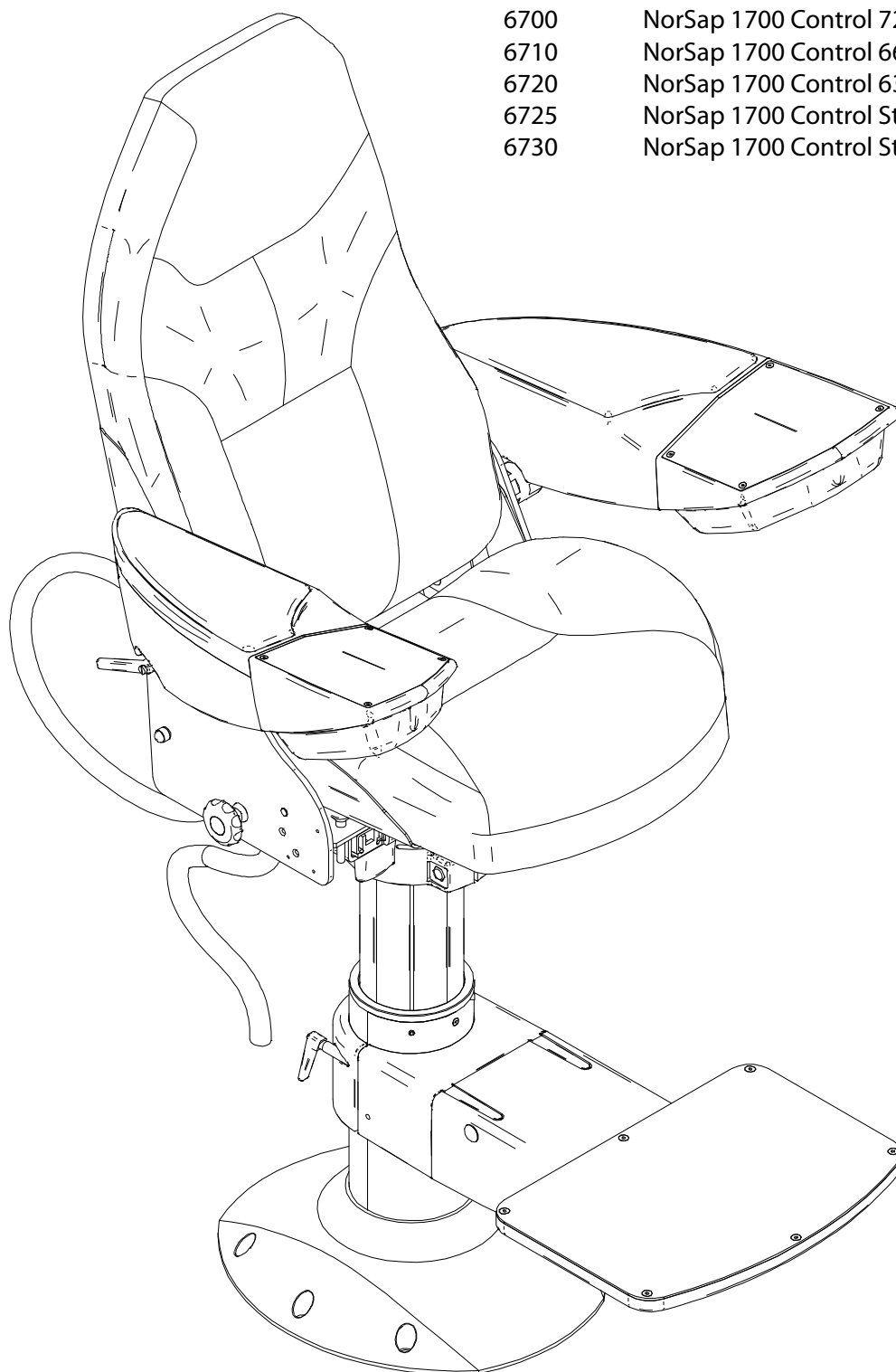


# *Users Manual* **NorSap 1700**

March 3, 2011 12:18 PM

This user manual contains the following models:

6700	NorSap 1700 Control 725-920
6710	NorSap 1700 Control 665-800
6720	NorSap 1700 Control 630-730
6725	NorSap 1700 Control Standard no foot rest
6730	NorSap 1700 Control Standard



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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 you NorSap chair or accessories after reading this manual, immediately contact our head office marketing department for further assistance.

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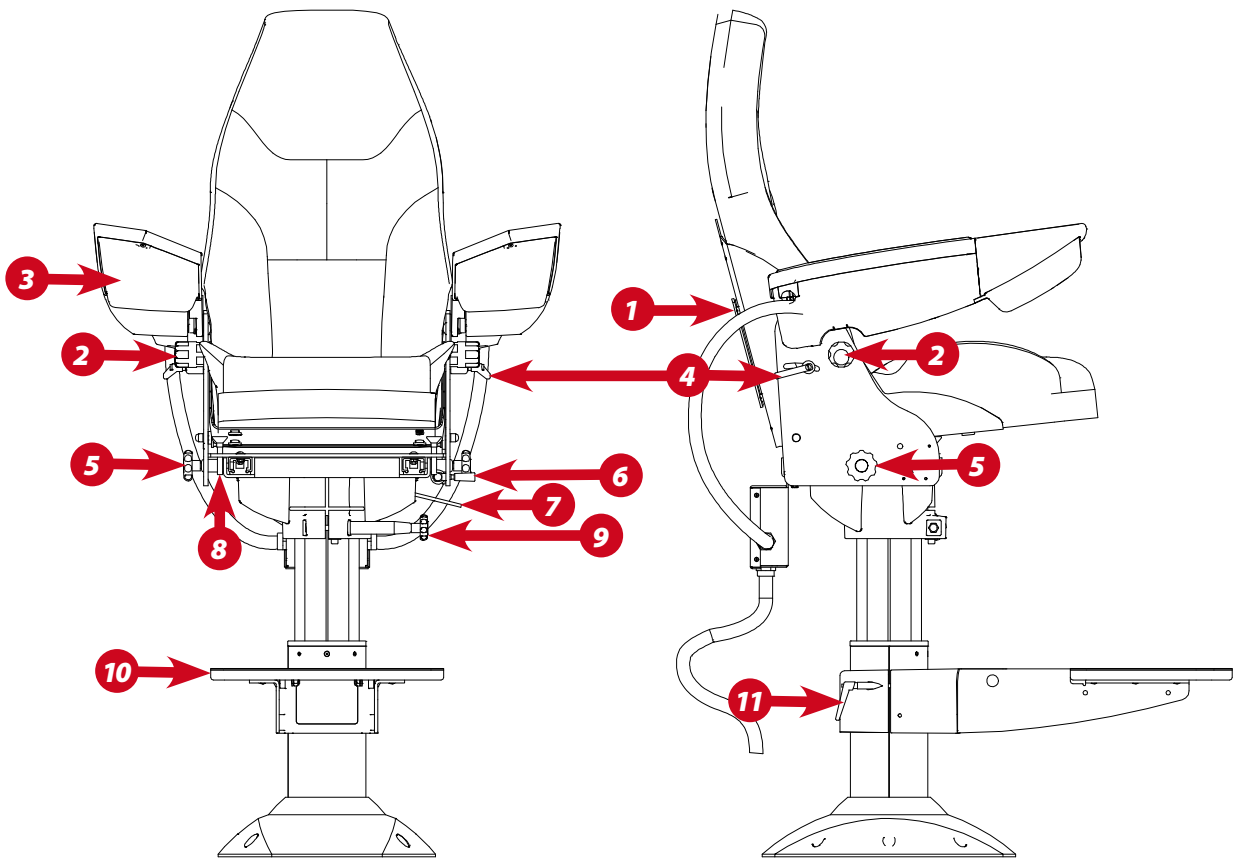
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# Functions of the NorSap 1700 Controller Chair



1. Packing net on backside of chair (This document should be stored here)
2. Eccentric adjustment of armrest angle (Armrests can be tilted to an upright position) (2x)
3. Tilt able Armrest (2x)
4. Back rest adjustment release/tighteners (2x)
5. Seat forward/aft adjustment (2x)
6. Back rest adjustment gas strut release
7. Height adjustment gas strut release
8. Sitting Seat angle adjustment (Seat can be tilted to an upright position) (2x)
9. Swivel/turn release/tightener of chair top
10. Flip up foot rest
11. Foot rest height adjustment release/tightener

# Replacing seat pillows

If your upholstery is damaged or worn, it's recommended to replace the whole part. To re-fit new leather (or other fabric) on existing cushions is not recommended.

If the chair is intended to be used under extreme conditions, an additional seat cover is advised. This comes in two different materials, water repellent and fabric.

To replace the back rest cushion, unscrew the 10 marked wood-screws on the illustration below. Replace the cushion with the new one, re-mount the cushion with the wood-screws.

To replace the seat rest cushion, flip up the seat and unscrew the 4 marked wood-screws on the illustration below. Replace the cushion with the new one, re-mount the cushion with the wood-screws.

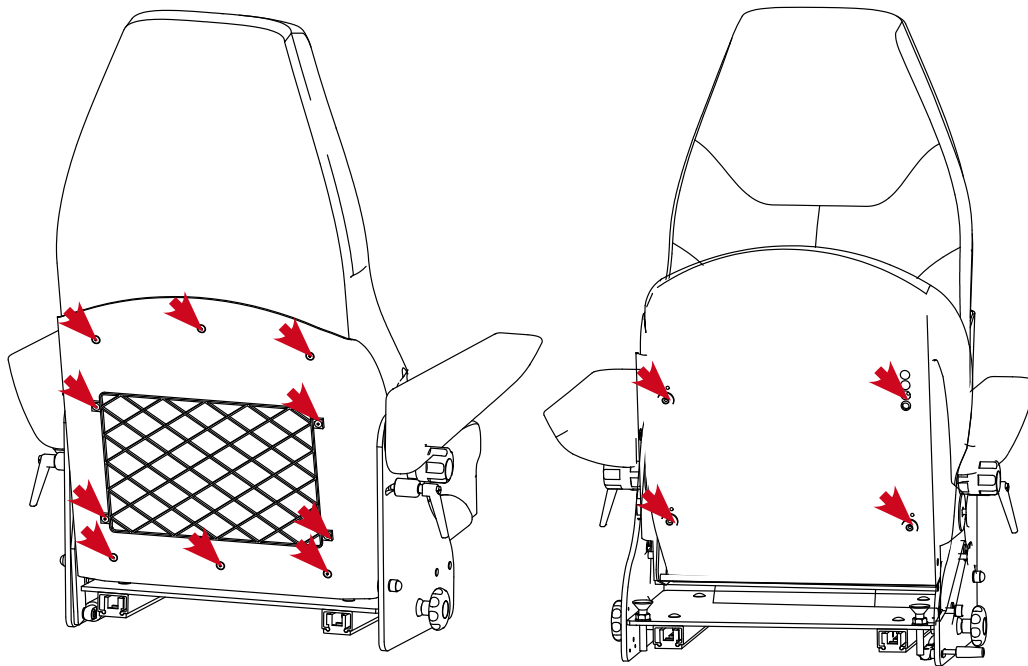


illustration shows a NorSap 1500 chair



## Securing additional seat cover

To secure seat cover, place Velcro tape on the lower back rest and underneath the seat as illustrated below.

**Item Name**  
Seat cover in fabric

**Item No.**  
6474

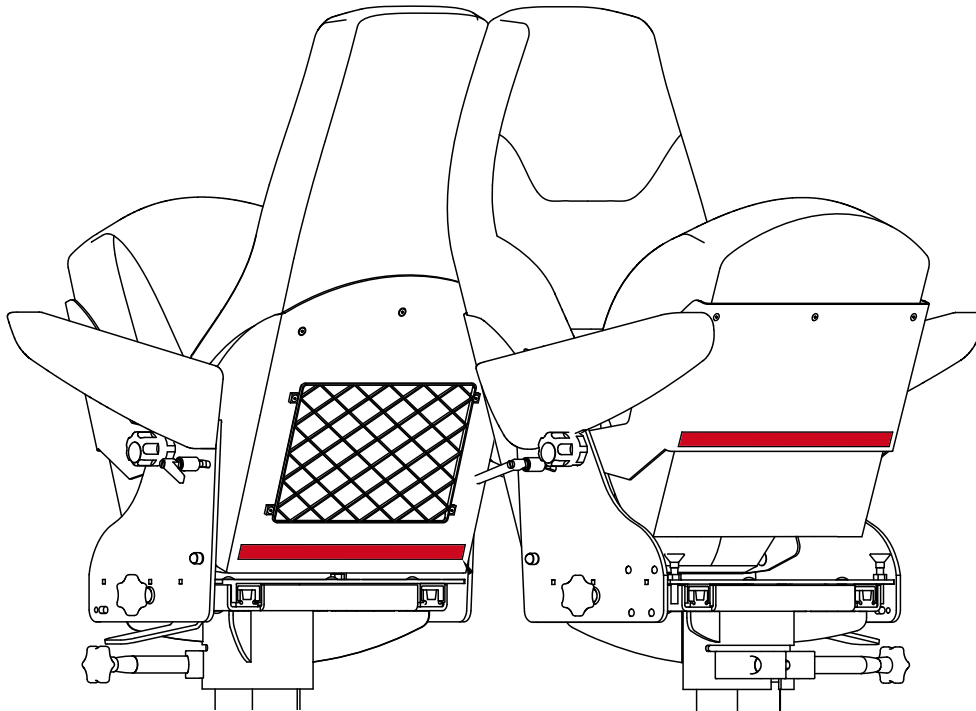


illustration shows a NorSap 1500 chair

## Care and maintenance of leather

Most leather qualities have originally received one or another type of surface protection treatment. When the furniture is taken in use, grease from hand and neck will be in contact with the leather on a regular basis. Without proper cleaning the leather will over a period of time leave grease spots or discoloration's. To avoid this clean with Soft Cleaner on a regular basis, we advise once a month. Use Leather Protection Cream or a leather cream with impregnation 2-4 times a year. This will protect against spots, increase wear resistance and preserve the leathers softness. By following these instructions you will ensure a long and lasting leather quality.

Avoid direct sunlight over a longer period of time.  
Do not place a heat source within a distance of 20-30 cm.  
Remove dust or vacuum, use Soft Cleaner once a month.

Contact us or an authorized leather producer or furniture dealer for more cleaning medium or for further cleaning details.

Preferred supplier of cleaning medium is: Leather Master AS - 6220 Straumgjerde - NORWAY -  
Tel +47 70 25 35 50 - Fax +47 70 25 35 58 - [www.leathermaster.no](http://www.leathermaster.no) - [service@leathermaster.no](mailto:service@leathermaster.no)

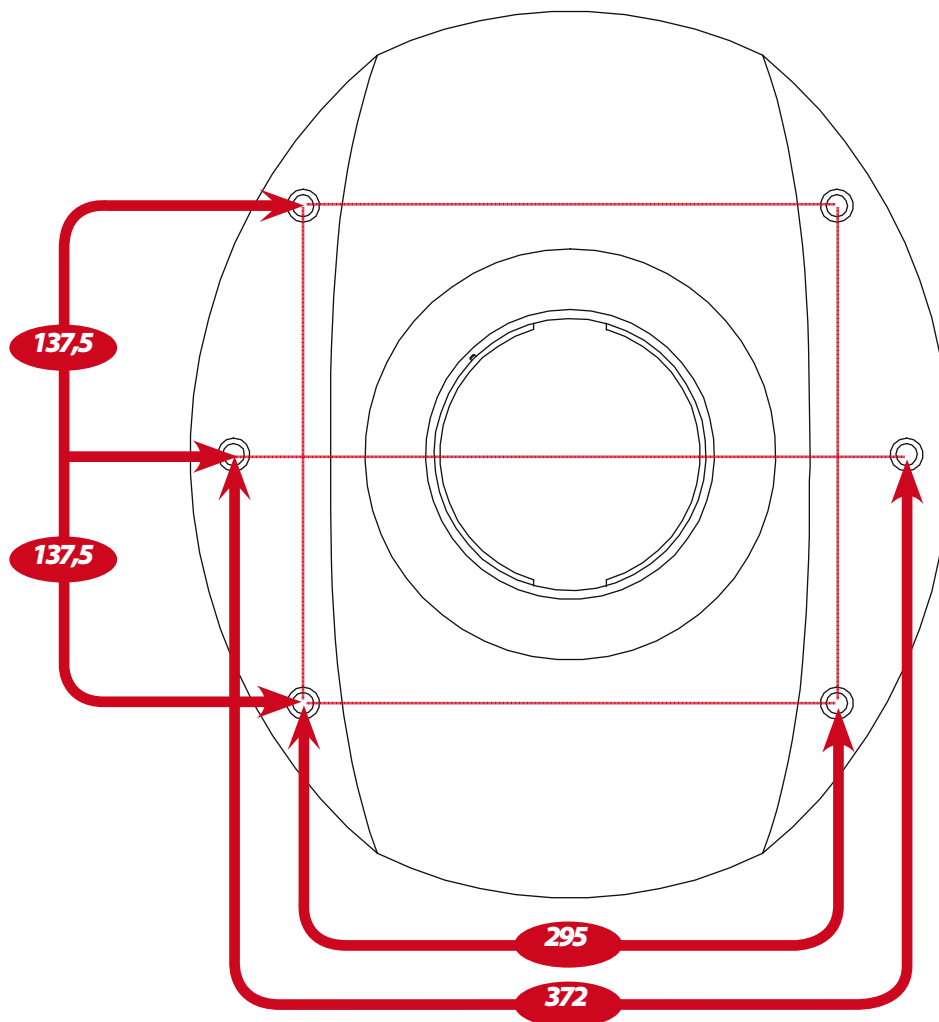
## Care and maintenance of fabric

Remove dust or vacuum, use a neutral cleaning agent, such as soapy water when needed.

# Mounting holes measurements

**A strong and level foundation is required to secure the installation of the base.**

It may occur that during storage or transport that the telescope column fastens in the lower position. This can easily be adjusted by fastening the lockable arm for swing, lift up the release handle at the same time pull up the chair. **Use six(6) M-Ø10 bolts to mount the pedestal.**



## Mounting on a deck rail

**First make sure to have mounted the deck rail according to its user manual.**

The bolts for mounting the chair to the deck rail is already in place on the carrier wagon.

- If you have an electrical deck rail and the cabling of the switch is done by quick-connections already implemented in the chairs column.
- If you have a manual deck rail with release from seated position, the mounting of the release lever is shown in the deck rails user manual.
- If you have a basic deck rail, the wiring and mounting of the release lever is shown in the deck rails user manual.



# Cabling of extra equipment in armrests

The diagram below shows how to cable the wires thru the chair and column.  
For the NorSap 1700 the cabling goes thru the coupling box at the back of the chair.

Receiving the chair prepped for additional equipment in the armrests, the wiring of your equipment should follow these steps.

1. Release the hand wheel (**pos 1**) holding the equipment holder in place.
2. Mount your equipment, making sure the cable is going thru the pipe.
3. Pull the cables out from underneath the arm rest (**pos 2**), open the zipper to gain access.
4. Use a flexible cable channel (**pos 3**) to secure the cables going from the armrest all the way to the column top. Leave enough play for chair adjustments.
5. Either use existing holes underneath the square top of the column (**pos 6**) or drill new holes corresponding with the size of the cables / cable channel (**pos 5**).
6. Place the cables thru the column top. **Make sure to have enough play of the cables to compensate adjustments of the seat, swivel (see # 10) and height (pos 4).**
7. Find a suitable place to strip tight the cables (**pos 8**).
8. The cable is connected to further wiring solutions from under the pedestal. If mounted on a deck rail, please view the deck rails user manual for further info.
9. If needed, you may drill a hole in the pedestal for extraction of the cable and pull the cables through a designated hole in the lower part of the column. (**pos 9**)
10. To avoid breakage of cables/wires within the column, a 360° swivel restriction needs to be applied. Place an B415-M8x16 bolt (**pos 10**) with a B480-M8 washer.

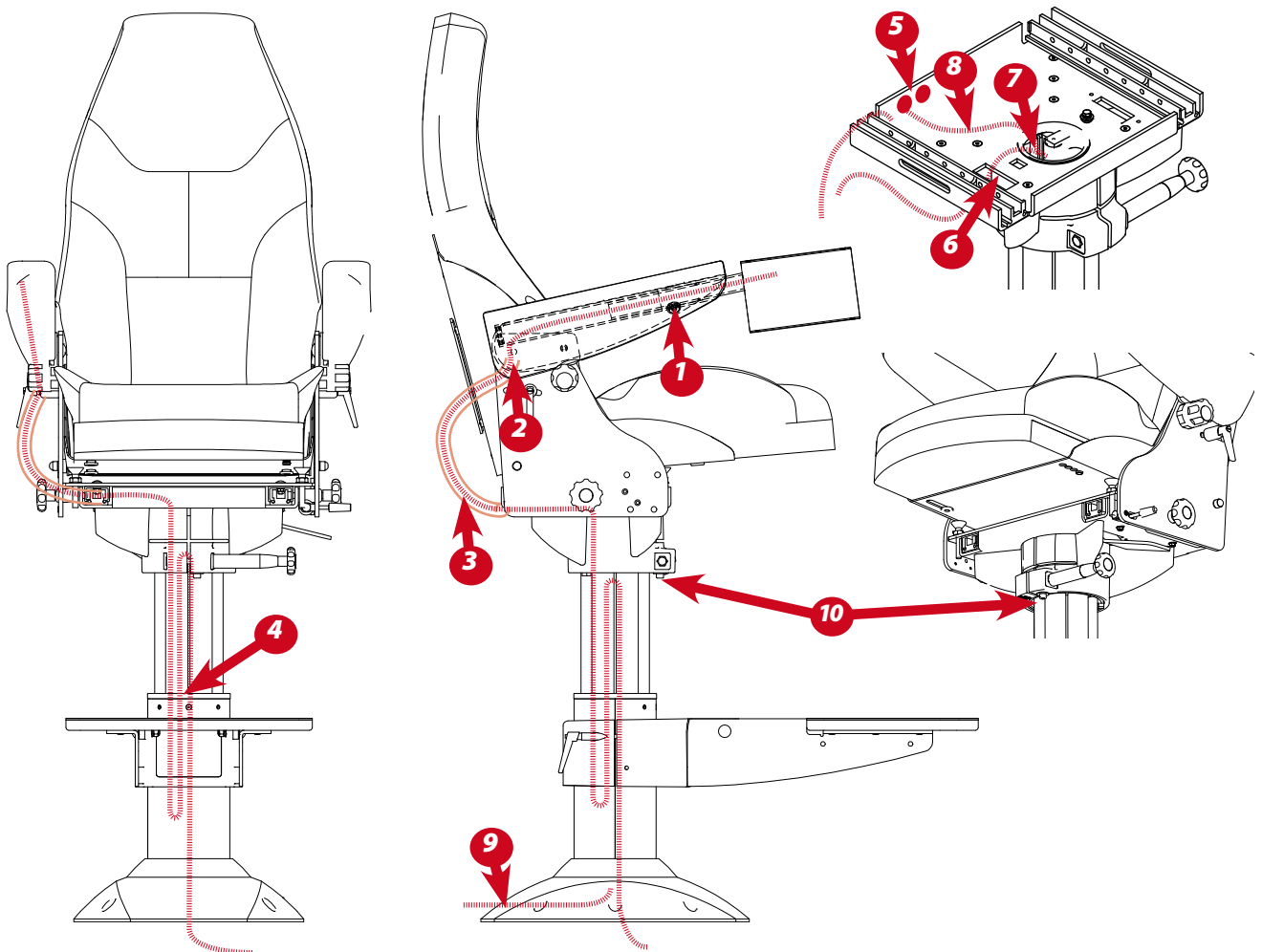
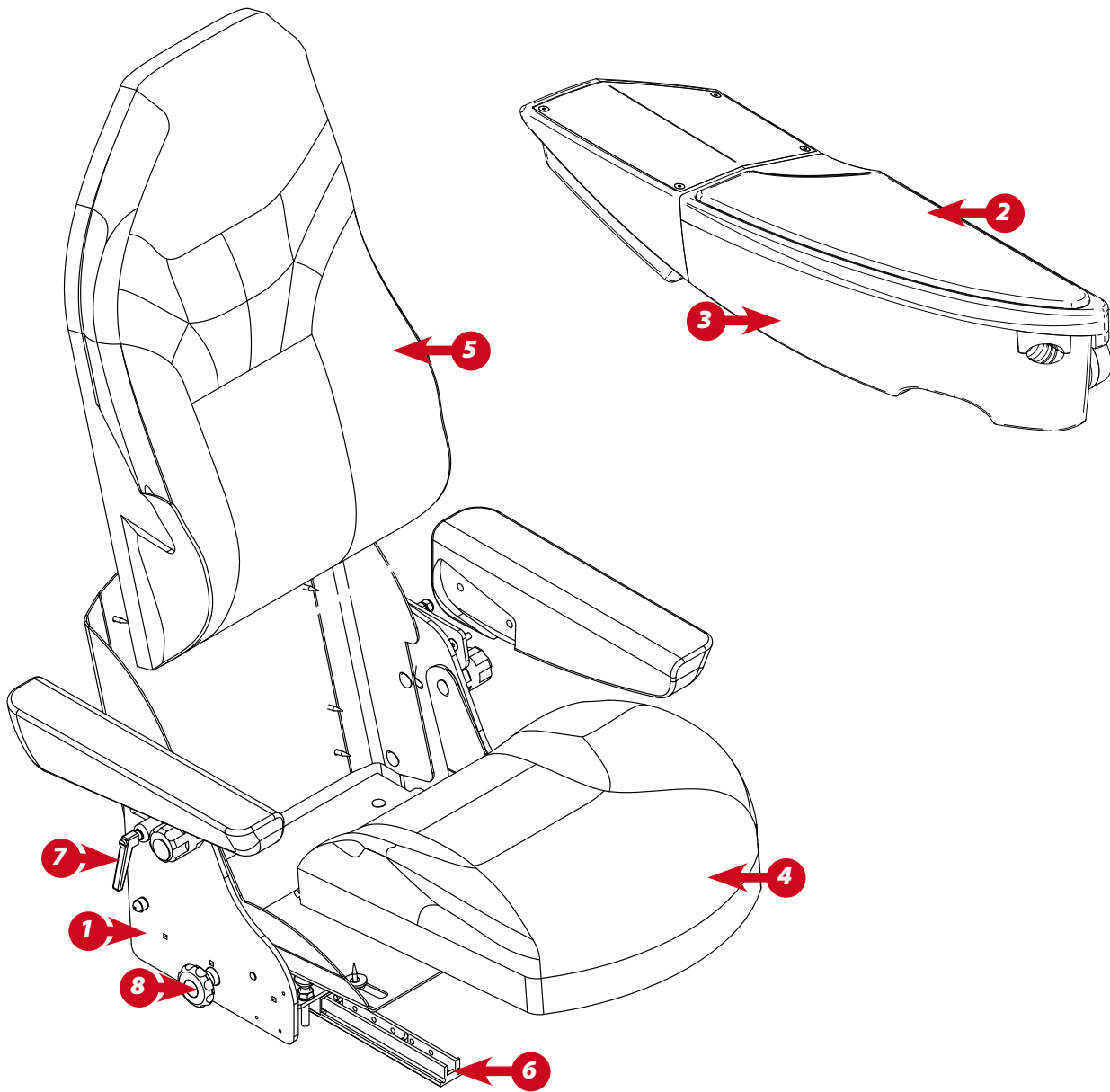


illustration shows a NorSap 1500 chair

# Detailed Part lists

## NorSap 1700 seat top part list



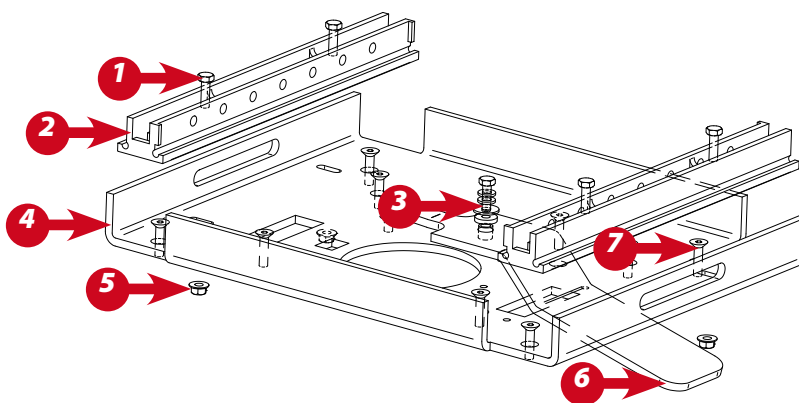
Pos.	Qty	Item Name	Item No.	Rev.	Details
1	1	Seat fram assembly for NS1700	DEL-601	05	
*	1	Coupling box on back, with tubes	DEL-670		
*		Tubes	SLD-005		
2	1	Pillow for Right armrest	PUTE-029H		
2	1	Pillow for Left armrest	PUTE-029V		
3	1	Right Armrest NS1700 Control	DEL-3955	01	
3	1	Left Armrest NS1700 Control	DEL-3956	01	
4	1	Seat rest NS1500	PUTE-002		
5	1	Back rest NS1500	PUTE-001		
6	2	Glide rail	MP156	04	
7	2	Hand wheel for back rest adj.	RATT-004		
8	2	Hand wheel for seat adj.	RATT-029		



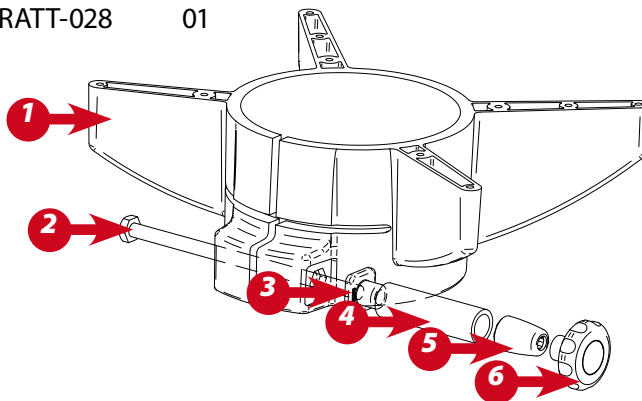
# DEL-2020 - Square top

Detailed view of the square top mounted on the column

Pos.	Qty	Item Name	Item No.	Rev.	Details
1	4	Hex machine screw M6x20	B411-M6X20	04	
2	2	Glider PVC	SAP-8042	01	
3	2	Washer M6	B481-M6		
	1	Washer L M6	B480-M6		
	1	Spacer shell	SAP-0054	01	
	1	Washer soft PVC	B783-M6		
4	1	Machined square top	SAP-7007	02	
5	4	Nut 'Selflock' M6	B463-M6		
6	1	Release handle	SAP-0091	02	
7	10	Unbraco countersunk	B420xM6X25		



Pos.	Qty	Item Name	Item No.	Rev.	Details
1	1	Machined column top	SAP-8039	01	
2	1	Hex machine screw M10x220	B310-M10x200	02	
3	1	Cylinder support	SAP-8042	01	
4	1	Spacer shell	SAP-8040	01	
5	1	Shell	MP161	01	
6	1	Hand wheel	RATT-028	01	

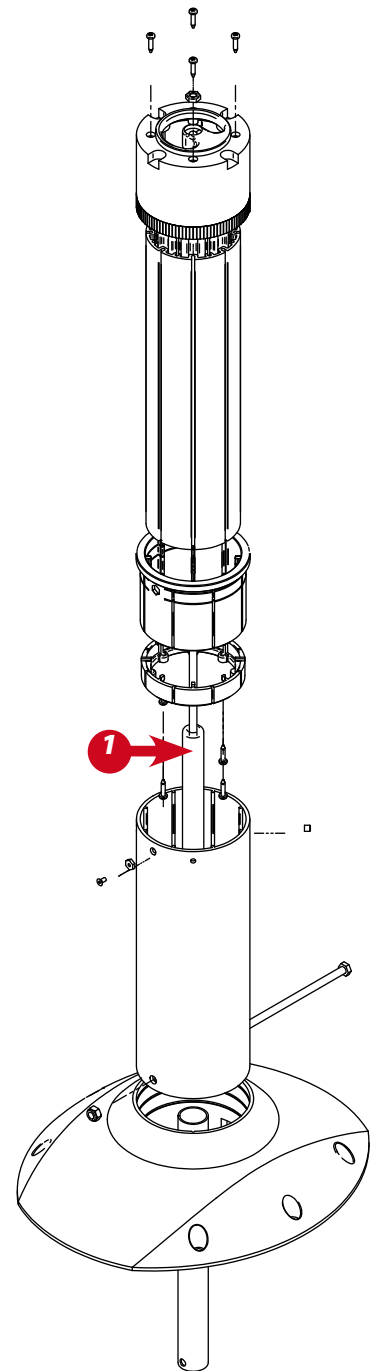


# Columns for NorSap 1700 series

To find out what model your chair is flip up the seat and view the sticker underneath.

Pos.	Qty	Item Name	Item No.	Rev.	Details
1	1	For article no.: 6720 <b>Complete column H575-480</b> Replacement gas strut	<b>DEL-1203</b> GAS-025	<b>01</b>	
1	1	For article no.: 6710 <b>Complete column H660-530</b> Replacement gas strut	<b>DEL-1200</b> GAS-002	<b>01</b>	
1	1	For article no.: 6700 <b>Complete column H775-585</b> Replacement gas strut	<b>DEL-1199</b> GAS-043	<b>01</b>	
		For article no.: 6730, 6725 (not height adjustable) <b>Complete column</b> Remember to state seating height at order.	<b>DEL-1220</b>	<b>01</b>	

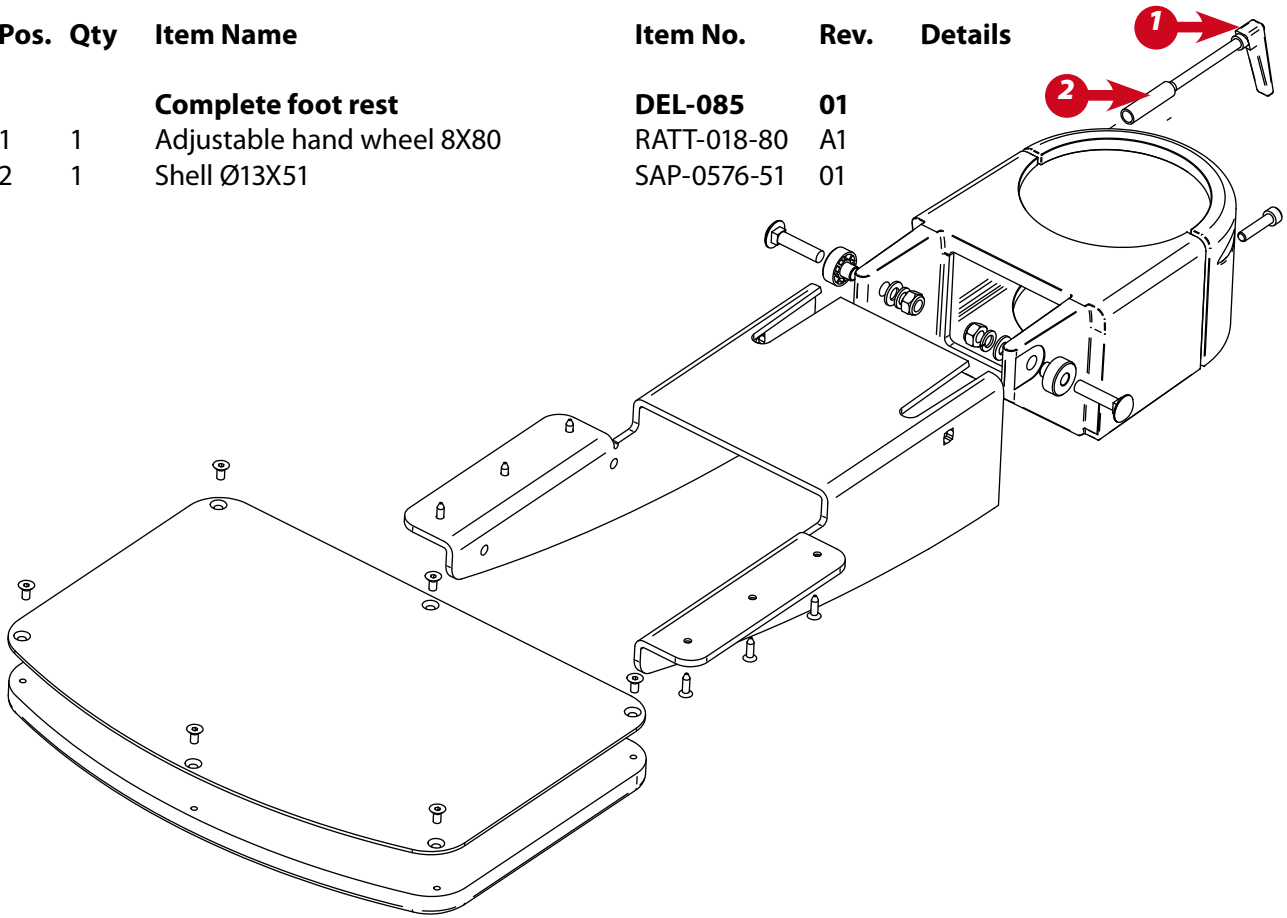
***For other parts not specified please contact NorSap.***



# Foot rest

The NorSap 1700 comes either with or without foot rest.

Pos.	Qty	Item Name	Item No.	Rev.	Details
		<b>Complete foot rest</b>	<b>DEL-085</b>	<b>01</b>	
1	1	Adjustable hand wheel 8X80	RATT-018-80	A1	
2	1	Shell Ø13X51	SAP-0576-51	01	



# *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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