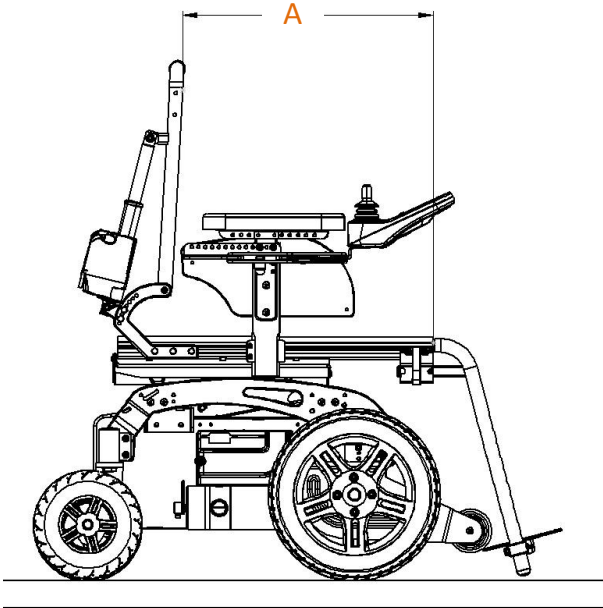
	WHEELCHAIR SIZE	(A) MIN VALUE	(A) MAX VALUE
	M1 - S045-V067	300 mm	420 mm
	M2 - S045-V068	340 mm	460 mm
	M3 - S045-V069	380 mm	440 mm
	M3 - S045-V070	440 mm	500 mm
	M4 - S045-V071	400 mm	460 mm
	M4 - S045-V072	460 mm	520 mm
	M5 - S045-V073	460 mm	520 mm

Table 3



WARNING

It is needed to set separately left and right seat depth. Always set them at the same manner.



Average needed time:

5 min



Difficulty level:

Easy

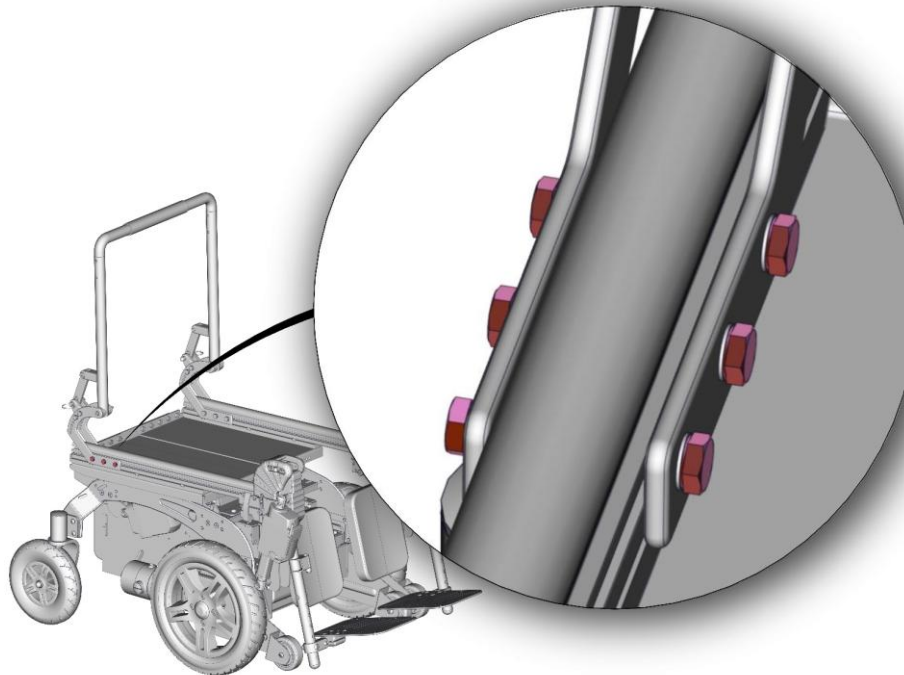


Figure 1

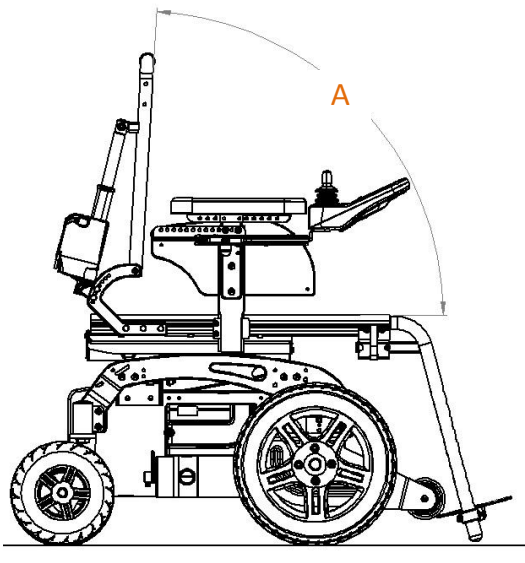
- Remove the backrest.
- Loosen the 6 screws shown in figure.
- Repeat operations for both left and right side of the wheelchair.
- Set the backrest according to the desired seat depth.
- Tight again the 6 screws.
- Repeat operations for both left and right side of the wheelchair.
- Mount again the backrest.

OPEN-END WRENCH



10 mm

3.3 Backrest angle

	BACKREST CONFIGURATION	(A) POSSIBLE VALUES
	Angle adjustable with fixed position	90° or 110° 95° or 115° 100° or 120° 105° or 125° 110° or 130° 115° or 135°
	Angle adjustable with pistons	See section 3.3.1
	Powered backrest	90° - 130°



WARNING

It is needed to set separately left and right backrest angle. Always set two parts of backrest at the same manner.



Average needed time:

5 min



Difficulty level:

Easy

Powered legrest

- Act on the joystick as described in section 4.1.

Angle adjustable with pistons

Use the lever located on the push bar to move the backrest.

Angle adjustable with fixed position

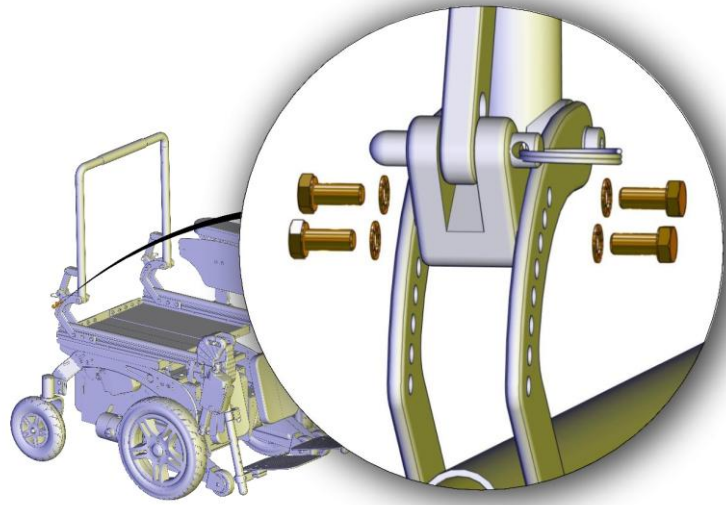


Figure 2

- Unscrew the 4 screws shown in figure.
- Repeat operations for both left and right side of the wheelchair.
- Set the position of the hardware highlighted in figure according to the desired backrest angle.
- Screw again screws.
- Repeat operations for both left and right side of the wheelchair.

OPEN-END WRENCH



10 mm

ADDITIONAL ADJUSTMENT

After adjusted the angle of backrest as described above it is possible to adjust of more 20° simply acting on the axis shown in figure.

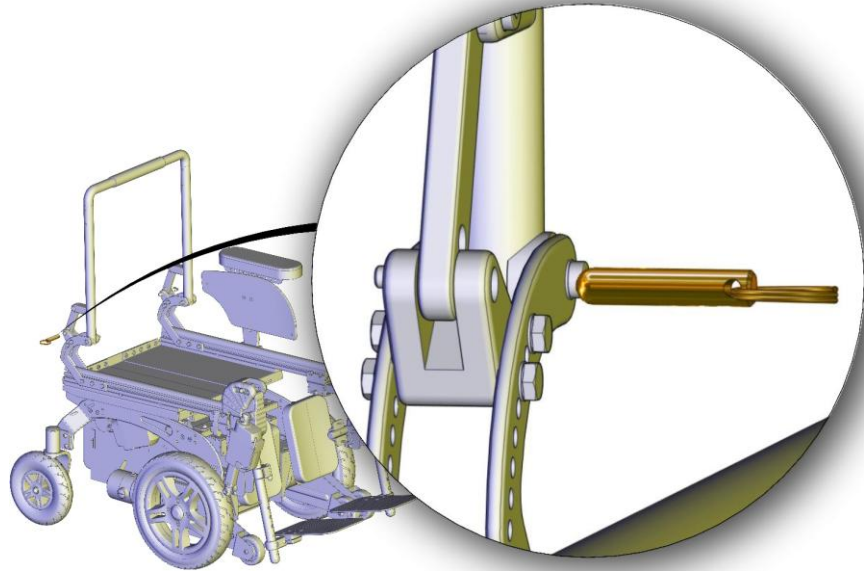


Figure 3

3.3.1 Adjunctive backrest angle adjustment



WARNING

This section refers only to angle adjustable backrest with pistons.



WARNING

It is needed to set separately left and right backrest angle. Always set two parts of backrest at the same manner.



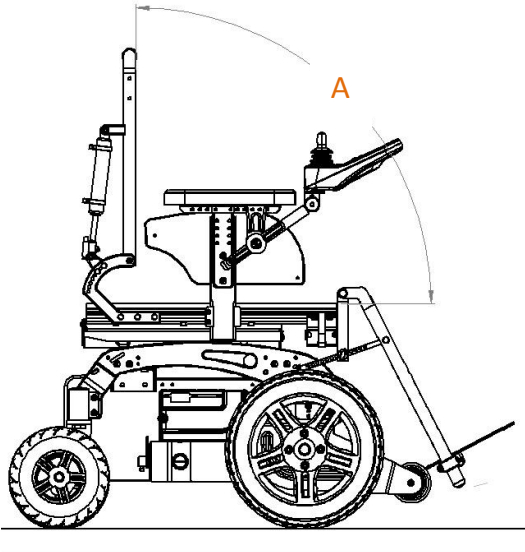
Average needed time:

5 min



Difficulty level:

Easy

	BACKREST CONFIGURATION	(A) POSSIBLE VALUES
	<p>Angle adjustable with pistons</p>	<p>90° - 130° 95° : 130° 100° : 135° 105° : 135° 110° - 140° 120° - 145°</p>

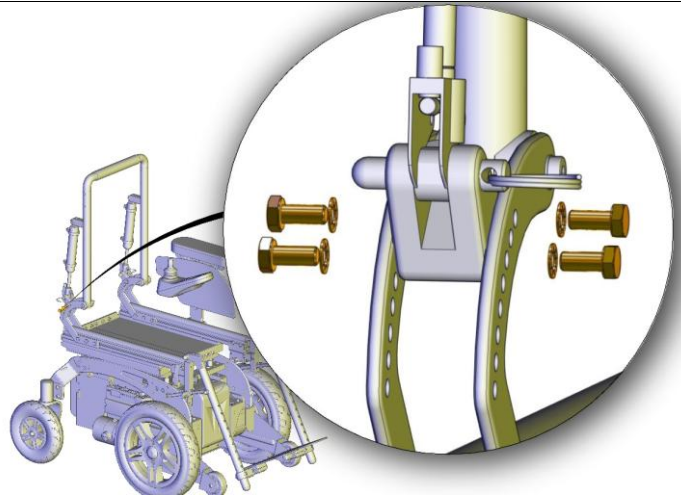


Figure 4

- Unscrew the 4 screws shown in figure.
- Repeat operations for both left and right side of the wheelchair.
- Set the position of the hardware highlighted in figure according to the desired backrest angle.
- Screw again screws.
- Repeat operations for both left and right side of the wheelchair.

OPEN-END WRENCH



10 mm

3.4 Armrest depth



RANGE

It is not easy to provide a range for adjustment of armrests depth because there are too many configuration and possibilities.



RIGHT AND LEFT SIDE

It is possible to adjust separately left and right side.



Average needed time:
<5 min



Difficulty level:
Easy



RANGE

Please be sure that the chosen position doesn't represent an obstacle.

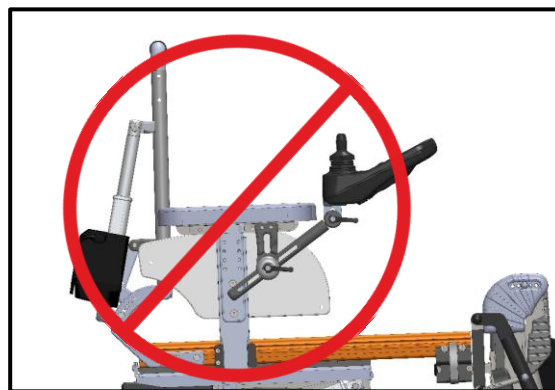


Figure 5

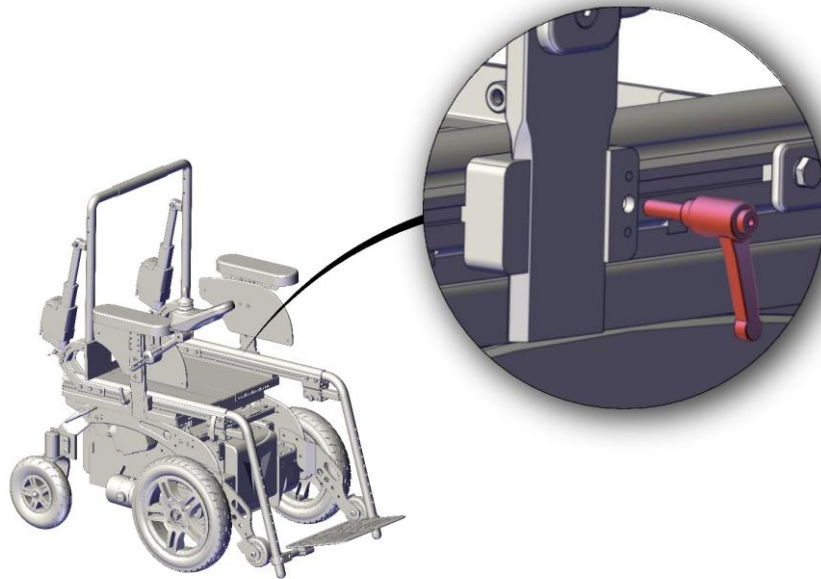


Figure 6

- Loosen the lever shown in figure and remove the armrest.

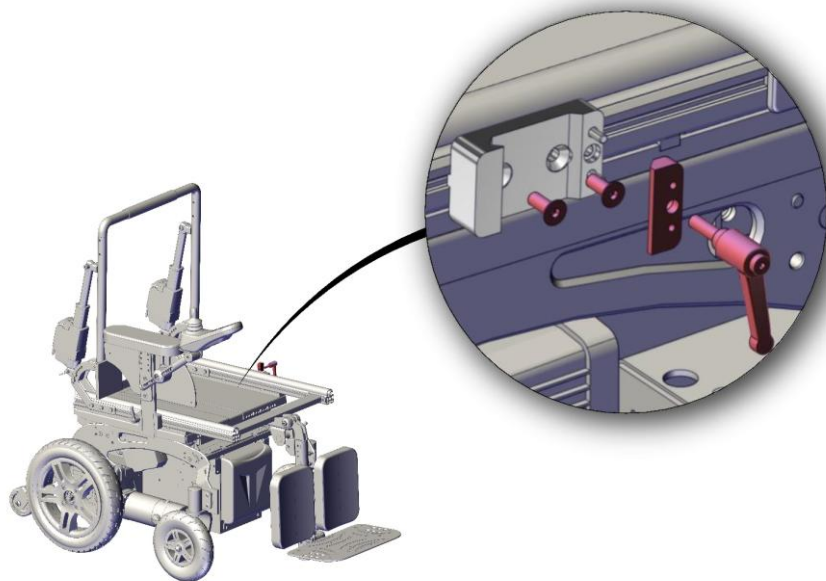


Figure 7

- Unscrew the lever shown in figure.
- Loosen the 2 screws shown in figure and set the depth of armrest clamp as desired.
- Tighten again the 2 screws and put back the armrest.

ALLEN WRENCH



4 mm

ADDITIONA ADJUSTMENT

Moreover it is possible to adjust armrest depth unscrewing the 2 screws shown in figure with a 4 mm allen wrench.

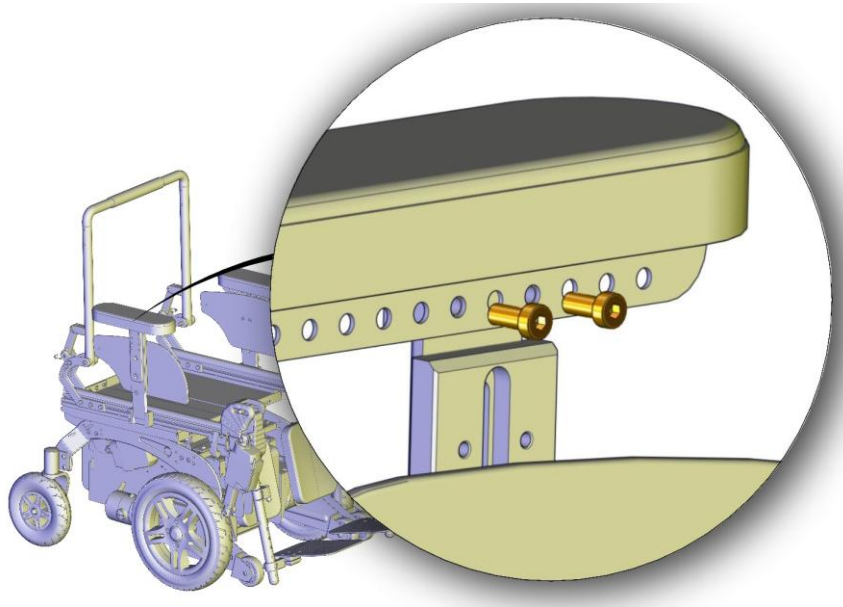
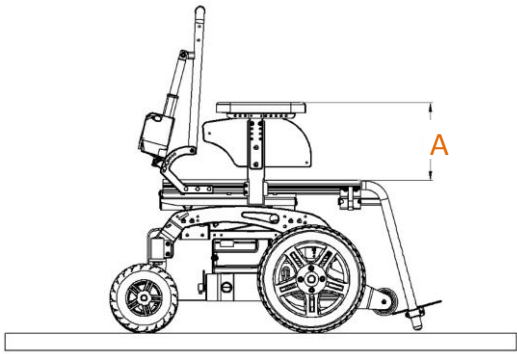


Figure 8

3.5 Armrest height

	WHEELCHAIR SIZE	(A) MIN VALUE	(A) MAX VALUE
	S045-V401	200 mm	270 mm
	S045-V402	260 mm	340 mm



RIGHT AND LEFT SIDE

It is possible to adjust separately left and right armrest.



Average needed time:

<5 min



Difficulty level:

Easy



SIDEPAD, JOYSTICK AND ARMREST HEIGHT

It is better to adjust first armrest height, then joystick and finally the sidepad.

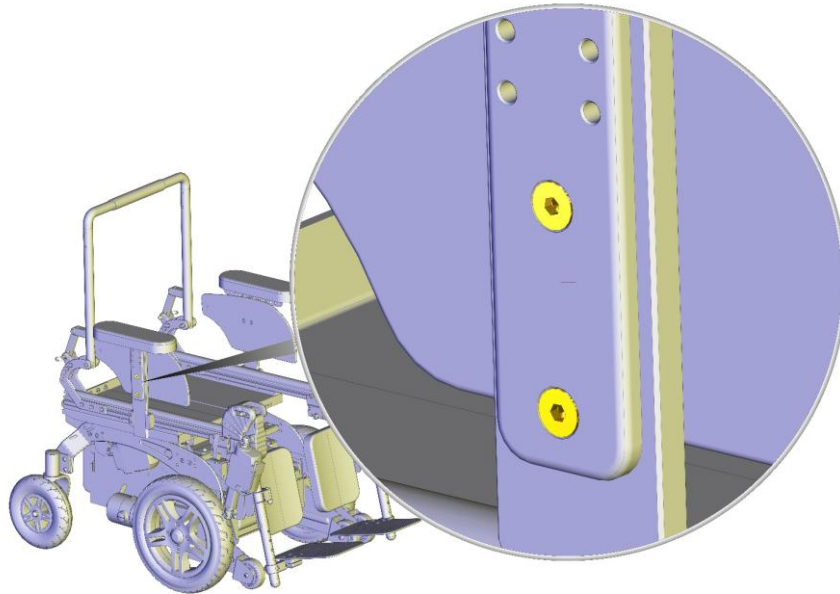


Figure 9

- Loosen the 2 screws shown in figure.
- Set the armrest according to the desired height.
- Tight again the 2 screws.

ALLEN WRENCH



4 mm

3.6 Sidepad height



RANGE

It is not easy to provide a range for adjustment of sidepad because there are too many configuration and possibilities.



RIGHT AND LEFT SIDE

It is possible to adjust separately left and right sidepad.



SIDEPAD, JOYSTICK AND ARMREST HEIGHT

It is better to adjust first armrest height, then joystick and finally the sidepad.



Average needed time:

<5 min



Difficulty level:

Easy

RANGE

Please be sure that the chosen position doesn't represent an obstacle for armrest.



Figure 10

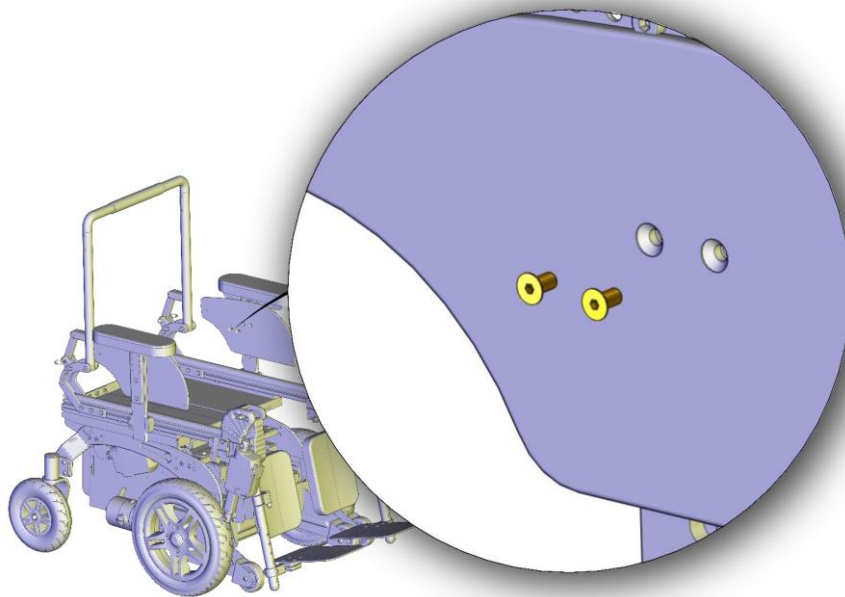


Figure 11

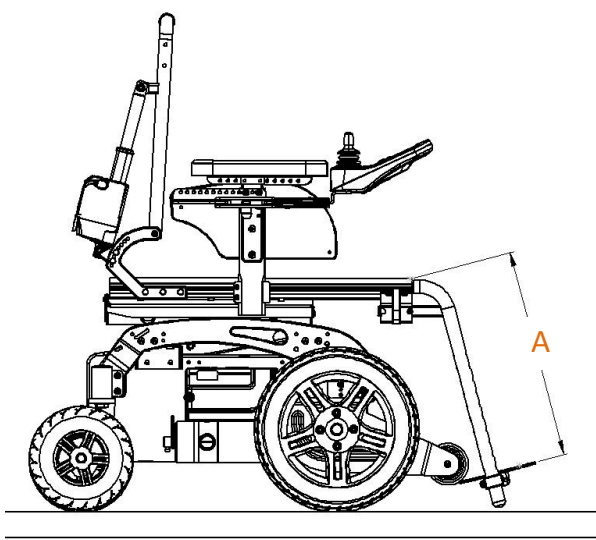
- Unscrew the 2 screws shown in figure and set the position of sidepad as desired.
- Screw again the 2 screws.

ALLEN WRENCH



3 mm

3.7 Footplates height

	LEGREST CONFIGURATION	(A) POSSIBLE VALUES
	Fixed angle	150 mm 175 mm 200 mm 225 mm 250 mm 275 mm 300 mm 325 mm 350 mm 375 mm 400 mm
	Angle adjustable	150 mm 175 mm 200 mm 225 mm 250 mm 275 mm 300 mm 325 mm 350 mm 375 mm
	Central mounted legrest	165 mm 185 mm 205 mm 225 mm 245 mm 265 mm 285 mm 305 mm 325 mm 345 mm 365 mm 385 mm
	Powered legrest	255 mm 280 mm 305 mm 330 mm 355 mm 380 mm



RIGHT AND LEFT SIDE

It is possible to adjust separately left and right legrest if you have splitted footrest.



INFORMATION

With calf supports, it is possible that some footplates heights can't be reached.



Average needed time:
<5 min



Difficulty level:
Easy

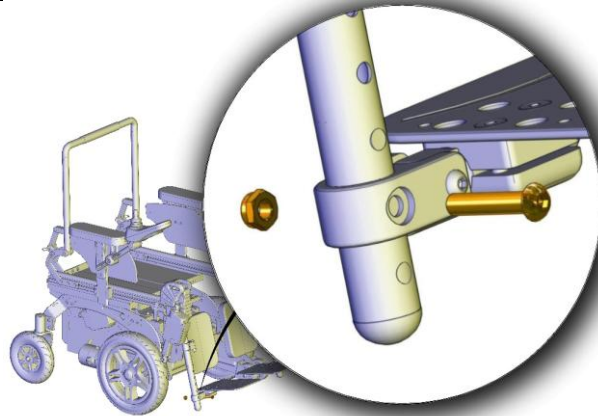


Figure 12

- Unscrew the screw shown in figure with the allen wrench while holding the nut behind with the open-end wrench.
- Repeat the operation for both left and right side of the wheelchair.
- Set the position of the footplate according to desired height.
- Screw again the screws.

ALLEN WRENCH



5 mm

OPEN-END WRENCH



13 mm

Central mounted legrest

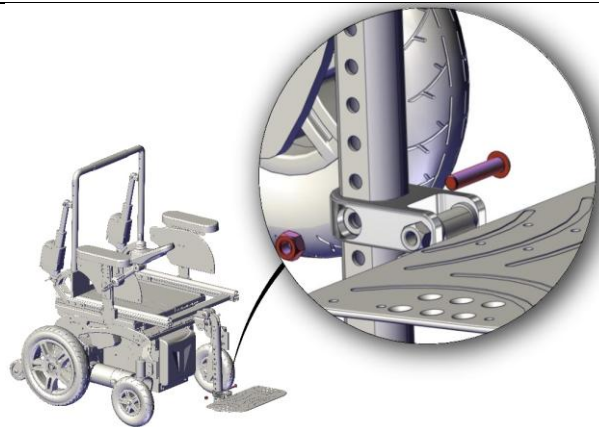


Figure 13

- Unscrew the screw shown in figure with the allen wrench while holding the nut behind with the open-end wrench.
- Set the position of the footplate according to desired height.
- Screw again the screws.

ALLEN WRENCH



5 mm

OPEN-END WRENCH



13 mm

3.8 Footplates depth and angle



RANGE

It is not easy to provide a range for adjustment of footrests because there are too many configuration and possibilities. In any case it is always possible to choose between 3 different depth.



RIGHT AND LEFT SIDE

It is possible to adjust separately left and right legrest if you have splitted footrest.



Average needed time:

<5 min



Difficulty level:

Easy

Angle adjustment

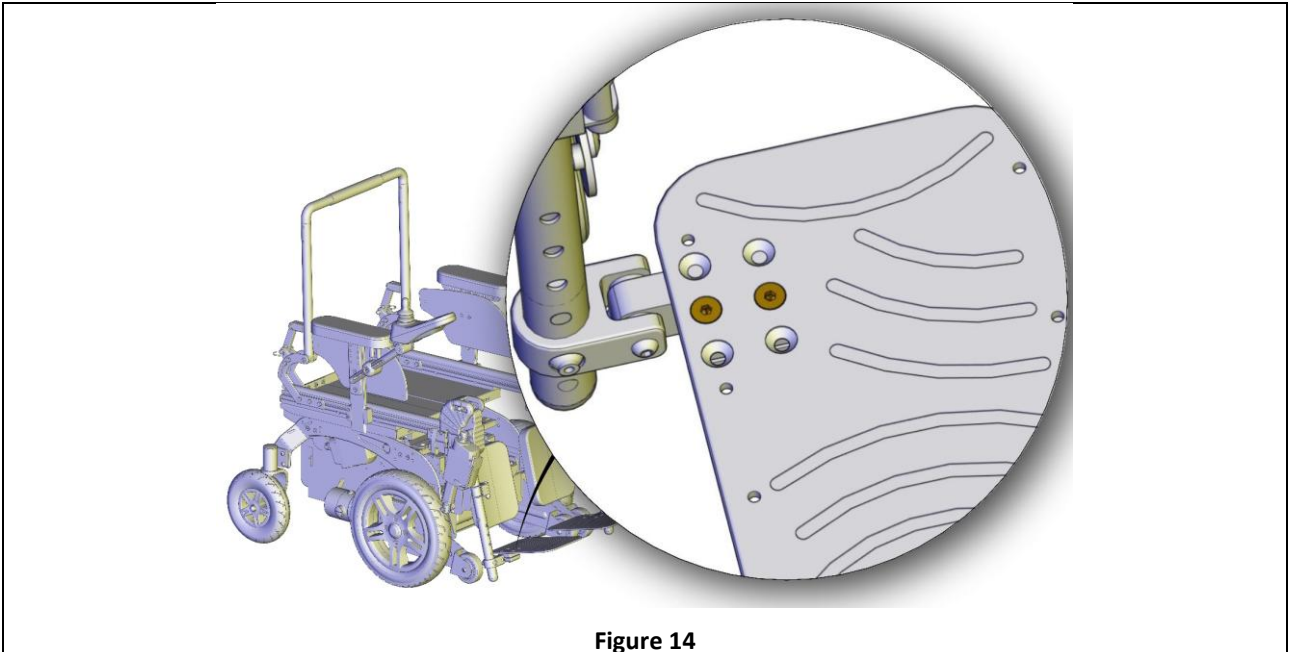


Figure 14

- Loosen the 2 screws shown in figure.
- Set the position of the footplate according to desired angle.
- Tighten again the screws.

ALLEN WRENCH



4 mm

Central mounted legrest

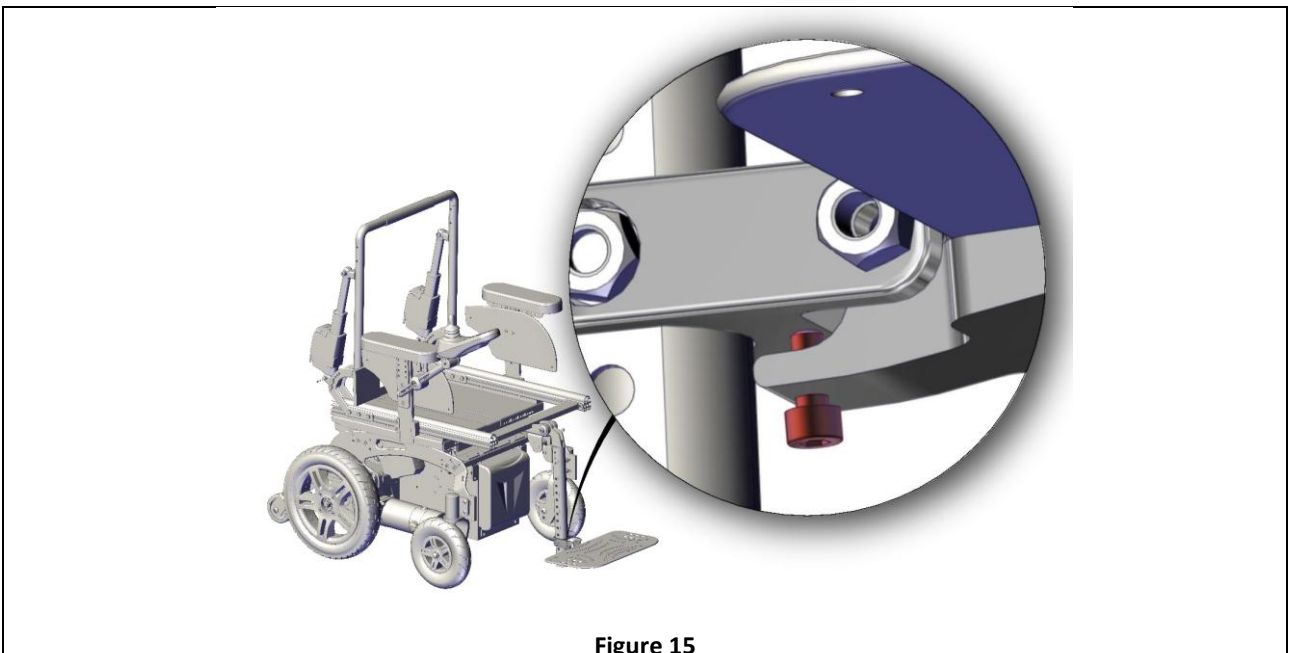


Figure 15

- Loosen the screw shown in figure to lower the footplate. Tighten it to rise the footplate.

ALLEN WRENCH



4 mm

Depth adjustment

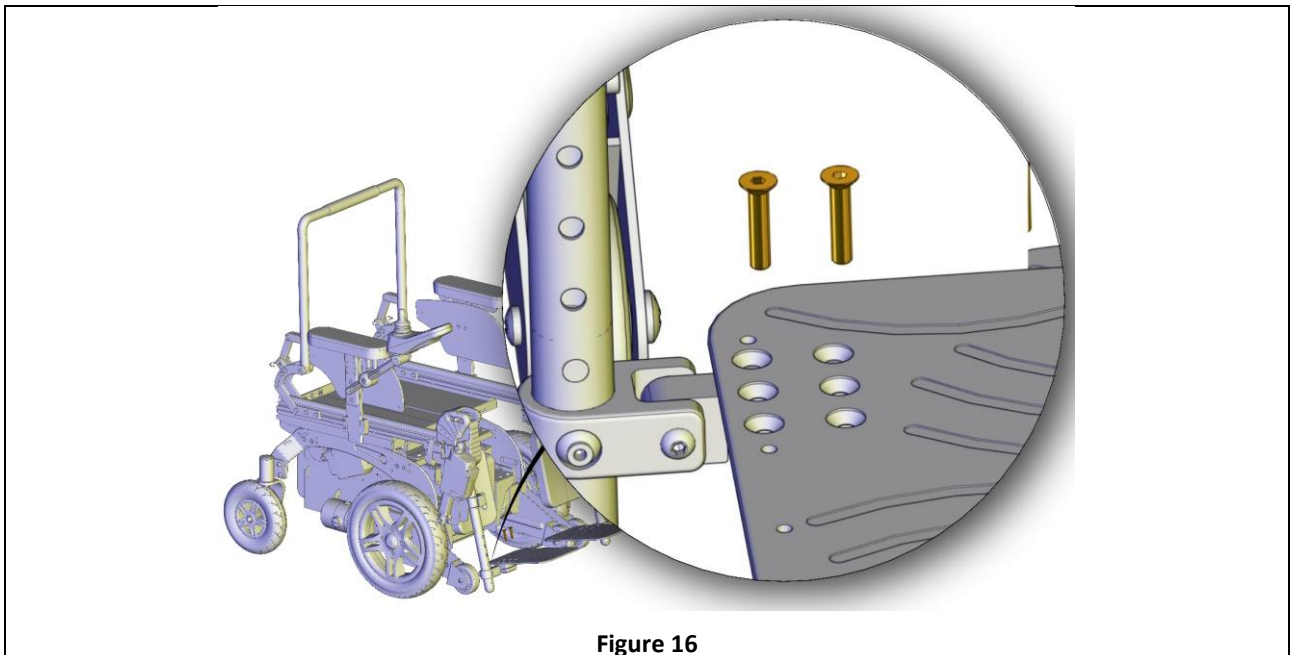


Figure 16

- Unscrew the 2 screws shown in figure.
- Set the position of the footplate according to desired depth.
- Screw again the screws.

ALLEN WRENCH



4 mm

Central mounted legrest



RANGE

It is not possible to perform this adjustment with central mounted legrest.

3.9 Calf support position



RANGE

It is not easy to provide a range for adjustment because there are too many configuration and possibilities.



RIGHT AND LEFT SIDE

It is possible to adjust separately left and right side.



Average needed time:

<5 min



Difficulty level:

Easy

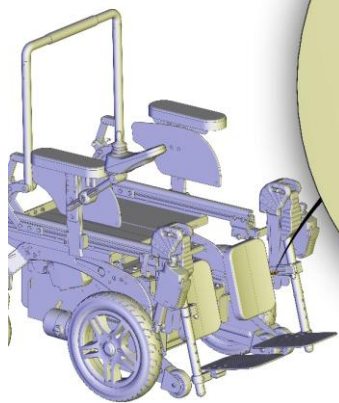


Figure 17

- Unscrew the 2 screws shown in figure and set the position of calf support as desired.
- Screw again the 2 screws.

ALLEN WRENCH



4 mm

ADJUNCTIVE ADJUSTMENT

Moreover it is possible to choose the angle of calf support simply by pulling or pushing it.

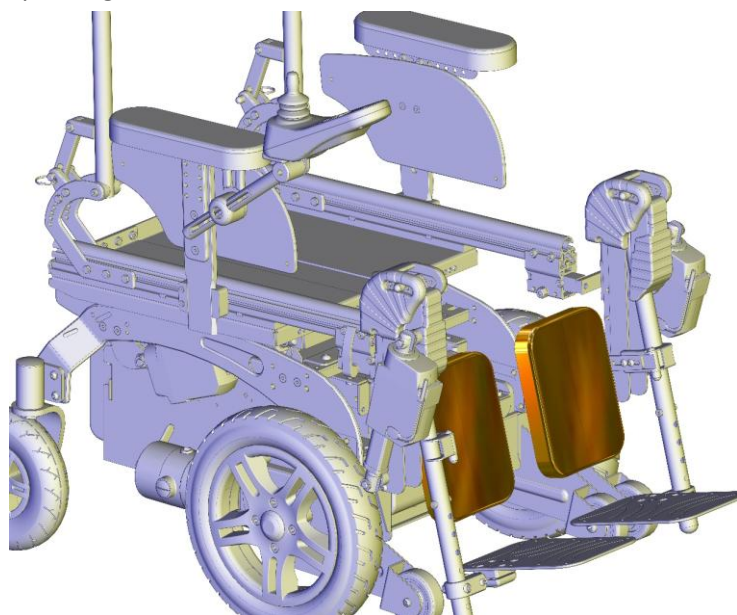


Figure 18

Central mounted legrest

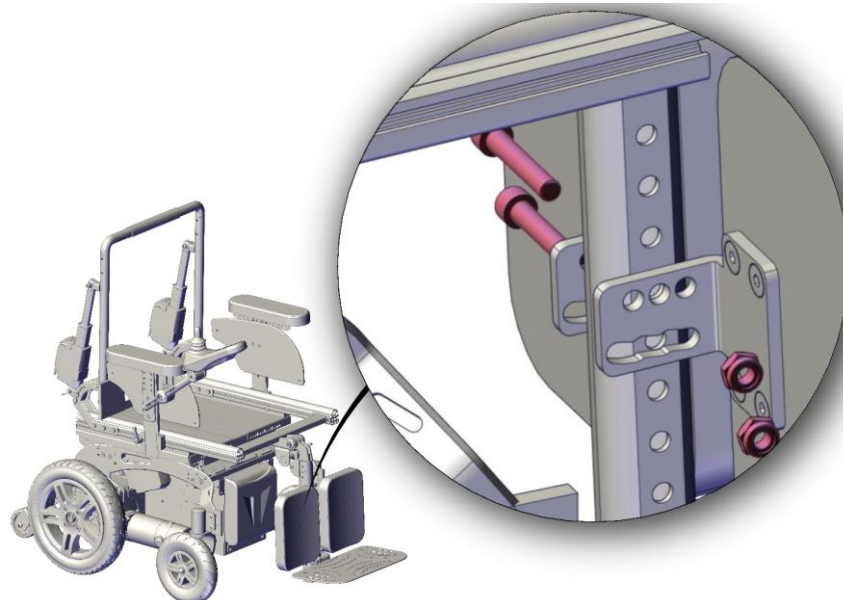


Figure 19

- Unscrew the screw shown in figure and set the height of calf support as desired.
- Screw again the 2 screws.

ALLEN WRENCH



6 mm

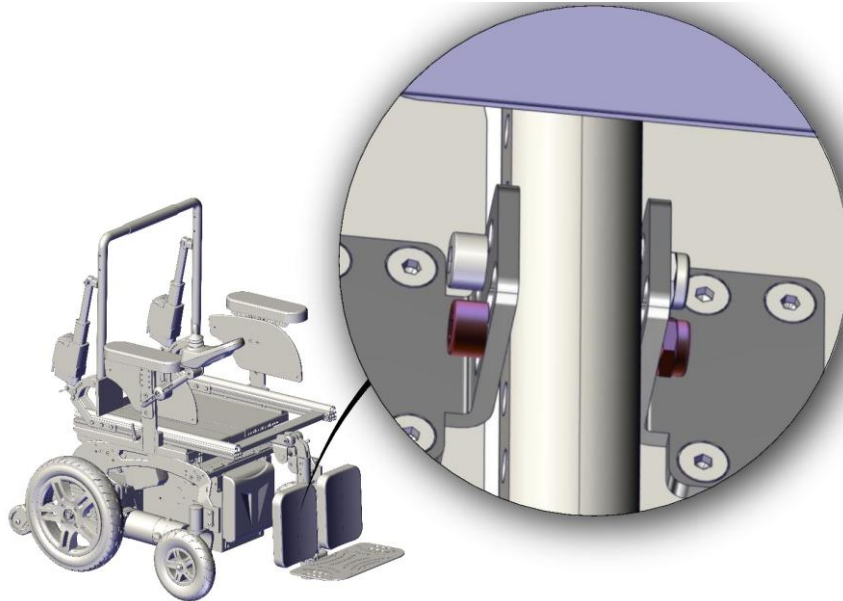


Figure 20

- Loosen the screw shown in figure using a allen wrench and a open-end wrench.
- Set the angle ad desired and tighten again the screw.

ALLEN WRENCH



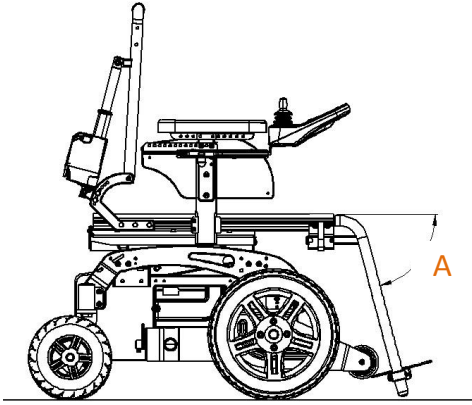
6 mm

OPEN-END WRENCH





13 mm

3.10 Legrest angle

	LEGREST CONFIGURATION	(A) POSSIBLE VALUES
	Fixed angle	70°
	Angle adjustable	20° - 90°
	Central mounted	10° - 90°
	Powered legrest	-15° - 80°

Angle adjustable

	<p>Average needed time: <1 min</p>		<p>Difficulty level: Easy</p>
---	--	--	--

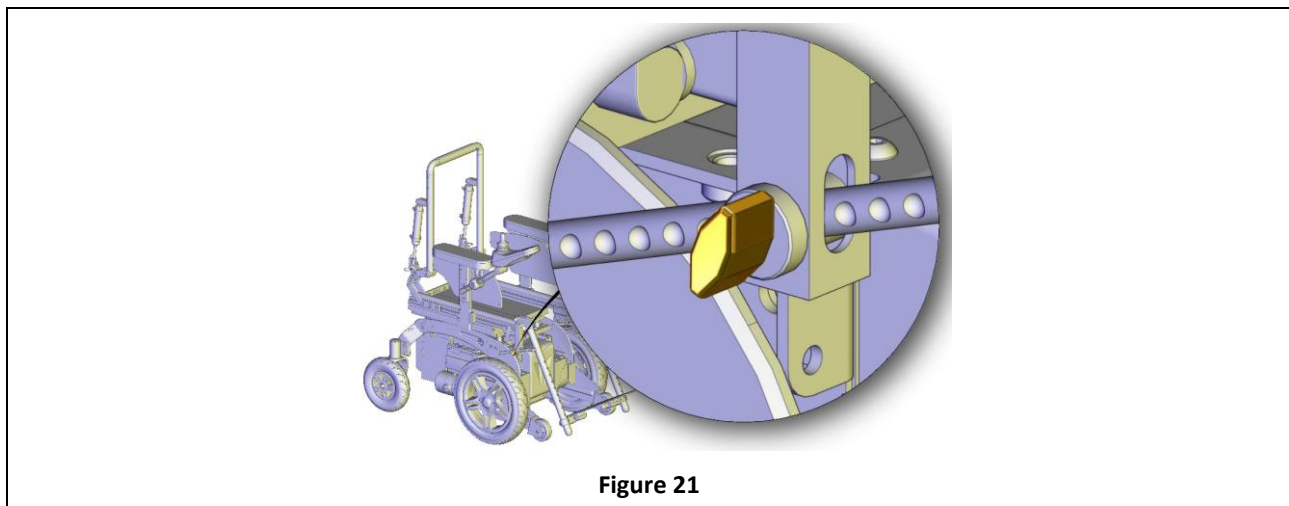


Figure 21

<ul style="list-style-type: none"> Loosen the lever shown in figure. Set legrest angle as desired. Tighten again the lever. 	
--	--

Powered legrest

- Act on the joystick as described in section 4.1.

PINCH HAZARD

Please pay special attention when moving legrest because there is the possibility of trapping your or someone else fingers in legrest mechanism.

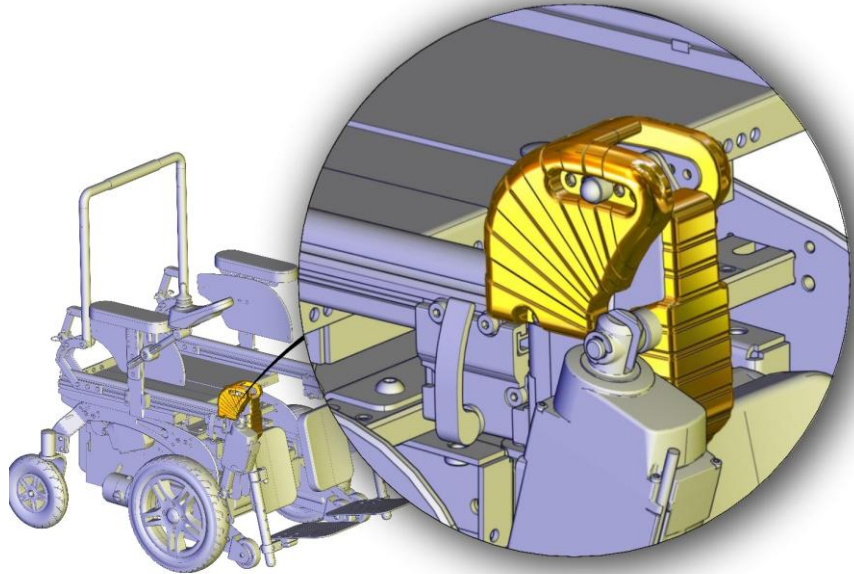


Figure 22

Central mounted legrest

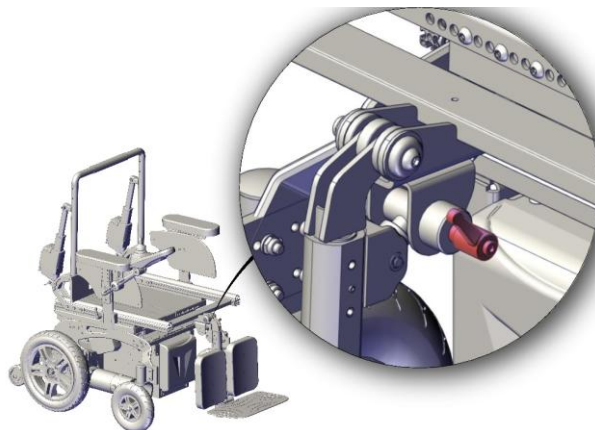


Figure 23

- Loosen the lever shown in figure.
- Set legrest angle as desired.
- Tighten again the lever.

3.11 Joystick position



RANGE

It is not easy to provide a range for this because there are too many configuration and possibilities.



Average needed time:

<5 min



Difficulty level:

Easy

3.11.1 Standard support - Depth

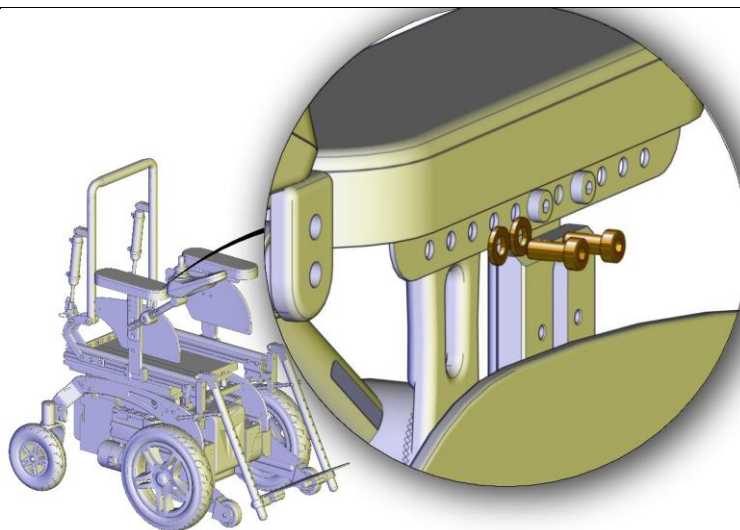


Figure 24

- Unscrew the 2 screws shown in figure.
- Adjust the depth of the joystick as desired.
- Screw again the screws.

ALLEN WRENCH



5 mm

ADJUNCTIVE ADJUSTMENT

Moreover it is possible to adjust the angle of the joystick simply acting on the two levers shown in figure.

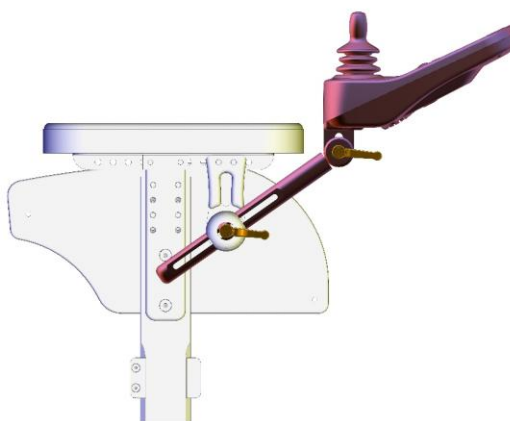


Figure 25

3.11.1 Retractable support - Depth and height

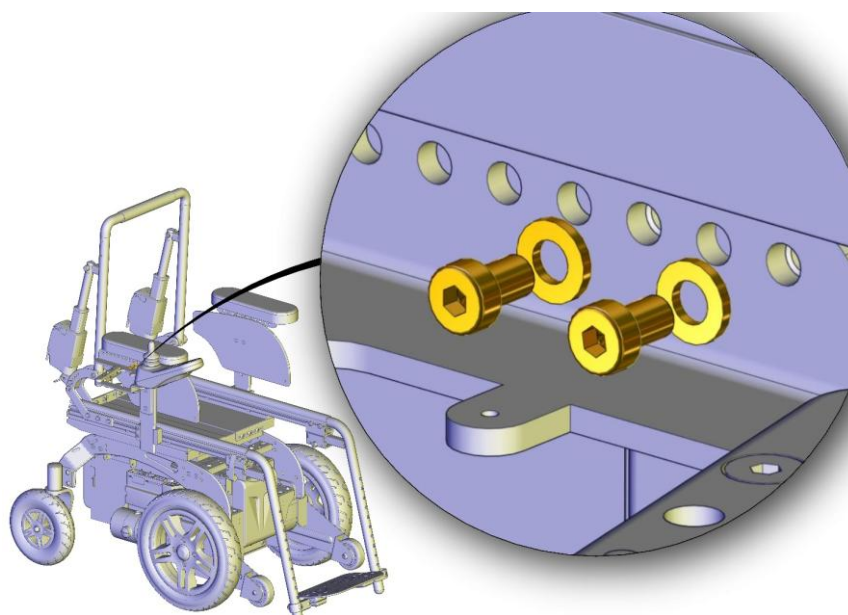


Figure 26

- Unscrew the 2 screws shown in figure.
- Adjust the depth and the height of the joystick as desired.
- Screw again the screws.

ALLEN WRENCH



5 mm

3.12 Default position

Default position means that all adjustable parts of the wheelchair are set in the most stable and safe configuration

ADJUSTABLE PARTS	VALUE	NOTES
Seat angle	0°	
Backrest angle	90°	
Legrest angle	90°	Or minimum
Seat height	0 cm	

Table 4

4 USE OF THE PRODUCT



WARNING

Do not operate the wheelchair if it is behaving abnormally or erratically.
The wheelchair may come to a sudden stop at any time during operation.



WARNING

Do not stand on the product. Always use caution when transferring in or out of the seat. Every precaution should be taken to reduce the transfer distance. Also be certain the wheel locks are engaged to prevent the wheels from moving.

Do not let children use the wheelchair without supervision.



INFORMATION

The product is not intended to be dismantled. There are no parts of the product expected to be handled during normal use of it



INFORMATION

Do not install, maintain or operate the product without reading all warnings and this entire manual.

Always keep this manual in connection with the product.



INFORMATION

The wheelchair is designed for use mostly in indoor environments.



DRIVE WITH SEATING SYSTEM NOT IN DEFAULT POSITION

Seat tilt, backrest recline or legrest elevation may varies the center of gravity of the system wheelchair + user and increase tipping risk.
Always drive at low speed when the seating system is not in the standard position and use powered seating functions only on a flat horizontal surface.



WARNING

Do not carry passengers on the wheelchair independently of the age of the passenger. The wheelchair is not designed for weight training and is unsafe for use as a seat while weight training. Do not lean over the top of the back upholstery to reach objects from behind as this may cause the wheelchair to tip over. Do not shift your weight or sitting position toward the direction you are reaching as the wheelchair may tip over. Do not stand on the frame of the wheelchair.

Some pathologies may limit your ability to use your wheelchair safely. Be sure to consult with a doctor about your physical limitations.

Please practice your drive ability under the supervision of an assistant.

Dealing with uphill

When facing an uphill road it is recommended to set the seating system to default position. It is better to use a drive profile with low speed.

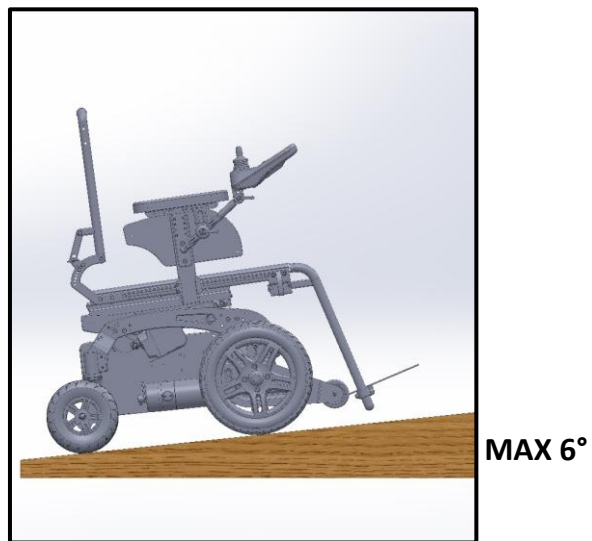


Figure 27

Dealing with downhill

When facing a downhill road it is recommended to set the seating system to default position. It is better to use a drive profile with low speed

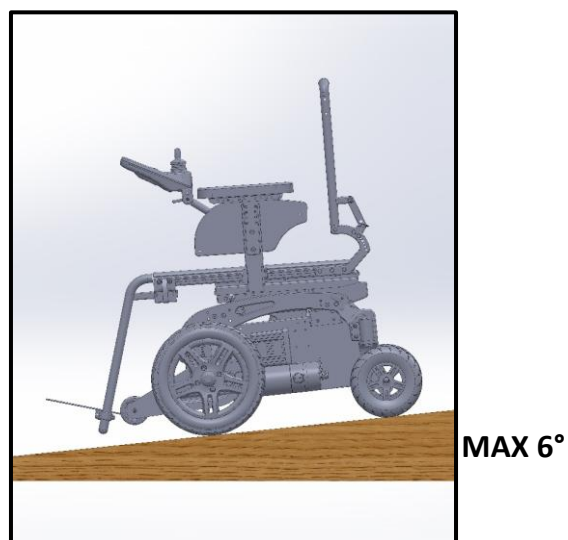


Figure 28



WARNING

Don't use the wheelchair up or down slopes with a gradient than indicated in specifications of this manual.

Don't use the wheelchair up or down ramps that are not equipped with proper edge protection to prevent the wheelchair from falling down.

Don't use the wheelchair down or up a hazardous incline if the surface is covered with snow, ice or the surface is uneven.



WARNING

The stopping distance on slopes can be significantly greater than on level ground

Dealing with side slopes

When facing with side slopes, always use the wheelchair with great caution and make sure the seating system is in the default position.

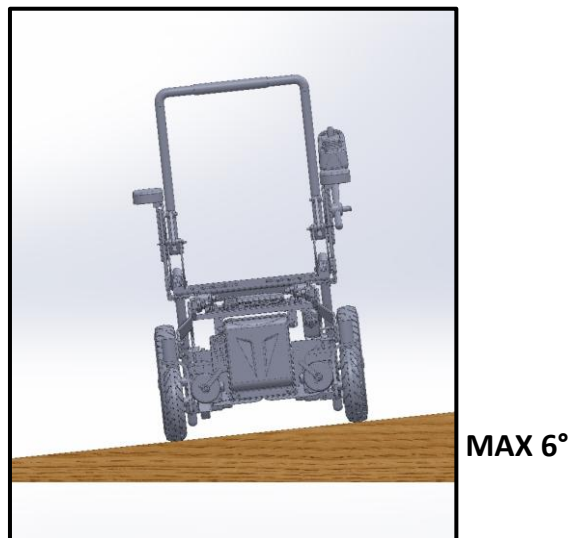


Figure 29

Turning with the wheelchair

When turning with the wheelchair, always use great caution.

Obstacle climbing

When facing with an obstacle, always use great caution and make sure the seating system is in the default position. The wheelchair is able to climb an obstacle of 50 mm with a run up of minimum 500 mm.

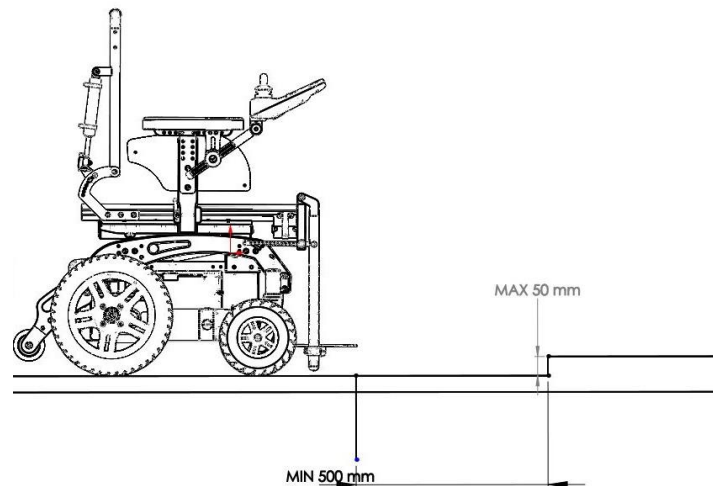


Figure 30

Driving in dark environments

Don't use the wheelchair in dark environments without lights turned on.

Pelvic belt

The wheelchair has the predisposition for a pelvic belt. **Pelvic belt is only design to position the user and not for any protection in case of accident.**

Transfer into and out the wheelchair

Users transfer is recommended with the presence of an assistant. Don't use footrests or armrests as support. Always turn off the wheelchair before transfer.

Lift of the wheelchair

Do not lift the wheelchair with a user on board. Do not lift the wheelchair grabbing the legrests. If you really need to lift the wheelchair, it is suggested to grab it with the help of at least one other people. Grab the wheelchair using the tie down shown in figure.

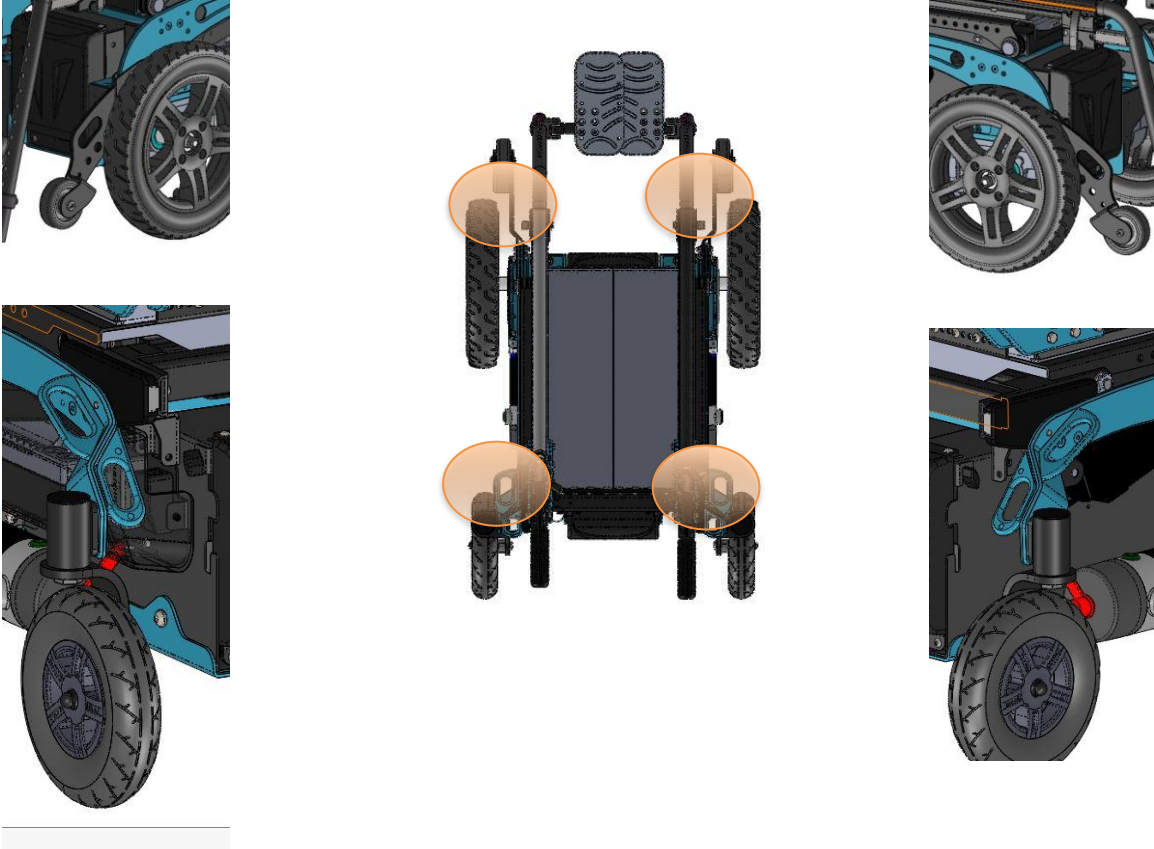


Figure 31

4.1 Control system of the wheelchair

It is possible to have the wheelchair with VR2 60 A control system or Rnet 80 A control system.

4.1.1 VR2 60 A control system



Figure 32

FUNCTION	DESCRIPTION
On-Off	Use this function to turn on and off the wheelchair. Don't use this function to stop the wheelchair unless it is an emergency.
Horn	
MODE	Use this function to navigate between drive and seat function.
Speed increase/decrease	

4.1.2 Rnet 80 A control system



Figure 33

FUNCTION	DESCRIPTION
On-Off	Use this function to turn on and off the wheelchair. Don't use this function to stop the wheelchair unless it is an emergency.
Horn	
MODE	Use this function to navigate all working mode of the wheelchair. For example it is possible to choose between drive and seat function.
PROFILE Speed increase/decrease	As default in the wheelchair they are saved some different drive profile for the use indoor and outdoor. Use the function PROFILE to change different types of profiles: they are sorted from the more indoor ones to the more outdoor ones. For each profile it is possible to change the speed.

Activate at the same time the functions to increase and decrease speed to enter a configuration menu.

FUNCTION	DESCRIPTION
Set time	Use this function to set the time shown on the display.
Distance	Use this function to see total and partial distance made with the wheelchair. It is also possible to reset partial distance.
Backlight	It is possible to adjust backlights of the screen.
Background	Use this function to choose the color of background of the display.

4.2 Manual brake release lever

In case of necessity it is possible to manually move the wheelchair.

First of all, you have to turn off the wheelchair.

Then you can act on the release lever shown in Figure.

When the brakes are released. it is not possible to drive the wheelchair.

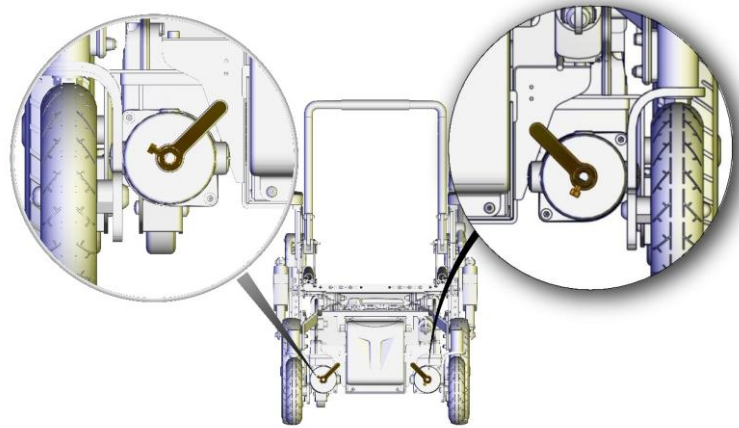


Figure 34



WARNING

When the brakes are released never use the wheelchair on a slope or a wet surface.

Don't operate the brake release without the presence of an assistant.



WARNING

The drive system should be re-engaged before an occupant is left unattended or attempts to operate the wheelchair.



WARNING

Always act on both left and right manual release levers.

4.3 Use as seat in a motor vehicle

The wheelchair is designed to be secured facing forward when used as a seat in a motor vehicle and it complies with the requirements of ISO 7176-19:2008.

It is possible to use four-point strap systems or the DAHL docking station.

Ease of access to, and maneuverability in, motor vehicle can be significantly affected by wheelchair size and turning radius. Smaller wheelchairs or with a shorter turning radius will generally provide greater ease of vehicle access and maneuverability to a forward-facing position.

Always use ISO 10542-1 approved Wheelchair Tiedown and Occupant Restraint Systems, which are suitable for the weight of the wheelchair or Dahl docking.

Wheelchair users should transfer to the vehicle seat and use the vehicle-manufacturer-installed restraint systems whenever it is feasible and the unoccupied wheelchair should be stored in a cargo area or secured in the vehicle during the travel.

For the correct positioning of occupant belt restraints on the user, please consider following.

- The pelvic belt should be worn low across the front of the pelvis, so that the angle of the pelvic belt is within the preferred zone of 30° to 75° to the horizontal, similar to that shown in figure.

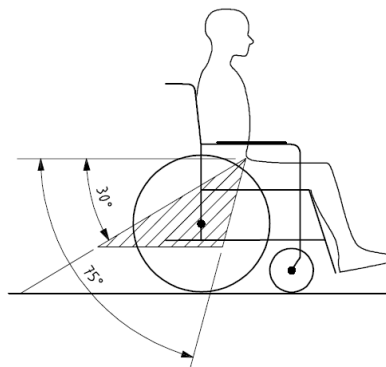


Figure 35

- Belt restraints should be adjusted as tightly as possible, consistent with user comfort.
- Belt should not be twisted during the use.

IMPROPER BELT RESTRAINT FIT	PROPER BELT RESTRAINT FIT
<p>BELT RESTRAINTS MUST NOT BE HELD AWAY FROM THE BODY BY WHEELCHAIR COMPONENTS SUCH AS ARMRESTS OR WHEELS</p>	<p>BELT RESTRAINTS SHOULD MAKE FULL CONTACT WITH THE SHOULDER, CHEST AND PELVIS AND PELVIC BELTS SHOULD BE POSITIONED LOW ON THE PELVIS NEAR THE THIGH ABDOMINAL JUNCTION</p>

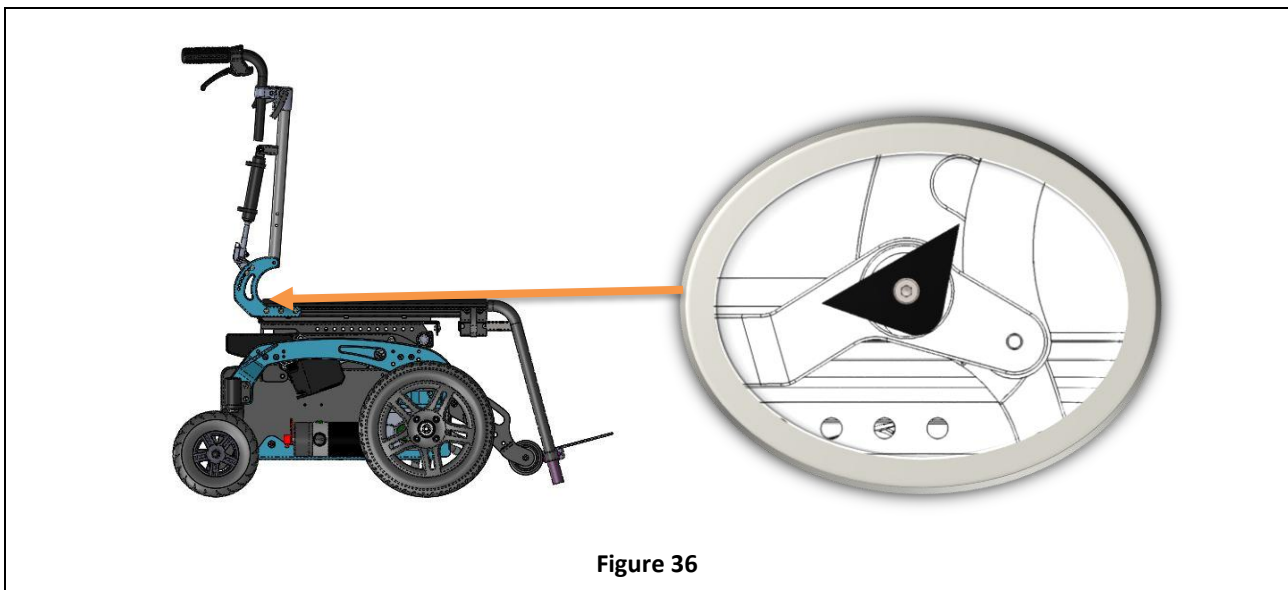


Figure 36

In order to mount pelvic belt on the wheelchair, firstly mount the fixing plate as shown in figure.
 Use socket head cap screw M6x10 and a 5 mm allen wrench.
 Repeat operation for both left and right side of the wheelchair.

ALLEN WRENCH



5 mm

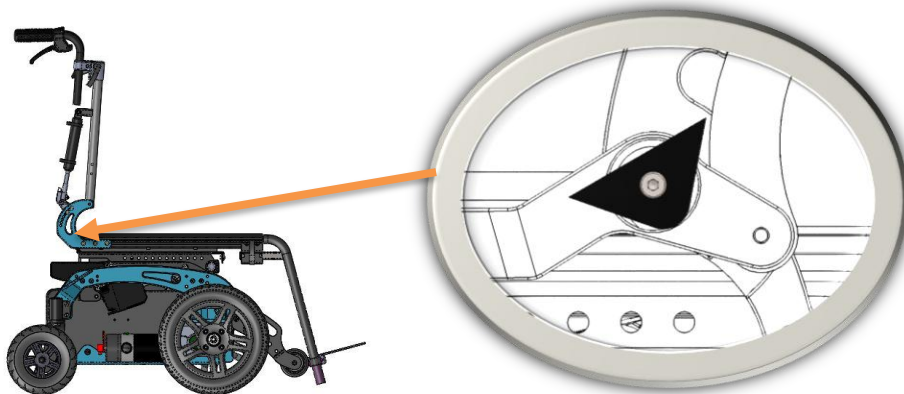


Figure 37

In order to mount chest belt on the wheelchair, firstly mount the fixing plate as shown in figure.

Use socket head cap screw M6x10 DIN 912 and a 5 mm allen wrench.

Repeat operation for both left and right side of the wheelchair.

ALLEN WRENCH



5 mm

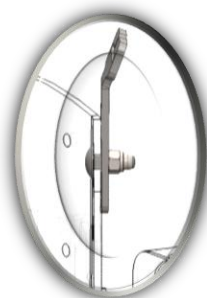


Figure 38

Moreover, chest belt must be fixed in the upper part of the backrest. Firstly mount the fixing plate as shown in figure.

Use hushroom head square neck bolt screw M5x16 DIN 603, M5 nut, and a 8 mm open-end wrench.

Repeat operation for both left and right side of the wheelchair.

**OPEN-END
WRENCH**



8 mm



WARNING

The seating system must be set in the DEFAULT POSITION when used in a motor vehicle. Particularly be sure that the seat is horizontal, legrest are completely down and backrest is completely up. For more information see section 3.12.



WARNING

Evo3 wheelchair has lots of configurations and accessories. The wheelchair safety when used as a seat in a motor vehicle is assured by the manufacturer if the specific configuration is mentioned in the order form and if all instructions in the manual are followed. Particularly it may exist some options or accessories that are not compatible with the use of the wheelchair as a seat in a motor vehicle, or it may exist some accessories that require some precautions.



WARNING

If the backrest is with gas springs, when using the wheelchair as a seat in a motor vehicle, it is necessary to lock the movement of the gas springs with the locking system shown in the picture. Always repeat the operation for the left and right side of the wheelchair. WARNING: Safety of wheelchair and user can't be assured when the movement of gas springs is not correctly locked while using the wheelchair as a seat in a motor vehicle.



Figure 39



WARNING

The wheelchair complies with the requirements of ISO 7176-19:2008 and has been designed and tested for use only as a forward-facing seat in a motor vehicle.

Compliance with this standard does not preclude using the wheelchair facing rearward in large accessible vehicles such as autobus.



WARNING

The wheelchair has been dynamically tested in a forward facing orientation with the ATD restrained by both pelvic and shoulder belts.



WARNING

Both pelvic and shoulder belt should be used to reduce the possibility of head and chest impacts with vehicle components.



WARNING

In order to reduce the potential of injury to vehicle occupants wheelchair tray should be removed and secured separately in the vehicle.



WARNING

When possible other auxiliary wheelchair equipment should be either secured to the wheelchair or removed from the wheelchair and secured in the vehicle during travel, so that it does not break and cause injury to vehicle occupants in the event of a collision.



WARNING

You should not use this product in a motor vehicle if your weight is less than 22 kg.



WARNING

Postural supports should not be relied on for occupant restraint in a moving vehicle unless they are labelled as being in accordance with the requirements specified in ISO 7176-19:2008.



WARNING

The wheelchair should be inspected by a manufacturer's representative before reuse following involvement in any type of vehicle collision.



WARNING

Alterations or substitutions should not be made to the wheelchair securement points or to structural and frame parts or components without consulting the wheelchair manufacturer.



WARNING

Wheelchair has sealed type batteries. Never use different battery type when used in a motor vehicle.



WARNING

Care should be taken when applying the occupant restraint to position the seatbelt buckle so that the release button will not be contacted by wheelchair components during a crash.

4.3.1 Four points tie-down

Use the tie down points marked with the symbol shown in figure.



Figure 40

Use the tie down points marked with the symbol shown in figure. Hook the wheelchair in 4 points: two in the front part and two in the rear part.

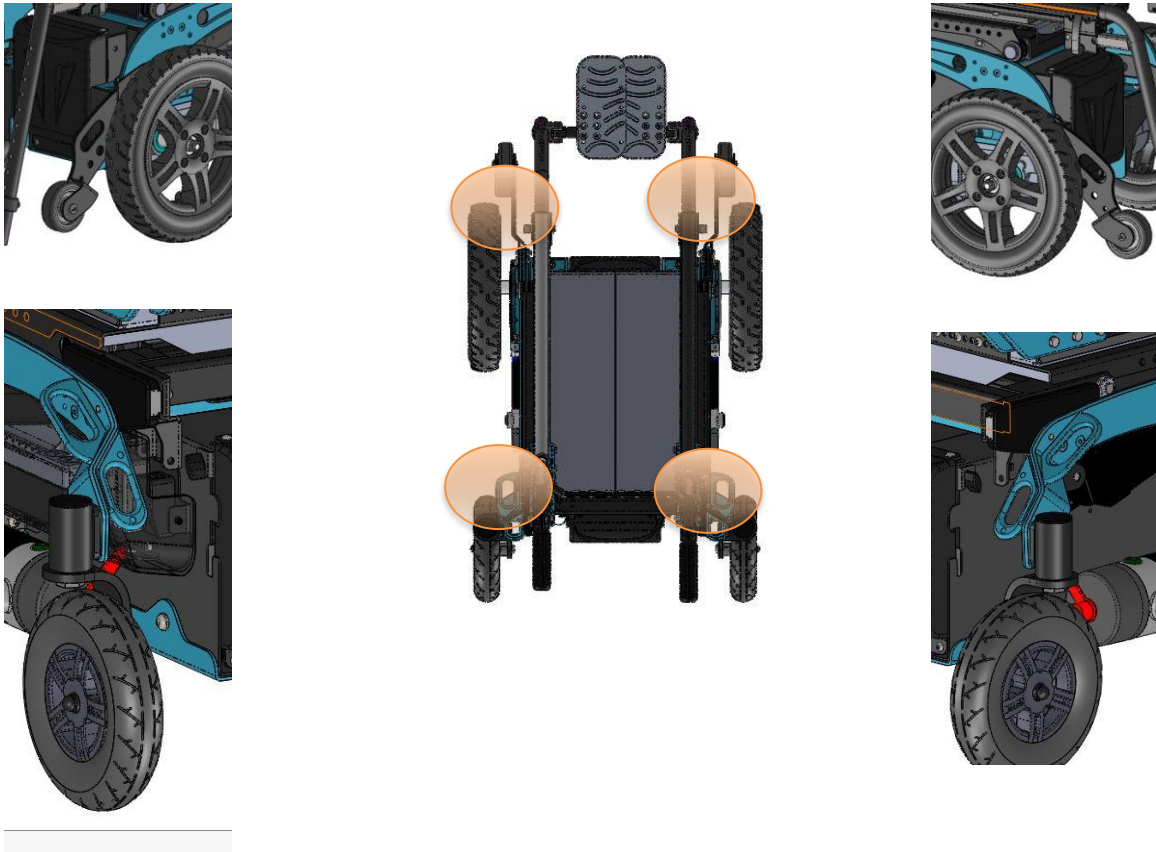


Figure 41

Tie down straps should form angles shown below.

PREFERRED ANGLES OF FRONT WHEELCHAIR TIE DOWN STRAPS

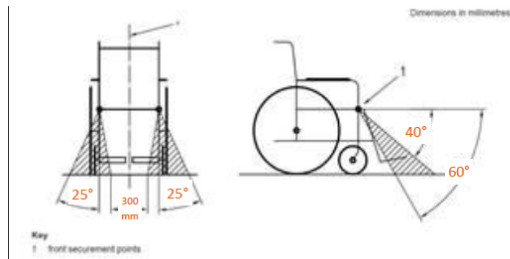


Figure 42

PREFERRED ANGLES OF REAR WHEELCHAIR TIE DOWN STRAPS

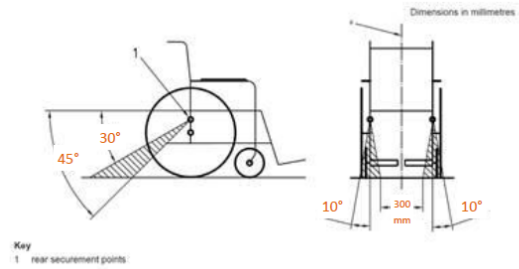


Figure 43



WARNING

Always use four tie down straps.

4.3.2 Dahl engineering docking station

WARNING

Please be sure that the vehicle is equipped with a fully working and compatible Dahl docking system.





Figure 44

- To use the system, maneuver the wheelchair slowly and in a uniform direction over the docking station. The lock plate under the wheelchair helps to guide the wheelchair into place in the docking station. When the lock plate is fully engaged in the docking station, a spring-action locking pin automatically secures the lock plate.
- The docking station is equipped with a control switch that indicates whether the lock plate is correctly secured in the docking station. As soon as the lock plate comes into contact with the locking pin, a warning tone will sound and the red led in the control panel will light up until the lock plate is either fully engaged or else the wheelchair is removed from the docking station. As an indication that the wheelchair is properly secured, the warning tone will cease, the red diode in the control panel will go out and the green led will light up.
- When the wheelchair is correctly secured, the safety belt should be fitted and adjusted so that it fits the user.
- **UNLOCKING PROCEDURE.** When the vehicle has been brought to a halt, remove the safety belt. To unlock commence by driving the wheelchair forward to release pressure on the lock pin and then press the red release button in the control panel. The locking pin will be triggered/released for approx 5 seconds, after which the locking pin is automatically locked/activated again. Do not attempt to reverse out the docking station until the red LED on the control module, which indicates the unlock position, has been illuminated. Move the wheelchair away from the docking station within this 5-second period.



WARNING

Attempting to reverse the wheelchair before the red LED has been illuminated will result in blocking the docking station lock mechanism which makes it impossible to reverse. If this happens repeat above unlocking procedure.

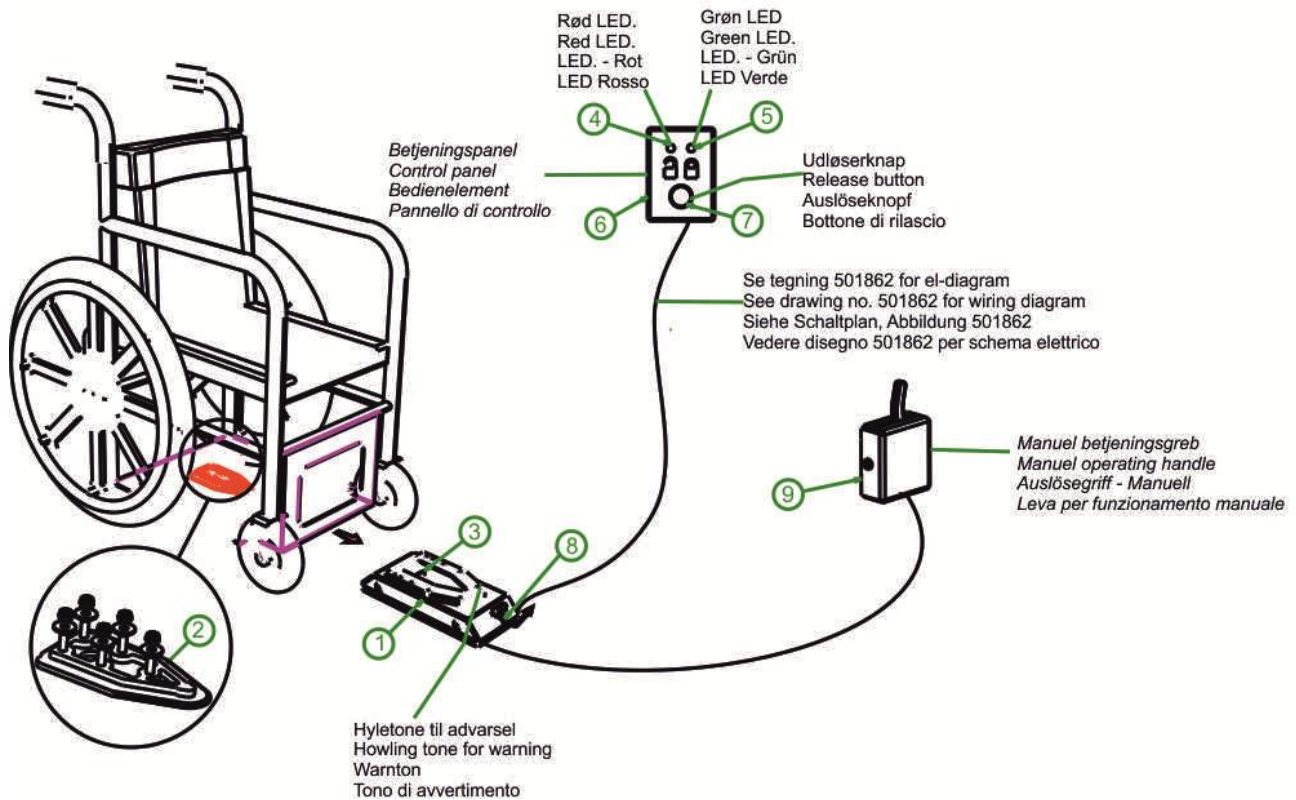


Figure 45



CONTACT INFORMATION

For more information contact the manufacturer of the wheelchair or the manufacturer of the docking station.

Dahl Engineering

Løvevej 3

DK-7700 Thisted

Tel. +45 96 18 00 77

<https://dahleengineering.dk>

sales@dahleengineering.dk

4.4 Powered functions



WARNING

Operating these functions changes the center of gravity and increases the risk of tipping over.

Always drive in low speed when the seating system is not in the default position. Use these functions only on horizontal plane.

To enter seating mode use MODE function of the joystick.




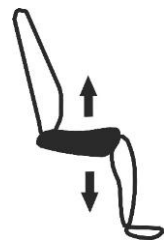
With VR2 system a led will turn on to indicate the seat function in use.

With Rnet system a wheelchair will appear on the screen of the joystick.

To select the desired function move the joystick left or right.

The number and the type of available function may change according to the specific customization of each wheelchair.

	MOVE UP Move the joystick forward while you are in seating mode and the desired function is selected	MOVE DOWN Move the joystick rearward while you are in seating mode and the desired function is selected
BACKREST 	Move forward the backrest	Recline the backrest
LEFT LEGREST 	Low left legrest	Elevate left legrest

<p>RIGHT LEGREST</p> 	<p>Low right legrest</p>	<p>Elevate right legrest</p>
<p>LEGRESTS BOTH</p> 	<p>Low both legrests</p>	<p>Elevate both legrests</p>
<p>TILT</p> 	<p>Move forward the seat</p>	<p>Tilt the seat</p>
<p>LIFT</p> 	<p>Rise the seat</p>	<p>Lower the seat</p>

4.5 Main switch

Use the main switch to connect and disconnect the batteries from the power module. The switch also has the function of protecting the wheelchair from overloaded current and short circuit.

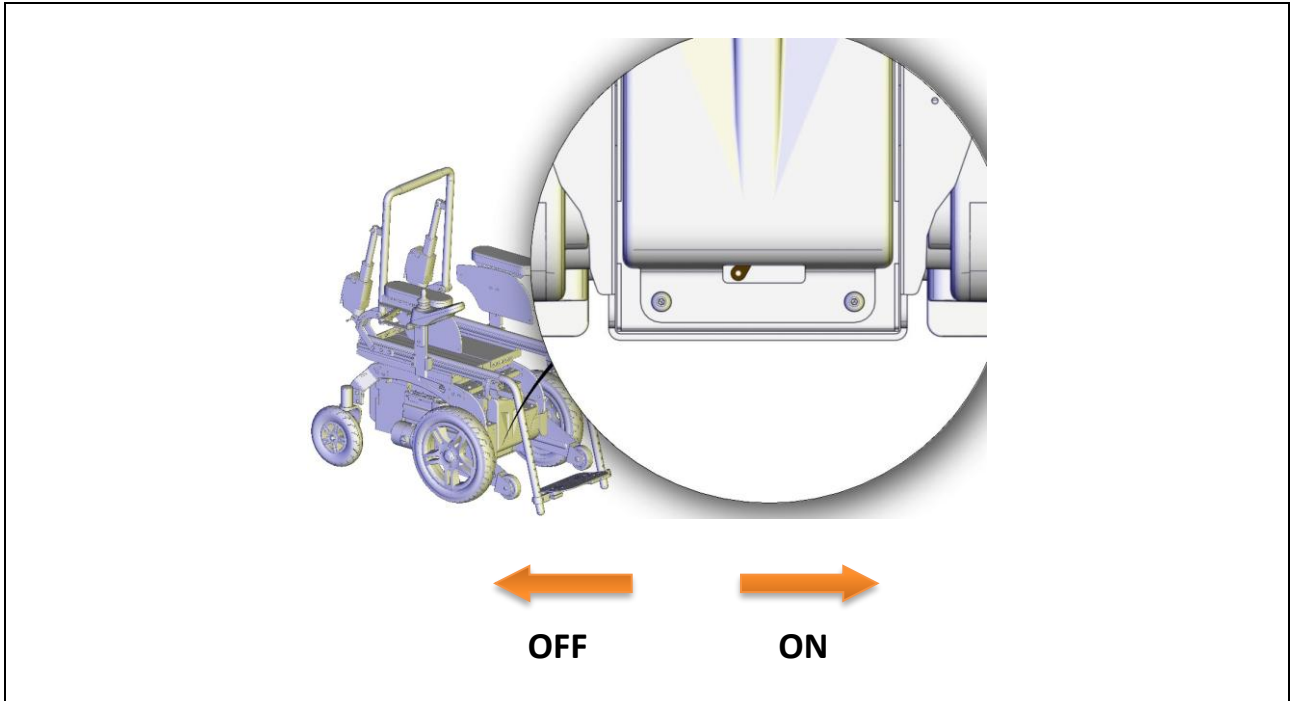
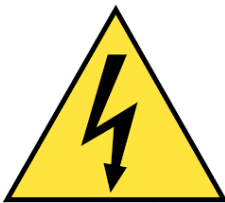


Figure 46

Figure is taken having the wheelchair on the front and shows the position ON and OFF of the switch.

If the power chair suddenly stops, use the switch to connect again batteries to the power module and turn on again the wheelchair. **If the problem still continues, it means that there is some electric fault.**



If the switch operates, often this means that there is a major electrical fault. The cause of fault should be checked carefully.



For more information, please contact the manufacturer.

4.6 Battery charging

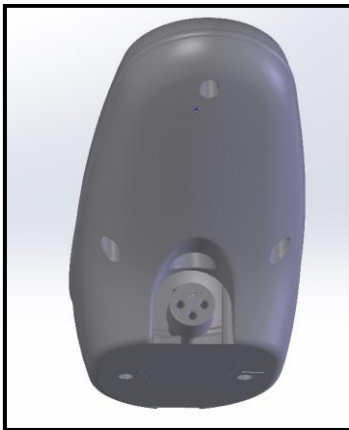
In order to recharge batteries, use only the provided charger or one recommended by the manufacturer. The manufacturer is not responsible for any damage to person or objects resulting from the use of non-original product.



CHARGER SPECIFICATION

24 V - MIN 6 A MAX 10 A - Charge profile for AGM batteries

- Connect the power cord to a power supply 230 V.
- Connect the cable to the joystick as shown in Figure.



VR2



RNET

Figure 47

- When batteries are loaded unplug the power cord and the battery cable from the joystick.



RUNNING-IN PERIOD

Typically, batteries are able to offer 100% performance after about 15-20 cycles.



BATTERIES SPECIFICATION

Seat width from 300 mm to 360 mm: 24 V - 35 Ah - about 197x131x180 (h) mm - about 11 kg
Seat width from 380 mm to 460 mm: 24 V - 50 Ah - about 198x166x171 (h) mm - about 15 kg

WHEN AND HOW IT IS NECESSARY TO CHARGE BATTERIES?



It is very important to charge batteries every day, even if they are not completely discharged. Each battery is subject to a normal self-discharge, so batteries that are not used for long time will discharge by itself.

It is very important to don't let batteries uncharged for long time.

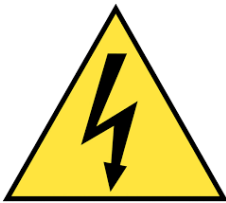
It is very important to complete every cycle of charging

Charging time is influenced by multiple factors such as remaining battery power, battery state of aging and temperature. However, the approximate charging time is about 12 hours.



Battery charging should be done in well ventilated environments. Never charge in bathroom or wet room.

When the charger is connected it is not possible to drive the wheelchair. Don't use the wheelchair during the charge.



SHOCK HAZARD

Check if charger requirements data matches with the network power (voltage, frequency)



RELEASE DANGER

Any impact to the batteries could cause a loss of fluids. Please pay special attention.



BATTERIES DISPOSAL

To properly recycle the batteries follow instructions provided by your local waste disposal service.

4.7 Transport and storage

If you are not willing to use the wheelchair for a long period, keep it safe in a clean area and away from heat.

If it is necessary to transport the wheelchair to facilitate operation follow these instructions.

It is possible to store the wheelchair in a place with a temperature between -20 °C and +45 °C.

- Turn off the wheelchair.
- Turn off the main switch. See section 4.5.



WARNING

If you transport the wheelchair with motors disengaged, the wheelchair is free to move. This may result in a hazardous situation.

5 MAINTENANCE

Please remind that the wheelchair is intended exclusively for the carriage of seated people. Below there are some precautions for the use of the wheelchair, which it is recommend to follow, in order to ensure a safe use and a long duration.

Regular maintenance helps to keep intact the functionality and safety of the wheelchair. Inadequate or lack of care and maintenance may cause a limitation of the warranty.

- Avoid prolonged contact of the wheelchair with water. It may cause oxidation of the metal parts.
- Avoid long exposure of the wheelchair to direct sunlight.



WARNING

Any work on the wheelchair must be performed by an authorized service center.



INFORMATION

It is not possible to perform any maintenance on batteries. It is only possible to substitute them.

5.1 Maintenance and cleaning

To clean the wheelchair do not use high-pressure water spray devices. For plastic and metal parts use a soft cloth dampened with mild detergent. For the upholstery, linings, seat and back covers use warm water and mild detergent. Do not use stain removers, solvents, acids, etc.

5.2 Controls to be performed on the product

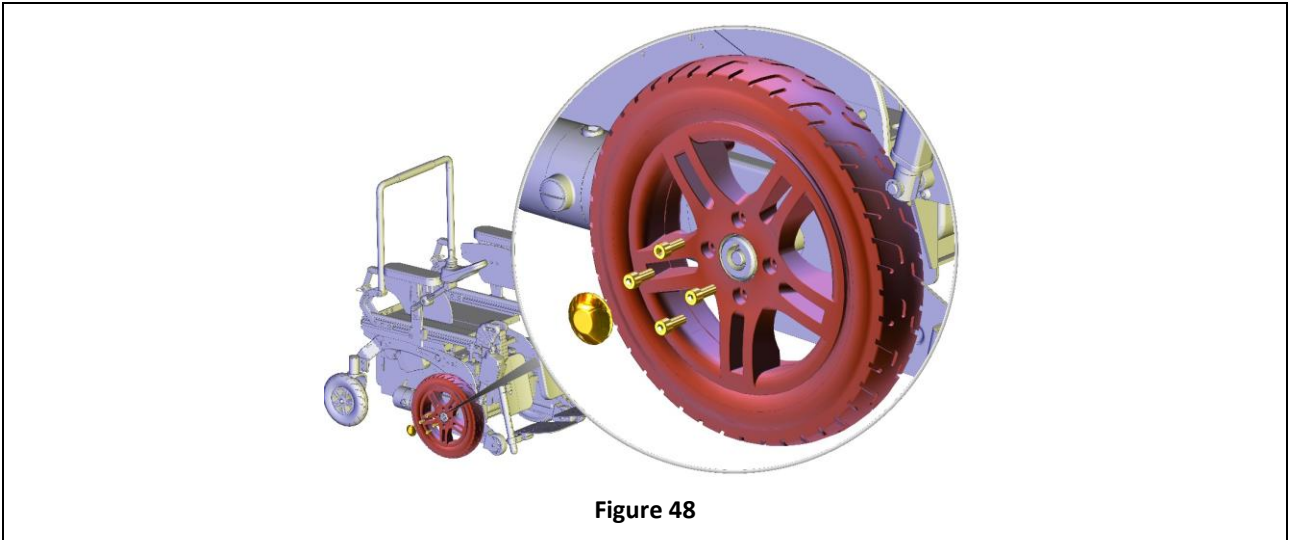
Type of operation	
A	Operation intended to be performed by the user.
B	Operation intended to be performed by an assistant.
C	Operation intended to be performed by an authorized service center.

Operation	Frequency	Type of operation
Check if motors are correctly locked. See section 4.2.	Before each use	B - Assistant
Check that no wires are in the way for the movements of the chair	Before each use	B - Assistant
Check the charge of batteries	Daily	A - User
Clean the wheelchair	Weekly	B - Assistant
Check if the pressure is the one indicated on tires and in section 6 Traction wheels: 280 kPa; Castors: 250 kPa.	Weekly	B - Assistant
Check if the lever of the main switch works correctly	Weekly	B - Assistant
Check tire usury	Monthly	B - Assistant
Check brake release lever	Monthly	B - Assistant
Check aging of batteries	Monthly	C - Service

5.3 Tire puncture

5.3.1 User information

Traction wheel



- Lift the wheelchair.
- Unscrew the 4 screws shown in figure.
- Remove the wheel.

ALLEN WRENCH



6 mm

Castors wheel

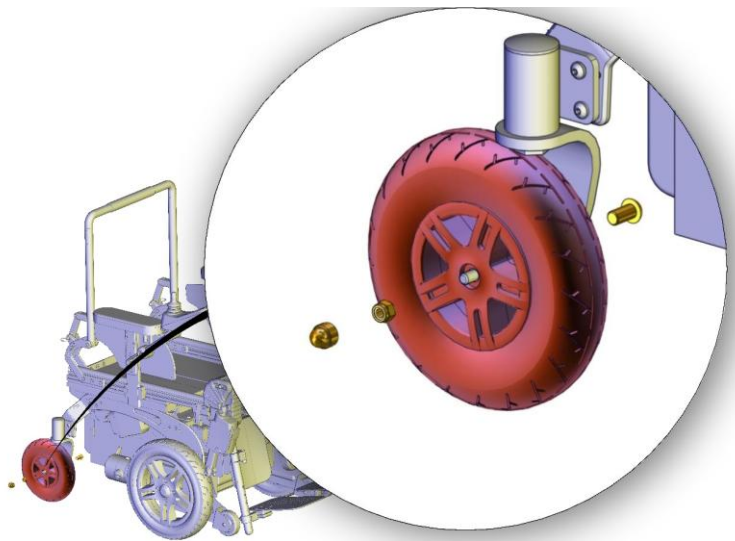


Figure 49

- Lift the wheelchair.
- Unscrew the nut shown in figure.
- Remove the castor.

OPEN-END WRENCH

10 mm



Contact an authorized service center for the repair or the substitution of the damaged wheel. When the authorized service center gives you back the repaired wheel or a new one, mount it following instructions in reverse order.

Code	Description	Type of operation
R045-0120A	Traction wheel Pneumatic Gray Ø320x58 mm	A
R045-0120B	Traction wheel Pneumatic Black Ø320x58 mm	A
R045-0121A	Tire of traction wheel gray Ø320x58 mm	B
R045-0121B	Tire of traction wheel black Ø320x58 mm	B
R045-0122	Tube of traction wheel Ø320 mm	B
R045-0131A	Castor Pneumatic gray Ø200 mm x 50 mm	A
R045-0131B	Castor Pneumatic black Ø200 mm x 50 mm	A
R045-0131C	Castor PU gray Ø200 mm x 50 mm	A
R045-0131D	Castor PU black Ø200 mm x 50 mm	A
R045-0132A	Tire of castor gray Ø200 mm x 50 mm	B
R045-0132B	Tire of castor black Ø200 mm x 50 mm	B
R045-0133	Tube for castor Ø200 mm x 50 mm	B

Table 5

Type of operation	
A	Parts that can be bought at an authorized service center and substitute autonomously
B	Parts that need to be substituted at an authorized service center.

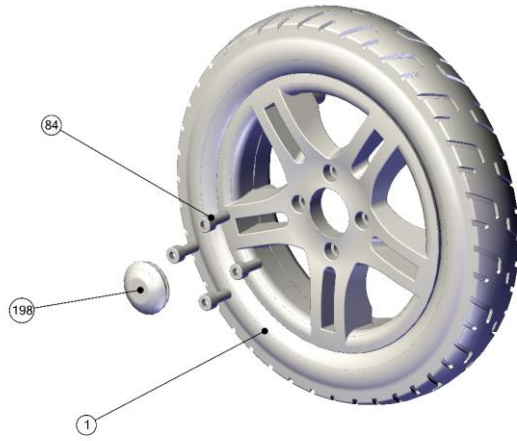


Figure 50

Code	ID	Quantity
R045-0120A	1A tire	1
R045-0120B	1B tire	1
R045-0120	1 rim	1
R045-0120	1 tube	1
R045-0120	198	1
R045-0120	84	4
R045-121A	1A tire	1
R045-121B	1B tire	1
R045-0122	1 tube	1

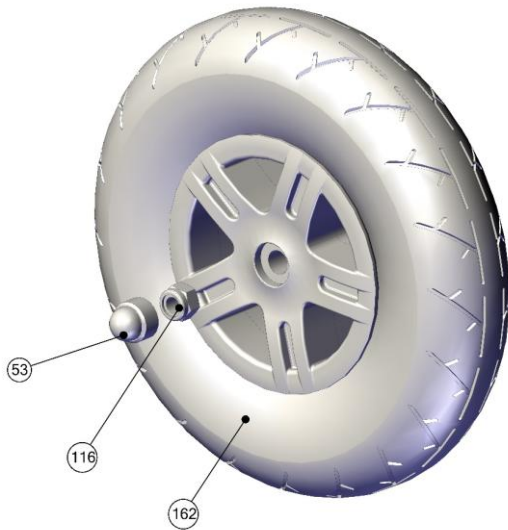


Figure 51

Code	ID	Quantity
R045-0131A	162A tire	1
R045-0131B	162B tire	1
R045-0131C	162C tire	1
R045-0131D	162D tire	1
R045-0131A	162 tube	1
R045-0131B	162 tube	1
R045-0131	53	1
R045-0131	116	1
R045-0132A	162A tire	1
R045-0132B	162B tire	1
R045-0133	162 tube	1

5.4 Wiring diagram

5.4.1 Rnet

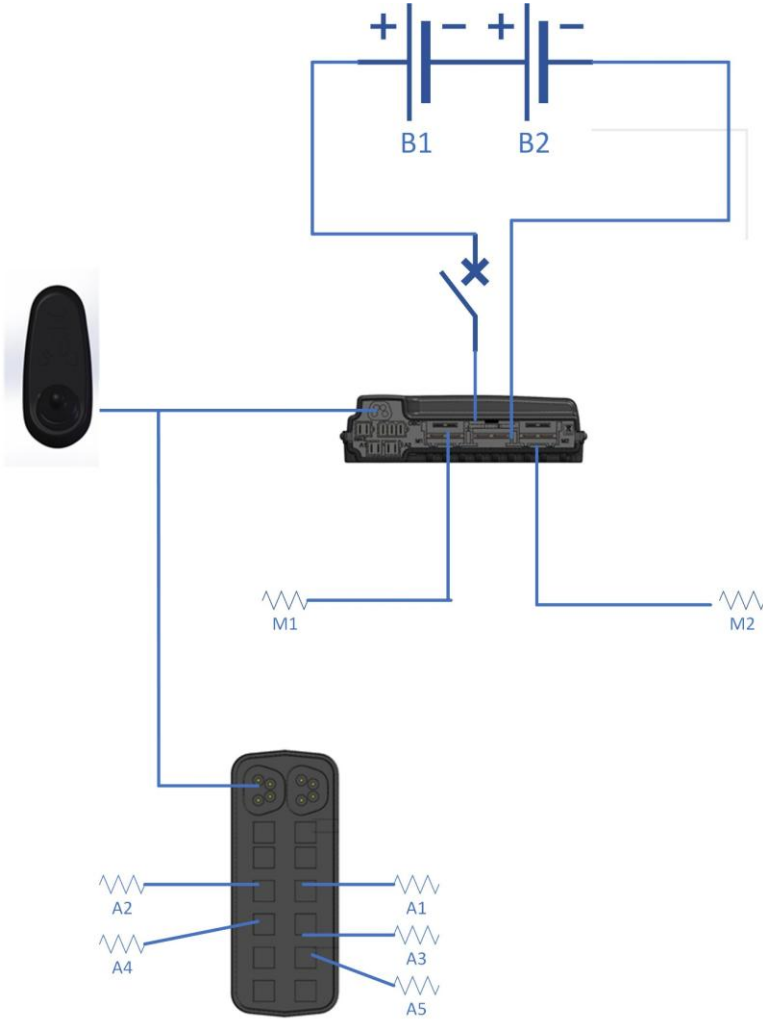


Figure 52

5.4.2 VR2

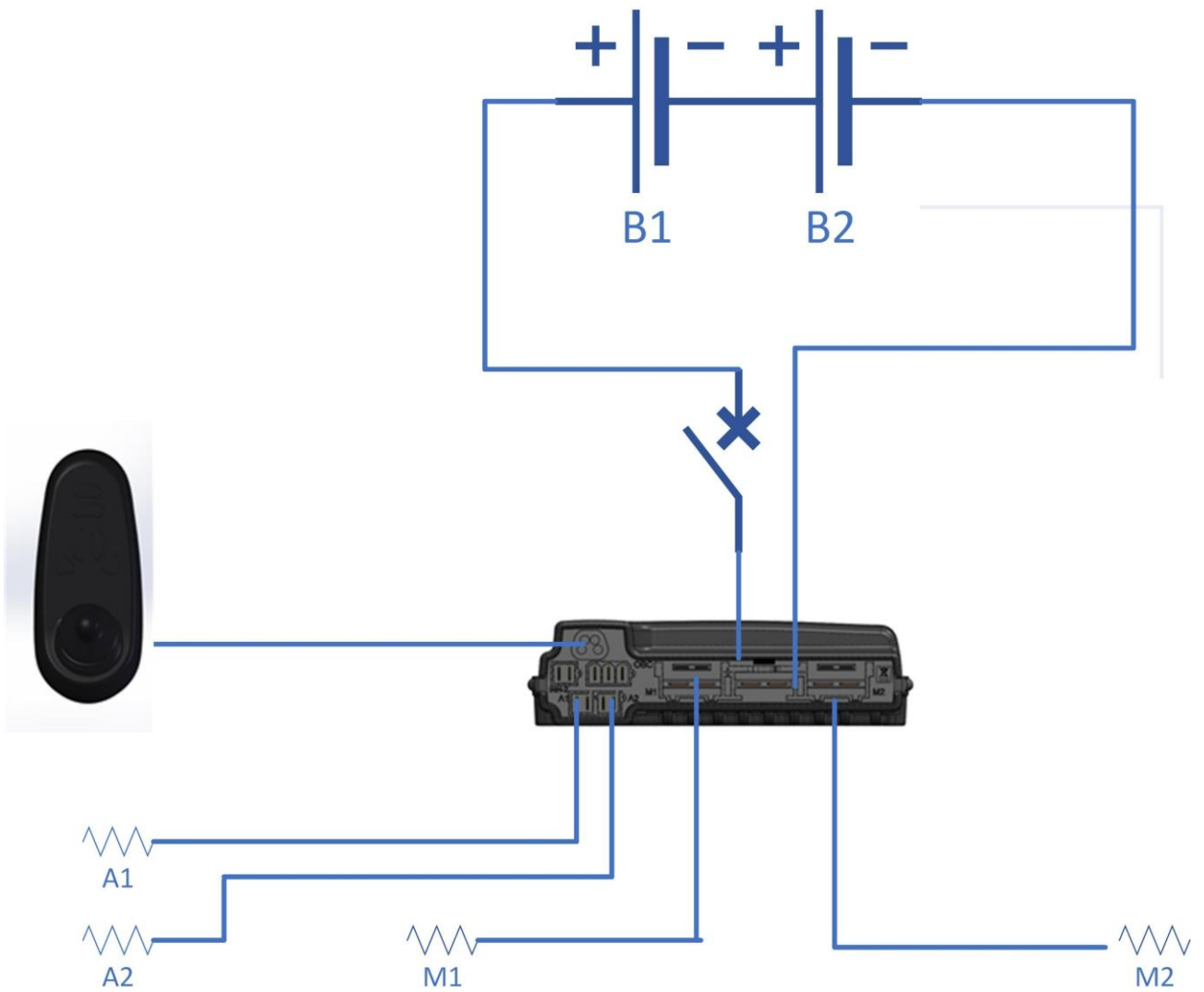


Figure 53

5.5 Reuse

The product is suitable for reuse. Before dispensing it, the product must be cleaned, and subjected to maintenance. The operating instructions are included in this manual and must also be provided when the product is passed on.



WARNING

This operation must be performed only at an authorized service center.

5.6 Spare parts

Type of operation	
A	Parts that can be bought at an authorized service center and substitute autonomously
B	Parts that need to be substituted at an authorized service center.

Table 6

Code	Description	Type of operation	Notes
R045-0110A	Batteries 35 Ah	B	
R045-0110B	Batteries 50 Ah	B	
R045-0120A	Traction wheel Pneumatic Gray \varnothing 320x58 mm	A	
R045-0120B	Traction wheel Pneumatic Black \varnothing 320x58 mm	A	
R045-0121A	Tire of traction wheel gray \varnothing 320x58 mm	B	
R045-0121B	Tire of traction wheel black \varnothing 320x58 mm	B	
R045-0122	Tube of traction wheel \varnothing 320 mm	B	
R045-0131A	Castor Pneumatic gray \varnothing 200 mm x 50 mm	A	
R045-0131B	Castor Pneumatic black \varnothing 200 mm x 50 mm	A	
R045-0131C	Castor PU gray \varnothing 200 mm x 50 mm	A	
R045-0131D	Castor PU black \varnothing 200 mm x 50 mm	A	
R045-0132A	Tire of castor gray \varnothing 200 mm x 50 mm	B	
R045-0132B	Tire of castor black \varnothing 200 mm x 50 mm	B	
R045-0133	Tube for castor \varnothing 200 mm x 50 mm	B	
R045-0134	Fork	B	

R045-0135	Bearings	B
R045-0140	Antitip wheel	A
R045-0150	Cover A	A
R045-0160	Cover B	A
R045-0161	Levers for cover	A
R045-0170	Motors - couple	B
R045-0171	Lever for motors	A
R045-0180	Main switch	B
R045-0181	Lever for main switch	A
R045-0190A	Standard joystick support	A
R045-0190B	Retractable joystick support	A
R045-0200A	Joystick Rnet	A
R045-0200B	Joystick VR2	A
R045-0210A	Power module Rnet	B
R045-0210B	Power module VR2	B
R045-0220	Seat module Rnet	B
R045-0230	Charger	A
R045-0313	Legrest actuator	A
R045-0320A	Footplates splitted - seat width 300 mm	A
R045-0320B	Footplates splitted - seat width 340 mm	A
R045-0320C	Footplates splitted - seat width 380 mm	A
R045-0320D	Footplates splitted - seat width 420 mm	A
R045-0320E	Footplates splitted - seat width 460 mm	A

R045-0320F	Footplate unique - seat width 300 mm	A
R045-0320G	Footplate unique - seat width 340 mm	A
R045-0320H	Footplate unique - seat width 380 mm	A
R045-0320J	Footplate unique - seat width 420 mm	A
R045-0320K	Footplate unique - seat width 460 mm	A
R045-0321A	Fixing system for footrest - LEFT side unique footplate	A
R045-0321B	Fixing system for footrest - RIGHT or LEFT side splitted footplates or RIGHT side unique footboard	A
R045-0321C	Fixing system for footrest - central mounted legrest	A
R045-0330A	Tilt actuator 30°	B
R045-0330B	Tilt actuator 45°	B
R045-0330C	Tilt actuator (with lift + 45° tilt system)	B
R045-0340	Lift actuator	B
R045-0360	Backrest actuator	A
R045-0371	Backrest support (4 pieces)	A
R045-0372	Gas spring for tilting - couple	B
R045-0373	Backrest pin	A
R045-0374	Axis for angle adjustable backrest	A
R045-0380	Padding for push handle	A
R045-0391	Armrest padding	A
R045-0392	Armrest support	A
R045-0393	Armrest fixing system	A

R045-0394	Lever for armrest	A
R045-0395A	Armrest lower support standard	A
R045-0395B	Armrest lower support high	A
R045-0396	Sidepad	A
R045-0400	Legrest support	A
R045-0401	Lever for legrest	A
R045-0402A	Lever for angle adjustable legrest - standard legrest	A
R045-0402B	Lever for angle adjustable legrest - central mounted legrest	A
R045-0403	Plastic cover for powered legrest	B
R045-0404A	Calf support SMALL	A
R045-0404B	Calf support LARGE	A
R045-0404C	Calf support for central mounted legrest SMALL	A
R045-0404D	Calf support for central mounted legrest LARGE	A
R045-0420	Gyroscope	B

Table 7



WARNING

The use of spare parts or accessories not approved by the manufacturer may make the wheelchair unstable or uncontrollable.

For each order, always contact an authorized service center.



CONTACT INFORMATION

For any other part not described in this manual please contact the manufacturer.

5.6.1 Antitip wheels



Average needed time:

5 min



Difficulty level:

Easy

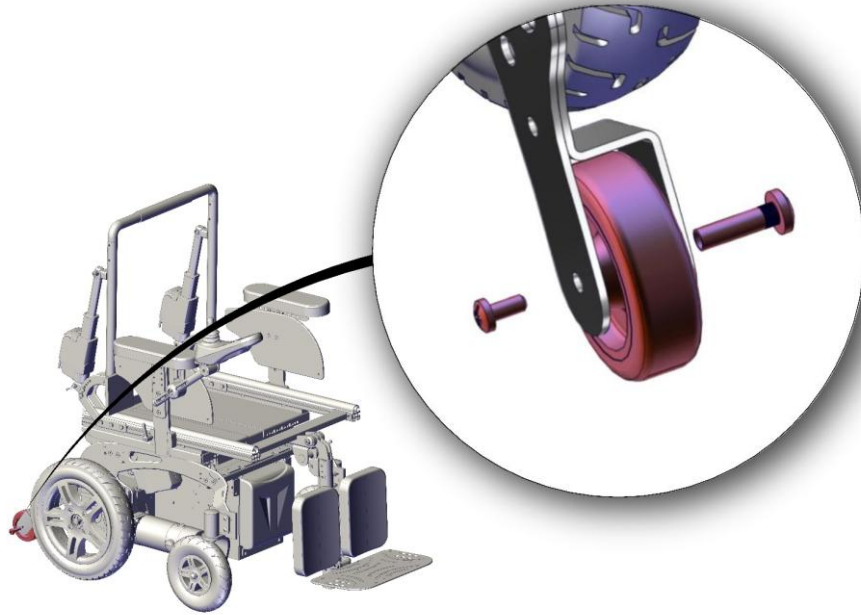


Figure 54

- Unscrew the screws shown in figure.
- Substitute the wheel.
- Screw the new screws.

SCREWDRIVER



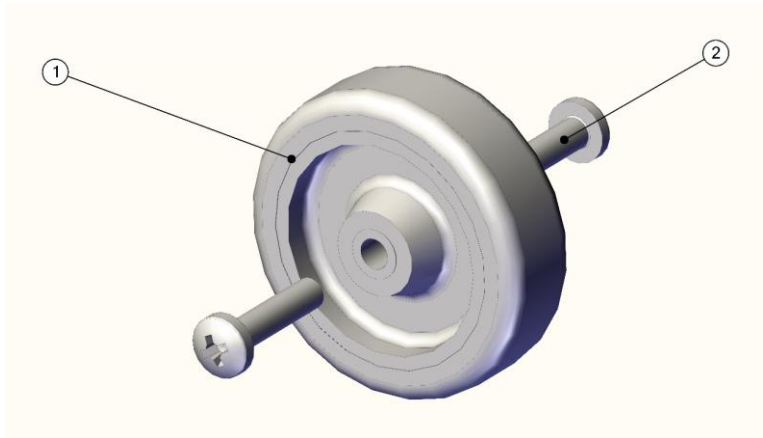


Figure 55

Code	ID	Quantity
R045-0140	1	1
R045-0140	2	2

Code	Description	Type of operation	Notes
R045-0140	Antitip wheel	A	

5.6.2 Cover A



**Average needed
time:**

5 min



Difficulty level:

Easy

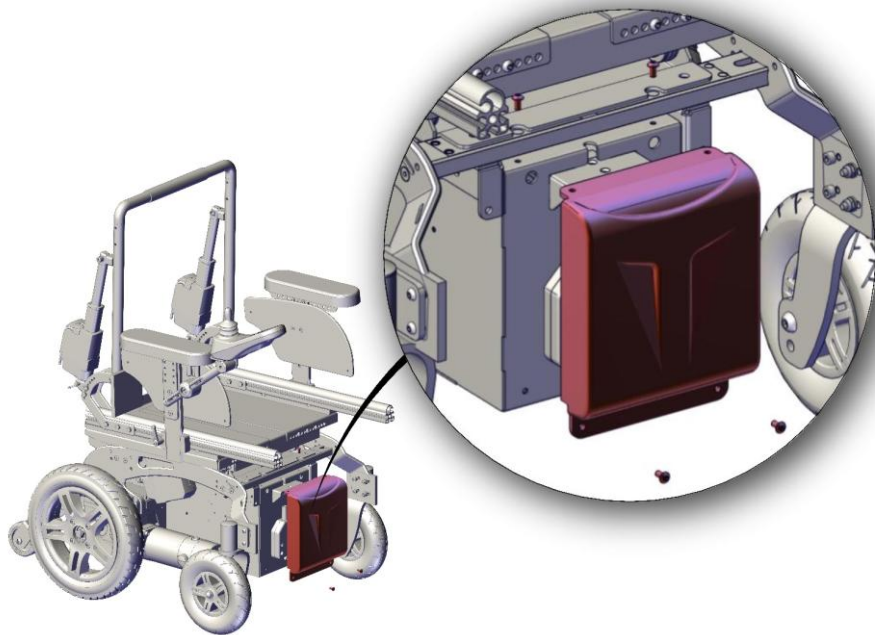


Figure 56

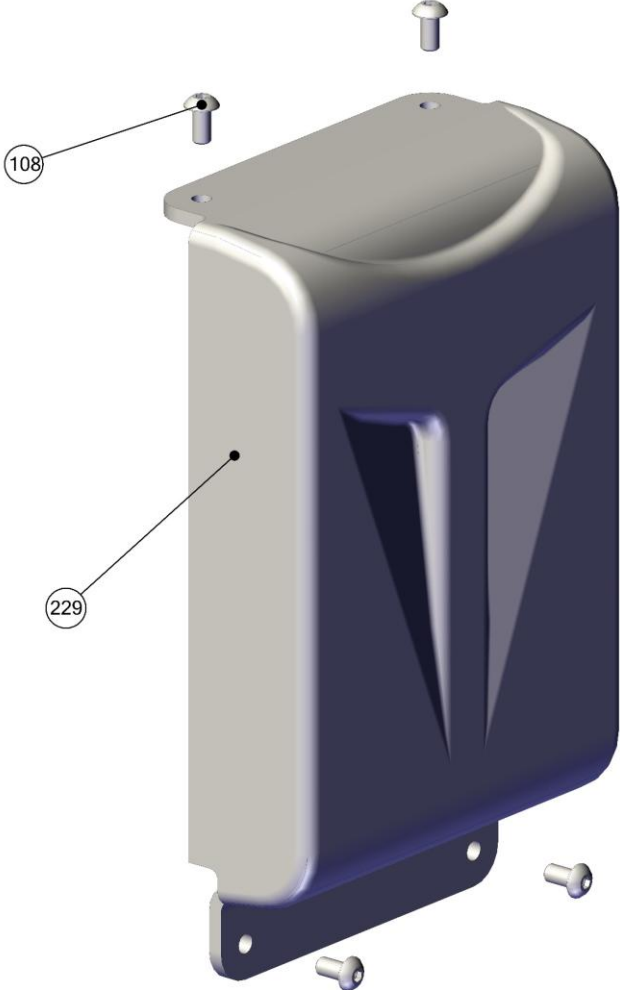
- Unscrew the 4 screws shown in figure.
- Substitute the cover.
- Screw the new screws.

ALLEN WRENCH



3 mm

Code	Description	Type of operation	Notes
R045-0150	Cover A	A	

 <p>Figure 57</p>	Code	ID	Quantity
	R045-0150	229	1
	R045-0150	108	4

5.6.3 Cover B



Average needed time:

5 min



Difficulty level:

Easy

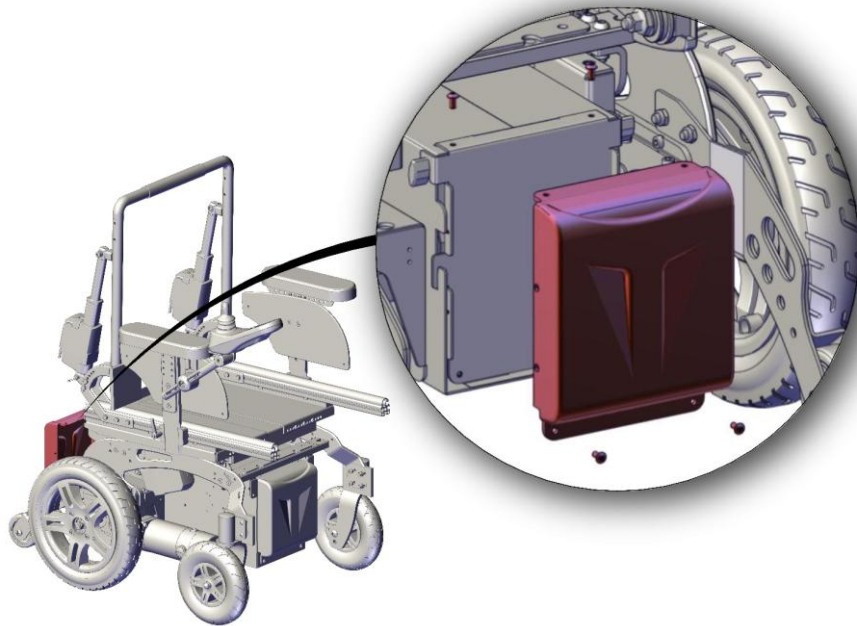


Figure 58

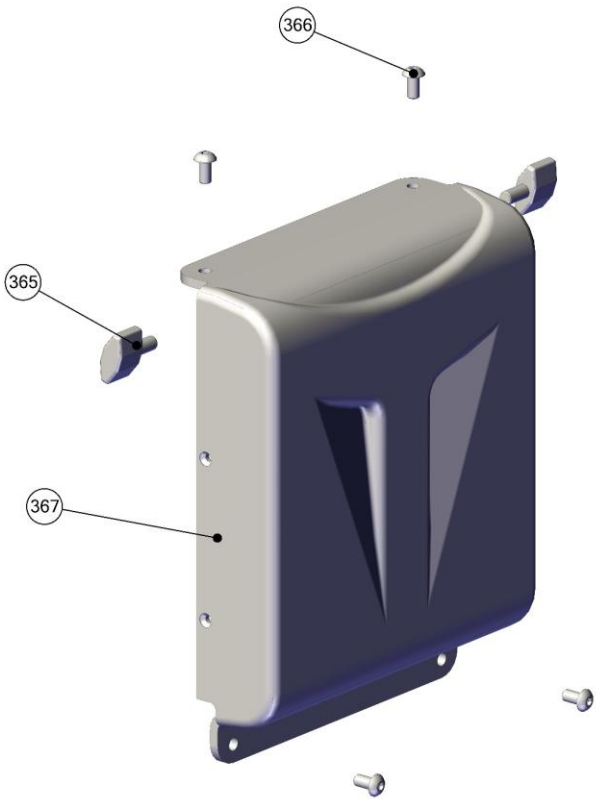
- Unscrew the 4 screws shown in figure.
- Substitute the cover.
- Screw the new screws.

ALLEN WRENCH



3 mm

Code	Description	Type of operation	Notes
R045-0160	Cover B	A	

 <p>Figure 59</p>	Code	ID	Quantity
	R045-0160	367	1
	R045-0160	366	4
	R045-0161	365	2

5.6.4 Levers for cover



Average needed time:

5 min



Difficulty level:

Easy

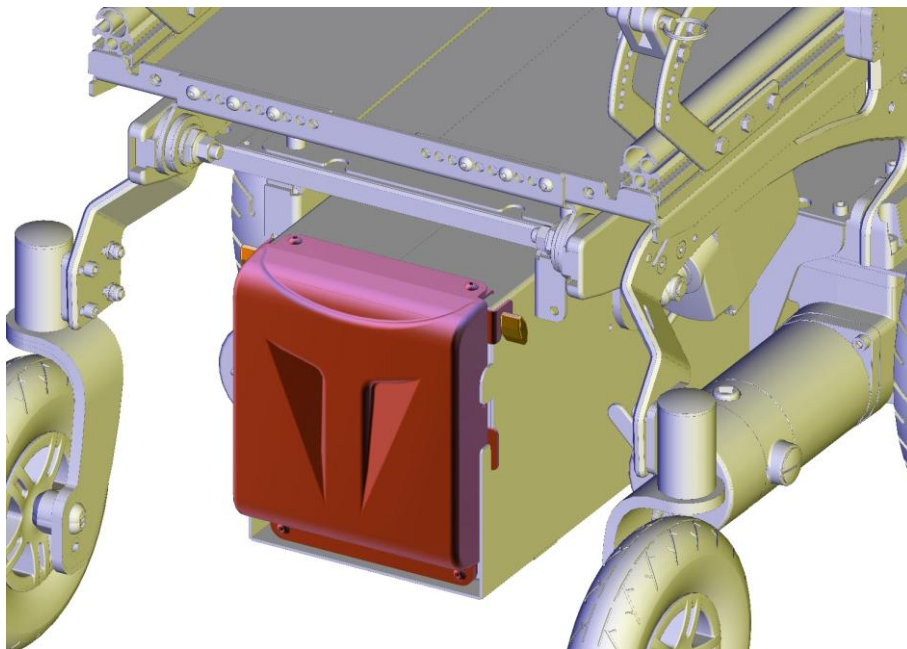




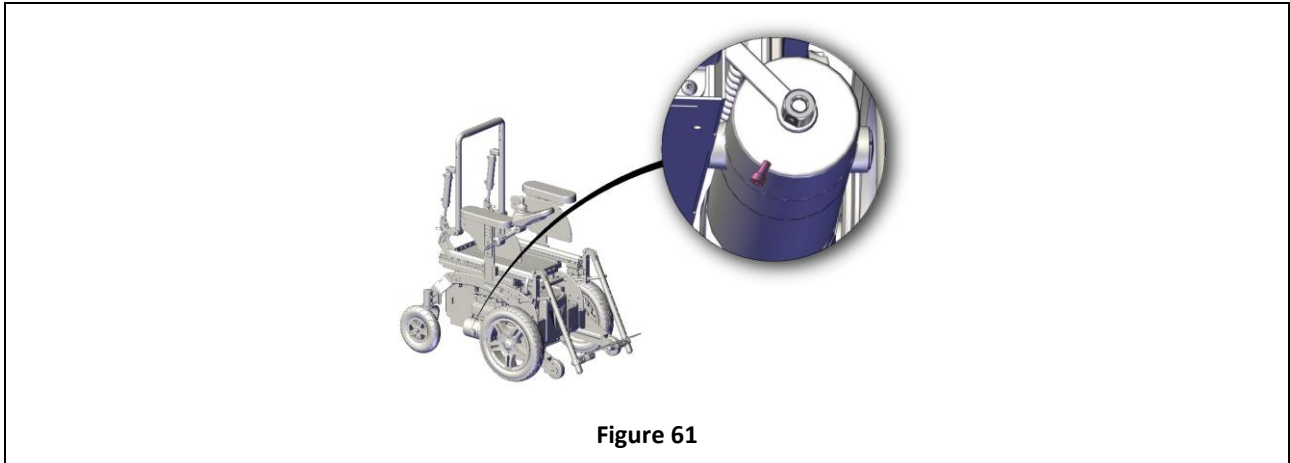
Figure 60


- Substitute the levers shown in figure.

Code	Description	Type of operation	Notes
R045-0161	Levers for cover	A	


5.6.5 Lever for motors

	<p><u>Average needed time:</u> 5 min</p>		<p><u>Difficulty level:</u> Medium</p>
---	---	--	---



<ul style="list-style-type: none"> • Unscrew the screw shown in figure. • Substitute the levers for motor. • Screw the new screw. 	<p>ALLEN WRENCH</p>  <p>4 mm</p>
--	--

Code	Description	Type of operation	Notes
R045-0171	Lever for motors	A	

 <p style="text-align: center;">Figure 62</p>	Code	ID	Quantity
	R045-0171	365	1
	R045-0171	367	1

5.6.6 Standard joystick support



Average needed time:

5 min



Difficulty level:

Easy

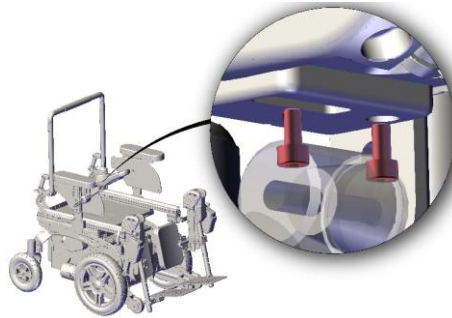


Figure 63

- Unscrew the 2 screws shown in figure.
- Remove the joystick.

ALLEN WRENCH



4 mm

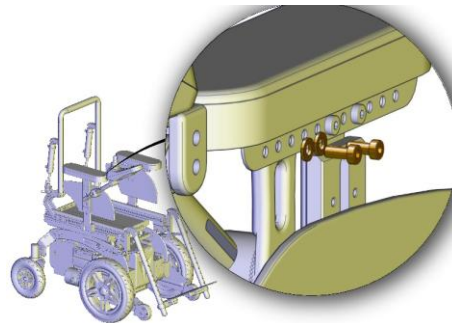


Figure 64

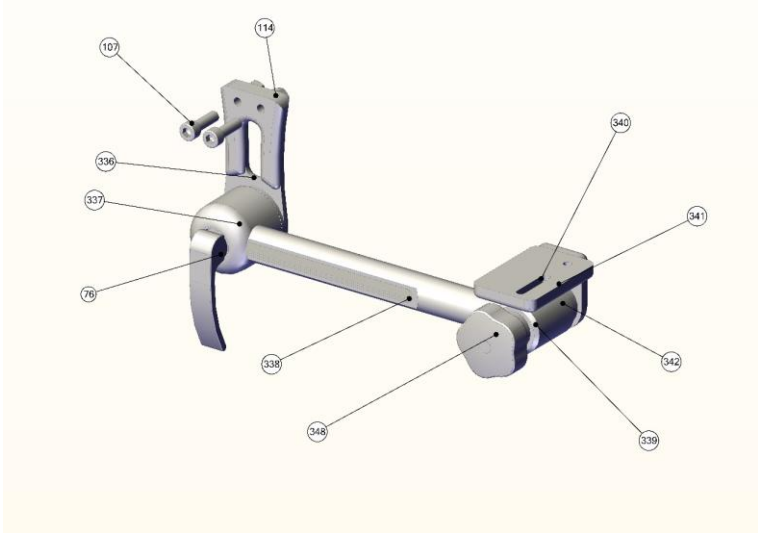
- Unscrew the 2 screws shown in figure. Unscrew the 2 screws shown in figure.
- Substitute the joystick support.
- Mount the old joystick following instructions in reverse order.

ALLEN WRENCH



5 mm

Code	Description	Type of operation	Notes
R045-0190A	Standard joystick support	A	

	Code	ID	Quantity
	 <p style="text-align: center;">Figure 65</p>	R045-0190 A	76
R045-0190 A		107	2
R045-0190 A		114	2
R045-0190 A		336	1
R045-0190 A		337	1
R045-0190 A		338	1
R045-0190 A		339	1
R045-0190 A		340	1
R045-0190 A		341	1
R045-0190 A		342	1
R045-0190 A		348	1

5.6.7 Retractable joystick support



**Average needed
time:**

5 min



Difficulty level:

Easy

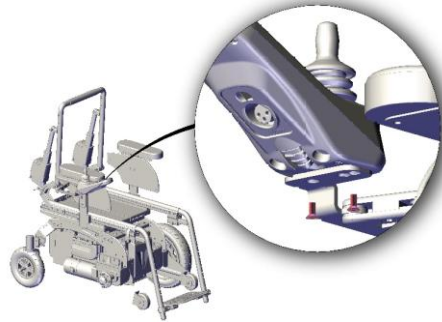


Figure 66

- Unscrew the 2 screws shown in figure.
- Remove the joystick.

ALLEN WRENCH



3 mm

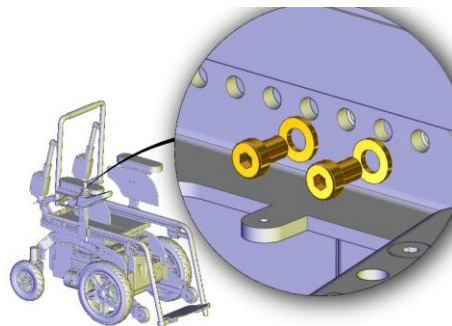


Figure 67

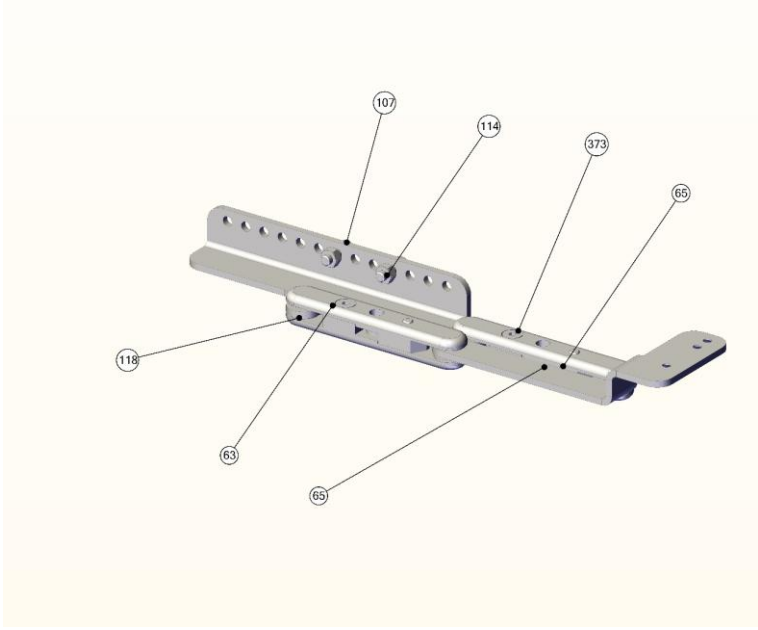
- Unscrew the 2 screws shown in figure.
- Substitute the joystick support.
- Mount the old joystick following instructions in reverse order.

ALLEN WRENCH



3 mm

Code	Description	Type of operation	Notes
R045-0190B	Retractable joystick support	A	

	Code	ID	Quantity
	 <p>Figure 68</p>	R045-0190B	63
R045-0190B		64	1
R045-0190B		65	4
R045-0190B		107	2
R045-0190B		114	2
R045-0190B		118	8
R045-0190B		373	4

5.6.8 Joystick



Average needed time:

5 min



Difficulty level:

Easy

Standard joystick support

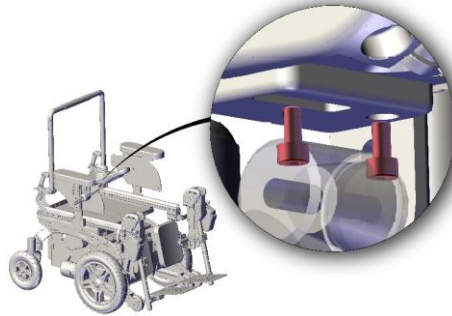


Figure 69

- Unscrew the 2 screws shown in figure.
- Substitute the joystick.

ALLEN WRENCH



4 mm

Retractable joystick support

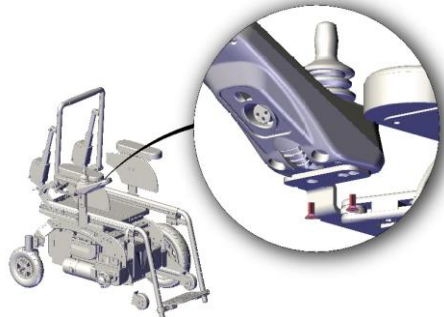


Figure 70

- Unscrew the 2 screws shown in figure.
- Substitute the joystick support.



ALLEN WRENCH

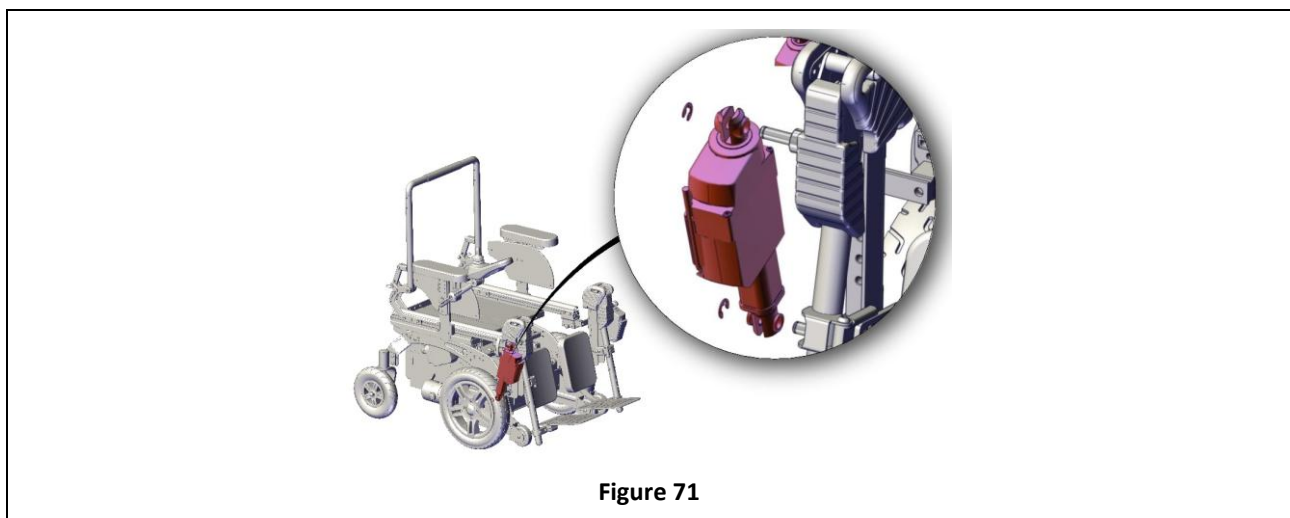



3 mm

Code	Description	Type of operation	Notes
R045-0200A	Joystick Rnet	A	
R045-0200B	Joystick VR2	A	

5.6.9 Legrest actuator

	<p><u>Average needed time:</u> 5 min</p>		<p><u>Difficulty level:</u> Easy</p>
---	---	--	---



<ul style="list-style-type: none"> • Remove the seegers shown in figure. Use a screwdriver as a lever. • Unplug cable of actuator. • Substitute the actuator. 	<p>SCREWDRIVER</p> 
--	--

Code	Description	Type of operation	Notes
R045-0313	Legrest actuator	A	

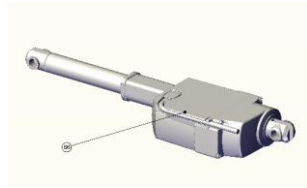


Figure 72

	Code	ID	Quantity
	R045-0313	86	1

5.6.10 Footplates



Average needed time:

5 min



Difficulty level:

Easy

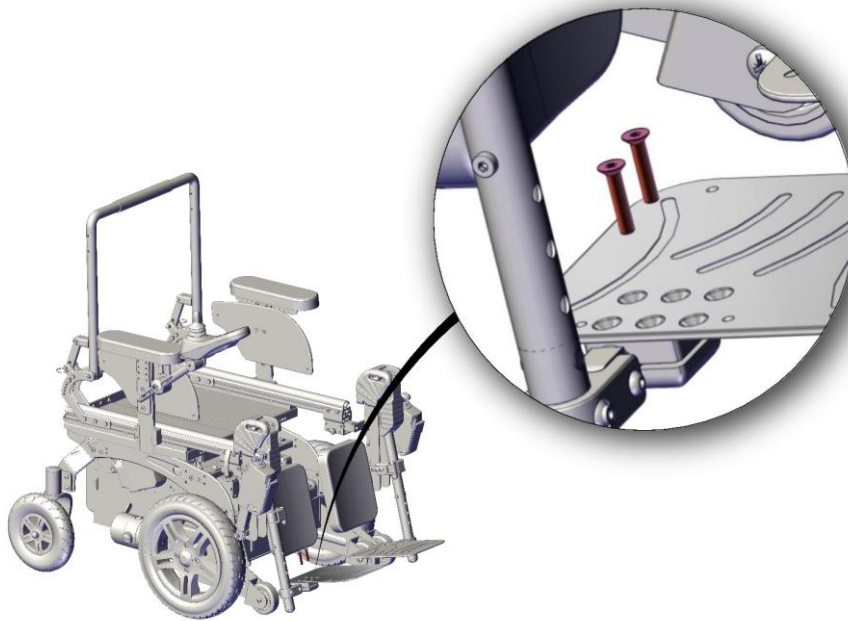


Figure 73

- Unscrew the screws shown in figure.
- Repeat operations for both left and right side of the wheelchair.
- Substitute footplates.

ALLEN WRENCH



4 mm

Central mounted legrest

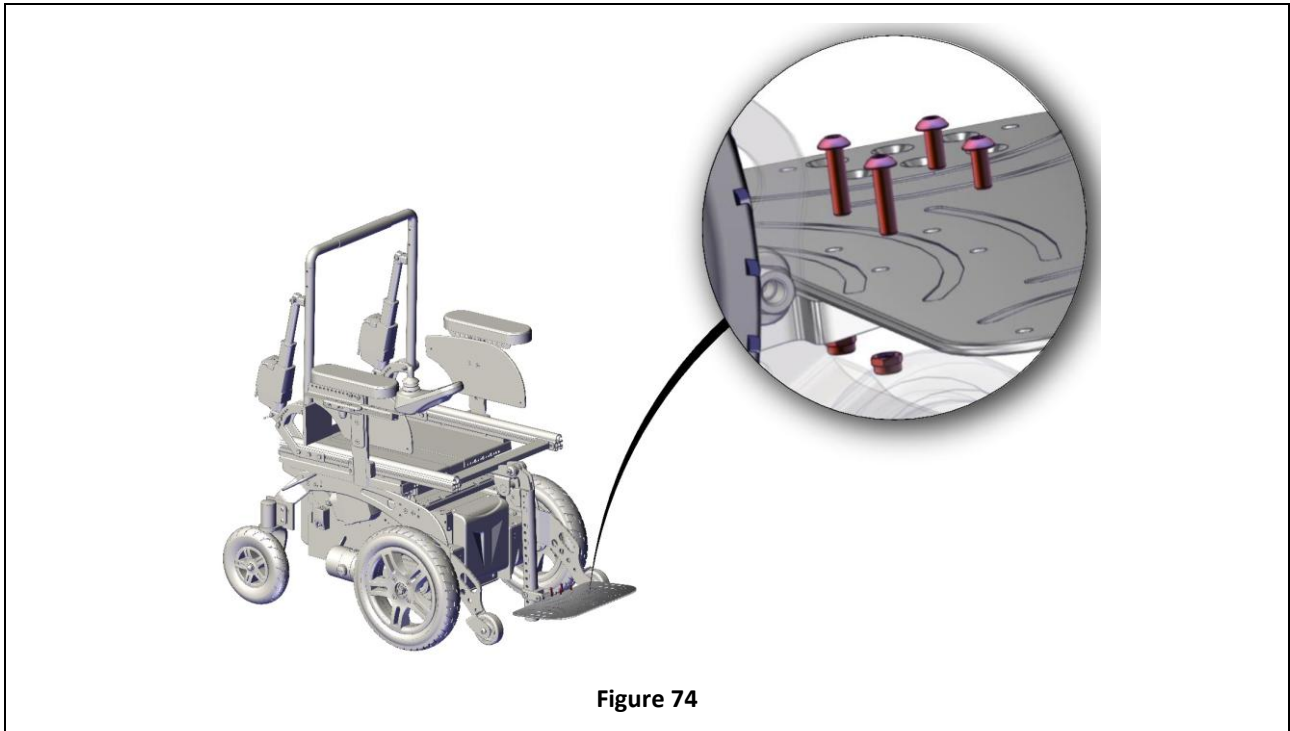


Figure 74

- Unscrew the screws shown in figure using a allen wrench while holding the nut behind with a open-end wrench.
- Substitute footplate.

ALLEN WRENCH



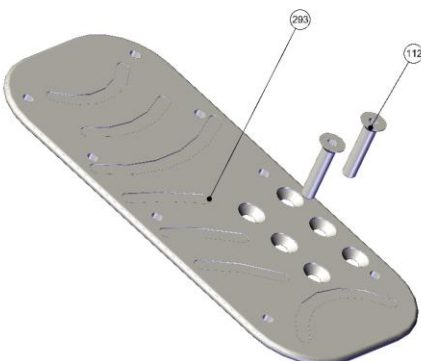
4 mm

OPEN-END WRENCH



10 mm

Code	Description	Type of operation	Notes
R045-0320A	Footplates splitted - seat width 300 mm	A	
R045-0320B	Footplates splitted - seat width 340 mm	A	
R045-0320C	Footplates splitted - seat width 380 mm	A	
R045-0320D	Footplates splitted - seat width 420 mm	A	
R045-0320E	Footplates splitted - seat width 460 mm	A	
R045-0320F	Footplate unique - seat width 300 mm	A	
R045-0320G	Footplate unique - seat width 340 mm	A	
R045-0320H	Footplate unique - seat width 380 mm	A	
R045-0320J	Footplate unique - seat width 420 mm	A	
R045-0320K	Footplate unique - seat width 460 mm	A	

 <p>Figure 75</p>	Code	ID	Quantity
	R045-0320	112	4
	R045-0320A	293A	2
	R045-0320B	293B	2
	R045-0320C	293C	2
	R045-0320D	293D	2
	R045-0320E	293E	2

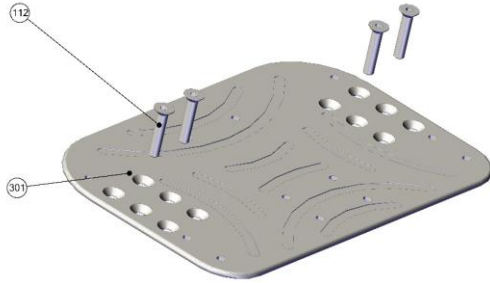


Figure 76

Code	ID	Quantity
R045-0320	112	4
R045-0320F	301A	2
R045-0320G	301B	2
R045-0320H	301C	2
R045-0320J	301D	2
R045-0320K	301E	2

5.6.11 Footplate fixing system



Average needed time:

10 min



Difficulty level:

Easy

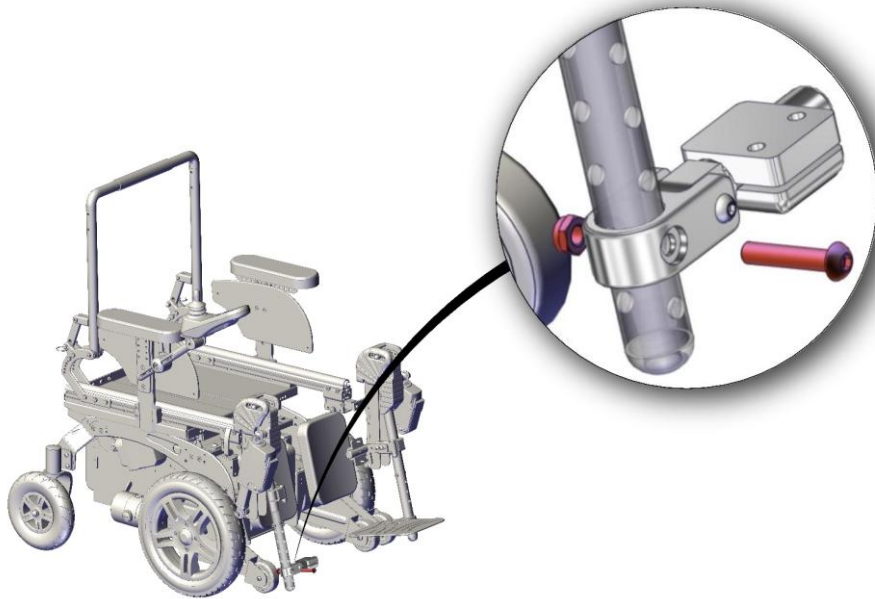


Figure 77

- Remove footplates. See section 5.6.10
- Unscrew the screws shown in figure using a allen wrench while holding the nut behind with a open-end wrench.
- Substitute footplate fixing system and mount the old footplate.

ALLEN WRENCH



5 mm

OPEN-END WRENCH



13 mm

Central mounted legrest

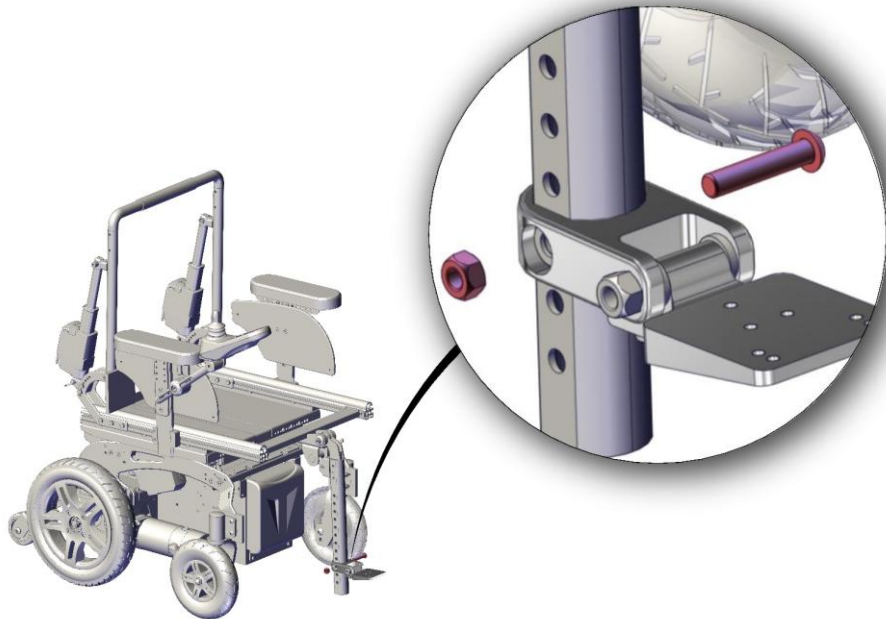


Figure 78

- Remove footplates. See section 5.6.10
- Unscrew the screws shown in figure using a allen wrench while holding the nut behind with a open-end wrench.
- Substitute footplate fixing system and mount the old footplate.

ALLEN WRENCH



5 mm

OPEN-END WRENCH



13 mm

Code	Description	Type of operation	Notes
R045-0321A	Fixing system for footrest - LEFT side unique footplate	A	
R045-0321B	Fixing system for footrest - RIGHT or LEFT side splitted footplates or RIGHT side unique footboard	A	
R045-0321C	Fixing system for footrest - central mounted legrest	A	

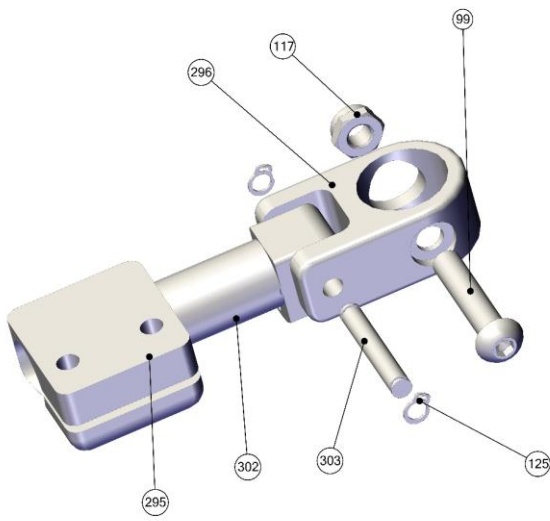


Figure 79

Code	ID	Quantity
R045-0321A	99	1
R045-0321A	117	1
R045-0321A	125	2
R045-0321A	295	1
R045-0321A	296	1
R045-0321A	302	1
R045-0321A	303	1

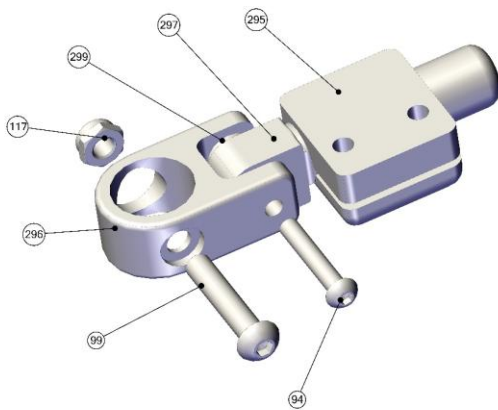


Figure 80

Code	ID	Quantity
R045-0321B	94	1
R045-0321B	99	1
R045-0321B	117	1
R045-0321B	295	1
R045-0321B	296	1
R045-0321B	297	1
R045-0321B	299	2

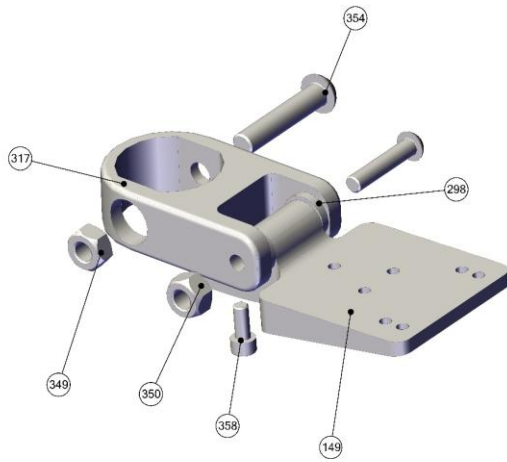


Figure 81

Code	ID	Quantity
R045-0321C	149	1
R045-0321C	298	2
R045-0321C	317	1
R045-0321C	349	1
R045-0321C	350	1
R045-0321C	354	2
R045-0321C	358	1

5.6.12 Backrest actuator



Average needed time:

5 min



Difficulty level:

Easy

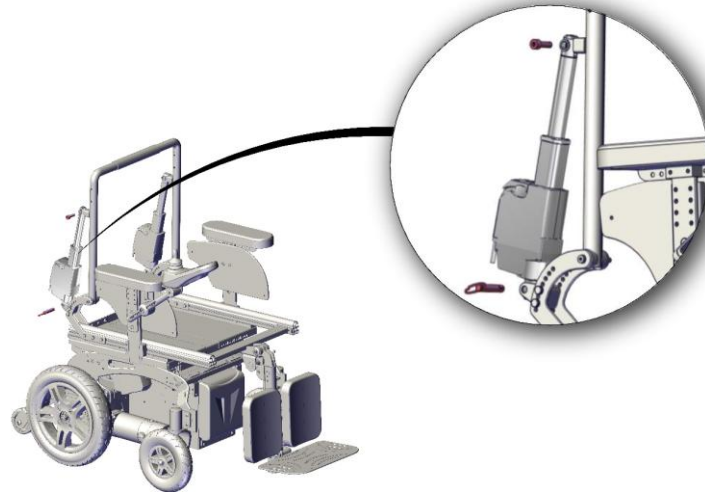


Figure 82

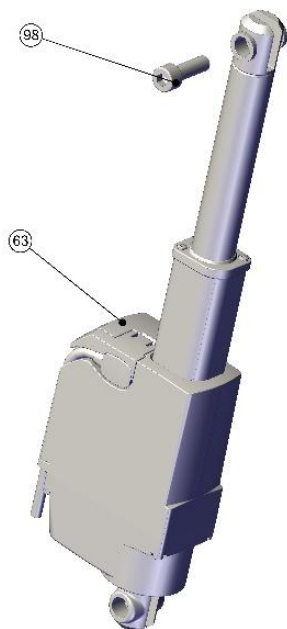
- Remove the axis shown in figure.
- Unscrew the screw shown in figure.
- Unplug the actuator.
- Substitute the actuator.

ALLEN WRENCH



6 mm

Code	Description	Type of operation	Notes
R045-0360	Backrest actuator	A	

 <p>Figure 83</p>	Code	ID	Quantity
	R045-0360	63	1
	R045-0360	98	1

5.6.13 Backrest support



Average needed time:

15 min



Difficulty level:

Easy

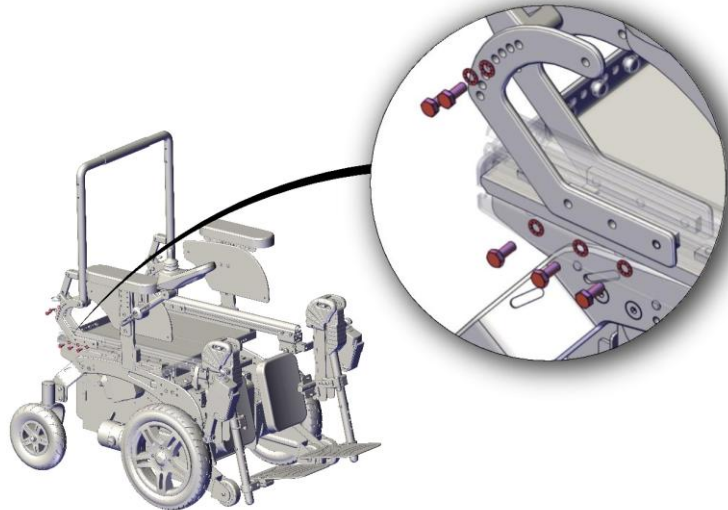


Figure 84

- Unscrew screws shown in figure.
- Substitute the backrest support.
- Repeat operations for 4 backrest supports (right and left side of the wheelchair), one support at time.

OPEN-END WRENCH



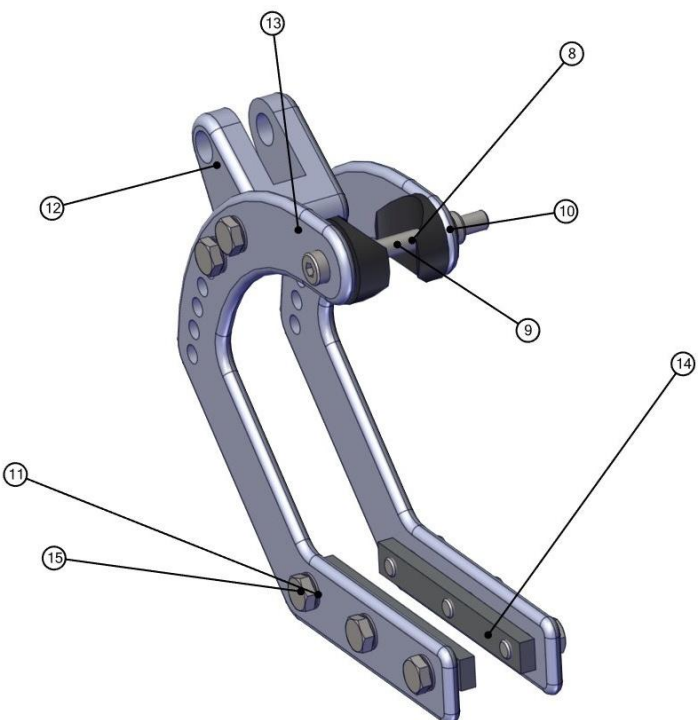
10 mm





WARNING

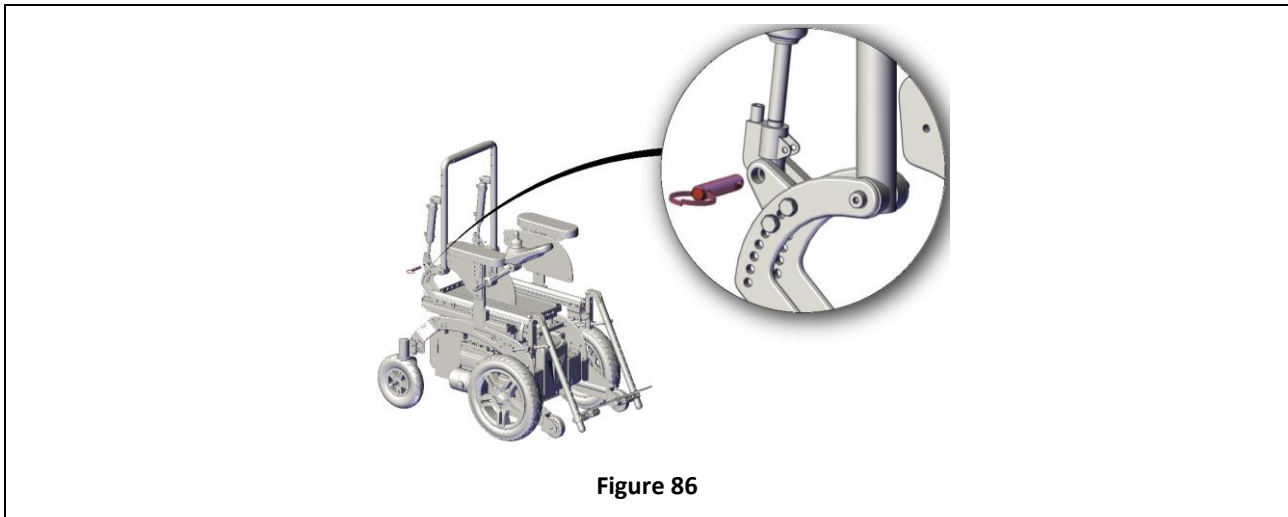
It is very important to substitute one backrest support at time. Please pay special attention.

Code	Description	Type of operation	Notes
R045-0371	Backrest support	A	

	Code	ID	Quantity
	 <p>Figure 85</p>	R045-0371	8
R045-0371		9	2
R045-0371		10	2
R045-0371		11	20
R045-0371		12	2
R045-0371		13	2
R045-0371		14	2
R045-0371		15	4
R045-0371		16	2
R045-0371		17	2
R045-0371		18	4
R045-0371		22	2
R045-0371		23	4
R045-0371		24	2
R045-0371		25	2
R045-0371		26	2
R045-0371	27	4	
R045-0371	28	20	

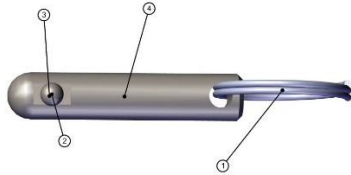
5.6.14 Backrest pin

	<p>Average needed time: 5 min</p>		<p>Difficulty level: Easy</p>
---	--	--	--





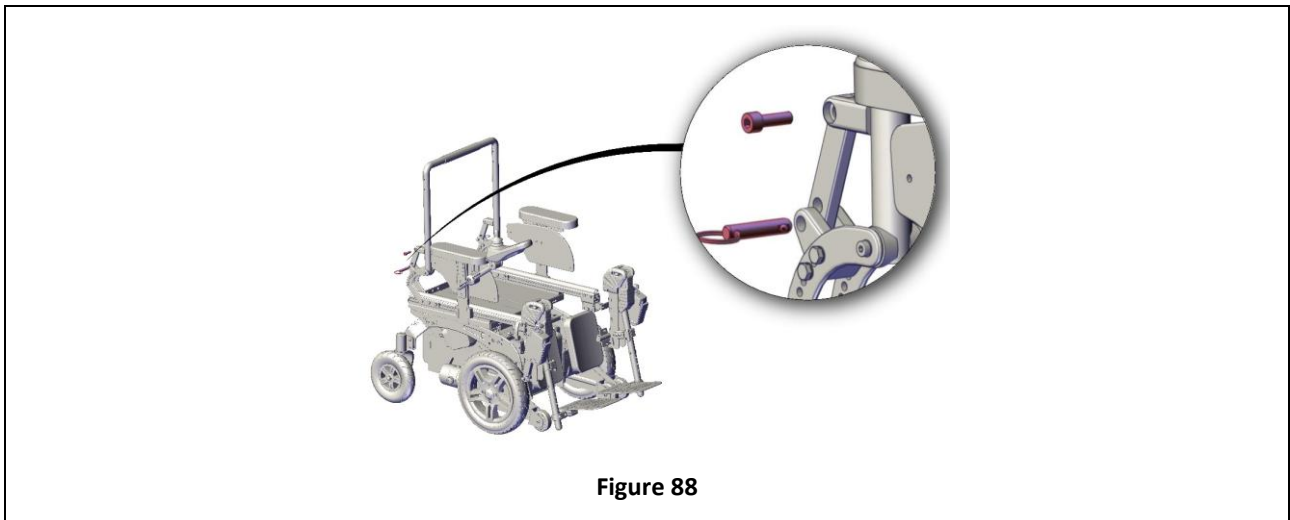
- Substitute the pin shown in figure.

Code	Description	Type of operation	Notes
R045-0373	Backrest pin	A	

 <p style="text-align: center;">Figure 87</p>	<p>Code</p>	<p>ID</p>	<p>Quantity</p>
	R045-0373	1	2
	R045-0373	2	2
	R045-0373	3	2
	R045-0373	4	2

5.6.15 Axis for angle adjustable backrest

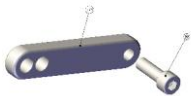
	<p>Average needed time: 5 min</p>		<p>Difficulty level: Easy</p>
---	--	--	--



<ul style="list-style-type: none"> • Remove the pin shown in figure. • Unscrew the screw shown in figure. • Substitute the axis. 	<p>ALLEN WRENCH</p>	<p>6 mm</p>
---	----------------------------	-------------



Code	Description	Type of operation	Notes
R045-0374	Axis for angle adjustable backrest	A	

 <p style="text-align: center;">Figure 89</p>	Code	ID	Quantity
	R045-0374	98	2
	R045-0374	276	2

5.6.16 Armrest padding



Average needed time:

5 min



Difficulty level:

Easy

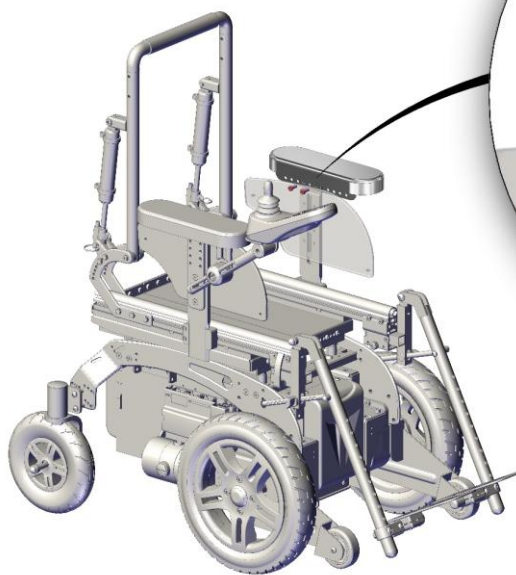


Figure 90

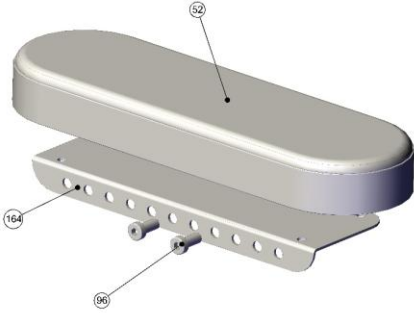
- Unscrew the 2 screws shown in figure.
- Substitute the armrest padding.

ALLEN WRENCH



5 mm

Code	Description	Type of operation	Notes
R045-0391	Armrest padding	A	

 <p>Figure 91</p>	Code	ID	Quantity
	R045-0391	52	1
	R045-0391	96	2
	R045-0391	164	1

5.6.17 Armrest support



Average needed time:

5 min



Difficulty level:

Easy

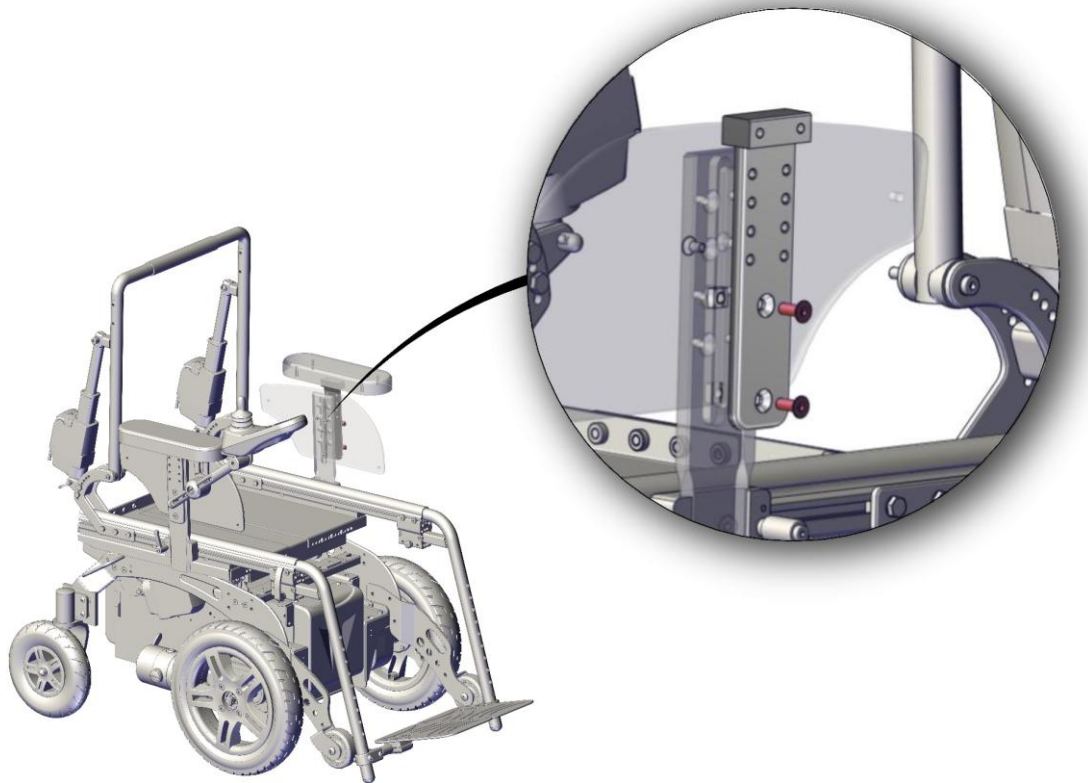


Figure 92

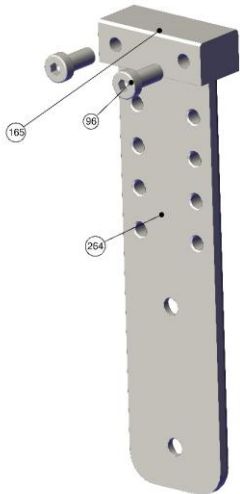
- Remove armrest padding. See section 5.6.16
- Unscrew the 2 screws shown in figure.
- Substitute the armrest support.
- Mount the old armrest padding. See section 5.6.16 .

ALLEN WRENCH



4 mm

Code	Description	Type of operation	Notes
R045-0392	Armrest support	A	

 <p>Figure 93</p>	Code	ID	Quantity
	R045-0392	96	2
	R045-0392	165	1
	R045-0392	264	1

5.6.18 Armrest fixing system



Average needed time:

5 min



Difficulty level:

Easy

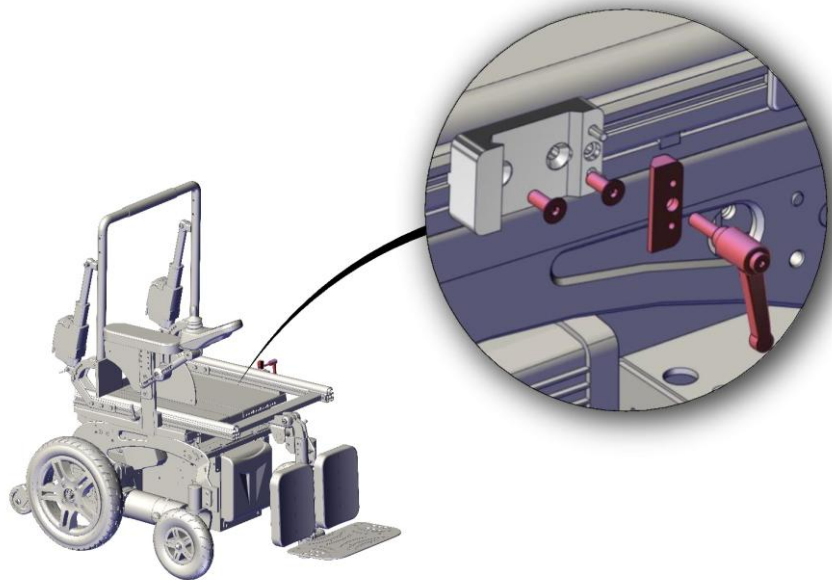


Figure 94

- Unscrew the lever shown in figure and remove the armrest.
- Unscrew the 2 screws shown in figure.
- Substitute the fixing system for armrest.

ALLEN WRENCH



4 mm

Code	Description	Type of operation	Notes
R045-0393	Armrest fixing system	A	
R045-0394	Lever for armrest	A	

	Code	ID	Quantity
		R045-0393	89
R045-0393		140	1
R045-0393		319	1
R045-0393		320	1
R045-0393		340	2
R045-0394		140	1

Figure 95

5.6.19 Armrest lower support



Average needed time:

5 min



Difficulty level:

Easy

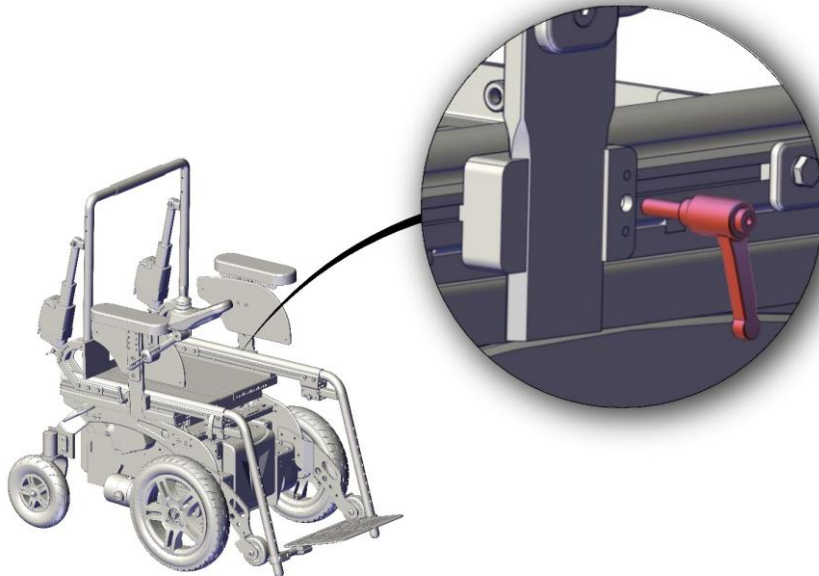


Figure 96

- Loosen the lever shown in figure and remove the armrest.
- Remove the sidepad. See section 5.6.20 .



Figure 97

- Unscrew the screws shown in figure.
- Substitute the armrest lower support following instructions in reverse order.

ALLEN WRENCH



4 mm

Code	Description	Type of operation	Notes
R045-0395A	Armrest lower support standard	A	
R045-0395B	Armrest lower support high	A	

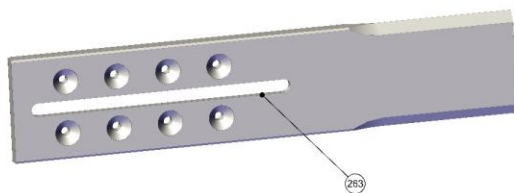


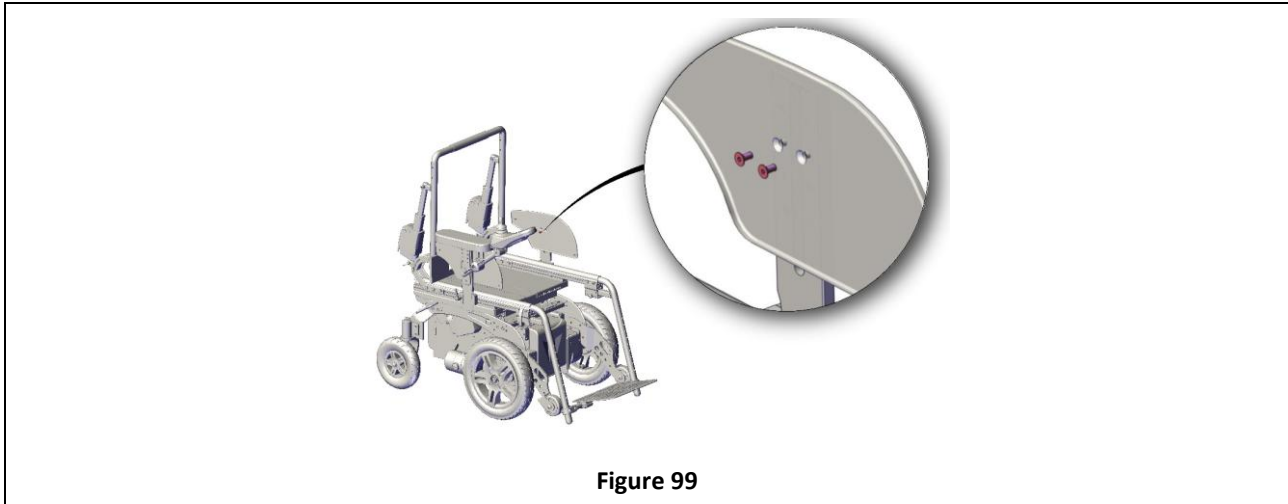



Figure 98

Code	ID	Quantity
R045-0395A	263 A	1
R045-0395B	263B	1

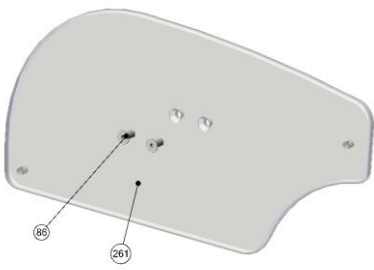
5.6.20 Sidepad

	<p>Average needed time: 5 min</p>		<p>Difficulty level: Easy</p>
---	--	--	--



<ul style="list-style-type: none"> • Unscrew the screws shown in figure. • Substitute the sidepad. 	<p>ALLEN WRENCH</p>  <p>3 mm</p>
--	--

Code	Description	Type of operation	Notes
R045-0396	Sidepad	A	

 <p style="text-align: center;">Figure 100</p>	Code	ID	Quantity
	R045-0395A	86	2
	R045-0395B	261	1

5.6.21 Legrest support



Average needed time:

5 min



Difficulty level:

Easy

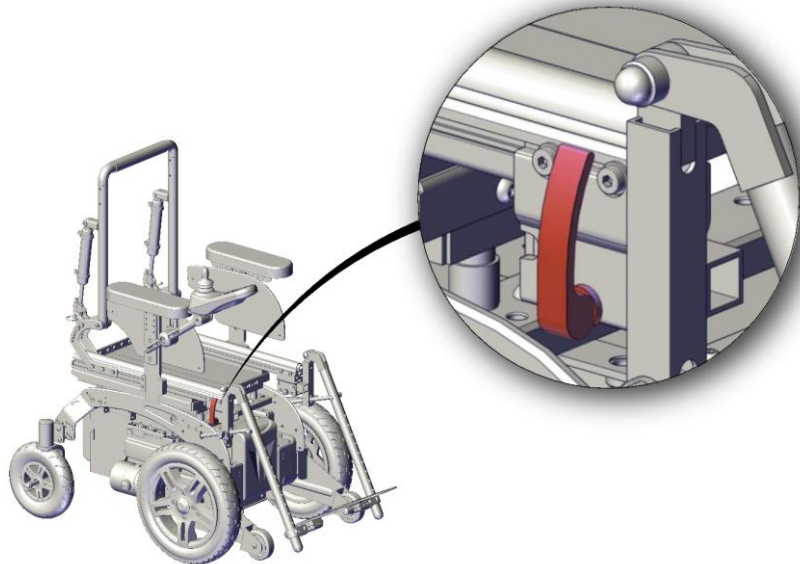


Figure 101

- Loosen the lever shown in figure.
- Remove legrest.

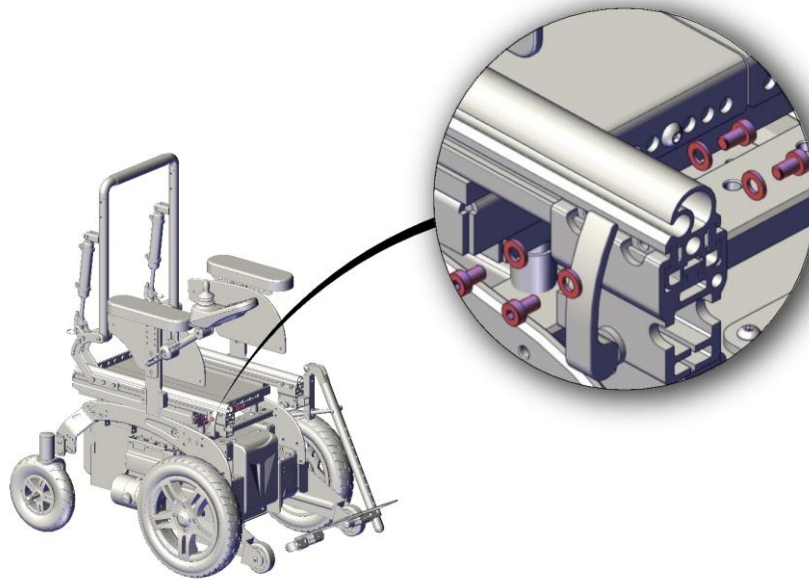


Figure 102

- Unscrew the screws shown in figure.
- Substitute the legrest support.
- Mount the old legrest following instructions in reverse order.

ALLEN WRENCH



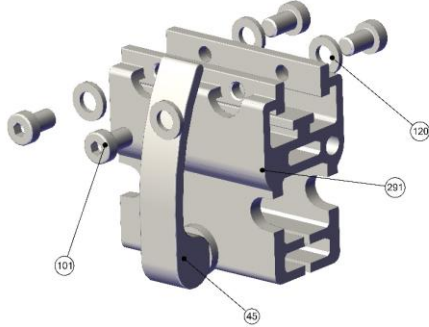
5 mm



INFORMATION

It is also possible to substitute only the lever.

Code	Description	Type of operation	Notes
R045-0400	Legrest support	A	
R045-0401	Lever for legrest	A	

 <p>Figure 103</p>	Code	ID	Quantity
	R045-0400	45	1
	R045-0400	101	4
	R045-0400	120	4
	R045-0400	291	1
	R045-0401	45	1

5.6.22 Lever for angle adjustable legrest



**Average needed
time:**

1 min



Difficulty level:

Easy

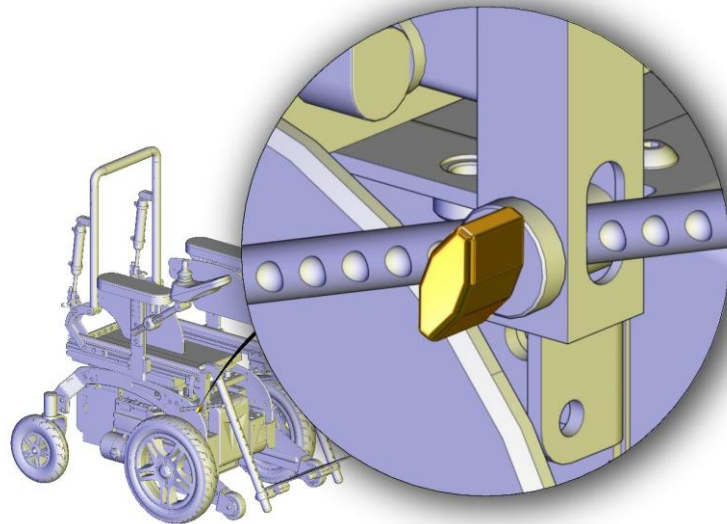


Figure 104

- Substitute the lever shown in figure.

Central mounted legrest

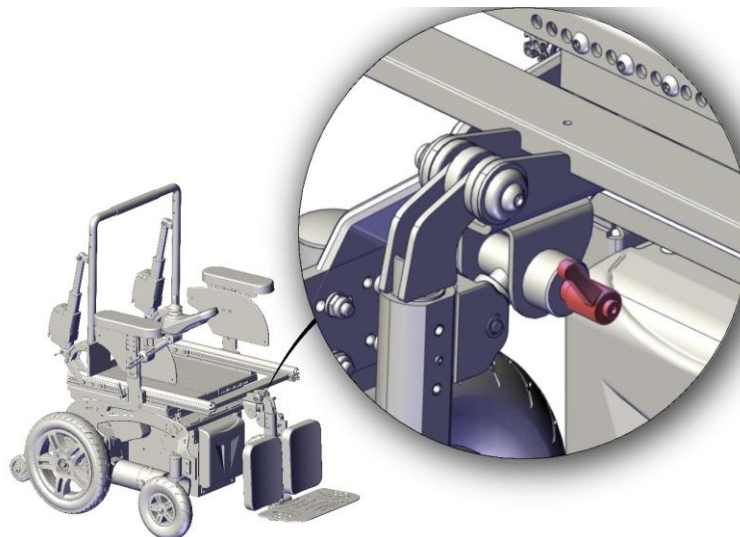


Figure 105

- Substitute the lever shown in figure.

Code	Description	Type of operation	Notes
R045-0402A	Lever for angle adjustable legrest - standard legrest	A	
R045-0402B	Lever for angle adjustable legrest - central mounted legrest	A	

5.6.23 Calf support



**Average needed
time:**

5 min



Difficulty level:

Easy

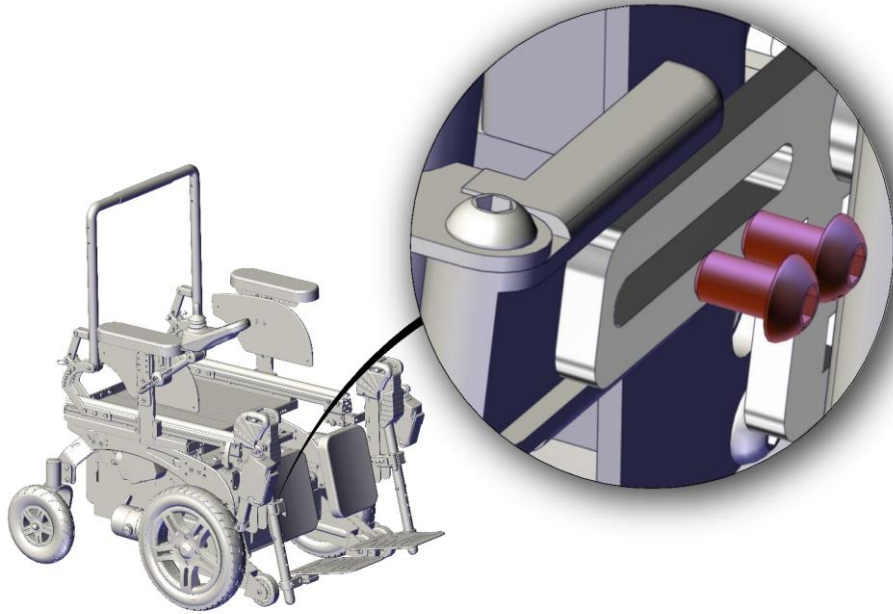


Figure 106

- Unscrew the screws shown in figure.
- Substitute the calf support.

ALLEN WRENCH



4 mm

Central mounted legrest

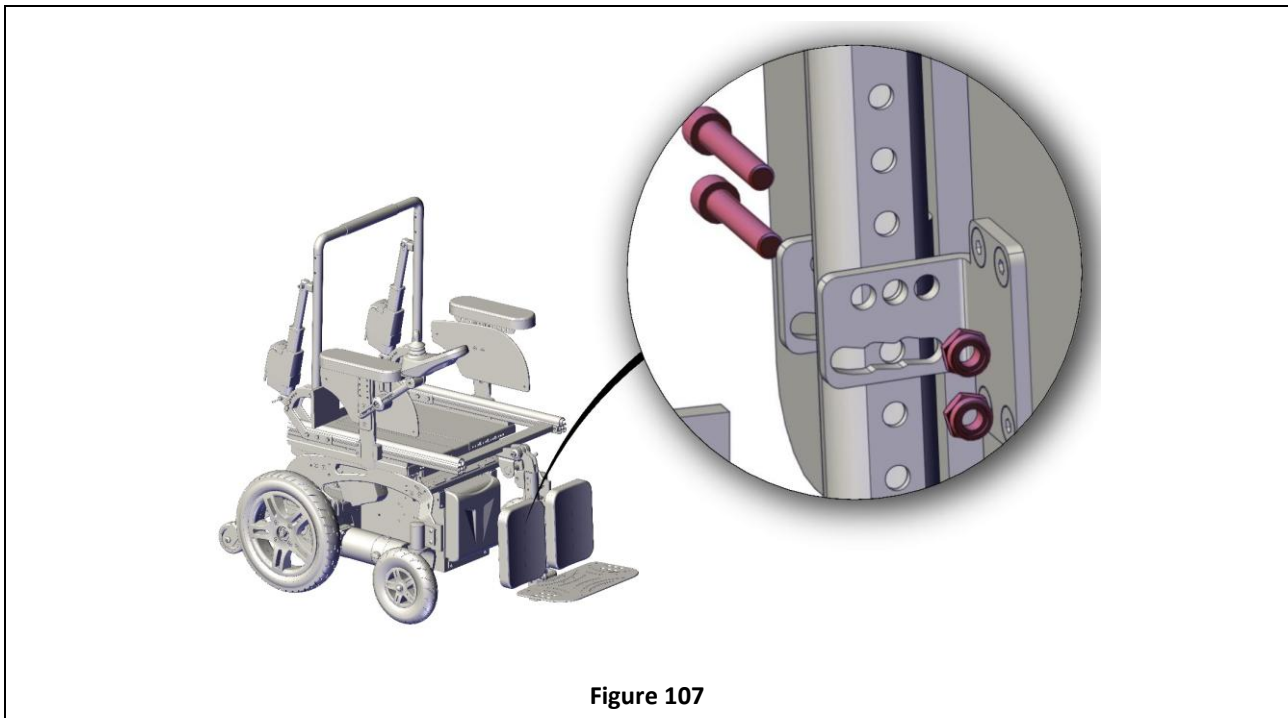


Figure 107

- Unscrew the screws shown in figure using a allen wrench while holding the nut behind with a open-end wrench.
- Substitute the calf support.

ALLEN WRENCH



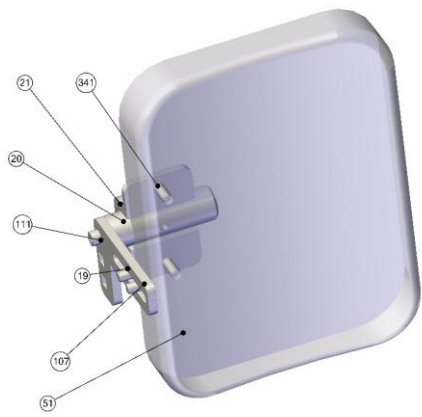
6 mm

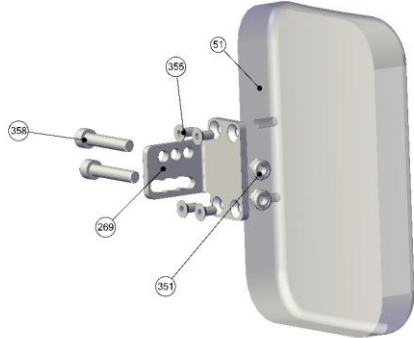
OPEN-END WRENCH



13 mm

Code	Description	Type of operation	Notes
R045-0404A	Calf support SMALL	A	
R045-0404B	Calf support LARGE	A	
R045-0404C	Calf support for central mounted legrest SMALL	A	
R045-0404D	Calf support for central mounted legrest LARGE	A	

 <p>Figure 108</p>	Code	ID	Quantity
	R045-0404A	51A	1
	R045-0404B	51B	1
	R045-0404	19	1
	R045-0404	20	1
	R045-0404	21	1
	R045-0404	107	2
	R045-0404	111	1
	R045-0404	341	3


 <p>Figure 109</p>	Code	ID	Quantity
	R045-0404C	51A	1
	R045-0404D	51B	1
	R045-0404	269	1
	R045-0404	352	2
	R045-0404	355	4
	R045-0404	358	2

6 SPECIFICATIONS

Maximum safety slope (uphill, 6° downhill, lateral)	
Expected lifetime [years]	10
Class [EN 12184]	B
Range [ISO 7176-4]	≥ 25 km The distance will be reduced if the wheelchair is used frequently on slopes, rough ground or to climb kerbs.
Recommended tire pressure [kPa]	Traction wheels: 280 kPa; Castors: 250 kPa.
Standard compliance	ISO 14971: 2007 EN 12184 : 2009

Intended use	The EVO 1 wheelchair is intended to be used by those groups of users with temporary or permanent mobility difficulties confined to a sitting position who need to move in mostly internal environments.
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WARNING



It is prohibited to use the product or its parts for any purpose other than that indicated. The manufacturer disclaims any responsibility for damages caused by improper use of aids.

It is possible to use the wheelchair when the temperature is between -10 °C and +40 °C.

It is possible to store the wheelchair in a place with a temperature between -20 °C and +45 °C.

6.1 Maximum user weight

Seat width	MAX
30 cm	50 kg
34 cm	75 kg
38 cm	100 kg
42 cm	150 kg
46 cm	150 kg

Table 8

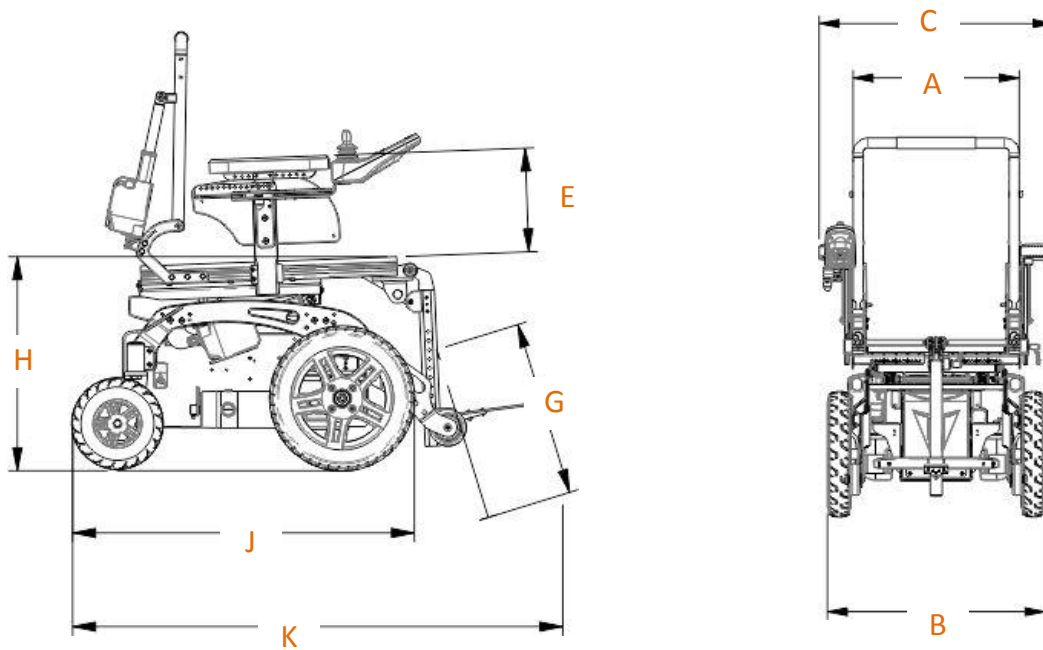
6.2 Other provided information

Manufacturer	Neatech.it srl
Address	via A. de Curtis 4/A – 80040 – Cercola (NA) - Italy
Model	S045 – EVO1

Description	Value
Overall length with legrest	110 cm
Overall width	MIN: 50.0 cm MAX: 59.0 cm
Folded length	N.A.
Folded width	N.A.
Folded height	N.A.
Total mass (the weight may change significantly according to the configuration of the wheelchair)	MAX 125 kg
Dynamic stability	6°
Static stability downhill	9°
Static stability uphill	9°
Static stability sideways	9°
Seat plane angle	0° 30° 45°
Effective seat depth	MIN: 30.0 cm MAX: 62.0 cm

Effective seat width	MIN: 30.0 cm MAX: 44.0 cm
Seat surface height at front edge	MIN: 45.0 cm MAX: 48.5 cm
Backrest angle	MIN: 90° MAX: 145°
Backrest height	MIN: 45.0 cm MAX: 55.0 cm
Footrest to seat distance	MIN: 15.0 cm MAX: 40.0 cm
Armrest to seat distance	MIN: 22.0 cm MAX: 28.5 cm
Minimum turning radius [ISO 7176-5]	30 cm
Turn around distance [ISO 7176-5]	120 cm

6.3 Dimensions



A	300 mm	340 mm	380 mm	420 mm	460 mm
B	500 mm		560 mm		
C	450 mm	490 mm	530 mm	570 mm	610 mm
E	220 mm – 285 mm				
G	MIN 150 mm – MAX 400 mm see section 3.7				
H	0° TILT: 450 mm 30° TILT: 445 mm 45° TILT 48m5 mm LIFT 490 mm				
J	FWD: 75 cm RWD: 64 cm				
K	ND				

7 WARRANTY TERMS

The product is globally guaranteed for 24 months **with the exception of the batteries that are guaranteed for 6 months** from the delivery to the first user. The warranty covers defects in materials or workmanship. The warranty doesn't cover parts subject to usury or damaged parts by: overload, misuse, alterations and repairs made by unauthorized third parties from the manufacturer. The warranty expires in case of tampering, improper storage, unauthorized or incorrect maintenance.

7.1 Serial number

For any report or assistance request, please communicate the serial number mentioned on the label in the position shown in figure.

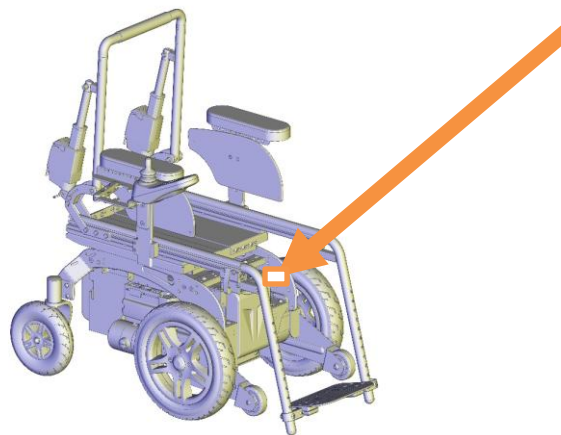


Figure 110

EVO 1

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ph. +39 081 5551946
fax +39 081 5552507
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www.neatech.it