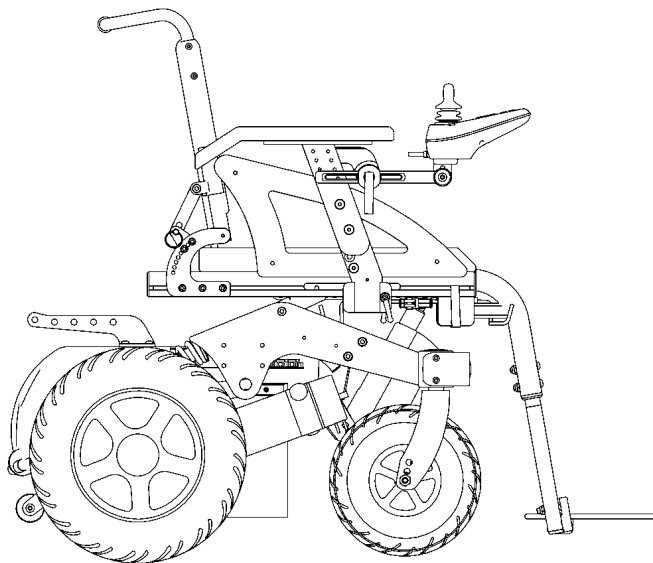


SPEEDSTAR



USER MANUAL

with CE Mark Statement

Supplier: This manual must be given to the user of the wheelchair.

User: Before using this wheelchair read this entire manual and save for future reference

AUTHORIZED SERVICE AND PARTS

For any problems please contact.

NEATECH.IT s.r.l.

4/A, A. De Curtis St.- 80040 – Cercola (NA) - Italy

Tel +39 0815551946

Fax +39 0815552507

From the date of the delivery of the wheelchair, the warranty period is two years for the chassis and six months for the batteries.

The warranty will expire immediately in the event of:

- Negligence
- Neglect of use
- Tampering
- Improper maintenance
- Improper transport

DECLARATION OF CONFORMITY



The manufacturer

Neatech.it

4/A, A. De Curtis St. 80040 Cercola (NA), Italy

under its responsibility, states that

the wheelchair Speedstar

satisfies the conditions laid down by European Directive 93/42;
according to the criteria for classification of annex IX of this Directive, the Speedstar
is classified as

class I medical device

It also complies with the requirements of the harmonized standards:

UNI EN 12182 Technical aids for disabled persons

UNI EN 12184 Electrically powered wheelchairs, scooters and their chargers

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WARNINGS



TIPPING HAZARD

Any transport on a slope greater than the maximum security slope can be dangerous.



ELECTROMAGNETIC RADIATION DANGER

The behavior of the wheelchair while deriving may be affected by electromagnetic fields created by transceivers such as: Citizens band (CB) radios, walkie-talkies, fire and police radios, cellular phones, lap-top computers, two-way radios, and commercial radio and television broadcast antennas.

PLEASE USE CAUTION in the presence of these devices.

EMI can cause your chair, without warning, to:

- Release its brakes
- Move by itself
- Move in unintended directions

If any of these occur, it could result in severe injury to you or others. EMI can damage the control system of your chair.

There is no way to know the effect on EMI if you add accessories or modify this chair. Any change to your chair may increase the risk of EMI. Parts from other suppliers have unknown EMI properties.



TEMPERATURE

The temperature of some surfaces may increase when the chair is exposed to external heat sources as sunlight.

Do not install, maintain or operate your wheelchair without reading all warnings and this entire user's manual.

NOTICE TO RIDER—WARNING

The wheelchair should be turned off prior to entering or exiting the wheelchair

The wheelchair may come to a sudden stop at any time during operation.

Do not operate the wheelchair if it is behaving abnormally or erratically.

Do not operate the wheelchair with low batteries, to minimize risk of becoming stranded.

The wheelchair is not intended to be used as a seat on motor vehicles.

PINCH HAZARDS - WARNING

Make sure your feet do not “hang up” or get caught in the space between the footrests. In general, make sure you have proper space in areas you will travel through to minimize pinching or entrapment of body parts.

WARNING

Do not use an escalator move the wheelchair between floors. Serious bodily injury may occur

Do not lean over the top of the back upholstery to reach objects from behind as this may cause the wheelchair to tip over.

Do not shift your weight or sitting position toward the direction you are reaching as the wheelchair may tip over backwards or sideways

Do not tip or wheel the wheelchair with wheel locks. Wheel locks are not brakes.

Do not stand on the frame of the wheelchair.

Always use caution when transferring in or out of the wheelchair. Every precaution should be taken to reduce the transfer distance. Also be certain the wheel locks are engaged to prevent the wheels from moving

Caution—Obstacles

Riding over curbs or obstacles can cause tipping and serious bodily harm. If you have any doubt that you can safely cross any curb or obstacle, ALWAYS ASK FOR HELP. Be aware of your riding skills and personal limitations. Develop new driving skills only with the help of a companion.

Caution—Anti-Tippers

Using anti-tippers substantially reduces your risk of falling over backwards, which can cause serious injury. If you are afraid of tipping over, use the Anti-Tippers. The Anti-Tippers will keep you from falling over, but they will limit your ability to be pulled up curbs and some other maneuvers. **WE STRONGLY RECOMMEND THAT YOU USE ANTI-TIPPERS WHILE YOU ARE LEARNING TO RIDE YOUR WHEELCHAIR.**

The wheelchair is not designed for weight training and is unsafe for use as a seat while weight training. Weight training from the wheelchair substantially changes the stability of the chair and cause tipping.



DISPOSING

This product and all its components can not be treated as household waste. For more detailed information on how recycling and disposal this product contact your local waste disposal service.

1. WHEELCHAIR PRESENTATION

Thank you for purchasing Speedstar electronic wheelchair. Speedstar was designed to be used mainly outdoors.

The aeronautical technology, used to manufacture all Neatech.IT products, make it possible to create a rigid and foldable frame that is highly customizable and reliable. Frame and canvas are available in different colors.

Characteristic

- Pair of 300W engines
- Mechanical electromagnetic parking brake
- Custom colors
- Electronic tilting
- Maximum speed 9 km/h
- Joystick
- 320 mm wheel drive
- Range of 45 km
- Fully charged in 7 ore
- Maximum slope 12°

WARNING: It is prohibited to use wheelchair or its parts for any purpose other than that indicated. For a correct use please follow the instructions given in this manual. **NEATECH.IT disclaims any responsibility for damages caused by improper use of aids**

2. STARTING UP

Checks to be made on delivery

- Check the integrity of the original packaging.
- Check for any anomalies on the shipping documents.
- Check the functionality and integrity of the device in all of its parts, at the time of delivery or immediately thereafter, to ensure that no damage has resulted from a careless transport.
- Make sure the surface of the device is not damaged, scratched, bent, etc.
- Any fault or damage found must be immediately reported on the shipping documents and promptly communicated to the carrier. For any other questions, please contact the manufacturer.
- When not using yours Speedstar for a long time, store it in a safe place free from dust and moisture.

2. STARTING UP

Pull away the box

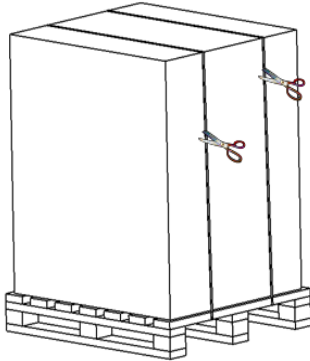


Figure 1

Be sure to put the package of the Speedstar on a stable and secure surface and remove straps with scissors

Pull away the box as shown in Figure 2.

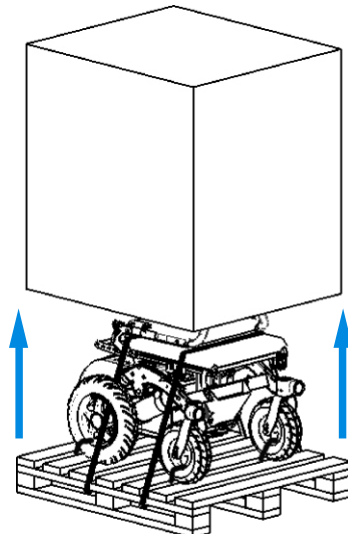


Figure 2

Inside the box there is:

Speedstar wheelchair
N. 1 pair of footrests
N. 1 pair of armrests

N. 1 joystick
N. 1 Charger
Documentation and manuals

2. STARTING UP

Remove the straps

Use scissors to remove the straps and ties as shown in Figure 3.

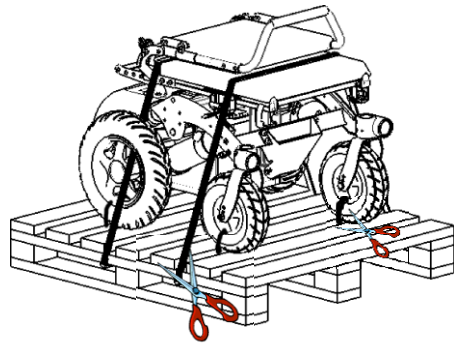


Figure 3

Remove the Speedstar from the pallet

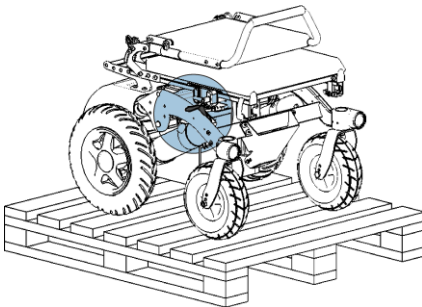


Figure 4

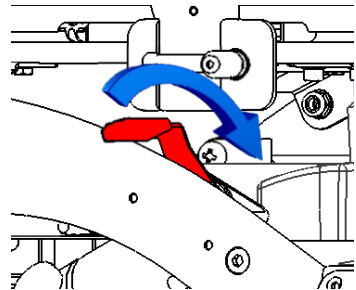


Figure 5

Unlock the engine with the lever as shown in Figure 4 and Figure 5 and slide gently down the Speedstar from the pallet.

After positioning the Speedstar in a safe place, return the lever to its original position.



PACKAGING DIASPOSAL

To properly recycle the packaging materials follow the instructions provided by your local waste disposal service.

2. STARTING UP

Place the backrest

Raise the backrest from position A to position B by gently pulling the backrest in an upright position.

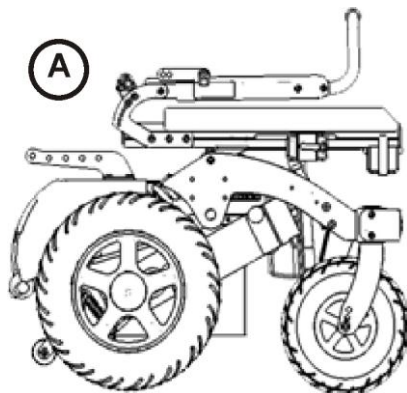


Figure 6

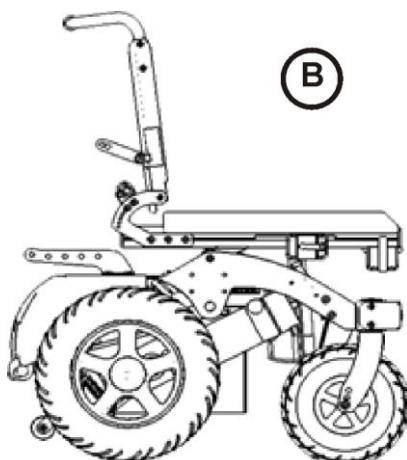


Figure 7

2. STARTING UP

Make sure that the pins are inserted correctly as shown in Figure 8 and Figure 9.

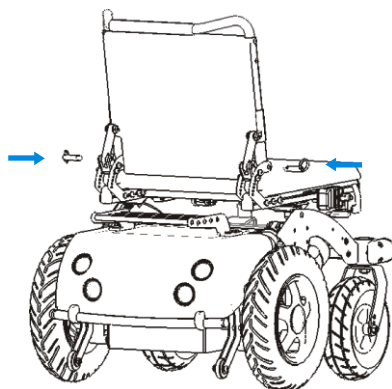


Figure 8

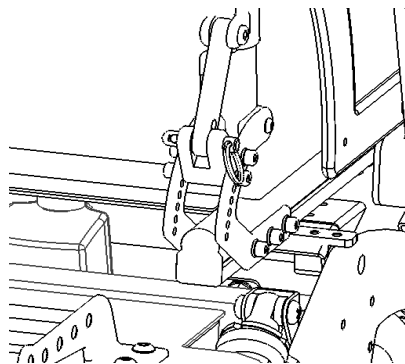


Figure 9

2. STARTING UP

Place the armrests

As shown in Figure 10 put the armrest into the holder and tighten the lever (M).

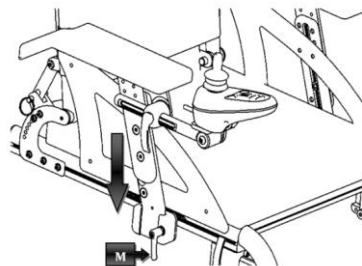


Figure 10

Connection of the Joystick

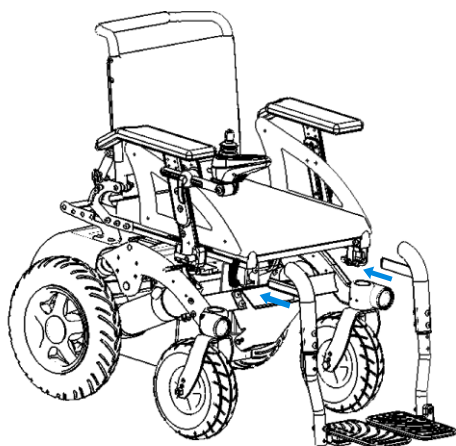
Connect the cable of the joystick as shown in Figure 11. Make sure it is completely connected. If it appears difficult to insert the connector try to invert and reinsert



Figure 11

2. STARTING UP

Place the footrests



Correctly insert the footrests into the holder as shown in Figure 12.

Figure 12

Tighten securely the lever (C).

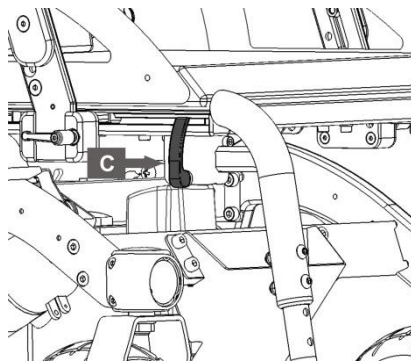


Figure 13

2. STARTING UP

Transport and storage

If you do not use the Speedstar for a long time make sure that you set the switch (I) OFF as shown in in Figure 14. You should keep the Speedstar in a place free from dust and moisture and away from heat sources.

If you must ship the Speedstar, turn off the switch (I), unplug the joystick and remove the footrests and armrests.

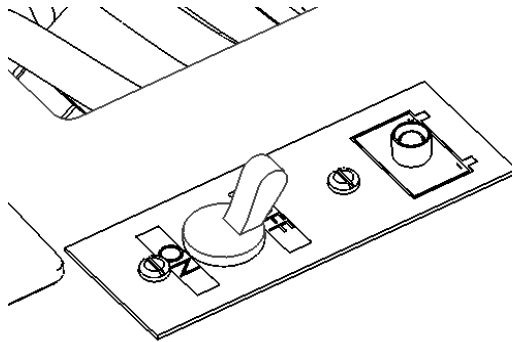


Figure 14

3. USE OF THE WHEELCHAIR

Checks before use



For safe use and to avoid any situations of risk to the user, before using the wheelchair perform the following checks .

- **Checking tire pressure**

Verify that the tire pressure is consistent with the values given in the table

Front wheels	3,0 bar
Rear wheels	1,5 bar

- **Checking battery charge level**

Check the battery charge level on the indicator located on the joystick. (N.1 in Figure 15)

- **Check of electric cables**

Check that the wires do not interface with the movements of the wheelchair.

3. USE OF THE WHEELCHAIR

Control console



Figure 15



Figure 16

1. Battery level
2. Low battery indicator
3. Left direction indicator
4. Seat movements selector (1)
5. Beeper
6. MIN speed selector
7. Remotely controlled joystick indicator
8. Hazard warning
9. Indicator towards. Left
10. Error indicator
11. On-off button
12. Fully charged battery indicator
13. Right turn indicator
14. Seat movements selector (2)
15. Speedometer
16. MAX speed selector
17. Lights button
18. Indicator towards. Right
19. Lights on indicator
20. Controller

NOTE: It is possible that the control console of the Speedstar is different depending on the accessories chosen. Main controls remain unchanged .

3. USE OF THE WHEELCHAIR

Powered mode

Set the release engine lever as shown in Figure 17 and in Figure 18. In this configuration, the brakes are on and the wheels will not move.

Use the switch (I), see Figure 14, to on off the Speedstar.

The switch also has the function of protecting the wheelchair from overloaded current and short circuit.

If the power chair suddenly stops, use the switch to turn on the chair. If the problem still continues, please contact technical support.

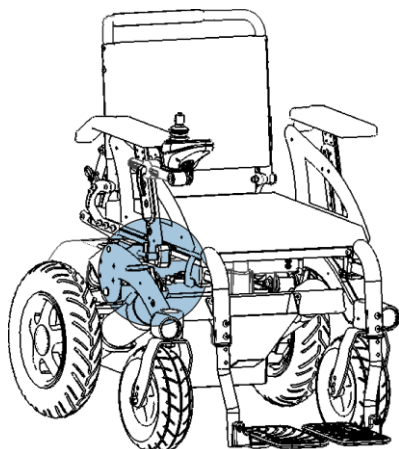


Figure 17

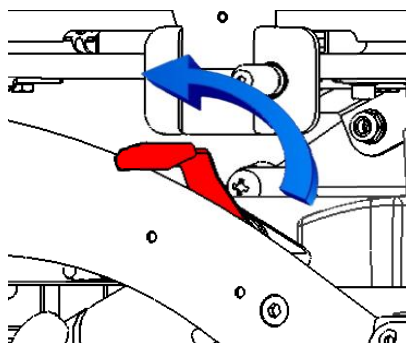


Figure 18

Seeing Figure 15 and Figure 16 use the button 11 to turn on the command console. Use button 6 and 16 to select the travel speed. Chosen level is shown by the indicator 15.

Use the controller 20 to get in gear. Its proportional functionality allows you to adjust speed and direction according to the intensity with which you act on the controller.

Releasing the lever of the controller automatically activates the electromagnetic brake that locks the wheels of the Speedstar.

3. USE OF THE WHEELCHAIR

Use of signaling devices

Referring to Figure 15:

- Use button 5 to activate the beeper.
- Use buttons 9 and 13 to activate the left and right turn signals. Lights 3 and 4 flash to indicate the successful entry into service of the indicators.
- Use button 17 to turn on or off the headlights. Light 19 turns on (or turns off) to indicate the successful turning on (or turning off) of headlights.
- Use button 8 to activate the hazard warning lights. Lights 3 and 4 flash together to indicate the successful entry into service of the signaling.

3. USE OF THE WHEELCHAIR

Push mode

If you need to use the push mode use switch (I), see Figure 14, to turn off the Speedstar and set the release engine lever as shown in Figure 19 and in Figure 20.

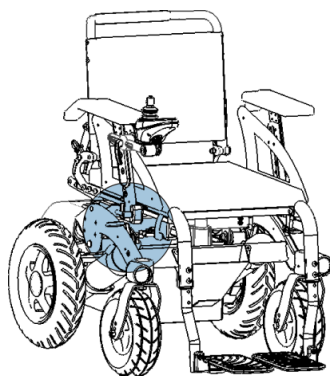


Figure 19

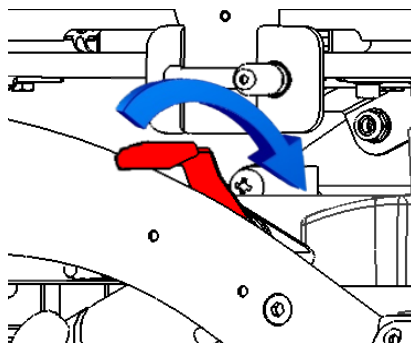


Figure 20










WARNING

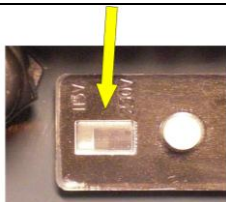
In the push mode the electromechanical brakes are off, so the use of the Speedstar in the presence of slopes may be dangerous.

3. USE OF THE WHEELCHAIR

Charge of the batteries

Only use the provided charger to recharge the batteries.. The manufacturer is not responsible for damage to person or property resulting from the use of other chargers

	Charging in progress		Battery error
	Charging 80 %		Wrong polarity
	Charging 100%		Overheating
			General Error



SHOCK HAZARD
Always check the voltage setting

3. USE OF THE WHEELCHAIR

It is recommend to charge the batteries when the indicators 1 in Figure 15 are red. Each battery is subject to a normal “self discharge”, so batteries that are not used for long time will discharge by themselves.

Charging time is influenced by multiple factors such as remaining battery power, battery state of aging and temperature. However the approximate charging time is about 7-9 hours. If the charge duration was reduced (about 1 hour), that is a sign of failure. Contact the vendor for a possible replacement of batteries. Do not use the wheelchair while it is charging.



SHOCK HAZARD

Check if charger data sheet matches with the network power (voltage, frequency).



RELEASE DANGER

Any impact to the batteries could cause a loss of fluids. Pay attention



ENVIRONMENTAL HAZARD

It is recommended to properly recycle used batteries. Contact your local agency for waste disposal for more information.

4. ADJUSTMENTS

Armrest

It is possible to make several adjustments on the armrests: height, width and depth. Shown operations can be performed on both armrests.

- **Height**

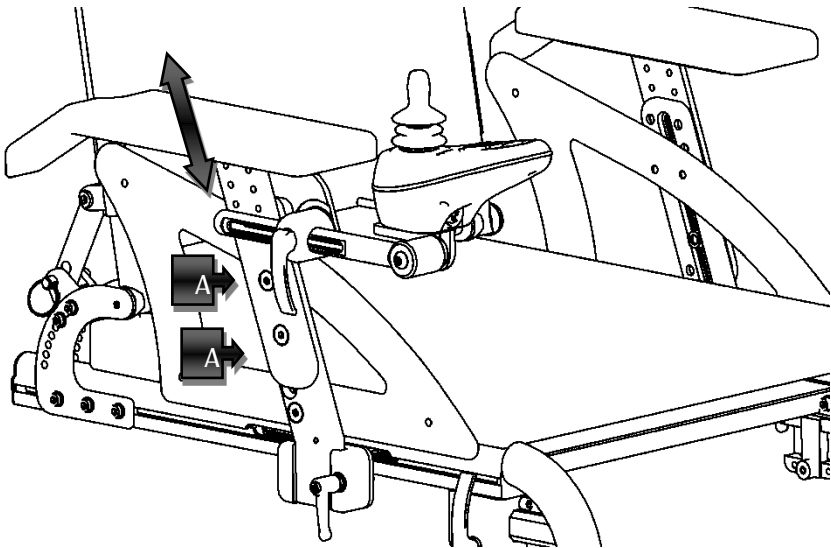


Figure 21

Seeing Figure 21, loosen the screws (A), and set armrests height to desired value and retighten the screws (A).

NOTE: For this operation use a 6 mm allen wrench.

4. ADJUSTMENTS

To adjust armrests depth and width act under the seating floor as shown in Figure 22.

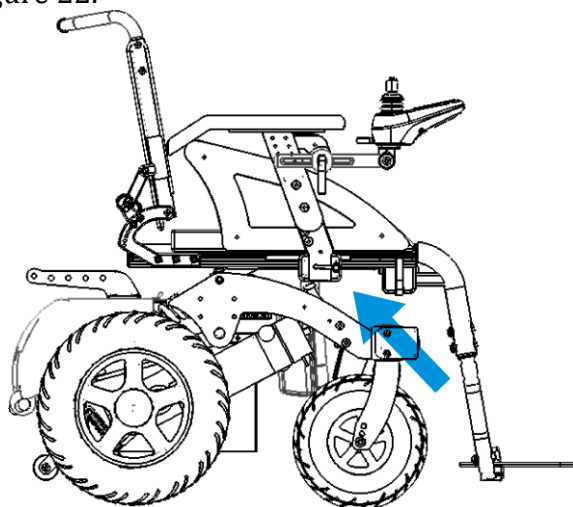


Figure 22

- **Depth**

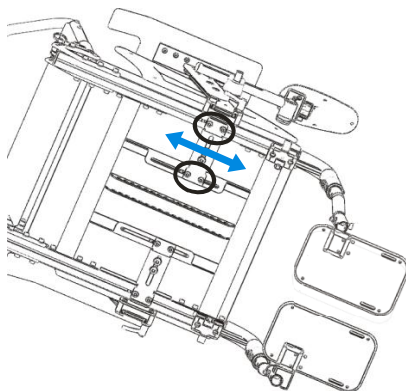


Figure 23

Loosen the 4 screws indicated in Figure 23 and move the armrest to the desired position; tighten the screws again. Be sure that the armrest can not move at all.

NOTE: For this operation use a 10 mm open-end wrench.

4. ADJUSTMENTS

- **Width**

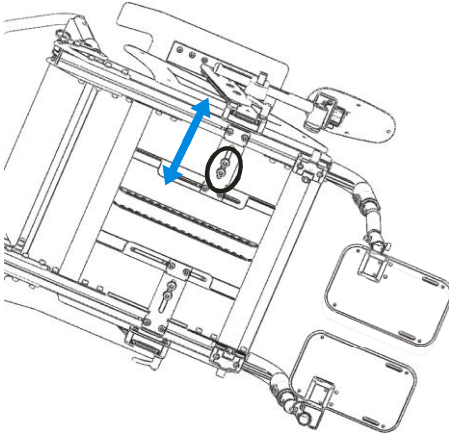


Figure 24

Loosen the 2 screws indicated in Figure 24 and move the armrest in accordance with the directions indicated to reach the desired position and tighten the screws again. NOTE: For this operation use a 6 mm allen wrench.

Joystick

Loosen the lever (L), as shown in Figure 25, so it is possible to move the joystick in accordance with the directions indicated to reach the desired position. Retighten the lever.

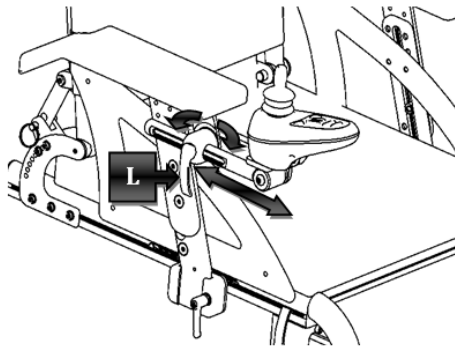


Figure 25

4. ADJUSTMENTS

Footrests inclination

Loosen the screws shown in Figure 26, so it is possible to adjust footrest inclination. Rotate footrests to reach the desired position. Tighten the screws again.

NOTE: For this operation use a 4 mm allen wrench.

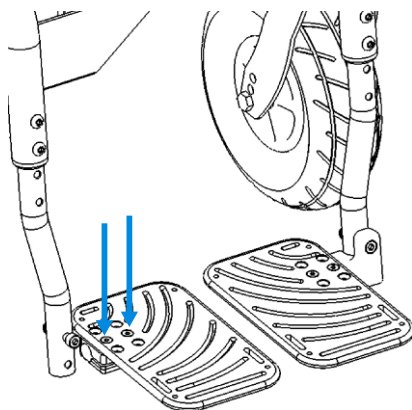


Figure 26

Footrests depth

Unscrew the screws shown in Figure 26, put the footrest in one of three positions shown in Figure 27. Tighten the screws again.

NOTE: For this operation use a 4 mm allen wrench.

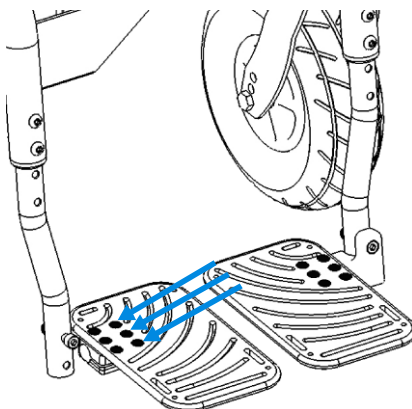


Figure 27

4. ADJUSTMENTS

Footrests height

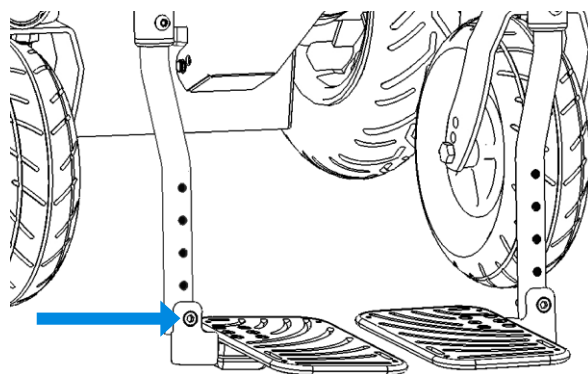


Figure 28

Unscrew the pin shown in Figure 28 to release the footrest. Choose the desired height aligning the footrest to one of the available holes. NOTE: For this operation use a 6 mm allen wrench and a 13 mm open-end wrench.

Backrest depth

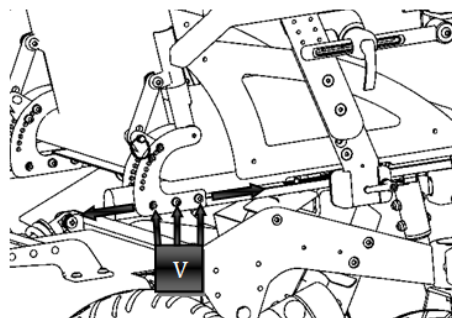


Figure 29

Seeing Figure 29 loosen the screws (V), move the backrest to the desired position and tighten the screws again. NOTE: For this operation use a 4 mm allen wrench.

4. ADJUSTMENTS

Backrest inclination

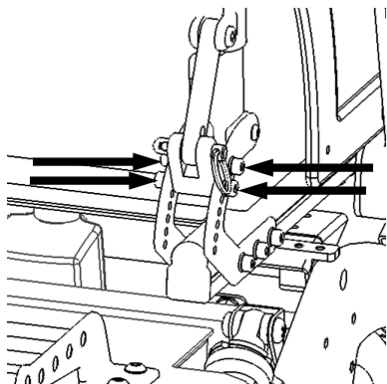


Figure 30

Remove the screws shown in Figure 30 on both sides (total 8 screws), incline the backrest to the desired position and return and tighten the screws.

NOTE: For this operation use a 4 mm allen wrench.

Seat tilt adjustment

Push button 4 (Figure 15). A light near the button will confirm the activation of this adjustment function.

Move the joystick 20 (Figure 16) back and forth to adjust seat tilting.



During this operation be sure that your elbows are flat on the armrests to eliminate the risk of entrapment.

5. ACCESSORIES

Speedstar can be equipped with many accessories that NEATECH make available to meet different customer's needs. There is the possibility that the joystick will change depending on desired accessories.

Removable flip-up adjustable active footrests

With this equipment, you can adjust the inclination of the footrests with the aid of the joystick.

The controller allows you to select the type of movement (only left footrest, only right footrest, both footrests).

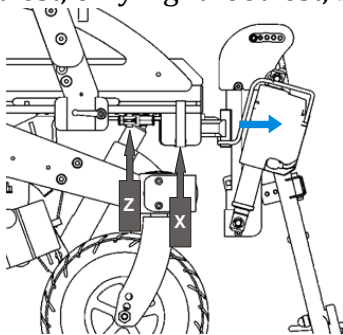


Figure 31

To extract the electronic footrest unhook the connector (Z), (X) and pull in the direction of the arrow.

Removable flip-up adjustable footrests

With this device you can adjust the inclination of the footrest.

Seeing Figure 31 loosen the pin (Z) and move the platform to the desired height. Retighten the pin (Z).

5. ACCESSORIES

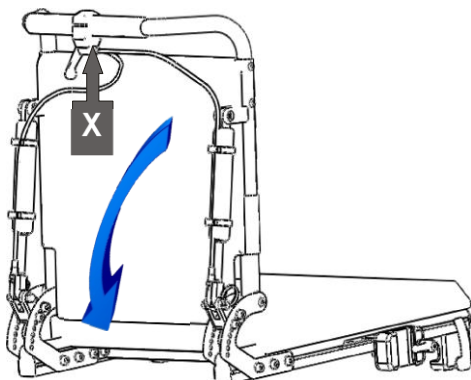


Figure 32

Dynamic reclining backrest

This equipment allows you to recline the backrest with the help of a lever installed on the back. Pull the lever (X) and recline the backrest to the desired inclination and release the lever (X).

Powered reclining backrest

With the aid of two electronic pistons, the user can recline the backrest with the joystick

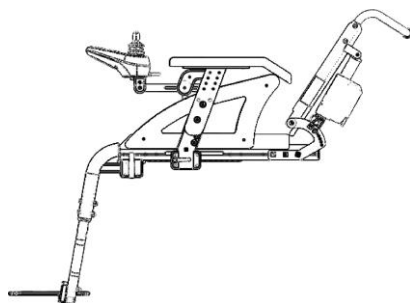


Figure 33



Figure 34

Side pad right - left

It is an adjustable support that acts laterally on the chest of the user to keep the desired position. It can be mounted either in pairs or individually.

5. ACCESSORIES

Adjustable headrest

It is a headrest mounted on the back. You can adjust either height and inclination.

You can rotate the headrest with a pin.



Figure 35

Powered seat lift and tilt

The user can vertically lift and tilt the seat (max 300mm/0°-30°) by controlling its movement with the joystick.

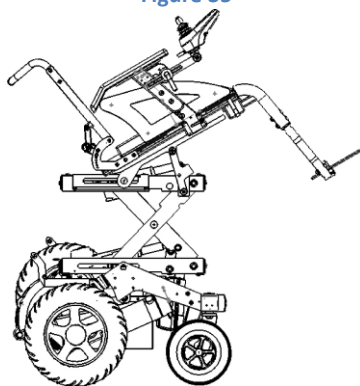


Figure 36

You can also request: **heel straps, calf straps and foot straps.**

5. ACCESSORIES

Seat belt

Speedstar include seat belt.

Initial operating

This operating instruction is considered for skilled, caregiving personnel. Before initial operating please consider this instruction. Texts and graphics do not exactly agree with product contents and are not true to scale. Please eliminate damages in case of transit. For cleaning use a moist cloth. For installing the article at seat please consider this operating instruction and check the correct application.

Application field

This article is made for purpose of fixing persons in the wheel chair, on stretchers, beds or something else. This item should not be applied in motor-vehicles.

Cleaning

For cleaning use a moist cloth. For cleaning and disinfection do not use any substances with chlorine or organic/inorganic matter that contain active chlorine. Don't use soapy water or lime wash.

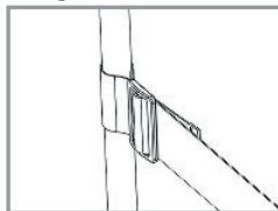
Damages and partial damages

In case of damages and partial damages the article should be replaced.

Life cycle

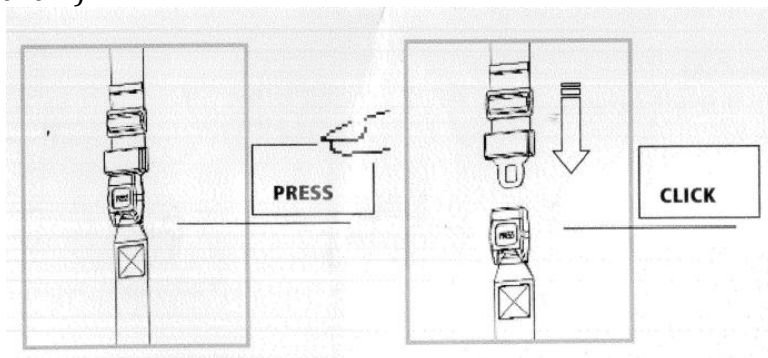
In case of a correct application and cleaning the article should be replaced every 5 years.

- Fixation at frame
For fixing the safety belt, please, put it around the frame and loop it through buckle again.

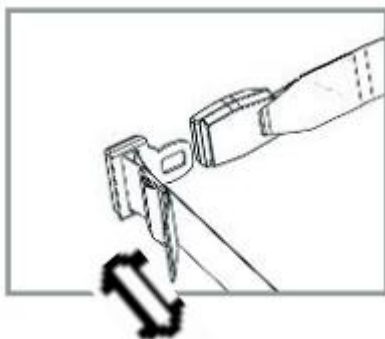


5. ACCESSORIES

- To open: Press Push-button PRESS
- To lock: Push buckle tongue into the lock with an audible (“click”)



- Length adjustment of belt at an angle of 90°, stepless.



6. CONTROL AND MAINTENANCE

Specifications

	Version 66	Version 55
Maximum allowed mass	150 kg	100 kg
Intended use	Speedstar is intended for all those groups of users that are confined to a sitting position who have the opportunity and the need to travel autonomously in areas predominantly outside.	
Working temperature	from -10 °C to 40 °C	from -10 °C to 40 °C
Class (UNI EN 12184)	Class C	Class C
Dimensions	Width: 66 cm Length: 108 cm Height: from 90 cm to 110 cm according to different sizes	Width: 55 cm Length: 99 cm Height: from 90 cm to 110 cm according to different sizes
Empty weights	102kg	76kg
Maximum safe slope	12°	12°
Maximum height of the platform from which the chair can descend safely	100mm	100mm
Range	45km	45km
Batteries	2 batteries ZGL 12054 12 V 45Ah (Amp-hour)	2 batteries ZGL 12070 12 V 80Ah (Amp-hour)

6. CONTROL AND MAINTENANCE

	A	B	C	D	E	F	G	H	I	alpha	beta
	SEE	OVERALL WIDTH	BACKREST HEIGHT	SEAT DEPTH	ARMREST HEIGHT	FOOTREST LENGTH	SEAT HEIGHT	OVERALL DEPTH	OVERALL DEPTH WITH FOOTREST	SEAT TILT	BACKREST ANGLE
Cm	From 22 To 44	55	From 40 To 60	From 40 To 46	From 20 To 23	From 20 To 44	50	77 79	99 108	From 0° to 20°	From 90° to 135°
	From 42 To 48	66									
Inch	From 14,2 To 17,2	21,6	From 15,7 To 23,6	From 15,7 To 18,1	From 11,8 To 12,8	From 11,8 To 17,2	19,7	30,2 31,1	39,0 42,5	From 0° to 20°	From 90° to 135°
	From 16,5 To 18,9	2,6									

6. CONTROL AND MAINTENANCE

Maintenance and cleaning

Regular maintenance will help to preserve functionality and safety of the Speedstar. The lack or inadequacy of care and maintenance is a limitation of the warranty from the manufacturer.

To clean the chair do not use any device to spray water at high pressure. Protect the control device from water and humidity. For plastic or metal parts use a soft cloth moistened with a non-aggressive detergent. For pads, linings and covers of the seat and backrest use warm water and mild detergent.

Do not use chemical cleaners, solvents, acids, etc.

Tires can be cleaned with water and detergent.

OPERATION	PERIODICITY
Checking tightness of chassis screws For this operation contact your vendor	Annual
Replacing the batteries For this operation contact your vendor	Biennial
Tire pressure monitoring	Weekly
Checking of tire usage	Monthly
Complete cleaning	Monthly

7. FAULT, REPAIR AND ASSISTANCE

PROBLEM	PROBABLE CAUSE	ACTION
Joystick does not turn on	power button is set to OFF	set power button to ON (see Figure 14)
	joystick cable not properly inserted	insert joystick cable PROPERLY
	batteries are low	charge batteries
	electrical fault	contact assistance
Joystick is turned on but the chair does not drive	wheelchair in push mode	set the lever as shown in Figure 18
	mechanical failure	contact assistance
Error light 10 turns on (Figure 15)	wheelchair in push mode	set the lever as shown in Figure 18
	electrical fault	contact assistance
	you has acted with the release lever with the command console turned on	turn off and on the command console
Footrest does not engage	mechanical failure	contact assistance
Joystick in alarm	electrical fault	contact assistance

PROBLEM	PROBABLE CAUSE	ACTION
Wheelchair does not tilt	electrical fault	contact assistance
Wheelchair makes noise	release lever not properly inserted	insert the release lever correctly
	mechanical failure	contact assistance
Wheelchair does not have a good grip	Tires are not set to the correct value of pressure	Set the tires pressure to the correct value
Puncture	puncture	contact a qualified technician
Low autonomy of batteries	end of the life cycle of the batteries	contact assistance for the replacement of the batteries

7. FAULT, REPAIR AND ASSISTANCE

Spare parts list

DESCRIPTION	NOTES
Tire wheel	Specify Speedstar version (66 – 55), front wheel or rear wheel, right or left wheel
Inner tube wheel	Specify Speedstar version (66 – 55), front wheel or rear wheel
Cover	Specify Speedstar version (66 - 55)
Motor	Specify left or right
Footrest	Specify seat width and type of footrest (single or splitted)
Backrest canvas	Specify seat width and backrest height
Seat canvas	Specify seat width and depth
Headrest	Specify left or right
Bearing pair for front forks	
Front forks	Specify Speedstar version (66 - 55)
Lights	Specify if position light, directions light or headlights

NOTE: For any other problem, contact the manufacturer.

Serial number

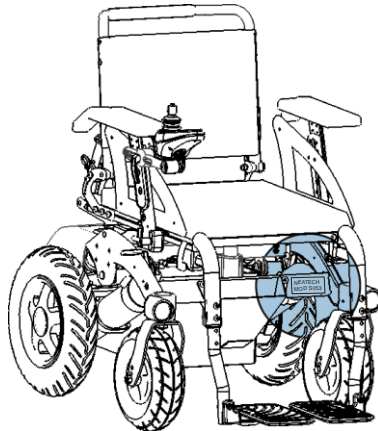


Figure 37

For any report or request for assistance provide the unique identification code on the chassis of each Speedstar as shown in Figure 37.

Warranty terms

Speedstar is a product globally guaranteed for 24 months with the exception of batteries that are guaranteed for six months. The warranty covers defects in materials or workmanship. The warranty does not cover parts subject to usage or damaged parts by: overload, misuse, alterations and repairs made by unauthorized third parties.

The warranty expires in case of tampering, improper storage, unauthorized or incorrect maintenance.

USER MANUAL

SPEEDSTAR

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Our Mission is to transfer technology and solutions from the aerospace industry to the disability sector. We are proud to offer the highest quality products and solutions on the market.

The logo for NEATECH features the word "NEATECH" in a bold, sans-serif font. The letters "NEA" are colored orange, while "TECH" is in grey. A small trademark symbol (TM) is positioned to the upper right of the letter "H".

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