



## SERVICE MANUAL

Netti Mobile with accessory kits



Enable joy of life



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### 1. INTRODUCTION

Netti Mobile is an electrical comfort wheelchair meant for both indoor and outdoor use. It is tested to DIN EN 12184:2009. The tests were carried out by TÜV SÜD Product Service GmbH in Germany.

In Alu Rehab we believe that wheelchairs should be chosen based on a thorough assessment focusing on the needs of the user and demands from the environment.

Therefore it is important to know about the possibilities and restrictions of the wheel-chair. Netti Mobile is an electrical class B wheelchair designed for users with the need for comfort and relief. The combination between the seating system and the ergonomic solutions in the frame construction, offers many possibilities for adaptation and adjustments.

The wheelchair is constructed for indoor and outdoor use, and offers the possibility to vary the sitting position.

Max user weight: 140 kg.

Specifications varies between countries.



#### 2 How to use this manual

This manual supplements the service information published in the user manual. It should be read in conjunction with the spare parts catalogue and the user manual. Where appropriate it should also be read together with the manuals and installation information published by the manufacturers of control systems for powered wheel chairs, the batteries and the battery chargers used on Netti Mobile.

Particular attention should be paid to the following sections of the user manual:

For assembling and adjustment information: section 7

For Shark control systems: section 8.1.1

For DX2 control systems: sections 8.2.

To replace batteries: section 10.3

For general maintenance section 11

#### 3. Third party manuals

We recommend you refer where appropriate to the service and installation manuals that are published by the manufacturers of the power chair control systems, batteries and battery chargers used on this chair.

For Netti Mobiles equipped with Dynamic Shark or DX2 control systems we recommend you download the DX system manual from dynamiccontrols.com and pay close attention to the warnings it contains. The notes in sections 2.1., 2.2 and 3.1 are useful guidance for power chairs equipped with any control system

#### 4. Major service

The following check list describes the checks that must be performed as part of a major service of a Netti Mobile. The corresponding box must be ticked to confirm that the check has been performed. After the check list has been completed it must be signed and dated on behalf of the organization that carried out the major service.

Service interval: For normal domestic use a major service should be performed at least once every 12 months. A major service should be performed more frequently if the power chair is used intensively or if it is exposed to difficult conditions that might cause premature wear or failure.

A major service must be performed if the power chair has been known to be misused or if it has been involved in a collision which could have resulted in substantial damage to the chair.



Contact your local recycling agent to get correct information how to handle in your area.



NETTI MOBILE MAJOR SERVICE LIST	А
СНЕСК	СНЕСК ВОХ
Motors: clean them, check for leakage of lubricant. Check bearings cables and connectors.	
Check that the park brakes on both sides click when the joystick is moved out of neutral with the park brake lever in the drive position. If they do not click this is a sign of a serious failure and the chair must not be driven again until this fault has been corrected.	
The motors and gearboxes should not make loud noises or show signs of burning. If the motors smell of burnt insulation (this is a very strong smell), they will have been used outside of their normal duty. They will need to be replaced immediately. Claims for burnt out motors will not be accepted under warranty unless there are exceptional circumstances.	
Check for normal function of the motors by doing a driving test on flat ground for 2 minutes. If the motors or the park brakes become hot to touch during such a short time there is probably a serious fault either with the motors or the park brakes that must be investigated and rectified.	
Notes: Motors and gearboxes are electromechanical components. It is normal to hear noises from the motors used on Netti Mobile when during normal operation. The standard we work to allows for up to 65dB(A) which might sound loud in a quiet environment such as some hospital wards.	
In some weather conditions and at very low speeds sometimes used for moving a chair in tight spaces you might hear an occasional squeaking sound that goes away as soon as the chair drives at normal speeds. This is normal for this class of motor, it comes from the very small clearance between park brake and the motor housing liner.	
If you change a motor on one side you might notice the chair then veers to one side when the joystick is pushed full forward. If this happens the veer compensation parameter will need to be adjusted. Refer to the control system manufacturer's installation manual for the correct procedure. Veer occurs when there are motors on the chair from different production batches. In severe cases it may be necessary to change the motors on both sides even if only one of them is defective.	

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NETTI MOBILE MAJOR SERVICE LIST	В
CHECK	СНЕСК ВОХ
You may notice that even if a chair does not veer when driving forward it does veer when driven backwards. This is due to the commutation angle of the motors being optimized for driving forward. This is normal for this class of motor. If veer in reverse is a matter of great concern it will be necessary to adjust the veer parameter to allow some veer forward and backwards or to change the control system to a gyro module. This option is available on DX2 chairs at additional cost.	
Tyre pressure -(pneumatic only) should be 3.5 bar	
Tyre condition - check for cracks or abnormal wear.	
Cables - check that the insulation on the cables is intact and that there are no signs of heat damage. Check that any cable that might move during normal operation of the chair remains flexible. If there are any signs of work hardening, (such as a length of a cable that has become bent stiff and cannot be straightened the cable has been checked more closely and replaced if necessary.	
Tie down any loose cables, free any trapped cables and check they are not being constrained within the relevant minimum bending radii. Note: for Dynamic bus cables: 50mm for continuous flexing and 30mm for occasional flexing. Check that any bus cables attached to a controller mounted on a swing-away arm do not be become bent through a radius of less than 50mm at any point during the movement of the swing-away arm. To achieve this you may need to modify or replace the arm rest. In case of difficulty, contact Alu Rehab customer services for advice.	
Electronics control system modules: check they are dry, check all connectors are intact and inserted properly and that they are not loose. Check all chair functions	
User controllers, (such as joystick remotes): clean then check the case for damage and cracking. Make sure all connectors are secure and are fixed firmly in the casing. If there is any sign of movement the controller should be considered to be unsafe. If there is a joystick check the gaiter is not damaged as this will allow liquid to contact the electronic pcbs. Check that the icons on any manual switches are legible. If any of these checks are failed, exchange the user remote control for a new one.	



NETTI MOBILE MAJOR SERVICE LIST	С
CHECK	СНЕСК ВОХ
Batteries - check the battery terminals together with the connectors and cables in the battery circuit. Check the battery cases for leakage. Check that the individual battery voltages when fully charged are the same. If they are different this is an indication that at least one of the batteries is defective and that further investigation is required.	
If necessary use a high quality battery tester appropriate for the type and capacity of the battery fitted. Contact Alu Rehab customer services for recommendations.	
Check inside the electronics enclosure. Make sure the interior is dry and that all screw terminals are tightened properly and secure. Check the lid is fitted securely after you have put it back	
Charger - Connect the battery charger, make sure it is functioning correctly according to the manufacturer's manual. Charge the batteries to full before shipping the chair.	
Fuse - check it has not blown using a multimeter, replace it if necessary.	
Check all moving parts are functioning correctly. Clean hinges and lubricate with acid free bicycle oil as appropriate.	
Clean all wheels. Check the wheel hubs are fixed firmly to the motor shafts. If there is movement between a wheel hub and the motor shaft, tighten the fastenings. If this doesn't eliminate the movement the wheel hub will need to be replaced. If there are signs of corrosion at the motor shaft remove the wheels and put a little copper grease on the motor shafts before putting the wheels on again.	
Note: if you have to remove the drive wheels for any reason, put a little copper grease on the motor shaft before you put it the wheel back on. This helps protect the motor shaft from corrosion.	
Check the caster wheels for excessive movement and make sure they are in serviceable condition. Check the anti-tips are intact and functioning safely. If there is any doubt as to the safety of the wheels or the anti-tips they must be replaced.	

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NETTI MOBILE MAJOR SERVICE LIST	D
CHECK	СНЕСК ВОХ
Park brake release mechanism: check if it is engaging and disengaging the park brakes properly.	
Check the cables for damage and they are not sticking.	
Check the electronics inhibits driving when the park brakes are manually released.	
Screws and washers - check that the screws tighten properly, and that screws and washers are intact.	
Wheelchair frame and all load bearing mechanical components:	
Clean and check for cracks.	
Warning: if any cracks are found in the frame or any other load bearing mechanical components they must be scrapped and replaced. Do not attempt to repair any cracks found in load bearing components.	
Accessories: check any accessories, manual and electronic. Replace any faulty components.	
Test drive – with load up to maximum capacity. Check the chair can climb a 50mm obstacle on a surface with good traction.	
Serial number of the Netti Mobile:	



SIGN OFF -	Netti Mobile Serial Number:
THE MAJOR SERVICE HAS NOT BEEN FINISHED CORRECTLY UNTIL ALL THE ABOVE BOXES HAVE BEEN TICKED AND THE SIGN-OFF BOXES BELOW HAVE BEEN FILLED CORRECTLY.	
MAJOR SERVICE PERFORMED BY:	
COMPANY / ORGANIZATION:	
DATE:	



For any notes:....



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