ROLTEC

SERVICE INSTRUCTIONS

Serviceinstructions
for VISION plus
Valid from CU soft 01052.000

Version 1.02

FOREWORD

These service instructions concern Roltec Vision plus (the model with the flat control box and big display).

The service instructions contain the necessary directions for the wheelchair settings that users should not adjust themselves. All settings can be adjusted with the help of the built-in teach-box.

In this connection, ROLTEC el-kørestole A/S would draw attention to the fact that distributors have a duty to ensure that, on delivery, the wheelchair has been adjusted so that it is not in any way a danger to users and their surroundings.

Furthermore, it should be noted that it is expressly stated in the foreword to the user's instructions that if users adjust control parameters and other areas they have access to in connection with settings, they do so at their own risk.

As ROLTEC el-kørestole A/S carries out product development on an ongoing basis, we reserve the right to make changes to specifications, etc.

The CE label indicates compliance with executive order no. 92 of 7 February 2000 issued by the Danish Ministry of Health.

The wheelchair has been tested in accordance with standard EN12184:1999 at Hjälpmedelinstitutet in Stockholm. Where EMC requirements are concerned, an accredited test has been carried out by Jyske EMC.

These service instructions have been prepared in accordance with current requirements.

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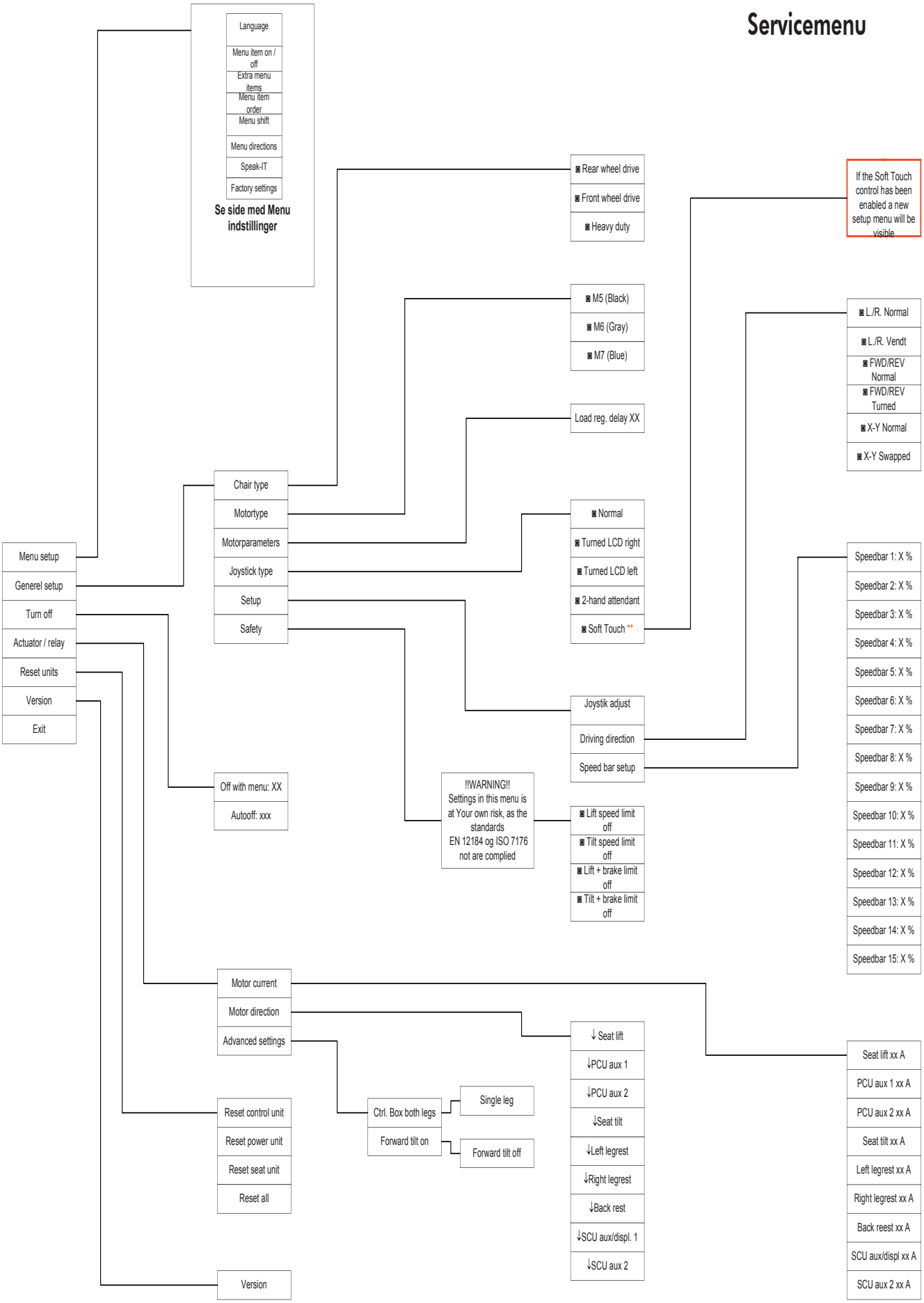
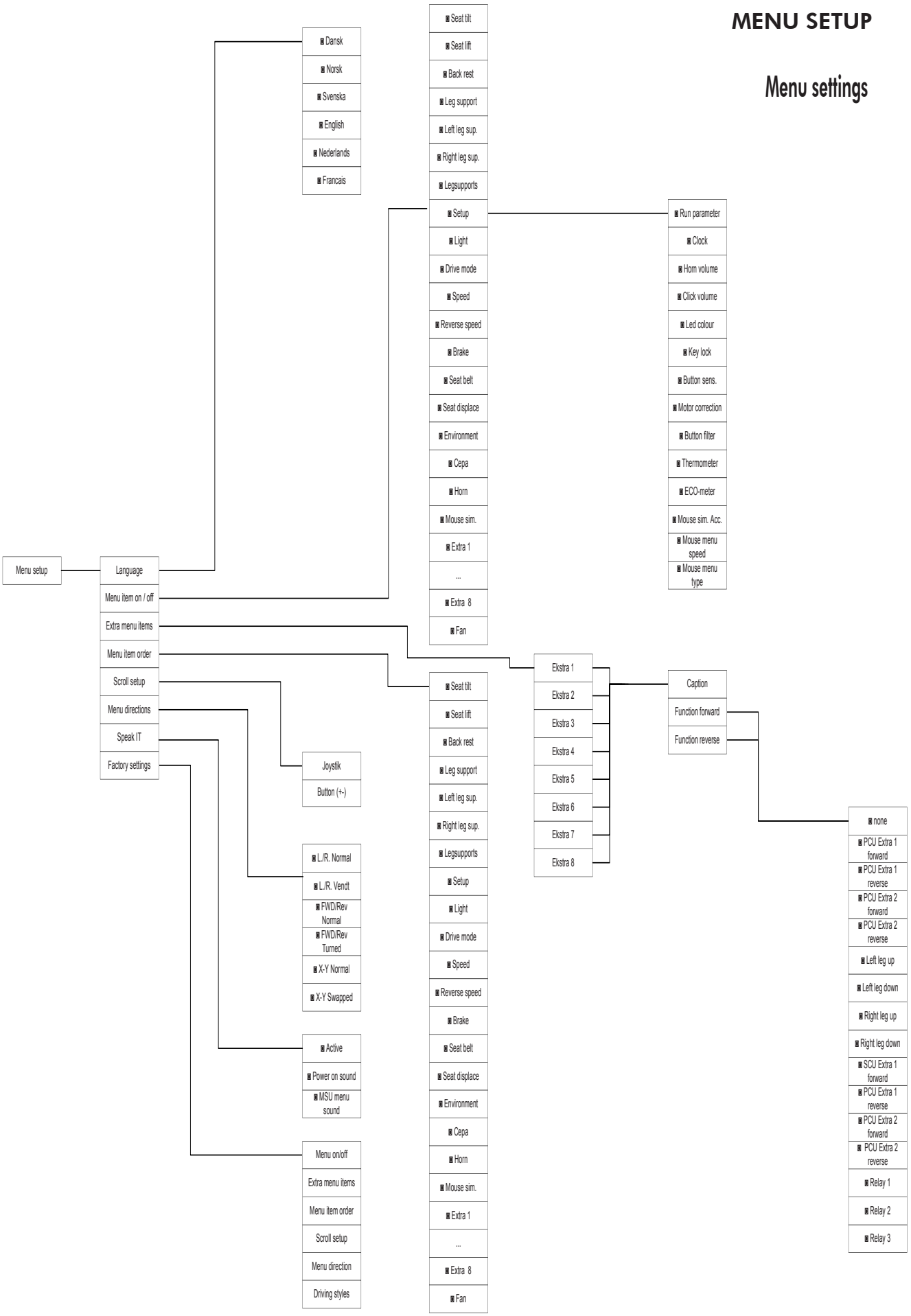

Servicemenu
Language
Menu item on / off
Extra menu items
Menu item order
Menu shift
Menu directions
Speak-IT
Factory settings
Se side med Menu indstillinger
Menu setup
Generel setup
Turn off
Actuator / relay
Reset units
Version
Exit
Chair type
Motortype
Motorparameters
Joystick type
Setup
Safety
Rear wheel drive
Front wheel drive
Heavy duty
M5 (Black)
M6 (Gray)
M7 (Blue)
Load reg. delay XX
Normal
Turned LCD right
Turned LCD left
2-hand attendant
Soft Touch **
If the Soft Touch control has been enabled a new setup menu will be visible
L./R. Normal
L./R. Vendt
FWD/REV Normal
FWD/REV Turned
X-Y Normal
X-Y Swapped
Joystik adjust
Driving direction
Speed bar setup
Speedbar 1: X %
Speedbar 2: X %
Speedbar 3: X %
Speedbar 4: X %
Speedbar 5: X %
Speedbar 6: X %
Speedbar 7: X %
Speedbar 8: X %
Speedbar 9: X %
Speedbar 10: X %
Speedbar 11: X %
Speedbar 12: X %
Speedbar 13: X %
Speedbar 14: X %
Speedbar 15: X %
Off with menu: XX
Autooff: xxx
!!WARNING!! Settings in this menu is at Your own risk, as the standards EN 12184 og ISO 7176 not are complied
Lift speed limit off
Tilt speed limit off
Lift + brake limit off
Tilt + brake limit off
Motor current
Motor direction
Advanced settings
Reset control unit
Reset power unit
Reset seat unit
Reset all
Ctrl. Box both legs
Forward tilt on
Single leg
Forward tilt off
Version
↓Seat lift
↓PCU aux 1
↓PCU aux 2
↓Seat tilt
↓Left legrest
↓Right legrest
↓Back rest
↓SCU aux/displ. 1
↓SCU aux 2
Seat lift xx A
PCU aux 1 xx A
PCU aux 2 xx A
Seat tilt xx A
Left legrest xx A
Right legrest xx A
Back reest xx A
SCU aux/displ xx A
SCU aux 2 xx A

MENU SETUP

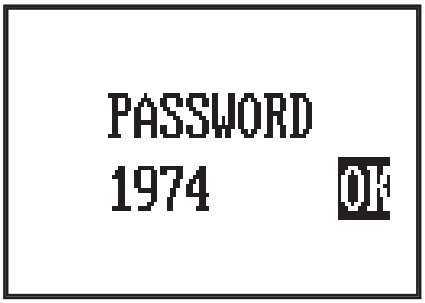
Menu settings



Adjusting settings on ROLTEC VISION PLUS.

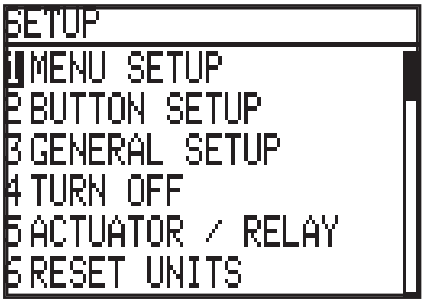
The service menu must be used to set the electronic functions on the wheelchair.

The wheelchair must be turned on and in "drive" state to access the service menu. Hold down the light button for approximately 3 seconds and a request for a password will appear. Enter the code, which is 1974, with the help of the joystick, then mark "OK" and push the joystick forwards.



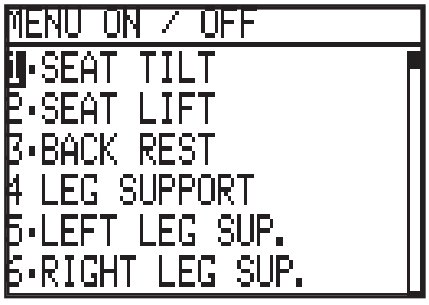
Navigating through the menu

As the menu is very extensive, there are several functions to help in navigating through it. The name of the current menu you are in appears at the top of the display above the horizontal line and there is a scroll bar on the right-hand side of the display to enable you to see where you are in the menu. The cursor shows which menu item you are looking at.



The joystick is used to navigate through the service menu. Pushing the joystick forwards and backwards enables you to "browse" up and down between the various menu items. Pushing the joystick to the left will move one step backwards in the menu and pushing the joystick to the right activates the menu item marked by the cursor.
If the control box is not equipped with a joystick (scanner, suck/blow controls, etc.) the service menu can be navigated by using the buttons on the control box. The +/- buttons move left/right and the two extra buttons move forwards/backwards. The extra buttons are not visible, but their location can be seen on the illustration below.

Activating a menu item produces several options. If the menu item in question contains a sub-menu, this will be opened. If the menu item is a function that can be selected or deselected, this will change between activated or deactivated. When a function has been activated, it will be marked with a dot. It is only possible to select one active menu item at a time in some menus. This is the case with selecting a language, for instance



If the menu item in question is to be set to a new value, a new screen display will open in which the value can be entered by pushing the joystick forwards and backwards. Push the joystick to the left when you have entered the required value.

To leave the service menu, push the stop button and you will be asked whether you want to save the changes you have made. You then choose YES or NO and the wheelchair will turn itself off automatically.

The menu

The various menu items are explained below.

There is a tree diagram on page 4 that shows the structure of the entire service menu.

The main menu, SET-UP, contains the following items (menu items 1-6 all contain sub-menus):

1. **MENU SETTINGS**
   Setting up the user menu in the control box.

2. **BUTTON SETTINGS**
   Setting up the way the buttons on the control box and external buttons, where applicable, work.
3. **JOYSTICK DIRECTIONS**
   Setting that determines whether the wheelchair is a rear-wheel drive (RWD) or a front-wheel drive (FWD) and the location of the control box.
4. **SWITCHING OFF**
   Setting that automatically switches off the wheelchair or switches it off via the menu.
5. **ACTUATORS / RELAYS**
   Setting for current limitation of actuator outputs and the way the relay outputs work.
6. **RESET UNITS**
   Resets to factory settings.
7. **VERSION**
   Reads off the software versions for the individual units.
8. **EXIT.**

Menu

MENU settings.

1. Language
The language the user's menu is in can be selected here. There is a choice between Danish, Norwegian, Swedish, English, Dutch, and French.

2. MENU ON / OFF
The menu items that the user's menu will contain can be selected here.

1. SEAT TILT
2. SEAT LIFT
3. BACK
4. SINGLE LEG SUPPORT
5. LEFT LEG SUPPORT
6. RIGHT LEG SUPPORT
7. LEG SUPPORTS
8. SETTINGS
9. LIGHTS
10. DRIVING STYLE
11. SPEED
12. REVERSING SPEED
13. BRAKES
14. BELT
15. SEAT EQUIPMENT
16. EXTRA MENU ITEM 1
17. EXTRA MENU ITEM 2
18. EXTRA MENU ITEM 3
19. EXTRA MENU ITEM 4
20. EXTRA MENU ITEM 5
21. EXTRA MENU ITEM 6
22. EXTRA MENU ITEM 7
23. EXTRA MENU ITEM 8

The SETTINGS item contains a number of subsidiary items that can also be switched on and off:

1. STEERING PARAMETERS
2. CLOCK
3. HORN VOLUME
4. CLICK VOLUME
5. CHOICE OF COLOUR
6. KEY LOCK
7. BUTTON SENSITIVITY
8. BUTTON FILTER

If all of the items under SETTINGS have been switched off, the item SETTINGS will not appear in the user's menu.
These menu item functions are described in the user's instructions with the exception of menu items 1 – 8, which are programmable and can be set to operate all of the chair's functions. There is a description of how to set these items in the following.

3. EXTRA MENU ITEMS

The texts and functions of the extra menu items can be changed and set here. There are the following choices in connection with each extra menu item:

1. TEXT

The name of the menu item can be changed here. The characters can be chosen by pressing the menu button.

2. FUNCTION FORWARDS

The function to be activated when the joystick is pushed forwards can be chosen here.

3. FUNCTION BACKWARDS

The function to be activated when the joystick is pushed backwards can be chosen here

4 MENU SEQUENCE

The order of the menu items in the user's menu can be changed here. A list of the menu items that are accessible in the user's menu will appear when MENU SEQUENCE is activated. Moving the joystick to the right highlights a menu item and this can then be moved up or down in the menu by pushing the joystick forwards or backwards. When the required position has been found, move the joystick to the left and the item will be moved.

5 MENU CHANGE

This item makes it possible to choose how to browse through the menu. Menu change can be set separately for the joystick and the +/- buttons. Choose between off, single hop, or scroll speed 1 - 10.

6 FACTORY SETTINGS

The factory settings can be regenerated here. FACTORY SETTINGS is divided into subsidiary items so that it is not necessary to delete all changes at the same time.

1. MENU ON/OFF
2. EXTRA MENU ITEMS
3. MENU SEQUENCE
4. MENU CHANGE
5. DRIVING STYLE

If you decide to regenerate the factory settings, the control box will automatically be restarted

Menu **BUTTON SETTINGS**

The set-up for the use of external menu buttons can be selected under BUTTON SETTINGS.

1. CHAIR TYPE

Setting that determines whether the chair should operate as RWD or FWD.

2. CONTROL BOX TYPE

This is a setting for the way the control box is physically located on the wheelchair. There are the following options:

1. NORMAL
2. TURNED – LCD TO THE RIGHT
3. TURNED – LCD TO THE LEFT
4. TWO-HANDS HELPER

3. SETTINGS

1. JOYSTICK DIRECTION

Makes it possible to switch between forwards/backwards and right/left.

2. JOYSTICK TRAVEL

Makes it possible to determine how far the joystick travels. There are the following options: travel: 14°(***), 9°(**) and 6°(*).

IMPORTANT: The length of travel selected must be in accordance with the angle marked on the control ring the joystick is mounted on. There is one dot for 6°, 2 dots for 9°, and three dots for 14°.

3. JOYSTICK CENTRE

If this menu item is selected, the joystick will automatically be adjusted to centre position. This must always be done after the joystick has been replaced.

Menu **SWITCHING OFF**

1. SWITCH-OFF VIA MENU

If this item has been activated, it is possible to switch off the chair by holding the menu button down for a pre-programmed interval. The required interval can be set to between 1 and 10 seconds.

2. AUTOMATIC SWITCH-OFF

Setting that determines how much time elapses for the wheelchair to switch off when it is not in use.

Menu **ACTUATORS / RELAYS**

1. MOTOR POWER

This makes it possible to set the current limiters for the nine actuator outputs. See page 19 under "weight of user" for setting current level.

2. MOTOR DIRECTION

This makes it possible to change motor directions in the nine actuator outputs, which are all marked with an arrow. If the arrow points down, the direction has been set at standard, and if it points up, the direction has been changed.

Menu **RESET UNITS**

1. RESET CONTROL BOX
2. RESET BOTTOM ELECTRONICS
3. RESET SEAT ELECTRONICS
4. RESET ALL

These items are used to regenerate the factory settings for the individual units or for all units at the same time. Note that the first time the chair is switched on after units have been reset, it will take longer for the wheelchair to be ready for use as the new settings must be read in first. If RESET CONTROL BOX or RESET ALL have been selected, the user will be asked to choose the language the first time the chair is switched on.

Menu **VERSIONS**

The numbers of the software and hardware versions for the individual units can be read here. Versions can also be read if the LIGHT button is held in while you are in the user menu. The version numbers will appear after three seconds and remain there until the button is released.

Replacing the seat electronics unit

IMPORTANT: Make sure that the power levels for seat tilt, electric back, left leg support, right leg support, SCU extra 1, and SCU extra 2 have been set correctly.

Remove the shield

→ Run the seat lift almost to top position.

→ Unscrew the brake release handle at the back of the wheelchair.

→ Remove the front cover on the shield by removing the four M8 wing nuts.

→ Lift the shield over the retaining clamps on the sides of the wheelchair – one side at a time and pull the shield backwards slightly.

→ Remove the plug for the light (the black plug between the two white plugs on the bottom electronics unit).

→ Remove the shield completely.

Removing the seat electronics unit

→ Remove the big red plug for the battery supply. This is inside the right-hand gear box.

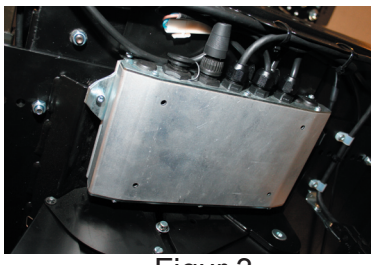
→ Unscrew the round black plug on the bottom electronics unit and pull the wire to the front through the hole in the chassis next to the left-hand motor above the left-hand battery.

→ Pull the same wire out of the cable chain that runs between the wheelchair and the seat lift, and unscrew the two cable clamps beneath the seat plate that the wire runs through.

→ Remove and dismantle the green plug that is inserted into the triangular braces of the seat plate.

→ Remove the two plugs for the electric leg supports at the front of the seat plate by pressing the locks together and pushing the plugs backwards through the tube on the seat frame they are installed in.

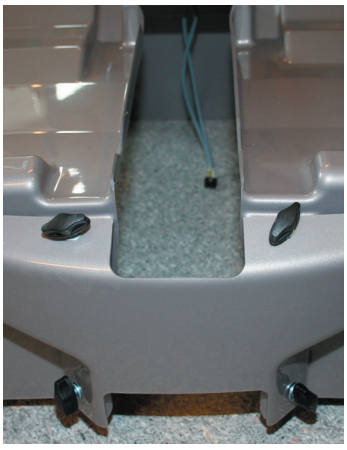
→ Unscrew the plug on the wire to the control box and remove it from the seat electronics unit. Remove the plug on the wire to the back rest motor (white) at the rear of the seat electronics unit. It is now possible to remove the seat electronics unit itself and the wiring by loosening or removing the two clamps that secure the seat electronics unit to the seat plate.



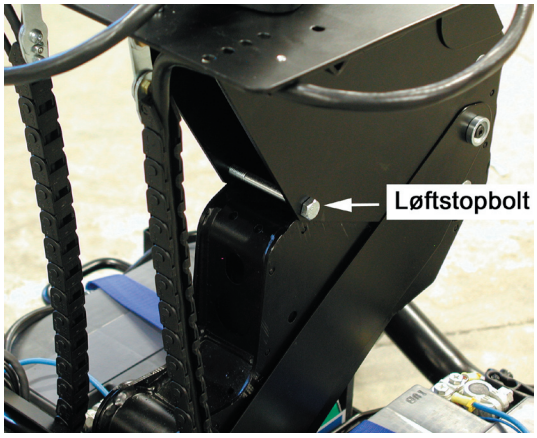
Figur 3

Replacing the lifting actuator

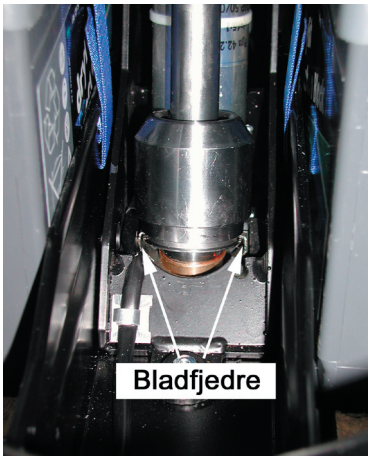
→ Remove the assembling shield by removing the four wing nuts (see figure A).
→ Run the lifting actuator to its lowest position. If this cannot be done, it may be necessary to dismantle the entire lifting system, which must be done at the factory.
→ Raise the lift manually to its top position and lock it in place by pushing the stop bolt through the lock holes (see figure B). The stop bolt is in the tool set that accompanies the wheelchair.
→ Loosen the lifting actuator from the leaf springs that secure it at the bottom (see figure C). The top of the lifting actuator can now be pushed backwards into the lift, after which it can be pulled out with the lowest end first.
→ When the wire tightens, put your hand in and release the lock on the plug, which can then be pulled out (see figure D).
→ The lifting actuator is now free (see figure E). Be careful not to unscrew the spindle from the spindle nut as the ball-bearings will fall out and it will be difficult to reassemble it.
→ It is important to make sure that the black plastic block on top of the spindle faces the right direction when the actuator is installed again!



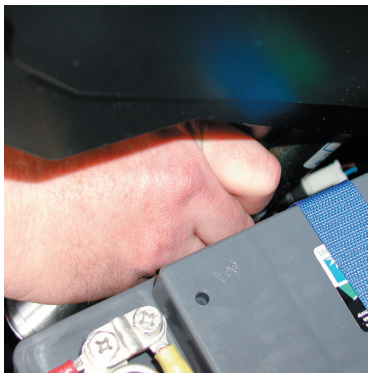
Figur a



Figur b



Figur c



Figur d

Figur e

Replacing the tilt actuator

→ Run the seat actuator to top position so that the seat is titled backwards as far as possible.

→ Run the seat lift almost to top position, either electrically or by lifting it manually from its bottom position, and secure it by pushing the stop bolt through the lock holes (see figure B).

→ Remove the tilt screen at the front of the seat lift by removing the four M4 x 4 screws on the sides of the screen (see figure D).

→ Remove the split pin from one end of the 8 mm diameter locking pin while it is fixed and CANNOT rotate. Run the seat lift down slightly so that it is possible to remove the 8 mm diameter locking pin fully (see figure F).

→ Loosen the lock nut with a 13 mm ring wrench (see figure G), and loosen the pointed stop screw and unscrew it a little with an Allen wrench.

→ Unscrew the M14 threaded spindle from the nut - either electrically or with your fingers, and the seat plate and the seat can now be tilted backwards fully.

→ It is now possible to release the tilt actuator by cutting the cable binder and removing the plug.

→ Unscrew one of the stop bosses (see figure J), after which the side screen can be turned downwards (to make it possible to see the Allen screw that must be loosened next).

→ Release the lower end of the tilt actuator by pushing the long end of a 6 mm. Allen wrench from the bottom up through the holes in the lowest parallel arm in the seat lift and unscrewing the Allen screw on the bottom of the actuator (see figure J). The Allen wrench is in the tool kit that accompanies the wheelchair.

→ Remove the tilt actuator downwards and out between the cable chains.

→ The process of installing a new actuator is carried out in the reverse order. When tightening the lowest end of the tilt actuator make sure that the motor is located in the centre between the microswitches above. Then insert the plug and secure the wires with a new cable binder. Turn the top of the spindle so that it is approximately flush with the top of the block it is inserted into, but so that one of the three tightening faces is facing the stop screw.

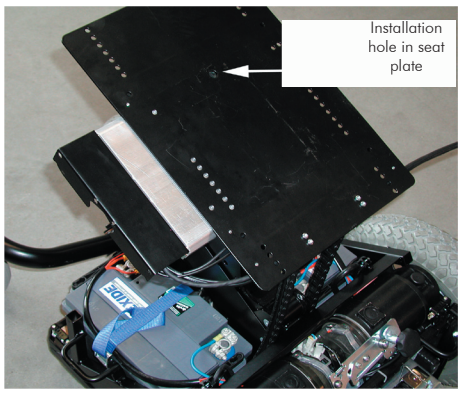
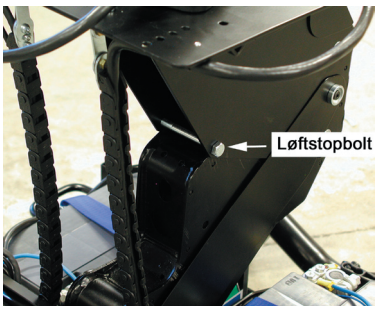


Figure a



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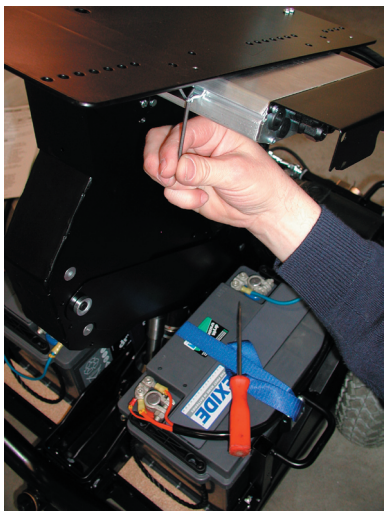


Figure c

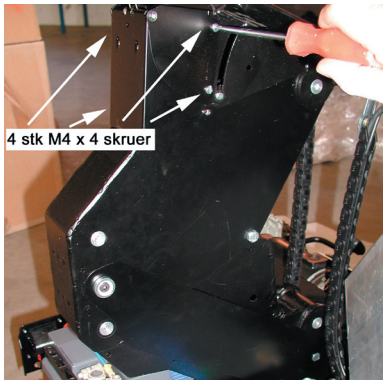


Figure d

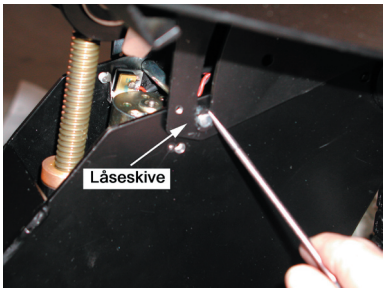


Figure e

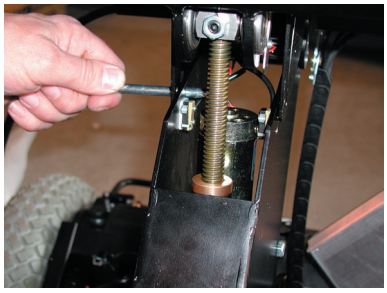


Figure f

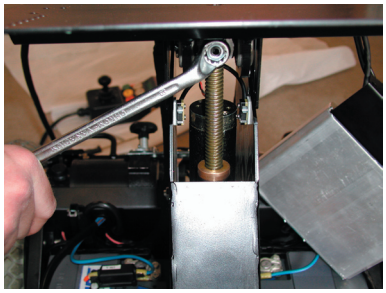


Figure g

Figure h

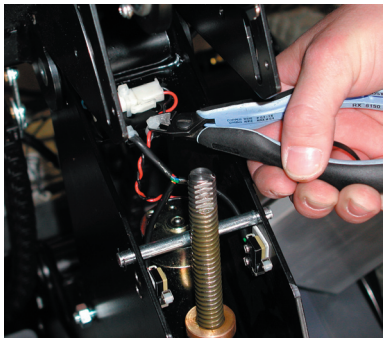


Figure i

Figure j

Adjusting seat height on a wheelchair without electrical functions

→ Remove the front screen (see figure A).

→ Raise the lift manually to top position and secure it by pushing the stop bolt through the lock holes (see figure B). The stop bolt is in the tool kit that accompanies the wheelchair.

→ Loosen the spindle stay for the lift from the leaf springs that secure it at the bottom (see figure C). The top of the spindle stay can now be pushed backwards into the lift, after which it can be pulled out with the lowest end first.

→ Adjust the spindle stay to the required height. 1 cm on the spindle stay gives approximately 2 cm in seat height. Remember to tighten the lock nut after completing the adjustment.

→ The process of reinstalling the spindle stay is carried out in the reverse order.
It is important to make sure that the black plastic block on top of the spindle faces the right direction.

Figure a

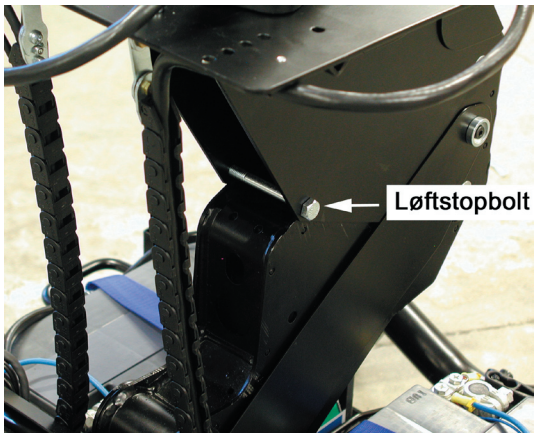


Figure b

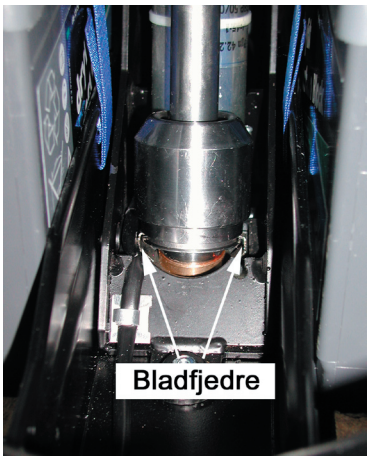


Figure c

Adjusting seat tilt on a wheelchair without electrical functions

→ Remove the bottom of the seat so that the installation hole in the seat plate is accessible (see figure A). If the seat is of a type that cannot be removed, it will be necessary to remove the entire seat.

→ Raise the lift manually to top position and secure it by pushing the stop bolt through the lock holes (see figure B). The stop bolt is in the tool kit that accompanies the wheelchair.

→ Loosen the lock nut at the top (see figure C), and unscrew the stop screw a little.

→ Turn the spindle on the spindle stay clockwise with a screwdriver from the top through the installation hole in the seat plate until it is free from the steel block it is inserted into. If it is necessary to tilt the seat plate down, the spindle must be turned clockwise further so that it is free from the steel block when the seat plate is at the required angle.

→ Hold the seat plate at the required angle while turning the spindle anti-clockwise through the steel block until the top of the spindle is approximately flush with the top of the block, but so that the tightening face on the spindle is facing the stop screw. Then tighten the stop screw and the lock nut.

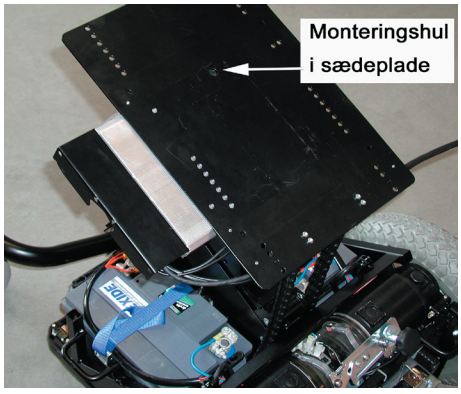


Figure a

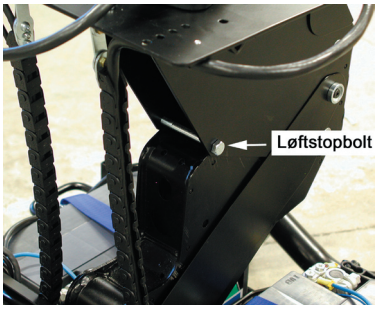


Figure b

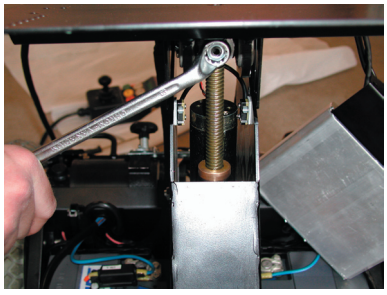


Figure c

Replacing batteries

→ Remove the shield as described in the section: Replacing the seat electronics unit (page 10).

→ Then remove the four pole shoes with a 13 mm ring wrench. Begin with the pole shoe attached to the intermediate cable (see figure A).

→ The batteries can now be replaced. The battery cables are mounted as shown in figures 5a and 5b. Note that there is a difference between the directions the pole shoes face in relation to the batteries depending on whether they are 50 Ah batteries or 70 Ah batteries. Begin by attaching the +POLE shoe and the –POLE shoe.

→ Then attach the two pole shoes to the intermediate cable. If the main cables are reversed so that the + cable is attached to the – pole and the – cable to the + pole, this will not damage the electronic system.
Tighten the bolts on the pole shoes as much as possible. Check that the measuring cables and the cables to the charging plug are correctly attached with regard to + and -.

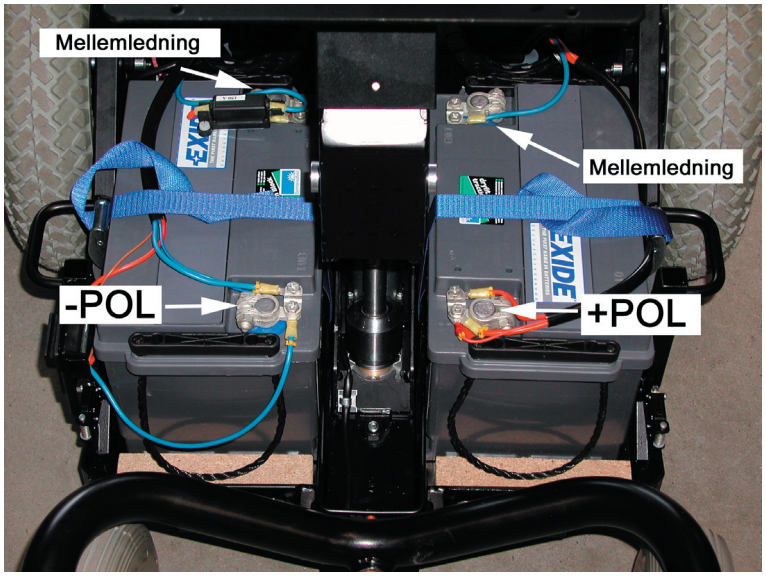


Figure a

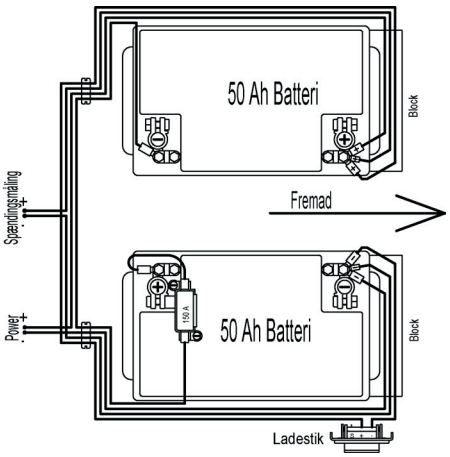


Figure 5a

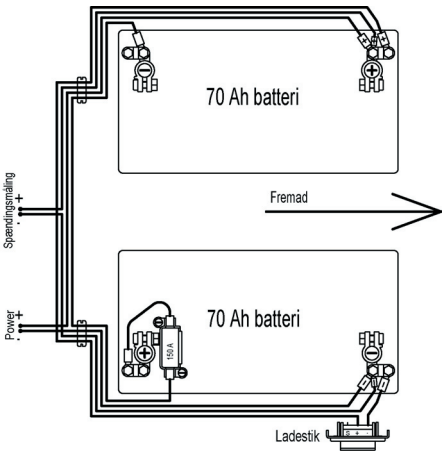


Figure 5b

Dismantling the bottom electronics unit

→ Remove the shield as described in the section: Replacing the seat electronics unit (page 13).

→ Then remove the big red plug to the power supply from the batteries. This is inside the chassis on the right-hand side between the electronics box and the gear box.

→ Remove the big grey and black plugs to the motors on each side of the chassis. Remove all plugs from the top of the electronics box. (They CANNOT be inserted incorrectly or be reversed during installation).

→ Remove the two M6 slotted screws that secure the electronics box to the bottom of the wheelchair and the box can now be removed.

→ If the wheelchair is sent in for repairs due to problems with the batteries, the charger should be sent with it as this may be where the fault lies!

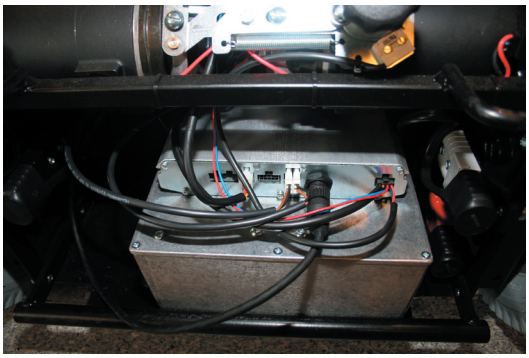


Figure 6

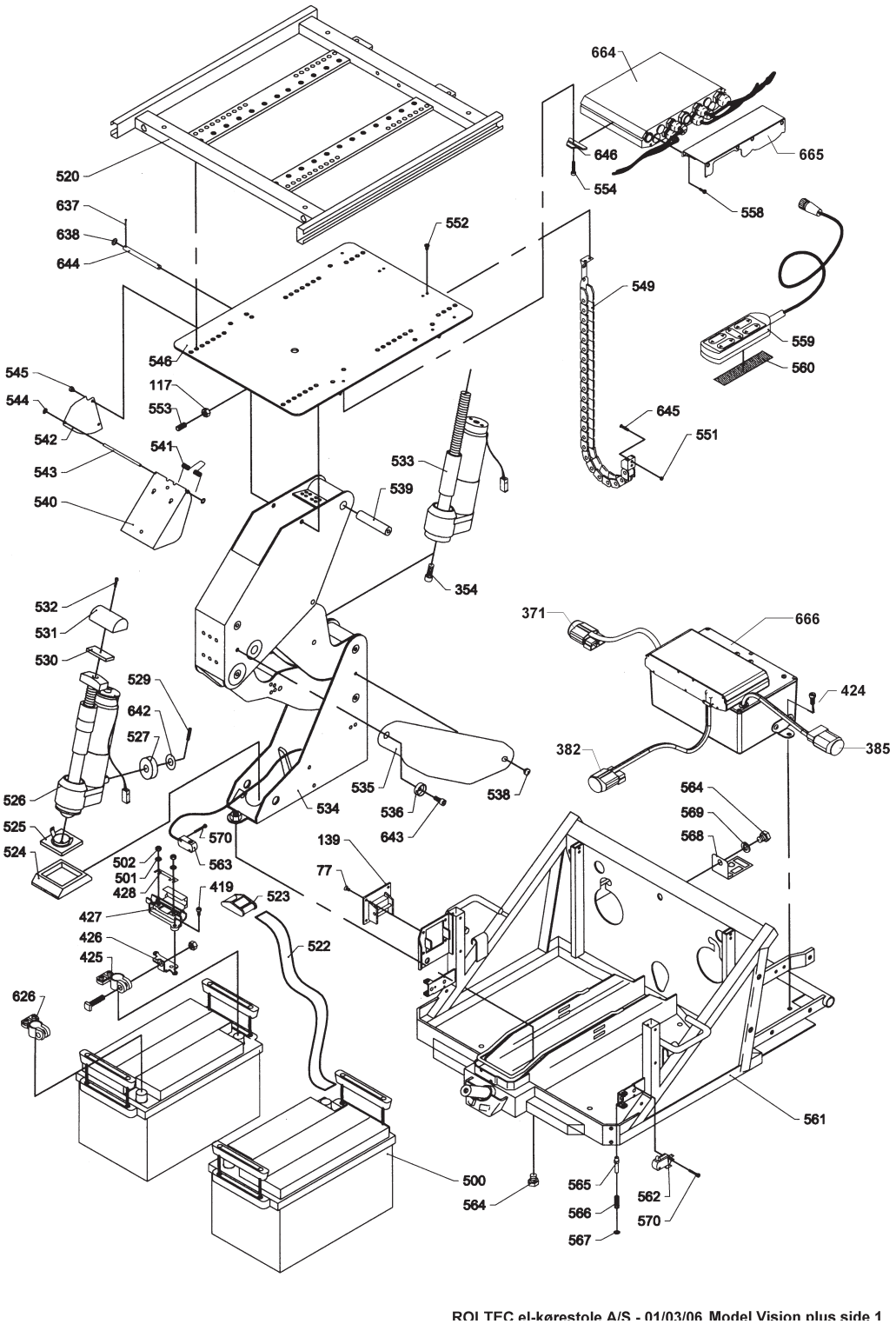
Weight of users.

	User's weight 50 kg	User's weight 90 kg	User's weight 130 kg
SEAT TILT	2,50	4,00	5,50
SEAT LIFT	2,50	3,00	4,00
BACK REST	5,50	5,50	5,50
AJ BACK REST	4,50	4,50	4,50
MONO-LEG SUPPORT R + L LEG SUPPORTS	4,00	4,00	4,00
LEFT LEG SUPPORT	3,00	3,00	3,00
RIGHT LEG SUPPORT	3,00	3,00	3,00
ELECTRIC SEAT BELT *	10,00	10,00	10,00

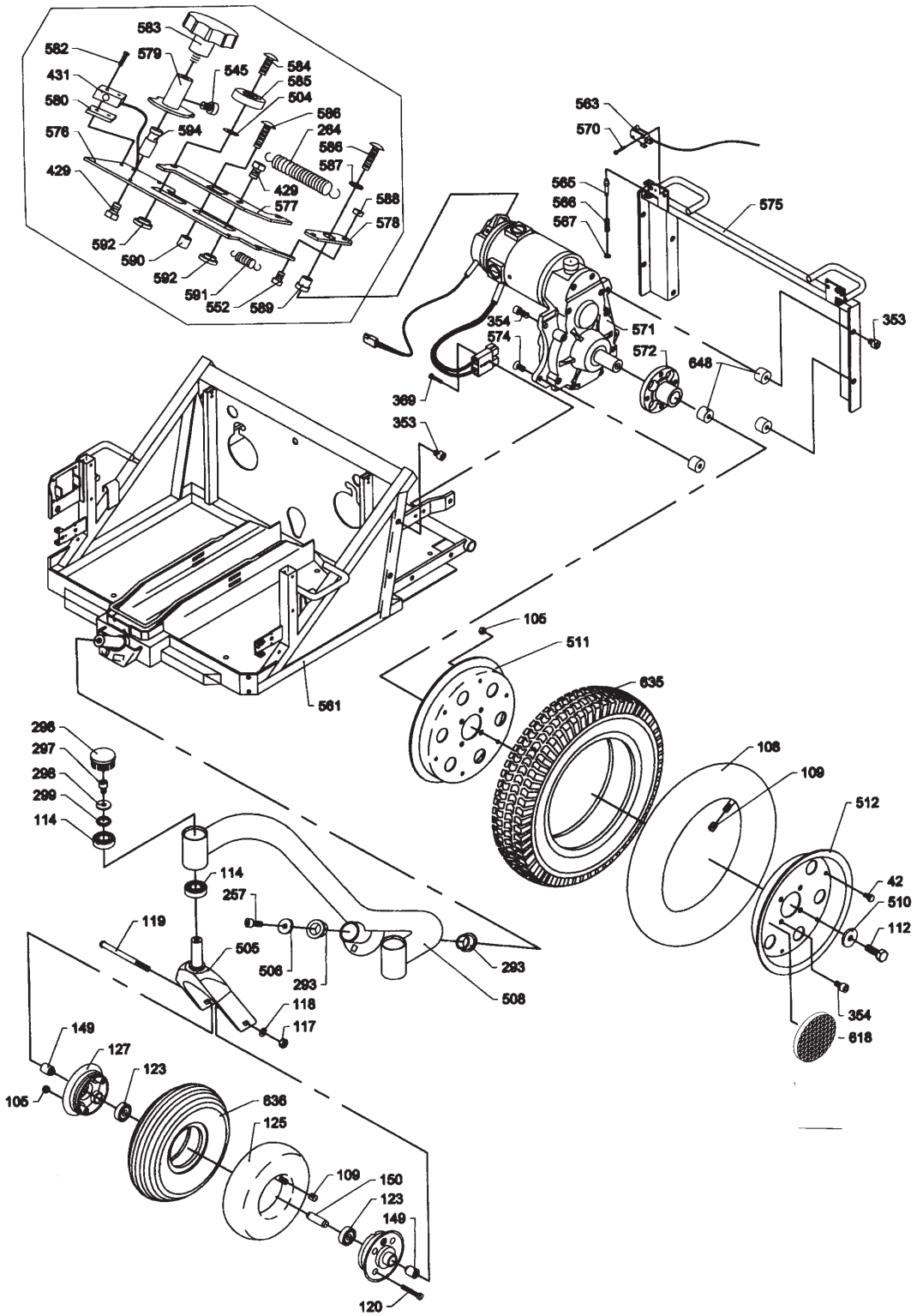
* = Must be adjusted to suit the user

544 LBC 4 lock washer
545 Machine screw PHJKZ M4 x 4
546 Seat plate, PAINTED, rear-wheel drive
549 Assembled cable chain, rear-wheel drive
551 Lock nut M3
552 Machine screw PHJTZ M4 x 6
553 Allen stop screw, M8 x 16 10.9 FLAT end, galvanised
554 Allen screw CHJUZ 8.8 M4 x 20
558 Machine screw PHJTZ M3 x 10
559 Control box, electrical functions, VISION, rear-wheel drive, complete
560 Velcro for control box lift
561 D54 bay with thread
562 Microswitch V-15-1A6 V-SW
563 Microswitch without arm 5A D2VW-5-1M, waterproof
564 Steel set screw (17 mm cross width) M10 x 12
565 Push rod by microswitch, galvanised
566 Spring DIN2098R 0.8 x 6.3 x 23 for push rod by microswitch
567 Washer, nylon 5 mm
568 Curved plug collector plate
569 Washer M10/10.5/18/1.6
570 Machine screw PHJXZ M3 x 14
571 Gear box with motor and brake, left side
572 Rear hub, galvanised
574 Allen screw UHJUS 10.9 M8 x 16
575 Frame D, rear axle beam, PAINTED
576 Brake release bracket with 2.5 mm thread, galvanised
577 Sliding bolt for brake release, galvanised
578 Tilt arm for brake release, galvanised
579 Eccentric for brake release, galvanised
580 Distance place under microswitch, ABS
582 Machine screw CHJKZ M2,5 x 12
583 Set screw M8 x 6 for brake release
584 Flat, round-headed screw M5 x 12 with slot
585 Ball bearing 625-ZZ
586 Flat, round-headed screw M5 x 16 with slot
587 O-ring, diameter 12 x diameter 6 x 3.0 mm (brake release)
588 Bearing shell for cable chain fitting
589 Diameter 5 x diameter 10 x 7 mm bush, galvanised
590 Diameter 5 x diameter 8 x 6 mm bush, galvanised
591 Spring for brake release, SF-DF 1 x 6 x 20, galvanised
592 Tapped bushing for brake release, galvanised
594 Axle for brake release, galvanised
595 Finished mounting plate for tilting armrest with bracket, short
596 250 mm bearer, complete, for tilting armrest, with clamp
597 Armrest tube for tilting armrest, vertical, long
598 Armrest tube for tilting armrest, vertical, short
599 25 x 25 x 2 front tube, complete, for tilting armrest
600 Allen bolt M6 x 10
601 Spring for plastic fork SF-TFR 0.75 x 6 x 25 mm
602 Locking hook for tilting armrest, laser-cut to 2.5 mm, rustproof
603 Cylinder, dowel pin 5 x 24
604 Back rest fitting for Roltec tilting armrest, right, complete
605 Nut cap
606 Ball-shaped knob, diameter 20 mm
607 Actuator, fixture bush
608 Jacket
610 Retainer bushing
611 Release rod
612 KA 10 actuator (leg support 6A) (cordless)
614 Foot support, right
615 Calf cushion clamp (cordless)
616 Horizontal mounting rod, COMPLETE
617 Reflector, white, self-adhesive, frame D
618 Reflector, yellow, self-adhesive, frame D, round
619 Reflector, red, self-adhesive, frame D
625 Assembling shield, complete
626 Pole shoe, brass - pole type 204L
635 Rear tyre 300 x 8 grey heavy-duty tread
636 Front tyre 250 x 3, grey longitudinal tread
637 Split pin, stainless steel A4
638 Washer, diameter 7.1 x diameter 12 x 1.0
639 Allen bolt for knee joint, BLACK M8 x 40
640 Machine screw PHJTZ M5 x 12
641 Rail without tilting armrest 260 mm
642 Tight-fitting washer, diameter 28 x diameter 16 x 0.5
643 Torsion screw CHJTS 8.8 M6 x 10 low screw
644 Stop pin for tilt, galvanised (new model)
645 Machine screw UHJTZ M3 x 16
646 Clamp for lifting electronics, galvanised (new model)
647 VISION lifting electronics unit, rear-wheel drive
648 Round gear box holder, galvanised
649 Torsion screw RHJTS M8 x 50
650 Leg support, walking stick tube, COMPLETE
651 Wing screw, black nylon with glass M8 x 20

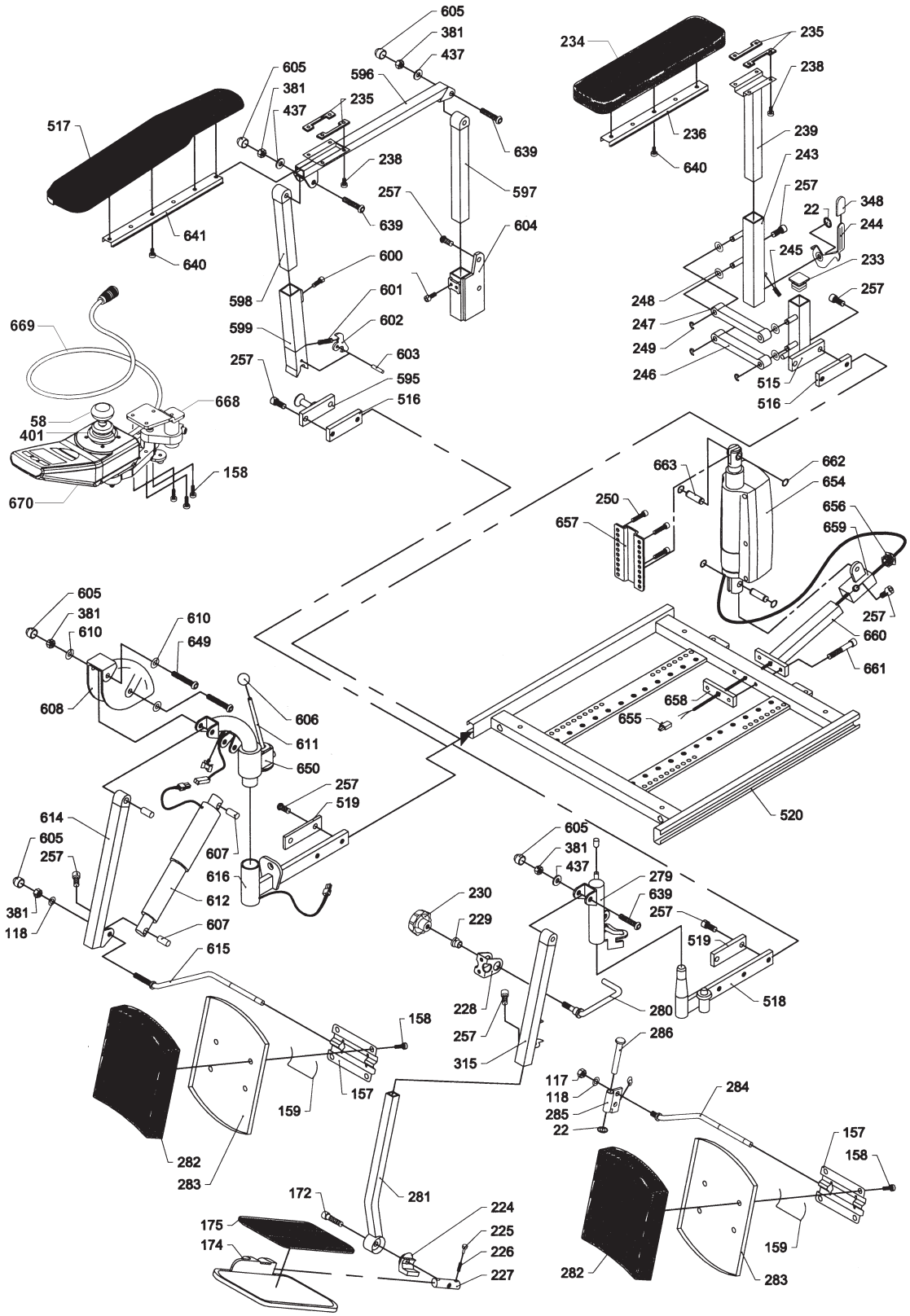
654 LA 28.25S-100-24-001 actuator (electric back rest) 5A
655 Plug housing MATE-N-LOK 2 pole, male, max. 9.5 A
656 Plastic cap for electric back rest (for 20 x 20 mm tube)
657 LA 28 base plate for electric back rest, upper frame D
658 Base plate with thread, PAINTED, slanting tube, base plate for electric back rest, frame D
659 LA 28 electric back rest, sliding fitting, lower, frame D
660 LA 28 slanting tube for electric back rest, PAINTED
661 Allen screw CHJUZ, BLACK 12.9 M8 x 50
662 Seeger ring 10 mm
663 Axle 10 x 33 mm, BLACK
664 VISION plus lifting electronics unit, RWD
665 VISION plus screen over wires
666 VISION plus bottom electronics unit
668 VISION plus swivel fitting, right
669 VISION plus control box with plug
670 VISION plus control box
671 VISION plus light wiring
672 Machine screw UHJXZ M4 x 12
673 Distance piece, aluminium, diameter 4 x diameter 10 x 3.2
674 Lock nut M4
675 Lumileds LED, red 1w
676 Lumileds LED, white 1w
677 White fibre washer, diameter 3
678 Machine screw PHJTZ M3 x 6
679 VISION light glass, right, RWD
680 Light, inner part, aluminium
681 Light cooling plate, aluminium
682 Self-threading screw, 3 x 25
683 VISION plus, shield with holes for lights



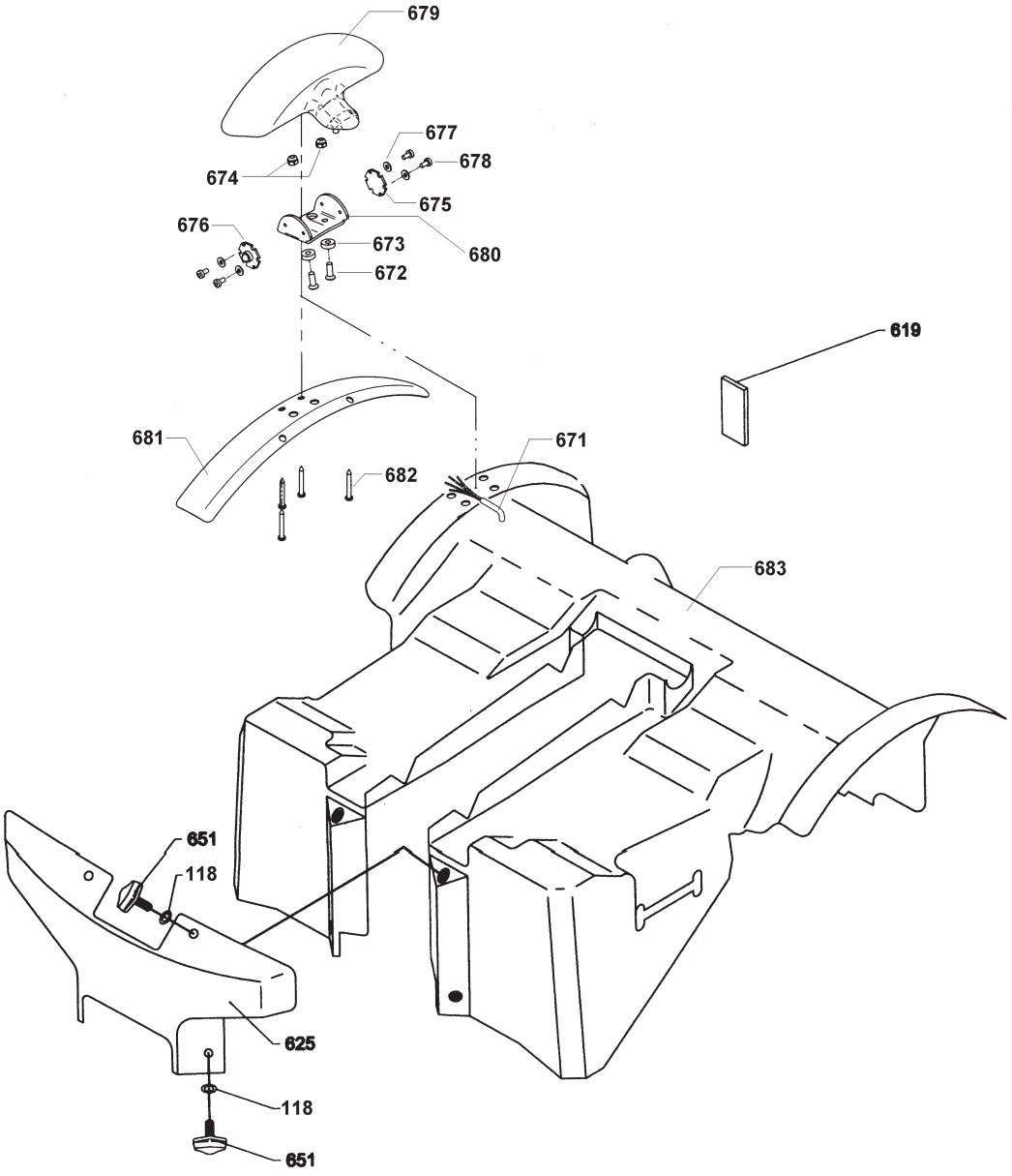
ROLTEC el-kørestole A/S - 01/03/06 Model Vision plus side 1



ROLTEC el-kørestole A/S - 01/03/06 Model Vision plus side 2



ROLTEC el- kørestole A/S - 01/03/06 Model Vision plus side 3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Mechanical adjustments:

Tilting arm rest type ROLTEC:

Arm rests can be adjusted in height and angle in relation to horizontal by loosening the two rearmost M6 Allen screws on the back rest fitting and the two M6 Allen screws on the front telescopic tube with the 5 mm Allen key supplied.

The lock fitting on the telescopic tube can be adjusted forwards and backwards on the seat frame by loosening the two M8 Allen screws with the 6 mm Allen key supplied. The telescopic tubes are normally adjusted so that they point slightly to the rear at the bottom.

The arm rest cushion can be adjusted longitudinally by loosening the four shiny M5 slotted screws beneath the arm rest with the screwdriver supplied. There are two rows of threaded holes beneath the arm rest to make it possible to adjust the distance between the arm rests by moving the arm rest cushion inwards or outwards. Loosen and remove the screws with the cross-slot screwdriver supplied.

The arm rests can be tilted up behind the seat back rest by releasing the lock on the lock fitting to make it easier to get in and out of the wheelchair. Press in the lock – the small shiny plate at the bottom of the telescopic tube – lift the arm rest and tilt it backwards.

Leg support type ROLTEC, cordless electric leg support:

The length of the leg supports can be adjusted by loosening the lock screws on the telescopic tube – M8 Allen screws – with the 6 mm Allen key supplied. The angle of the leg supports in relation to the seat can be adjusted electrically with the help of the joystick on the control box.

The angle of the footplates can be adjusted by loosening the M8 Allen screws that join the footplates to the telescopic tubes. Remember to tighten the Allen screws firmly after adjusting the angle.

The foot supports can be removed from the chair to make it easier to get in and out of the chair. Draw the release rod – the shiny rod with the black knob – backwards and turn the foot rest outwards and lift it up vertically out of the cone rod.

Pivoting fitting for the control box:

The control box can be pivoted backwards to make it easy to get the wheelchair close to a table.

Release the pivoting fitting by pressing down the release fitting – the semicircular "plate button" inside the pivoting fitting – and pressing the side of the control box at the same time.

The control box can be returned to normal position by moving it backwards and the pivoting fitting will lock it in place automatically.

The pivoting fitting with the control box can be adjusted in height and angle in relation to the arm rest by loosening the M6 Allen screw at the back of the pivoting fitting with the 5 mm Allen key supplied.