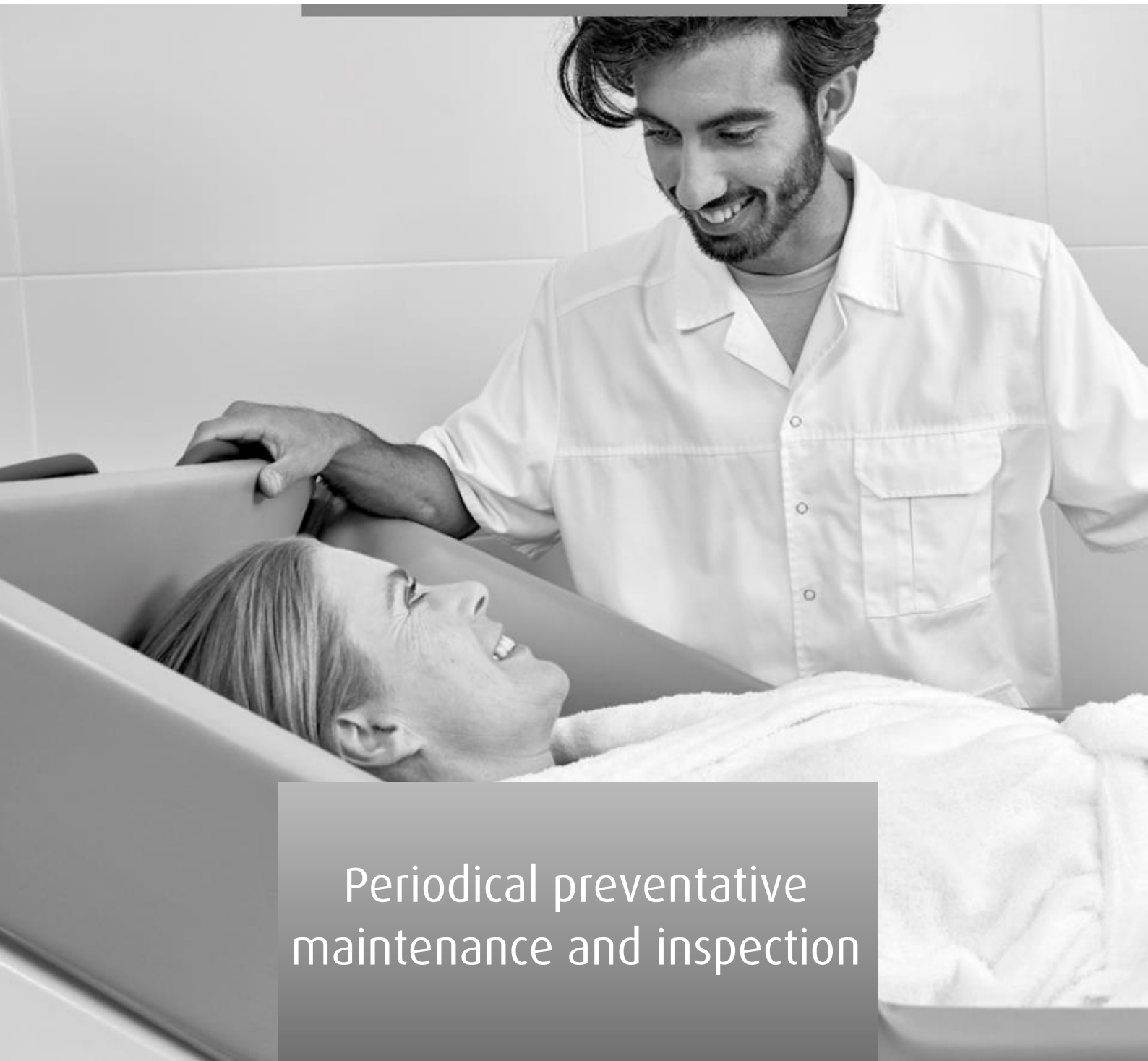




If caregivers have a choice, they choose Lopital



Periodical preventative
maintenance and inspection

Marina basic + Marina deluxe
Shower trolley

Marina basic electric
61002000



Marina basic hydraulic
61002010



Marina deluxe electric
61002050



Marina deluxe hydraulic
61002060



Important!

The Marina basic/Marina deluxe should be inspected at least once a year.

Service and maintenance of the Marina basic/Marina deluxe is only permitted by qualified persons and using original spare parts..

Making changes to the construction could affect the safety of the Marina basic/ Marina deluxe. This will also lead to Lopital's liability and warranty conditions being invalidated. As a result, the Marina basic/ Marina deluxe will no longer comply with the medical devices regulation MDR (EU) 2017/745.

Each inspection or repair must be entered to the log.

The average technical life of the Marina basic/Marina deluxe is 10 years, assuming it is cleaned daily and regularly maintained supplied.

Manufacturer:

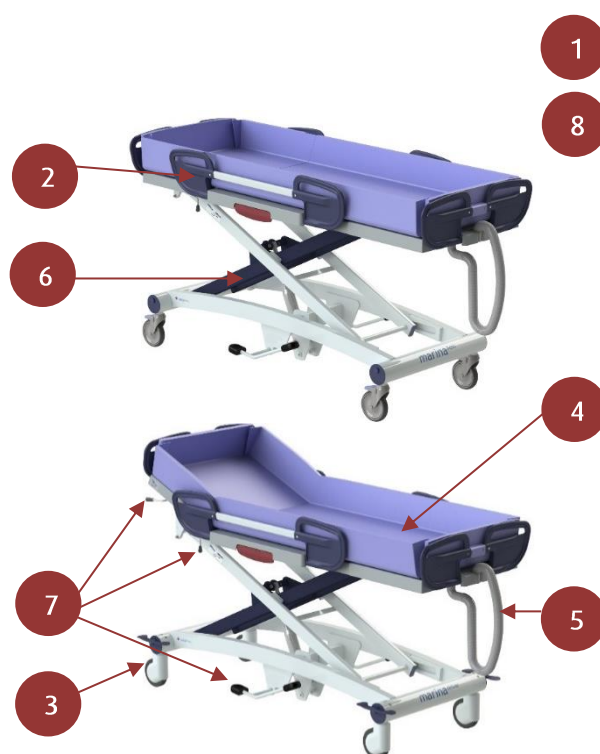
Lopital Nederland B.V.
Laarakkerweg 9, 5061 JR Oisterwijk, the Netherlands
T +31 (0)13 5239300
www.lopital.com, info@lopital.nl

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Marina basic/ Marina deluxe hydraulic

- General condition of the trolley
- Side rails
- Wheels
- Mattress
- Outlet hose
- Scissor system
- Pedals/Operation
- C= Check
S= Service/ lubricate
A= Replacement advised
V= Replacement



Month	12	24	36	48	60	72	84	96	108	120
General condition	C	C	C	C	C	C	C	C	C	C
Side rails	S	S	S	S	S	S	S	S	S	S
Wheels + brakes	C	C	C	C	C	C	C	C	C	C
Mattress	C	C	C	C	A	C	C	C	C	A
Outlet hose	C	C	A	C	C	A	C	C	A	C
Scissor system	C	C	C	C	C	C	C	C	C	C
Pedals/operation	C	C	C	C	C	C	C	C	C	C

Marina basic/Marina deluxe electric

1. General condition of the trolley
2. Side rails
3. Wheels
4. Mattress
5. Outlet hose
6. Scissor system
7. Battery box+ Emergency stop + emergency lowering button
8. Charger
9. Operation
10. C= Check
S= Service/lubricate
A= Replacement advised
V= Replace



Month	12	24	36	48	60	72	84	96	108	120
General condition	C	C	C	C	C	C	C	C	C	C
Side rails	S	S	S	S	S	S	S	S	S	S
Wheels + brakes	C	C	C	C	C	C	C	C	C	C
Mattress	C	C	C	C	A	C	C	C	C	A
Outlet hose	C	C	A	C	C	A	C	C	A	C
Scissor system	C	C	C	C	C	C	C	C	C	C
Operation	C	C	C	C	C	C	C	C	C	C
Battery box + charger (annually NEN3140)	C	C	A	C	C	A	C	C	A	C
Emergency stop	C	C	C	C	C	C	C	C	C	C
Emergency lowering button	C	C	C	C	C	C	C	C	C	C

1. General condition of the trolley

Month	12	24	36	48	60	72	84	96	108	120
	C	C	C	C	C	C	C	C	C	C

Required tools

- Touch- up pen Sikkens 477A2
- Allen keys
- Open-end/ring spanners
- Screwdrivers

- Visually check if all labels are present and legible.
 - Serialnumberlabel:
 - Is the serial number still legible?
 - Is the datamatrix still readable for a scanner?
 - Is the CE logo still visible?
 - Inspectionlabel:
 - Is the inspection date still legible?
 - QR label:
 - Is the QR code still readable for a QR scanner?
- Visually check all painted parts for damage. Touch up if necessary.
- Replace insert caps if they are damaged.
- Are all the screws present and securely fitted?
- Check whether the screws of the actuator/pump/gasspring are securely fitted, both at the top and at the bottom.
- Check the functionality of the high/low adjustment, Anti-trendelenburg and backrest adjustment.
- Check the lying plates for damage. Replace if damaged (cracks).

Present:

- Mattress
- Charger (only 61002000 and 61002050)
- Hand control (only 61002000 and 61002050)

2. Side rails

Month	12	24	36	48	60	72	84	96	108	120
	S	S	S	S	S	S	S	S	S	S

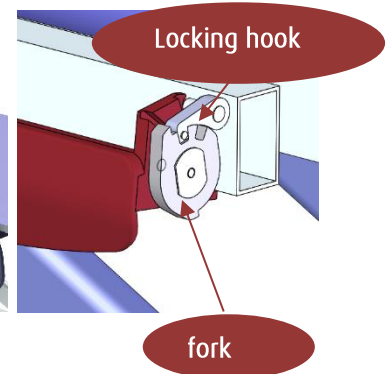
- Both side rails should rotate smoothly.
- They should be easy to lock and unlock.
- Lift the middle lying plate so that the side rail mechanism can be inspected.
- Check all screws for fastening.
- The red handle should be undamaged.
- Lubricate the hinge (shaft), (preferably with Interflon fin super) after excess dirt has been removed.
- Lubricate the locking hook and the fork, (preferably with Interflon assembly grease).

Required tools

- Open-end/ring spanner 13
- Allen key 4 mm , 6 mm
- Flathead screwdriver
- Interflon assembly grease
- Interflon fin super



Figure 1 t/m 4 Side rail



3. Wheels

Month	12	24	36	48	60	72	84	96	108	120
	C	C	C	C	C	C	C	C	C	C

Required tools

- Allen key 3 mm, 5 mm (Marina deluxe)
- Open-end/ring spanner 17 mm (Marina basic)
- Derrick for Marina trolley

Marina basic



Figure 5 Wheel

Marina deluxe



Figure 6 Wheel deluxe

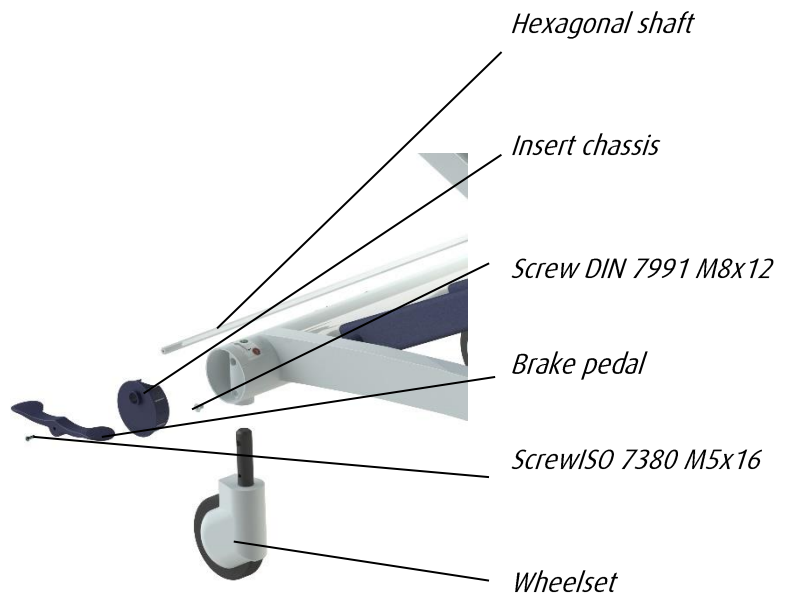


Figure 7 Wheel deluxe exploded view

- Check the attachment of the wheel (Tolerance)
- Check freewheel function + brakes.
- Check the shower trolley right course.
- Brake lip intact (Marina basic) or brake pedal intact (Marina deluxe)?
- Marina deluxe: Check the braking system and adjust the system if the braking power has decreased. When the brakes are activated, push the trolley. When the trolley moves, the brakes must be adjusted, see the explanation on the next page.
- Check the tread of the wheel. Replace all 4 in case of extreme damage.
- Check the attachment of the expander (Marina basic)
- If the castors are very stiff, you should try to solve this by cleaning them.

Replace the wheels if they are damaged or worn.

Adjust Marina deluxe brakes.

Remove the plastic caps from the wheel. You can adjust the braking power with the Allen screw(see figure 8 and 9). The key you need for this is an Allen key 3 mm.



Figure 8 Wheel Marina deluxe



Figure 9 Allen screw

4. Mattress

Month	12	24	36	48	60	72	84	96	108	120
	C	C	C	C	A	C	C	C	C	A

Required tools

-

Check the mattress for any damage and replace when necessary.

Failure items:

- Damage
- Torn fabric
- Damp in mattress
- Severe discolouration
- Severe mould (mainly on underside)

You could ask the mattress to be cleaned thoroughly and check again.

For reasons of hygiene, it is recommended to replace mattress once every 5 years.

5. Outlet hose

Month	12	24	36	48	60	72	84	96	108	120
	C	C	A	C	C	A	C	C	A	C

Required tools

-

Check for any kinks, leaks and blockages.

Failure items:

- Kinks
- Cracks
- Blockage
- Cracked swivel
- Outlet damaged

For reasons of wear and tear, blockage and hygiene, it is strongly recommended to replace the outlet hose once every 3 years.

1. Outlet
2. Clamping ring
3. Outlet hose

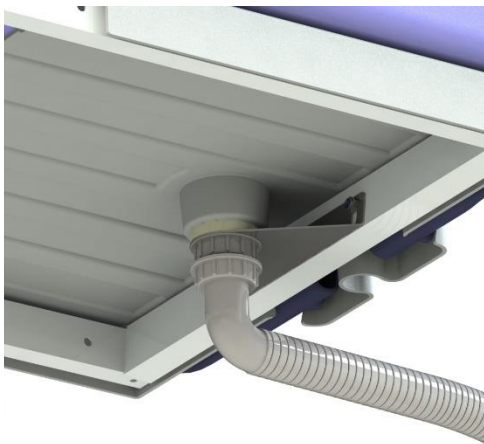


Figure 10 Hose

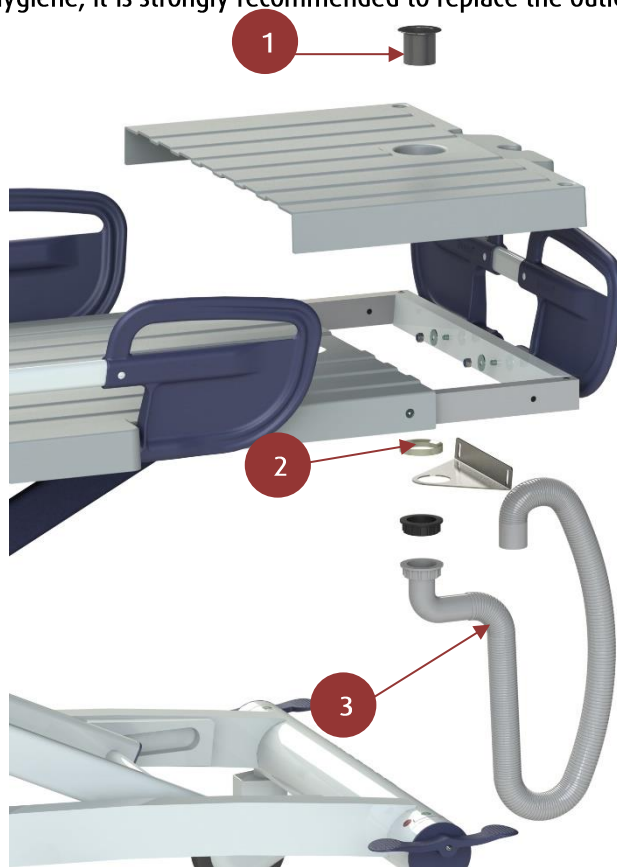


Figure 11 Hose exploded view

6. Scissor system

Month	12	24	36	48	60	72	84	96	108	120
	C	C	C	C	C	C	C	C	C	C

Required tools

- Open-end spanner 17 mm
- Allen key 6 mm

- Check the scissorsystem for damage.
- Check the attachment of the scissorsystem (central axis and Anti-trendelenburg attachment)
- Check the bearings of the scissor system.
- Check whether all 6 inserts are still present.

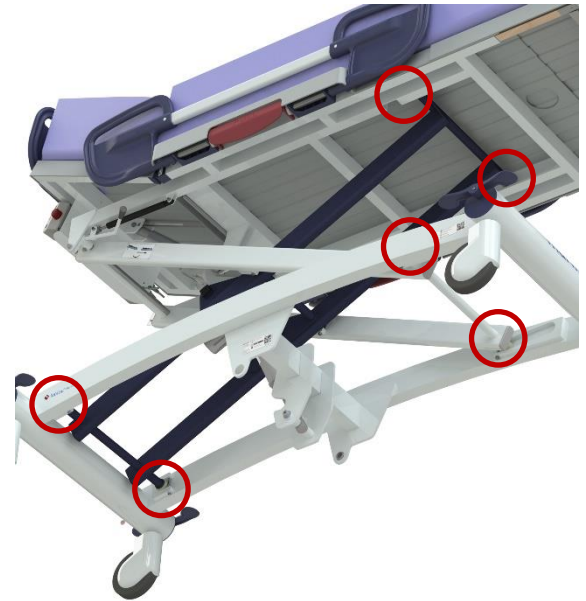


Figure12 Scissorsystem, inserts

7. Operation, emergency stop and emergency lowering device

(Only for 61002050 and 61002060)

Month	12	24	36	48	60	72	84	96	108	120
Emergency stop	C	C	C	C	C	C	C	C	C	C
Emergency lowering button	C	C	C	C	C	C	C	C	C	C
Operation	C	C	C	C	C	C	C	C	C	C

Required tools

- Multimeter

- Check all functions (also pay attention to any noise)
- When the emergency lowering button is pressed, the lying surface should lower
- When the emergency is pressed, the shower trolley should not respond to any command.
- Replace manual operation if the cable is damaged, kinked or overstretched.
- Check cable of the actuators for any kinks or other damaged.

1. Connection hand control
2. Connection actuator High/low
3. Connection actuator back (Only 61002050)
4. Control box
5. Emergency lowering button
6. Emergency stop

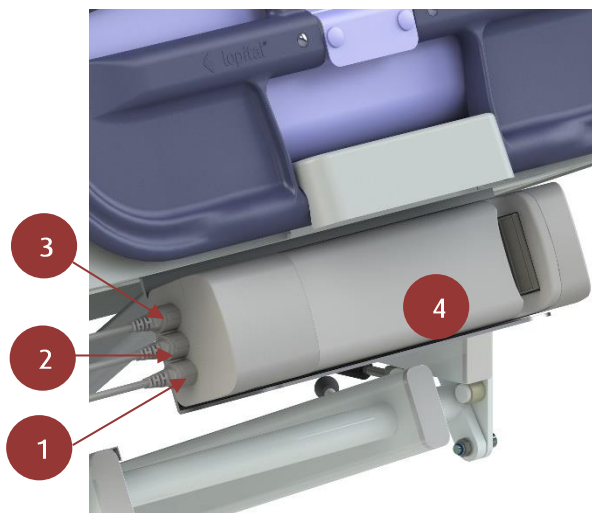


Figure 13 Connections

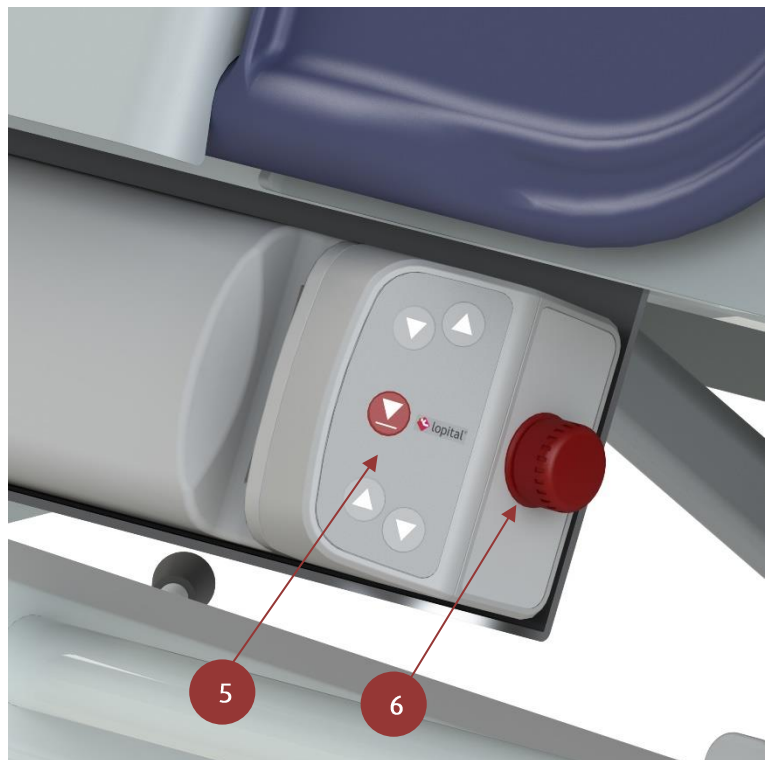


Figure 14 Electrical components

8. Battery box

(Only for 61002050 and 61002060)

Month	12	24	36	48	60	72	84	96	108	120
	C	C	A	C	C	A	C	C	A	C

- A battery can be checked only when it is charged!
- Replace if ≤ 2 Ah ($\leq 70\%$)
- Write the replacement date on the battery box
- Always replace the battery box when it is damaged.

Required tools

- Battery tester

It is strongly recommended to replace the battery box once every 3 years.

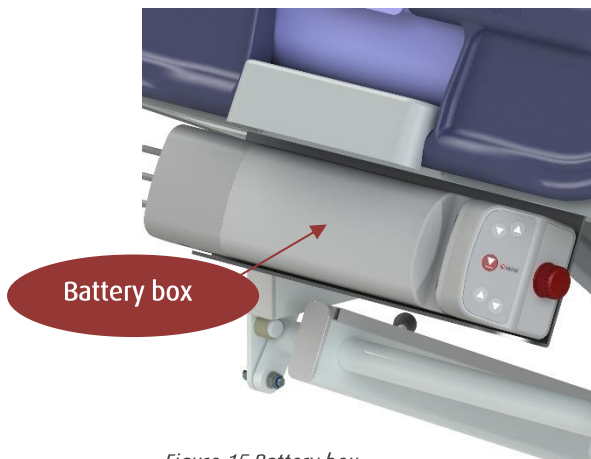


Figure 15 Battery box

9. Battery charger

(Only for 61002050 and 61002060)

Month	12	24	36	48	60	72	84	96	108	120
	C	C	C	C	C	C	C	C	C	C

Required tools

- NEN 3140 Test equipment

- The charger must be tested each year in accordance with NEN 3140 and provided with an identification label and NEN 3140 label.
- Check charger for any damage (plug + cable + holder); if the cable is damaged, replace the whole charger.
- Check the charging voltage; it should be at least the value as indicated on the charger.
- Check whether there is too much corrosion on the connectors; also check the charger connector on the shower trolley.



Figure 16 Charger

For questions about the maintenance protocol, contact Lopital (telephone +31 (0)13 5239300 or mail info@lopital.nl). You will need the serial number (outlined in red) to inform Lopital. See the serial number label on the product for this number.

 lopital [®]  Laarakkerweg 9 5061 JR Oisterwijk The Netherlands T: (031)13-5239300 IPX- Weight: -- kg Type battery: --- Drives operates: -- V Charge: ---V--- mA Non continuous: -----	MD -----	
	REF -----	
	SN -----	
	 --- KG/---LBS  -----	
	 (01)----- Revision - (11)----- (21)-----	



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For more information, visit our website: www.lopital.com

Lopital Nederland B.V. Laarakkerweg 9, 5061 JR Oisterwijk, Postbus 56, 5060 AB Oisterwijk
Tel +31 (0)13 5239300, E-mail info@lopital.nl, www.lopital.com