TopCHAIR

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STAIRCASE CLIMBING ELECTRIC WHEELCHAIR

SURMOUNTS ALL OBSTACLES

LOGO SILVER
by AMYLIOR

CONTENTS

I. INTRODUCTION

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

This user's guide contains indications concerning the characteristics, use and safety conditions of your wheelchair. It is important to take note of the afore-mentioned before your first use of the wheelchair. If you have questions or if you are not certain that your wheelchair is in a state of optimal function, contact your dealer.

Every user has different needs, it is the exclusive responsibility of qualified medical personnel to decide if the model is appropriate for your particular case. We decline all responsibility where the wheelchair is not suitable to the specific needs of the user.

Some resetting and maintenance work requires specialised technical training and must be performed by your dealer or an approved agent.

We are not responsible for damages resulting from use contrary to that which is suggested in this user's guide, nor for poor maintenance or abnormal usage. Generally speaking, our responsibility is limited to the replacement of defective parts.

For all questions about this material please contact your distributeur first. If you wish to contact us directly, please find our contact details below :

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Pictogrammes and terms used as warnings :

DANGER !
Warning of possible physical harm or risk of death

WARNING !
Warning of possible damage to the aparatis

NOTE
Important information and tips

ENVIRONMENTAL INFORMATION
Information relative to the protection of the environment

II. SAFETY INSTRUCTIONS

There is a risk of accident, injury or damage in certain conditions. One should read the following conditions carefully.

- Do not use the chair under the influence of alcohol or medication which inhibits your driving ability
- If needed ask for help from a companion
- Do not sit in or get up from your chair without having turned off the electrical system in order to avoid involuntarily setting the chair in motion.
- While alighting from the chair, avoid placing both feet on the footrests. This risks tipping the chair forwards, particularly on sloped surfaces.
- Do not leave the engine brakes engaged while being pushed manually if the terrain is sloped.
- If you need to stop in an emergency, simply release the joystick, this will immediately stop the chair. Pushing the on/off button will stop the chair briskly and violently.
- Avoid loading the chair into a vehicle with it's driver still in the chair.
- If the chair must be loaded into a vehicle via a ramp with it's driver in place, an assistant must remain close in case of potential tipping. (while using a ramp, engage the manual tracks mode).
- Do not use the chair like a seat in a vehicle
- Use a seatbelt for the duration of every usage
- Do not lean forward, to the side or over the top of the chair, especially if the terrain is sloped.
- In order to transfer to another seat, bring the wheelchair as close as possible.
- Do not connect any electrical equipment to your chair, this operation should be carried out by your distributor.
- Maneuvering the chair with the rear wheels set in place must not be practiced on a sloped terrain. This may cause an uncontrolled and dangerous movement if the terrain is sloped and the front wheels do not realign.
- Do not change from road mode to automatic stairs mode if the terrain is sloped
- If the terrain is sloped you can use the manual tracks mode and manoeuver the wheeltrack, but it is imperative to raise the front wheel-set and only then the rear wheel-set.
- In case of doubt, ask a companion who is capable of holding the chair.

DANGER!
This chair has several moving parts driven by cylinders. Be careful that your entourage does not get hurt. Pay particular attention to small children whose fingers may be crushed by the wheel retraction and seat reclining systems.

DANGER!
Use the seatbelt for every usage

NOTE
All safety instructions contained in this notice and all other viably associated notices must be respected and applied.
This notice must be made permanently available to the user.

2.I. ELECTRO-MAGNETIC COMPATIBILITY

The electro-magnetic compatibility of this chair has been tested and conforms to international standards.
There is however, a risk of electro-magnetic system disruption while in proximity of powerful powerful electromagnetic rays.

It is necessary to take the following precautions:

- Avoid close proximity to powerful electromagnetic sources (radio, television, telephone)
- Verify that your mobile phone and other such devices have no affect. If in doubt, use only your mobile phone when the chair is off.
- If your chair moves of its own accord or the brakes begin to loosen, turn off the electromagnetic system immediately.
- Report any and all undesirable movements of your chair, including the loosening of brakes to your dealer.

NOTE
The addition of electrical accessories may significantly affect the electromagnetic compatibility.

2.2. SAFETY ADVICE FOR MOVING AROUND ON THE WHEELS

2.2.1. Avoiding the risk of tipping

- Do not attempt a terrain with a greater gradient than that of the maximum capacity (indicated in the technical characteristics chapter).
- Do not surpass the maximum load capacity of the chair (indicated in the technical characteristics chapter).
- Do not transport more than one person
- Never exceed an angle on the backrest of 20° while in motion.
- In cases of steep slopes, straighten the backrest.
- In cases of steep slopes, ensure that the automatic stabilizing device is functioning (LCD box is on and in road mode)
- In cases of steep slopes reduce speed. If necessary switch to manual tracks mode.
- In cases of steep slopes avoid violent braking, turning or acceleration.
- On a slope use a direct trajectory and do not attempt to turn back.
- If a sloped terrain presents a risk of skidding or slipping switch to manual tracks mode.
- Where possible address obstacles at a right angle. Mount the obstacle with both front and rear wheels simultaneously, without stopping mid-manoeuver.
- Avoid alighting your chair on a slope.

WARNING !
Never attempt to negotiate up or down a staircase in wheels mode, use instead the automatic stairs mode.
Never attempt to negotiate up or down a staircase in manual tracks mode, use instead the stairs mode.

WARNING !
Never descend a step or a footpath backwards..

2.2.2. Avoiding collisions

Reduce speed in busy or narrow passages such as doorways and corridors. Do not use the Topchair-S in lanes intended for automobiles. Exercise care when crossing the road.

2.2.3. Avoiding breaking down in difficult conditions

Do not journey without assistance into isolated areas or when atmospheric conditions are very poor.

2.3. SAFETY ADVICE FOR NAVIGATING STEPS

2.3.1. Avoiding risk of tipping

- Avoid descending stairs without having previously climbed them and without being sure that the height of the steps and the gradient are inferior to the limits specified in the technical characteristics chapter. In the case of doubt in regards to the gradient it is imperative to ask for the presence of a helper.
- Pay particular attention on outdoor staircases where the steps often have unequal heights.
- Never lean out of the seat.
- Begin descents and climbs at a very low speed.
- In the case of a lack of power while mounting an obstacle increase the speed where necessary.

Before each use, check the correct functioning of the automatic seat inclination system. When switching to automatic stair mode, verify that the front wheel-set retracts completely and that the system automatically corrects the position of the seat.

WARNING !
In the case of malfunction, immediately inform your dealer.

2.3.2. Avoiding risk of slipping

- Do not mount frozen steps
- Do not mount stairs with a slippery covering (carpets, rugs, linoleum).

- Do not mount steps when they are damp or slippery.
- Verify the strength of the step-nosing strips on stairs, they must be firmly fixed with a rigid fixation.

2.3.3. Using ‘automatic stairs’ mode

The ‘automatic stairs’ mode automatically takes charge of the wheel-sets and simplifies the user’s manipulations. However, this mode uses optical sensors. Do not use this mode when the sensors may provide incorrect information, particularly in the following cases :

- Glass steps
- Open staircases
- Steps covered with highly reflective material
- Uneven or decorated steps.

DANGER !
If you must traverse these conditions you will need to use the manual tracks mode and manually control the retraction and protraction of the wheel-sets. Follow scrupulously the paragraph pertaining to obstacle mounting in manual tracks mode.

III. DESCRIPTION OF THE TOPCHAIR-S

Fig. 1

*: The chair posseses an automatic stabilizing system which maintains a horizontal seat position. If the chair is in road mode, the user may, for example, incline the seat forward in order to facilitate loading and transferring.

**: The range of operations of an electric wheelchair depends on the charge of the batteries, the temperature, the weight of the user, the slope and surface of the terrain, the tyre pressure…

3.1. TECHNICAL CHARACTERISTICS

Accessibility	interior, exterior and staircases
Configuration	2 rear wheel drive and tracks
General dimensions	length: 980 mm without legrest
	width: 690 mm
	height: 1070 to 1280 mm
Seat height	from 500 to 630 mm
Seat width	from 430 to 500 mm
Seat depth	from 440 to 500 mm
Armrest height	from 50 mm to 250 mm
Backrest height	from 450 to 600 mm
Battery weight	21.5 kg each
Wheelchair weight	160 kg with batteries
Maximum user weight	110 kg
Speed	10 km / h
Braking distance	210 cm
Turning radius	85 cm
Turn-around width	210 cm
Static stability (on wheels)	9°
Dynamic stability (on wheels)	6°
Slope ability (on wheels)	6°
Maximum slope (on tracks)	33°
Obstacle capacity	from 3 to 6 cm (wheels) / 20 cm (tracks)
Autonomy	35 km
Motors	350W x 2 (wheels) / 400W x 2 (tracks)
Gel batteries	24V 60Ah x 2
Electronic	R-Net
Electric seat inclination	de -3° à +40°
Electric backrest and legrest inclination	optional
Battery charging	by joystick
Front wheels	220 mm
Rear wheels	350 mm
Suspension	front wheel shock-absorbers

3.2. ELECTRIC/ELECTRONIC SYSTEM

3.2.1. Protection of the electric/electronic system

The electronic command system of the chair is equipped with a current control device in order to avoid a deterioration of circuits in the case of a surcharge.

While the motors are subject to significant efforts over prolonged periods, the power provided by the device is progressively reduced to avoid overheating. This reduction of power may continue to the point of completely stopping the chair. This phenomenon happens more rapidly in hotter atmospheric conditions. It may, in such cases, require several minutes to regain maximum power.

When the path is blocked by an impassable obstacle and the user insists, forcing the motor to stall for more than 20 seconds, the electronic system automatically cuts the power.

3.2.2. Fuse

As well as the protection described in the previous paragraph the wheelchair's entire electronic system is protected against overload by a fuse situated between the two batteries. The fuse should not blow during normal use. However, this may happen in cases of weak batteries and/or excessive loads.

Only replace the fuse after a complete verification of the entire electronic system (paragraph V Replacing the batteries).

3.2.3. Batteries

The chair is powered by two 12V batteries. The batteries contain an electrolyte gel. The batteries are sealed, present no risk of seepage and require no maintenance.
They were designed to be uncharged for a long time, this is not the case for automobile batteries which thusly cannot replace them.

Before the first use it is necessary to completely charge the new batteries. They will attain a 90% charge. The new batteries will only attain full power after approximately 10 charges.

The speed of battery discharge depends on a number of parameters : gradient and condition of the terrain, temperature, tyre pressure, weight of the driver, driving mode etc.
The gel batteries are not considered to be a dangerous product and may be transported by road, ferry or plane.

It is recommended to charge the chair every day. Recharge the chair even if the batteries have not lost their whole charge, it has no ill effect on the longevity of the batteries.

In the case of a complete discharge, the recharge can take up to 10 hours.

If you don't use your chair for a prolonged period, it is recommended to recharge the batteries once a month (in this scenario it would be useful to put the chair on it's tracks while moving the front wheels back and forward to avoid tyre deformation).

WARNING !
Avoid placing the charger close to a source of heat (like a heater or direct exposure to the sun)

Do not move completely or nearly completely discharged batteries as this will reduce their longevity

Do not leave the batteries completely discharged for several days as this will reduce their longevity

Do not perform long charges (usage when only 2 red lights remain) as this will diminish their longevity

Do not store the wheelchair in extreme heat or cold as this may diminish its longevity (risk of freezing)

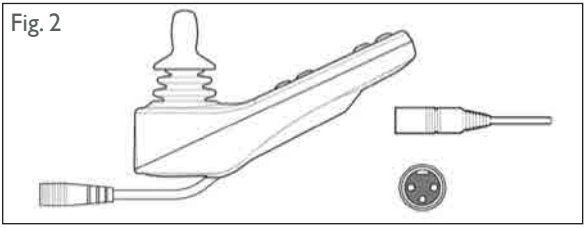
Charging the batteries

Use only the charger provided with your chair or a charger recommended by your dealer.
Respect the recommendations of the charger manufacturer.
Do not charge the batteries while seated in the chair.

WARNING !
Avoiding risks of electrocution.
Protect the charger from moisture.
Do not use the charger if it falls on the ground or is damaged.
Only use extension cables in good condition.

Charging the batteries:

Fig. 2



- Turn off the chair by pushing the on/off button on the joystick
- Connect the charger to the joystick first, the charging socket is on it's bottom side (fig.2)
- Plug in the charger then turn it on.
- The chair's power control is inhibited when the charger is connected.
- Once charging is completed, unplug from the mains first and then the joystick.

3.3. CONTROLS AND OPERATION

The Topchair-S is equipped with an auxiliary LCD box (fig.3)

It performs three modes of operation:

- Road mode: Wheel propulsion, standard wheelchair mode
- Automatic stairs mode: The chair automatically configures to mount obstacles (staircases, steps, footpaths)
- Manual tracks mode: propulsion on tracks (operation reserved for advanced users)

Fig. 3

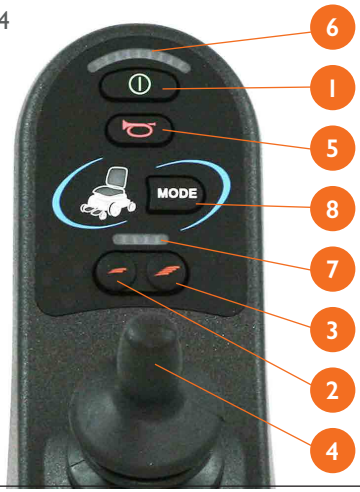
The joystick controls the Topchair's movements with the option of certain special functions (electric footrest, reclining backrest, eco-mode).

The auxiliary LCD box controls the Topchair's special functions:

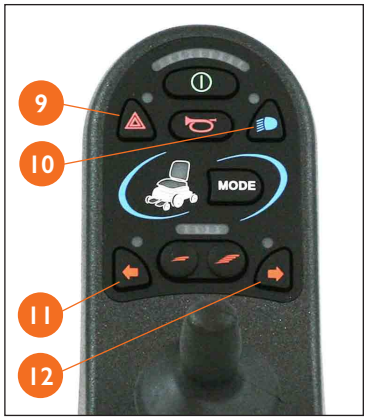
- Control of the stairs mode
- Control of the rear wheel movements
- Control of the front wheel movements
- Control of reclining the seat
- Control of the headlights (if the option is installed)

3.3.1. Joystick operation

Fig. 4



Joystick with lighting kit option



To turn on the joystick press the on/off button (1).

It is not necessary to turn on the auxiliary LCD box to use the Topchair-S in road mode (standard wheelchair).
The lights on the charge indicator must all be lit, confirming that the batteries are completely charged.
You can adjust your speed by pushing the buttons (2) to slow down or (3) to speed up.
The electronic control of your chair is programmable.

The behaviour of your chair may be modified and adjusted. Your dealer will regulate these settings according to your requirements and wishes.

A. Joystick manoeuvering

The joystick (4) allows you to control the speed (within the range defined by the speed buttons) and the direction of the chair. The further forward you push it, the more you increase the speed.

To reverse, pull it backwards, move the joystick left or right to steer. If you push the joystick completely to the right or left the chair will turn in it's tightest possible turning circle. Your chair has the option of being equipped with a reversing camera and screen.

To slow down guide the joystick towards the central, neutral position. To stop, release the joystick. It automatically comes back to a central position and the chair stops. If there is a problem press the on/off button (1).

When stopped while using the wheels, the chair is blocked by the electromagnetic brakes, even on a slope where the authorised gradient limit has not been surpassed (paragraph VII technical characteristics), the backrest is at an angle of less than 20° relative to the vertical, and the seating angle is as horizontal as possible.

The electromagnetic brakes are released manually, which is useful when the chair is being pushed by a third party (paragraph III manual release).

It is possible to programme the system to render the speed buttons unoperational, or the user can regulate the maximum speed to suit the environment by pushing the speed control buttons. The current speed is displayed on the speedometer (7).

B. Speeds

Select the fastest speed mode (3) to increase the maximum speed. The largest value is attained when the 5 indicator lights are illuminated (7).

Select the slowest speed mode (2) to decrease the maximum speed. The lowest possible value is attained when only one light is lit on the indicator. (7).

C. Horn

Push the button (5) to sound the horn.

D. Charge light

The charge light (6) is the principal source of user information.
Consult the graph on page 16.
Do not wait for the red lights to charge your chair.

E. Special functions

If the chair is equipped with special functions (electric headrest and footrest controls), the 'mode' button (8) gives access to these functions.

F. Joystick with lighting kit option

Button 9 : hazard lights
Button 10 : headlights and tail-lights
Button 11 : Left indicator
Button 12 : Right indicator

Display	Definition
Lights off	System off
Lights fixed on	System on Full charge if all lights are lit. Less lights indicate a reduced charge.
Lights blinking slowly	Weak batteries. The batteries must be charged as soon as possible.
Lights blinking very slowly	System on stand-by. The system switches to stand-by after a determinable time. To restart the system, press the on button twice.
One or more lights blinking rapidly	Error detection. See the diagnostic paragraph for the joystick in the case of error detection and contact your dealer if necessary.

3.3.2. Operation of the auxiliary LCD box

Fig. 5

The LCD box is composed of a screen (4), three buttons (1), (2), (3) and an on/off switch (5).

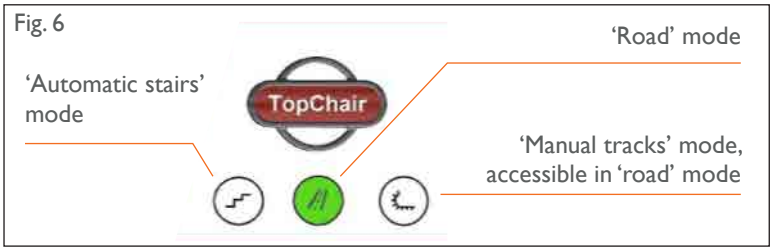
To turn on the LCD screen use the on/off switch (5).

The button (1) scans to the right of the screen.
The button (3) scans to the left of the screen
The button (2) selects the active zone.

A. Modes of use

Upon starting the LCD box, 3 modes of use appear.

Fig. 6



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

B. On-screen navigation function

The on-screen navigation function works on the active zones principle.

No zone selected:

Active zone selected:

'Automatic stairs' mode selected:

C. ‘Road’ mode

In road mode it is possible to select the modes:

- Manual tracks (see III-2-e)
- Automatic stairs (see III-2-d)

Also, to act upon:

- The movements of the seat (see III-2-h).
- The front wheel movements (see III-2-f).
- The rear wheel movements (see III-2-g).
- The volume settings (see III-2-j).

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

The representation of the chair changes according to the status of the wheels.

In this mode of operation the wheels are motorized and the seat remains in the automatically set position.

D. ‘Automatic stairs’ mode

This mode allows the safe mounting of obstacles and automates seat and wheel movements. The operational details are provided in paragraph I : Mounting in automatic stairs mode.

In ‘automatic stairs’ mode, it is not possible to change mode, or to control the wheels or the seat position.

You can only manipulate the volume control (see III-2-j)

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

E. ‘Manual tracks’ mode

In order to facilitate understanding of manual tracks mode, the chair is represented with retracted wheels (which is not the case in reality).
In this mode the tracks are motorized.

It is possible to select the mode:

- Road (see II-2-c).

And to manipulate :

- The front wheel movements (see II-2-f).
- The rear wheel movements (see II-2-g).
- The volume control (see II-2-j).

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

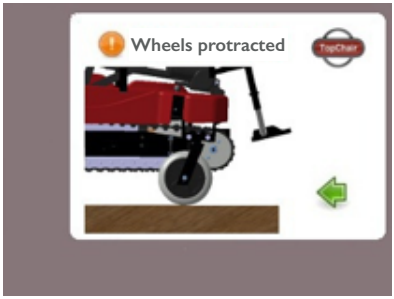
DANGER !
In this mode the retraction and protraction of the front and rear wheels are controlled by the user. A poor manipulation risks tipping while mounting an obstacle. Using this mode to travel across the ground may dislodge the tracks . Always verify the position of all the tracks after a ground manoeuver.

F. Front wheel movements

- In order to retract or protract use the front wheels mode (button(2))

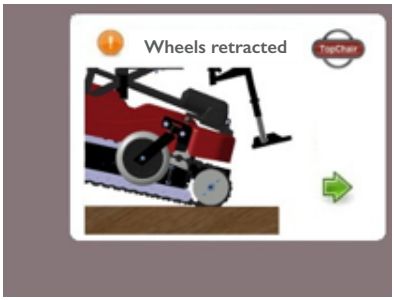
Front wheel mode selected:

• To protract the front wheels press the (3) button.
A repetitive animation displays the movement of the wheels.
Once the wheels are completely protracted, this message appears:



DANGER !
Before retracting the front wheels, insure that you are in track mode and that the rear wheels are protracted. The non-compliance of this directive, in certain conditions, results in the rear wheels not fully protracting.

• To retract the front wheels, press the button (1).
A repetitive animation displays the movement of the wheels.
Once the wheels are completely retracted, this message appears:



• To exit front wheel mode press the (2) button.

G. Rear wheel movements

- To retract or protract the rear wheels, select the rear wheel mode (2):

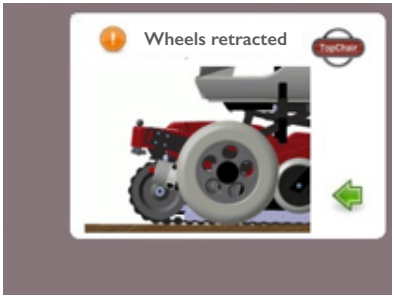
Rear wheel mode selected:

- To protract the rear wheels press the button (3).

A repetitive animation displays the movement of the wheels.
Once the wheels are completely protracted, this message appears:

- To retract the rear wheels press the button (1).

A repetitive animation displays the movement of the wheels.
Once the wheels are completely retracted, this message appears:



DANGER !
Before protracting the rear wheels insure that you are in track mode with the front wheels retracted. The non-compliance of this directive, in certain conditions, results in the rear wheels not fully protracting.

- To exit rear wheel mode push the (2) button

H. Seat movements

- To incline or recline the seat, select (button(2)) the seat mode:

Seat mode selected:

- To recline the seat press the (3) button.

A repetitive animation displays the movement of the seat.

Once the seat is completed reclined, this appears:

- To incline the seat press the (1) button.

A repetitive animation displays the movement of the seat.

Once the seat is completed inclined, this appears:

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

I. Volume control

The Topchair-S integrates an audible warning system to warn the user during certain phases.
It is possible to mute this warning system.
To control the sound, select the sound mode (button(2)).

Warning system activated:

Warning system deactivated:

J. Configuration mode

This mode is reserved for after-sales service and is code-protected.

Configuration mode:

- To exit, select the exit door and push the (2) button

Exit selected:

IV. USE OF TOPCHAIR-S

4.1. OBSTACLE MOUNTING IN 'AUTOMATIC STAIRCASE' MODE

To surpass every-day obstacles (eg: footpath >5cm) or a staircase, the steps to follow are identical. Turn on the LCD screen using the on:off switch (5/fig.5).

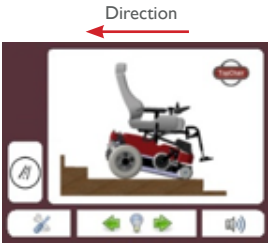
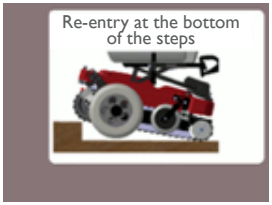
The maximum authorised gear is :

- 1 to 2 during transition phases (entrance and exit of staircases)
- 1 to 2 while descending an obstacle
- 1 to 3 while mounting an obstacle.

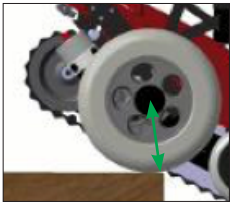
Always begin with the lowest authorised gear and increase if necessary.

WARNING !
Take into account the recommendations in paragraph III.3 and in particular the limitations due to the use of infrared sensors and types of step noses.

4.1.1. Climbing in 'automatic staircase' mode

<table>
<tr><td>  </td><td>• Position yourself at the bottom of the stairs and reverse up to the point of contact with the first step.</td></tr>
<tr><td> 
</td><td>• Switch to second gear (or third if the chair needs more power).
• Select the automatic stairs mode (see III-2-d) which has the effect of raising the front wheel-set and transferring the traction to the tracks.</td></tr>
<tr><td colspan="2">• Reverse until the tracks are touching the first step.</td></tr>
<tr><td> 
</td><td>• When the system detects the first step nose, it stops the movement of the tracks, beeps, and controls the retraction of the rear wheel-set. Wait and leave the joystick in a neutral position, the end of the operation is signalled by a beep.</td></tr>
<tr><td>  </td><td>• Start climbing slowly backwards using the joystick.
It is necessary to drive particularly slowly on the first two steps so that the seat may maintain it's horizontal position.</td></tr>
<tr><td colspan="2">• If the chair experiences difficulty ascending, increase speed gradually.</td></tr>
</table>

- When you arrive at the top of the stairs the system stops and beeps
- Make sure that you have arrived at the top of the stairs and wheel protraction can be performed without danger.



- The correct position corresponds with the alignment of the rear wheel with the nose of the last step.
- If the chair is in this position you may authorise the system to perform the operation by selecting 'Yes'.

WARNING !
Exceptionally, if you are not on the upper landing (incorrect position), select 'No'. The rear wheel protraction will be performed when necessary by selecting the rear wheels mode (see paragraph II obstacle clearance in tracks mode)

- An animation shows the rear wheels protracting
- Reverse

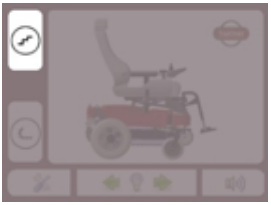
WARNING !
For staircases where the gradient is inferior or equal to 31°, the protraction of the rear wheels completely avoids rocking the chair on arrival at the upper landing. But for a staircase with a steeper gradient you will feel a tipping back of a few degrees. It is recommended to use the ramp of the stairs where possible.

- When the chair has completely reached the upper landing, reverse at least 30 cms from the edge, then select the road mode, which will lower the front wheels and pass the traction to the rear wheels.

NOTE

For security reasons the system forbids the mounting a bias beyond an acceptable angle and attempts to automatically correct the alignment faults. In some cases the propulsion is stopped and it is necessary to perform a short descent in order to regain the axis and recommence the climb.

4.1.2. Descent of an obstacle in 'automatic stairs' mode



- Position yourself in a forwards direction near the staircase and ion the axis.
- Select first gear.
- Select automatic stairs mode, which retracts the front wheel-set and passes the traction to the tracks.
- Descend slowly, moving forwards, using the joystick.

- When the tracks press on the step nose, the system stops the movement, beeps, and automatically performs the retraction of the rear wheel-set.
- An animation shows the rear wheel protraction process.
- Wait, leaving the joystick in a neutral position, a beep signals the end of the operation.

- Continue the descent using the joystick, increase the speed if necessary.
- Reduce speed when you arrive at the bottom of the staircase

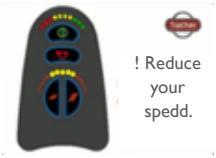
- When the tracks rest on the last step nose and the lower landing, the system stops the movement, beeps, and automatically descends the rear wheel-set.
- Wait, leaving the joystick in a neutral position, a beep signals the end of the operation.

- Advance a few centimetres to clear the staircase.
- Select road mode, which protracts the front wheels and transfers the traction to the rear wheels.

NOTE

For security reasons the system forbids the mounting a bias beyond an acceptable angle and attempts to automatically correct the alignment faults.

4.1.3. Warning message in ‘automatic stairs’ mode

MESSAGE	CAUSES	SOLUTIONS
 ! You are not straight. Realign yourself with the stairs.	• The chair is not aligned with the axis of the stairs.	• Correct the trajectory of the chair to attain the axis.
	• The angle of the obstacle surpasses the authorised limit.	• Abandon the obstacle • Non-compliant staircase
! Release the joystick 	• The joystick is being used during a transition phase (eg. retraction, protraction of the wheels).	• Release the joystick until the end of the operation.
 ! Reduce your spedd.	• The selected speed is too fast.	• Reduce your speed.

4.2. MOUNTING AN OBSTACLE IN 'MANUAL TRACKS' MODE

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

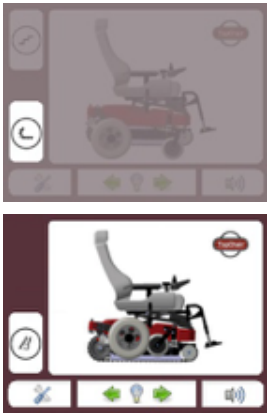
The maximum authorised gear is :

- 1 or 2 In transition phases (entry and exit of staircases)
- 1 or 2 while descending the obstacle
- 1 to 3 climbing the obstacle

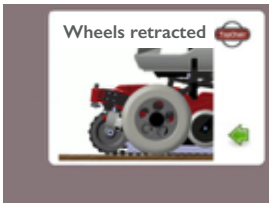
Always begin with the lowest gear authorised and increase if necessary.

WARNING !
Take into account the recommendations in paragraph III.3 and in particular the limitations due to the use of infrared sensors and types of step noses.

4.2.1. Mounting an obstacle in 'manual tracks' mode



- Posiciónese al pie de la escalera en marcha atrás, hasta tener contacto con el primer peldaño.
- Póngase en velocidad 1 o 2
- Seleccione el modo «orugas manual»

	• Select the front wheel movement mode.
 	• Completely retract the front wheel-set. • Reverse until the tracks are pushing on the first step.
	• Select the rear wheel movement mode.
 	• Completely retract the rear wheel-set. • Begin slowly to climb up backwards using the joystick, driving particularly slowly for the first two steps so that the seat cylinder has time to adjust horizontally • When you arrive at the top of the stairs, stop before the tipping-point. It is recommended to hold the stair bannister where possible. • Insure that you are on the upper landing and that the rear wheel protraction can safely take place.

WARNING !
If you pass the tipping- point without protracting the rear wheel-set the chair will suddenly rock backwards. It is absolutely necessary for inexperienced users to ask for help from a third party to determine the tipping-point and to cushion any rocking.

- Then, select the rear wheel movement mode.

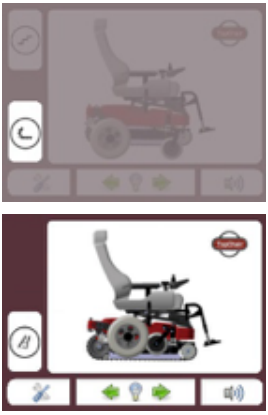
- Completely protract the rear wheel-set.

- Reverse at least 30 cms from the stairs onto the upper landing.
- Select the front wheel movement mode.

- Completely protract the front wheel-set.

	• Select ‘road’ mode

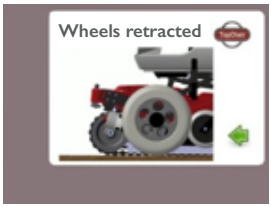
4.2.2. Descending an obstacle in ‘manual tracks’ mode

	• Position yourself close to the staircase, moving forwards into the axis. • Select first gear • Select ‘manual tracks’ mode
	• Select front wheel movement mode and completely retract the front wheel-set.

- Start the descent very slowly forwards by using the joystick.
- Stop when the tracks are resting on the first step nose and you have passed the tipping-point.

WARNING !
It is forbidden to descend stairs with the rear wheels protracted, this risks serious injury. Inexperienced users are obliged to ask for help from a third party to determine the tipping-point and to cushion any rocking. It is recommended to hold the banister where possible.

- Select the rear wheel mode and retract the rear wheel-set completely.



- Continue the descent using the joystick.
- Slow down on arrival at the bottom of the staircase.
- Stop when the tracks are resting on the last step nose and the lower landing.

	• Select the rear wheel movement mode and completely protract the rear wheel-set.
 	• Move forward a few centimetres to disengage from the stairs.
  	• Select the front wheel movement mode and completely protract the front wheel-set.

- Select 'road' mode which will now transfer the traction to the rear wheels.

4.3. MANUAL MANOEUVERING

The wheelchair's motors are equipped with magnetic brakes which prevent the chair rolling on its own when you are stopped. The engine brakes are automatically engaged when the joystick is in a neutral position.
To push the wheelchair, disengage the magnetic brakes, a lever for which is found at the rear of the main wheel engine.

NOTE
In the disengaged state, the engine brakes are off. You must therefore be careful that the chair does not move in an uncontrolled fashion if the terrain is sloped.
Always remember to return the release levers to 'in function' after being pushed.

4.3.1. Disengaging the engine brakes:

- Put the joystick in a neutral position and stop.
- Turn the right engine knob clockwise and the left engine knob anti-clockwise.

4.3.2. Engaging the engine brakes:

	• Put the joystick in a neutral position and stop. • Turn the left engine knob clockwise and the right engine knob anti-clockwise.

4.4. OTHER FUNCTIONS

4.4.1. Locking the wheelchair

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

- While the system is on push and hold the on/off button.
- After one second the system beeps and you can release the button
- Push the joystick forwards until the system beeps.
- Push the joystick backwards until the system beeps again.
- Release the joystick, the system emits a long beep.
- The wheelchair is now locked

4.4.2. Unlocking the wheelchair

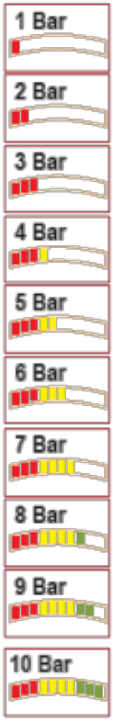
- Start the system by pushing the on/off button.
- Push the joystick forwards until the system emits a short beep.
- Push the joystick backwards until the system emits a short beep.
- Release the joystick. The system emits a long beep. The chair is unlocked and can now function normally.

V. CARE AND MAINTENANCE

5.I. DIAGNOSIS OF THE JOYSTICK IN THE CASE OF ERROR DETECTION

The electronic system is able to detect an abnormal condition concerning the motors, brakes, wiring, or the electronic module itself. The error is indicated by the rapid flashing of one or more of the charge indicator LEDs. For example: 4 simultaneously flashing LEDs indicate a problem with the right engine. The system will allow or inhibit driving depending on the severity of the problem. In some cases driving is only possible at a reduced speed.

Make the necessary verifications and contact your dealer/distributor if the problem persists.



Indication lights	Description	Notes
All off	System off	
All lit, solid light	System on	Less lights indicate a reduced battery charge.
1 blinking red light	Weak battery charge	The batteries need to be charged rapidly.
2 blinking red lights	Left motor poorly connected	Verify the connection.
3 blinking red lights	Short circuit in the left motor	Contact your dealer.
4 blinking lights	Right motor poorly connected	Verify the connection.
5 blinking lights	Short circuit in the right motor	Contact your dealer.
6 blinking lights	System blockage for various reasons	Verify that the charger is not connected. If is not connected, contact your dealer.
7 blinking lights	Joystick fault.	Insure that the joystick is in a neutral position at start-up.
8 blinking lights	System fault.	Verify all connections.
9 blinking lights	Parking brakes poorly connected	Verify the brake connections.
All lights blinking	Voltage too high for the command system.	Verify the connection of the batteries.

5.2. CLEANING THE VEHICLE

When cleaning the vehicle:

- Only use a damp cloth and a mild cleaning agent.
- Do not use abrasives for cleaning.
- Do not expose the parts of the electronic system to water.
- Do not use a high pressure cleaner.

5.3. MONTHLY VERIFICATIONS

Sides and armrests	• Verify the fixations. • Verify that the armrests can be adjusted without excessive effort. • Verify that the armrests are blocked in place.
Legrests	• Verify that the legrests snap into place correctly. • Verify that it is possible to make adjustments.
The tracks	The wear of the tracks varies significantly depending on the terrain. Frequent use on aggressive surfaces such as rough concrete leads to premature wear.
The tyres	Verify that the tyre pressure is correct.
Front forks and wheels	• Verify that the front wheels turn freely. • Verify that the front forks are stable.
Electronic and electric systems	Verify the condition and the correct fixing of the wiring and connections.
Mechanical	• Verify the tightness of the screws. • Verify that the wheels are correctly fixed on their axel. • Verify that the rotation of the rear axel is correct. • Verify that the rear wheels turn without drifting.

5.4. ANNUAL TESTING

Once a year, have your wheelchair checked by your dealer for full maintenance. Regular maintenance makes it possible to quickly detect damaged or worn parts and thus promote the normal operation of the wheelchair.

5.5. REPAIRING A TYRE

Tools

- 5mm allen key
- Torque wrench
- Tyre repair kit with inner tube or a new inner tube
- Talcum powder
- Concrete screws

Wheel disassembly

- Retract the front and rear wheel-sets to put the chair on the tracks.
- Turn off the power (press on/off).
- Unscrew the 5 fixation screws.
- Remove the wheel from the wheel-hub.

Wheel reassembly

The assembly is performed in the opposite order. Ensure that the wheel is raised from the same side and in the same direction as the disassembly.

- Tighten the screws to 30 Nm
- Seal the screws with the anaerobic glue.

WARNING !
If a wheel is not sufficiently tightened during assembly, it may detach while in use and cause injury.

Repairing a tyre

- Unscrew the valve cap.
- Let out the air by pushing the spring-rod in the valve.
- Unscrew the 5 screws on the back of the wheel.
- Remove the rim halves from their envelope.
- Remove the inner tube from the tyre.

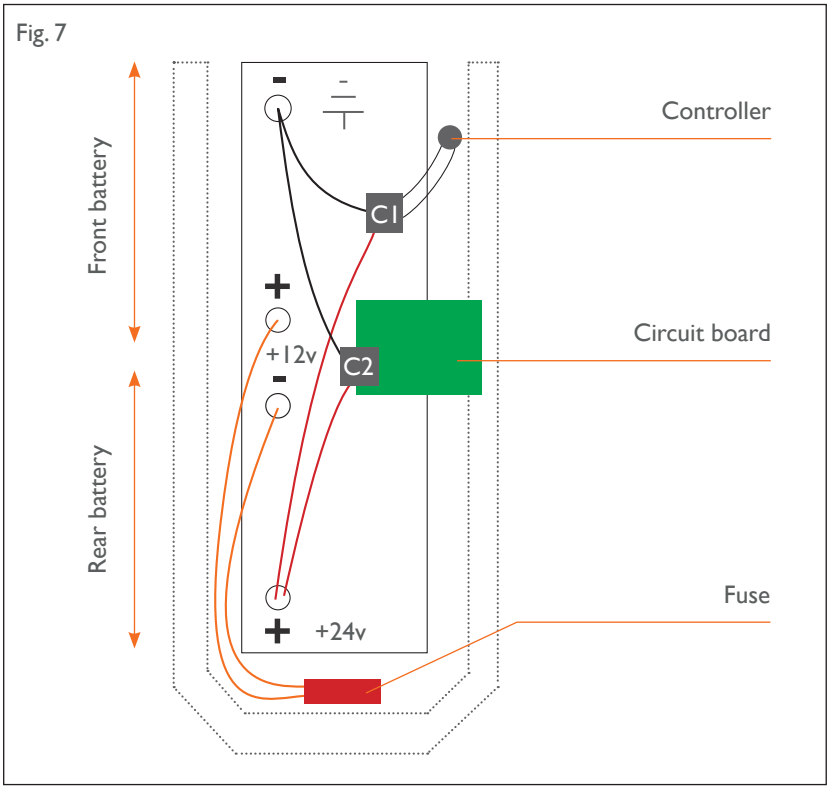
- Repair or replace the inner tube and reinstall (when reinstalling a repaired inner tube, it is preferable to add talcum powder on wet parts of the inner tube).
- Partially inflate the inner tube and reinstall in the rim.
- Screw on the rim
- Control the envelope position
- Pump up the tyre to the prescribed air pressure.

5.6. REPLACING THE BATTERIES

Tools

- A pair of pliers
- 11mm wrench.

Fig. 7



5.6.1. REMOVING THE BATTERIES

	• Remove the rear cover.
	• Remove the fuse cover and the fuse.
	• Disconnect the C1 and C2 cables. • Remove the batteries. • Unscrew the - (GND) and the + (+24) battery poles and the fuse cables. (FUSE1 and FUSE2).

5.6.2.REINSTALLING THE BATTERIES

- Remove the rear cover.
- Remove the fuse cover and the fuse.
- (Re)tighten the battery poles.
- (Re)connect the C1 and C2 cables.
- Replace the fuse and it's cover.

VI. GUARANTEE

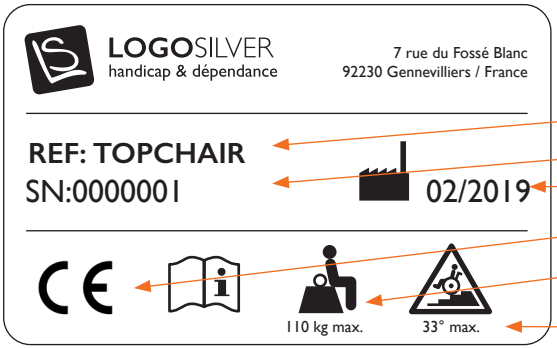
The wheelchair is guaranteed for 2 years from the date of delivery, excluding corrosion, normal wear of parts (tyres etc.), abnormal use, usage which does not comply with the instructions of use. The batteries are guaranteed for 1 year.

- The guarantee covers all screws and the quality of materials used and the components under normal conditions of use (parts, labour and shipping) after inspection by an approved agent.
- The repairs under guarantee must be authorised by an approved agent. Do not return parts without having previously obtained an authorisation.

Not guaranteed

- Accidents or impacts
- Negligence
- Abnormal use
- Inappropriate maintenance
- Modifications performed without manufacturer's consent
- Usage not conforming to the instructions of the user's guide supplied with the product or not corresponding to the specifications of the product.
- Removal or destruction of the serial number
- Cold storage or batteries left completely discharged for a long period of time.

Warning signs and signals



- Reference
- Serial number
- Date of manufacture
- CE mark
- Maximum user weight
- Maximum slope/ gradient

VII. DISCARDING

ENVIRONMENTAL NOTE
To discard the TOPCHAIR, eliminate all components and materials in an environmentally friendly manner and in accordance with waste sorting requirements.

- Respect the provisions and requirements in force in your country for the protection of the environment.
- Used batteries are recovered by your dealer or by the Logo Silver society.
- The Topchair may be returned to Logo Silver to be recycled.

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