

TR 1700 Height adjustable bathtub

Instructions for use - English



Always study this manual carefully before you attempt to operate your bathing system. The operator/user must always have access to the operating manual.

This bathing system is intended for professional use only where the patient will be under supervision of trained personnel.

Operating instructions and recommended maintenance procedures are explained in the following pages.

If you have any questions regarding the operation or maintenance of your bathing system and cannot find the answer in this manual, please contact us.

The system is designed for years of trouble free operation, with proper use and maintenance.

Bathtub and shower water must be run at least every three days.



Always read the user manual

Always make sure that you have the correct version of the manual and it is mandatory to read the Instructions before the first time of using the equipment.



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.

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Manufacturer



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Introduction

Dear Customer,

Thank you for choosing one of our quality products. We hope you enjoy the TR 1700 height adjustable bathtub.

This manual shall, in conjunction with staff training, ensure that the operator/user is always using and/or operating the TR 1700 correctly.

New colleagues must be trained by qualified and experienced staff.

TR Equipment AB requires that each user has read and understands the entire operating manual and that they can apply the instructions as specified. This applies to anyone who was not present at the in-service.

This instruction manual should generally be kept easily accessible for every user. Copying the whole manual is encouraged since its sole purpose is to improve the standard of training and safety.

Please order another copy from us if the instruction manual is lost or unusable, or if it has become illegible over time.

If you need further information, do not hesitate to contact TR Equipment AB or one of our qualified partners.



Always read the user manual

Always make sure that you have the correct version of the manual and it is mandatory to read the Instructions before the first time of using the equipment.



Warning

- Mandatory to read the manual before using the bathtubs
- Make sure you have read, understood and applied the information on the following pages before using the bathtubs.

Intended use:

The **TR 1700** is intended for bathing and showering patients.

The **TR 1700** is only intended to be used for short term use <60min when in contact with breached or compromised skin.

The **TR 1700** is NOT intended to be used with patients that exceed a weight of 150kg.

The **TR 1700** is intended to be used indoors in all types of facilities and private homes, including hygiene areas.

The **patient** is typically a person who is unable to take care of their own personal hygiene.

The **patient** shall always be under supervision of a user.

The **user** is any adult person who is capable of reading and understands the operating manual and is qualified to care for dependent persons/patients.

Before using the TR 1700, the **user** must read and understand the operating manual.

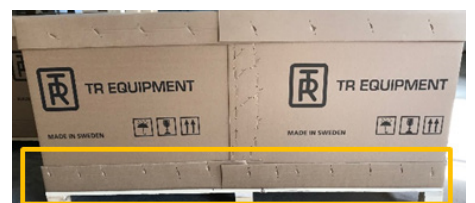
Unpacking

When you receive a bathtub from us it's placed on a pallet surrounded by a cardboard crate. If the cardboard box is wrapped in plastic carefully cut and remove the plastic.



Start unpacking the bathtub by removing the lower carton staples with a pliers.

DO NOT use any sharp tools that may scratch the bathtub.



Carefully lift off the cardboard frame from the pallet. When lifted, do so briefly and use at least two people.

Carefully lift off the bathtub from the pallet. **DO NOT push or pull the bathtub!**



Warning

- Never push or pull the bathtub! Always lift the bathtub from the pallet and into position!
- Mandatory to read the operating manual before using the equipment
- Make sure you have read, understood, and applied the information on the following pages before using the bathtub.

Installation instructions

The TR 1700 is delivered fully assembled, ready to be connected to water and power supply at the customer's premises and should be installed according to local guidelines and regulations.

The tub must be cleaned before the first use!

Assembly process:

Do not drag nor push the bathtub across the floor as this will damage the lifting columns or legs. When lifted, do so briefly and use at least two people.

1. Once the bathtub is in its final position, once again lift the bathtub briefly at each end at the same time to release any tensions that might have been created between the lifting columns during installation.
2. The adjustable feet are used to level and adjust the bathtub. Please note that the head end of the bathtub must be approximately 2cm (3/4" inch) higher than the foot end to allow the water to drain more easily.
3. Flush the pipes at the premises thoroughly before connecting the TR 1700 bathtub to protect the tub and fittings from dirt.
4. A certified electrician shall connect the mains cord to a wall mounted mains connection (splash proof) and in accordance with local regulations.
5. Raise the tub to its highest position and use the flexible drain hose to establish connection between the floor gully and the drainage outlet underneath the tub.
6. **Carry out a functional test (Height adjustable bathtub):**
Test the UP/DOWN function by pushing each button the hand control. An initialization shall be performed before the first use. See table of contents for separate Initialization/calibration instructions.
7. **Carry out a functional test of the thermostatic mixer:**
The GROTHERM 800 thermostatic mixer is pre-set to a Maximum outlet temperature of 43° at ideal installation conditions at the factory. Make sure that maximum outlet temperature is 43°. If the maximum outlet temperature is higher an adjustment needs to be done according to the instructions from the manufacturer of the thermostatic mixer (separate manual supplied at delivery).
ALWAYS physically check the water temperature by hand before and during bathing to ensure correct function of the thermostatic mixer.
8. Carry out a Scalding safety function test:
Start filling the tub with water, shut OFF the cold-water supply to the thermostatic mixer. Within 2 seconds the thermostatic mixer shall be shut OFF. If the thermostatic mixer continues to supply only HOT water the thermostatic mixer needs to be replaced. **DO NOT** use the tub until the thermostatic mixer has been replaced.
9. Make sure the diverter mechanism allows you to switch between the tap and shower function.
10. Check that cold/hot water connections and make sure the drain hose is intact.
11. Make sure that the mains cord is free from damage and properly connected.



Warning

- The bathtub may only be used after it has been successfully and correctly installed.

On-site preparations:

1. 3/4" Inch (hot and cold) water connections.
2. Check valves and shut off valves according to local regulations.
3. Incoming water pressure 1-5 bar.
4. Mains connection 230V/50Hz or 110V/60Hz depending on model.
5. Fuse 10A

The bathtub must be connected to the mains via a cord that is connected to a **GFCI, Ground Fault Circuit Interrupter**, including an easily accessible switch near the bathtub (Not supplied by TR Equipment).

Warning

- All electric conduit, fitting and wiring to bath supplied must be installed by a certified electrician in accordance with local regulations. Main switch, main fuse and earth circuit breaker are NOT included at delivery and must be supplied by others.

Installation of the thermostatic mixer:

1. Flush the pipes at the premises according to DIN1988.
2. Attach connections (hot and cold) to the water supply
3. The hot water supply needs to be on the left side and the cold-water supply must be on the right side.
4. Check the connections for any leaks and make sure the fittings are working properly.

Calibration/Initialisation

An initialization/Calibration should be carried out on the height adjustable TR 1700:

- The very first time the bath is started up
- After power failure
- If the power has been disconnected from the mains supply.

Reason:

The initialisation/calibration function (continuous movement monitoring) is designed with the safety and protection of the equipment in mind. The control switches OFF automatically if one of the lifting columns is working faster than the other one.

- Lower the bathtub to the lowest position.
- Press the DOWN button once.
- The initialisation/calibration is now finished.



Safety Instructions

- The TR 1700 bathtub may only be operated by qualified and trained staff.
- New colleagues must be trained by qualified and experienced staff.
- Never leave the patient unattended.
- All safety and operating instructions must be read, understood, adhered to, and applied when using the bath.
- Only step into the height adjustable TR 1700 bathtub when the bathtub is in its lowest position.
- Only step out of the height adjustable TR 1700 bathtub when the bathtub is in its lowest position.
- When using the TR 1700 height adjustable bathtub together with a mobile bath lift TR9650, the patient must be seated, comfortably on the chair, with **safety belts** securely attached.
- Safety belts must be maintained in good condition.
- The bathtub may only be installed and connected according to TR Equipment AB Installation instructions.
- All electrical installations must be performed by a certified electrical installation company and according to local regulations.
- All plumbing installation must be performed by a certified plumbing installation company and according to local regulations.
- The bathtub may only be connected to the power supply via a cord that is connected to a **GFCI (Ground Fault Circuit Interrupter)** including an easily accessible switch near the bathtub.
- Even if you have chosen TR Equipment AB or a TR Equipment distributor to install the bathtub, the cold and hot water supply and Electrical wiring is the responsibility of the buyer. All electrical wiring and plumbing must be performed by a certified electrical- or plumbing installation company.
- Repairs shall only be carried out after consulting the supplier of the bathtub or TR Equipment.
- Repairs shall only be carried out by specialist firms using original spare parts.
- Maintenance work must be carried out by specialist firms or trained staff.

In case of accident

Note:

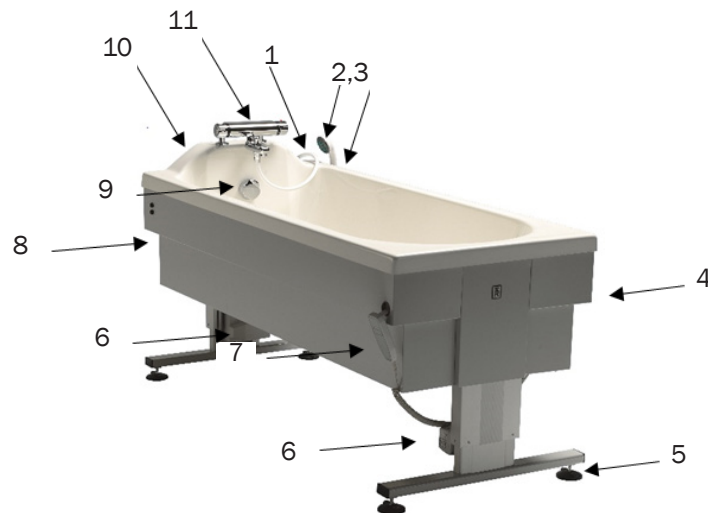
In case of a serious incident when using the TR 1700, this should be reported to the manufacturer and to the local authorities where you are established.



Warning

- Patient shall never be left unattended
- Always check the water temperature by hand before using the shower on the patient to prevent patients from being scalded or shocked by cold/hot water.
- NEVER enter or step out of the height adjustable TR 1700 bathtub when the bathtub is in a raised position.
- The equipment shall not be used in any way that varies from the safety precautions and operating procedures described in this manual. The equipment shall not be operated by anyone until the user has read and understands the Operating manual.
- The manufacturers warranty and liability expires automatically if modifications or repairs are carried out, or if components are exchanged or opened without approval from TR Equipment.

Features and Controls



1	Shower hose, White
2	Shower handle, White
3	Bracket for shower handle, White
4	Control box (behind the side cover)
5	Foot
6	Linear actuators
7	Hand control
8	Tub side cover
9	Overflow drainage
10	Flexible connecting hose, Hot and Cold Water
11	Thermostatic mixer

Product description

The TR 1700 height adjustable bathtub can be raised and lowered to infinite positions within the height range. The bathtub is, as standard, produced with a White fiberglass tub and Grey side covers.

The TR 1700 is designed for bathrooms in nursing homes, clinics and hospitals and consists of:

- The tub is made of fiberglass reinforced polyester covering the whole supporting frame, lifting columns, legs, control box and internal sanitary installations.
- Side covers are produced in Grey metal plate. As an option the side covers can be produced in other colors.
- The 1/2 inch cold and hot water inlet hoses are located at the tap end.
- Overflow protection and pop-up drain which opens and closes the drainage system by rotating the overflow valve.
- The thermostatic mixer is designed to regulate the water temperature to the bathtub filling spout and to the handheld shower. See separate operating manual for the thermostatic mixer (supplied at delivery) for further information.
- The shower handle with shower hose is to be used to shower the patient and to rinse the equipment after cleaning.
- Two synchronized lifting columns for height adjustment.
- Adjustable feet if the floor should be uneven.
- The hand control with spiral cord is located on the hatch bracket and is used to raise and lower the tub.

Product description	Version
TR 1700, height adjustable incl. drainage and thermostatic mixer.	230V/50Hz, 10A 110V/60Hz, 10A

Product description		
Ø40mm drainage (std)	Customised color	Thermostatic mixer Grotherm 800 (std)
Thermostatic mixer TMV2	Thermostatic mixer TMV3	Without thermostatic mixer
Shepherds crook		

Possible equipment combinations	
TR 1700 height adjustable	TR9650 – Chair lift



Technical specification

TR 1700, height adjustable bathtub supplied with Grotherm 800 thermostatic mixer	
Input Voltage	1-Phase 230VAC/50Hz, 10A
Control voltage	24V DC
Maximum load	Patient weight shall not exceed 150Kg
Water volume	160L / 42 gallons excl. patient
Outside length	1685mm
Outside with	695mm
Inside width (head end)	590mm
Inside width (foot end)	590mm
Inside width (tub body)	590mm
Overall weight	95kg / 210lbs
Adjustable height	From 660mm – 960mm/ 26" – 38"
Access height	660mm / 26"
Clearance between floor and the bottom of the tub	250mm / 10"
Lift stroke	300mm / 12"
Lift speed	Ca 12mm/s
Lifting time (filled bathtub)	Ca 35 sek
Lowering time (filled bathtub)	Ca 35 sek
Lifting power per actuator	2500N / 250kg
Recommended water pressure	1-5 bar
Maximum static water pressure	5 bar
Flow at 3 bar, bath filling	20l/minute
Recommended hot water temperature supplied to mixer	60°C (Maximum 70°)
Maximum hot water temperature supplied from mixer	43°
Connection hoses hot and cold water	BSP ¾ female

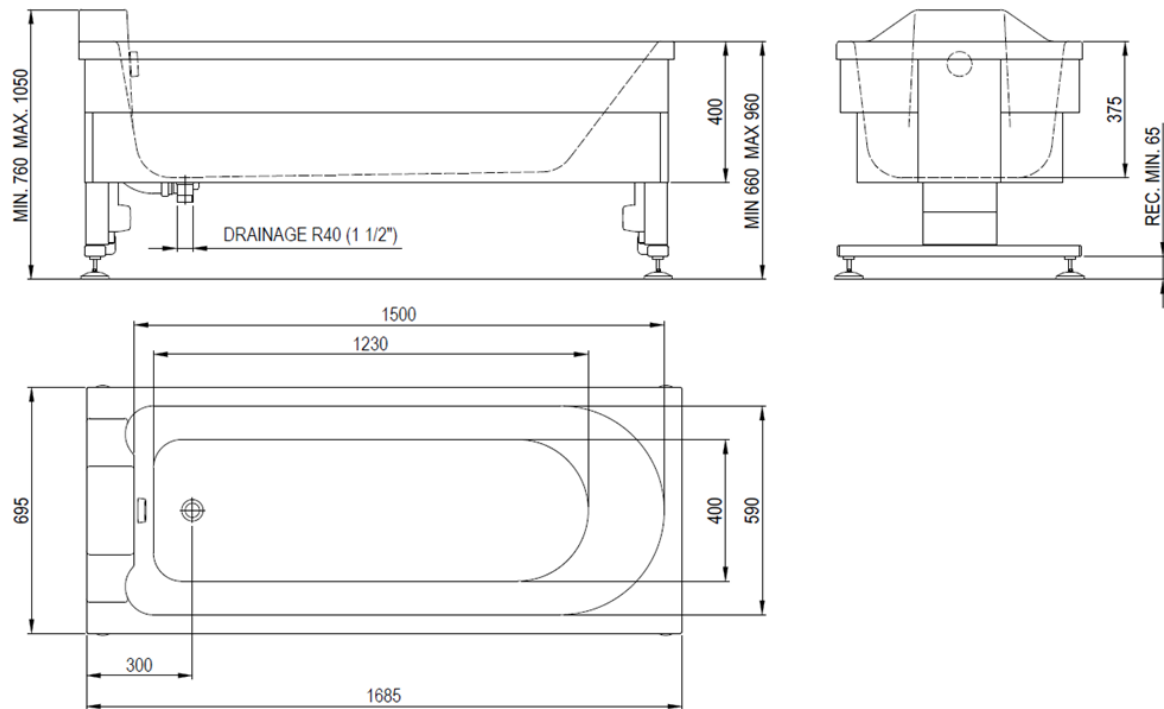
Technical life span	10 years if the product is serviced and maintained according to instructions in this manual.
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Transport and storage	
Ambient temperature	-20°C - +70°C -4°F - +158°F

Technical specification

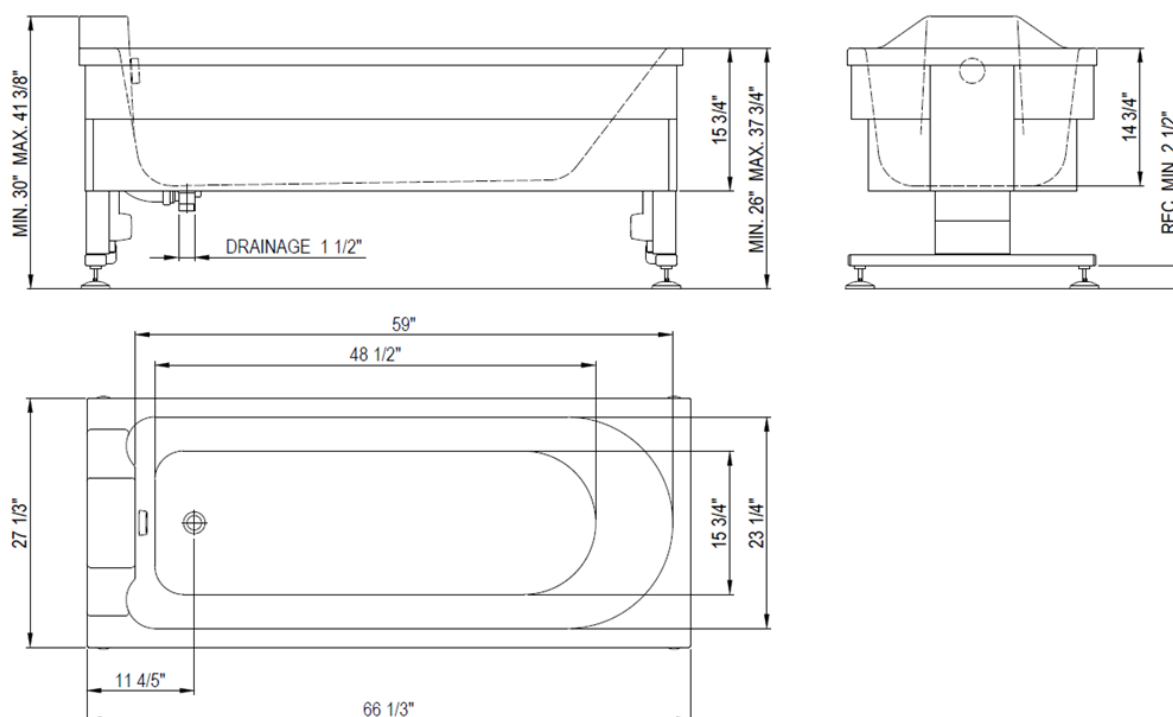
Height adjustable bathtub, TR 1700

Dimensions in mm.



TR 1700 bathtub

Dimensions in mm.



User Instructions

Fill the bathtub with water:

- Turn the overflow drainage knob clockwise to close the drain plug.
- Start filling the tub with water by turning the OPEN and
- CLOSE knob on the thermostatic mixer.
- Adjust the outlet water temperature by turning the temperature knob on the thermostatic mixer. Maximum outlet temperature is 43°C.
- Fill the tub with water to required level and turn OFF the thermostatic mixer by turning the OPEN and CLOSE knob on the thermostatic mixer.
- Check the water temperature physically, by hand or with a thermometer.
- Empty the tub by turning the overflow valve counterclockwise to open the drain plug.

Enter and leave the bath:

If the patient enters the bath themselves with assistance from caregiver:

- Lower the tub to the lowest position with the hand control allowing the patient to enter the bath with assistance.
- Place the hand control back into the hole on the side of the tub (fotändan).

If the patient is assisted into the bath with a lift system:

- The lifter must be positioned close to the side of the bathtub. Lock the castors with brake.
- The bathtub should be in a convenient working height and be adjusted by pressing the UP or DOWN button.
- Place the hand control back into the hole on the side of the tub (foot end).

Showering:

- The shower handle is used to shower the patient and to rinse equipment after cleaning.
- Hold the shower handle over the tub and pull the diverter knob on the thermostatic mixer to start the shower.

Height adjustment:

- Press the UP symbol on the hand control to raise the tub.
- Press the DOWN symbol to lower the tub.



Warning

- Always check the water temperature by hand or a bath thermometer before the patient gets into the bath.
- This to prevent patients from being scalded or shocked by hot or cold water. The thermostatic mixer is preset to approximately 43°C under ideal conditions at the factory.
- Patient shall never be left unattended
- Only enter and step out of the bath when the bath is in the lowest position. NEVER enter or step out of the bath when it is in a raised position.
- Make sure that the bathtub is raised and lowered evenly, both at head end and foot end of the tub. The patient must not use the tub if it's not in level.

System components

Lifting columns



Only company engineers and/or trained staff are authorized to carry out any work on the drive system (lifting actuators and control box).

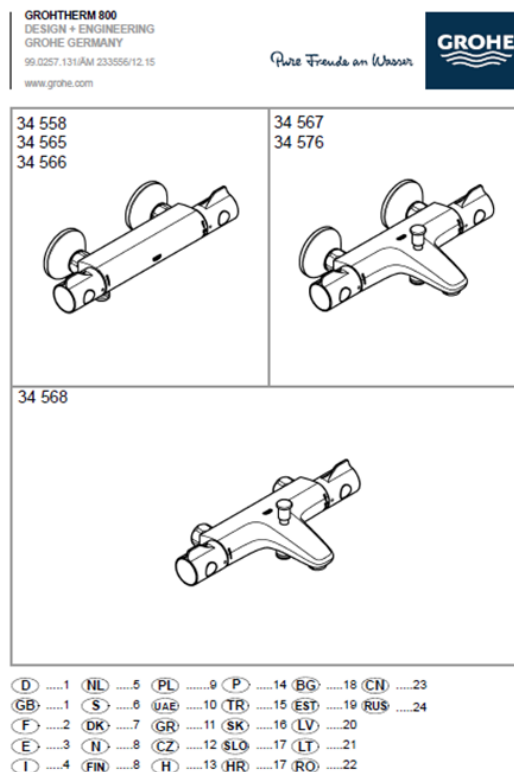
Do not attempt work on the lifting columns without consulting TR Equipment as this will void the warranty.

Thermostatic mixer



The factory mounted thermostatic mixer regulates the water temperature and water flow for both tub filling and shower. See separate operating manual, supplied at delivery. TR Equipment refers to the separate operating manual for the thermostatic mixer.

When routine maintenance shall be carried out read the Routine maintenance chapter and the original operating manual for the thermostatic mixer.



Product label

 **TR EQUIPMENT** Made in Sweden MD  

Hilo-Bath TR 1700 med BLANDARE + DUSC

UK CA  **CE**

(01) 07350016060141 (21) 209923-10

 2023-11-14 REF 05191701 SN 100061

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UDI (Unique Device Identification) can be found within the barcode human readable text.

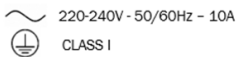
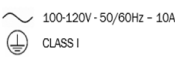
It contains:

- (01) EAN code
- Date of Manufacture. The date is in the format YYYYMMDD Y = Year, M = Month and D = Date.
- Serial Number displayed as six digit code.



Product label

Table of Symbols

 TR EQUIPMENT	TR Equipment Logotype		Visual inspection
	Medical equipment according to MDR 2017/745		Read the manual
	CE marking		Maximum patient weight 150kg
	Manufacturing date		WEEE Symbol May not be discarded in domestic waste
	Factory address		UK
	Part number		Refer to Instruction manual (IFU)
	Serial number		Applied part B
	Maximum water pressure. Cold water.		Maximum pressure and temperature. Hot water.
	Alternate current 220-240V – 50/60Hz Protective earth Class I		Alternate current 100-120V – 50/60Hz Protective earth Class I

Routine maintenance

Before every use

Visual inspection:

- Make sure that the bathtub stands securely on the floor.
- Make sure that the tub is in its lowest position.
- Make sure that the tub is in level when raising and lowering the tub.
- Make sure there are no nicks or cracks on the tub which may scratch the patient.
- Make sure that all electrical cords are in good condition and without damages.
- Make sure that the connecting- and shower hoses do not leak.
- Check the water temperature by hand or with a bath thermometer.

Daily maintenance

- Clean the tub after every use. Avoid abrasive cleaners which may scratch the surface of the tub and side covers.
- Lower the tub to its lowest position after every use and make sure all valves are closed.
- Clean the strainers on the shower handle by rubbing it with your thumb.



Monthly maintenance:

- Monthly maintenance must be performed by On-site engineer or trained staff.
- Repeat Before every use and Daily maintenance.
- Make sure that the supply hoses for Hot- and Cold water are fitted correctly and do not leak.
- Make sure that the power cord is in good condition and has no damages.

Thermostatic mixer:

- Exercise the mixer by moving the temperature control rapidly from cold to hot and hot back to cold several times pausing at extreme.
- For maintenance of the thermostatic mixer, read manual from the supplier of the thermostatic mixer (manual enclosed at delivery).
- If the bathtub is used in an area with hard water, ensure that the mixer cartridge and strainers are clean. See instructions in the manual from the manufacturer of the thermostatic mixer (manual supplied at delivery). This must be done by a qualified person.
- Contact your TR Equipment representative if you need new Operating manuals or a Service and Maintenance manual.



Warning

- Iodine, Bromine and Methylene blue might discolor the bathtub.
- Mechanical parts inside the tub are maintenance free.
- Scalding risk when flushing with hot water!
- Shower hoses on the TR 1700 bathtub manage 60°C /140°F for 10 minutes.
- Maintenance and/or repairs may only be carried out by the manufacturer or qualified staff authorised by the manufacturer. Otherwise warranty expires immediately.

Routine maintenance

Annual maintenance

Maintenance and Service manual including check list is available. Contact TR Equipment for an updated manual.

Maintenance and inspection must be performed by qualified technician and according to local regulations.

- Repeat **Before every use, Daily maintenance and Monthly maintenance.**
- Inspection of the electrical installation, power cord, earth cables and equipment must be performed by a qualified electrician.
- Inspection of the plumbing installation, flexible connection hoses, shower hoses, pipe interrupters, check valves (supplied by the installer) etc. must be performed by a qualified plumber.
- Make a scalding test by shutting OFF the cold water. The thermostatic mixer shall shut OFF if only HOT water is supplied.

If it doesn't shut OFF the mixer or cartridge must be replaced.

- There should be an annual inspection of the electrical installation and of the devices according to local requirements.

TR 1700, height adjustable bathtub:

- Initialize/calibrate the lifting columns according to the instructions described in the Operating manual. See Initialising in the table of content.
- If your TR 1700 is equipped with cleaning system check the OPEN/CLOSE valve to see if it open and close the valve properly. Replace valve stem if necessary.

Maintenance after 10 years

Maintenance and inspection must be carried out by a qualified technician and in accordance with local regulations.

Repeat **before each use, Daily Maintenance, Monthly Maintenance** and **Annual Maintenance.**



Warning

- Scalding risk when flushing with hot water!
- Shower hoses on the TR Comfortline bathtub manage 60°C /140°F for 10 minutes.
- Maintenance and/or repairs may only be carried out by the manufacturer or qualified staff authorized by the manufacturer. Otherwise warranty expires immediately.

Routine maintenance

Replacement of parts

Every 3 years:

- Replace the Silver colored shower hose
- Replace shower handle
- Replace connecting hoses for hot and cold water

Every 5 years:

- **TR Equipment recommends replacement of the thermostatic mixer.**

In healthcare applications such as hospitals, aged person facilities, residential care homes, etc. and in any other applications where the user is similarly at risk, irrespective of supply and usage conditions or the evidence of in-service tests, the critical components must be replaced at intervals of no more than 5 years.

Warranty:

- Maintenance and/or repairs may only be carried out by the manufacturer or qualified staff authorised by the manufacturer. Otherwise warranty expires immediately.
- If the thermostatic mixer is supplied by TR Equipment, it's covered by warranty, but problems related to the quality of the water is not covered by the warranty from TR Equipment.



Warning

- Scalding risk when flushing with hot water!
- Shower hoses on the TR Comfortline bathtub manage 60°C /140°F for 10 minutes.
- Maintenance and/or repairs may only be carried out by the manufacturer or qualified staff authorized by the manufacturer. Otherwise warranty expires immediately.

Disposal / Recycling

Recycling of the equipment

- Pillow and mattress are produced in lacquered PVC fabrics and filling materials are in Polyethen/Polyether.
- Pillow and shall be recycled as flammable materials.
- Plastic plate shall be recycled as flammable material.
- Metal parts shall be recycled in Metal recycling
- Castors are produced in Polyurethane and shall be recycled as flammable materials.
- Bolts shall be recycled as metal parts.



Important:

- When replacing batteries, deposit the batteries in accordance with national regulations.
- When replacing electrical and electronical parts/components, deposit the parts/components in accordance with national regulations.



Recycling of packaging materials.

- Wrapping materials is cardboard box and a wooden pallet.
- Cardboard box, cardboard bottom and cardboard lid shall be recycled as cardboard and pallet shall be recycled as wooden materials.

Cleaning instructions

Please 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 this product.

General guidelines for cleaning liquid/detergent:

- No solvent based or strong alkaline cleaning liquids, use of these products may cause damage.
- Nonabrasive type of detergent
- Less than 5 Wt% chloride content
- Less than 3 Wt% alcohol content

Clean the tub after every use. Avoid abrasive cleaners which may scratch the surface of the tub and side covers.



Warning

- Never use flushing water when cleaning the tub side covers and the underside of the tub. Only use flushing water in the tub.

Maintenance record

Traning record

Thank you for reading this document.

If you have questions regarding operation or maintenance of your equipment and cannot find the answer in this manual, please do not hesitate to contact us!