



TOPCHAIR-S

Stair-climbing wheelchair

User Guide



Distributed by:

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Contact

**For any questions on this material,
Please contact your distributor first.**

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Introduction

Before anything else, we want to thank you for your confidence in our products. We hope that your new electric wheelchair will give you much satisfaction.

This user guide contains information on the characteristics, use and safety conditions of your wheelchair. It is important to acquaint yourself with this user guide before your first use. If you have any questions or if you are unsure whether your wheelchair is in its optimum state, call your dealer or contact us.

Users have very different needs. Only and exclusively qualified medical personnel can decide whether the model is suitable for your particular case.

We disclaim any responsibility if a wheelchair is not suitable for the disabled user.

Some adjustments and maintenance require specialized technical training and must be performed by your dealer or an authorised representative.

We are not liable for damages resulting from the non-observation of the user guide, improper maintenance or improper use. Generally, our liability is limited to the replacement of defective parts.

Safety instructions

There is a risk of accident, injury or damage under certain conditions. Here are some guidelines:

- Do not use the wheelchair under the influence of alcohol or drugs restricting your driving skills.
- If necessary, seek the help of an attendant.
- Do not install or leave the chair without turning off the system power. This helps prevent inadvertent operation of the wheelchair.
- When you leave the chair, do not put all your weight on the footrests. The wheelchair could tip forward, especially if the ground is sloping.
- In case of manual push, do not let the brakes disengage if on a slope.
- If you have to brake in an emergency, simply release the joystick, it will stop the wheelchair. Pressing the start / stop button causes an abrupt and violent stop.
- Avoid loading the wheelchair in a vehicle with the person sitting in the chair.
- If the wheelchair must be loaded with the driver via a ramp, an attendant should stand near the chair to prevent tipping. (When using the ramp, you must use the 'manual track' mode).
- Do not use the electric wheelchair as a vehicle seat if there is no suitable anchoring system or if there is no seat belt.
- Use a seat belt when necessary, especially when you do not have a sufficient back support.
- Do not lean forward or to the side or above the top edge of the wheelchair, especially if the ground is sloping.
- For transfer, get the closest you can to the new wheelchair.
- Do not connect any electric devices to your wheelchair. Give any possible installation to your dealer.
- This chair has several moving parts driven by powerful jacks. Pay attention to the people around that they don't get injured. Watch out for children's fingers, they could be crushed by the lift wheels and the seat tilt system.

- The operation of the rear wheel must be performed on flat ground only. There is a risk of disengaging the wheel during this manoeuvre. This can cause uncontrolled movement and dangerous if the ground is sloping and if the train front wheel is not recovered.
- Do not switch from the 'Road' mode to 'Automatic step' mode if the ground is sloping.
- If the ground is sloped, you can use the 'manual track' mode and manoeuvre the wheel sets, but it is imperative to take the first set of front wheels completely and then the rear wheels. If you have a doubt, ask the help of a third person capable of holding the chair.

I. Electromagnetic compatibility

The electromagnetic compatibility of this wheelchair has been tested according to international standards.

There is however a risk of disruption of the electronic system of the wheelchair when near a source of powerful electromagnetic radiation.

It is necessary to take the following precautions:

- Avoid the immediate proximity of powerful transmitters (radio, television, telephone).
- Check that your transmitters (mobile or otherwise) have no influence. If in doubt, use them only when the wheelchair is switched off.
- If your vehicle should be set in motion itself, or if the brakes are released, switch off the electronics of the wheelchair as soon as possible.
- Report to your dealer any unwanted movement of the vehicle that occurs, or release of the electric brakes.

You should also know that adding electrical accessories may significantly alter the electromagnetic compatibility.

II. Safety advice when travelling on wheels

1. Avoid tilting risk

- Do not move on land with a slope greater than the limit specified in chapter Technical Specifications.
- Do not exceed the maximum load stated in chapter Technical Specifications.
- Do not carry more than one person.
- In any case, do not exceed a 20 ° angle for the backrest while moving.
- In case of steep slope, straighten the seat.
- In case of steep slope, ensure that the device is in automatic stabilization function.
- In case of steep slope, drive slowly. If necessary, switch to 'manual track' mode.
- In case of a steep slope, avoid sudden braking manoeuvres, changing direction or acceleration.
- On a slope, make the trip directly; do not try to make a u-turn.
- If the slope has a risk of skidding, switch to 'manual track' mode.
- Never attempt to climb or descend stairs with your electric wheelchair in 'road' mode but uses the 'Automatic step' mode.
- Never attempt to climb or descend stairs with your wheelchair electric 'Manual track' mode but uses the 'Automatic step' mode.
- As far as possible, approach obstacles with a right angle. Clear the obstacle with the front and rear wheels in one continual motion, without stopping halfway.
- In any case, do not exceed a 20 ° angle for backrest while moving.
- Avoid leaving your seat on a slope.
- When you sit in your chair, on the highway, you are less visible to motorists. Before crossing a road, make sure the traffic has stopped and proceed with caution.
- Never manoeuvre down a step or a sidewalk in reverse.

2. Avoid collisions

Drive slowly in crowded or narrow passages through doorways and along corridors. Do not use TopChair-S on paths or roadways with car traffic and be very careful crossing the street.

3. Avoid breakdowns in difficult conditions

Do not go out without an escort for trips in remote locations or when weather conditions are very bad.

III. Safety advice when climbing steps

1. Avoid risk of tilting

— Avoid descending steps that you have not previously ascended and without being sure that the step height and slope are below the limits specified in chapter Technical Specifications. In case of doubt on the slope, it is imperative to ask an attendant.

— Pay special attention to the external staircases where the steps have often different heights.

— Do not lean out of the seat.

Check before every use the proper functioning of the automatic seat tilt.

When you switch to the 'Automatic step' mode, check that the front wheels being completely back and the system adjusts the seat tilt. In case of malfunction, notify your dealer immediately. Begin ascent and descent at very low speed. In the case of climbing an obstacle, increase the speed if necessary (lack of power).

2. Avoid sliding risk

Do not cross the icy steps,

Do not cross stairs with a slippery surface (carpet, linoleum without fixed edge of step),

Do not approach steps when they are wet and slippery,

Ensure the robustness of the step nosing. They must be fixed to the stairs through a rigid connection.

3. 'Automatic stair' mode use

The 'Automatic stair' mode automatically handles the movement of the wheels and simplifies user operations. However, this method uses the information provided by optical sensors. Do not use this mode when these sensors may provide false information, particularly in the following cases:

- Glass steps
- Steps slatted
- Steps covered with highly reflective material
- Uneven and / or damaged steps

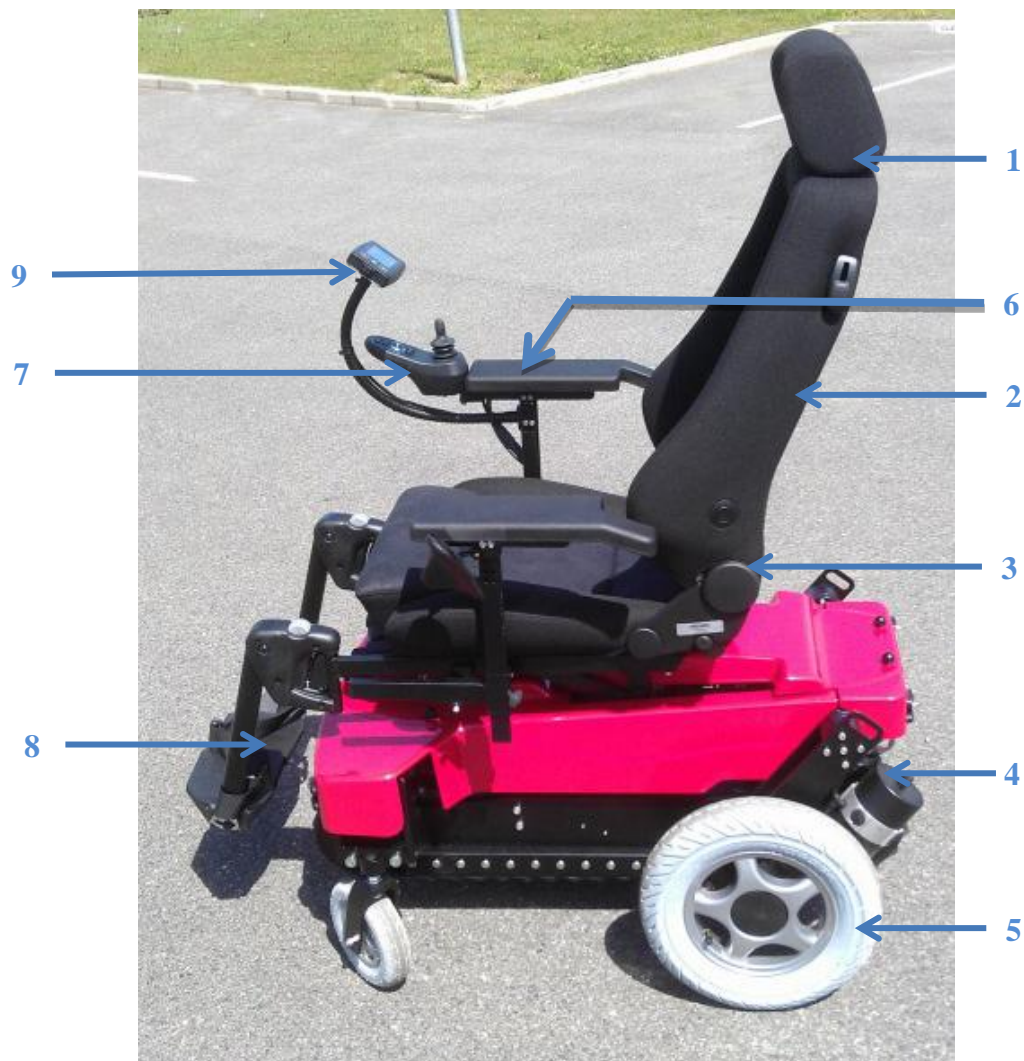


If you need to take steps in these conditions, you must use the 'manual track' mode, and manually control the movement of the input and output of the wheel sets. **Carefully follow the paragraph *Crossing obstacles in 'manual track' mode*.**

Description of TopChair-S

I. Main parts

- 1) Headrest
- 2) Seatback
- 3) Seatback angle adjustment
- 4) Freewheel lever
- 5) Rear wheel
- 6) Armrest
- 7) Joystick
- 8) Leg rest
- 9) Auxiliary control box



II. **Electric/electronic systems**

1. **Protection of the electronic system**

The electronic control of the motors of the wheelchair is equipped with a device for controlling the current which avoids deterioration of the circuit in case of overload.

When the motors are subjected to strain for a prolonged period, the power provided by the device is progressively reduced to avoid overheating. This power reduction can be up to a complete stop of the chair. This phenomenon occurs more rapidly when the ambient temperature is high.

Several minutes may then be necessary to return back to maximum power.

When the drive is blocked by an impassable obstacle and the user insists, forcing drivers to remain stalled for more than 20 seconds, the electronic system automatically shuts off the power.

2. **Fuse**

In addition to the coverage described in the preceding paragraph, the entire electrical system of the wheelchair is protected against overload by a fuse between the batteries.

The fuse should not blow under normal operation. However, this may happen if the batteries are too low and under excessive load.

Do not replace the fuse after a thorough check of the entire electrical system. (Section **V Replace batteries**)

3. Batteries

The power chair is supplied with two 12V batteries. These batteries contain a gelled electrolyte. They are sealed, no risk of leakage and do not require maintenance. They were designed to hold their charge a long time, which is not the case of automotive batteries that cannot be substituted.

Before the first use, you should charge completely the new batteries. They will get about 90% of maximum charge. Total maximum charge will be reached after about ten recharges.

A number of factors will affect the distance of running time per battery charge: hills, uneven surfaces, weight of the user, tyre pressure... etc.

Gel batteries are not hazardous and can be transported without restriction by means of road, rail or air.

It is recommended to recharge the wheelchair every day even if the batteries are not drained, this does not affect the life of the batteries.

In case of complete discharge, charging can take up to 10 hours.

— Avoid placing the charger near any heat sources such as radiators or direct exposure to sunlight.

— Do not move with deeply discharged batteries, this reduces their lifespan.

— If you do not use your chair for a long period, it is recommended to recharge the batteries once a month (in this case, it would be useful to leave the wheelchair on its tracks, front and rear wheels rose up to prevent distortion of the tires).

— Do not leave the battery fully discharged for several days. This affects their lifespan.

— Do not use when the battery indicator drops below 3 lights. This affects their lifespan.

— Do not store the wheelchair in cold / hot extremes. This affects the life of the batteries (risk of freezing).

a. Charging the batteries

Only use the charger supplied with the wheelchair or charger recommended by your provider.

Consider the recommendations of the manufacturer of chargers.

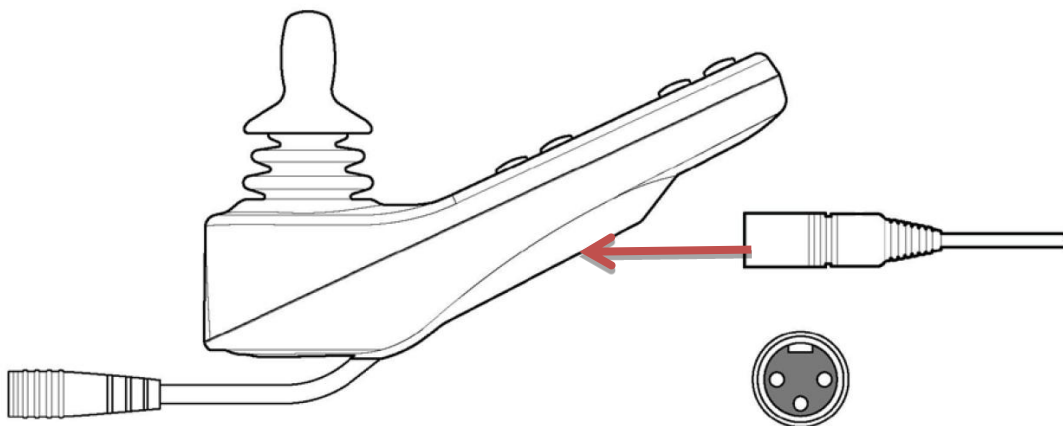
Do not recharge the batteries when you are sitting on the wheelchair.

Avoid the risk of electrocution

- Protect the charger from moisture.
- Do not use the charger if it has been dropped or damaged.
- Only use extension cords in good condition.

Charging the batteries

- Turn the wheelchair off by pressing the ON / OFF button of the joystick.
- Connect the charger to the joystick. The charging socket is located on the bottom front of the joystick.



- Connect the charger to the mains and switch on if necessary.

The power control of the wheelchair is inhibited when the charger is connected.

- Once charging is complete, first unplug the charger from the mains, and then unplug the charger plug that is connected to the joystick.

III. Control and operating



The TopChair-S is equipped with a **controller** and an **auxiliary LCD box**.

It has 3 modes of operation:

- 'Road' mode : drive on the rear wheels, standard wheelchair mode
- 'Automatic stair' mode : the chair automatically configures itself for clearing an obstacle (steps, stairs, sidewalks)
- 'Manual track' mode : drive on the tracks (function for advanced users)

The **joystick** controls the movement of TopChair-S and optional special functions (power leg rests, electric seatback, environmental control...)

The **auxiliary LCD box** can control special functions of TopChair-S:

- Control the 'Automatic stair' mode
- Control the movement of the rear wheels
- Control the movement of the front wheels
- Control the seatback tilt
- Control lights (if option installed)

1. Operating the joystick

To turn the joystick on, press the ON / OFF button **(1)**

It is not always necessary to turn the auxiliary LCD box on to use TopChair S in 'Road' mode (standard wheelchair). The lights of the charging indicator should be lit confirming that all batteries are fully charged.

You can adjust the speed of the wheelchair by pressing the button **(2)** to reduce and **(3)** to increase.

The electronic control of the wheelchair is adjustable. The behaviour of the chair can be changed and adjusted. Your provider will adjust these parameters according to your requirements and wishes.

a. Motion control

The joystick **(4)** allows you to control the speed (in the range defined by the speed buttons) and the direction of the chair.

The more you push forward, the faster you go. To top travel backwards, you pull back.

Move the joystick to the left or to the right to direct.

If you push the joystick full left or right, the wheelchair rotates in its minimum turning circle.

To slow, guide the joystick to the center in neutral position.

If you have to stop, simply release the joystick. It automatically returns to the neutral position and the wheelchair stops.

In case of problem, press the ON / OFF button **(1)** which can be used as an emergency stop.

Once stop on wheels, the wheelchair is blocked by the electromagnetic brakes, the chair is then perfectly stopped, even in a sloping road.

The brakes are declutching manually. This release is useful when the seat has to be pushed by an attendant (Section III Manual movement)

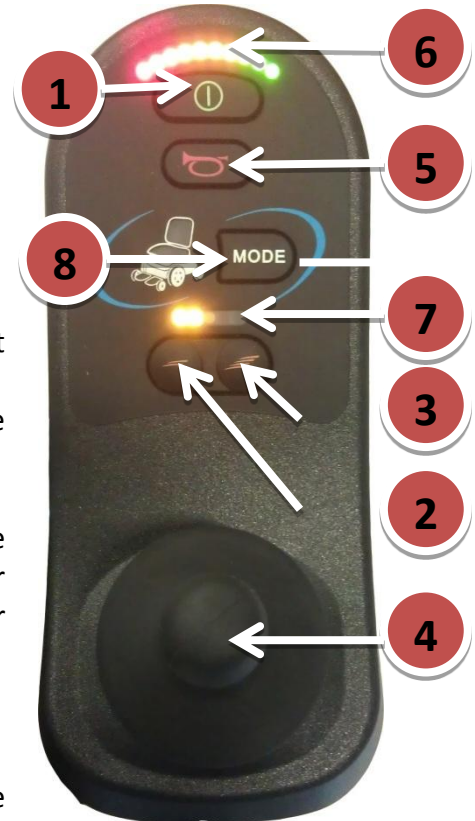
It is possible to program the system to make the speed buttons inoperative.

If this is not the case, the user can set the maximum speed to adapt to the environment by pressing the speed control. The current speed is displayed on the speedometer.

b. Speed

Select the fastest speed **(3)** to increase the maximum speed. The highest value is reached when you see five bars lit on the speedometer **(7)**.

Select the slowest speed **(2)** to decrease the speed. The smallest value is reached when we see one bar lit on the speedometer **(7)**.



c. Horn (5)

Press this button to sound the horn.

d. Charge Indicator (6)

The charge indicator is the main source of information for the user.
When the lights are on and fixed, they indicate battery charge.

Display	Meaning	Remarks
All lights are off	System off	
Lights are on and fixed	System on	Full charge if all lights are on. Fewer LEDs lit indicate a low battery charge
LEDs blink slowly	The battery charge is low	The batteries must be charged as soon as possible.
LEDs lights every 2,5 seconds.	The system is on "standby"	The system enters a "sleep" after a configurable time delay. To restart press twice the power button
One or few LEDs flashes rapidly	Error detection	See the table in paragraph Diagnosis of the manipulator in case of error detection and contact your dealer if necessary.

e. Special functions

When the wheelchair is equipped with special functions (power seat, leg rests...), the MODE button (8) allows using these functions.

2. Operating auxiliary LCD box



The housing is composed of a LCD display (4), of three buttons (1) (2) (3) and an ON / OFF switch (5).

To switch on the LCD screen, use button ON / OFF (5).

Button (1) to navigate to the right of the screen




Button (3) to navigate to the left of the screen

Button (2) to validate the selected active area

a. Function modes

At the start of LCD display, 3 operating modes are possible:

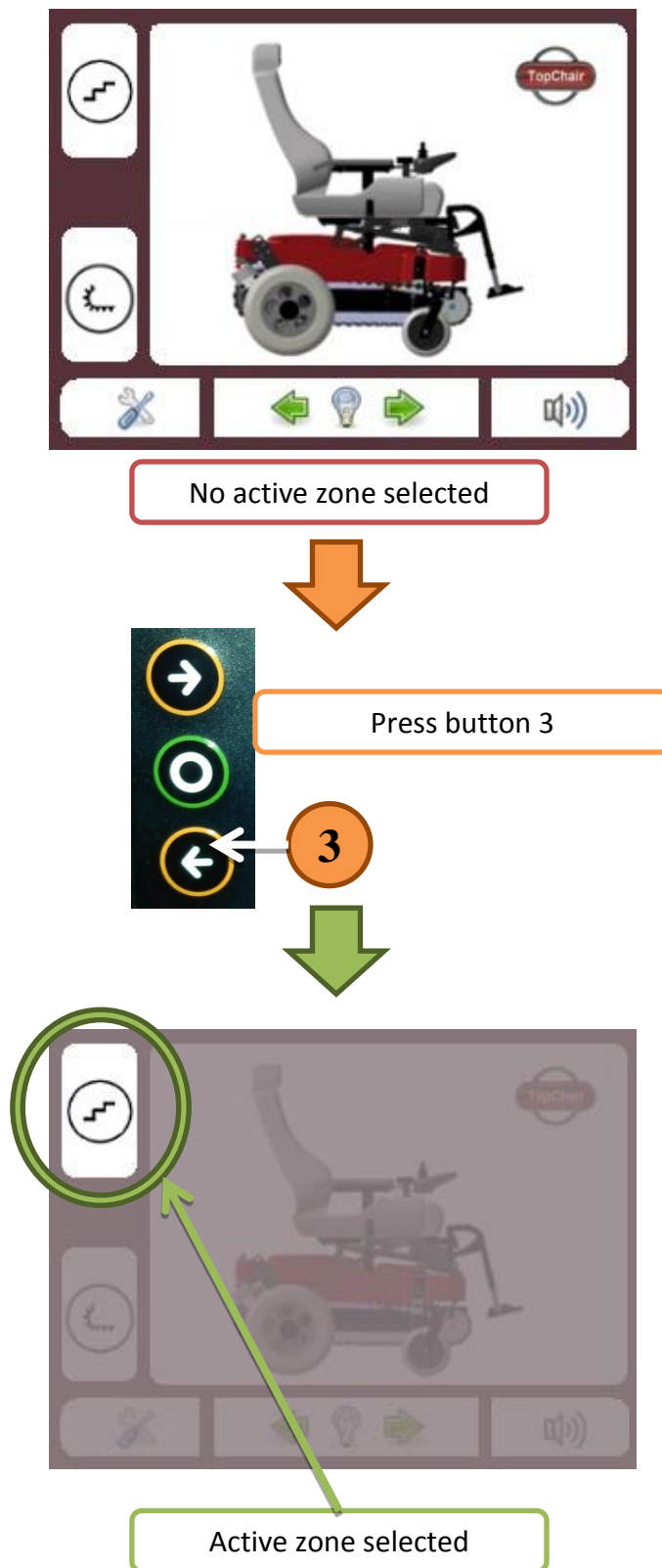


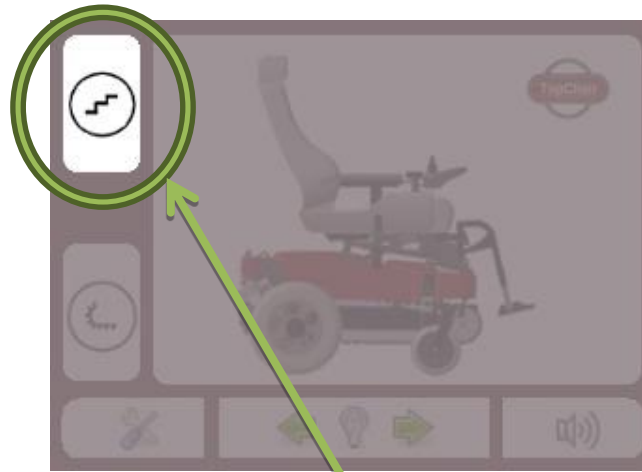
MODES	Description
	'Road' mode
	'Automatic stair' mode
	'Manual track' mode

Use the keys **(1)** and **(3)** to select the desired mode and confirm with the button **(2)**.

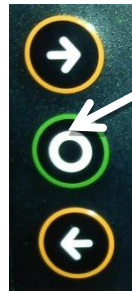
b. Operating screen navigation

Navigation screen works on the principle of active zones:





Active zone selected

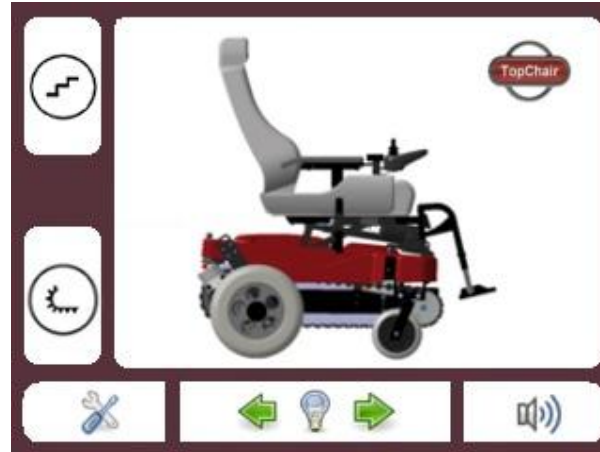


Press button 2



'Automatic stair' mode selected

c. 'Road' mode



'Road' mode selected

In 'road' mode, it is possible to select:

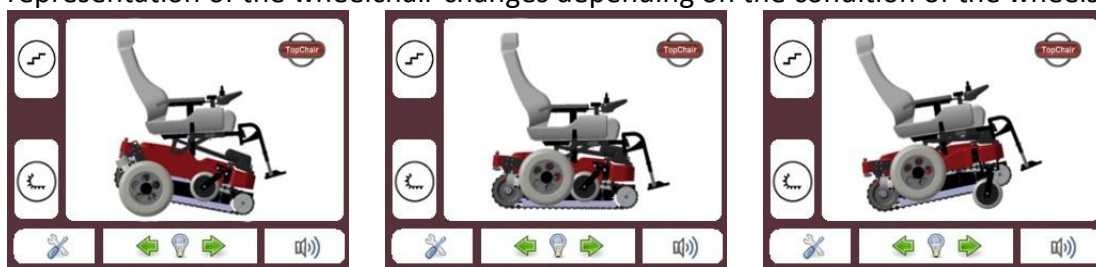
- 'Manuel track' mode (see III-2-e)
- 'Automatic stair' mode (see III-2-d)

And act on:

- Movement of the seat (see III-2-h)
- The movement of the front wheels (see III-2-f)
- The movement of the rear wheels (see III-2-g)
- The lamps (see III-2-i)
- Adjusting the sound (see III-2-j)

Use buttons **(1)** and **(3)** to select the desired mode and confirm with the button **(2)**.

The representation of the wheelchair changes depending on the condition of the wheels

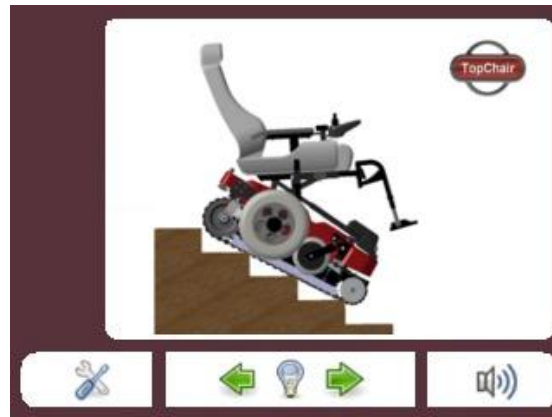


In this operating mode, the wheels are driven, **the seat remains in the adjusted position automatically.**

d. 'Automatic stair' mode

This mode allows crossing obstacle safely in automating the movement of the seat and the wheels.

The details of the operation is given in **paragraph I Crossing obstacles in 'automatic stair' mode.**



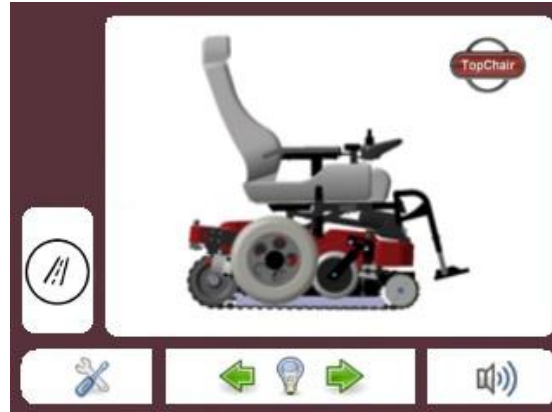
In 'Automatic stair' mode, it is not possible to change mode, neither control the wheels nor move the seat tilt.

We can only act on:

- Lighting kit (see *III-2-i*)
- Sound adjustment (see *III-2-j*)

Use button **(1)** and **(3)** to select the desired mode and confirm with the button **(2)**

e. **'Manual track' mode**



To facilitate the understanding in track mode, the wheelchair is represented wheels raised up (this does not correspond to the actual state of the chair).
In this mode, it is driving tracks.

It is possible to select the mode:

- Road (see III-2-c)

And act on:

- The movements of the front wheels (see III-2-f)
- The movements of the rear wheels (see III-2-g)
- Lighting kit (see III-2-i)
- Sound adjustment (see III-2-j)

Use button **(1)** and **(3)** to select the desired mode and confirm with the button **(2)**



In this mode, the inputs / outputs of the front / rear wheels are managed by the user. In case of misuse, there is a risk of tipping when crossing an obstacle. If we use this mode on the ground, the tracks can move out of their place. Always check the correct positioning of the tracks after an operation on the ground.

f. Front wheels movement

To rise up or down the front wheels, select (button (2)) the  front wheel mode:



Front wheel mode selected.

- To lower down the front wheels

Press button (3)



Repeating animation shows the movement of the wheel.


Once the wheels are completely down, this message appears:



Before lowering down the front wheels, make sure you are in 'manual track' mode with rear wheels down.

In case of non-compliance with this instruction and subject to certain conditions, the rear wheels might not be fully extended.

- To raise the front wheels

Press button (1) 

Repeating animation shows the movement of the wheel.


Once the wheels are completely up, this message appears:



- To exit the front wheel mode press button (2)



g. Rear wheels movement

To rise up or down the rear wheels, select (button (2)) the  rear wheel mode:



Rear wheel mode selected



- To lower the rear wheels

Press button **(3)**



Repeating animation shows the movement of the wheel.

Once the wheels are completely down, this message appears:



- To raise up the rear wheels

Press button **(1)**



Repeating animation shows the movement of the wheel.

Once the wheels are completely up, this message appears:




Before lowering down the front wheels, make sure you are in 'manual track' mode with rear wheels down.

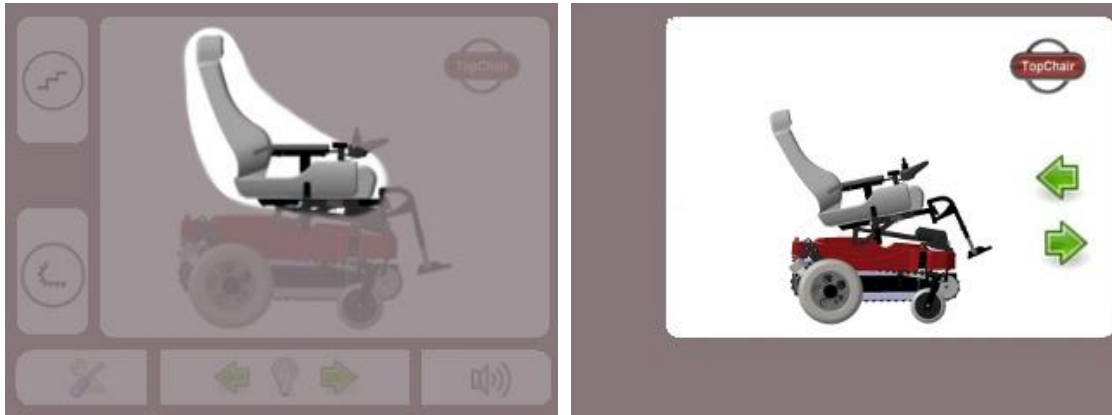
In case of non-compliance with this instruction and subject to certain conditions, the rear wheels might not be fully extended.

- To exit the rear wheel mode press button **(2)**



h. Seat movement

To tilt the seat forward or backward, select (button **(2)**) seat  mode:



Seat mode selected

- Tilt the seat backward


Press button **(3)** 

Repeating animation shows the movement of the seat.

Once the seat is completely backward, this message appears:




- Tilt the seat forward

Press button (1) 


Repeating animation shows the movement of the seat.

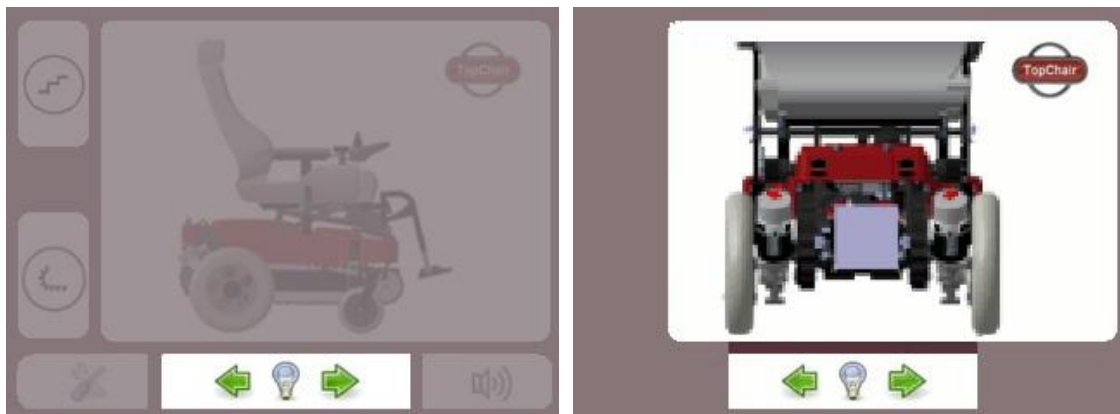
Once the seat is completely forward, this message appears:



- To exit the seat forward mode press button (2) 


i. Lights

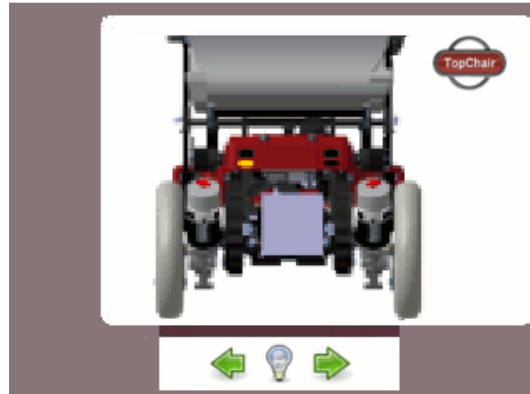
To control the lights (an option), select (button (2))  light mode:




Light mode selected

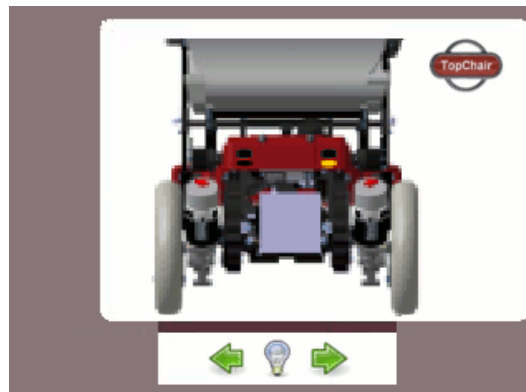
- To use the left indicator

Press button  (3), if the lights were previously off, this image appears:




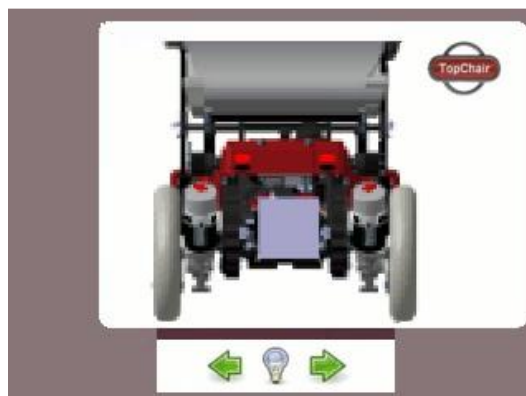
- To use the right indicator


Press button  (1), if the lights were previously off, this image appears:



To use the lights


Press button  (2), if the lights were previously off, this image appears:



- To exit this mode, press and hold the button (2) . A countdown appears. Do not release the button until the previous statement appears.

j. Adjusting the sound

TopChair has an integrated horn to alert the user of possible hazards. It is possible to mute this alarm.

To control the sound, select (button **(2)**) the  sound mode:



Sound is activated



Sound is inactivated


k. Configuration mode

This mode is reserved for the after-sales-service; it is protected by a code.



Configuration mode



To exit, select the exit door and press button  (2):



Exit door selected

Operating TopChair-S

I. Crossing an obstacle in 'Automatic stair' mode

To overcome unusual obstacles (eg: sidewalk > 5 cm) or stairs, the procedure is identical.



Warning:

Consider the recommendations in paragraph III.3 Safety advice and, in particular, the limitations due to the use of infrared captors and the type of stair nosing.

The speed limit authorized is:

- *1 to 2 during transition phases (entry and exit stairs)*
- *1 to 2 during the descent of obstacle*
- *1 to 5 during the crossing of obstacle*

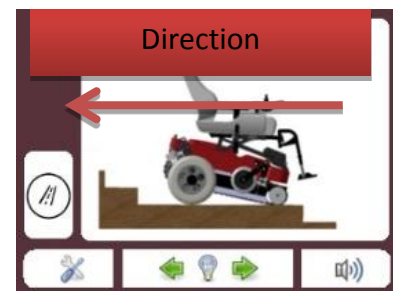
Always begin by using the smallest speed limit authorised and increase if necessary.

1. Climb an obstacle in 'Automatic stair' mode

- Place yourself at the bottom of the stairs, in reverse, until the chair comes into contact with the first step,



- Put in speed 2 (or 3, if the wheelchair needs more power),
- Select the 'automatic stair' mode (see III-2-d) which has the effect of rising up the front wheels and gives motion/traction to the caterpillar track,

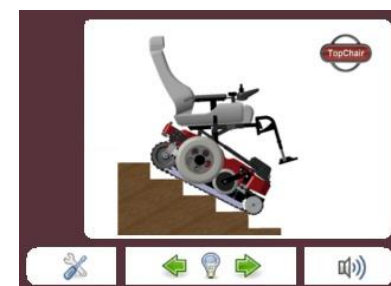


- Go backwards until the tracks are up against the first step,

- When the system has detected the nose of the first step, it stops the caterpillars, beeps and controls the rise of the rear wheel. Wait until the end of the operation (beep), leaving the joystick in neutral position.



- Start climbing slowly backwards using the joystick. You have to drive particularly slowly on the first two steps for the jack to maintain the seat horizontally.



If the chair has difficulty climbing stairs, gradually increase the speed.

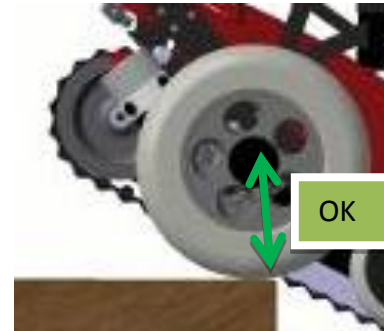
- When you reach the top of the stairs, the system stops the movement and beeps. You need to make sure that you have arrived safely on the top floor and that the descent of the wheels can be done safely.



The correct position corresponds to the alignment of the center of the rear wheel with the nose of the last step.

If the wheelchair is in this position:

We allow the system to perform this operation by selecting **YES**,



Warning:

Exceptionally, if it is not on the top floor (incorrect position), you select NO. The descent of the rear wheels will then be performed when necessary by selecting the 'Rear wheels' mode (see paragraph II Crossing an obstacle in 'Manual track' mode).

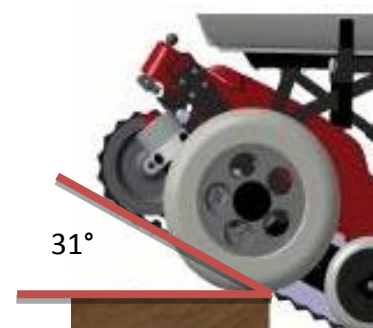
- Illustrations shows the rear wheels moving down,
- Go backwards,



Warning:

For stairs with a slope less than or equal to 31°, the output of the rear wheels totally avoids tipping the wheelchair on the arrival of the top floor. But for the steepest stairs, you feel a shift back a few degrees.

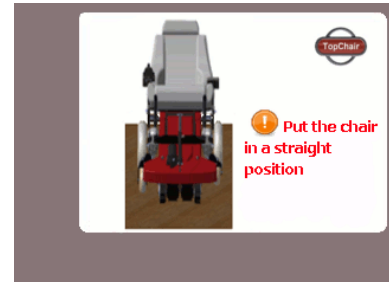
It is recommended to help you with the ramp of the stairs if it is possible.



- When the wheelchair has fully reached the top floor, go backwards at least 30cm from the edge, and then select the 'road' mode which has the effect of lowering the front set of wheels and getting traction on the rear wheels.

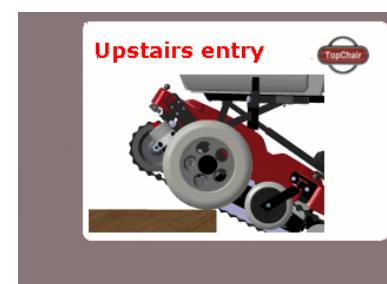
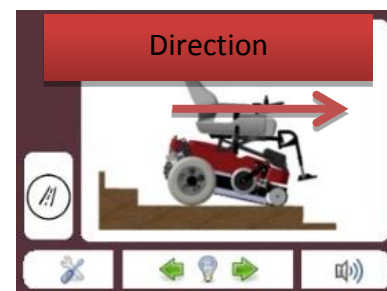
Note:

For security reasons, the system prohibits slanting climbing beyond an acceptable angle and attempts to automatically correct misalignment. In some cases, the drive is stopped and it is necessary to initiate a short descent to get back in line before starting climbing again.



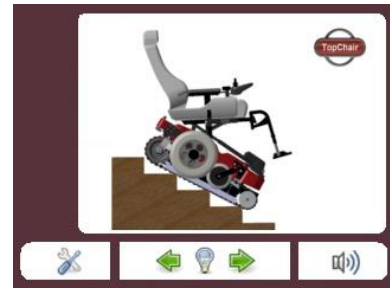
2. Descend an obstacle in 'automatic stair' case

- Place yourself forward near the stairs and lined up,
- Put in speed 1,
- Select 'automatic stair' mode which has the effect of rising the front wheels and getting traction to the caterpillar track,
- Begin the descent forward and very slowly using the joystick,
- When the tracks are in abutment on the nose of the step, the system stops the movement, beeps and automatically raises the rear wheels.



*An animation shows the rear wheels going up.
Wait until the end of the operation (beep), leaving the joystick in neutral position.*

- Follow the descent using the joystick. If necessary increase the speed.



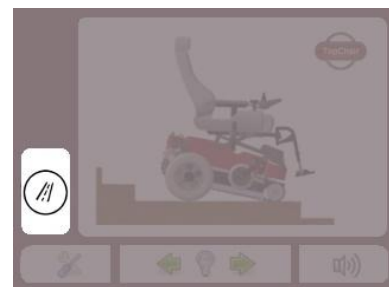
- Decrease speed when you arrive down the stairs.

- When the tracks are butted up against the last nose of the stairs and at the low floor, the system stops the movement, beeps and automatically lowers down the front wheels.

Wait until the end of the operation (beep), leaving the joystick in neutral position.



- Forward a few inches to be clear of the stairs,



- Select 'road' mode, which has the effect of lowering the front set of wheels and getting traction on the rear wheels.

Note:

For safety reasons, the system prohibits slanting descent beyond an acceptable angle and attempts to correct automatically misalignment.



3. Warning message in 'automatic stair' mode

MESSAGE	CAUSES	CORRECTIONS
	<p>The wheelchair is misaligned with the axis of the stairs</p>	<p>Correct the trajectory of the wheelchair to return it to the axis</p>
	<p>The angle of the obstacle exceeds the authorized limit</p>	<p>Leave the obstacle Non-compliant stairs</p>
	<p>The joystick is activated during a period of transition (eg: wheels going up or down)</p>	<p>Release the joystick during and until the manoeuvre is completed</p>
	<p>The speed selected is too high</p>	<p>Reduce your speed</p>

II. Crossing an obstacle in 'manual track' mode

This procedure must be used only if the 'automatic stair' mode is inoperative.



Warning:

Consider the recommendations in paragraph III.3 Safety advice and, in particular, the limitations due to the use of infrared captors and the type of stair nosing.

The speed limit authorized is:

- **1 to 2** during transition phases (entry and exit stairs)
- **1 to 2** during the descent of obstacle
- **1 to 5** during the crossing of obstacle

Always begin by using the smallest speed limit authorised and increase if necessary.

1. Climb an obstacle in 'manual track' mode

- Place yourself at the bottom of the stairs in reverse, until it comes into contact with the first step,



- Put in speed 1 or 2,

- Select 'manual track' mode,



- Select 'front wheels' mode ,



- Activate the set of front wheel until it is completely in a high position,



- Go backwards until the tracks are butted up against the first step,

- Select the 'rear wheels' mode,



- Activate the set of wheels until they are completely up,



- Begin the climbing backwards and slowly using the joystick. Drive particularly slowly for the jack to maintain the horizontal seat position.
- Stop when you reach the top of the stairs before the tilting point



Warning:

If you exceed the balance point without taking out the rear wheels, the wheelchair will suddenly tilt backwards.

Inexperienced users must ask the help of another person to determine the position of the balance point and by holding onto the chair to help reduce the eventual tilting.

It is recommended to help you with the ramp of the stairs if it is possible.

Make sure you have arrived properly at the top floor and that the descent of the rear wheels can be performed safely,

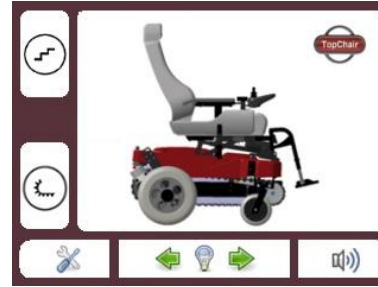
- Then select the 'rear wheels' mode,
- Activate the set of rear wheels until it is completely in the low position,



- Go backwards until you are completely on the top floor, at least 30 cm from the edge,
- Select the 'front wheels' mode,
- Activate the set of front wheels until it is completely in the low position,



- Select the 'road' mode



2. Descend an obstacle in 'manual track' mode

- Place yourself forward near the stairs and lined up
- Put in speed 1,
- Select 'manual track' mode,



- Select the 'front wheels' mode until they are in a high position



- Begin the descent forward and very slowly using the joystick.
- Stop when you reach the top of the stairs before the tilting point. Same note as below.



Warning:

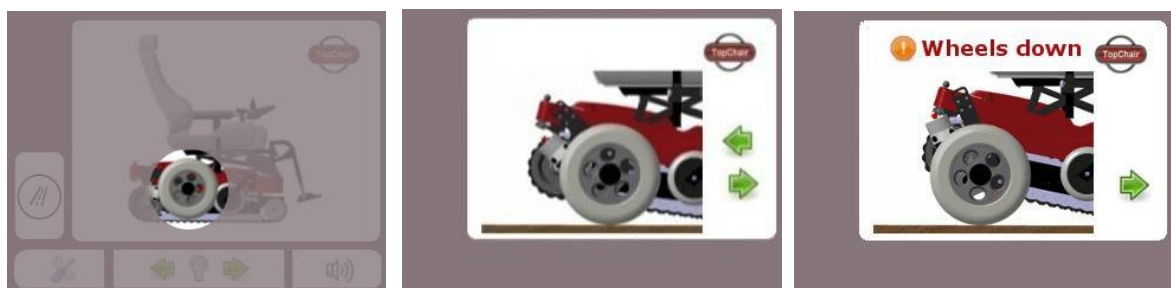
If you exceed the balance point without taking out the rear wheels, the wheelchair will suddenly tilt backwards.

Inexperienced users must ask the help of another person to determine the position of the balance point and by holding onto the chair to help reduce the eventual tilting. It is recommended to help you with the ramp of the stairs if it is possible.

- Select the 'rear wheels' mode until the wheels are in high position.
- Follow the descent using the joystick,



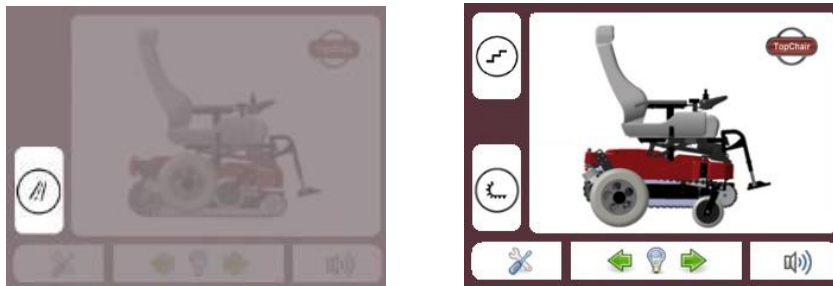
- Reduce the speed when you arrive at the bottom of the stairs,
- Stop when the tracks are resting on the last step and the lower floor.
- Select the 'rear wheels' mode until the wheels are completely down.



- Go forward a few inches to be clear of the stairs,
- Select the 'front wheels' mode until they are completely lowered,



- Select the 'road' mode, which has the effect of getting traction on the rear wheels.



III. Manual movement

The motors of the wheelchair are equipped with magnetic brakes that prevent the wheelchair rolling alone when it has been stopped. The brakes of the engine are tightened automatically when the joystick is in the neutral position.

To push the wheelchair, you must disengage the magnetic brakes.

A lever for disengaging the motor brake is located on the rear of the motor of the main wheels.

— In disengaged state, the motor brakes are off. You must be careful that the wheelchair does not move in an uncontrolled manner if the ground is sloping.

— You must always think of returning the release levers in position "on" after a use by pushing.

1. Motor brakes declutching:

— Switch the joystick off,

— Turn the button of the right motor clockwise and the button of the left motor anticlockwise.



2. Motor brakes clutching:

— Turn the button of the right motor anticlockwise and the button of the left motor clockwise.



IV. Other functions

1. Locking the wheelchair

To lock the system and prevent unauthorised use of your wheelchair, follow these instructions:

- When the system is running, select the on / off button and hold it,
- After 1 second, the system beeps, release the button on /off,
- Push the joystick forward until the system beeps,
- Push the joystick backward until the system beeps,
- Release the joystick, the system sounds a long beep.

The wheelchair is now locked.

2. Unlocking the wheelchair

- Switch on the system by pressing the on / off button,
- Push the joystick forward until the system beeps shortly,
- Push the joystick backward until the system beeps shortly,
- Release the joystick. The system sounds a long beep, the wheelchair is unlocked. The wheelchair can now function normally.

Care and maintenance











I. Diagnosis of the joystick in case of error detection

The electronic system can detect an abnormal condition related to the engines, the brakes, the wiring or the electronic module itself.

The error code is indicated by one or more LEDs rapidly blinking on the charge indicator.

For example, 4 LEDs lighting together indicates: problem on the right engine.

Depending on the severity, the system can authorise or prohibit being driven. In certain cases, driving will only be available at a reduced speed.

Display	Description	Meaning	Notes
	All the LEDs are off	System off	
	All the LEDs are on and fixed	System is on	Fewer LEDs lit indicate a low battery charge
	The red LED on the left flashes	The battery charge is low	Batteries must be charged as soon as possible.
	Two red lights flash	Left engine not connected well	Check the connection
	Three red lights flash	The left motor is short-circuited	Contact your distributor
	Four red lights flash	Right engine not connected well	Check the connection
	Five lights flash	Right motor is short-circuited	Contact your distributor
	Six lights flash	Blocking system for various reasons	Check that the charger is not connected. If this is not the case contact your dealer
	Seven lights flash	Joystick default	Make sure that the manipulator is in neutral position when starting
	Eight lights flash	System default	Check all connections
	Nine lights flash	The parking brakes aren't connected properly	Check the connection of brakes
	All lights flash	Excessive voltage on control system	Check the connection of batteries

Perform the necessary checks and contact your dealer if the problem persists.

II. **Cleaning the vehicle**

When cleaning the vehicle:

- Only use a damp cloth and a mild detergent.
- Do not use abrasive cleaning.
- Do not expose parts of the electronic system in direct contact with water.
- Do not use a pressure washer.

III. **Monthly checks**

- Side part and armrest:

- Check fasteners.
- Check that the armrests can be adjusted without undue effort.
- Check that the arms are locked in place.

- The leg rest:

- Check that the leg rest are located correctly.
- Check that they can be adjusted properly.

- The track:

The track wear varies significantly depending on the surfaces. Frequent use on aggressive surfaces such as concrete leads to premature wear.

- Tyres:

- Check that the tyre pressure is correct.

- Front forks/front wheels:

- Check that the wheels turn freely.
- Check the hold of the forks.

- Electronic/electrical systems:

- Control the condition and proper mounting and wiring connections.

- Mechanical:

- Check the tightening of the screws.
- Check the hold of the wheels on their axes
- Check that the rotation of the rear set is correct.
- Check that the rear wheels rotate without warping.

- Annual check:

Once a year, have your wheelchair checked by your dealer who will perform a full maintenance. Regular maintenance can quickly detect damaged or worn parts and enhance the normal functioning of the wheelchair.

IV. Repair a tyre

Tools

- Allen key for hexagon socket screws, 5 mm
- Torque wrench
- Repair kit for tire inner tube or a new tube.
- Talcum powder
- Lacquer block screws

Removing a wheel

- Replace the front and rear hindquarters to put the chair support on the tracks.
- Turn off the power (ON / OFF button)
- Unscrew the 5 bolts
- Remove the wheel from wheel hub



Reassemble a wheel

Assemble in reverse order. Ensure that the wheels are put back on the same sides as they were removed from.

- Tighten the bolts 30 Nm
- Tighten the screws with lacquer block screws.

WARNING: if a wheel isn't tightened enough when reassembled, it can come loose and could cause serious injury.

Repair a tyre

- Unscrew the valve cap,
- Release the air in the tire by pressing the pin in the valve,
- Unscrew the 5 screws on the back of the wheel,
- Remove the half of the rim of the shells,
- Remove the air chamber of the tire,
- Repair the tube and put it in place or put a new one (if the old inner tube has to be repaired and put back in place, and if it has become wet during repair, it is best for dusting),
- Slightly inflate the tube and replace the rim,
- Screw the rim,
- Control the position of the tyre,
- Inflate it to the prescribed pressure.

V. Replace batteries

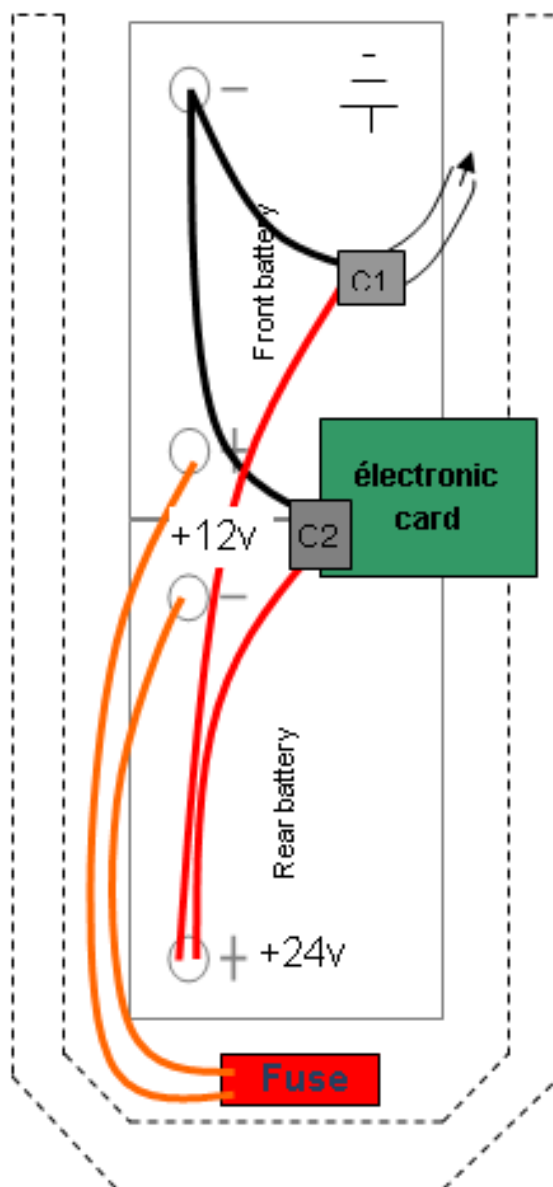


Fig 5a plan

Tools

- A pair of pliers
- 11 key

1. Remove batteries

- Remove the rear cover



(Figure 5b)

- Remove the fuse box cover and then the fuse



(Figure 5c)

- Disconnect connectors C1 and C2
- Remove the batteries



(Figure 5d)

- Unscrew the poles – (GND) and + (+24) of the batteries and the cables of the fuse (FUSE1 and FUSE2)

2. Reassemble the batteries

- Remove the cover (fig. 5b)
- Remove the fuse box cover and then the fuse (fig 5c)
- Screw the battery poles (fig. 5d and fig. 5a)
- Push the battery in the normal position
- Connect the connectors C1 and C2
- Replace the fuse and its cover
- Replace the rear cover

Warranty Certificate

The chair is guaranteed for a period of 2 years from the date of delivery, except batteries and wheels which are warranted for a period of 1 year (excluding the period of immobilisation for possible repair chair).

The warranty covers any defects in workmanship or quality raw material and components, under normal conditions of use (excluding normal wear parts).

The warranty is limited to the repair or the replacement for free only for the parts and the sub-assemblies found to be defective (parts, labour and transport), after inspection by an authorised representative.

Warranty repairs must be authorised and carried out in an authorised supplier. Do not return parts without obtaining prior authorisation.

This warranty does not apply to any failure of product due to:

- Accidental collisions or accidents
- Negligence
- Abnormal use,
- Improper maintenance
- Installation, use of parts without the manufacturer's authorisation
- Failure to operate and use the product in accordance with the instructions provided in the Owner's Manual supplied
- If the serial number has been removed, altered or defaced.
- Cold storage or batteries left completely discharged for an extended period.

Technical Specifications

Total length without footrests	98 cm / 38,5 inches
Overall length with footrest	115 cm / 45,2 inches
Total height standard seat	107 cm / 42,1 inches
Total height of Recaro seat option with headrest	128 cm / 50,4 inches
Width	69 cm / 27,2 inches
Empty weight TopChair-S standard seat	145 kg
Maximum user weight	110 kg
Standard seat	
. seat height	55 cm / 21,6 inches
. width	38 to 46 cm (15 to 18")
. depth	46 cm / 18 inches
. back height	47 cm / 18,5 inches
Recaro seat option	
. seat height	50-62 cm (19 to 24,5")
. depth	46-51 cm (18 to 20")
. seat height	77-83 cm (30,3 to 32,6")
Seating angle	-3° + 30° (*)
Diameter of rear wheels	35.5 cm (14")
Diameter of front wheels	20 cm (8")
Radius of gyration	85 cm / inches
Maximum speed on wheels	9.2 km/h
Maximum speed on tracks	0.7 km/h
Autonomy on the flat	35 to 48 km (**)
Wheels motors	2 x 350 w
Caterpillars engine	2 x 400 w
Battery capacity	60 Ah
Obstacle height, forward, in 'road' mode	3 cm / 1,8 inches
Obstacle height, backward, in 'route' mode	6 cm / 2,3 inches
Obstacle height, forward, in 'Automatic stair' or 'Manual track' mode	20 cm / 8 inches
Maximum slope in 'road' mode	6°
Maximum slope in 'Automatic stair' or 'Manual track' mode	33° (65 %)

* : The chair has an automatic stabilisation system that keeps the seat level. If the wheelchair is set into 'road' mode, the user can, for example, order a seat tilt forward for easy loading, transfer...

** : The range of an electric wheelchair depends on the state of battery charge, temperature, weight of the user, and the slope of the ground surface, the tire pressure...