



REAL[®] 6100 PLUS



OPERATING AND MAINTENANCE INSTRUCTIONS REAL 6100 PLUS

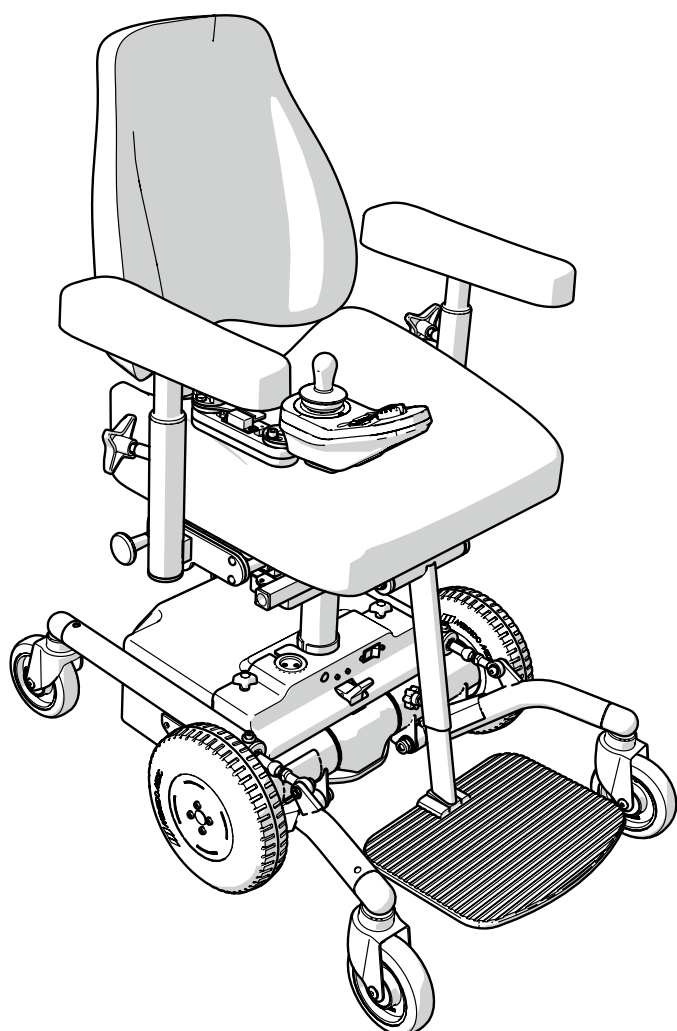
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REAL 6100 PLUS is an electrically powered indoor wheelchair for children and adults with various disabilities, as well as for their personal assistants or close relatives. Sufficient competence in the safe use of this product is achieved after reading through and understanding these operating and maintenance instructions. Alternatively, the user can receive a review of all functions and adjustment possibilities of his/her own wheelchair. The REAL chair, according to the model designations specified below, is CE certified in accordance with the MPA Regulations LVFS 2003:11 for medical devices. REAL 6100 PLUS meets all requirements of EN 12184:2014, class A. All textiles meet the requirements of EN 1021-1, EN 1021-2.

For those of you with impaired vision, a PDF version of these operating and maintenance instructions with disposal options is available at www.mercado.se under "Dokument" (Documents). Here, you will also find information on all available accessories that can be installed on your REAL 6100 PLUS. Under "Nyheter" (News) you will find the latest product news from Mercado as well as information about any safety notices to the market or recalls of products and accessories.

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GET ACQUAINTED WITH YOUR REAL 6100 PLUS – PLEASE READ CAREFULLY THESE OPERATING AND MAINTENANCE INSTRUCTIONS AS WELL AS THE USER MANUAL BEFORE USING THE WHEELCHAIR.

PRE-USE INSPECTION CHECKLIST

- All knobs and locking wheels on the wheelchair must be tightened before use. In case loose parts or any other deviations are discovered, report them to the person in charge at Hjälpmedelscentralen.
- The leg support may not touch the floor or the ground at any time.
- If REAL 6100 PLUS is equipped with a belt or a harness of any kind, it may not hang loosely on the wheelchair.
- Fold up the armrests.
- Fold down the footplate.
- Attach the backrest.

CONTROLLER INSPECTION

- Turn on the main switch.
- Make sure the battery level indicator is not down at the red mark.
- The display may not show any errors (see *Troubleshooting* – measures for handling error signals).




Do not operate the chair when the backrest, footplate and/or armrests are removed.

IMPORTANT INFORMATION

The REAL 6100 PLUS chair has exchangeable components, accessories and functions that can be adjusted to suit individual needs. The wheelchair must only be used by the person and for the purpose for which it is originally intended.

The wheelchair is intended for indoor use and must not be used outdoors. Do not expose the wheelchair to severe cold, high heat or prolonged sunlight or other radiation. The wheelchair may not be exposed to water, other liquids or chemicals.

Warning: Metal surfaces can become very hot if they have been exposed to sunlight. The wheelchair may not be equipped with accessories or components other than the ones approved by Mercado Medic AB. Repairs or other engineering work may only be performed by personnel authorised by Mercado Medic AB.

- *REAL 6100 PLUS is classified as class A and is intended for indoor use only.*
- *Max user weight: 135 kg. Please contact Mercado Medic AB in connection with adjustment for heavier users.*
- *The driving programs must be adapted for the user to ensure that the wheelchair can be safely operated with respect to the user and his/her surroundings. Driving programs may only be adapted by qualified coordinators and technicians. Programming is done using the appropriate software, see section "Programming the controller" on p. 22.*
- *REAL 6100 PLUS is tested and approved according to the EMC-directive. However, the wheelchair can affect and be affected by equipment in its immediate vicinity which generates electromagnetic fields, such as alarm systems, electric generators and mobile phones.*
- *REAL 6100 PLUS may not be equipped with accessories or components other than the ones authorised by Mercado Medic AB.*
- *Warranty period: two (2) years unless otherwise agreed. For warranty-related matters, please contact Mercado Medic AB.*
- *Max. service life: ten (10) years.*
- *Repairs or other engineering work may only be performed by personnel authorised by Mercado Medic AB.*
- *Wheelchair with adjustable seat angle must be in fixed position when the user is sitting in or rising up from the chair.*
- *REAL 6100 PLUS must not be operated when the seat height is in raised position. If the seat is raised, its obstacle climbing ability might deteriorate because the wheelchair moves more slowly and less power comes to the drive wheels. To safely overcome obstacles, the wheelchair runs with the lowest possible seat height.*
- *REAL 6100 PLUS comes with back, seat and leg support.*
- *The wheelchair is approved for all types of transport. Nonetheless, the automatic fuse, see Section 11 on the next page, must be switched off during transport.*
- *This symbol warns against the risk of crushing and about positions/situations where we point to risks: *
- *If REAL 6100 PLUS is equipped with leg rests, the user's feet must be held on the foot plate when using the electric functions.*
- *Be careful when lifting the battery pack as it is heavy and might cause crushing if dropped.*
- *In connection with service, always re-install the protective cover of the battery terminal. Failure to do so might result in personal injury in the event of later service.*
- *Do not leave small children without supervision in the vicinity of the product. The cover plug on the front cover poses a choking hazard for small children. See Your REAL 6100 PLUS for reference.*

STORAGE, CLEANING AND MAINTENANCE

Service intervals: No preventive maintenance necessary.

Keep the wheelchair at room temperature in a dry environment. Check the battery level prior to use. If the wheelchair is to be stored for more than a month, the battery fuse should be disconnected. See *Battery replacement*. The wheelchair is intended for indoor use and may not be flushed with water, other liquids or chemicals. The wheelchair can be cleaned/wiped clean with disinfectants. We approve cleaning agents from 7 to 12 on the pH scale (concentrated). Do not expose the wheelchair to high heat or prolonged and intense sunlight or other radiation. If the chair is to be transported in severe cold, it must reach room temperature before being used again. The wheelchair should be wiped clean and kept free of dust and dirt.

The upholstery should be cleaned with foam cleaner;

1. Remove dirt, crumbs and the like.
2. Apply a thin layer of foam and rub it in

evenly using a damp cloth.

3. Wipe dry with a clean, slightly damp cloth.
4. Vacuum well when dry.

Artificial leather should be washed with soap water or wiped clean with alcohol solution, for example disinfectant.

No other cleaning agents are to be used.

For functional reasons, the seat, backrest and other padded parts are not made of impermeable materials. When reconditioning the upholstery, the seat and padding material should be replaced for reasons of hygiene.

The electric lifting device should be regularly checked for dust, dirt and stability: raise the seat plate to the highest position. Clean with a cloth. Water or solvents may not be used. Then lubricate the cylinder with a thin layer of Teflon- or silicon-based grease. Apply touch-up lacquer using Mercado's black touch-up paint, Article No 801900.

TECHNICAL DATA AND REAL 6100 PLUS DIMENSIONS

TECHNICAL DATA

Max. user weight	135 kg
Driving wheel	both centre wheels
Driving distance per charge	about 15 km*
Weight	76 kg incl. battery
Motors	ME803661C Allied
Motion Stockholm AB	
Charging time	approx. 6-8 hours
Chargers tested and approved by Mercado Medic AB	ECB-401 Easy Buddy 4A
Batteries tested and approved by Mercado Medic AB	FGS, FGG22805, 2 x 12V 28 Ah

STANDARD DIMENSIONS

Total width	570 mm
Length	795 mm
Folded height	550 mm
Static stability	+6°/-6°**
Static stability, laterally	6°
Dynamic stability	upwards 10°, downwards 3° ***
Obstacle climbing ability	40 mm

STANDARD DIMENSIONS, CONT.

Max speed	4.5 km/h
Braking distance from max. speed	1.0 m/0.7 m active brake
Seat tilt	-15°/+8°, -8°/+15°, 0°/+23°
Seat depth	170-540 mm
Seat width	290-550 mm
Seat height	460-740, 380-580 mm****
Backrest angle	-15°/+45°
Backrest height	390-650 mm
Leg support length	370-530 mm
Leg support angle	0°/+32°
Armrest height	150-300 mm
Backrest plate – armrest mechanism	100-250 mm
Turning distance 180°	870 mm
Wheel, front/back	Ø 125 mm (art. No 804362)
Driving wheel	Ø 225 mm (art. No 804291)



*Under optimal driving conditions.

**The seat tilt and back tilt settings, together with high seat height, can affect both the static and dynamic stability.

***Reverse the wheelchair in case of steep downhill slopes.

**** Measured from floor to seat bottom edge, with option for stepless adjustment of max. 3 cm.

GETTING IN AND OUT OF THE WHEELCHAIR

GETTING IN AND OUT OF THE WHEELCHAIR

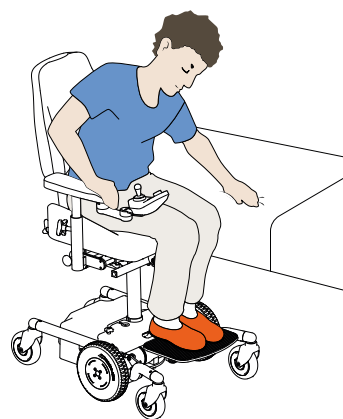
Things to consider: Always consult your coordinator about the most suitable technique for getting to and out of the wheelchair, from the front or from the side. Consider what best suits you and your needs and thus poses the least risk of injury.

WARNING: Getting in and out of the chair must only be done on a flat surface. Position the chair correctly and adjust the seat height to the right position.

WARNING: Make sure that the controller is switched off and that the brake is not disengaged at the moment of getting in or out of the wheelchair in order to prevent the it from moving unexpectedly.

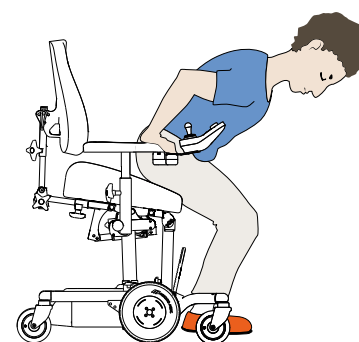
GETTING IN OR OUT OF THE WHEELCHAIR FROM THE SIDE

When getting in or out of the wheelchair from the side of the chair, the wheelchair seat must be slightly lower than the user's position. When getting out of the wheelchair, it is possible to raise the chair so that the user would sit slightly higher than his/her position when moving. Keep in mind that you only have to drop or lower the wheelchair armrest on the side to which you are moving.



GETTING IN OR OUT OF THE WHEELCHAIR FROM THE FRONT

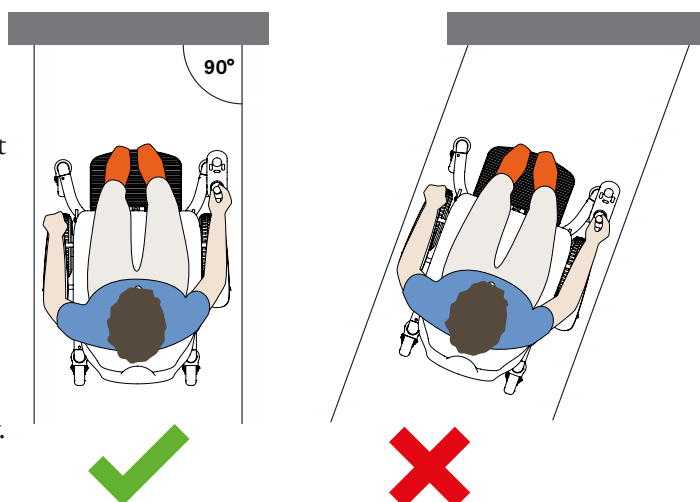
When getting in or out of the wheelchair from the front, strive to ensure that the front edge of the seat is not higher than the user's knee joint. This is done in order to get far into the seat without adjusting it. Remember to drop or alternatively lower the foot plate to get close to the seat. When using a lifting device to get in or out of the chair, consider the possible crushing risks. Make sure your hands, feet and any clothing cannot get in the way, thereby posing a risk of injury.

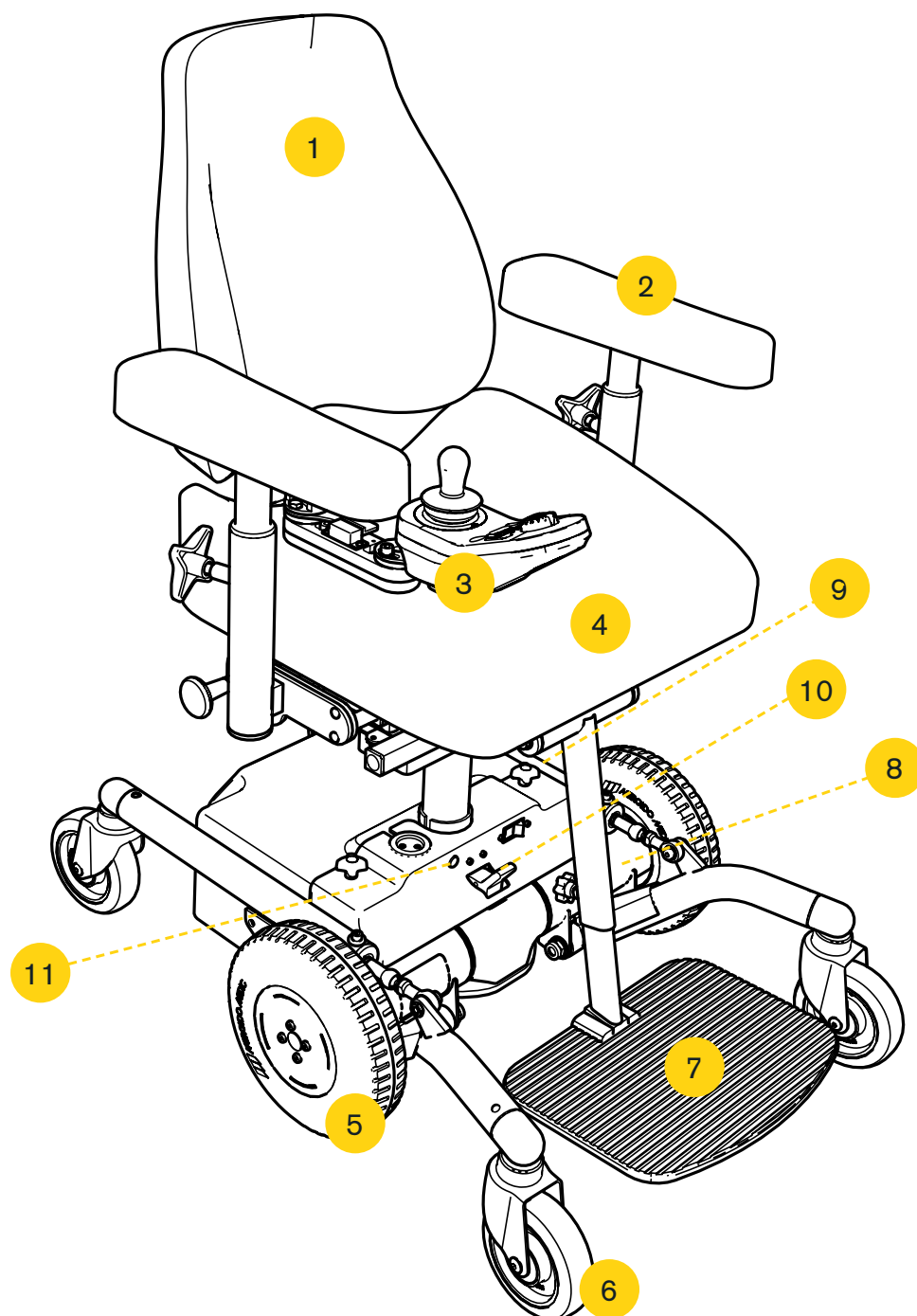


RAMPS

WARNING: Before driving on a ramp you must verify that it can handle the total weight of you and your electric wheelchair. Lower the seat lift and straighten the seat tilt when driving on a ramp to increase the stability of the wheelchair. When driving on a ramp, we recommend to always reverse the chair. If the downhill slope is more than 3 degrees, the chair must be reversed.

Always drive straight ahead from the ramp, not obliquely.

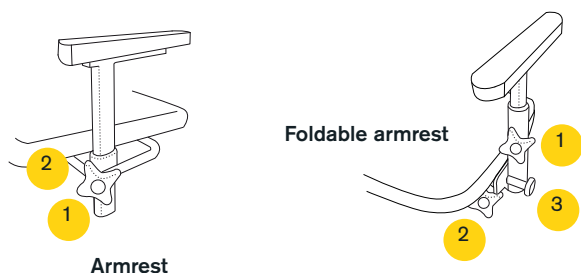




1. Backrest with adjustable height, angle and depth.
2. Armrest with adjustable width and height.
3. Controller (also controls the electric seat functions).
4. Seat with adjustable height Seat tilt available as accessory.
5. Driving wheels, puncture-free
6. Castor wheels with individual wheel suspension.
7. Foot plate with adjustable height and angle
8. Label with unique serial number
9. Warning label with transport information.
10. Automatic fuse with on/off function Also used to disconnect the batteries, e.g. when the wheelchair is to be transported by plane.
11. Cover plug in the front cover (see the risk description under *Important information*).

ARMREST


The user can adjust the armrests in height and width. If the wheelchair has folding armrests, they can also be folded backwards.



CONTROLS

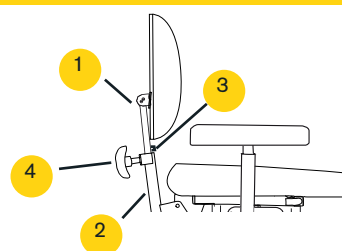
1. Height To adjust the armrest height, loosen knob (1). Pull/push the armrest to the desired height. Tighten the knob.
2. Width To adjust the width, loosen the locking mechanism, knob or screw* (2). Pull/push the armrest to the desired width. Tighten the locking mechanism.
3. Folding To fold the armrest, pull out the pin and turn it 90° (3). This releases the folding function. Then fold the armrest backwards.

* The key for the locking screw is included with your wheelchair and is attached to the back of the backrest.


 **Note!** Remember to turn the pin in the opposite direction once you have folded up the armrest in order to ensure that the folding function is locked.

ATTACHING THE BACKREST

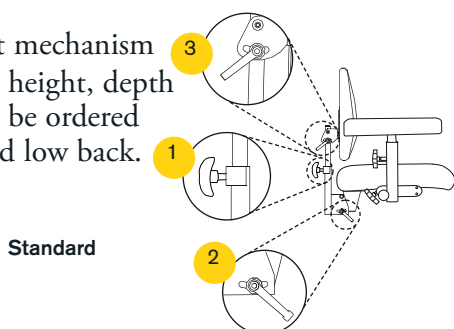
Lower the backrest (1) into the backrest mechanism (2) while holding the snap lock (3). Adjust to the desired height (see *Backrest mechanisms* for instructions on how to adjust the backrest) Lock the backrest by tightening the knob (4). Dismantle in reverse order.



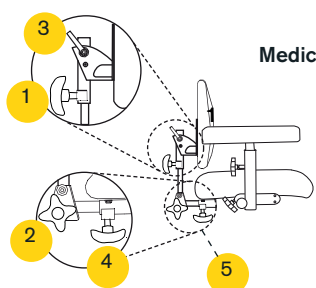
BACKREST MECHANISMS

 Adjust the backrest so that the user's calves are at a distance of 2-3 cm to the front edge of the seat in sitting position. This is done in order to improve blood circulation while retaining a stable sitting position when using the wheelchair.

Standard backrest mechanism can be adjusted in height, depth and angle and can be ordered with both high and low back.



In addition to height, depth and angle adjustment, the backrest mechanism **Medic** (optional) also has an extended depth adjustment option.



THERE ARE FOUR TYPES OF BACKREST MECHANISMS:

Standard, Medic, Comfort and Electric. All are available in low and high backrest designs (the illustrated wheelchairs all have low backrest). All backrest mechanisms have separate controls for height, depth and angle. The Medic model is adjustable in depth.

CONTROLS, STANDARD

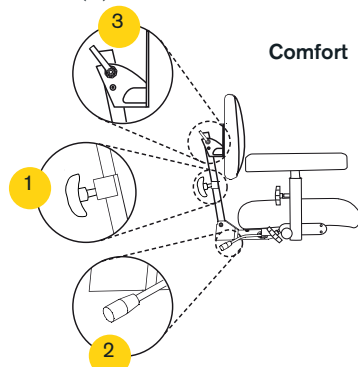
1. Height To adjust the backrest height, loosen knob (1). Press or pull the backrest to the desired height.
2. Backrest mechanism angle To adjust the backrest mechanism angle, loosen lever (2). Place the backrest mechanism in the desired angle and tighten the lever.
3. There are three backrest plate positions. To adjust the angle of the backrest plate, loosen lever (3). Put the backrest plate in the desired position and tighten the lever.

CONTROLS, MEDIC

1. Height To adjust the backrest height, loosen knob (1). Press or pull the backrest to the desired height. Tighten the knob.
2. Backrest mechanism angle To adjust the backrest mechanism angle, loosen knob (2). Place the backrest mechanism in the desired angle and tighten the knob.
3. There are three backrest plate positions. To adjust the angle of the backrest plate, loosen lever (3). Put the backrest plate in the desired position and tighten the lever.
4. Depth To adjust the backrest mechanism depth, loosen knob (4). After that, pull or push the backrest mechanism to the desired depth. Tighten the knob.
5. Spring bit. When adjusting the backrest mechanism depth, make sure the spring bit is locked and that the backrest mechanism cannot be pulled out.

(CONTINUED) BACKREST MECHANISMS

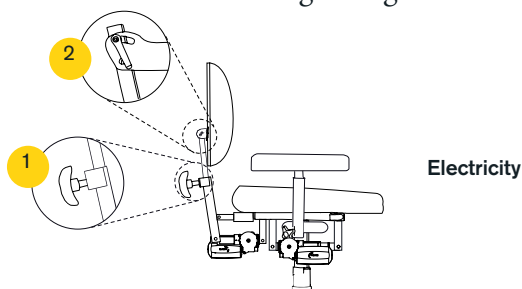
Backrest mechanism **Comfort** (optional) looks and operates as a Medic backrest mechanism but does not have depth adjustment and the angle adjustment of the backrest mechanism is made with help of the gas spring handle (2).



CONTROLS, **COMFORT**

1. Height To adjust the backrest height, loosen knob (1). Press or pull the backrest to the desired height. Tighten the knob.
2. Backrest mechanism angle To adjust the backrest mechanism angle, use the gas spring handle (2). Place the backrest mechanism in the desired angle and release the handle.
3. There are three backrest plate positions. To adjust the angle of the backrest plate, loosen lever (3). Put the backrest plate in the desired position and tighten the lever.

Backrest mechanism **Electricity** can be adjusted in height, depth and angle and can be ordered with both high and low backrest. The backrest mechanism can be adjusted in two different angle ranges.



CONTROLS, **ELECTRICITY**

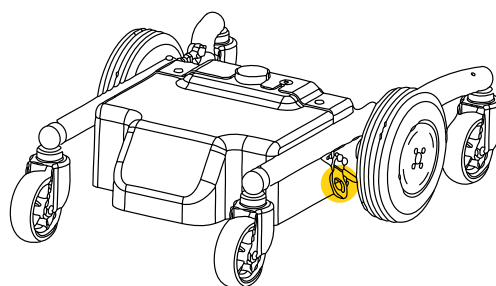
1. Height To adjust the backrest height, loosen knob (1). Press or pull the backrest to the desired height.
2. There are three backrest plate positions. To adjust the angle of the backrest plate, release lever (3). Then place the backrest plate in desired angle and tighten the lever.
3. Backrest mechanism angle The angle of the backrest mechanism is adjusted using the controller, see section *Controllers*.

TRANSPORTATION SERVICE

When transporting REAL 6100 PLUS, the user must move over to the dedicated vehicle seat. During transportation, the wheelchair must be equipped with transport loops and must be anchored to the vehicle using straps. Also switch off the automatic fuse; press OFF. If the fuse has tripped, reset it; press ON. The controller must be restarted two (2) times to restore the wheelchair functions. Transport loops are an accessory that can be ordered separately, article number TR1010.



The chair is not adapted to sit in during transportation, transport service or the like.



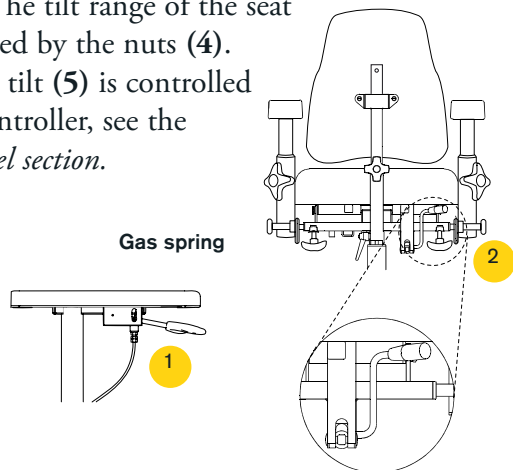
SEAT TILT

THERE ARE THREE TYPES OF SEAT TILT:

Gas spring, crank control and electric tilt.

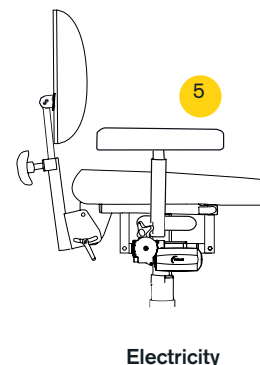
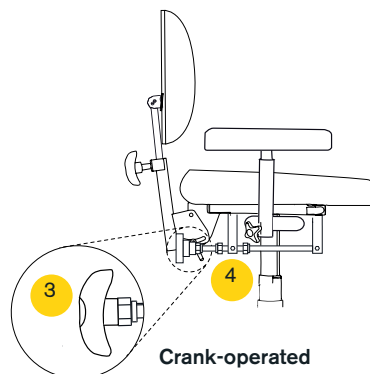
The gas spring controls are located under one of the armrests (1) alternatively, under the right rear edge of the seat (2) and is adjusted by moving the lever slowly forwards. Crank-operated tilt is adjusted using crank (3). The tilt range of the seat can be limited by the nuts (4).

Electric seat tilt (5) is controlled from the controller, see the *Control panel section*.

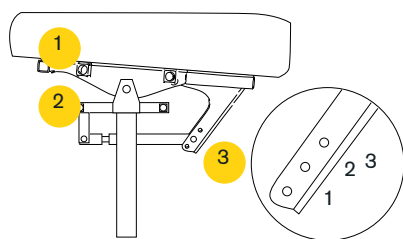


CONTROLS

1. Gas spring under armrest
2. Gas spring under seat.
3. Crank-operated tilt under seat.
4. Nuts on crank-operated tilt.
5. Electric – see the *Controller* section.



REVERSE TILT OR ALL TILT BACKWARDS (OPTIONAL)



CONTROLS

1. Armrests attached here move with the seat tilt.
2. Armrests attached here do not move with the seat tilt.
3. There are 3 positions. **When position 3 is selected, the wheelchair must be equipped with base extensions.**
 1. Front 15°, back 8° – Standard seat tilt
 2. Front 8°, back 15° – Reversed seat tilt
 3. Front 0°, back 23° – All seat tilt backwards

ADJUSTING THE CONTROLLER POSITION

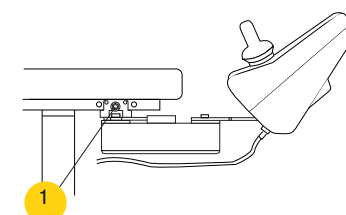
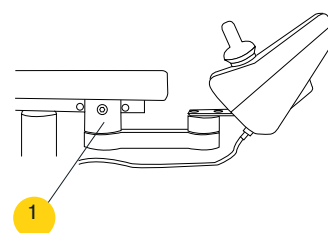
The controller can be adjusted in depth and sideways.

To adjust the depth, remove screw (1) with a 5 mm Allen key and a 10 mm ring spanner. Move the controller arm to the desired position (out of three possible) and reattach the screw. The controller can also be moved sideways to either inside or outside of the armrest.

The control arm is jointed at two points. This allows the controller to be moved horizontally and sideways without the use of tools. Push the controller into the desired position. The controller can be placed on the right (standard) or left armrest.

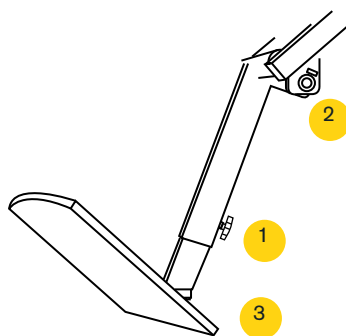
WITH PARALLELOGRAM

The magnetic attachment makes it possible to position the controller parallel to the armrest. Adjust the position of the screw (1) then lock the screw. Adjust the controller to the desired position, then release.



FOOTPLATE

The height and the angle of the footplate can be adjusted.



CONTROLS

1. Height To adjust the height of the footplate, loosen screw (1). Push or pull the footplate to the desired height*.
2. Leg support angle The leg support angle can be adjusted to four positions. To adjust the angle, loosen and remove screw (2) with a 5 mm Allen key. Set the desired angle and tighten the screw again.
3. Footplate angle To adjust the footplate angle, adjust screw (3) with a 5 mm Allen key. To lower, turn the screw clockwise; to raise, turn the screw anti-clockwise.

* Make sure the knob is in one of the holes in the footplate tube. This is to ensure that the footplate will not come off.



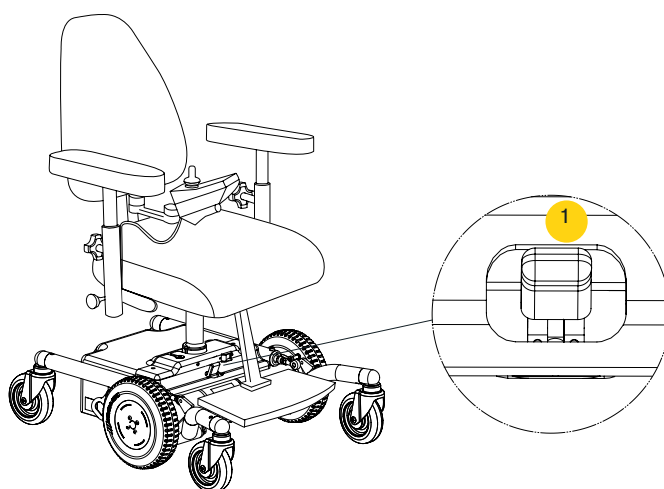
Note! There is a risk that the feet might get caught and crushed between the footplate and the floor. Make sure that the feet are resting on the footplate before operation.

BRAKE RELEASE

Releasing the brake allows the user to manually move the wheelchair. To release the brakes, pull the control towards you (1), downwards in the picture on the left. To apply the brake push the control back to its original position. If the chair is disengaged when it is on, the panel will display an alarm, as a result of which the wheelchair cannot be used. As soon as the brake is engaged, the alarm disappears and the wheelchair can be used again. For wheelchairs with Shark controller, turn off and restart in order to reset the alarm.



Note! The chair must never be transported with the brakes disengaged.



CONTROLLER

Driving programs may only be adapted by qualified coordinators and technicians. Programming is done via Dynamic Controls Wizard 5.

Selection of functions that can be programmed:

- Forward speed
- Forward acceleration
- Forward deceleration
- Reverse speed
- Reverse acceleration
- Reverse deceleration
- Turning speed
- Turning acceleration
- Turning deceleration
- Joystick sensitivity
- Use of external joystick
- Reversed joystick function



- Driving programs must be adapted for the user so that the wheelchair can move forwards safely considering the user and his/her surroundings.

CONTROL PANEL, SHARK CONTROLLER

DRIVING

Press the main switch (1). Check the battery level (4). The battery level should not be down at the red mark (see “Charging”). Make sure the controller does not signal errors (9).

Driving: Before driving check that the seat function indicator (6) is not lit. When driving the chair for the first time, start at a low speed, gradually increasing it until you reach a comfortable cruising speed.

To reduce the speed, press the button with a turtle (2); to increase the speed, press the button with a rabbit (3).

To fine-tune the speed, hold button (2 **alt.** 3) to the desired speed, which is displayed on the speed indicator (7).

Push the joystick (5) straight forward to drive forwards and diagonally left/right-forwards to turn. The wheelchair can be turned around by moving the joystick (5) straight left/right.

To brake, release the joystick (5) so that it ends up in neutral position (in the middle), or alternatively, pull the joystick in the direction opposite the direction of travel for faster braking. Remember that the braking distance is affected by the inclination of the surface on which the wheelchair is moving.

Downhill = longer braking distance
Uphill = shorter braking distance

To reverse, pull the joystick (5) backwards.

SEAT UNIT

To select the seat control, press the button (6). Pressing once activates function 1, pressing twice switches to function 2. Seat height is always adjusted by function 1. To raise or lower the seat, press the joystick forwards or backwards. Function 2 is on if there is still some electric function in the seat. To return to driving mode press button (6) once more to turn function 1 and 2 off.


If the electric functions of the wheelchair are not used for five minutes, they turn off to save battery power. To boot the electronics, press the main switch (1) or push the joystick (5). The time interval for automatic shut-down is adjustable.

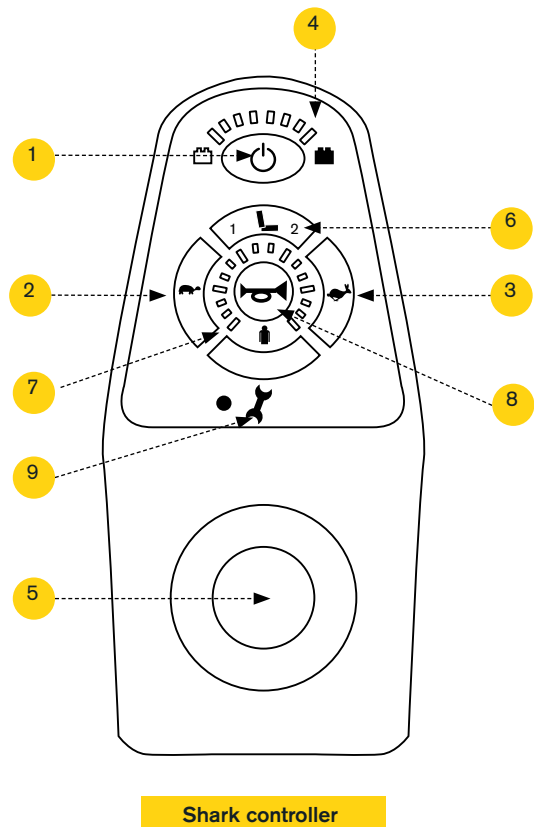
Horn: Press button (8).

LOCKING THE SHARK CONTROLLER

When the controller is on, hold the power button (1) for four seconds. The controller will turn off. After four seconds, all LEDs light up for a moment and a horn will sound. After that, the controller will be on and now locked.

UNLOCKING THE SHARK CONTROLLER

When the controller is locked, press the power button to turn it on. All LEDs light up quickly. Battery indicator LED (8) will then light up and count down slowly from right to left. Press the “Horn” button (2) twice before the battery indicator LED is completely turned off. You have about 10 seconds. After that, the current battery level is displayed and your REAL 6100 PLUS is ready for use. 



CONTROL PANEL, DX-REMG90A DRIVING

DRIVING

Press the main switch (1). Check the battery level (4). The battery level should not be down at the red mark (see "Charging"). Make sure the controller does not signal errors (10).

Driving: Make sure the display (3) shows one of the driving programmes. Press driving programme buttons (2) until the desired programme appears. If not, press function button (2) until any of these numbers is displayed.

Push the joystick (5) straight forward to drive forwards and diagonally left/right-forwards to turn. The wheelchair can be turned around by moving the joystick (5) straight left/right.

To brake, release the joystick (5) so that it ends up in neutral position (in the middle), or alternatively, pull the joystick in the direction opposite the direction of travel for faster braking. Remember that the braking distance is affected by the inclination of the surface on which the wheelchair is moving.

Downhill = longer braking distance


Uphill = shorter braking distance

To reverse, pull the joystick (5) backwards.

SEAT UNIT OPERATION

To raise/lower the seat unit or to manage the electric seat tilt, backrest angle or footplate angle. Press the Options button (6). The electric functions available on the wheelchair are lit on the display (7) (the active function is flashing). Push the joystick right/left to toggle between the symbols in the options display and forward/backward to operate the different options.

CONTROLS – SYMBOLS


-  Seat height
-  Seat tilt
-  Backrest angle
-  Leg support angle

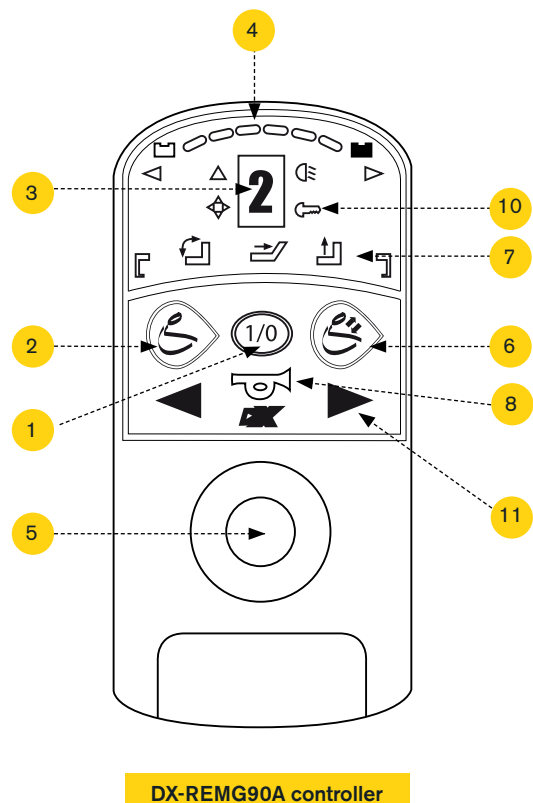
The two leg support angles can be operated simultaneously when both the left and the right support angle symbols flash at the same time. If the electric functions of the wheelchair are not used for five minutes, they turn off to save battery power. To boot the electronics, press the main switch (1) or

push the joystick (5). The time interval for automatic shut-down is adjustable. Horn: press button (8).

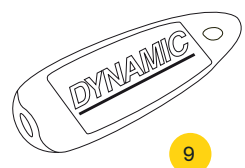
LOCK FUNCTION

To lock the electronics, use magnetic key (9).

The electronics must be switched on with the main power switch (1) during locking/unlocking. Hold magnetic key (9) against key symbol (10) for locking/unlocking. When locking, the control panel goes out completely and the key symbol flashes red. To unlock, turn on the main switch (1). When the wheelchair is locked (and switched on), the red lamp in the key symbol (10) flashes. Repeat the procedure with the magnetic key (9). Buttons (11) have not been programmed for any function. 



DX-REMG90A controller



CONTROL PANEL, DX2-REM421 OPERATION

DRIVING

Press the main switch (1). Check the battery level (4). The battery level indicator should not be down at the red mark (see "Charging"). Make sure the controller does not signal errors (9).

Driving: Make sure the display (3) shows one of the driving programmes. Press driving programme buttons (2) until the desired programme appears.

Push the joystick (5) straight forward to drive forwards and diagonally left/right-forwards to turn. The wheelchair can be turned around by moving the joystick (5) straight left/right.

To brake, release the joystick (5) so that it ends up in neutral position (in the middle), or alternatively, pull the joystick in the direction opposite the direction of travel for faster braking. Remember that the braking distance is affected by the inclination of the surface on which the wheelchair is moving.

Downhill = longer braking distance
Uphill = shorter braking distance

To reverse, pull the joystick (5) backwards.

Horn: press button (8).

SEAT UNIT OPERATION

To raise/lower the seat unit or to manage the electric seat tilt, backrest angle or footplate angle. Press the option buttons (7). The electric functions available on the wheelchair are visible on the display (6) (an electric function is displayed at a time). Press the function buttons (7) to toggle between the symbols or move the joystick from side to side. The selected option will be illuminated. Move the joystick forwards/backwards or left/right to operate the different options.

Adjusting the seat height: move the joystick (5) forwards to raise the seat, and downwards to lower it.

Adjusting the seat angle: move the joystick (5) forwards to tilt the seat forwards, and backwards to tilt it backwards.

Adjusting the backrest angle: move the joystick (5) forwards to tilt the backrest forward, and backwards to tilt it backwards.

LOCKING* THE DX2-REM421 CONTROLLER

When the controller is on, hold the power button (1) for four seconds. A lock will appear on the display (10). The controller will turn off.

UNLOCKING* THE DX2-REM421 CONTROLLER

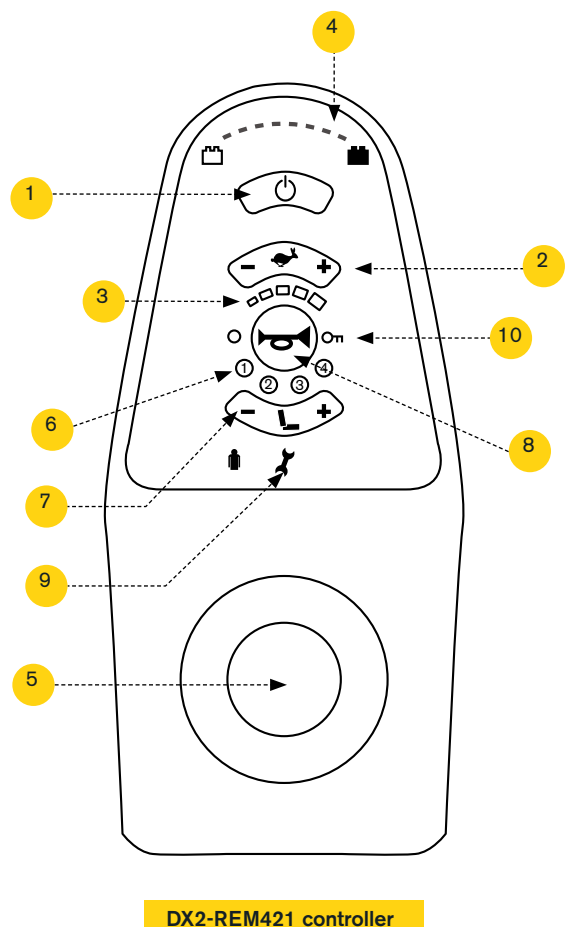
Press the power button (1). A lock appears on the display.

Press the horn (8) twice within 10 seconds.

The controller is activated.

If the electric functions of the wheelchair are not used for five minutes, they turn off to save battery power. To start up the electronics press any button. The time interval for automatic shut-down is adjustable.

** works only if the function has been activated in the programme*



DX2-REM421 controller

CONTROL PANEL, DX2-REM550 OPERATION

DRIVING

Press the main switch (1). Check the battery level (4). The battery should not be down at the red mark (see "Charging"). Make sure the controller (9) does not signal errors. It appears at the top of the display as a key with a number in it.

Driving: Make sure the display (3) shows one of the driving programmes. Press the driving programme buttons (2) until any of these numbers is displayed. Set the program speed with the function buttons (6).

Push the joystick (5) straight forward to drive forwards and diagonally left/right-forwards to turn. The wheelchair can be turned around by moving the joystick (5) straight left/right.

To brake, release the joystick (5) so that it ends up in neutral position (in the middle), or alternatively, pull the joystick in the direction opposite the direction of travel for faster braking. Remember that the braking distance is affected by the inclination of the surface on which the wheelchair is moving.

Downhill = longer braking distance
Uphill = shorter braking distance

To reverse, pull the joystick (5) backwards.

Horn: press button (8).

SEAT UNIT OPERATION

To raise/lower the seat unit or to manage the electric seat tilt, backrest angle or footplate angle. Press the option buttons (7) until a chair is displayed. The electric functions available on the wheelchair are visible on the display (one electric function at a time) Press the function keys (6) to toggle between the symbols or move the joystick from side to side. The selected function will be illuminated. The electric function that is active shines blue on the display (3). Move the joystick forwards/backwards or left/right to operate the different options. The symbol on the display turns green during adjustment. Adjusting the seat height: move the joystick (5) forwards to raise the seat, and downwards to lower

it. Adjusting the seat angle: move the joystick (5) forwards to tilt the seat forwards, and backwards to tilt it backwards. Adjusting the backrest angle: move the joystick (5) forwards to tilt the backrest forwards, and downwards to tilt it backwards.

ELECTRIC LEG SUPPORT OPERATION – OPTIONAL

The height and the angle of the footplate can be adjusted. Press the option buttons (7) until a chair is displayed. Press the function buttons (6) or move the joystick (5) right/left to mark the electric leg support function, which is divided into right and left. Move the joystick (5) straight forward to extend the electric leg support and tilt it upwards. Move it downwards to get the electric leg support in and tilt it backwards. To adjust only the angle of the left electric leg support, go to no 1 and move the joystick (5) forwards to tilt the electric leg support upwards. Move it backwards to tilt the support downwards. To extend/shorten the electric leg support on the left side, go to no 2 and move the joystick (5) forwards to extend the leg support. Move it backwards to get it in.

To adjust the angle of the electric leg support on the right side, go to no 3 (see explanation for no 1) and no 4 for height adjustment (see explanation for no 2).

If the electric functions of the wheelchair are not used for five minutes, they turn off to save battery power. To start up the electronics press any button. The time interval for automatic shut-down is adjustable.

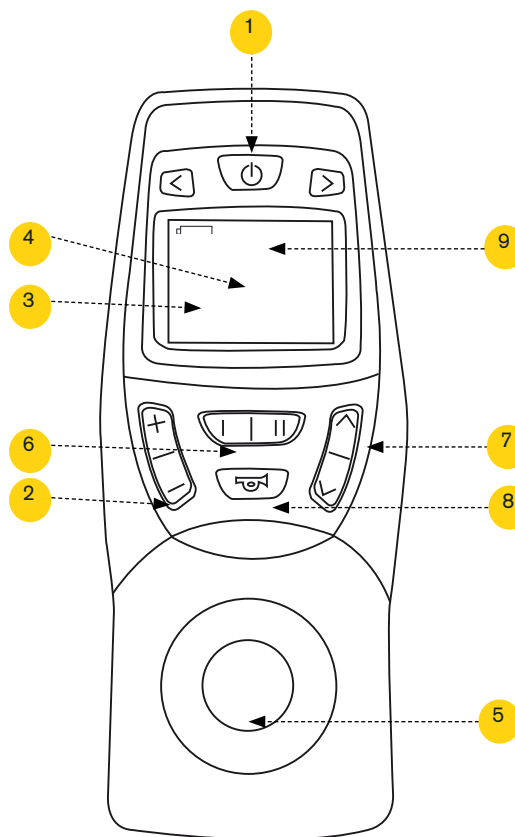
LOCKING* THE DX2 CONTROLLER

When the controller is on, hold the power button (1) for four seconds. A lock appears on the display. The controller will turn off.

UNLOCKING* THE DX2 CONTROLLER

Press the power button (1). A lock appears on the display. Press the horn (8) twice within 10 seconds. The controller is activated.

** works only if the function has been activated in the programme*



DX2-REM550 controller



DRIVING

Press the main switch (1). Check the battery level indicator (7). The battery level should have at least 2 bars lit, if only 1 red marking is lit, the wheelchair must be charged (see "Charging"). Make sure that the control unit does not signal any errors with the main switch flashing red (1).

Driving: make sure the display (9) shows wheelchair symbols with green tyres and that desired driving programme (10) is selected by pressing the driving programme buttons (2). You can also adjust the selected driving programme with the control dial (4).

Drive the wheelchair by moving the joystick (6) in the direction you want to move, straight ahead for forwards and diagonally left/right-forwards to turn. The wheelchair can be turned around by moving the joystick (6) straight left/right.

To brake, release the joystick (6) so that it ends up in neutral position (in the middle), or alternatively, pull the joystick in the direction opposite the direction of travel for faster braking. Remember that the braking distance is affected by the inclination of the surface on which the wheelchair is moving.

Downhill = longer braking distance

Uphill = shorter braking distance

To reverse, pull the joystick (6) backwards.

Horn: press button (5).

EMERGENCY STOP

If the emergency stop has to be used when driving or using the electric functions, it is recommended to use the main switch (1) to apply the emergency stop. Then the driving/electric function stops quickly.

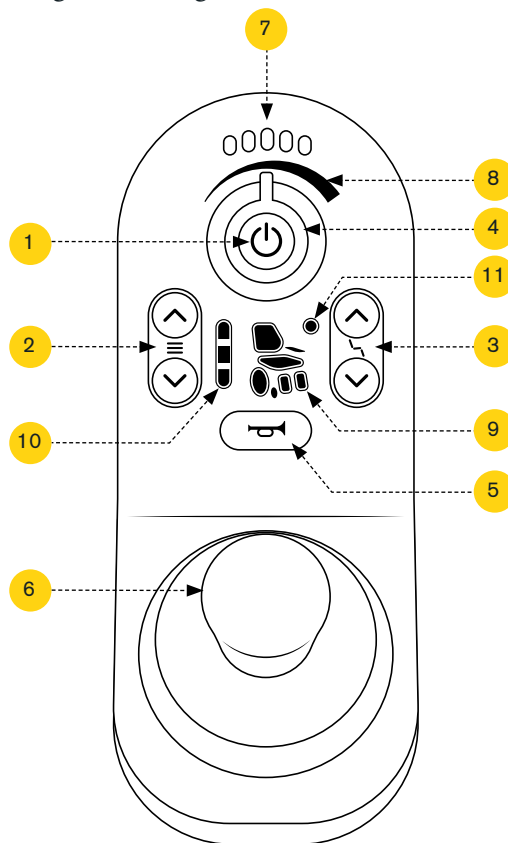
SEAT UNIT OPERATION

To raise/lower the seat unit or to manage the electric seat tilt, backrest angle or footplate angle. Navigate up/down the option buttons (3) to see the electric functions available on the wheelchair. They are visible on the display (9) (one function at a time). Move the joystick forwards/backwards to operate the selected electric function. You can also use the joystick when changing the active electric function by moving the joystick from side to side.

Adjusting the seat height: move the joystick (6) forwards to raise the seat, and downwards to lower it.

Adjusting the seat angle: move the joystick (6) forwards to tilt the seat forwards, and backwards to tilt it backwards.

Adjusting the backrest angle: move the joystick (6) forwards to tilt the backrest forwards, and downwards to tilt it backwards.



LINX REM211 controller

LOCKING* THE LINX REM211 CONTROLLER

When the controller is turned on, hold the power button (1) for 4 seconds. The red, yellow and green LED flash three times on the display (7) before the controller is switched off.

UNLOCKING* THE LINX REM211 CONTROLLER

Press the power button (1) and wait until LED 1 = red, 3 = yellow and 5 = green flash on the display. Press the horn (5) twice within 10 seconds. The controller is activated.

If the electric functions of the wheelchair are not used for five minutes, they are turned off to save battery power. To start up the electronics press any button. The time interval for automatic shut-down is adjustable.

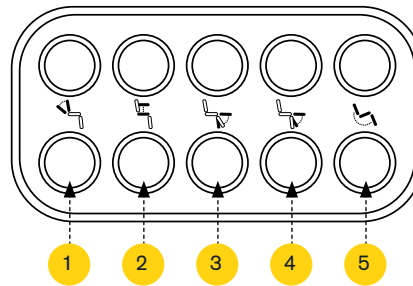
** works only if the function has been activated in the programme*



CONTROL PANEL, LINX KEYPAD OPERATION

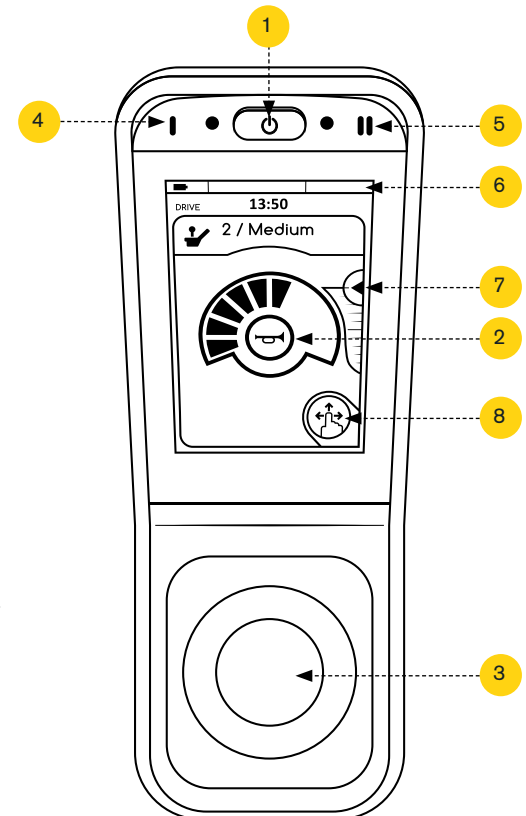
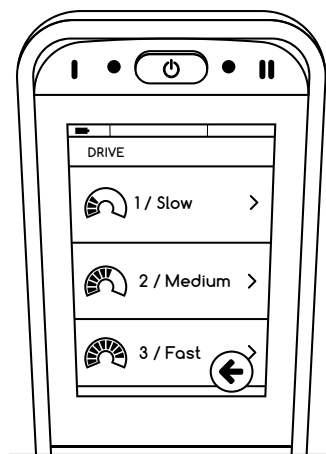
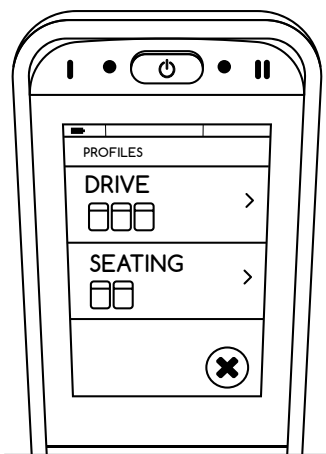
With the LiNX keypad you get direct access to the seat unit's electrical functions without exiting the driving program in the controller.

By default, the keypad is placed between the controller and the armrest.



1. Backrest tilt
2. Seat height
3. Electric leg support, left
4. Electric leg support, right/centre-mounted
5. Seat tilt

CONTROL PANEL, LINX REM400 OPERATION



LiNX REM400 controller

DRIVING

Press the main switch (1). Check the battery level indicator (6) at the top of the display. The battery level indicator should be at least yellow. If there is only a red marking, the wheelchair must be charged (see "Charging"). Make sure that the control unit does not signal any errors with the main switch flashing red (1).

Start menu: When the electronics is switched on, the driving programme/electric function active at the time when the electronics were switched off will be open. It is important that the joystick is not active when starting the electronics, then no driving programme/electric function will work until the joystick returns to standby mode.

You can select the driving programme/electric function on the display using the menu selection symbol (8) or the function buttons (4) (5). Function button 1 (4) toggles between driving programmes and electric functions, function button 2 (5) navigates in the sub-menu of the driving programme or electric function. If you do not touch the controller within 30 seconds, the display will go back to the basic selection menu with the driving programme in the top line (green) and the electric functions in the bottom line (orange).

If you want to go back to the previous driving programme/electric function, press the X on the menu selection symbol (8) or any of the function keys (4) (5). Alternatively, click the desired new option in the basic menu or activate the selected program by moving the joystick up/down, right/left.

Driving Select the desired driving programme with the menu selection symbol (8) or any of the function keys (4) (5). You can also adjust the speed of the selected driving programme using the speed control (7).

Drive the wheelchair by moving the joystick (3) in the direction you want to move, straight ahead for forwards and diagonally left/right-forwards to turn. The wheelchair can be turned around by moving the joystick (3) straight left/right.

To brake, release the joystick (3) so that it ends up in neutral position (in the middle), or alternatively, pull the joystick in the direction opposite the direction of travel for faster braking. Remember that the braking distance is affected by the inclination of the surface on which the wheelchair is moving.

Downhill = longer braking distance

Uphill = shorter braking distance

To reverse, pull the joystick (3) backwards.

EMERGENCY STOP

If the emergency stop has to be used when driving or using the electric functions, it is recommended to use the main switch (1) to apply the emergency stop. Then the driving/electric function stops quickly.

Horn: press button (2).

SEAT UNIT OPERATION

To raise/lower the seat unit or to manage the electric seat tilt, backrest angle or footplate angle. Navigate using the menu selection symbol (8) or function key 1 (4) to activate the electric function; function key 2 (5) navigates between the different electrical functions. Move the joystick forwards/backwards to operate the selected electric function. You can also use the joystick when changing the active electric function by moving the joystick from side to side (left/right).

Adjusting the seat height: move the joystick (3) forwards to raise the seat, and backwards to lower it.

Adjusting the seat angle: move the joystick (3) forwards to tilt the seat forwards, and backwards to tilt it backwards.

Adjusting the backrest angle: move the joystick (3) forwards to tilt the backrest forwards, and backwards to tilt it backwards.

LOCKING* THE LINX REM400 CONTROL PANEL

When the control panel is on, press and hold the main switch (1) for 4 seconds. The display shows a padlock and all driving programmes and electric functions are locked.

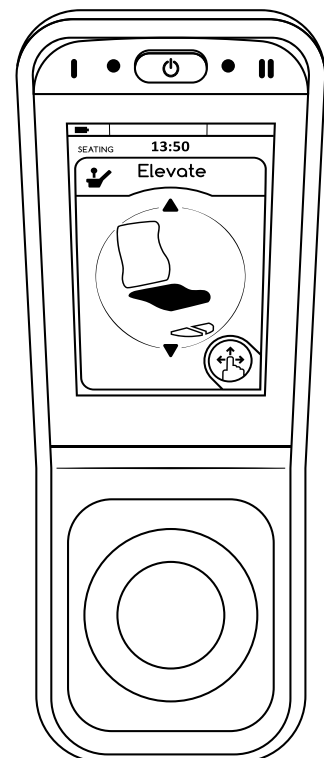
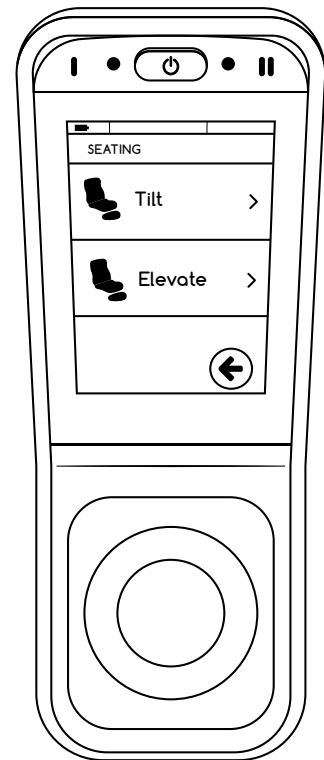
UNLOCKING* THE LINX REM400 CONTROL PANEL

Press the main switch (1) and wait for the padlock symbol to appear.

Press the padlock symbol within 10 seconds and hold until the driving programme/electric function is displayed.

If the control panel is not used for five minutes, it will be turned off to save battery power. Press any button to start the electronics, or move the joystick forwards/backwards. The time interval for automatic shut-down can be programmed.

** works only if the function has been activated in the programme.*



CHARGING ECB-401 4A 24V

EC-Buddy is equipped with protection against the following:

- Incorrect polarity
- Short circuiting of battery cables
- Formation of sparks in grid and battery
- Overheating

The charger should not be exposed to direct sunlight. The charger must not, fully or partially, be immersed in water or covered with snow. Cables and sockets may only be replaced by the manufacturer or an authorised workshop.

The charger complies with the following standards EN 60601-1, EN 60601-1-2, EN 12184, ISO 7176-14. The wheelchair-charger combination also complies with ISO 7176-21.

MAINTENANCE-CHARGING OF WHEELCHAIR EVERY MONTH OR CONTINUOUSLY

1. Connect the charger power cord (3) to the wall outlet.
2. Connect the charging socket (1) to the charging jack (2) (labelled battery symbol). The power cord and charging socket can be connected in any order.
3. Green LED (4) flashes during charging. The charger gets warm during charging. That is absolutely normal. There is overheating protection.
4. Green LED (4) lights up when the battery is ready for use which takes at least six hours, regardless of the initial battery level. Since the charger draws some power and does not overcharge the battery, it can be left connected until the vehicle is put into use.
5. Disconnect the charging socket from the charging jack (2) when the vehicle is to be used.
6. Disconnect the power cord (3), if desired.

WARNING

- Batteries emit explosive gases during charging. Avoid flames and sparks.
- The charger is designed only for lead batteries with 12 cells (24V).
- The charger is equipped with overheating protection but gets warm during charging.
- Charging must take place in a well-ventilated area.
- Medical electric equipment requires special precautions and must meet the requirements of ISO 7176-21, where charger and wheelchair are tested together according to EMC. The tests pursuant to this standard check that our product, wheelchair including charger, cannot disrupt or be affected by portable or mobile RF communication equipment.
- Cables and sockets may only be replaced by the manufacturer or an authorised workshop.
- High heat in a socket indicates that it is worn out or damaged. In that case, both male and female sockets must be replaced.

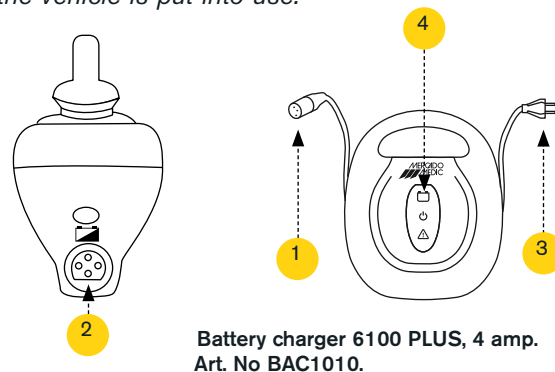
MAINTENANCE AND SUPERVISION






- Before each charging, inspect the cables and sockets

to ensure that they are not damaged or worn out. If they are, the charger must be replaced immediately.

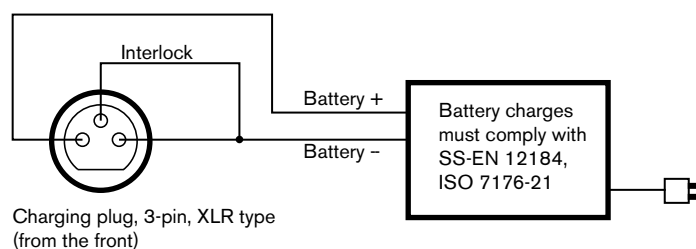
- For best performance, economy and charger service life, battery and travelled distance per charge, the following advice should be followed:
- Charger, sockets and batteries must be kept clean from dirt, dust and oxide.
- Turn off the vehicle when it is not in use.
- Charge the battery every day or as soon as it is depleted.
- Maintenance charge the battery when the vehicle is not used for a long time*.
- If necessary, clean the charger with a slightly damp cloth.

* Since the charger draws some power and does not overcharge the battery, it can be left connected until the vehicle is put into use.



INDICATION	MEANING/CAUSE	ACTION
Steady 	Connected to the mains	
Flashing 	The battery is charging	
Steady 	The battery is fully charged	
Steady 	Reversed polarity to the battery	Contact Service
Flashing 	Battery error	Contact Service

CHARGING JACK CONNECTION DIAGRAM



SEALED LEAD/ACID BATTERIES – CHARGING RECOMMENDATIONS

CHARGING/DISCHARGING

- Charge for 12 hours before the first use.
- After that, charge after each discharge, even if the battery is not completely depleted.
- Never store a fully discharged battery.
- A fully discharged battery must be charged for at least 16 hours.
- If the charging time is less than 16 hour more than 3 times, the battery must be charged for 24 hours once to make up for the poor charging.
- The ambient temperature during charging must be between 10°C and 30°C.

HIGH AMBIENT TEMPERATURE

The battery should not be charged if the ambient temperature exceeds 30°C. The charger is set to charging voltage valid at 20°C.

LOW AMBIENT TEMPERATURE

Charging at temperatures below 10°C is not recommended. The available capacity decreases at low temperatures.

DEEP DISCHARGE

Try to avoid deep discharges. If the battery has been fully discharged, it has to be charged as soon as possible for at least 24 hours.

LONG-TERM STORAGE

Disconnect the batteries if the wheelchair is not be used for a long period of time. This is done with the help of the automatic fuse (see section 11 on page 3). Press Off to disconnect the batteries. If the wheelchair is to remain in storage for more than 4 months, it requires maintenance charging to uphold the battery capacity (see chapter “Charging”). Turn on the automatic fuse before charging. When the wheelchair is put into use again, turn on the automatic fuse and press On. Also make sure to charge the wheelchair before use.



CONSIDER THE FOLLOWING WHEN DEALING WITH BATTERIES:

- Do not ever short-circuit the battery.
- Do not subject the battery to strong impacts.
- The battery should be replaced after three (3) years to reduce the risk of leakage.
- In case of contact with battery acid, rinse off with water for about 15 minutes, consult a doctor.
- Used batteries must always be discarded at a recycling station.

SERVICE AND MAINTENANCE OF SHARK CONTROLLER

ERROR MESSAGE IN THE EVENT OF MALFUNCTION

Each DX error will be indicated by flashing of the controller LED near the on/off power switch. The flashes come in groups and range from 1 to 11 at a 2-second interval. The number (1-11) of flashes shows which error has occurred.

ABOUT THE TABLE

In case of serious faults that affect the driving safety, the electric wheelchair will automatically stop. Less serious errors will only be indicated on the control LED, and the electric wheelchair can continue its operation.

When some errors occur, the electronics is reset once the error has been rectified, and the control LED is once again steady. Other errors can be connected, meaning that the electric wheelchair must be switched off for at least 2 seconds and then turned on again in order to reset the system.

In case of minor errors, the electronics can switch to backup driving mode. This means that the electrical wheelchair can still operate, but all speed variables will be reduced.

NUMBER OF FLASHES ERROR TYPE

1	User error
2	Battery error
3	Right motor fault (M1)
4	Left motor fault (M2)
5	Right parking brake fault (M1)
6	Left parking brake fault (M2)
7	SHARK control unit error
8	SHARK Power module error
9	SHARK connection error
10	Unknown error
11	Incompatible control unit

1 FLASH – USER ERROR

Time-out, motor stop or user error. Release the joystick so that it is in neutral position and try to drive again.

2 FLASHES – BATTERY ERROR

This means that the battery voltage is too low to be able to drive the electric wheelchair. Charge the batteries and check whether the control LED of the charger indicates that the wheelchair is charging. If the error persists, measure the battery voltage both with and without connected charger. If there is a considerable difference in the voltage, the batteries are probably not working properly and need to be replaced. Also inspect the battery connections and cables.

3 FLASHES – RIGHT (M1) MOTOR

This means breakage or short-circuiting of the cable from the M1 socket of the electronics module to the motor, or motor failure. Check by pulling out the M1 connector and measuring the resistance between the outermost pins (1 and 4), in order to detect breakage or short-circuiting.

4 FLASHES – LEFT (M2) MOTOR

See 3 *flashes*, but for the M2 socket.

5 FLASHES – RIGHT (M1) PARKING BRAKE

This means breakage or short-circuiting of the M1 socket of the electronics module for the parking brake, or alternatively, parking brake fault. Check by pulling out the M1 connector and measuring the resistance between the inner pins (2 and 3), to detect breakage or short-circuiting.

Check also whether the release control of the parking brake actually resets the brakes when the lever is moved to driving position.

6 FLASHES – LEFT (M2) PARKING BRAKE

See above but for the M2 socket.

7 FLASHES – SHARK CONTROLLER ERROR

Inspect cords and connections to the SHARK controller's communication bus. If the error persists replace the controller.

8 FLASHES – SHARK POWER MODULE ERROR

Inspect cords and connections on the SHARK controller. If the error persists replace the controller.

9 FLASHES – SHARK COMMUNICATION ERROR

Make sure the battery voltage is more than 17 V. Make sure that the bus cables are properly connected to SHARK. Try replacing the SHARK power module. If this does not work, replace the SHARK controller.

10 FLASHES – UNKNOWN ERROR

Check all cables and connections. If no error is found, contact Mercado Medics Service.

11 FLASHES – INCOMPATIBLE CONTROLLER

The controller is not compatible with the power module. Make sure the SHARK version is used for both controller and power module.

SHARK SYSTEM SERVICE

All cables and connectors must be inspected regularly for damage and oxidation. Loose, oxidised connectors or damaged cables must be replaced. All components in the SHARK system must be kept clean from dust, dirt and liquids. Clean with a cloth moistened with hot water or alcohol. Do not use solvents. Only use agents approved by Mercado Medic AB. Normally, there are no parts in the system that require service. Do not open any of the electronic boxes.



NOTE! *If any part of the system has been damaged, the components must be inspected by qualified personnel before the electric wheelchair is put back into operation.*

SERVICE AND MAINTENANCE OF DX/DX2 CONTROLLER

ERROR MESSAGE IN CASE OF BREAKDOWN

Each DX error will be indicated by flashing of the controller LED near the on/off power switch. The flashes come in groups and range from 1 to 12 at a 2-second interval. The number (1-12) of flashes shows which error has occurred.

ABOUT THE TABLE

In case of serious faults that affect the driving safety, the electric wheelchair will automatically stop. Less serious errors will only be indicated on the control LED and the electric wheelchair can continue operation.

When some errors occur, the electronics is reset once the error has been rectified, and the control LED is once again steady. Other errors can be connected, meaning that the electric wheelchair must be switched off for at least 2 seconds and then turned on again in order to reset the system.

In case of less serious errors, the electronics can switch to backup driving mode. This means that the electrical wheelchair can still operate, but all speed variables will be reduced.

NUMBER OF FLASHES ERROR TYPE

1	DX module
2	DX accessory
3	Left motor (M1)
4	Right motor (M2)
5	Left parking brake (M1)
6	Right parking brake (M2)
7	Low battery voltage
8	Right battery voltage
9	Bus cable
10	Bus cable
11	Overload
12	Compatibility error

TROUBLESHOOTING AND ACTIONS FOR DX/DX2

1 FLASH – DX MODULE ERROR

This means that any of the DX modules is faulty and must be replaced. Inspect the control LEDs on the modules. If any of these is flashing, this means that the module is broken (the control unit status is displayed via the digit window).

2 FLASHES – DX ACCESSORY

This means that an accessory connected to the DX system is faulty. Not for electric wheelchairs with seat lift standard design. Two flashes indicate that the lift is in lift position and the electric wheelchair's speed position is reduced.

3 FLASHES – LEFT (M1) MOTOR

This means breakage or short-circuiting of the cable from the M1 socket of the electronics module to the motor, or alternatively motor failure. Check by pulling out the M1 connector and measuring the resistance between the outermost pins (1 and 4), in order to detect breakage or short-circuiting.

4 FLASHES – RIGHT (M2) MOTOR

See 3 flashes, but for the M2 socket.

5 FLASHES – LEFT (M1) PARKING BRAKE

This means breakage or short-circuiting of the electronics module's M1 socket for the parking brake or, alternatively, parking brake fault. Check by pulling out the M1 socket and measuring the resistance between the inner pins (2 and 3), to detect breakage or short-circuiting. Check also whether the release

control of the parking brake actually resets the brakes when the lever is moved to driving position.

6 FLASHES – RIGHT (M2) PARKING BRAKE

See above but for the M2 socket.

7 FLASHES – BATTERY VOLTAGE TOO LOW

This means that the battery voltage is too low to be able to drive the electric wheelchair. Charge the batteries and check whether the control LED of the charger indicates that the wheelchair is charging. If the error persists, measure the battery voltage both with and without the charger connected. If there is a considerable difference in the voltage, the batteries are probably not working properly and need to be replaced. Also inspect the battery connections and cables.

8 FLASHES – BATTERY VOLTAGE TOO HIGH

This means that the battery voltage exceeds 32V. Normally, this can only occur during charging and indicates that the charger is faulty.

9 FLASHES – CANL – ERROR

This means that there is a disturbance (breakage or short circuiting) in the CANL cable of the DX bus, which leads to communication disturbances between the controller and the electronics unit. The control system continues to operate in standby mode, but the error should be identified and remedied as soon as possible. The cause of the error is probably a damaged bus cable between the controller and the electronics unit.

(CONTINUED) TROUBLESHOOTING AND ACTIONS FOR DX/DX2

10 FLASHES – CANH – ERROR

The CANH cable of the DX bus is used partly for communication between electronics modules, partly as “kill” signal cable. The kill signal is a call to all modules to switch to a preset safe mode. The signal is initiated by connecting the CANH cable to battery (+) or battery (-). The signal can be given manually, for example via an emergency switch, or automatically from any module that detects an error and shuts down the system. This means that CANH errors can be caused by many types of problems. The DX system will, if possible, switch to standby mode.

11 FLASHES – OVERLOAD

If the motor current continuously exceeds the pre-programmed limit value during the time set as "Shall time out", the electric wheelchair will stop and the LED will flash 11 times. To reset, turn off the electric wheelchair first and then restart.

12 FLASHES – COMPATIBILITY ERROR

This means a compatibility error between different electronics modules in the DX system. This error cannot occur on an electric wheelchair in operation.

SERVICE AND TROUBLESHOOTING, REAL 6100 PLUS

SYMPTOM	CAUSE	ACTION
Controller	Faulty controller	Re-programme or replace
Controller	Cable breakage	Replace
Controller	Battery	Replace
The wheels are not moving	The freewheel mechanism is disengaged or out of order	Check whether the freewheel mechanism is locked. Replace it
The wheels are not moving The drive motor is silent	Faulty drive motor	Replace
The seat is too loose in the direction of rotation	Actuator loose abnormal noise	Refurbishment
The electric lifting unit does not work	Safety clutch	Adjust the brake or contact Service
Abnormal noise in castor wheels	Bearings not lubricated or worn	Lubrication or replacement
Worn driving wheels	Old/used wheels	Replacement

PROGRAMMING DIAGRAM

STANDARD PROGRAMME							
	DX2 PROG. 1	PROG. 2	PROG. 3	SHARK PROG. 1	LINX		
	PROG. 1	PROG. 2	PROG. 3	PROG. 1	PROG. 1	PROG. 2	PROG. 3
Max. speed forwards	25 %	45 %	75 %	75 %	35%	80%	100%
Acceleration forwards	20 %	25 %	30 %	30 %	65%	75%	100%
Deceleration forwards	35 %	40 %	50 %	75 %	65%	75%	90%
Max. speed backwards	20 %	25 %	50 %	50 %	40%	50%	70%
Acceleration backwards	20 %	20 %	25 %	25 %	50%	70%	80%
Deceleration backwards	35 %	35 %	50 %	50 %	80%	70%	75%
Max. turning speed	15 %	20 %	45 %	40 %	40%	50%	65%
Turning acceleration	20 %	20 %	25 %	30 %	60%	75%	65%
Turning deceleration	35 %	40 %	55 %	55 %	60%	75%	65%

CHECKLIST SERVICE/RECONDITIONING, REAL 6100 PLUS

1. ELECTRONICS UNIT

- ☐ 1. controller/function/ cleaning
- ☐ 2. Tam/Clam – left side or seat
- ☐ 3. socket attachment
- ☐ 4. battery charger/function
- ☐ 5. electric tilt/function
- ☐ 6. electric backrest/function
- ☐ 7. electric leg support

2. ELECTRIC LIFTING UNIT

- ☐ 1. abnormal noise/ safety clutch
- ☐ 2. rotation lock/lubrication
- ☐ 3. attachment/tightening
- ☐ 4. cabling/wear

3. BODY

- ☐ 1. welds
- ☐ 2. screw joints

4. DRIVE WHEELS

- ☐ 1. function/rolling
- ☐ 2. bearing/wheel tracks
- ☐ 3. attachments/tightening

5. CASTOR WHEELS

- ☐ 1. function/rolling/turning
- ☐ 2. bearing/wheel tracks
- ☐ 3. attachment/tightening

6. FREEWHEEL MECHANISM

- ☐ 1. function
- ☐ 2. attachments/tightening

7. SEAT FRAME

- ☐ 1. mechanisms/welds
- ☐ 2. screw joints /tightening
- ☐ 3. plastic plugs/bushings
- ☐ 4. seat/cleaning/replacement
- ☐ 5. coxit mechanism/operation

8. ANGLE SEAT

- ☐ 1. wear on moving parts
- ☐ 2. gas spring/function
- ☐ 3. crank angle/wear
- ☐ 4. operation/lubrication

9. BACKREST MECHANISM

- ☐ 1. function/wear
- ☐ 2. attachment/tightening
- ☐ 3. plastic plugs/bushings
- ☐ 4. backrest plate/cleaning/replacement
- ☐ 5. gas spring/function

10. ARMREST

- ☐ 1. function/wear
- ☐ 2. plastic plugs/bushings
- ☐ 3. armrest plates/cleaning /replacement
- ☐ 4. controls under armrest /function

11. UPHOLSTERY ACCESSORIES

- ☐ 1. headrest
- ☐ 2. trunk support
- ☐ 3. side support
- ☐ 4. amputation cushion
- ☐ 5. covers
- ☐ 6. wedge/stomach support

12. MECHANICAL ACCESSORIES

- ☐ 1. headrest
- ☐ 2. trunk support
- ☐ 3. side support
- ☐ 4. amputation support
- ☐ 5. wedge/stomach support

13. CLEANING

- ☐ 1. castor wheels
- ☐ 2. stand
- ☐ 3. stop components
- ☐ 4. other mechanical components

14. DRIVE MOTORS

- ☐ 1. drive control
- ☐ 2. abnormal noise

15. TEST RUN

- Some users sit harder on the wheelchairs than others. Therefore, extra careful inspections during maintenance and reconditioning are required for the critical components of the wheelchair in order to avoid breakage.
- Before a new user uses a second-hand wheelchair, who has used the wheelchair before must be taken into account. For example, if the wheelchair has been used by someone with spasms, the seat frame and back folding should be replaced for safety reasons.
- High-pressure washing may not be used for cleaning. The jet penetrates into ball bearings and other components and creates wear.
- Note! There must be no one sitting in the chair during reconditioning, servicing or maintenance work.
- For access to service and assembly instructions, visit <https://mercado.se/mercado-dokument/> and navigate to *Monteringsanvisningar, Elrullstol REAL 6100 PLUS*

DISPOSAL INSTRUCTIONS

Instructions for sorting the included components. The highest possible component weight (depending on wheelchair configuration) is given in kilograms for each component.

Combustible:

- Seat (3.2 kg)
- Backrest (4 kg)
- Headrest (0.7 kg)
- Armrest (0.7 kg)
- Other stop details sold by Mercado Medic AB

Plastics:

- Covers are sorted according to the labelling on the plastic. If there is no labelling, they must be sorted as flammable.

Metal:

- Armrest mechanisms (1.8 kg)
- Backrest folding mechanism (7.2 kg)
- Headrest mechanism (2.6 kg)
- Leg support (3.3 kg)
- Stand (22.5 kg)
- Seat frame (7.7 kg)
- Actuator tilt mm (1.3 kg)
- Actuator up/down (3.6 kg)

- Gas spring for seat tilt (0.3 kg)
- Gas piston (3.2 kg)
- Other metal product details sold by Mercado Medic AB

Electronic waste:

- Motors (3.2 kg)
- Cables (0.3 kg)
- Power module (0.9 kg)
- Joystick (0.4 kg)
- Actuator box (0.15 kg)

Lead battery:

- Batteries (9.7 kg/unit)

GUIDELINES FOR INDIVIDUAL CUSTOMISATION OF MERCADO MEDIC AB PRODUCTS

Customisations may only be made by personnel who have undergone Mercado Medic AB service and reconditioning training. Articles on the list of current combination agreements at www.mercado.se/mercado-dokument may be installed with maintained CE marking for Mercado Medic AB. If an article that is not on the list of current combination agreements is to be installed, the customer's authorised personnel must contact Mercado Medic AB for a written approval.

Articles for assessment must be physically sent to Mercado Medic AB either by the customer or by the supplier of the article in question. Mercado Medic AB will then contact the supplier of article in question if a mutual combination agreement is relevant. Mercado Medic AB conducts a risk analysis for the article in question. When the risk analysis is performed, the customer receives a written statement.

Wheelchairs that have undergone changes, as described below, shall be verified by Mercado Medic to maintain product liability.

- Upholstered parts such as seats, backrests, armrests, side supports and headrests can be customised provided that the original product measurements are not exceeded.
- Centre of gravity in relation to the actuator must be maintained.
- Upholstered parts must meet current fire and environmental requirements.
- Surfaces put under considerable load must not be outside the square the wheel centre points form on the base.

If these guidelines are met, Mercado Medic AB will still be liable for its product.

Products that are customised by care professionals outside the directives of Mercado Medic AB, where the care professionals also take over the product responsibility, can be restored to their original condition. This must be done by an authorised technician approved by Mercado Medic AB. Mercado Medic AB then takes over the product liability again according to CE marking 93/42 EEC; Medical Devices Directive.

For questions regarding customisations/special customisations, please contact Ronny Fogelqvist:

Tel +46 (0)708 27 96 14

Email ronny.fogelqvist@mercado.se

[Room for product label with serial number.]



Mercado Medic AB
Tryffelslingan 14
181 57 Lidingö

Telephone and Fax
Tel +46 (0)8 555 143 00
Fax +46 (0)8 555 143 99

Email and Internet
Email info@mercado.se
Internet www.mercado.se