

PROACTIV[®]



Instructions for use and assembly

Dahl MADS[™] docking adaption set
503990 for TRAVELER 4all Ergo
and TRAVELER 4you Ergo

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This document is available in PDF format at www.proactiv-gmbh.com/ for visually impaired people. Using the zoom function, the font can be increased as desired.

1 Introduction

Dear Customer,

this instructions for use and assembly explain how to secure your PRO ACTIV wheelchair in a vehicle using the Dahl docking stations. These instructions supplement the user manual for the PRO ACTIV product.

You can always download the latest version of the instructions as a PDF document in our download area at www.proactiv-gmbh.com/.

Your PRO ACTIV team

2 Legend

The symbol used in these instructions has the following meaning



Warnings and safety instructions

3 Attachment and installation

3.1 Attachment to PRO ACTIV wheelchair

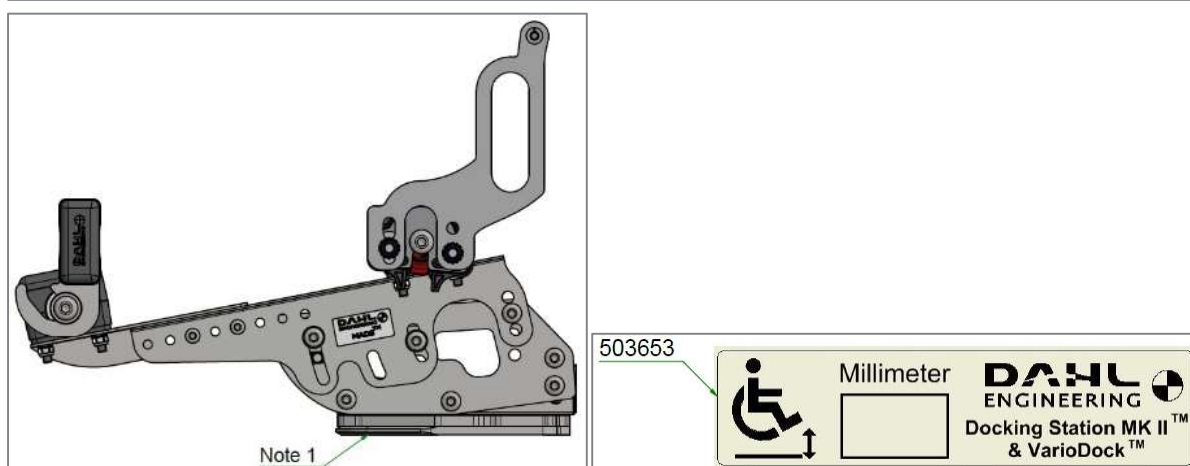
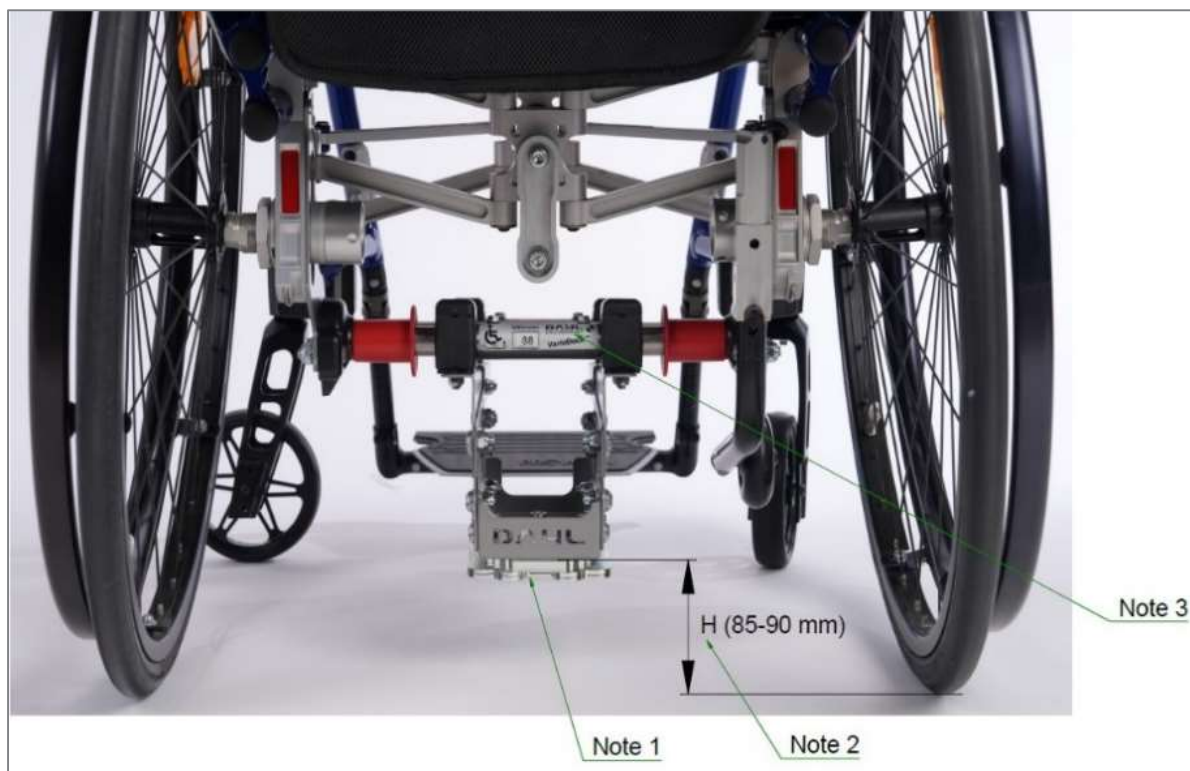
Dahl Engineering offers two docking stations. The Dahl Docking MK II and the electrically height-adjustable Dahl VarioDock™. The Dahl MADS™ docking adaptation set 503990 is identical for both docking stations and both are suitable for mounting the TRAVELER 4all Ergo (T5) and TRAVELER 4you Ergo (T1-5_S).

3.2 Installation of the Dahl Docking stations in the vehicle

Only professional companies in the business of converting or building wheelchair accessible vehicles can order the docking systems from Dahl Engineering. A qualified and experienced technician must carry out the installation. Dahl Engineering can provide vehicle specific installation instructions for a large range of vehicles, which must be respected by the installer. Please contact Dahl Engineering for further information about approved vehicles and installation positions. Dahl Engineering contact details are available at: www.dahlengineering.dk

4 Mounting the docking adaption kit

The Dahl MADS™ docking adaptation set 503990, which is provided by Dahl Engineering, is required for installation. The following describes how to attach it to the PRO ACTIV wheelchair.

**Note 1:**

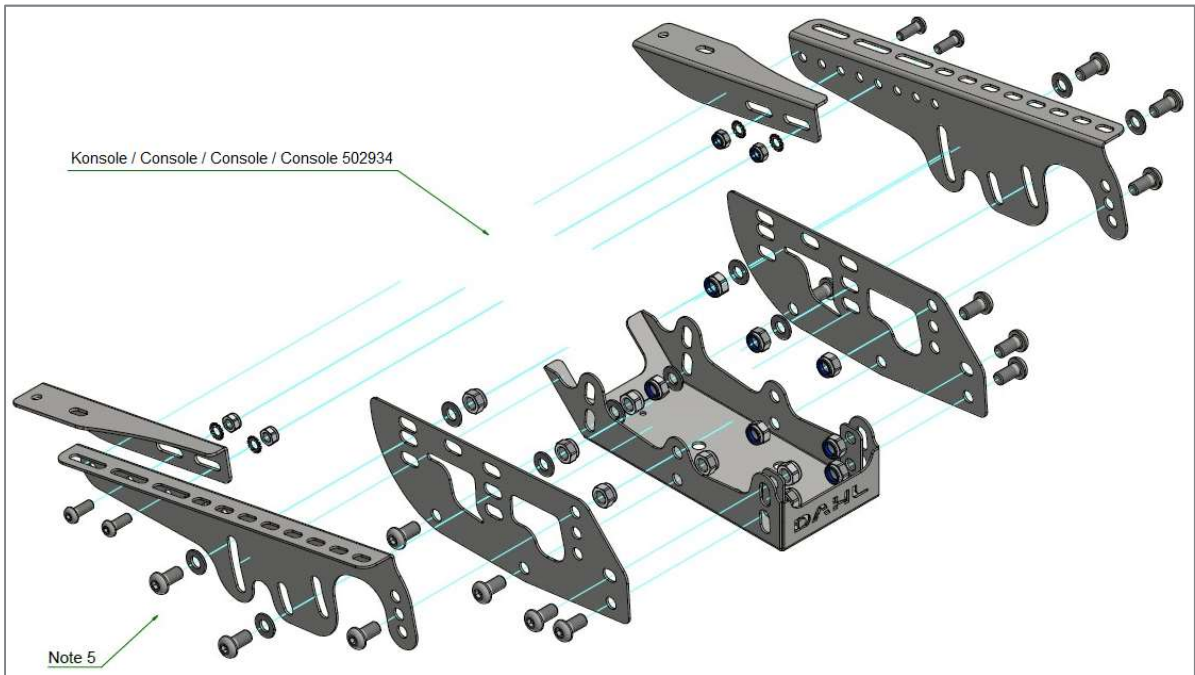
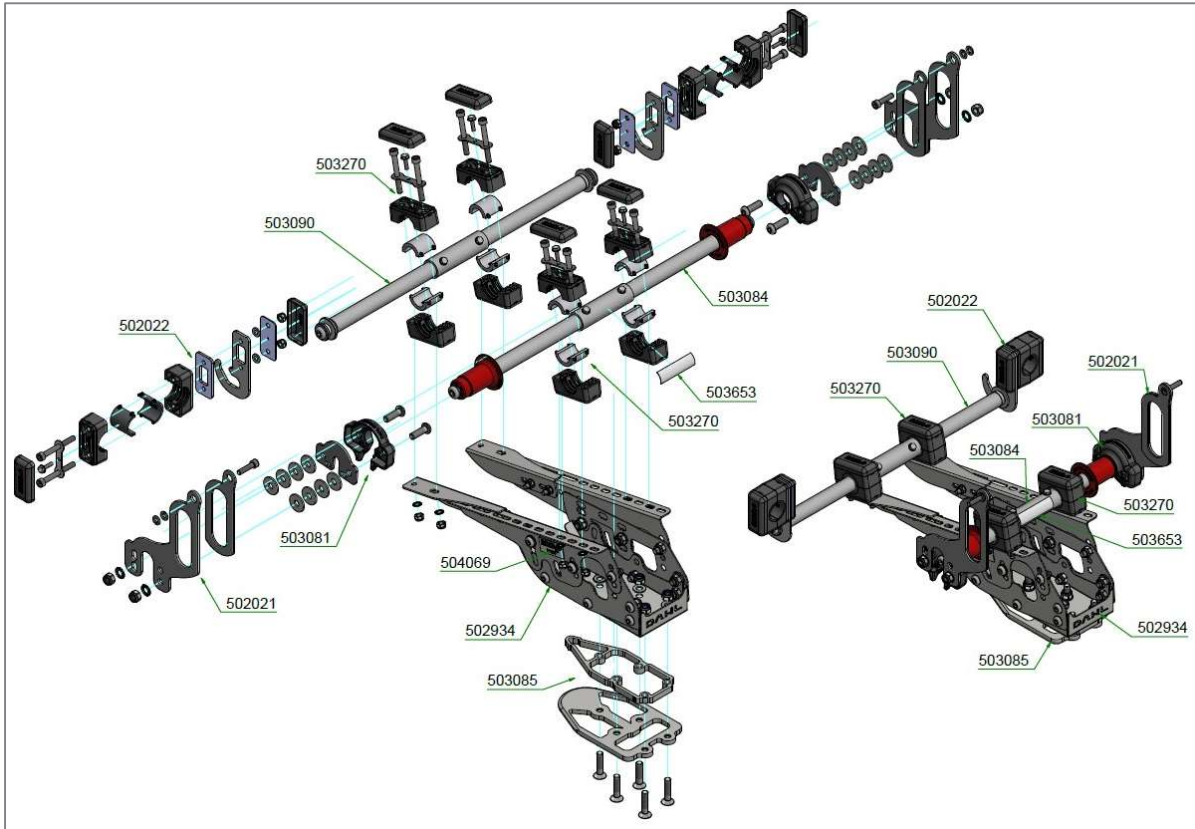
For the Docking Station to function properly the Locking Plate must be mounted horizontally.

Note 2:

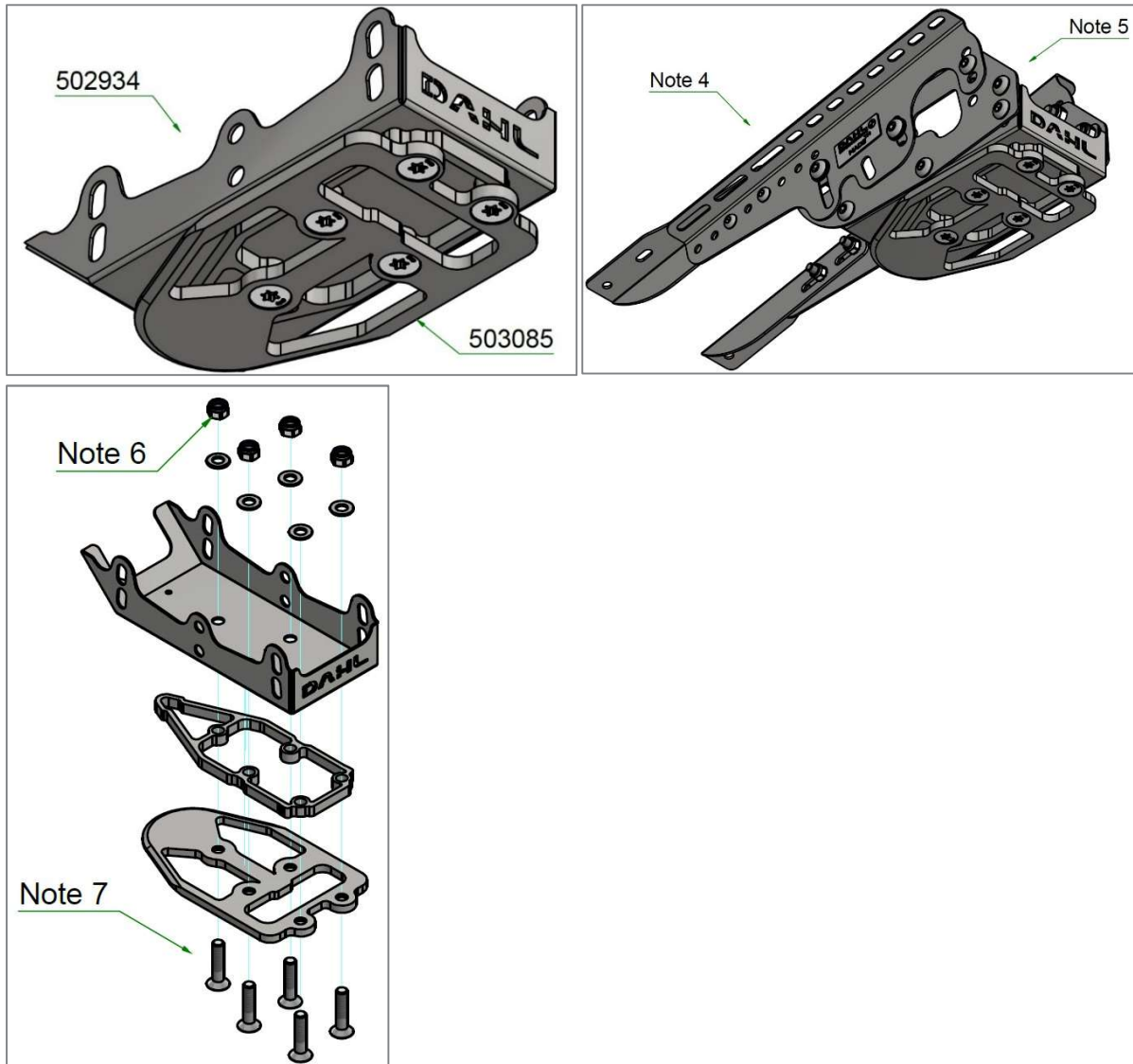
When the entire assembly process is completed measure this height H with the user sitting in the wheelchair. Make sure the tire pressure is correct beforehand!

Note 3:

Record the measured height H minus 2 mm on the supplied sticker 503653 and place as shown.



Apply Loctite 222 (or an equivalent product) onto all bolts.



Note 4:

Considering the wheelchair's configuration and the resulting ground clearance of the locking plate, assemble 502934 and 503085 - see 501553 and 503990. Do not completely tighten the screws before the final adjustment has been determined.

Note 5:

Tightening Torque 20-25 Nm

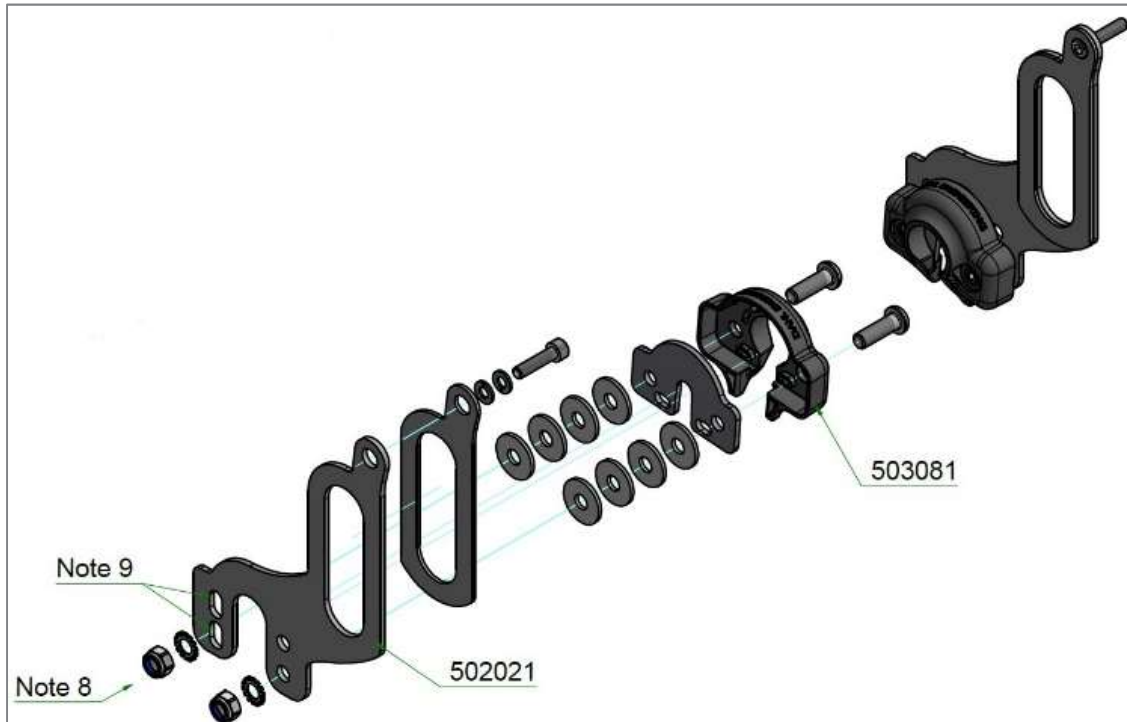
Note 6:

Tightening Torque 16-18 Nm, see 501553

Note 7:



Do not use any other bolts for the locking plate than those supplied from Dahl Engineering (part no. 502800, quality 14.9, torx key size 27). Standard countersunk M8 bolts will not be strong enough in the event of a collision. A qualified and experienced technician must carry out the installation the Dahl MADS™ adaptation system on your wheelchair.



Note 8:

503081 are assembled with brackets 502021; Tightening Torque 5 Nm

Note 9:

The slotted holes on brackets 502021 are used for fine-adjustment of bracket 503081. This is important to ensure that the red plungers and bolts of the pipe lock will glide smoothly in and out of the bracket 502021. Tighten screws with 5 Nm.

Note 10:

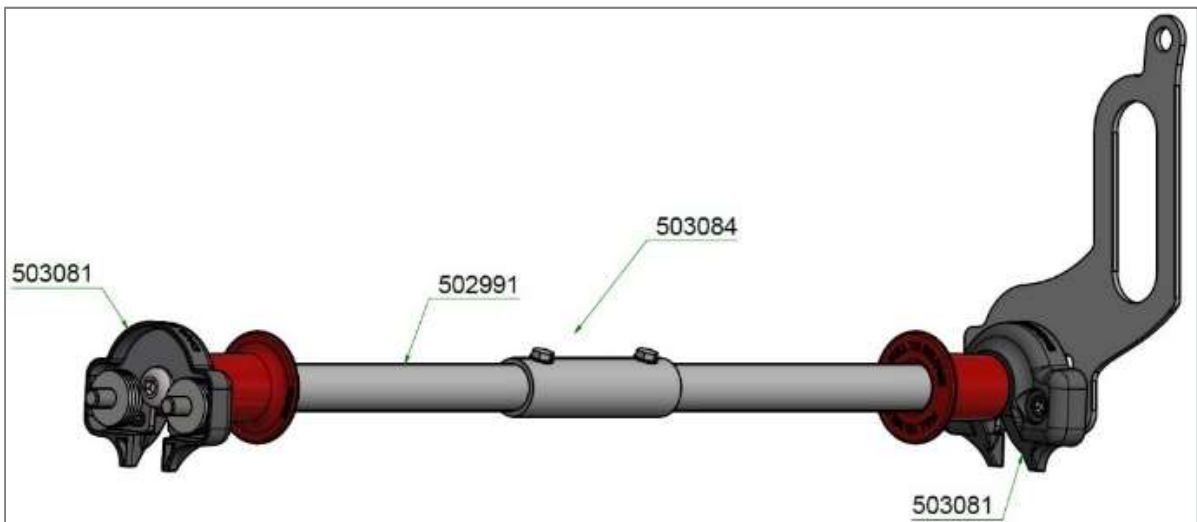
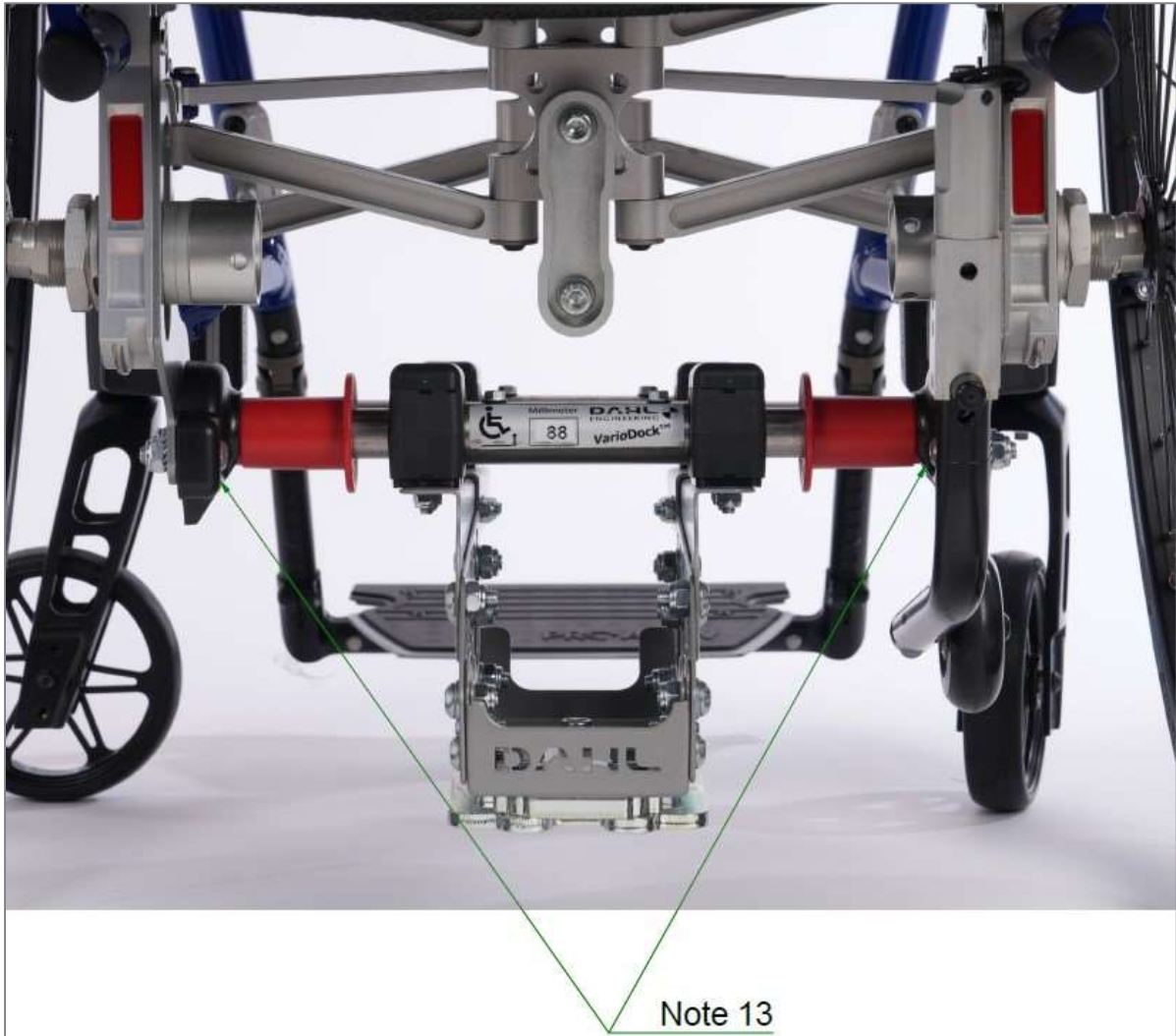
The parts are mounted mirrorverse on the opposite side.

**Note 11:**

Clamps 503272 are assembled on the wheelchair tube $\varnothing 25$ mm and bolted together with hook bracket 502998.

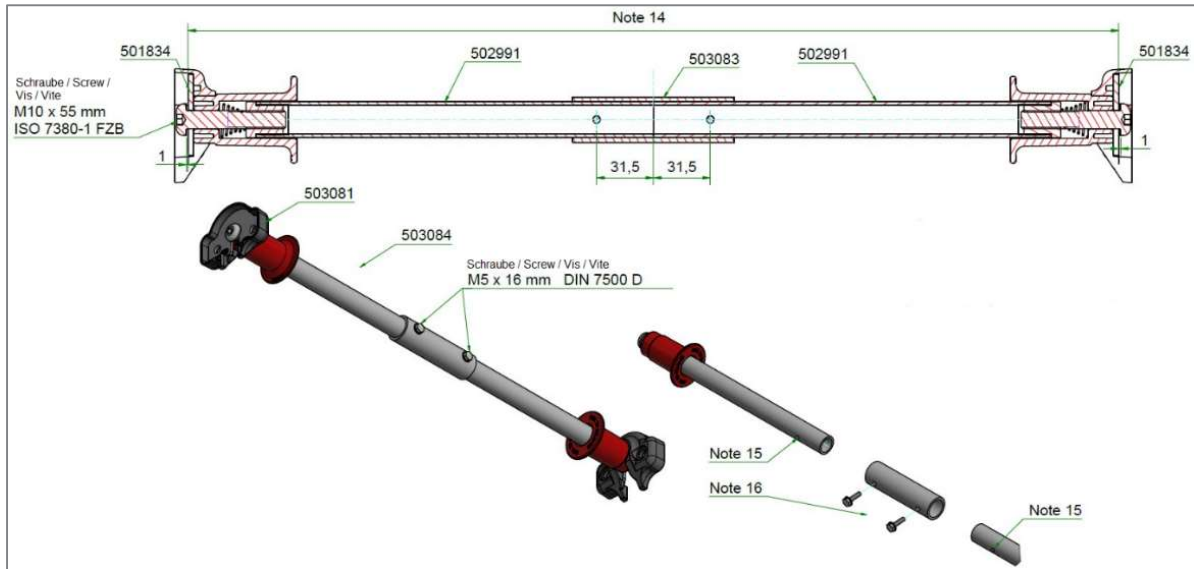
Note 12:

The thread forming screws 502729 (M5 x 16 mm) must be installed as locks against rotation. This is the LAST step of the installation process! After all elements have been assembled and adjusted, carry out a final functional test, whereafter $\varnothing 4$ mm holes must be drilled through the plastic clamps and the wheelchair metal tube. Tighten screws with 4 Nm.



Note 13:

Cut the tubes 502991 to fit with the locking sockets 503081 - see 503084.

**Note 14:**

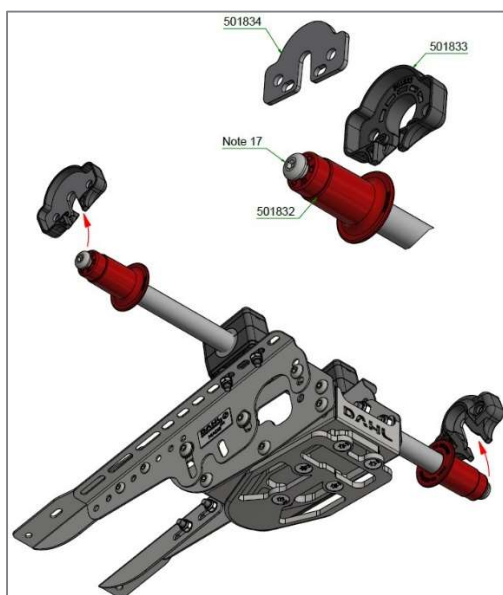
Cut tubes 502991 to fit the specific wheelchair, so the screws that are mounted in both ends of 503084 fit to the total outer measurement between brackets 501834, after those have been installed on the wheelchair. Add 2 mm to the measured total outer distance between brackets 501834 to ensure that the screws can glide easily into the brackets.

Note 15:

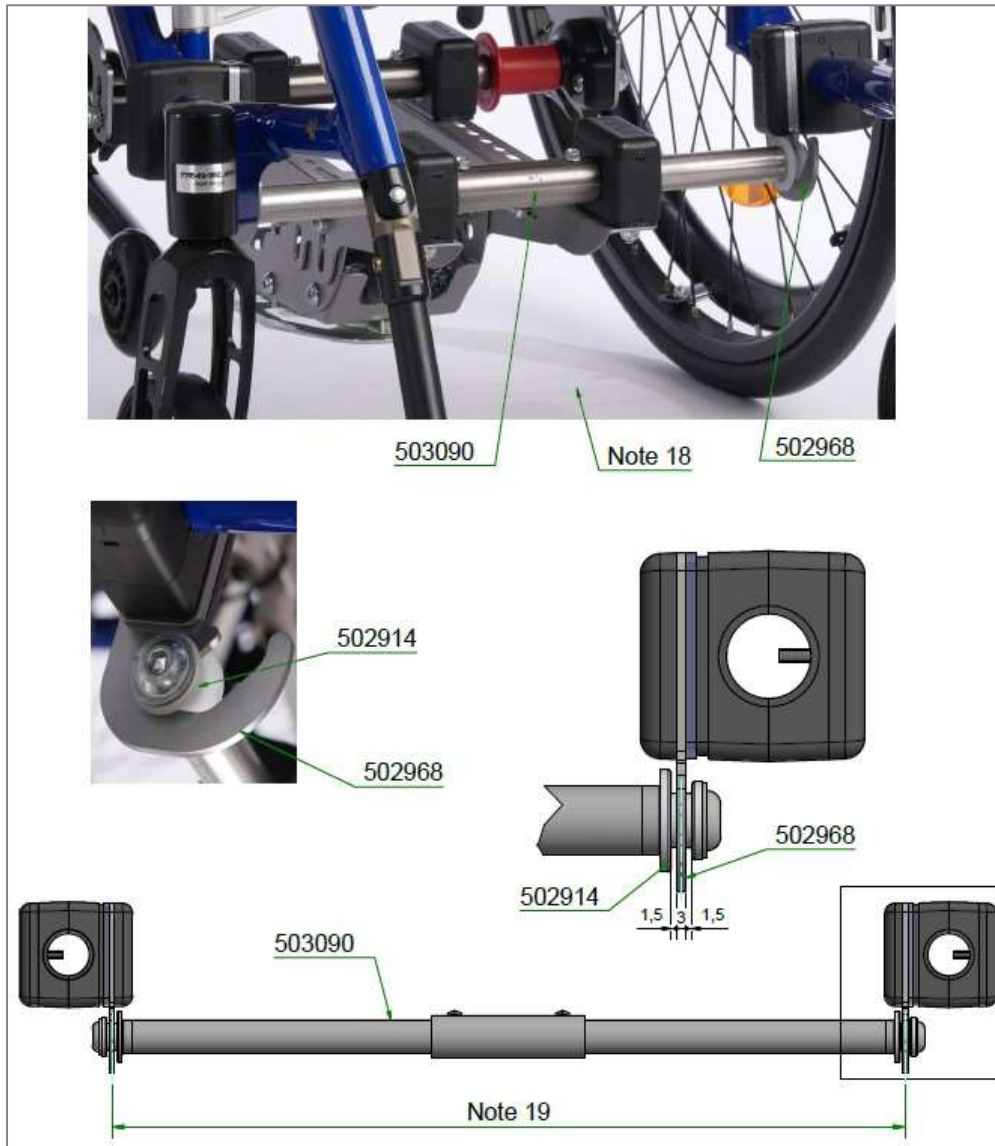
After cutting the tubes, drill $\varnothing 4$ mm holes into them, so that they will fit with the positions of the fixation holes in the connecting tube 503083.

Note 16:

Fit self-tapping screws 502729 (M5 x 16 mm DIN 7500 D) and tighten these with tightening torque 4 Nm.

**Note 17:**

The screw heads of the locking mechanism 501832 will be guided into the slots of the metal brackets 501834, that are installed inside the locking socket 501833 on both sides.

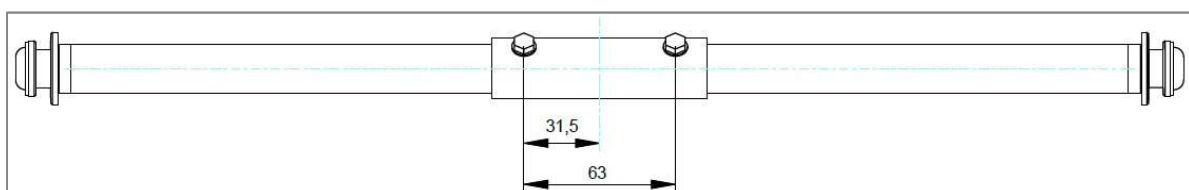


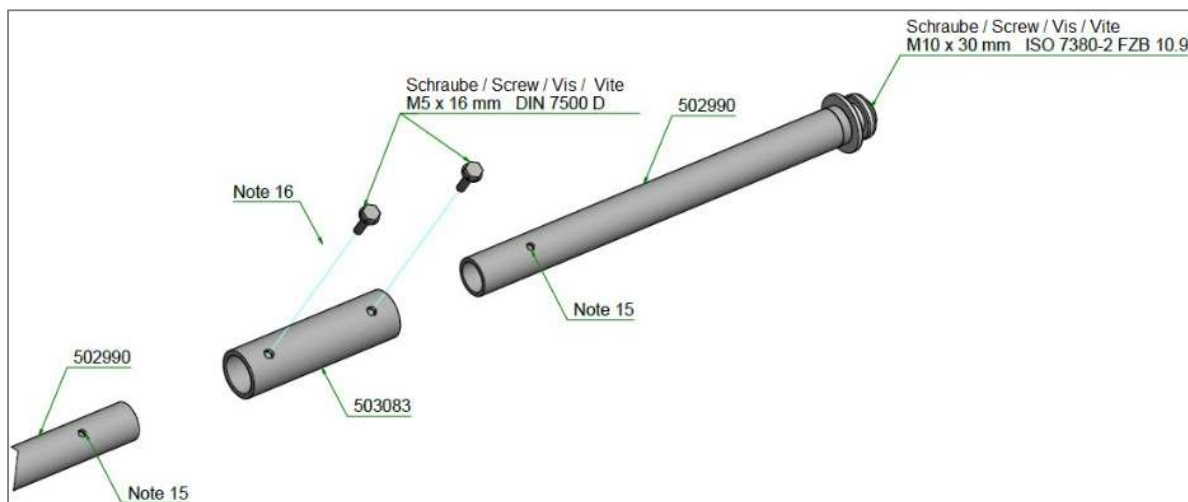
Note 18:

The cross tube 503090 is placed with the grooves of the plastic rolls 502914 in the hooks 502968. Before this can be done, cut tubes of 502990 so that the grooves of the plastic rolls will fit the spacings of the hooks 502968.

Note 19:

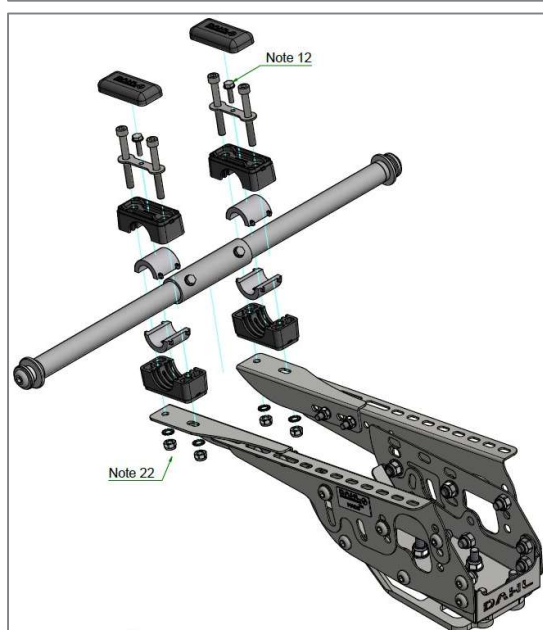
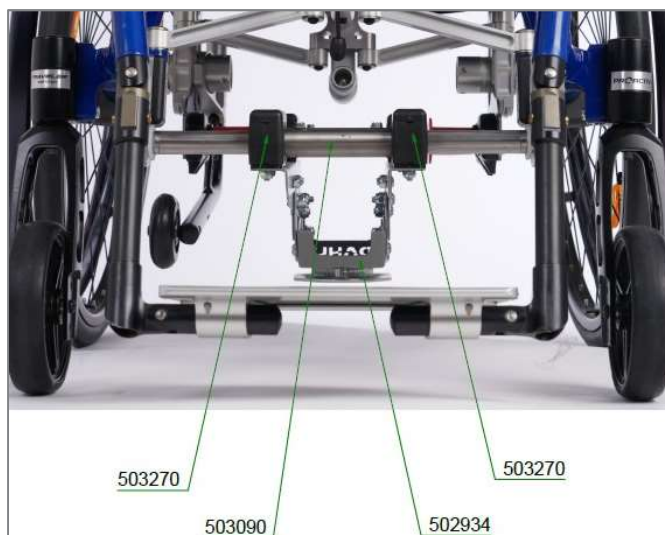
The spacing between the hooks 502968 and the length of the cross tube 503090 depends on the width of the wheelchair. The grooves of the plastic rolls 502914 must be centered on the hooks 502968.





Note 20:

Cut the tubes 502990 symmetrically to fit the distance between the hooks.

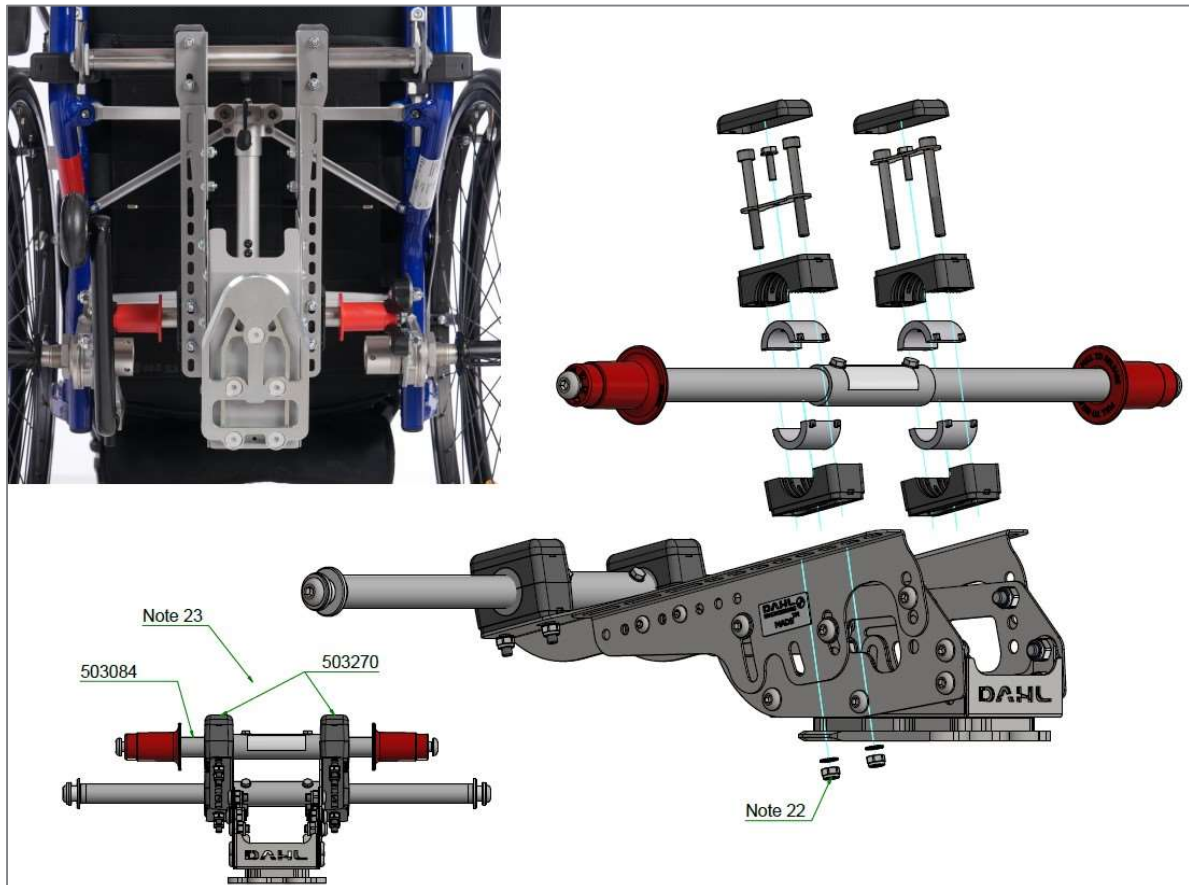


Note 21:

Mount cross tube 503090 centered on console 502934 using the clamps 503270.

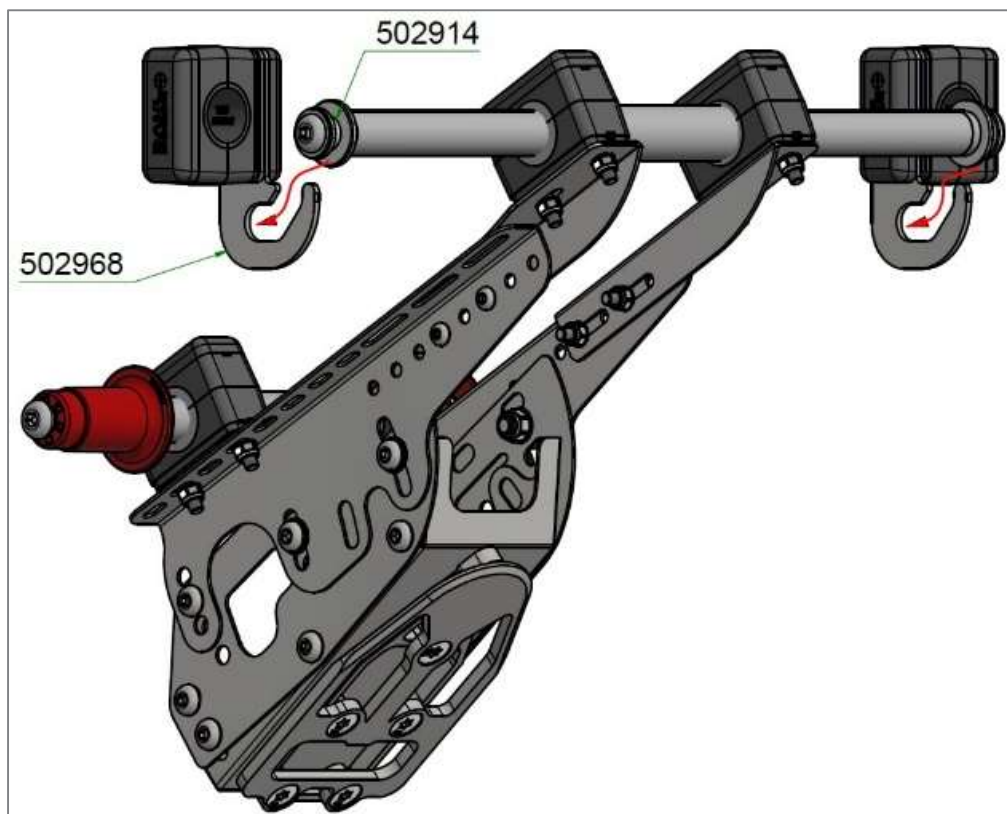
Note 22:

Tightening Torque 4 Nm



Note 23:

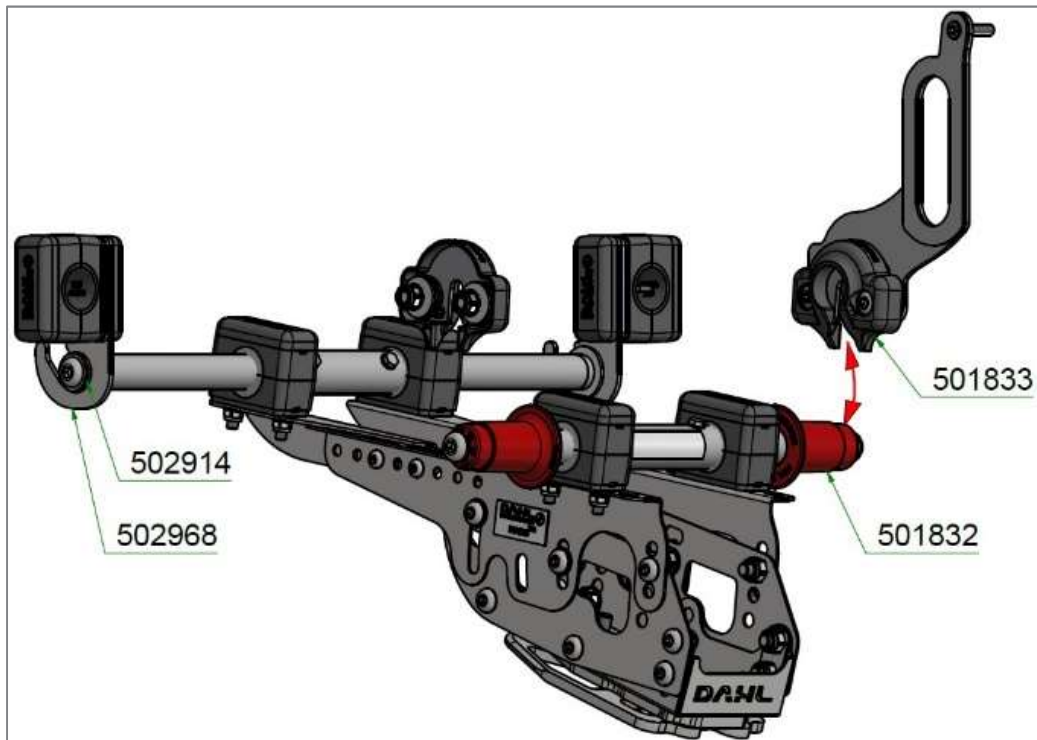
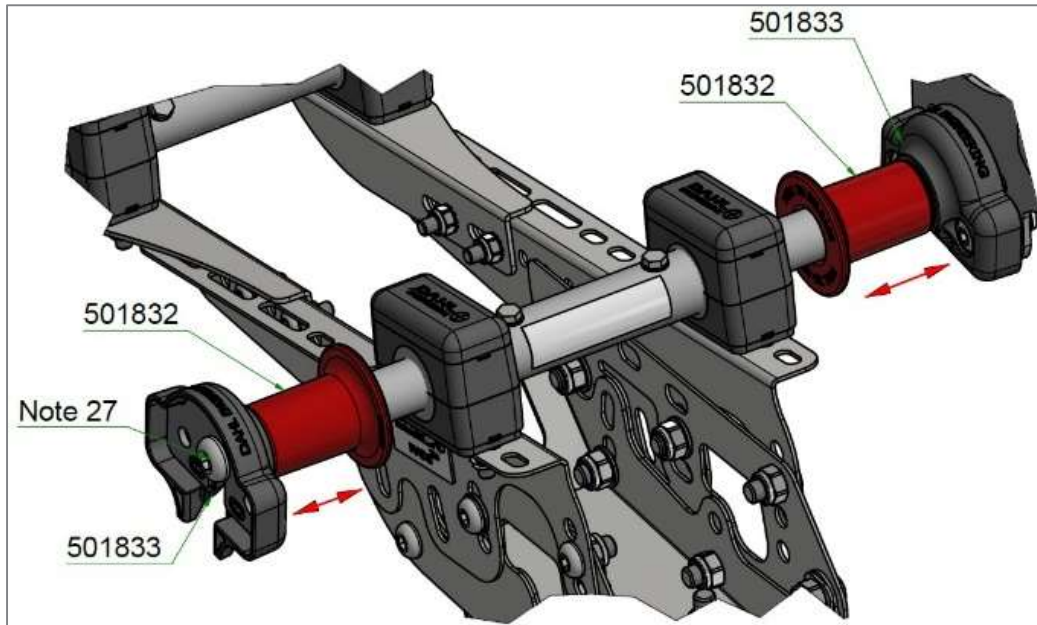
Mount cross tube with locks 503084 centered on console 502934 using the clamps 503270.

**Note 24:**

The plastic rolls 502914, which are mounted on the cross-tube, are placed with the grooves into the hook- openings 502968 on both sides.

Note 25:

Pull back console, until the plastic rolls 502914 glide into the bottom of the hooks 502968 on both sides.

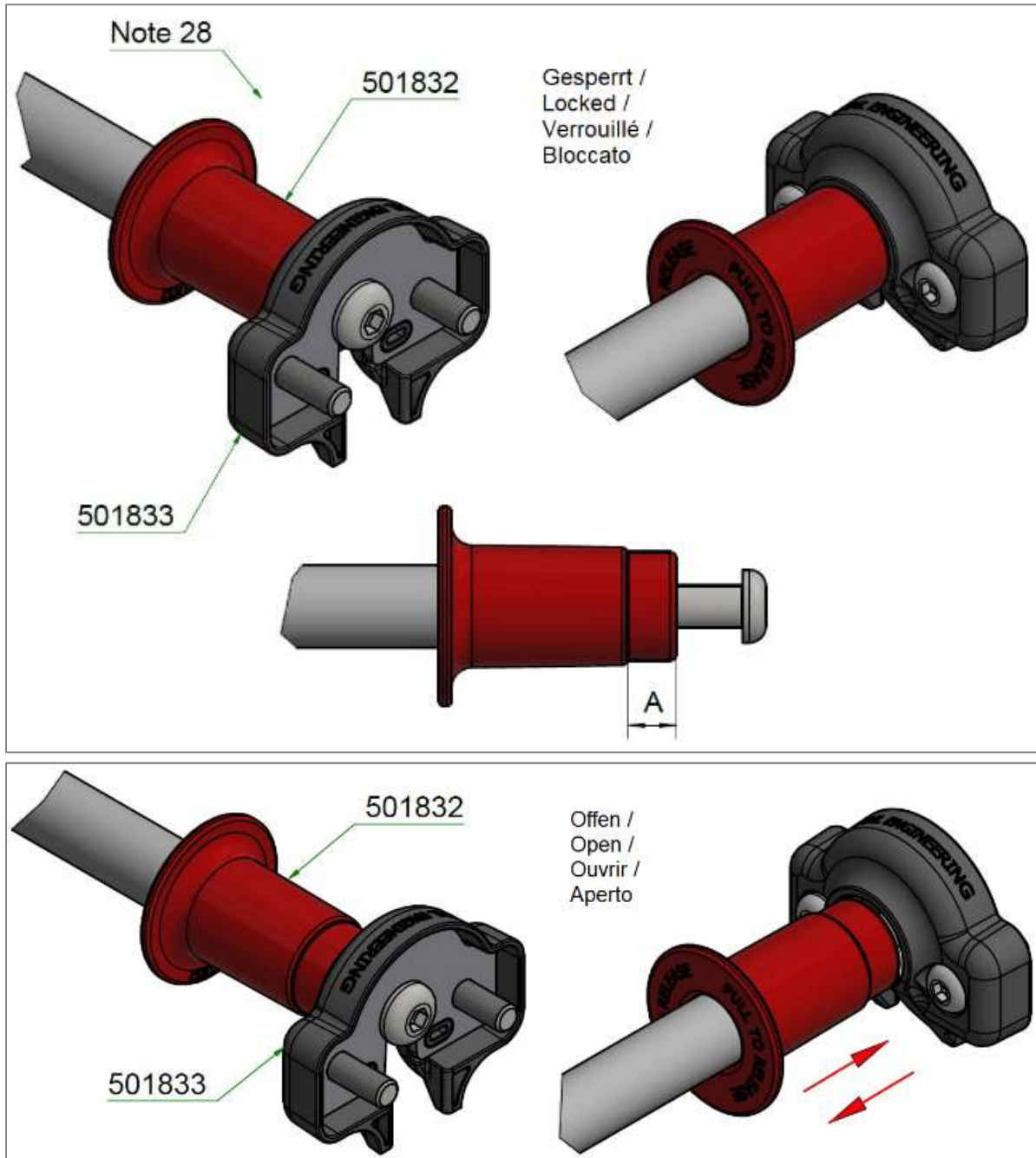


Note 26:

As soon as the plastic rolls 502914 are sitting correctly in the hooks 502968, swing up the console with the two red tube locks 501832 into the locking brackets 501833 on both sides.

Note 27:

When the screw heads, which are mounted in the ends of the red locking plungers 501832, are positioned correctly, the spring-loaded red locking mechanisms 501832 must plunge into the sockets of the locking brackets 501833. Hereafter the console has been secured. To release the console carry out the same steps in reversed order, after the red spring-loaded locking plungers 501832 have been unlocked by sliding them inwards towards each other.



Note 28:

The locking tube 501832 is not locked correctly, until the shiny tips (A) on the red locking plungers 501832 are fully inserted into the sockets of the locking brackets 501833, whereafter the shiny tips (A) will no longer be visible. Check, that it has been completely locked, by pushing the red locking plungers completely out towards the sockets 501833.

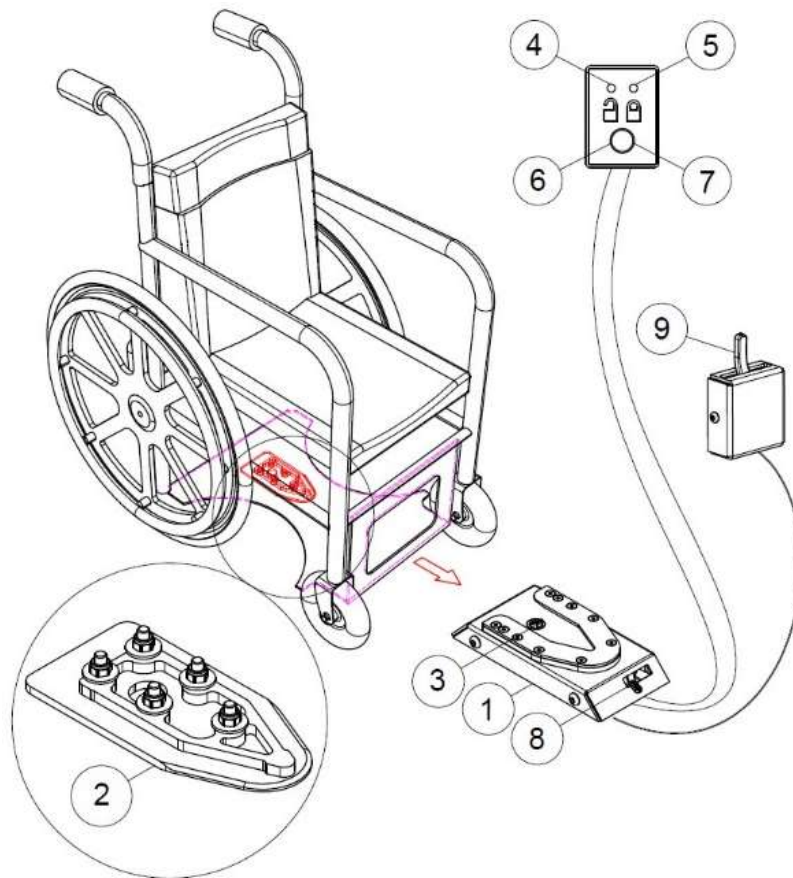


Incorrect installation of the Dahl MADS™ adaptation kit on the wheelchair could cause serious injury or death in a crash. Always check the specific wheelchair manufacturer's user and installation guides to assure the correct parts are properly installed on your specific wheelchair for use with the Dahl Docking Station. Do not drive the vehicle until wheelchair and user are correctly secured.

5 Docking stations and handling

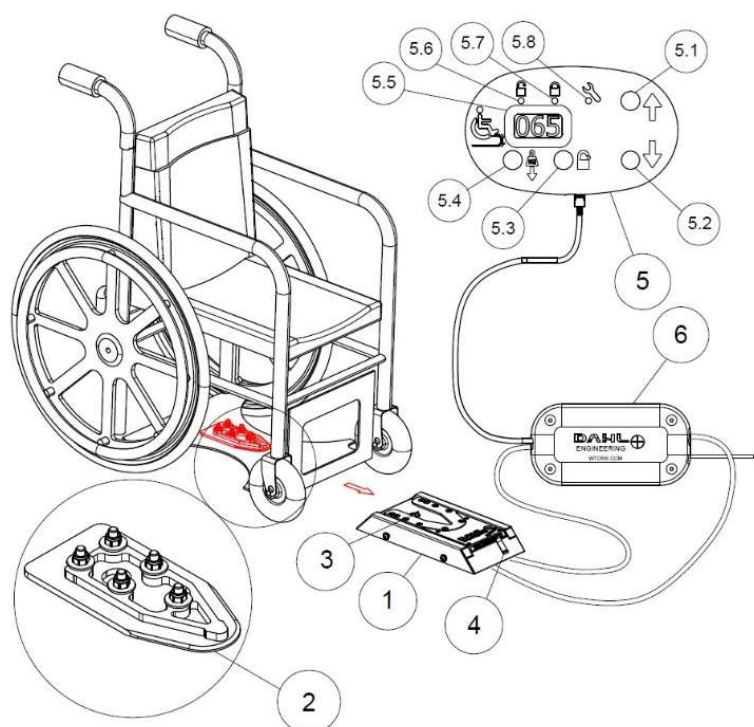
The PRO ACTIV wheelchair has been tested and approved according to ISO 7176-19:2022 together with the Dahl MADS™ wheelchair adaptation system designed for securement in the automated and power-height adjustable wheelchair docking stations - Dahl VarioDock™ (part no. 503600) and the fixed height docking station Dahl MK II (part no. 501750). Equipped with the Dahl MADS™ adaption system the PRO ACTIV wheelchair can subsequently be secured in vehicles where a Dahl docking station has been installed. Securement with the Dahl MK II requires that its installed height corresponds with the exact height of the wheelchair locking plate to function whereas the power-height adjustable VarioDock™ can be set to suit it upon entering the vehicle.

5.1 Dahl Docking Station MK II



1. Dahl Docking Station MK II
2. Lock plate and spacer
3. Lock pin
4. Red indicator LED (wheelchair is not secured and can be removed from docking station)
5. Green indicator LED (wheelchair is secured)
6. Control panel
7. Release button (red button)
8. Manual emergency release lever
9. Manual operating lever

5.2 Dahl VarioDock™



1. Dahl VarioDock™
2. Lock plate and spacer
3. Lock pin
4. Manual emergency release lever
5. Control panel
 - 5.1 Adjust upwards (yellow button)
 - 5.2 Adjust downwards (green button)
 - 5.3 Release button (red button)
 - 5.4 Pull down to remove slack (blue button)
 - 5.5 Current measurement display
 - 5.6 Red indicator LED (wheelchair is not secured and can be removed from docking station)
 - 5.7 Green indicator LED (wheelchair is secured)
 - 5.8 Illuminated when maintenance required
6. Control module

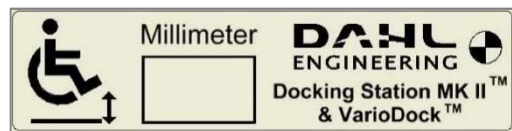
The Docking units are designed to retain manual and electric wheelchairs, as well as Dahl's seat bases in the vehicle's floor. A control module/panel controls and monitors the docking unit, distributes power to the various components. Use the up or down buttons (5.1) and (5.2) on control panel to set height of docking unit to suit the height of wheelchair locking plate (available on VarioDock™ only).

5.3 Transportation in a vehicle

Ensure that the vehicle is suitably equipped to transport a passenger in a wheelchair and ensure the method of access /egress is suitable for your wheelchair type. The vehicle should have the floor strength to withstand the combined weight of the occupant and wheelchair in case of a collision. The wheelchair must only be secured facing the direction of travel. This wheelchair has been tested in accordance with ISO 7176-19:2022 for use in vehicles and meets the requirements for forward-facing transport and frontal collisions. The wheelchair has not been tested for other directions of travel within a vehicle. No modifications may be made to the wheelchair's anchorage points/vehicle mountings for docking systems or 4-point harness systems, or to structural elements or parts of the frame, without prior consultation with the manufacturer

5.4 Identification of the Dahl Docking Systems

If your wheelchair is equipped with the locking plate for the Dahl Docking systems, the following label will be present on your wheelchair. The height noted on the label indicates the value that the height adjustable



VarioDock™ control panel display must be set to. For the MK II this is the height that the docking unit must be installed at. Failure to set/install the docking unit to the correct height might impede the locking plate from sliding smoothly into the docking unit or prevent the Docking station and wheelchair from connecting altogether.

5.5 Securing the wheelchair in the MK II and VarioDock™ docking stations

- Maneuver the wheelchair slowly and in a uniform direction over the docking station. The locking plate (2) positioned under the wheelchair helps to guide the wheelchair into place in the docking station. When the locking plate is fully engaged in the docking station, a spring-action locking pin (3) automatically secures the lock plate;
- The Dahl docking stations are equipped with a control switch that indicates whether the locking plate is correctly secured in the docking station. As soon as the locking plate comes into contact with the locking pin (3), a warning tone will sound (a high-pitched howl), and the red diode/lamp/LED, in the control panel, MK II (4) and VarioDock™ (5.6), 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 locking plate is fully entered into the docking unit and properly secured, the warning tone will cease, the red lamp/LED in the control panel will go out and the green lamp/LED, MK II (5) and VarioDock™ (5.7) will light up.

Do not move the vehicle:

- Whilst the wheelchair is being maneuvered into position in the docking station;
- If the wheelchair and user are not correctly secured;
- If the warning tone sounds and/or the red warning lamp (LED) in the control panel flashes or is lit!

Always check if the lock plate is properly engaged in the docking station by trying to reverse the wheelchair out of the docking station before moving the vehicle. It must not be possible to reverse out of the docking station without pressing the red release button in the control panel.

Buckle up seat belt before driving!

5.6 Release from the docking station

- 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;
- Press the red release button in the control panel VarioDock™ (5.3) and MK II (7). The locking pin will be triggered/ released for approx. 5 seconds, after which the locking pin automatically locks again;
- Move the wheelchair away from the docking station within this 5-second period. Do not attempt to reverse out of the docking station until the red LED on the control module, which indicates the unlock position, has been illuminated.



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

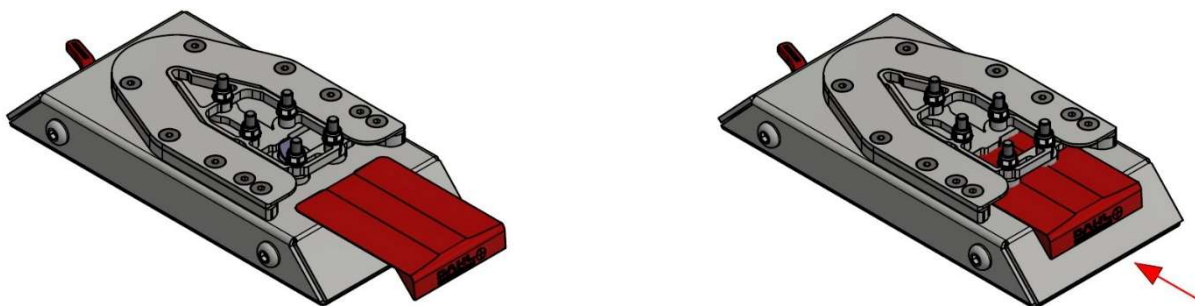
5.7 Manual release in case of electric fault

A manual emergency release lever VarioDock™ (4) and MK II (8) is located at the front edge of the docking unit.

- Move wheelchair forward to remove the pressure on the lock pin and the release lever should be pushed sideways and held in order to release while the wheelchair is being moved away;
- A cable-activated manual operating lever (9) can also be installed (available for MK II only). The red release arm is also pushed to one side and should be held there whilst the wheelchair moves away.

5.8 Emergency release

If the described manual release procedures fail, a red emergency release tool comes with each docking unit.



Move wheelchair forward to remove the pressure on the lock pin. Place the emergency release tool in the gap between the locking plate and the docking station. Push the release tool and wheelchair forward until the locking pin has been forced down - after which the wheelchair can reverse out of the docking station.

Please also refer to the instructions for installation, use and maintenance of the docking system being used. Downloads are available at: www.dahlengineering.dk

6 Manufacturer's notification and responsibility delimitation

The docking station and the Dahl MADS™ docking adaptation set 503990 are not products of PRO ACTIV Reha-Technik GmbH. The manufacturer, as defined by applicable legal provisions, for the docking station and the Dahl MADS™ docking adaptation set is:



DAHL ENGINEERING APS

Løvevej 3

DK-7700 Thisted

Denmark

www.dahlengineering.dk

Responsibility for the design, manufacture, conformity assessment, labeling, technical documentation, and product monitoring of the docking station and the Dahl MADS™ docking adaptation set lies with the aforementioned manufacturer.

PRO ACTIV Reha-Technik GmbH is not the manufacturer, importer, or distributor of the docking station or the Dahl MADS™ docking adaptation set 503990. PRO ACTIV supplies only the wheelchair. Equipping a vehicle with a docking station, as well as the selection, installation, and use of the Dahl MADS™ docking adaptation set, are generally carried out by vehicle converters, specialty dealers, or other entities responsible for this. Assembly, installation, and testing in the vehicle are not performed by PRO ACTIV, but by the respective specialized companies responsible for this.

A compatibility test or compatibility agreement coordinated between PRO ACTIV and Dahl refers exclusively to the technical compatibility of the Dahl MADS™ docking adaptation set with PRO ACTIV wheelchair models approved for this purpose. It does not establish PRO ACTIV as the manufacturer of the docking station or the Dahl MADS™ docking adaptation set.

Your specialist dealer:



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