

Shower Trolley

Hygiene Equipment

Designed for People

Service and maintenance Manual incl. Spare part list

Version 2024-04-30

Registered at Medical Products Agency, Sweden as a MDR Class 1 product according to MDR 2017/745.

TR reserves the right to make design changes and/or improvements without notice.





If you have questions regarding the service instructions or maintenance of your Shower Trolley and cannot find the answer in this manual, please contact us. Only qualified staff who are trained and certified and who can understand all operating and safety procedures may operate and service this equipment.

The shower trolley is designed for years of troublefree operation, with proper use and maintenance.

Mandatory to read the manual before using the equipment



Hygiene Equipment

Shower Trolley

Designed for People

Table of contents

Introduction	3
Manufacturer	4
Spare part lists	4
- TR 4000/4200, onboard batteries	5
- TR 4000R/4200R, removable batteries	10
Wiring diagrams	12
- Wiring diagram circuit board TR 4000/4200, Onboard batteries	12
- Wiring diagram circuit board TR 4000R/4200R removable battery	13
Service instructions main parts	14
- How to replace the lifting column	14
- How to replace the castors with brake	15
 How to replace the castors with straight steering 	15
Service instructions electrical parts	16
- How to replace the batteries	16
- How to replace the circuit board	17
- How to replace the fuse and the fuse cabling	17
- How to replace the hand control	18
- Calibration/Initialization, lifting columns	19
Trouble shooting	20
 Trouble shooting TR4000/4200, onboard batteries 	20
- Trouble shooting TR4000/4200, removable batteries	21
Service instructions Routine Maintenance	22
- Service routine maintenance	22
- Check list annual maintenance	23
- Check list every 5 years	25
- Cleaning instructions	26
- Safety instructions	27
- Maintenance and service record	28



Designed for People

Dear customer, If you need spare parts and can't find it in the spare parts list, contact TR Equipment.

Manufacturer



Shower Trolley

Hygiene Equipment

Designed for People



TR Equipment AB Rundelgatan 2 SE-573 35 Tranås Sverige

Phone: +46 (0)140 38 50 60 www.trequipment.com info@trequipment.se

Group subsidiaries:

USA TR Group Inc.

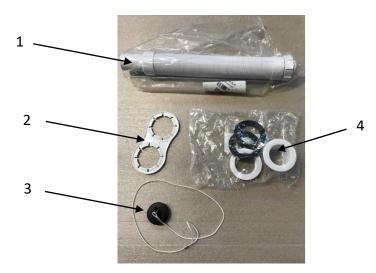
Germany: TranspoRehamed GmbH Phone: +1 (800) 7526900 www.trequipment.com information@trequipment.com

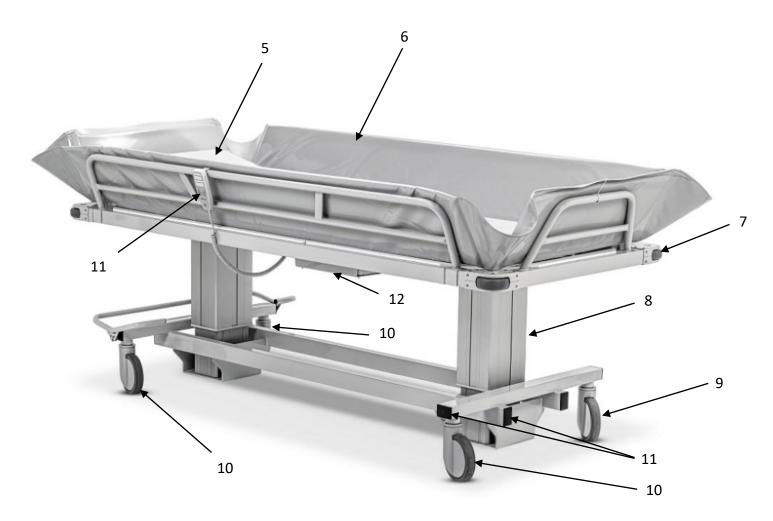
Phone: +49 (0) 212-645850-0 www.transporehamed.de info@transporehamed.de



Designed for People

Spare parts TR 4000/4200, electrical shower trolley







Shower Trolley

Hygiene Equipment

Designed for People

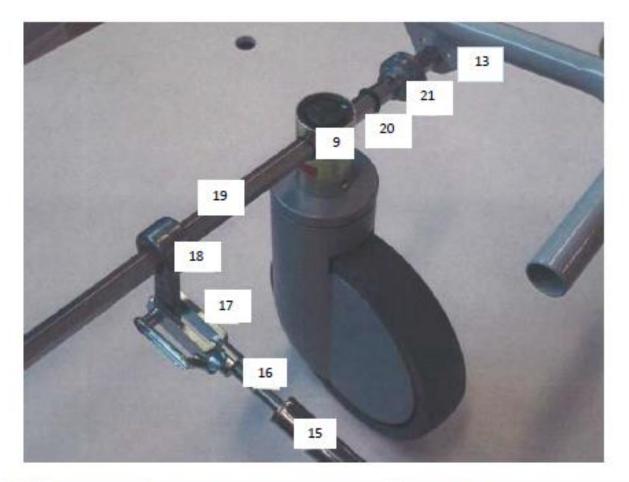
Spare parts TR 4000/4200, electrical shower trolley

Position	Par number	Spare part	Standard
			equipment/Option
1	820818-4224	FLEXIDRAIN HOSE 11/2' 40 L=1M	Standard equipment
2	851020	PLASTIC HOLDER FOR DRAINAGE HOSE	Standard equipment
3	829392	DRAINAGE G1 1/2 W.NUT, SHOW TROLL	Standard equipment
4	829391	DRAINPLUG 45,5 mm WITH STRING, SHOW TROLL.	Standard equipment
5	7419488	HEAD PILLOW GRAY, SHOWER TROLLEY	Standard equipment
5	7418363	BACKREST PILLOW GRAY, ATLAS, 15°	Standard equipment
6	7329913	MATTRESS ATLAS JUNIOR TR4200 GREY	Standard equipment
6	7329504	MATTRESS ATLAS TR4000 GRAY	Standard equipment
6	7329913-02	MATTRESS ATLAS JUNIOR TR4200 BLUE	Option
6	7329504-02	MATTRESS ATLAS TR4000 BLUE	Option
7	850133	RUBBER BUMPER WHEEL ATLAS - ATLAS JR.	Standard equipment
8	7440006	ACTUATOR DL2 FOR ATLAS/TR3000, MOD 2021	Standard equipment
9	850131	CASTOR ATLAS STEERING GREEN 4	Standard equipment
10	850132	CASTOR ATLAS BRAKE RED 6	Standard equipment
11	850575	PLUG SQUARE 40X60	Standard equipment
12	7440000	HAND CONTROL HB30 FOR TR3200, 2-LINES	Standard equipment
13	200126	ELECTRICAL ENCLOSURE TR4000/4200 METAL BOX MOD 21	Standard equipment



Hygiene Equipment Designed for People

Spare parts TR 4000/4200, electrical shower trolley

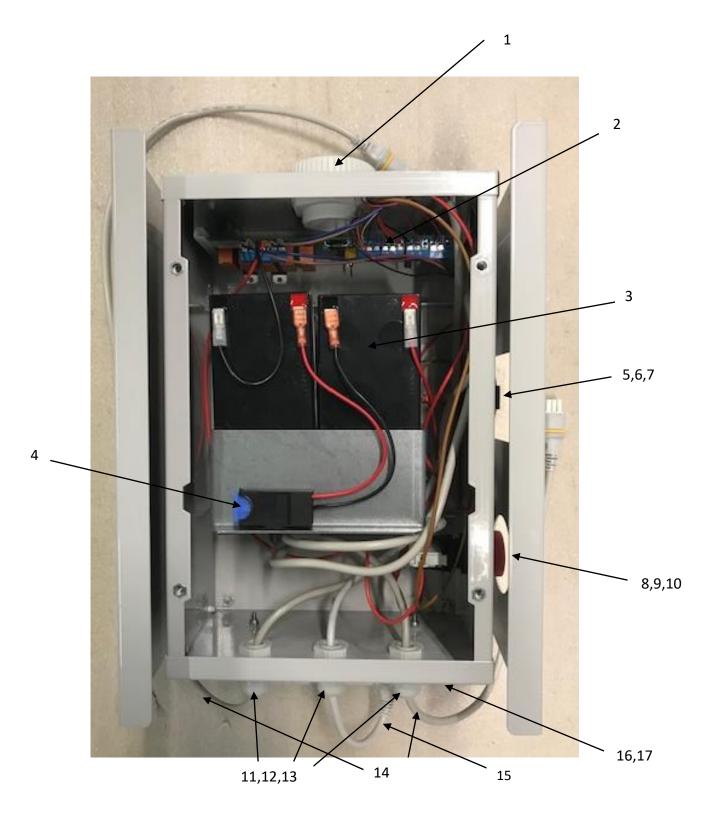


Position	Part.no	Spare part	Shower trolley
9	850132	Castor with brake	TR 4000 / TR 4200
13	3329982	Central brake/steering lever	TR 4000
13	3329982-02	Central brake/steering lever	TR 4200
15	3429977	Rod pipe	TR 4000
15	3429977-02	Rod pipe	TR 4200
16	831960-8050	Threaded rod	TR 4000 / TR 4200
17	850450	Fork incl. lock	TR 4000 / TR 4200
18	3429978	Link arm	TR 4000 / TR 4200
19	3429974	Hexagon rod, head end, L 862mm	TR 4000
19	3429974-02	Hexagon rod, foot end, L 772mm	TR 4000
19	3429974-03	Hexagon rod, head end, L 722mm	TR 4200
19	3429974-04	Hexagon rod, foot end, L 632mm	TR 4200
20	829106	O-ring	TR 4000 / TR 4200
21	3429979	Lever lock	TR 4000 / TR 4200



Designed for People

Spare parts TR 4000/4200, electrical enclosure, P/N 200126





Hygiene Equipment

Shower Trolley

Designed for People

Spare parts TR 4000/4200, electrical enclosure, P/N 200126

Position	Par number	Spare part	Standard
-			equipment/Option
1	819171	VENT PLUG DA 284	Standard equipment
2	819354-02	SPAREPART CIRCUITBOARD TR3000/3200/4000/4200 2021	Standard equipment
3	819030	BATTERY 12V, 7 AH	Standard equipment
4	200117	HOLDER FOR FUSE TR3200/4000	Standard equipment
5	819148	POWER PORT 24V MAGCODE	Standard equipment
6	819150	PORT COVER MAGCODE	Standard equipment
7	829143	GASKET FOR MAGCODE CONTACT	Standard equipment
8	819310	EMERGENCY BUTTON	Standard equipment
9	819312	CONTACT BLOCK FOR THE EMERGENCY BUTTON	Standard equipment
10	829144	GASKET FOR EMERGENCY BUTTON	Standard equipment
11	851650	CABLE GLAND HSK-P PG9 GREY	Standard equipment
12	851650-03	EPDM GASKET, CABLE GLAND PG9	Standard equipment
13	810146-5415	NUT FOR CABLE GLAND PG9	Standard equipment
14	7440007	CABLE, LIFTING COLUMN	Standard equipment
15	815004	CABLE, PCB	Standard equipment
16	7440002	SPLITTER BOX MJB FOR TR3200/TR3000 Mod21	Standard equipment
17	7440004	PLUG FOR SPLITTER BOX MJB, TR3200/ TR3000 Mod21	Standard equipment

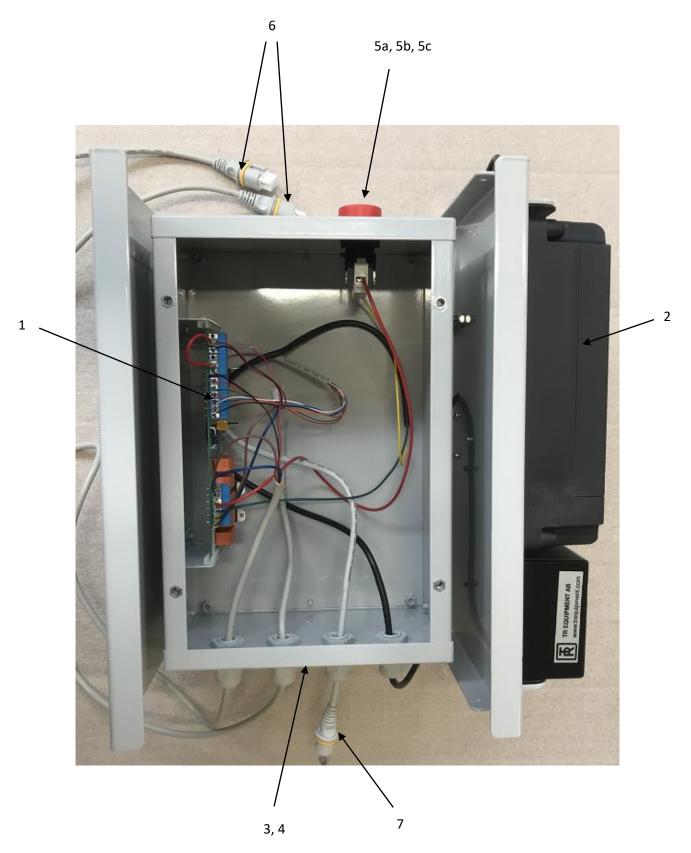


Position	Par number	Spare part	Standard equipment/Option
1	0541226	BATTERYCHARGER MAGCODE 110/230V	Standard equipment
2	819140	EURO PLUG TYPE C	Standard equipment
3	819141	US PLUG TYPE A	Standard equipment
4	819142	UK PLUG TYPE G	Standard equipment



Designed for People

Spare parts TR 4000-R/4200-R, electrical enclosure, P/N 200129





Shower Trolley

Designed for People

Spare parts TR 4000-R/4200-R, electrical enclosure, P/N 200129

Position	Par number	Spare part	Standard equipment/Option
1	819354-02	SPAREPART CIRCUITBOARD TR3000/3200/4000/4200 2021	Standard equipment
2	200110	CONTROLL BOX TBB5 COMPLETE TR1000/3200	Standard equipment
3	7440002	SPLITTER BOX MJB FOR TR3200/TR3000 Mod21	Standard equipment
4	7440004	PLUG FOR SPLITTER BOX MJB, TR3200/ TR3000 Mod21	Standard equipment
5a	819310	EMERGENCY BUTTON	Standard equipment
5b	819312	CONTACT BLOCK FOR THE EMERGENCY BUTTON	Standard equipment
5c	829144	GASKET FOR EMERGENCY BUTTON	Standard equipment
6	7440007	CABLE FOR ACTUATOR DL2, MOD2021	Standard equipment
7	815004	CABLE FOR PCB ELECTRICAL BOX	Standard equipment



Position	Par number	Spare part	Standard equipment/Option
1	0521197	BATT CHARG. TP7. EU, 100-240V, 1,5A, 50-60Hz	Standard equipment
2	0521198	BATT CHARG. TP7. US, 100-240V, 1,5A, 50-60Hz	Standard equipment
3	0521199	BATT CHARG. TP7. UK, 100-240V, 1,5A, 50-60Hz	Standard equipment

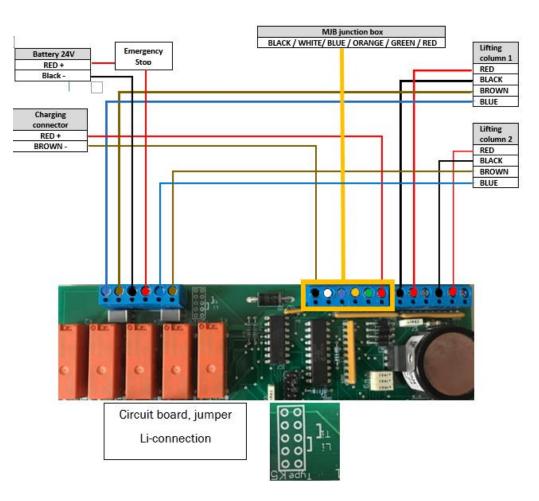


Designed for People

Wiring diagram, circuit board

TR 4000/4200, onboard battery

Wiring diagram TR 4000 / TR 4200





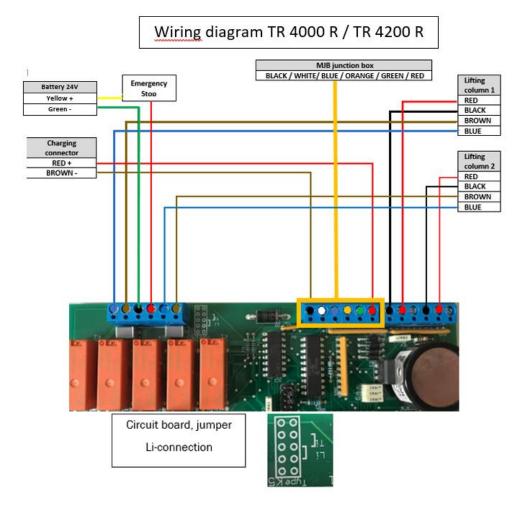
Shower Trolley

Hygiene Equipment

Designed for People

Wiring diagram, circuit board

TR 4000R/4200R, removable battery





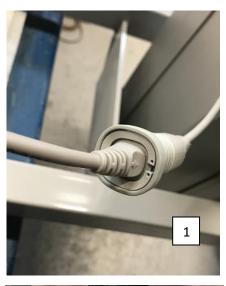
Shower Trolley

Hygiene Equipment

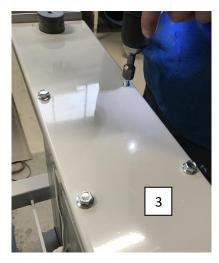
Designed for People

Service instructions

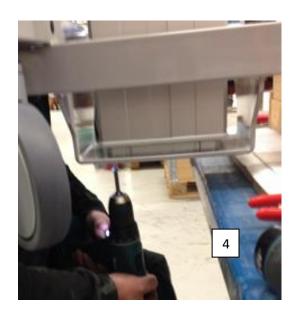
TR4000/4200 - How to replace the lifting column







- Remove pillow, mattress and plastic plate
- Push in the emergency button, cut the cable ties and disconnect the lifting column cable (1).
- Unscrew the four screws holding the stretcher and lift off the stretcher (2).
- Unscrew the four screws on the top of the column (3).
- Unscrew the four screws underneath the column (4).
- Assemble the new lifting column in reversed order.
- Release the emergency button and calibrate the columns.





Shower Trolley

Hygiene Equipment

Designed for People

Service instructions

TR4000/4200 - How to replace the castors







Castor with brake

- Unscrew the screw according to the picture (1).
- Remove the rubber cap and loosen the screw which holding the rod(2).
- Remove the plastic plug and push the rod in to be able to remove the castor(3).
- Lift up the castor and replace it with a new castor.
- Insert the rod and mount the plastic plug.
- Tighten the screw.
- Verify that the brake function on the castor is working properly.

Straight steering castor

Same instructions as for the castor with brake, but you've to remove the brake level also.

- Press the Black straight steering pedal until a click is heard.
- Rotate the castor disc until a click is heard.
- Put the bolt and washer through the new straight steering castor. Put Loctite 243 to the bolt threads.
- Assemble the straight steering castor with the pedal pointing inwards (2).
- Tighten the bolt.
- Verify that the straight steering function on the castor is working properly.





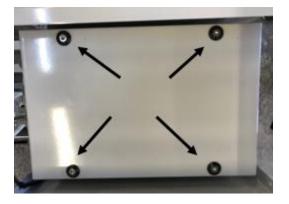
Shower Trolley

Hygiene Equipment

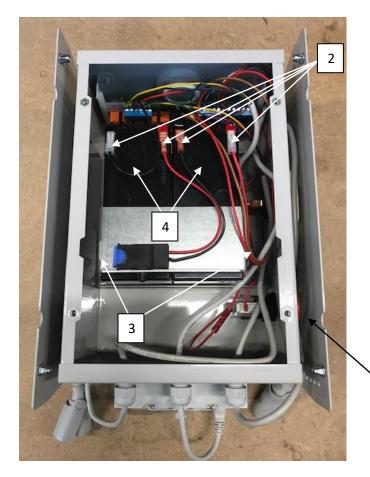
Designed for People

Service instructions

TR4000/4200 - How to replace the batteries



- Remove mattress, pillow, and plastic plate from the shower trolley.
- Unscrew the lid.
- Push the emergency button (1).



- Disconnect the cable shoes from the batteries (2).
- Unscrew the plate which holds the battery (3).
- Remove the batteries (4).
- Assemble the new batteries in the reversed order.

1

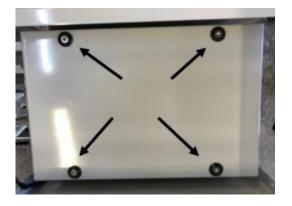


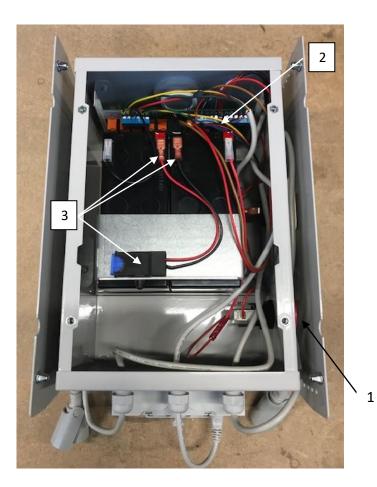
Shower Trolley

Designed for People

Service instructions

TR4000/4200 – How to replace the circuit board and fuse holder.





- Remove mattress, pillow, and plastic plate from the shower trolley.
- Unscrew the lid.
- Push the emergency button (1).

Replace the curcuit board.

- Lift the circuit board from the slots and unscrew all cables (2).
- Connect all cables and assemble the new circuit board in the reversed order. See wiring diagram at page 9-10.

Replace the fuse holder.

- Disconnect the cables and _ remove the fuse holder from the plate holding the batteries (3).
- Connect the cables and attach the new fuse holder to the plate.



Shower Trolley

Hygiene Equipment

Designed for People

Service instructions

TR4000/4200 – How to replace the hand control.



- Use a screwdriver to release the clamp for the cables.
- Stick the screwdriver in the slots at each end of the clamp, then move the screwdriver upwards to release the clamp.
- Pull the connector out of the splitter box.



- Push the connector into the MJB junction box.
- Attach the cable gland by pushing it from above into the MJB junction box to secure the cables.



Shower Trolley

Hygiene Equipment

Designed for People

Service instructions

TR4000/4000R/4200/4200R - Calibration/Initialization

Use the hand control to calibrate/initialize the lifting columns.

- Press the DOWN button and run the lifting columns to the lowest position.
- When the lifting columns are in the lowest position press the DOWN button again.
- Press the DOWN button once more and two short tones will be heard.

When you hear the two short tones the lifting columns are calibrated/initialized and the shower trolley is ready to be used again.





Service instructions

Electrical trouble shooting TR3200, -L, onboard batteries

Problem	Check list
The lifting column doesn't work.	 Is the emergency stop activated? (Release if necessary) Is the contact block for the emergency properly fastened? Check the voltage on both batteries. Check the connections on the circuit board. Check the wiring diagram. Is the Circuit board jumper in Ti- position? Is the foot control or hand control, OK? Replace lifting column.
The lifting column only work small steps at a time.	 Check that the circuit board jumper is in Ti-position. Check the wiring diagram. Replace circuit board. Replace the lifting column.
There's a beep coming from the shower trolley.	 If the beep is a long and short beep the batteries must be charged. If the beep is one long and two short the lifting column needs to be calibrated. (See table of contents in the Operating manual)
It's not possible to charge the batteries. (The LED light on the battery charger turns Green immediately when I connect the battery charger.)	 Check if the emergency stop is activated. (Release if necessary.) Is the contact block for the emergency stop properly fastened? One or both batteries probably have too low voltage. Check the voltage and replace if necessary. Replace circuit board.



Service instructions

Electrical trouble shooting TR3200-R, -LR, removable battery

Problem	Check list
The lifting column doesn't work.	 Is the battery ON? (Press the ON button) Is the battery charged? (charge the battery for at least 8 hours). Is the emergency stop activated? (Release if necessary) Is the contact block for the emergency properly fastened? Check the connections on the circuit board. Check the wiring diagram. Is the Circuit board jumper in Ti- position? Is the foot control or hand control, OK? Replace lifting column.
The lifting column only work small steps at a time.	 Check that the circuit board jumper is in Ti-position. Check the wiring diagram. Replace circuit board. Replace the lifting column.
There's a beep coming from the shower trolley.	 If the beep comes from the battery and the battery has an orange light, the battery must be charged. If the beep is one long and two short the lifting column needs to be calibrated. (See table of contents in the Operating manual)
It's not possible to charge the battery.	- Replace the battery.



Service instructions, routine maintenance

Monthly maintenance:

- Make sure that screws and fastenings are tightened. It's important that all screws and fastenings are checked and tightened if needed, including those not easily visible.
- Make sure that all castors are tightened. When replacing castors use only castors and fasteners supplied by TR Equipment.
- Inspect all castors to ensure they are cleaned and make sure brakes and straight steering are fully functioning.
- Make sure that raise and lowering function works properly the entire lift range.
- Make sure the tilting functions works properly.

Annual maintenance:

It's recommended to consult an authorized service/maintenance technician to perform a full inspection of the shower trolley annually.

- Thorough inspection of before every use, daily, weekly and monthly maintenance instructions. See check list on page 23-25.
- Make sure that the mattress and pillow are in good condition.
- Replace drainages, drain plugs and drainage hose.
- The shower trolley should immediately taken out of operation if defects or irregularities are noted.

Prompt service is required.

Maintenance every 5 year:

- Replace both lifting columns and control box.
- Replace castors.



Service instructions, routine maintenance

Check list annual maintenance

Chassis	Comment:	Action:
Is the shower trolley properly		
cleaned and dried?		
Yes No		
Chassis	Comment:	Comment:
Are screws and fasteners		
tightened?		
Yes No		
Chassis	Comment:	Comment:
Any signs of wear or damages?		
Yes L No L		
Mattress and pillow	Comment:	Comment:
Are mattress and pillow cleaned properly and in good		
condition?		
Yes 🛄 No 🛄		
Side rails	Comment:	Comment:
Is it possible to raise and lower		
the side rails?		
Yes No		
Drainage	Comment:	Comment:
Replace drainage, drainage		
hose and drainage plugs.		
Yes No		



Service instructions, routine maintenance

Check list annual maintenance

Lifting columns Is it possible to raise and lower the lifting columns the entire lift range? (Use the hand control)	Comment:	Action:
Yes No		
Lifting columns Is it possible to tilt the stretcher? (Use the hand control)	Comment:	Comment:
Yes No		
Lifting columns Calibrate/Initialize the lifting columns. See instruction on page 19.	Comment:	Comment:
Yes No		
Castors Are the castors cleaned and fully functioning?	Comment:	Comment:
Yes No		
Castors Are brakes and straight steering functioning properly? Yes No	Comment:	Comment:
Castors	Comment:	Comment:
Are the castors properly fastened?		
Yes No		



Designed for People

Service instructions, routine maintenance

Check list every 5 years maintenance

Lifting columns Replace lifting columns.	Comment:	Action:
Yes No		
Castors Replace castors. Yes No	Comment:	Comment:
Shower trolley approved and OK to use?	Comment:	Comment:
Yes No		

Note:

The shower trolley should be immediately taken out of operation if defects or irregularities are noted. Prompt service is required! Contact your TR Equipment representative.

Order or download a new Service and maintenance manual after annual maintenance!

Company / Person

Serial number

Maintenance date

Signature



Shower Trolley

Designed for People

Cleaning instructions

Note:

The user/operator is responsible selecting the correct cleaning liquid/detergent and additives according to local regulations and safety standards. Please read the cleaning liquid/detergent supplier's instruction manual and find out whether the product is suitable for use with the product.

General cleaning recommendations for mattress, pillow and plastic plate:

- Select cleaning interval according to the degree of contamination.
- Contaminations should be removed as soon as possible in order to prevent material damage.
- DO NOT use tools which might damage the surface of the mattress and pillow, instead use a towel, sponge or soft brush.
- The mattress, pillow, plastic plate and chassis must be dried when the shower trolley is not in use.

General guidelines for cleaning liquids/detergents:

- No solvent based or strong alkaline cleaning liquids/detergents, use of these products may cause damage.
- Use only nonabrasive types of detergent.
- Less than 5Wt% chloride content.
- Less than 3Wt% alcohol content.

Cleaning process:

- Lightly brush off loose dirt particles first, then rinse material with clear water.
- Spray on the cleaning liquid/detergent in recommended concentration or apply with a clean towel. Dose the amount according to the degree of contamination.
- Allow cleaning liquid/detergent to act for a short while (2-5 minutes) and wipe it off with a towel.
- Rinse off dirt and cleaning liquid/detergent residues thoroughly with cold or lukewarm water to prevent material discolorations.
- When the shower trolley is not in use, all parts on the shower trolley must be properly cleaned and dry.

Note:

After cleaning the lifting columns, dry them before use.

Note:

Pool areas are aggressive environment.



Shower Trolley

Hygiene Equipment

Designed for People

Safety instructions

In case of accident

Note:

In case of a serious incident when using the TR4000/4200 shower trolley, this should be reported to the manufacturer and to the local authorities where you are established.



TR Equipment AB Rundelgatan 2 SE-573 35 Tranås Sweden

<u>www.trequipment.com</u> <u>info@trequipment.se</u> Phone: +46 (0)140 38 50 60

Group subsidiaries:

USA TR Group Inc.

Phone: +1 (800) 7526900 www.trequipment.com information@trequipment.com

Germany: TranspoRehamed GmbH

Phone: +49 (0) 212-645850-0 www.transporehamed.de info@transporehamed.de



Shower Trolley

Designed for People

Maintenance and service record

Date:	Comment:	Signed by: