

VERMEIREN

Maintenance manual
Shell chair





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1 Maintenance

Lifetime of the chair is influenced by its use, storage, regular maintenance, servicing and cleaning.

1.1 Regular Maintenance

The maintenance activities to ensure a good condition for your Vermeiren chair are described below:

- Before every use
 - Check the wheels and make them clean. If necessary change the wheel.
 - Check the brakes and adjusted if necessary.
 - Check screw fastenings are secured.
 - Check the chair (cleanliness, cracks, damage on structural parts) and make it clean. If necessary change the coating.
 - Remove any dirt since it could impair the functioning of the parking brakes.

Only for electrical shell chair:

- Check the cables for visible signs of damage and whether all plugs are properly inserted as indicated in the instruction manual. In the case of damage immediately unplug the power cable.
- Check that the handset or other electric components function properly. If a function is faulty, kindly disconnect the power cable.
- Every 8 weeks: inspected and lubricating or adjusting from
 - Tilt mechanism
 - Adjusting mechanism (seat height, hand grips)
 - Condition of the covers, shell
 - Leg supports
- Every 6 months or for every new user
 - General review
 - Cleanness, Disinfection
 - Function of the wheels: If the rotation resistance is too large, clean the bearings of the steering wheels. If this is insufficient, please consult your specialist dealer.

For your convenience, on the back of this manual is a maintenance plan.

Repairing and assembling of spare parts for your chair may only be performed by the specialist dealer.

Only authorized Vermeiren spare parts may be installed.

1.2 Shipping and storage

The shipping and storage of the product shall be according following instructions:

- Store in a dry place (between +5 °C and +41 °C).
- The relative humidity of the air should be between 30% and 70%.
- Provide sufficient covering or packaging to protect the product from rust and foreign bodies. (e.g. salt water, sea air, sand, dust).
- Store all removed parts together in one place (or mark them if necessary) to avoid mixing up with other products when re-assembling.
- Components must be stored without being subjected to strains (Do not put too heavy parts on the chair, not clamping between something, ...).

Only for electrical shell chair:

- Disconnect the power cable and carefully roll up the power cable with no kinks and place it in the shell chair.
- Check internal cables for squashing and the prevention of kinks.

1.3 Care

1.3.1 Covers

The cleaning of the cover shall be according:

- Clean covers with a cloth moistened with hot water. Be aware that you do not soak the cover.
- Use a mild commercial detergent for removing stubborn dirt.
- Stains can be removed by using a sponge or a soft brush.
- Do not use strong cleaning liquids like solvents, nor use hard brushes.
- Never clean with steam and/or pressure washers.

1.3.2 Plastic parts

Clean plastic parts of your chair with commercial plastic cleaners. Only use a soft brush or soft sponge. Please comply with special product information.

Examples of plastic parts are wheels, protection on the attachment leg support.

1.3.3 Coating

The high quality of the surface layer guarantees optimal protection against corrosion. If the outer coat is damaged by scratching or in some other way, get your specialist dealer to repair the affected surface.

When cleaning, only use warm water and normal household detergents and soft brushes and cloths. Ensure that no wetness gets into the tubes.

Initially the zinc parts only require rubbing with a dry cloth. Stubborn dirt can best be removed by using a suitable commercial zinc polish.

1.3.4 Electronics (only for electrical shell chair)

Before cleaning disconnect the power cable out the power socket.

Clean the electronic parts with a dry cloth.

Do not clean these in an automated washing system or high-pressure cleaner. Do not use any abrasives or sharp-edged polishing equipment like a metal scrubber or brush, since these can scratch the surface of the electronic parts. Do not use fluids that can penetrate in the electronic parts. Do not use a cleaner that contains benzene, alcohol or similar solvents.

1.4 Inspection

In principle we recommend one inspection every year, and a minimum of one before usage is resumed. All of the following checks must be performed and documented by authorized persons:

- Check the frame parts for plastic deformation, cracks and impaired functioning.
- Visually check for damage to the paintwork (danger of corrosion)
- Check the operation of the wheels (free running, level rolling, axle play, wheel immobilizers)
- Check the solidity and tightness of all screws, nuts and bolts.
- Verify the amount of grease on the metal joints of movable parts
- Visually check all plastic parts for cracks and brittle spots

- Check the functioning of the leg support (locking, loading, deformation, wear and tear due to loading, gas pressure springs, adjustment levers).
- Check the operation of other detachable parts (example: multi-point safety belt, treatment table)
- If available: Visually and functionally inspect the gas pressure springs (including the adjusting lever and Bowden cable)
- Completeness of the delivery condition, instruction manual available?

Only for electrical shell chair:

- Visual inspection of the power cable (EPR or similar).
- Condition of the power cable (especially: squashing, abrasion, cuts, visible insulation or inner conductors, visible metallic veins, kinks, bulges, color changes of the outer covering, brittle places).
- The power cable and other electric leads must be laid down securely in such a way that shearing, squashing, and other mechanical stresses are improbable.

The service must only be signed off in the maintenance plan if a minimum of all the above-mentioned aspects have been checked.

1.5 Troubleshooting (only for electrical shell chairs)

The following list will assist you with the troubleshooting of your shell chair.

Problem	Cause of problem
High stresses on the motor, blocking from mechanical system.	<ul style="list-style-type: none"> • Not enough space to incline the shell chair to maximum position.
The shell chair does not work (no power).	<ul style="list-style-type: none"> • The power cable is not connected to the power socket. • The cables are damaged (power cable, ...) or kinks in the cables. • Not all electrical components are connected or working (motor, handset, power supply). • The thermal fuse of the power supply trigger unit overheats. Unplug the power cable for 20 à 30 minutes. Try again, if it still not work contact your specialist dealer.

1.6 Disinfection

- ⚠ **WARNING: Dangerous Products - The use of disinfectants is restricted to authorized personnel.**
- ⚠ **WARNING: Dangerous Products, change on irritate your skin - You should wear suitable protective clothing because the disinfectants could irritate your skin. For this purpose you should also take note of the product information of the solutions concerned.**

All parts of the chair can be treated by scrubbing with a disinfectant.

All steps taken to disinfect rehabilitation equipment, their components or other accessory parts are to be recorded in a disinfection report containing a minimum of the following information (with product documentation appended):

Date of the disinfection	Reason	Specification	Substance and concentration	Signature
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Table 1: Example of a disinfection book

Abbreviations used in column 2 (reason):

V = Suspected infection IF = Infection case W = Repetition I = Inspection

For a blank sheet of a disinfection book see § 6.

The recommended disinfectants for scrubbing (based on the list provided by the Robert Koch Institute, RKI) are standing in the table below. The current state of the disinfectants included in the RKI list can be obtained from the Robert Koch Institute (RKI) (homepage: www.rki.de).

Active substance	Product name	Laundry disinfection		Surface disinfection (scrubbing-/wiping disinfection)		Disinfection of excretions 1 part sputum or stools + 2 parts diluted solution or 1 part urine + 1 part diluted solution						Area of effectiveness	Manufacturer or Supplier
		Diluted solution	Time to take effect	Diluted solution	Time to take effect	Sputum		Stools		Urine			
						%	Hr.	%	Hr.	%	Hr.		
Phenol or phenol derivative	Amocid	1	12	5	6	5	4	5	6	5	2	A	Lysoform
	Gevisol	0,5	12	5	4	5	4	5	6	5	2	A	Schülke & Mayr
	Helipur			6	4	6	4	6	6	6	2	A	B. Braun
	m-cresylic soap solution (DAB 6)	1	12	5	4							A	
	Phenol	1	12	3	2							A	
Chlorine, organic or inorganic substances with active chlorine	Chloramin-T DAB 9	1,5	12	2,5	2	5	4					A ¹ B	
	Clorina	1,5	12	2,5	2	5	4					A ¹ B	Lysoform
	Trichlorol	2	12	3	2	6	4					A ¹ B	Lysoform
Per combinations	Apesin AP100 ²			4	4							AB	Tana PROFESSIONAL
	Dismozon pur ²			4	1							AB	Bode Chemie
	Perform ²			3	4							AB	Schülke & Mayr
	Wofesteril ²			2	4							AB	Kesla Pharma

Active substance	Product name	Laundry disinfection		Surface disinfection (scrubbing-/wiping disinfection)		Disinfection of excretions 1 part sputum or stools + 2 parts diluted solution or 1 part urine + 1 part diluted solution						Area of effectiveness	Manufacturer or Supplier	
		Diluted solution	Time to take effect	Diluted solution	Time to take effect	Sputum		Stools		Urine				
						%	Hr.	%	Hr.	%	Hr.			%
Formaldehyde and/or other aldehydes or derivatives	Aldasan 2000			4	4								AB	Lysoform
	Antifect FD 10			3	4								AB	Schülke & Mayr
	Antiseptica surface disinfection 7			3	6								AB	Antiseptica
	Apesin AP30			5	4								A	Tana PROFESSIONAL
	Bacillocid special			6	4								AB	Bode Chemie
	Buraton 10F			3	4								AB	Schülke & Mayr
	Desomed A 2000			3	6								AB	Desomed
	Hospital disinfectant cleaner			8	6								AB	Dreiturm
	Desomed Perfekt			7	4								AB*	Desomed
	Formaldehyde-solution (DAB 10), (formaline)	1,5	12	3	4								AB	
	Incidin Perfekt	1	12	3	4								AB	Ecolab
	Incidin Plus			8	6								A	Ecolab
	Kohrsolin	2	12	3	4								AB	Bode Chemie
	Lysoform	4	12	5	6								AB	Lysoform
	Lysoformin	3	12	5	6								AB	Lysoform
	Lysoformin 2000			4	6								AB	Lysoform
	Melsept	2	12	4	6								AB	B. Braun
	Melsitt	4	12	10	4								AB	B. Braun
	Minutil	2	12	6	4								AB	Ecolab
	Multidor			3	6								AB	Ecolab
Nüscopept			5	4								AB	Dr. Nüsken Chemie	
Optisept			7	4								AB*	Dr. Schumacher	
Pursept-FD			7	4								AB*	Merz	
Ultrasol F	3	12	5	4								AB	Fresenius Kabi	
Amphoteric surfactants (amfotensiden)	Tensodur 103	2	12										A	MFH Marienfelde
Lye	Lime-milk ³							20	6				A ³ B	

1 Not effective against myco-bacteria when service disinfecting, especially in the presence of blood.
2 Not suitable for disinfecting blood-contaminated or porous surfaces (e.g. raw wood).
3 Useless for tuberculosis; preparation of Lime-milk: 1 part dissolved lime (calcium hydroxide) + 3 parts water.
* Checked for effectiveness on viruses in accordance with checking methods of the RKI (Federal Health Reporting 38 (1995) 242).
A: Suitable for killing vegetative bacterial germs including myco-bacteria as well as fungi, including fungal spores.
B: Suitable for deactivating viruses.

Table 2: Disinfectants

Kindly consult your specialist dealer if you have queries on matters related to disinfection; he will gladly assist you.

2 Guarantee

Excerpt from the "General Business Conditions":

(...)

5. The terms of the guarantee may differ from country to country. Consult your specialist dealer for the guarantee period for warranty claims.

(...)

The guarantee excludes damage arising from structural changes to our products, insufficient maintenance, defective or improper handling or storage or the use of non-original parts. Likewise, the guarantee excludes parts or working parts subject to natural wear and tear.

(...)

3 Disposal

When disposing of the product, contact your local disposal centre or return the product to your specialist dealer who, after submitting it to a hygienic procedure, will be able to send it back to the manufacturer who will dispose of and recycle it correctly, separating it into its component materials.

Packaging materials can be taken to disposal or recycling centers or to your specialist dealer.

4 Declaration of conformity

Only for mechanical shell chair:

The manufacturer or his authorized representative :

VERMEIREN GROUP

Address :

Vermeirenplein 1/15

2920 Kalmthout

Belgium

declares under his sole responsibility that the CE marked devices :

Productgroup: Shell chairs

Productgroup (GMDN): Wheelchair, attendant drive, semi-recumbent (GMDN 31162)

Brand: Vermeiren

Type: Altitude, Coraille, Charme, Charme Deluxe, Elios

have been classified as class I, according to annex IX MDD 93/42/EEC, rule 1,

and is manufactured in full conformity with the European instructions below - including the latest modifications - and with the national law, that organizes this directions :

Medical devices directive MDD 93/42/EEC: 2007

and is in conformity with the relevant European harmonized standards:

EN 12182: 2012, EN12183: 2009

Only for electrical shell chair:

The manufacturer or his authorized representative :

VERMEIREN GROUP

Address :

Vermeirenplein 1/15
2920 Kalmthout
Belgium

declares under his sole responsibility that the CE marked devices :

Productgroup: Shell chairs
Productgroup (GMDN): Wheelchair, attendant drive, semi-recumbent (GMDN 31162)
Brand: Vermeiren
Type: Charme E, Regina, Stylla, ERG'O

have been classified as class I, according to annex IX MDD 93/42/EEC, rule 12,

and is manufactured in full conformity with the European instructions below - including the latest modifications - and with the national law, that organizes this directions :

Medical devices directive MDD 93/42/EEC: 2007

and is in conformity with the relevant European harmonized standards:

EN 12182: 2012, EN12184: 2009



5 Maintenance plan

Date	Maintenance	Remarks	Paraph
1/1/2017	Greasing and general servicing	non	

6 Disinfection book

Date of the disinfection	Reason	Specification	Substance and concentration	Signature

Abbreviations used in column 2 (reason):

V = Suspected infection IF = Infection case W = Repetition I = Inspection



SERVICE

The shell chair was serviced:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

Dealer's stamp:

Date:

- For service checklists an additional technical information, please see our specialist dealers nearest to you. More information on our website at: www.vermeiren.com.



Notes

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