Light HAR,





ULTRA-LIGHT, EFFICIENT AND PRACTICAL WITH COMPACT FOLDING



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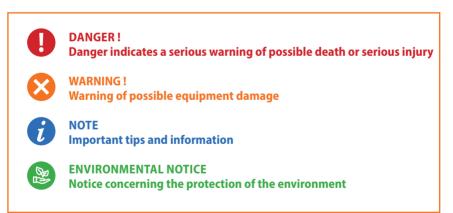
INTRODUCTION TO LIGHTCHAIR

ABOUT THIS MANUAL

This manual provides the user as well as the accompanying persons with all the knowledge required for the construction and maintenance of the LIGHTCHAIR. The manual also contains all the information required to use this electric wheelchair safely and gives indications on how to find the cause of possible malfunctions and how to eliminate them.

It is essential to have read the contents of this user manual in order to use the LIGHTCHAIR safely. Before use, the user and those accompanying should read this manual carefully, particularly the chapter regarding safety. This permits the guarantee of full performance of the LIGHTCHAIR. This user manual was developed based on the standard NF EN 62079 <<Notice design - structure, content and presentation>>. It consists of 11 chapters.

Pictograms and warning terms:



USE IN ACCORDANCE WITH INSTRUCTIONS

- The LIGHTCHAIR is intended for the individual use of a person with total or partial motor disability of the lower limbs, allowing for their autonomous movement inside their home or outside on smooth ground. Do not use the LIGHTCHAIR in the rain or on surfaces with obstacles such as mud, snow, grass, stones and pebbles.
- The LIGHTCHAIR may only be used in accordance with the information given in this manual and vice versa. The Logo Silver company, manufacturer of the LIGHTCHAIR, is not liable in instances of the use of medical devices and/or accessories not included in the list of options, or of those that come from other

manufacturers.

- All use other than mentioned is considered non-compliant. Liability for personal injury or damage to property resulting from improper use rests solely with the user and not the manufacturer.
- Only duly informed people may use the LIGHTCHAIR. Being duly informed of the correct use of the LIGHTCHAIR is one of the primary conditions permitting safe use of the LIGHTCHAIR, and protecting against personal harm.

LIABILITY

The manufacturer is only liable if the LIGHTCHAIR has been operated and maintained in compliance with the instruction manual. The manufacturer expressly states that only parts authorised by the manufacturer may be used. Logo Silver refuses liability for damages arising from the use of unauthorised charging equipment and damage resulting from use not conforming with the instructions. This warranty is subject to French civil and commercial law.

INDICATIONS REGARDING THE REUSE OF THIS PRODUCT

The LIGHTCHAIR has been designed to be reused.

Just like used machines or vehicles, reused products are subject to particular constraints. The modification of characteristics and performance must not compromise the safety of any individual during the lifetime of the product.

Due to market observations and the technical aspects of the product, the manufacturer has evaluated that the lifetime of the LIGHTCHAIR is between 6 and 7 years, provided it is used in accordance with the instructions and that the indications for maintenance and upkeep are respected. This does not include time spent in storage with the manufacturer or the distributor.

It should be specified that if the LIGHTCHAIR is maintained in accordance with the instructions, it remains reliable beyond the period defined above.

In order to be reused, the LIGHTCHAIR must first be thoroughly cleaned. The condition, wear and any damage to the LIGHTCHAIR must then be checked by an authorised specialist. All worn or damaged parts as well as components that are not suitable for the new user must be replaced.

The user manual contains a schedule of maintenance operations to be carried out for each model as well as detailed information and a list of necessary tools.

SERVICING

The maintenance and repair of the LIGHTCHAIR must be carried out exclusively by qualified personnel approved by Logo Silver. In case of problems, please contact the specialist distributor who took care of the sale.

If you have any questions or you cannot resolve the issue with the help of the user manual, please contact Logo Silver customer care (address on the back of the manual). Logo Silver strives to help its customers at every level so that they may enjoy their LIGHTCHAIR for a long time to come.

SECURITY

STANDARDS AND GUIDELINES

All the information regarding safety contained in this manual relates to current French legislation in force and to the provisions of the European Union. In other countries, the law and all corresponding regulations must be respected.

The LIGHTCHAIR has been manufactured in accordance with the current technical rules in force for safe operation. The safety of the LIGHTCHAIR is certified by the CE marking and the declaration of conformity.

DECLARATION OF CONFORMITY

As the manufacturer, LOGOSILVER declares, under it's own responsibility that the LIGHTCHAIR meets specifications 93/42 and 2007/47 of the European directives for medical devices.

The design, development and manufacture of the LIGHTCHAIR is fully compliant with

- Risk analysis and management according to standards NF EN ISO 14971
- Design Requirements NF EN 12181 and NF EN 12184.
- Dynamic stability, static stability, fatigue resistance test.
- Product Information : NF EN 12182 and NF EN 12 184.
- Promotional material, use and maintenance manual, labelling, determination of energy consumption, determination of speed, acceleration and deceleration, ability to climb the maximum safe gradient, ability to climb obstacles.
- Compliance with the NF EN 12184 standard means, amongst other conditions, that the values required for inclination, obstacle clearance and speed are reached or exceeded by the LIGHTCHAIR.

GENERAL SAFETY INSTRUCTIONS

The LIGHTCHAIR may only be used in accordance with the instructions.

Only those duly informed and authorised may use the LIGHTCHAIR. Only one person at a time can use the LIGHTCHAIR. Other safety elements such as the belt and safety vest can be ordered as accessories from Logo Silver.

All safety instructions contained in this user manual and in all the associated documents must be respected and applied. This manual should be available to the user at all times.

The back cover and cushion are not easily flammable however they could potentially catch fire. Extreme caution must be excercised with fire or a lit cigarette.

Caution must also be excercised when crossing obstacles while driving uphill or downhill.

Power level changes must be made while stationary. Make sure the joystick is well fixed and straight. Ensure that the levers of the motors are unlocked and in the <<electric>> position. Only the manufacturer's original features can be used. Any optional components must be assembled exclusively as indicated below. Failure to comply with this recommendation will result in cancelation of the warranty.

After removing any screws, nuts and special washers; replace them if they are damaged and tighten them firmly.

SAFETY REQUIREMENTS FOR TRANSPORTATION, STORAGE AND ASSEMBLY

As the LIGHTCHAIR is designed to be folded; it must be in this position in order to be safely transported. Optionally, it can also be carried in a transport suitcase sold by Logo Silver. The LIGHTCHAIR must only be lifted by the frame.

During transport, the electrical part of the LIGHTCHAIR must be switched off via the <<On/Off>> button.

It is forbidden to travel while sitting in the

LIGHTCHAIR during transport.

To guarantee the lifespan of the LIGHTCHAIR, it must be stored in a safe place.

After each adjustment or change of settings made to the LIGHTCHAIR, the nuts and screws must be firmly fixed.

OPERATIONAL AND SAFETY REQUIREMENTS

Before each use, the user must ensure that the LIGHTCHAIR is in a safe condition and complies with all instructions, including the safety functions.

The operational and safety status of the LIGHTCHAIR must be checked at least once a year by an approved specialist.

In the event of errors, faults or other dangers which may cause injury, the LIGHTCHAIR must be taken out of service immediately.

The LIGHTCHAIR can only function in temperatures of between -10°C and +35°C.When operating, the LIGHTCHAIR must not be exposed to temperatures above and below those indicated above.

The maximum weight supported by the LIGHTCHAIR is 120 kg. This weight must not be exceeded.

Prior to each use, a visual check must be made to verify that the tyre pressure is sufficient (see tyre marking).

When travelling on public roads, the rules of the road must be respected.

The power-on command must be turned off when getting in and out of the chair.

Small obstacles must be traversed at a moderate pace (3 km/h) and preferably at a perpendicular angle.

Manoeuvres should only be performed at a reduced speed.

LIGHTCHAIR orders are protected according to the IP54 rating and can therefore be used in poor weather conditions (e.g. in case of rain).

The LIGHTCHAIR can cause electromagnetic interferences that disturb the proper functioning of other devices. It is therefore best to turn the chair off when it is not in use. Regarding the tyres, the following observations should be considered:

LIGHTCHAIR tyres contain chemicals that may cause reactions with other chemicals (e.g. cleaning products, acid).

Direct exposure to sunlight (UV) accelerates tyre aging. This results in hardening of the surface of the tyre profile which cracks around the edges.

Regardless of wear, the tyres must be changed every 2 years.

Prolonged non-use or intense heating of the tyres (e.g. if the LIGHTCHAIR is close to a radiator or exposed to sunlight through a window) causes permanent deformation of the tyres. Therefore, be sure to maintain a sufficient distance from the heat sources.

The LIGHTCHAIR can be driven safely in ascents and descents of 10%. It is prohibited to take a route with an incline or decline higher than this percentage.

For safety reasons, it is necessary to reduce speed when driving downhill.

Charging the battery can produce explosive gases. Therefore, the following safety precautions must be taken during charging:

The circuit breaker must be turned off. Ensure that the room is ventilated.

It is forbidden to smoke or light a fire. It is crucial to avoid the formation of any sparks.

OPERATIONAL AND SAFETY REQUIREMENTS (CONTINUED)

For safety reasons, it is necessary to reduce speed when driving downhill.

Charging the battery can produce explosive gases. Therefore, the following safety precautions must be taken during charging: The circuit breaker must be turned off. Ensure that the room is ventilated. It is forbidden to smoke or light a fire. It is crucial to avoid the formation of any sparks.

OPERATIONAL REQUIREMENTS FOR SERVICING, MAINTENANCE AND DISPOSAL

The servicing of the LIGHTCHAIR must be performed by qualified personnel approved by Logo Silver. This also applies to all repairs and adjustments.

The On/Off button must be off, and the batteries removed for all maintenance work.

The LIGHTCHAIR can be cleaned with a wet sponge (avoid detergents).

Defective batteries must be returned to the distributor or to Logo Silver for recycling in accordance with environmental specifications.

USER REQUIREMENTS

The use of the LIGHTCHAIR is reserved for competent users. To operate the LIGHTCHAIR, the user must be instructed by qualified personnel approved by Logo Silver.

The user must have read and understood this manual completely.

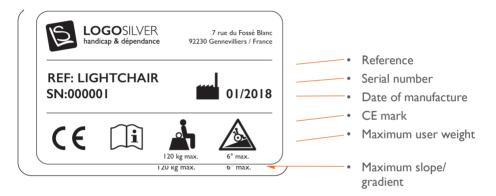
It is forbidden to use the LIGHTCHAIR in cases of severe fatigue or under the influence of alcohol or medication. Prior to first use, you should practice using the LIGHTCHAIR on flat terrain in good visibility and then increase the difficulties, navigating small obstacles, descents and climbs. This training helps to avoid dangerous situations.

SAFETY FEATURES

In the event of danger, the LIGHTCHAIR can be switched off at any time using the 'On/Off' button.

The charger will automatically switch off as soon as the batteries are charged.

WARNING PLATES AND SIGNS



TECHNICAL FEATURES

Accessibility	interior and exterior on smooth surfaces
Configuration	2 motorised rear wheels
General dimensions	length: 880 with footrest
	width : 600
	height : from 770 to 960 mm
Folded chair dimensions	330 mm x 600 mm x 830 mm
Seat height	400 mm
Seat width	430 mm
Seat depth	430 mm
Armrest height	210 mm
Backrest height	420 mm
Battery weight	2,8 kg
Wheelchair weight	21 kg without batteries
Maximum user weight	120 kg
Speed	6 km / h
Braking distance	120 cm
Turning radius	90 cm
Turn-around width	110 cm
Static stability	6°
Dynamic stability	6°
Slope capacity	6°
Maximum slope	9°
Obstacle mounting	2,5 cm
Autonomy	25 km
Motors	120W x 2
Lithium batteries	24V 10Ah x 2
Electronic	MICON
Battery charging	exterior or by joystick
Front wheels	178 mm
Rear wheels	210 mm
Suspension	front wheels
Aeroplane travel battery	24V 6Ah X I or 2

PRODUCT DESCRIPTION

The LIGHTCHAIR should be used indoors or on smooth ground outdoors. It is extremely manoeuvrable and easy to grip. Its 2-wheel drive system powered by 2 batteries can mount small obstacles and climb slopes of 10% providing a safe driving experience.

Joystick control is at your fingertips.

The LIGHTCHAIR is notably characterized by:

- · Optional tilting of the top of the backrest.
- Optional foot support adjustment.
- A long battery autonomy with a parallel mounted battery system.

The LIGHTCHAIR has been specially designed for users who can move independently with an electric wheelchair. It is also important to consider:

- Size and weight (max load = 120 Kg).
- The physical and psychological state of the user.

TRANSPORTATION AND STORAGE

DANGER!

Risk of injury in the event of inappropriate transport!

The LIGHTCHAIR must be folded into the trunk of the transporting vehicle, adding any additional protection or placing it in the travel bag. The On/Off button must be Switched to Off.

Under no circumstances can the seat of the LIGHTCHAIR be used as a seat during transport.

NOTE

If the LIGHTCHAIR stays in storage you must:

- Turn if off via the On/Off button.
- Avoid direct exposure to sunlight (UV rays accelerate tyre ageing).
- Store in a dry place with ambient temperatures of between -10 °C and + 40 °C.

DELIVERY AND SETUP

DELIVERY

Delivery includes:

- A LIGHTCHAIR
- A User Manual
- A Charger

NOTE

The optional components contained in the delivery depend on the composition of the product purchased by the buyer.

The LIGHTCHAIR delivered by the specialised dealer is ready to be driven. All adjustments made correspond to the indications on the order form and are carried out by the specialist directly on site. The LIGHTCHAIR is adjusted according to the personal needs of each user. The functioning of each of the components can be checked in accordance with the indications in chapter 7.

Chapter 9 describes any malfunctions that may occur.

Main Components



SETUP

• Remove the chair from the box and place it on the ground.

• Pull/push the backrest and footrest respectively with two hands (Diagram I).

• When you hear a click, the tips have been inserted into the slots, in which case the frame of the chair is completely unfolded.

• Push the armrests forward (Diagram 2).

• Place the control unit on the armrest (Diagram 3)

• And fold down the immobilising lever on the case (diagram 4).

• Turn the chair over, press the rods to free the legs (Diagram 5).

• Pull the anti-tipper until a rod locks with the anti-tipper (Diagram 6).

• Remove the protective covers from the batteries, then place them in their respective boxes(diagram 7). Note that the batteries must be completely inserted until you hear a click (Diagram 8).

• Turn the footrest completely forward (Diagram 10).

• Activate the engine lock lever in <<Electric>> mode and place the engine mechanism in the "Electric" driving position (Diagram 9).

Your chair has been fully assembled and can now be used.

Before setup, recharge the batteries with the aid of the charger for a minimum of 5 hours. The batteries will be charged to 90%. The operation will need to be repeated 4 or 5 times to obtain a 100% charge.





DIAGRAM 1







DIAC





DIAGRAM 5





DIAGRAM 7





DIAGRAM 8

DIAGRAM 9

DIAGRAM 10



WARNING!

 To use the chair, check that the locks have been inserted into the holes while the chair is open.
Check that the anti-tipper is activated to avoid any injury.
The battery should be installed last.

USAGE

CONTROL UNIT

This is the key element of the wheelchair. The unit is installed on one of the armrests and is connected to the engine and the batteries via the controller.

START BUTTON

This triggers the current for the electronic equipment of the control system, which then supplies the power to the motor of the chair. Do not use this button to stop the wheelchair except in cases of emergency. This can damage the control features of the chair.

JOYSTICK

The Joystick is primarily used for navigating chair movements including speed and direction (front, back, left and right) the further forward you push the joystick the more the speed increases. As soon as you release the joystick it automatically returns to the centre and instantly stops the chair.

HORN BUTTON

The horn beeps when you press the button.

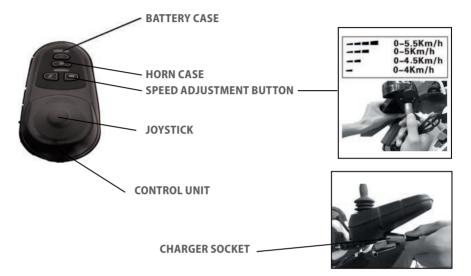
SPEED SETTING BUTTON

After starting the engine, the indicator shows the current setting of the maximum speed. This maximum speed can be adjusted by the user via the button for setting the maximum/minimum speed.

CHARGER PLUGS

These are only suitable for use with the chair. Do not use these plugs to power other electrical devices. This can damage the chair as well as its E.M.C.





BATTERIES

Fully charge your new battery before use. It will charge to 90% at its highest level of performance. Charge again for 8 to 14 hours and use the wheelchair again. The batteries will again go to 90% of their capacity. After four or five charge cycles, the batteries will be at a full 100% and the life of your device will be increased. Replace the battery in case of fault and return the old battery to the supplier to avoid contamination.



CHARGING THE BATTERIES

The battery charger is an important part of the chair. The non-embedded charger of this product can quickly and easily charge its batteries to facilitate and improve the performance of the product.

DANGER!

Use the chargers provided

- Put the chair in «electric» motor mode.
- Connect the plug to the control unit.
- Connect the power socket (220V).
- The red light indicates that the battery is charging.
- The green light indicates that the battery has finished charging.
- Unplug the plug and store it in the bag provided under the seat.

OVERCHARGE PROTECTION

Regarding chair safety, the protection against over-charging is located in the battery case. As soon as the batteries and the motor are overcharged, the protection trips and switches off the power. After one or two minutes, the system re-initialises, and you can continue using the chair.

SEATBELT

For your security, the seatbelt must be attached securely before starting the chair.

USER PRECAUTIONS

Practice navigating the device in a spacious area accompanied by someone until you gain a certain mastery/confidence.

- Check that the power is off when you get up from the wheelchair, and adjust your speed using the Speed Control button.
- We recommend a low speed until full control of the device is acquired.
- Perform the action Stop, Forward, Back. By pushing the joystick, the chair moves as you wish.
- Firstly, make sure that the speed is at its lowest level in order to move forward. Once acquired, you can practise by turning the knob and forming an <<S>> to become familiar with the reverse and speed controls. Do not go as fast in reverse as going forward.

WARNING!

This can lead to serious injury

- Do not use the wheelchair in manual mode without assistance
- Do not activate this mode when you are alone in the chair
- Do not activate manual mode on a slope

MALFUNCTION AND FAULT LOCATION

For your convenience, this device has an automatic fault alert mechanism. In the event of a fault, the LEDs of the control unit light up and the horn is triggered. You can identify faults using the following table.

If the fault is still present after the instructions given by the table, do not use your chair. Turn off the power and consult an advisor immediately.

LED	DIAGNOSTIC FAULT	BREAKDOWN LOCATION		
1 LED Light	Low Battery	Charge the Battery		
2 LED Lights	Left Engine Fault	Check the engine and connections		
3 LED Lights	Left Brake Fault	Check that the brake lever is in the correct position and if the brakes are damaged		
4 LED Lights	Right Engine Fault	Check the engine and connections		
5 LED Lights	Right Brake Fault	Check that the brake lever is in the correct position and if the brakes are damaged		
6 LED Lights	Control Unit Overcharge	Check if the brake is released and if the wheels are locked		
7 LED Lights	Joystick Fault	Check that the joystick is placed in the central position		
8 LED Lights	Control Unit Fault	Control unit failure		
9 LED Lights	Control Unit Fault	Control unit failure		

SERVICE AND MAINTENANCE

Like any motorised device, your electric chair requires regular maintenance. Some checks can be done personally, but others require the assistance of a specialist. Preventive servicing is very important. If you follow the inspection and maintenance instructions in this section, your chair will provide you with trouble-free performance for years to come.

If you have doubts about the maintenance or use of your chair, contact a specialist.

PRECAUTION AGAINST HUMIDITY

Your chair, like many mechanical and electrical devices, will be exposed to external factors. You should always avoid a humid environment. Direct or prolonged exposure to water or humidity could damage the chair electronically and mechanically. Water can damage electrical components and rust the chair frame.

Temperature

- Some parts of your chair are temperature sensitive
- At a very low temperature, the battery can freeze
- The speed of the chair may decrease above 55°C

GENERAL INSTRUCTIONS

- Do not hit the remote control, especially the joystick.
- Do not expose your chair to extreme conditions such as heat, cold or moisture for too long.
- Keep the remote control clean.
- Check all electrical connections, including the charger cable and connectors to ensure they are tightened and secure.
- If the red LEDs on the battery meter light up, the battery is low. You need to recharge the batteries as soon as possible.
- The surface of the frame is covered with a waterproofing spray. You can apply a thin layer of car wax to preserve the shine.
- Check all the cables. They must be well-positioned and not exposed to humidity. The battery must be fully inserted into its case.
- All the wheel suspensions are lubricated. There is no need to lubricate them.
- Check that all parts of the wheelchair (wheels, backrest, etc.) are properly tightened.

DANGER!

Never charge a cold or frozen battery, as this can damage the battery and could cause an explosion.

UPKEEP AFTER USE

- Turn off the power (the best way to do this is to disconnect the connectors)
- · Keep the machine away from children and frail people
- Store the chair at room temperature to ensure prolonged effiency
- Clean the chair with a clean, dry cloth. Never use chemicals to clean it (risk of discolouration).
- Remove the protective cover from the seat to clean it and use it when dry.

INSPECTION POINTS	BEFORE USE	WEEKLY	MONTHLY	EVERY 6 MONTHS
All Parts			•	
Joystick Function	•			
Brake System	•			
Connection		•		
Battery	•			
Wheel Conditions			•	
Frame Condition				•
Front Wheel Conditions		•		
Cleanliness	•			

REGULAR CHECKS

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NOTE

Only spare parts from Logo Silver can be used. Failure to comply with this requirement will result in loss of warranty rights. If you encounter problems during maintenance, consult your dealer or Logo Silver. The LIGHTCHAIR must be inspected once a year exclusively by qualified personnel approved by Logo Silver.

MAINTENANCE INTERVALS

Before each use, check that the LIGHTCHAIR is in an operational state. The actions described in the table above must be carried out by the user in accordance with the instructions.

NOTE

1.

Direct exposure to the sun (UV), accelerates the aging of the tyres. Regardless of wear, the tires must be changed every 2 years.

CLEANING

- · Never clean your chair with water or in direct contact with water.
- The surface of the chair frame is protected by a varnish so it's easy to clean the frame with a damp cloth.



WARNING!

Never use chemical substances to clean the armrests or the seat as this could damage them. You can use a damp cloth and soapy water to clean the chair and let it dry in the open air.

WARNING!

Risk of deterioration of the electronic system! Risk of malfunction! When cleaning the LIGHTCHAIR, water should not come into contact with the batteries or electronic components.

Do not use aggressive cleaning agents, solvents or hard brushes. The LIGHTCHAIR should be cleaned regularly, regardless of use or degree of dirtiness.

Components such as the control unit, seat and frame can be cleaned with a soft cloth

TRANSPORT AND STORAGE

You can load and carry the chair folded or unfolded. Your chair should be stored in a dry place away from humidity and extreme temperatures. Remove the batteries before storing the chair, otherwise the frame could rust, and the electrical components could be damaged.

WARRANTY

The chair comes with a 2 year warranty from the date of delivery, excluding corrosion, worn parts (tyres etc), abnormal use, non-compliance with the instructions for use. the batteries come with a 1 year guarantee.

- The warranty covers any defect in the construction or quality of the raw material and components, under normal conditions of use (excluding normal wear of the parts).
- The warranty is limited to the repair or free exchange of parts and subassemblies recognized as defective (parts, labor and transport), after inspection by an authorized representative.
- Warranty repairs must be authorised and performed by an approved supplier. You must not return parts without obtaining prior authorization.

BEYOND WARRANTY COVER

Accidental shocks or accidents, negligence, abnormal use, improper maintenance, modifications made without the authorization of the manufacturer, use not in accordance with the instructions in the user guide supplied with the product or which do not correspond to the product specifications, withdrawal / erasure of the serial number, cold storage or batteries left completely empty for a long period;

DISPOSAL

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ENVIRONMENTAL NOTICE

If you are disposing of the LIGHTCHAIR, it is necessary to remove all the components and materials with respect to the environment and in accordance with the recycling and sorting of waste.

Respect the environmental protection regulations in your country. Out of use batteries are taken back by your dealer or Logo Silver. The LIGHTCHAIR can be returned to the Logo Silver company for recycling.



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