

TR 2810 Shower Panel

Instructions for use - English



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

This shower panel 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 Shower panel 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.

Only qualified staff, who understand all operating and safety procedures may operate this equipment.



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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Introduction

Dear Customer,

Thank you for choosing one of our quality products. We hope you enjoy the TR 2810 Shower panel.

This manual shall, in conjunction with staff training, ensure that the operator/user is always using and/or operating the TR 2810 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 operating manual before using the equipment.
- Make sure you have read, understand, and applied the information on the following pages before using the shower panel.

Intended use

- TR 2810 is a wall mounted Shower Panel intended for showering patients.
- The cleaning unit on the TR 2810 is intended for cleaning other equipment after showering the patient.
- The patient is typically a person who is unable to take care of their personal hygiene.
- The user is any adult person who is capable of reading and understanding the operating manual and is qualified to care for dependent persons/patients.
- The TR 2810 is intended to be used in a showering area together with our Shower Chair TR 1000 and our Shower Trolleys TR 2000, TR 3000, TR 4000, and TR 4200.

Unpacking

When you receive a shower panel from us it's packed in a cardboard box.

Carefully open the cardboard box. **DO NOT** use any sharp tools that may scratch the shower panel.



Warning

- To prevent the risk for contamination, Bathtub, Toilet, Bidet or similar products cannot be installed within reach of the patient shower hose.

Important

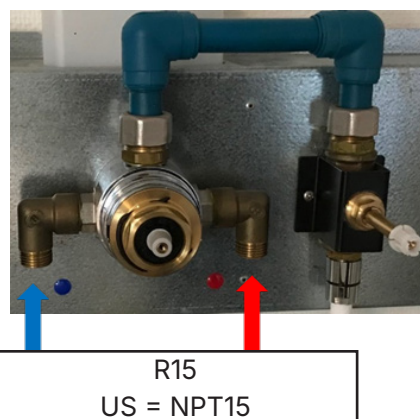
- Before using the TR 2810, the user must read and understand the operating manual.

Installation instructions

Plumbing - Shower unit

All pipes, fittings, backflow preventors, vacuum breakers, shut-off valves and connections to the Shower panel must be supplied and installed in compliance with local regulations. We refer to the European standard EN 1717.

The patient shower panel has a thermostatic mixer (1), a main ON/OFF valve (2) on the front of the panel and a shower handle (3) without on/off trigger.



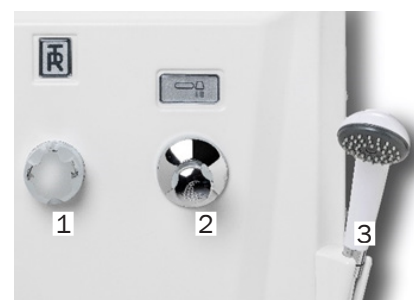
The thermostatic mixer has built in filters and check valves. It is also factory preset to give a water temperature of maximum 38°C out from the shower.

The thermostat shall be installed to R15 (½") / US = NPT15 cold and hot water supply (see picture).

To eliminate pipe debris, it is essential that the hot and cold supply pipes are thoroughly flushed before connection to the shower panel.

Carry out a **Scalding safety function test** before the first use:

- Open the valve for the shower (2). Adjust the temperature with the knob on the thermostatic mixer (1).
- When water is coming out from the shower handle (3), 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.



Warning

- To prevent the risk for contamination, Bathtub, Toilet, Bidet or similar products cannot be installed within reach of the patient shower hose.

Installation instructions

Plumbing – Cleaning unit

The cleaning system has a Yellow shower hose and a main safety valve on front of the panel and a cleaning handle without on/off trigger. The safety valve can be opened with the key, mounted on a chain attached on the side of the shower panel.



R15
US = NPT15

- The cleaning shower shall be installed to a R15 (1/2") / US = NPT15 cold water supply and if demanded, to a separate "Class A tank".
- The concentrated cleaning liquid is preset to give about 2 % mixture in the cleaning shower and the cleaning bottle shall be filled by the cap. See operating manual.
- To eliminate pipe debris, it is essential that the hot and cold supply pipes are thoroughly flushed before connection to the shower panel.
- Recommended mounting height from floor 1 250 mm.



Important

- This Operating Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

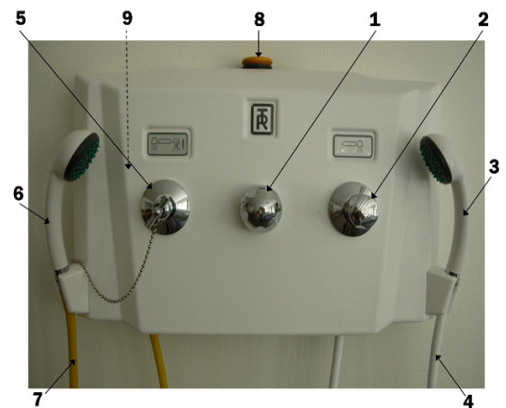
Safety Instructions

The recommended maintenance procedures depend on the hardness of the water supply. Initially, these procedures should be performed weekly. The maintenance frequency can then be adjusted based on operating conditions.

The shower panel should not be used if defects are noticed. Prompt service is required!

Always follow the cleaning instructions for the equipment.

- Make sure that both valves (2 and 5) on the front of the panel are closed after every use.
- Make sure that the bottle (8) is filled with concentrated cleaning detergent before cleaning.
- Make sure that hoses, controls, connections, and mixer are free from damages.
- Shower Panel should not be used if defects are noticed. Prompt service is required.
- Avoid skin or eye contact with detergent, which is highly caustic. If contact is made, rinse immediately with excess water. If irritation occurs, consult a doctor. Always read and follow instructions from the supplier of the cleaning detergent.



If you have questions regarding operation or maintenance of your TR 2810 shower panel and cannot find the answer in this manual, please contact us!

In case of accident

Note:

In case of a serious incident when using the TR 2810, this should be reported to the manufacturer and to the local authorities where you are established.



Warning

- Always physically check water temperature before and during showering and that the thermostatic mixer functions properly.
- To prevent the risk for contamination, Bathtub, Toilet, bidet or similar products cannot be installed within reach of the patient shower hose.
- Before using the TR 2810, the user must read and understand the operating manual.
- Only qualified staff, who understand all operating and safety procedures may operate the Shower Panel.

Calibration

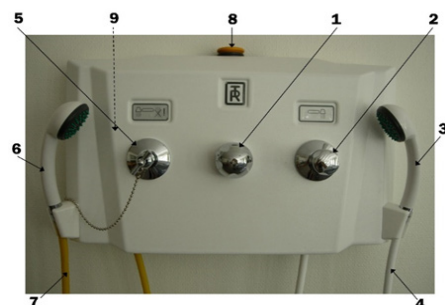
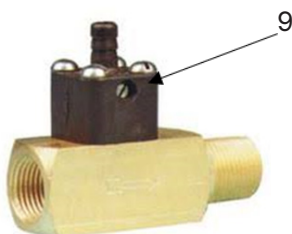
Cleaning injector

Detergent is automatically mixed with the water, in a pre-set mixture, at the factory, of approximately 2 %. If an alternatively calibration is needed follow the instructions below to achieve a mixture of 2 % or what is recommended by your detergent supplier.

To calibrate the mixing setting screw (9) placed on the injector inside the Panel, requires a thin screwdriver a measuring cup with a capacity of at least 20 cl/8 ounces and a bucket with at least 10 litres/3 gallons capacity.

Mixture should be calibrated according to instructions from the detergent supplier.

- Remove the White plastic cover.
- Empty the detergent bottle by loosen its hose from the injector. When empty connect the hose to the injector again.
- Fill the measuring cup with 20 cl/8 ounces concentrated detergent, open the detergent bottle lid (8) and pour it into the bottle.
- Hold the cleaning spray handle (6) with yellow hose over the 10L/3 gallons bucket for filling.
- Turn the cleaning safety valve (5) to full open position and spray into the bucket.
- Observe level when the bucket is being filled, while bottle empties. Bucket should reach the 10L/3 gallons mark at the same time that bottle empties. If bucket fills first, turn the detergent mixing setting screw (9) slightly anti-clockwise, using the screwdriver. If bottle empties first, turn the detergent mixing setting screw (9) slightly clockwise.
- Repeat procedure A-F until the mixture is as required.
- Close the cleaning safety valve (5) and return the cleaning handle (6) to the bracket on side of Panel.
- Attach the White plastic cover again.
- The cleaning system is now ready for use.
- Once the proper concentration setting is established, no further calibration is required unless a different detergent is used.



Warning

- Avoid skin or eye contact with cleaning mixture, which can be highly corrosive. Always read and follow detergent supplier instructions carefully.

Thermostatic mixer

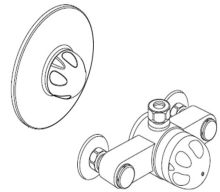
The thermostatic mixer is factory preset at Max. 38° at delivery.

If the thermostatic mixer needs to be calibrated at installation or service, follow the instructions in the product manual for Rada 215 and 222 series (supplied at delivery).

Carry out a **Scalding safety function test** before the first use:

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.

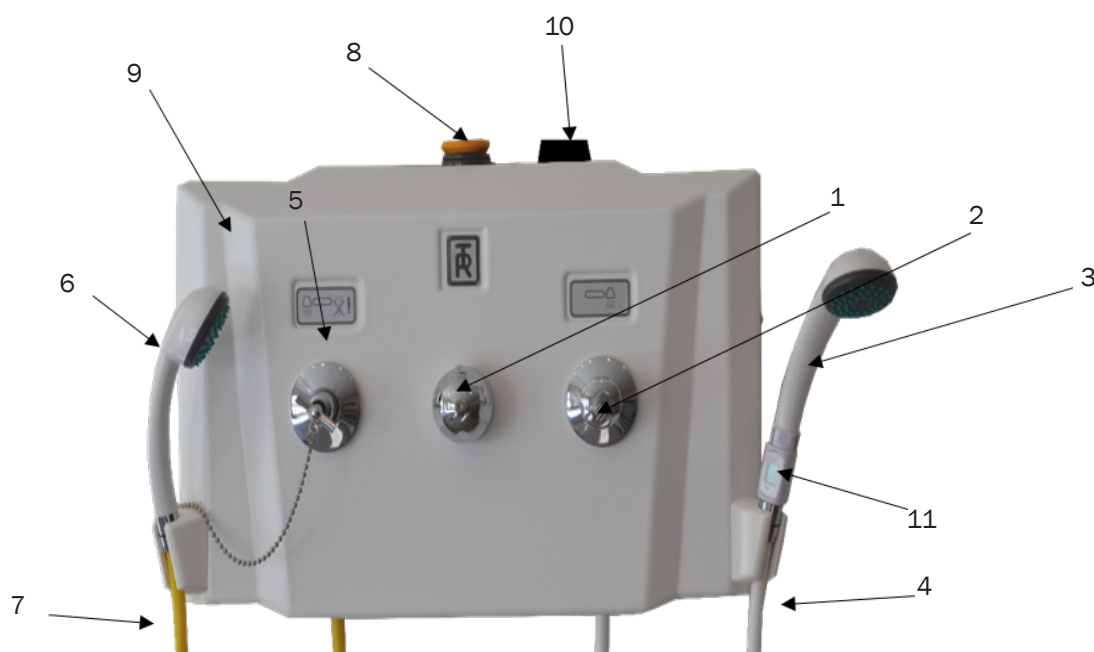
215 and 222 Series



Important! This Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.



Features and Controls



1	Thermostatic mixer
2	Shower valve
3	Shower handle
4	White shower hose
5	Safety valve, Cleaning
6	Cleaning shower handle
7	Cleaning, Yellow shower hose
8	Cleaning detergent, filling
9	Cleaning injector (behind cover)
10	Option, Mechanical lock for detergent bottle
11	Option, Digital thermometer

Product description

TR 2810 – Shower panel

TR 2810 is a wall mounted shower panel including a separate cleaning unit. TR 2810 is intended for showering patients and for cleaning of assistive equipment such as shower trolleys and shower chairs.

- As standard the TR 2810 is equipped with
- 1 pcs Thermostatic mixer
- 1 pcs Shower valve
- 1 pcs White Shower hose
- 1 pcs Cleaning valve
- 1 pcs Vacuum breaker for the cleaning unit
- 1 pcs Injector for the cleaning unit
- 1 pcs Detergent container for the cleaning unit
- 1 pcs Yellow Cleaning hose
- 2 pcs Shower handles
- 1 pcs Safety key for the cleaning valve.

Options

- Mechanical lock for the Cleaning container
- Shower hose thermometer

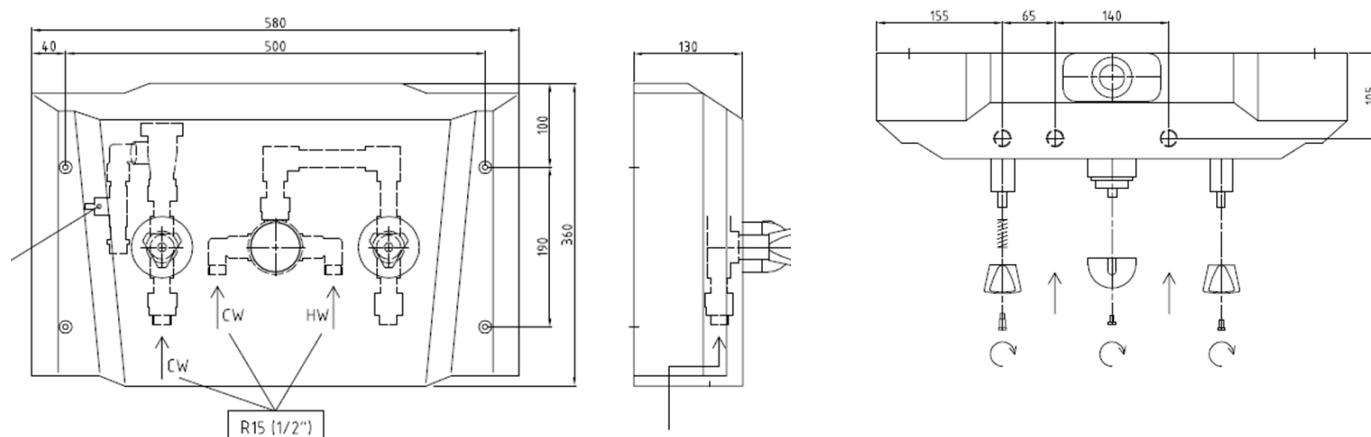


Technical specification

TR 2810 – Shower panel	
Width	580mm / 23"
Height	360mm / 15"
Depth	130mm / 5"
Min. dynamic water pressure	0,15 Bar
Max. dynamic water pressure	5 Bar
Max. static water pressure	10 Bar
Recommended mounting height from the floor	1250mm / 49"
Factory set mixture, cleaning detergent	Approximately 2%

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



User Instructions

Showering the patient

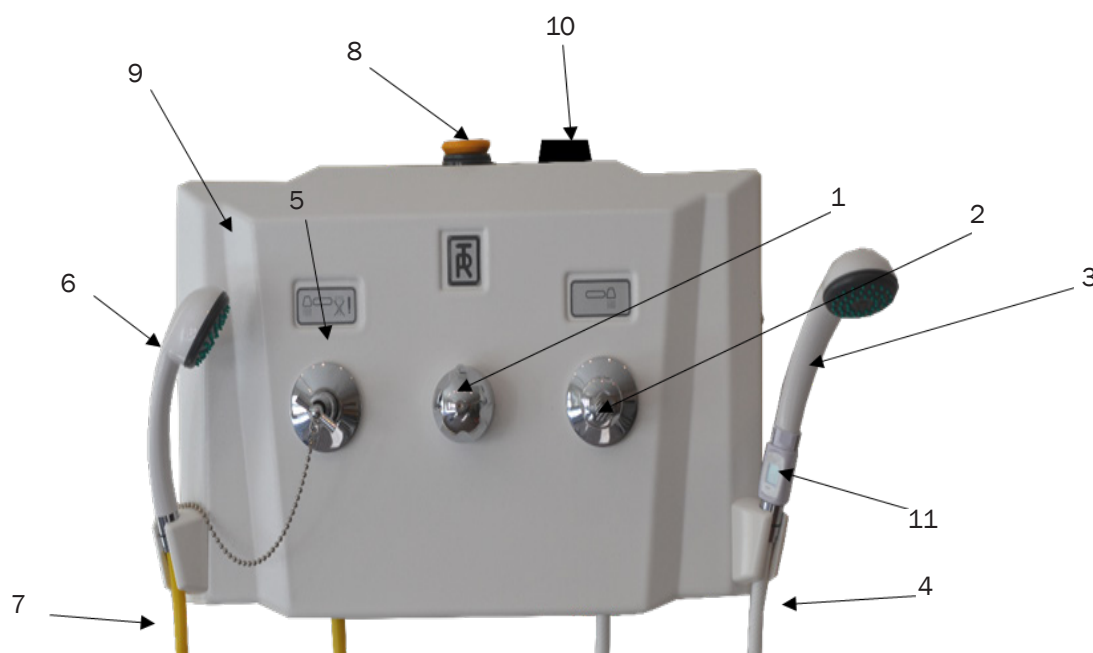
The Shower/Cleaning Panel System has a thermostatic mixer for regulating the water temperature and a valve for the patient shower handle.

Shower Panel Operation when used in combination with a Shower Trolley.

The thermostatic mixer (1) is in the center on the Panel and the shower valve (2) and the patient shower handle (3) are located on the Right-hand side on the Panel.

- Remove the shower handle (3) with the white shower hose (4) from its bracket and hold it over the Shower trolley, away from the patient.
- Open the shower valve (2).
- Set the thermostatic mixer (1) to a suitable temperature. Physically test water temperature on your arm and alter the thermostatic mixer setting (1) when necessary.
- Adjust the water flow with the shower valve (2).
- Shower, shampoo and then rinse patient, with the shower handle (3).
- After showering, close the shower valve (2) and return the shower handle back to its bracket on the Right-hand side on the Panel.

The patient shower handle is also used for rinsing Shower Trolley stretcher and mattress before detergent cleaning.



Warning

- Always check the water temperature by hand or a bath thermometer before showering the patient. This to prevent patients from being scalded or shocked by hot or cold water.

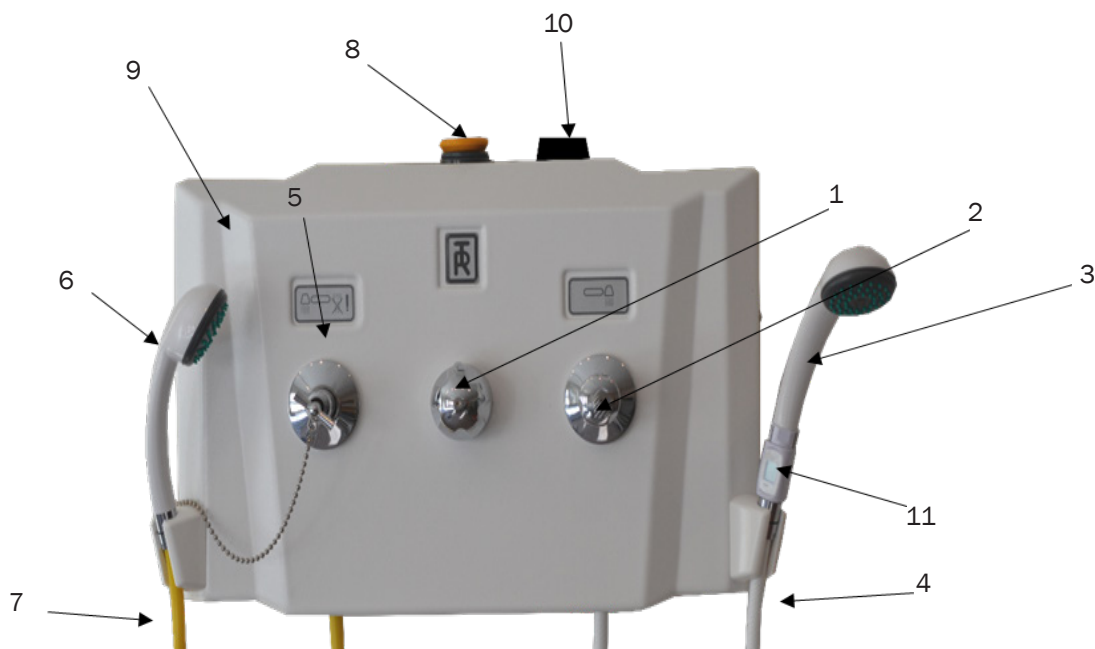
User Instructions

Cleaning:

The cleaning spray handle (6) with the yellow shower hose (7) is located on the Left-hand side on the Panel in a bracket. The Cold-water flow, to minimize inhalation of the mixed cleaning detergent steam, is controlled by a safety valve (5) located on the left side on the Panel. Cleaning detergent is automatically mixed with the cold water, in a preset concentration of appr 2 %, determined by a mixing setting screw (9) on the injector inside the Panel. When a various calibration is required, see separate description. Depending on the viscosity of the cleaning detergent, the water flow and water pressure in the building, it might be necessary to adjust and calibrate the system to get the desired mixture of the concentrated cleaning detergent and the water.

Usage:

- Fill the bottle (inside the Panel) with (1,5 liter/0,4 gallons) concentrated cleaning detergent.
- Unlock the mechanical lock (10) for the cleaning detergent with the key and then rotate the knob 45°(option).
- Carefully lift the bottle straight up and remove the lid (8).
- After filling secure the bottle lid and return the bottle to its place.
- Remove the cleaning handle (6) with the yellow hose (7) from its bracket on the Left-hand side on the Panel and hold it over the shower trolley, if used.
- Open the safety valve (5) with the key to the left on the Panel and briefly spray the cold cleaning mixture onto the equipment while you by color, smell or foam observe the cleaning mixture.
- Clean the equipment over all surfaces. Remove residue and debris with cloth or brush.
- Close the safety valve by turning the key before you return the shower handle to its bracket.
- Use patient shower handle (3) to rinse all surfaces with fresh water.



Warning

- Never use the Yellow cleaning hose to shower a patient. Only to be used for cleaning equipment.
- Avoid skin or eye contact with cleaning/detergent, which can be highly corrosive. Always read and follow detergent supplier instructions carefully. If contact is made rinse immediately with water. If irritation occur, please consult a medical doctor.

User Instructions

Option – Digital Shower hose thermometer

The simplistic design allows for quick and easy installation within minutes. It's waterproof LCD display and universal connection means that it can be installed in majority of shower setups. The thermometer is battery powered and batteries are supplied at delivery.

To start up the thermometer from the energy saving mode, just shake the unit or turn it upside down.



Installation

- Detach the shower head and shower hose.
- Attach the shower hose thermometer to the shower hose.
- Attach the shower head to the top of the shower hose thermometer.

Temperature range	0°C – 69°C.
Accuracy	+/- 1°C (between 25°C-50°C).
Threads	½" BSP male (hose) and ½" BSP female (shower head).
Alarm	Visible alarm for temperatures exceeding +41°C
Part number:	819359

Option – Mechanical lock for the detergent container

The mechanical lock (incl. keys) for the detergent container is a factory mounted option. The purpose is to prevent unauthorised people from removing the bottle.

How to open the mechanical lock:

- Open the lock with one of the keys.
- Turn the knob 90°.



- Kit including check valves to prevent backflow.
- To be placed at the hot and cold water connections.
- P/N 0520073

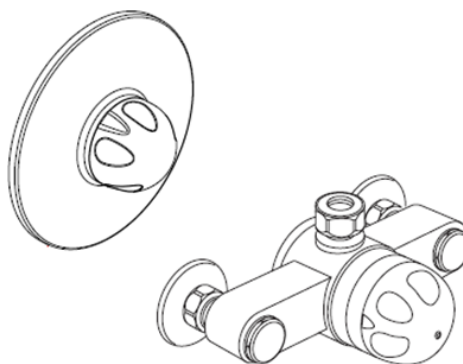


System components

Thermostatic mixer

The factory mounted thermostatic mixer regulates the water temperature and water flow for 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.

215 and 222 Series



Important! This Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

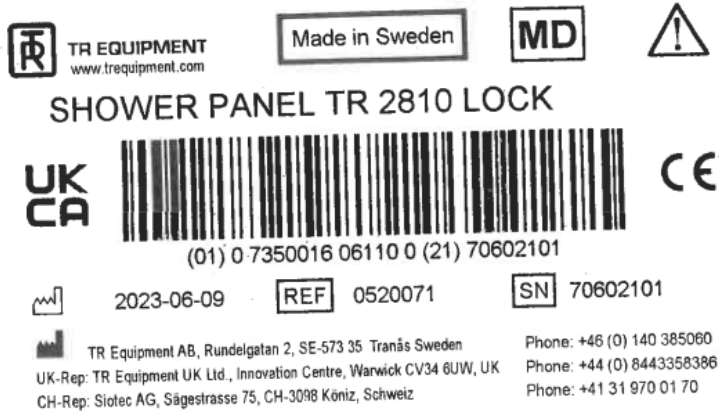
Product Manual



Important

- If the thermostatic mixer is supplied by TR Equipment, it's covered by warranty. Problems related to the quality of the water is not covered by the warranty from TR Equipment.

Product label



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		WEEE Symbol May not be discarded in domestic waste
	Manufacturing date		UK
	Factory address		Refer to Instruction manual (IFU)
	Part number		Detergent filling Maximum 1.5L / 0,4 Gallon
	Serial number		Cleaning valve
	Shower valve		

Routine maintenance

Before every use

- Make sure the shower hose is OK and doesn't leak.
- Make sure that the Cleaning hose is OK and doesn't leak.
- Make sure that the connecting- and shower hoses do not leak.
- Clean the strainers on the shower handle by rubbing it with your thumb.



Monthly maintenance

- Make sure that the connecting hoses are fitted correctly and doesn't leak.
- Check that all screws are tightened.
- Exercise the thermostatic mixer to ensure that the delivery of warm water is at a safe temperature. This is described in the product manual, Rada 215 and 222 series (enclosed at delivery).

Annual maintenance

- Repeat Before every use and Monthly maintenance.
- Check and clean the inlet filters in the thermostatic mixer.
- Check that the cleaning injector works properly and that the mixture of water and cleaning detergent is OK.
- Replace the valve stem on the Shower valve. Part number 829307.
- Replace the valve stem on the Cleaning valve. Part number 829307.

Every 3 years

- Replace the White Shower hose
- Replace the Yellow Cleaning hose
- Replace both shower handles

Every 5 years

Repeat **Before every use, Monthly maintenance, and Annual maintenance.**

- Replace the mixer cartridge
- Replace the vacuum breaker

Important

In healthcare applications such as hospitals, 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. TR Equipment recommends the critical components such as the mixer cartridge is replaced at intervals of no more than 5 years. The recommended frequency of these maintenance procedures will depend on the hardness of your water supply and how often the equipment is used. It is good practice to establish these routine procedures on a weekly basis and then adjust the frequency as your conditions indicate.



Warning

- The shower hoses on the TR 2810 manage 60°C /140°F for 10 minutes.
- Iodine, Bromine and Methylene blue might discolor the panel cover.

Important:

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

Cleaning instructions

Please note: The user/operator is responsible selecting the correct cleaning liquid/detergent and additives according to local regulations and safety standards. 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 Shower panel after every use. Avoid abrasive cleaners which may scratch the surface of the cover.



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.



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.

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.

Maintenance record

Training 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!