

## ***Users Manual***

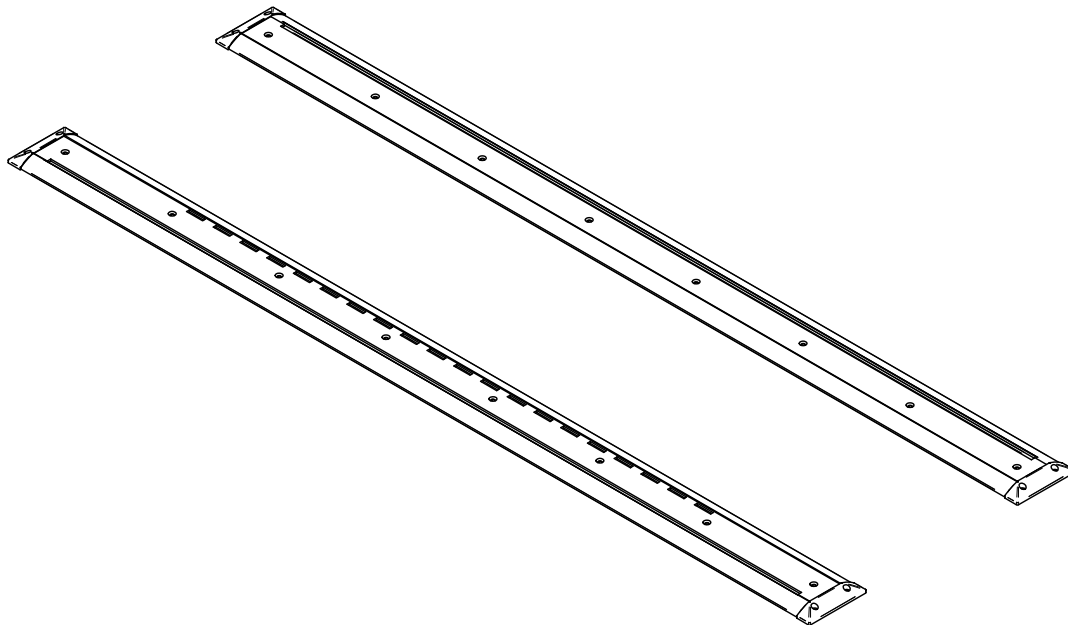
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### ***NorSap Basic Deck Rail***

Art. No.: 6650-XXXX, 6651-XXXX for the NorSap 1500 and NorSap 2000

Art. No.: 6652-XXXX, 6653-XXXX for the NorSap 1000

Art. No.: 6676-XXXX, 6677-XXXX for the NorSap 800



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## Introduction

Congratulations with your purchase of a NorSap chair and thank you for your confidence in our company products. NorSap is among the leading producers of helmsmen and operator seats for the maritime market.

This manual will assist you in making the best use of the functional capabilities of the NorSap chair and will ensure you will quickly become familiar with its use. If you have any questions regarding the safe and effective operation of your NorSap chair or accessories after reading this manual, immediately contact our head office marketing department for further assistance.

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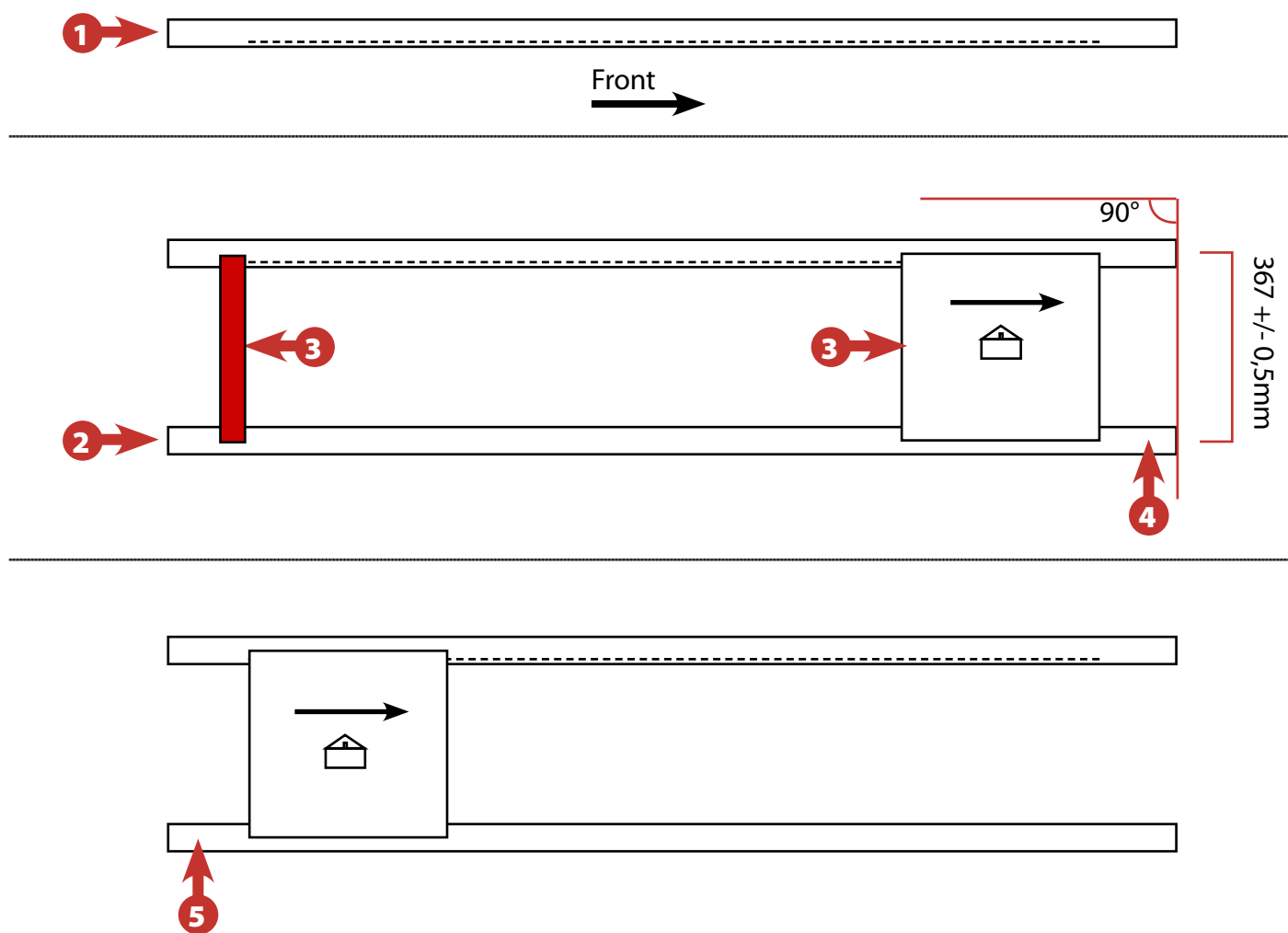
# Mounting the top mounted deck rails

Due to material differences of the wagon, the deck rail should be mounted in the following order:

1. Mount the rail with the *locking tracks* first at desired place. This is your LEFT rail facing forward.
2. When the rail is mounted, place the plain rail parallel besides it, and slide the wagon on both rails.
3. Place the wagon to the one end of the mounted rail, and the mounting template on the other end, and make sure the loose rail is parallel with the end of the mounted rail.
4. Make sure the distance is 367mm +/- 0,5mm between the mounting holes - and that the wagon is not too tight nor too loose so that it travels firmly. Mount one screw at the current end of the rail.
5. Move the wagon to the other side, check for firm function and mount the second screw.

**Test the rails function before mounting the rest of the screws.**

This procedure ensures that the deck rail will function optimally and without any loose play.



When function of the deck rail is adequate, mount the stopping block and end plugs on the rails, shown on the next page.

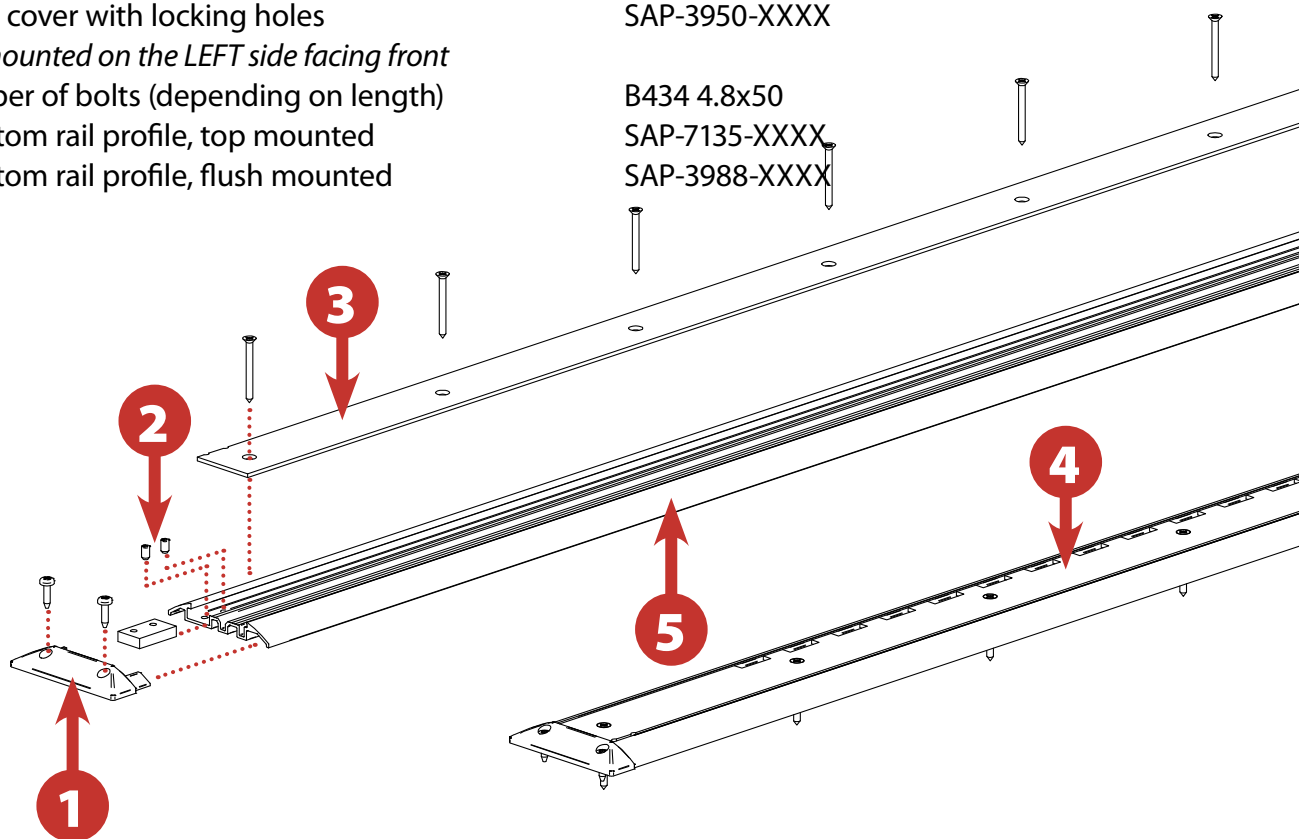
# Detailed view

1. End plug for Top Mounted Basic Deck Rail  
2 x bolts for mounting 4.8x19
2. Stop block for wagon  
2 x bolts for mounting 6x10
3. Top rail cover without locking holes  
*To be mounted on the RIGHT side facing front*  
X number of bolts (depending on length)
4. Top rail cover with locking holes  
*To be mounted on the LEFT side facing front*  
X number of bolts (depending on length)
5. 2 x Bottom rail profile, top mounted  
2 x Bottom rail profile, flush mounted

MP248  
B430 4.8x19  
SAP-3948  
B424 M6x10  
SAP-3949-XXXX (XXXX = length of rail)

B434 4.8x50  
SAP-3950-XXXX

B434 4.8x50  
SAP-7135-XXXX  
SAP-3988-XXXX



## Article numbers

### Deck rails

#### Complete

6650-XXXX	Basic Deck Rail for 1500 and 2000 Top Mounted
6651-XXXX	Basic Deck Rail for 1500 and 2000 Flush Mounted
6652-XXXX	Basic Deck Rail for 1000 Top Mounted
6653-XXXX	Basic Deck Rail for 1000 Flush Mounted
6676-XXXX	Basic Deck Rail for 800 Top Mounted
6677-XXXX	Basic Deck Rail for 800 Flush Mounted

#### Spare parts

DEL-1190-XXXX	Rail profile with locking holes Top mounted (single)
DEL-1189-XXXX	Rail profile Top mounted (single)
DEL-1207-XXXX	Rail profile with locking holes Flush mounted (single)
DEL-1208-XXXX	Rail profile Flush mounted (single)

### Wagons

#### Complete

DEL-1193	For the 1500 and 2000
DEL-1192	For the 1000
DEL-1206	For the 800

#### Spare parts

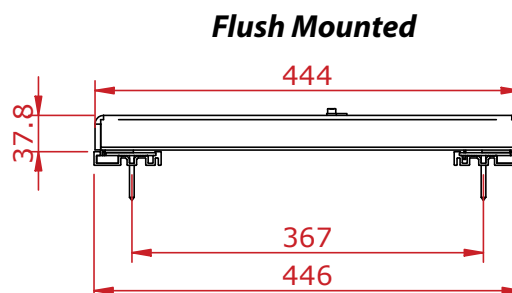
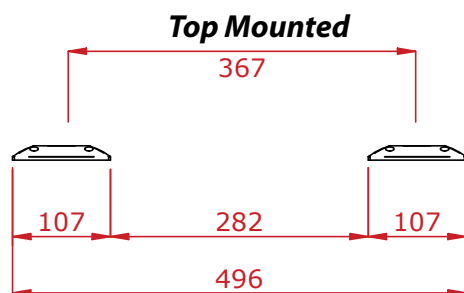
KLA-011	Spare Wheel
WIRE-022	Wire
DEL-1231	Release handle

# Installation of Deck Rails **IMPORTANT NOTE**

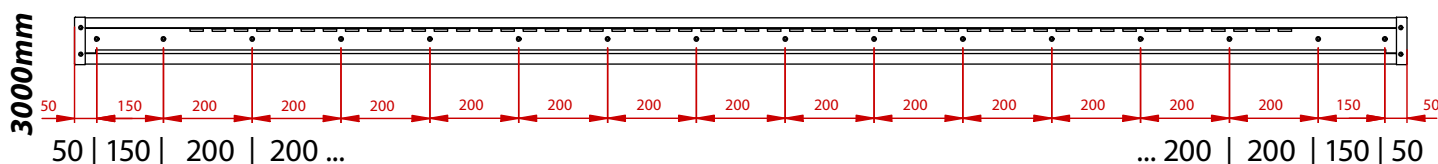
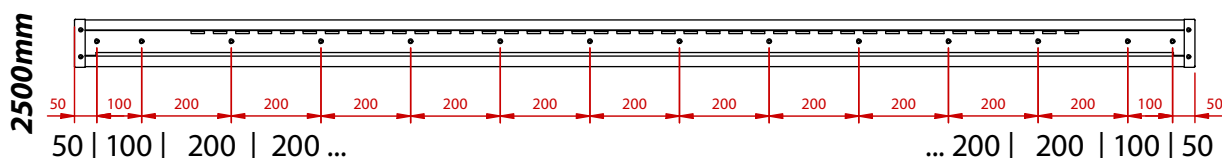
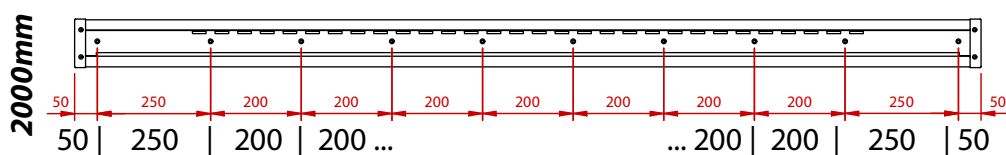
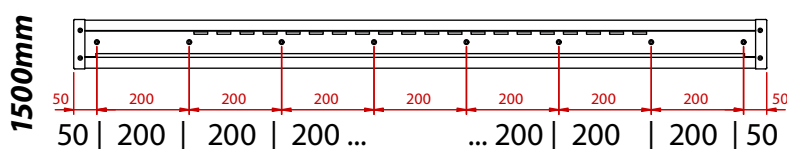
- A strong and level foundation is required to install the Deck Rail securely
- The assembly area and sliding tracks must be free from scraps of metal or other items during installation
- Do not apply grease in the wheel tracks
- We do not stand liable if alterations are made by cutting or disassembling the Deck Rails; any such work will be done at your own risk

## Mounting holes

The mounting holes must be parallel with a distance of **367 $\pm$ 0.5 mm**, this is standard for all lengths. **Due to material differences the mounting procedure explained on page 2 is the recommended way to mount the basic deck rail. This procedure should prevent the deck rails wagon to be mounted too loosely.**



The following diagrams shows the spacing between the mounting holes from a 1500mm deck rail to a 3000mm deck rail. The two deck rail rails has a parallel distance of 282 mm, and the mounting holes are 367 mm. **The mounting hole patterns length distance may vary.**



# Installation of chair on a basic deck rail

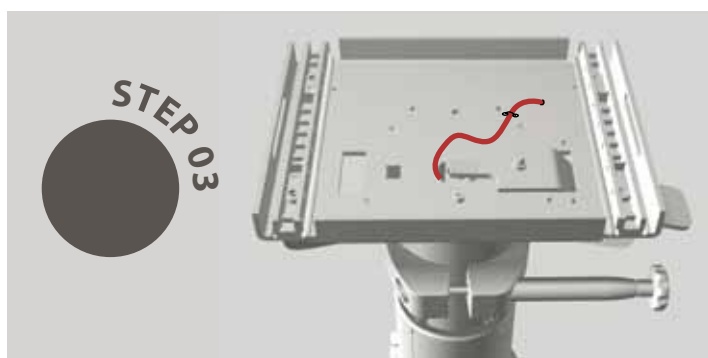


Place the chair in the lower position and mount the release handle according to chair model if not all ready mounted (see page 8)



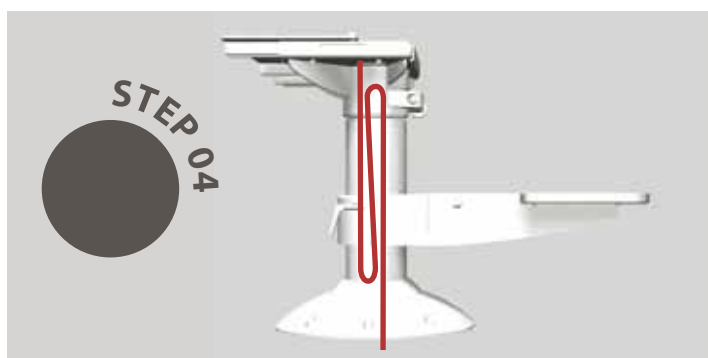
Remove the hand wheels on the side completely and push the seat frame backwards until you gain access to the center of the column.

**Do not push the seat top all the way off.**



Place the wire thru the designated hole in the seat frame and down the column, find a suitable path for the wire from the release handle to the column. (The chair top is hidden due to visualization) Use a strip to fasten the wire.

**Remember to leave some play for the wire**



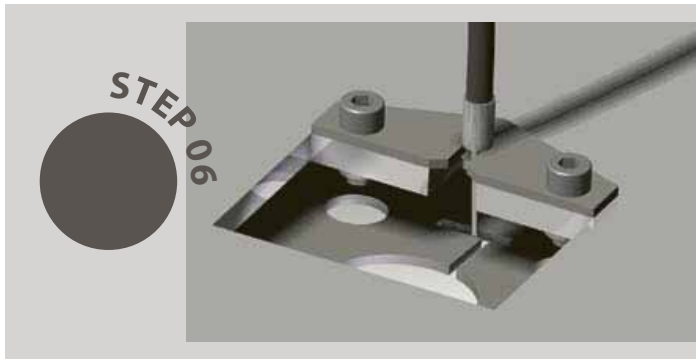
For NorSap 800 chairs, the wire will not fit inside the column and needs to be placed on the outside. The wire should go thru the plastic ring on the side of the footrest. See last page for flange modifications regarding the 800 series of NorSap chairs.

**The wire needs soft corners, if its bent too much the wire will be destroyed.**

The wire is placed as shown on the image, down, up and down within the column - to ensure that the wire follows the movement of the columns rise and lower.



## Installation of chair on a basic deck rail part II



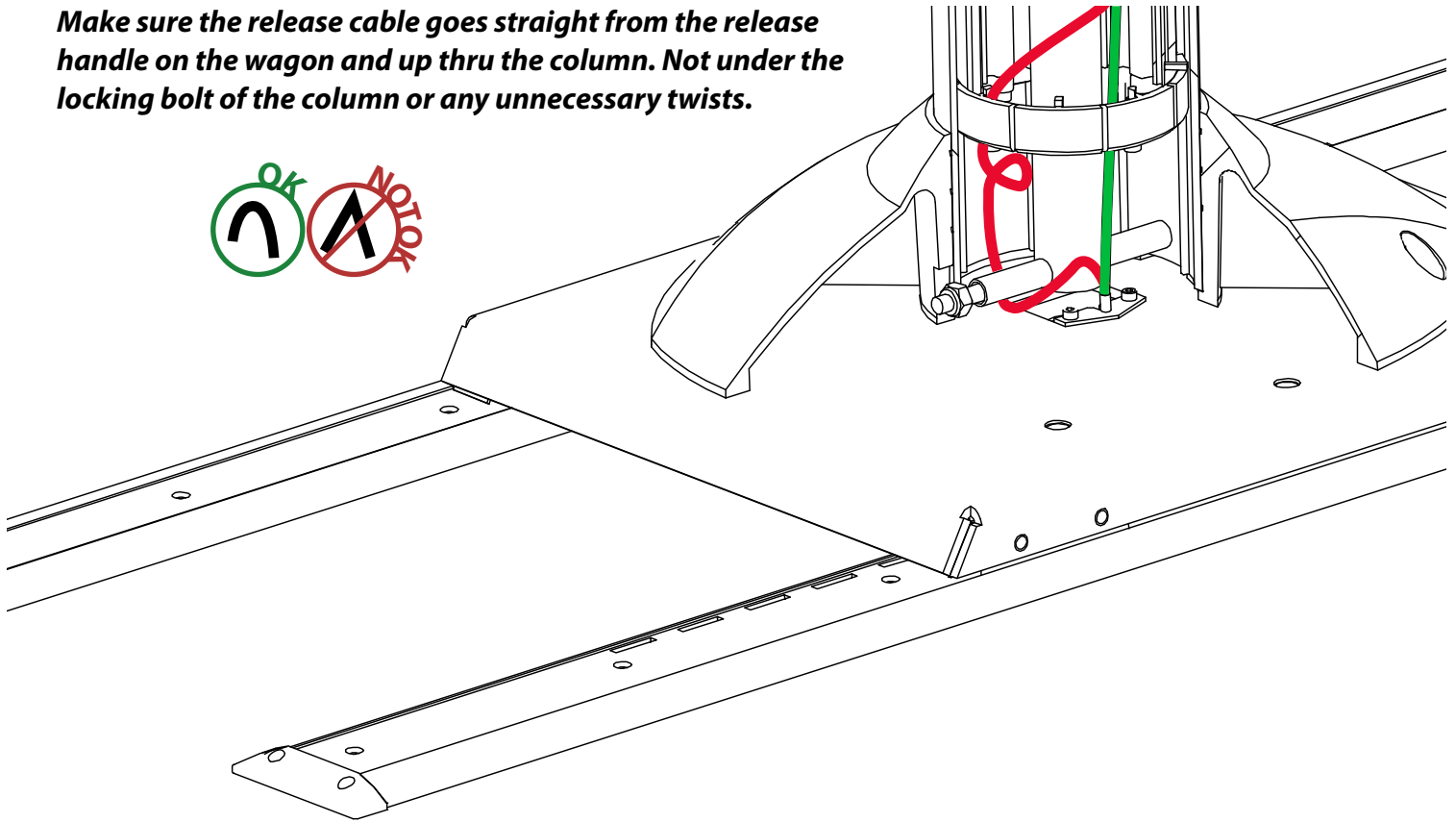
*Place the chair on the wagon of the basic deck rail - use a piece of cardboard for protective measures when tilting the chair to gain access to the wire.*

*Place the wire end as shown on the illustration.*

*Place the flange over the designated hole pattern and mount the flange onto the deck rails wagon with the included bolts.*

### IMPORTANT

***Make sure the release cable goes straight from the release handle on the wagon and up thru the column. Not under the locking bolt of the column or any unnecessary twists.***



# Installation of Basic Deck Rail release handle on chair

## NorSap 800

The handle is flipped to bend away from the chair.



Make sure the release handle is "reversed" / pointing away from the seat.

Placement of the release handle on a NorSap 800 chair. Use two M5 screws to mount the handle.

NB, see illustration to the left.

## All other models

The handle is placed bending towards the chair.



## NorSap 1000



Placement of the release handle on a NorSap 1000 chair. Use two M5 screws to mount the handle.

## NorSap 2000



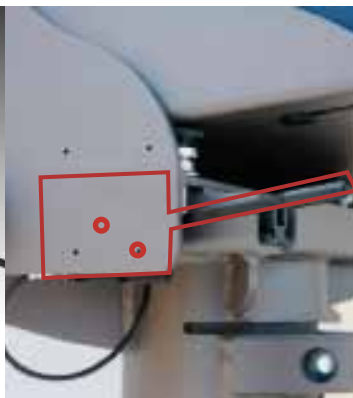
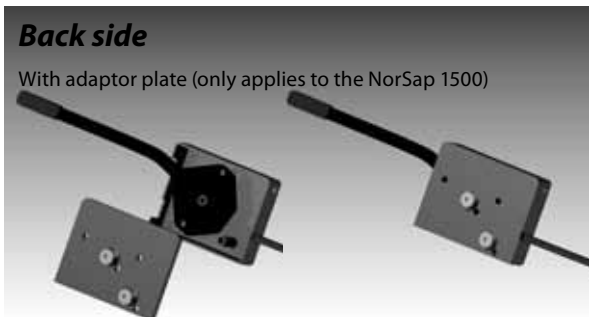
Placement of the release handle on a NorSap 2000 chair. Use two M5 screws to mount the handle.

Flip up the seat rest to gain access to the area.

## NorSap 1500/1700

### Back side

With adaptor plate (only applies to the NorSap 1500)



Placement of the release handle on a NorSap 1500 and 1700 chair.

Mount the adapter plate as shown on the images above.

Countersink the two holes marked with red circles (M5) if not present.

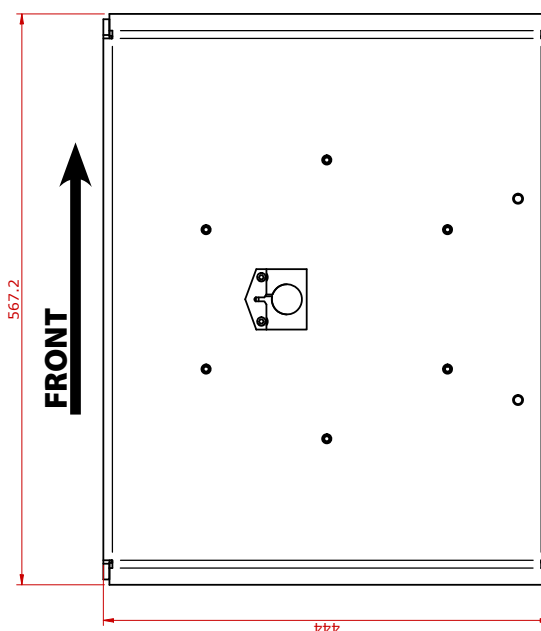
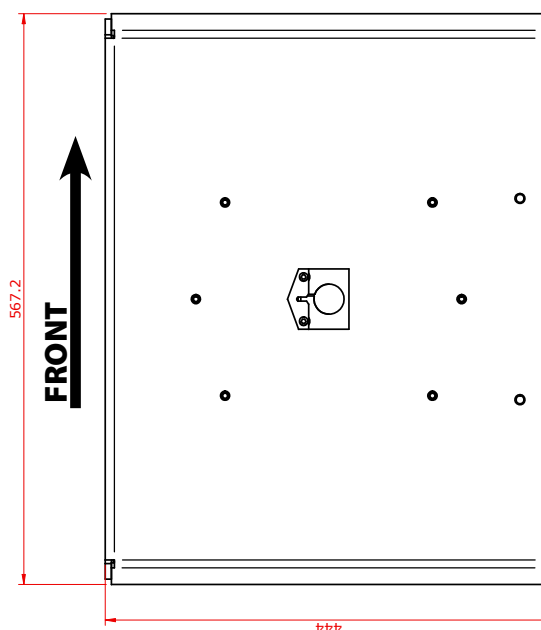
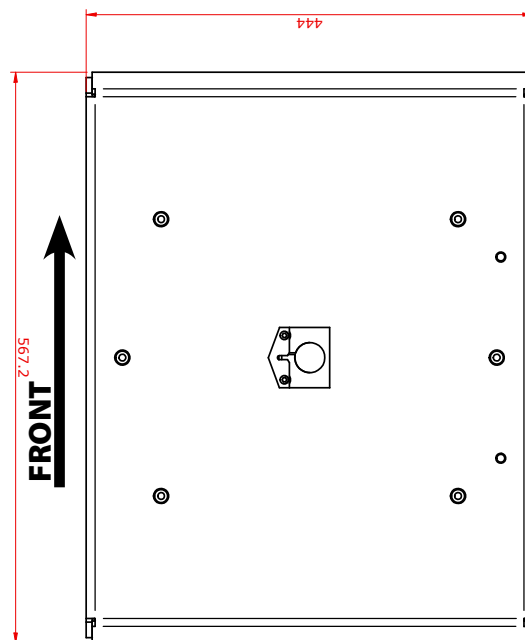
Use two M5 screws to mount the handle. Mounts on the inside of the plate. Use the adapter plate for measurements.



# Wagon details

## - For the 1500 - 2000 Chairs

Complete 1500/2000 wagon	DEL-1193
* Spare Wheel	KLA-011
* Wire	WIRE-022
* Release handle	DEL-1231

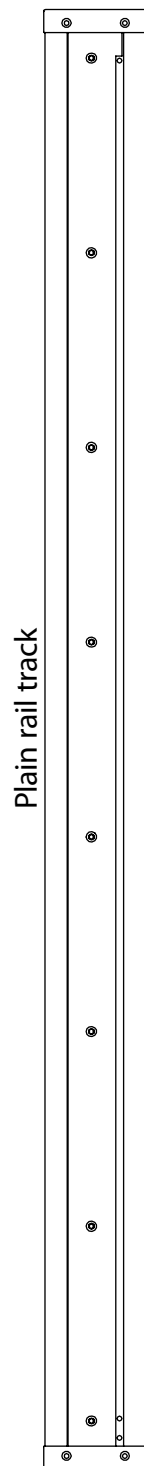
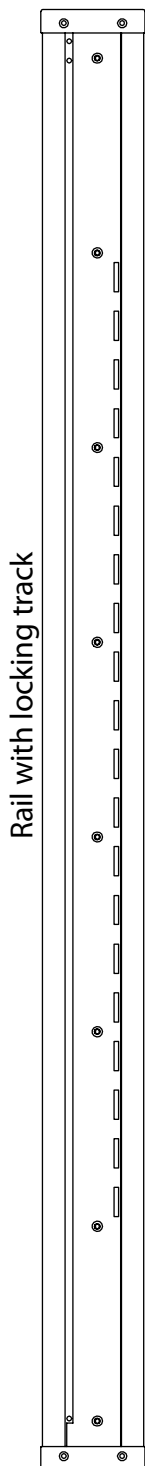


## - For the 1000 Chair

Complete 1000 wagon	DEL-1192
* Spare Wheel	KLA-011
* Wire	WIRE-022
* Release handle	DEL-1231

## - For the 800 Chair

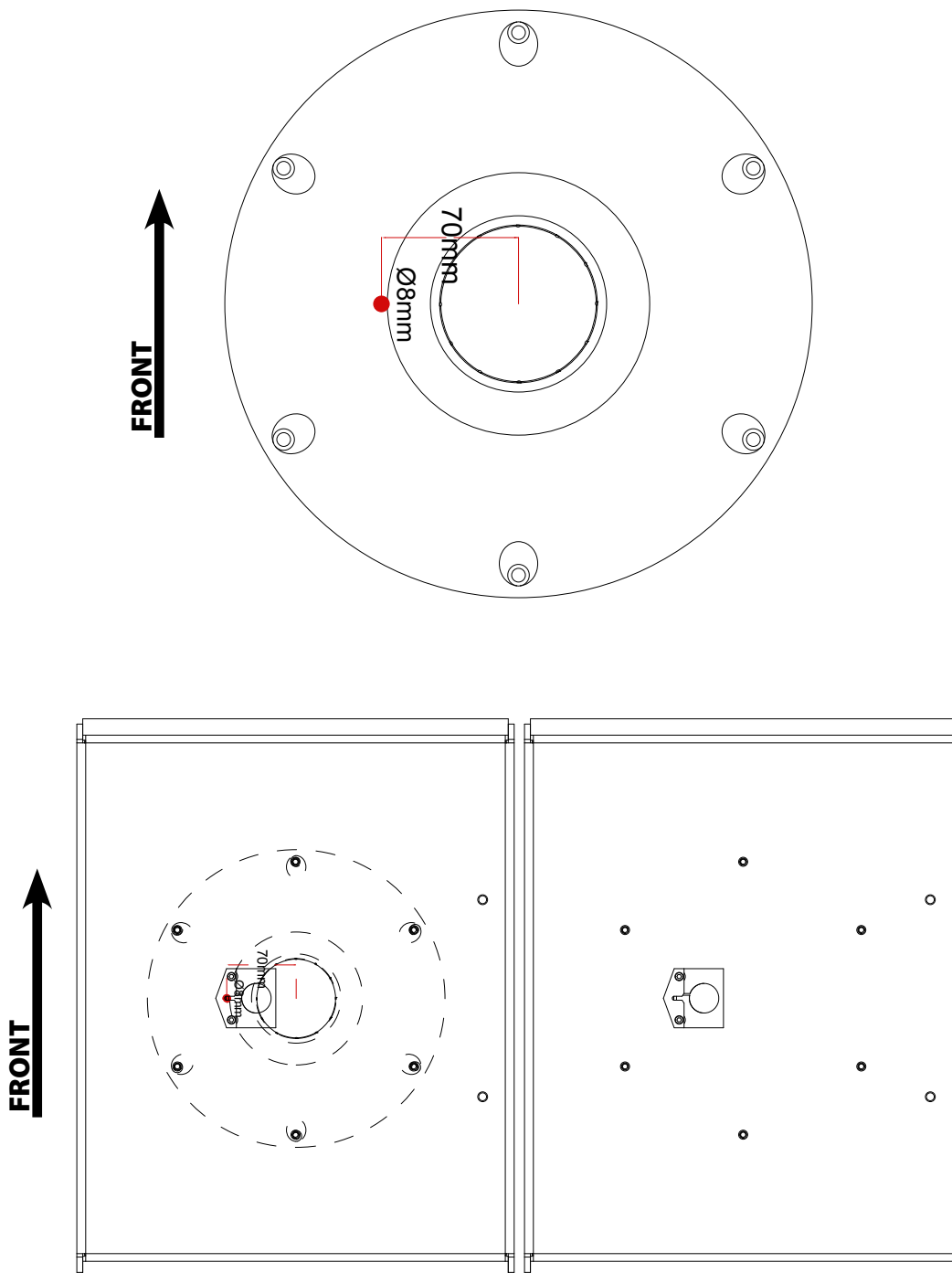
Complete 800 wagon	DEL-1206
* Spare Wheel	KLA-011
* Wire	WIRE-022
* Release handle	DEL-1231



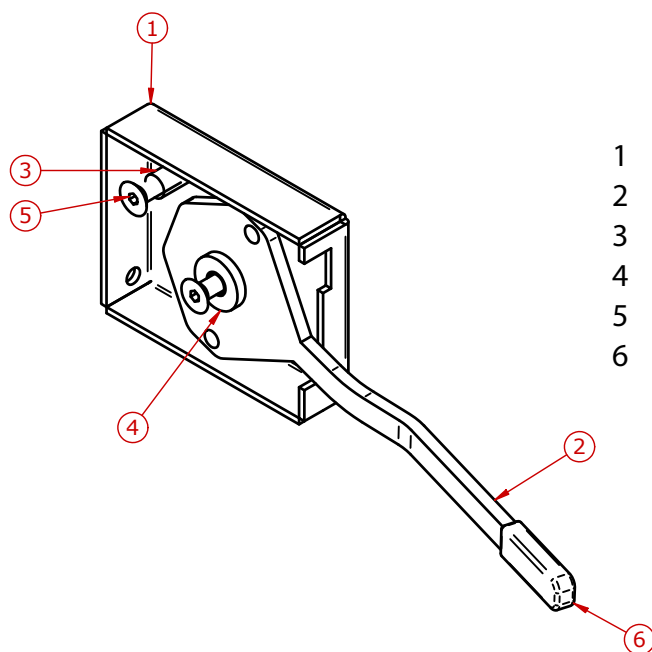
# Flange modification necessary for the 800 Chair

The NorSap 800 chairs columns is too small to have the release wire for the deck rail concealed within the column. To be able to mount the NorSap 800 chair on a Basic Deck Rail, the flange needs to be modified.

**70mm from the center of the flange towards the side where the wagons release cable goes, drill a Ø8mm hole for the release wire insertion.**



## Release handle details



1	Casing	SAP-8037
2	Release handle	SAP-8038
3	Spacer	B366-M5x14
4	Washer	B783-M6
5	Countesunk umb.	B420-M5X16
6	Rubber fitting	GASDEL-019

## Maintenance of moving parts

The glide parts of the chair can be lubricated with a silicone based lubricant.

**If the chair is on a deck rail, its important that the deck rails railway is NOT lubricated.**

## Safety

**All moving parts has a potential squeezing hazard.** Be sure to keep hands and fingers out of moving parts areas when operating the chair.

## Shipping and storage specifications

The chair should be shipped and stored in an upright condition.

No other materials should be shipped or stored on top of a the chair or deck rail.

The chair should be shipped and stored at temperatures between -20°C and +40°C.

The chair should not be operated until its been acclimatized between 0°C and +30°C.

The chair should be kept in a clean, dry environment.

Upon receipt, we recommend that the shipping packaging be immediately examined for damage. Any damage should be noted on the delivery receipt and a request for inspection by the transportation company should be made. The shipping packaging should be opened immediately and the chair or the deck rail examined for concealed shipping damage.

**If the chair appears to be damaged, a concealed bad order report should be immediately filed with the transportation company.**



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