

User manual

# Norsap 1600



8500 Norsap 1600 standard upholstered leather back



8600 Norsap 1600 standard + Aluminium back



8700 Norsap 1600 standard M Aluminium back

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## Norsap models

8500	Norsap 1600 Standard
8600	Norsap 1600 Standard +
8700	Norsap 1600 Standard M

Flat oval & round  
column heights:  
63-73 / 67-80 / 72-92 cm

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## INTRODUCTION

Norsap is the recognized leader in the design and production of helmsman and operator seats for the maritime market.

This manual will help you make the most out of your Norsap chair.

If you have any questions regarding your Norsap chair, please contact our head office for further assistance.

## TABLE OF CONTENTS

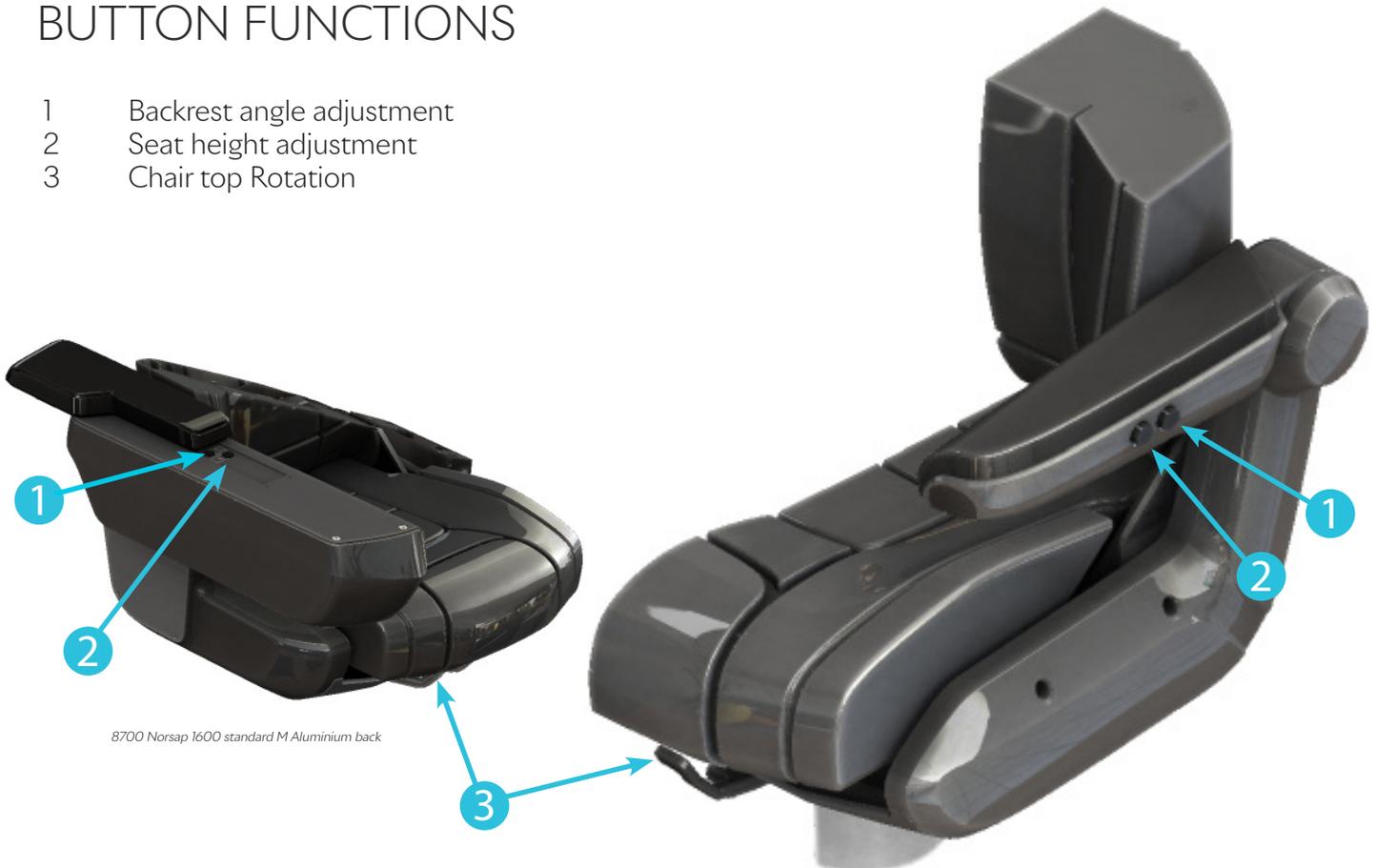
- Introduction.....
- Safety.....
- Functions.....
- Mounting holes measurements .....
- Care and maintenance of leather .....
- Care and maintenance of fabric.....
- Maintenance of moving parts.....
- Accessing the interior.....
- Changing cushions.....
- Install or adjust the gas springs.....
- Removing the column.....

## SAFETY

Be sure to keep hands and fingers out of moving parts areas when operating the chair.

## BUTTON FUNCTIONS

- 1 Backrest angle adjustment
- 2 Seat height adjustment
- 3 Chair top Rotation



*8700 Norsap 1600 standard M Aluminium back*

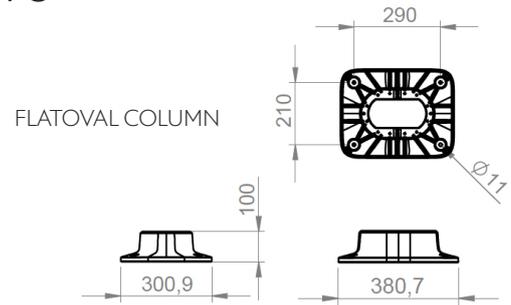
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## MOUNTING HOLES MEASUREMENTS

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

It may occur that the column get stuck in the lowest position during prolonged storage or transport.

Adjust this easily by fastening the lockable arm for swing, lift up the release handle and pull up the chair.

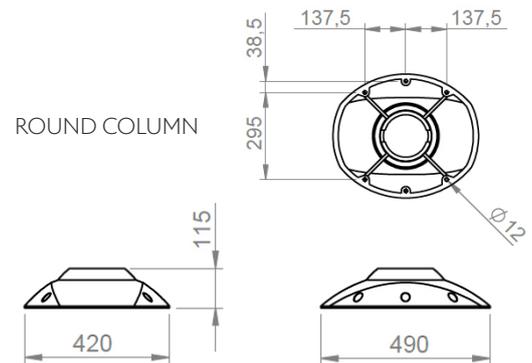


## MOUNTING ON A DECK RAIL

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 in 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.



## CARE AND MAINTENANCE OF LEATHER

As a natural product, leather is very durable and hardwearing, but all leather products require cleaning and protection. By following these instructions, you will ensure a long and lasting leather quality. Never place leather furniture closer than 20-30 cm to a radiator or in direct sunlight.

### LEATHER CLEANING

Cleaning removes everyday dirt and stains from your leather. 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.

### LEATHER PROTECTION

Protect your leather to guarantee that the original quality of the leather will be maintained. Use Leather Protection Cream, we advise 2-4 times a year. This will protect against spots and preserve the leathers softness.

## CARE AND MAINTENANCE OF FABRIC

Regular light vacuuming. Occasional cleaning should be done with a reputable brand of upholstery shampoo following the manufacturer's instructions

## MAINTENANCE OF MOVING PARTS

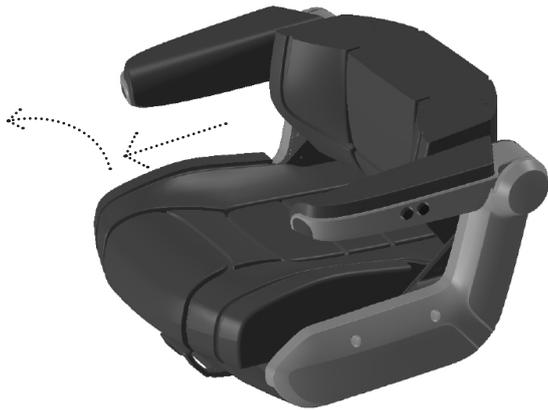
Glide parts of the chair can be lubricated with a silicone-based lubricant. If the chair is on a deck rail, it is important that the deck rails railway is NOT lubricated.

# ACCESSING THE INTERIOR

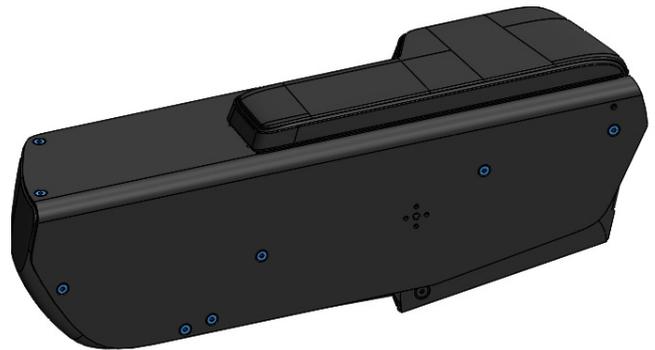
## INTERIOR

- (1) To gain access to the interior of the seat, see “CHANGING CUSHIONS - Cushions - Seat”.
- (2) To gain access to the interior of the armrest, all countersunk screws marked needs to be undone.

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8700 Norsap 1600 standard M Aluminium back

# CHANGING CUSHIONS

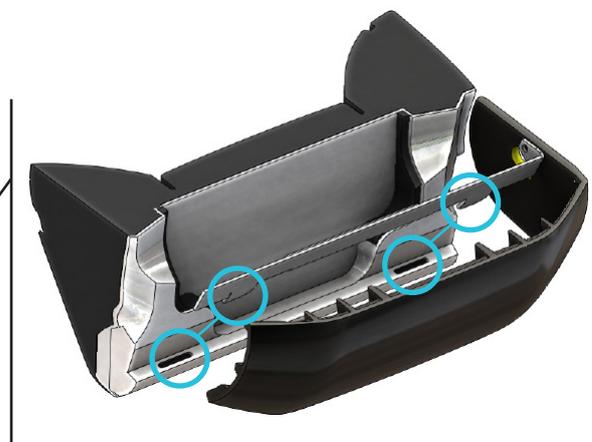
## BACKREST CUSHION - A2088

- (1) Pull out the top of the backrest cushion from the molded backrest shield.
- (2) Continue the pull until all the plugs are out, guide the backrest cushion down and out of the hooks.

1



2



8600 Norsap 1600 standard + Aluminium back  
8700 Norsap 1600 standard M Aluminium back

## UPHOLSTERED BACKREST - A2192

(1) Remove both armrests by unscrewing 5x M6x20 cylindrical bolts per side.

**Pay attention too the hydraulic tubes from the buttons, and handle with care.**

(2) Continue with the plastic cover, and remove the 4x M5x10 countersunk bolts per side.

Slide the cover in a straight line away from the backrest.



(3) You can now see the gas spring(s) for the backrest.

Seperate the gas spring(s) from the backrest.

**Pay attention to the order washer and bolts are put together, and where.**

(4) Unscrew the 1x M8x30 countersunk bolt per side. Pull the bolt and black POM bushing out on both sides, and remove the backrest.

To mount a new backrest on the chair, follow the instructions backwards.



### Cushions - Seat

To remove the seat cushion, remove the M6 nut underneath the cushion on the left side. Lift the front of the cushion up and pull it away from the chair. Then help the back of the cushion free from the key holes securing the cushion.



To install the seat cushion, slide the cushion backwards into the key holes. Slide the front left glider into its track and secure the M6 nut, and the front right side into position.



### Cushions - Standard Armrest

To remove the standard armrest cushion, begin by unscrew 3 x *Screw Ø4,5 x19 A4 DIN 7983*, then pull the cushion straight out from the mold.



To install a new standard armrest cushion. Center plugs to the corresponding holes in the mold, and push them in. Then take the 3 x *Screw Ø4,5 x19 A4 DIN 7983*, and secure the cushion.



*Number of adjustment buttons may vary on chair setup and model*  
8500 Norsap 1600 standard upholstered leather back  
8600 Norsap 1600 standard + Aluminium back

# INSTALL OR ADJUST GAS SPRINGS

## Seat Movement - Gas springs or Release buttons

To remove the Gas springs for the seat movement, follow the instruction on how to remove Seat cushion and Standard armrest cushion.

The Gas springs is located under the seat cushion.

Secure all screws and parts on a clean and soft surface.

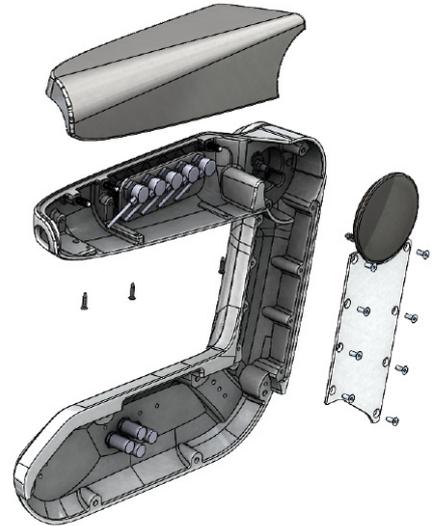
*After removing the Seat and Standard armrest cushion, the operation may require to remove the Standard armrest, Circular armrest lidd and cover if replacing the Hydraulic release buttons.*

*Locate which Gas spring that needs to be replaced.*

*Follow the hydraulic tube to the armrest and remove the end from the bracket located in the armrest.*

*When replacing any of the release caps, unscrew only these ends.*

When replacing the Gas spring, unscrew only the end were the gas spring is mounted, not the release cap.



1 Backrest - GAS-088

To install the new Gas spring.

*When mounting on the Gas spring, to the release cap. Screw the Gas spring on CW the release cap until it extends, and two rotations CCW until it stops extending.*

Mount the Gas spring first, then guide the hydraulic cable through the seat base and up into the upper part of the armrest. Attach the Circular armrest lidd and cover.

Mount the Hydraulic button to the bracket and attach the Standard armrest cushion back on.

Mount on the armrest while checking for unwanted strain or pressure on the hydraulic cables.

Check the seat functions while operating the buttons from the chair.

If all functions are working, mount on the Seat cushion.

# REMOVING THE COLUMN

Start the process with adjusting the chair to the lowest position, and pulling the chair top and inner profile up. Secure the chair top and inner profile by tighten the 2 x M8 set screws.

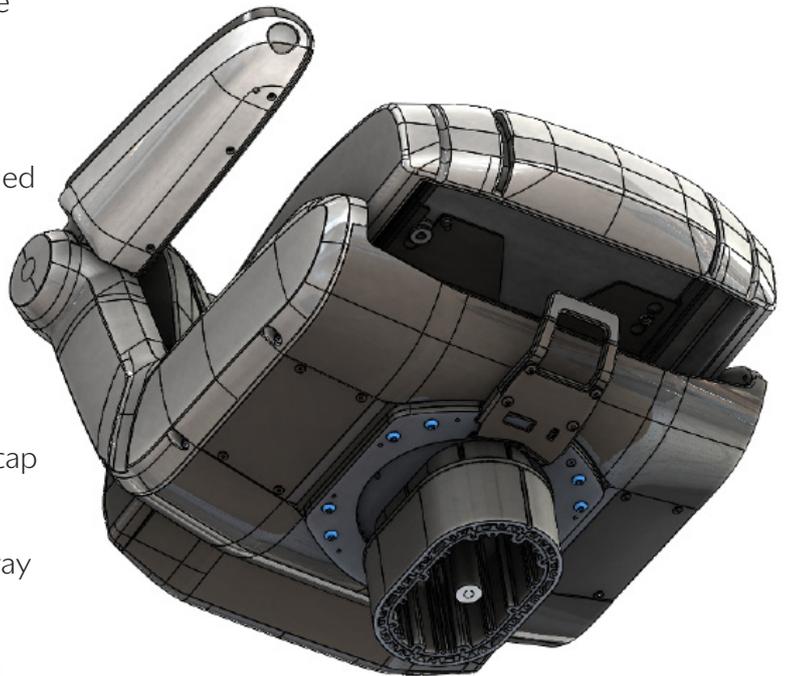
In some situations, the chair will have preinstalled components and bigger armrests. In these cases the 2 x M8 set screws will not be able to hold the weight alone, and the chair needs additional support beams.

Use planks or other suitable objects from the floor and up under the rotation unit, before removing the 8 x M8x30 Button head socket cap screw.

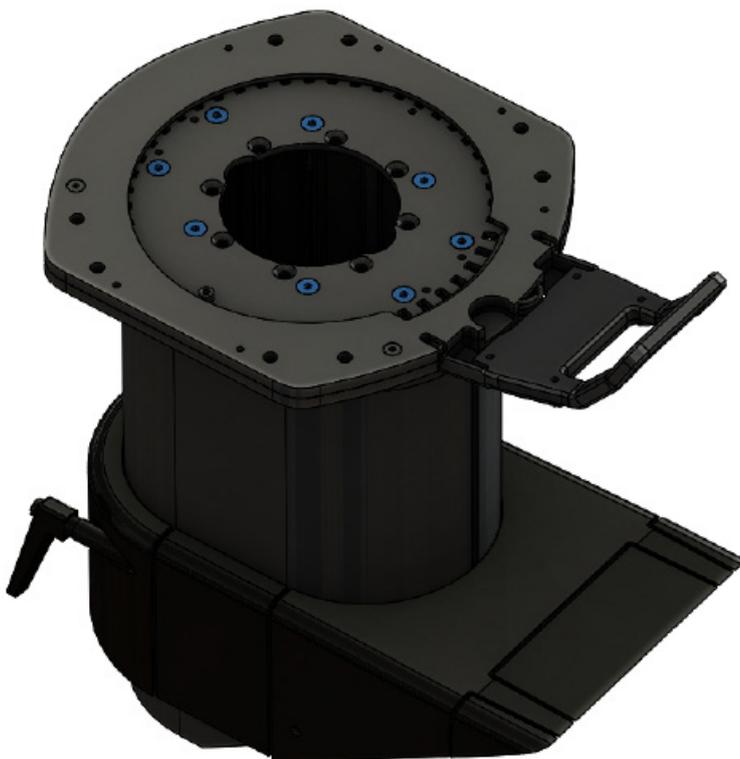
Lift the chair top with the gas spring up and away from the column.

Move the support beams from the old column to the new column, and position the beams from the floor and up under the rotation unit.

Position the chair top onto the new column and secure the chair top to the rotation unit, with the 8 x M8x30 Button head socket cap screw.



Remember to check and set the rotation limit on the new rotation unit before installing the chair top.



Separating the column from the rotation unit

*Remove the 8 x M6x30 and mount it back on the new column.*

The rotation unit is standard on all standard chairs with hydraulic adjustments, and can be replaced with a suitable adapter plate.

Chairs without rotation may have different fixture for the gas spring located in the column.



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