



TR 2810 Shower Panel

Hygiene Equipment
Designed for People

Operating manual

Serial Number:

CE



Registered at Medical Products Agency, Sweden, as a MD Class 1 product, MDD 93/42EEC.

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



Always study this manual carefully before operating the Shower Panel.

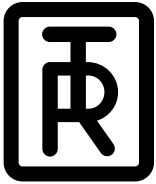
Operating instructions and recommended maintenance procedures are explained in the following pages.

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.

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



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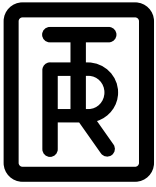
Shower Panel

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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.

TR 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 require further information or have any questions please do not hesitate to contact TR or ask one of our qualified partners.

Please make sure you have read, understood and applied the information on the following pages.

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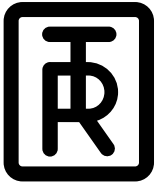
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Intended Use, Product Description and Technical Specifications

Intended use:

The TR 2810 I is a wall mounted Shower Panel.

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.

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

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.

Product Description

Product	Description	Art no
TR 2810	Shower Panel	0520070-02
TR 2810	Shower Panel US	0520070-03
TR 2810	Shower Panel with lock	0520071

Technical Specifications

Width	580 mm/23"
Height	360 mm/15"
Depth)	130 mm/5"
Recommended mounting height from floor	1250 mm/49"

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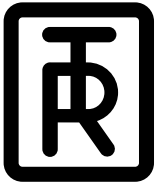
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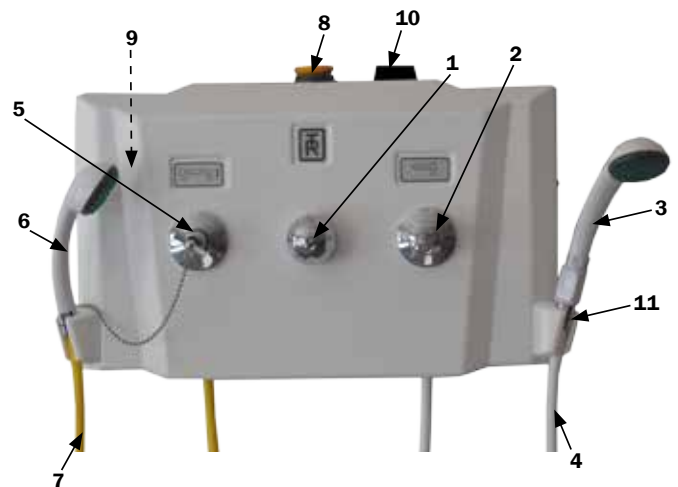
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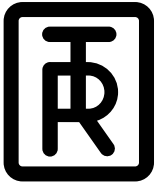
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Safety and Control Instructions

The recommended maintenance procedures will depend on the hardness of your water supply and it is good practice to establish these routine instructions on a weekly basis and then adjust the frequency as your conditions indicate.

- Only qualified staff, who understand all operating and safety procedures may operate the Shower Panel.
- Always physically check water temperature before and during showering and that the thermoscopic mixer functions properly.
- Read the separate product manual for calibrating the thermostat.
- Make sure that both valves (2 and 5) on the front of the Panel are closed after each use.
- Make sure that the bottle (8) is filled with concentrated cleaning detergent before cleaning.
- Do not use solvent based cleaning liquids, iodine based detergent, bromine or methylene blue or a nonabrasive type cleaner.
- Do not use any cleaning detergent containing more than 40 % of alcohol.
- After cleaning, rinse with fresh water.
- Clean the strainers on the patient and cleaning shower heads in hot water and rub it with your thumb.
- 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.





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Installation Instructions

Plumbing rough - In

All pipes, fittings, backflow preventors, vacuum valves, shut-off valves and connections to panel to be supplied and installed by others to comply with local building and plumbing codes. We refer to the European standard EN 1717. To prevent backflow, any bathtub, toilet chair or similar product may not be installed within reach of the patient shower hose.

The patient shower system has a Rada 215-t3 oem thermostat, a main valve on the panel front and a shower handle without on/off trigger.

The Rada 215-t3 oem thermostat has built in filters and check valves and is factory set to give maximum 38 degrees Celsius. The thermostat shall be installed to R15 (1/2") cold and hot water supply.

We refer to the enclosed Rada 215-t3 oem thermostat product manual.

The yellow cleaning shower (for cleaning equipment only) has a main safety valve on the panel front and a cleaning handle without on/off trigger.

The cleaning shower shall be installed to a R15 (1/2") 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 product manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

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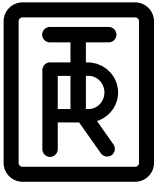
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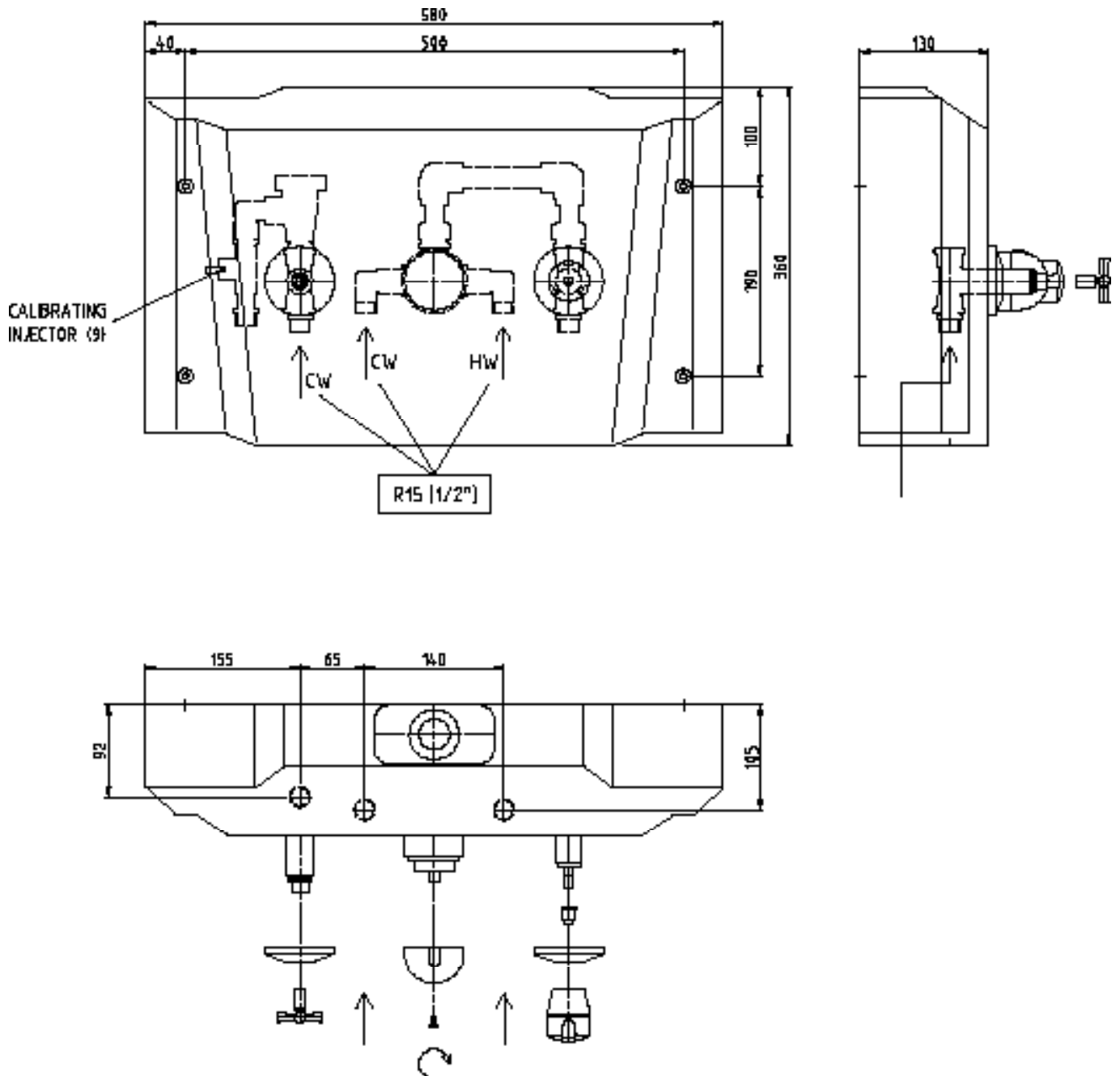
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Installation Instructions

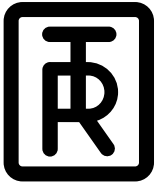


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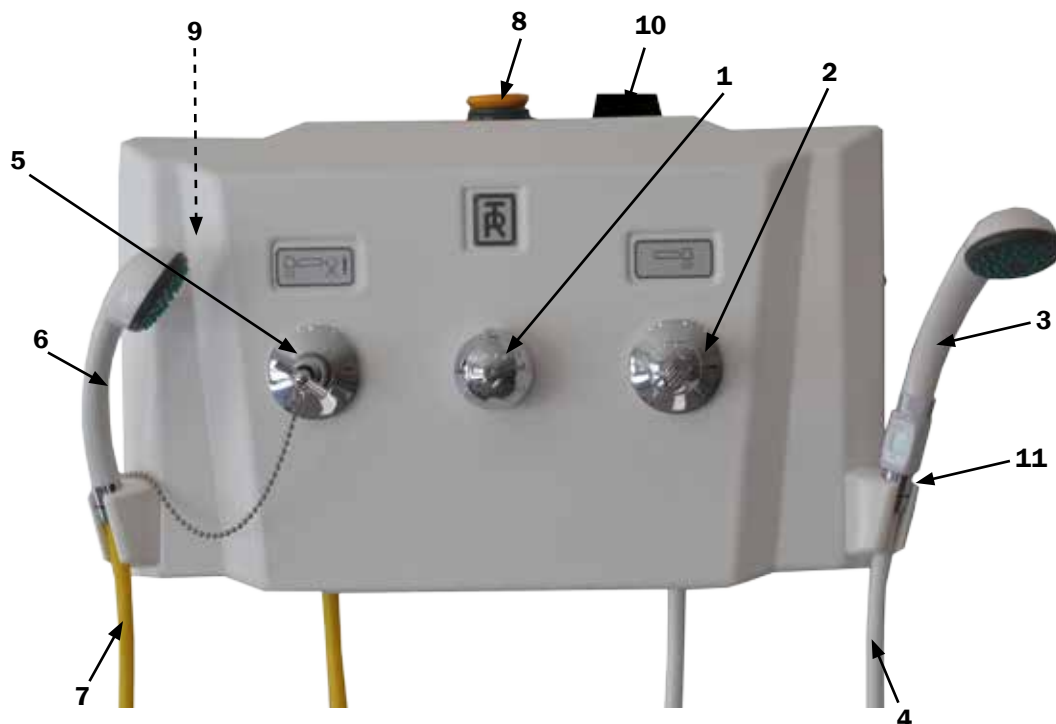
Features and Controls

Hot and cold water supply for patient shower:

1. Thermoscopic mixer
2. Valve for patient shower
3. Shower spray handle
4. Patient shower hose **white**

Cold water supply: for cleaning

5. Safety valve for equipment cleaning
6. Cleaning spray handle.
Note: Never to be used on patients.
7. Cleaning shower hose **yellow**
8. Cleaning detergent filling
9. Cleaning flow setting valve inside panel, see calibration
10. Mechanical lock for cleaning detergent bottle (Option)
11. Thermometer (Option)



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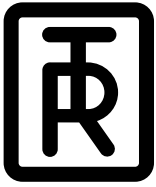
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Operating Procedures - Showering

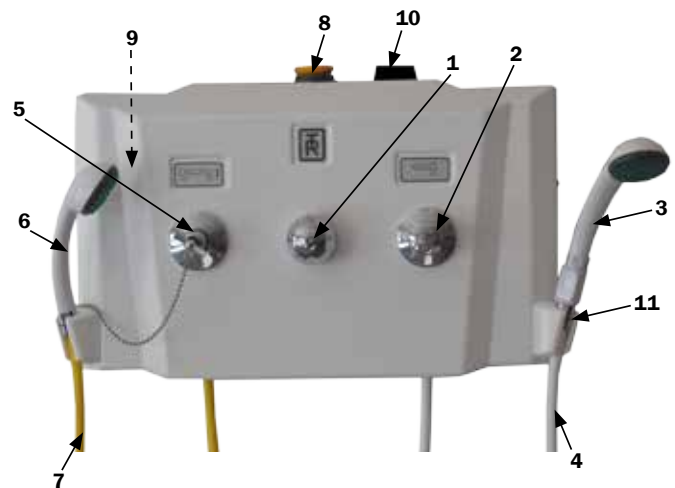
The Shower/Cleaning Panel System has a thermoscopic mixer for regulating the water temperature and a valve for the patient shower handle.

Shower Panel Operation when used in combination with a Shower Trolley

The thermoscopic mixer (1) is in the centre on the Panel and the shower valve (2) and the patient shower handle (3) are located on the right hand side on the Panel.

1. 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.
2. Open the shower valve (2).
3. Set the thermoscopic mixer (1) to a suitable temperature. Physically test water temperature on your arm and alter the thermoscopic mixer setting(1) when necessary.
4. Adjust the water flow with the shower valve (2).
5. Shower, shampoo and then rinse patient , with the shower handle (3).
6. 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.



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Operating Procedures - Cleaning

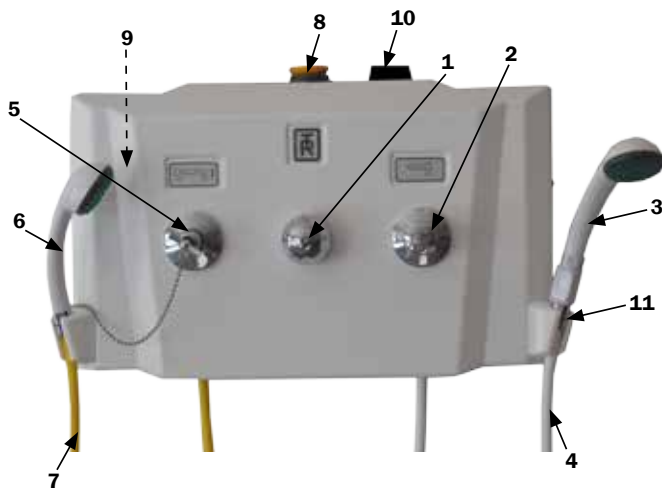
Note: Never to be used on patients. Only for equipment cleaning.

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 approx 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.



Using the Cleaning System

1. Fill the bottle (inside the Panel) with (1,5 litre/0,4 gallons) concentrated cleaning detergent.
2. Unlock the mechanical lock (10) for the cleaning detergent with the key and then rotate the knob 45° (option).
3. Carefully lift the bottle straight up and remove the lid (8). After filling secure the bottle lid and return the bottle to its place.
4. 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.
5. 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 colour, smell or foam observe the cleaning mixture.
6. Clean the equipment over all surfaces. Remove residue and debris with cloth or brush.
7. Close the safety valve by turning the key, before you return the shower handle to its bracket.
8. Use patient shower handle (3) to rinse all surfaces with fresh water.

Warning: 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.

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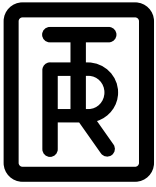
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Operating Procedures - Calibrating

Calibrating the detergent mixture of the Cleaning System

Detergent is automatically mixed with the water, in a pre-set mixture, at the factory, of 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.

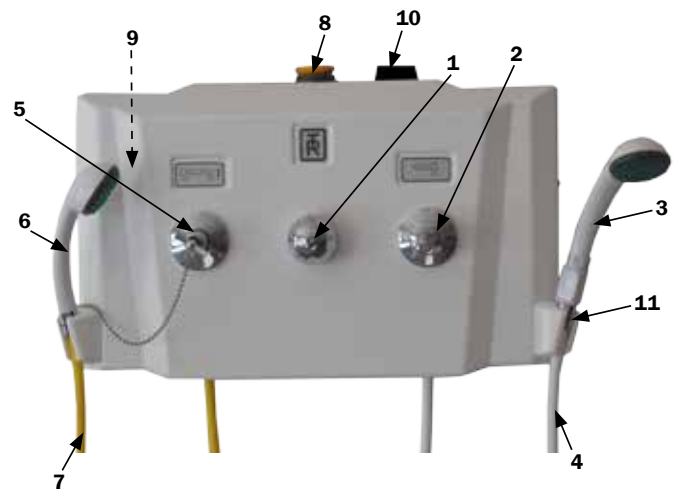
- A. Remove the Panel cover.
- B. Empty the detergent bottle by loosen its hose from the injector. When empty connect the hose to the injector again.
- C. Fill the measuring cup with 20 cl/8 ounces concentrated detergent, open the detergent bottle lid (8) and pour it into the bottle.
- D. Hold the cleaning spray handle (6) with yellow hose over the 10 litres/3 gallons bucket for filling.
- E. Turn the cleaning safety valve (5) to full open position and spray into the bucket.
- F. Observe level when bucket fills, while bottle empties. Bucket should reach 10 litres/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.
- G. Repeat procedure A-F until the mixture is as required.
- H. Close cleaning safety valve (5), and return the cleaning handle (6) to the bracket on side of Panel.
- I. Attach the Panel cover.

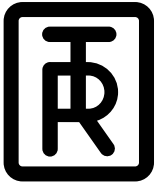
The cleaning system is now ready for use. See detergent filling previous page.

Once the proper concentration setting is established, no further calibration is required unless a different detergent, is used.

Note: Mixture should be calibrated in accordance to your detergent supplier.

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





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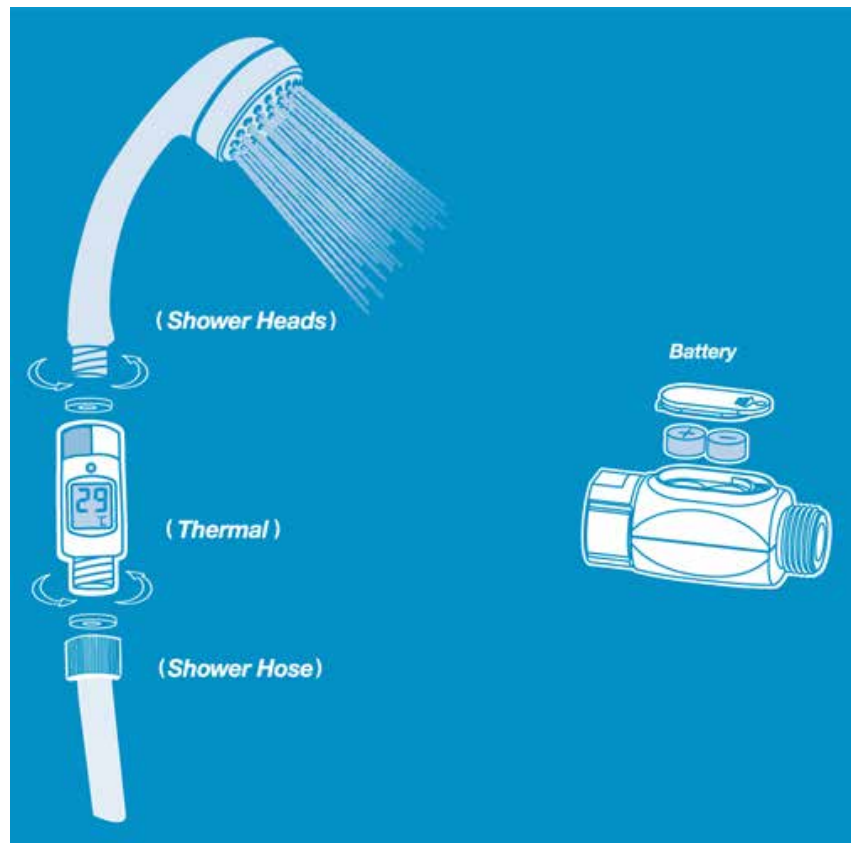
Option - Digital Thermometer for Shower Head

The simplistic design allows for quick and easy installation within minutes. It's minimalist frame and universal connection means that it can be installed in majority of shower setups. Installation is as simple as 1-2-3.

1. Detach the shower head and hose
2. Attach the Inline Shower Thermometer to the shower hose
3. Attach the shower head to the top of the Inline Shower Thermometer



- 0 °C to +69 °C temperature range
- Accuracy ± 1 °C between 25 °C to 50 °C
- Visible alarm for temperatures exceeding +41 °C
- Threads: $\frac{1}{2}$ " BSP male (for hose), $\frac{1}{2}$ " BSP female (for shower head)
- To wake up the thermometer from sleep (battery saving) mode, shake the unit or turn it upside down
- Large LCD display
- Helps saving energy, very simple installation – suitable for all standard shower facilities
- Waterproof
- Battery powered (batteries supplied)
- Art. no: 819359



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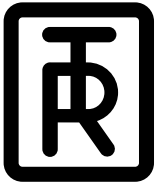
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Option - Mechanical lock for cleaning liquid bottle

The mechanical lock (incl. keys) for the cleaning liquid bottle is a factory mounted option with purpose to prevent unauthorized people from removing the bottle.

How to remove the bottle:

1. Open the lock with the supplied key
2. Turn the knob 90° and then remove the bottle.



Technical Specifications

Wing knob	Polyamid PA6
Housing	Zinc die-cast, Chrome plated
Cylinder	Zinc die-cast, Stainless Steel cap and dust shutter
Nut	Zinc die-cast, Zinc plated
Screw	Steel, Zinc plated
Cam	Stainless Steel

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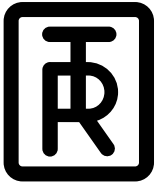
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Routine Maintenance

Before each time the TR2810 Shower Panel is used:

- Visual inspection - Check the hoses so they do not leak.
- Visual inspection - Make sure it is securely mounted on the wall
- Always physically check water temperature by hand before and during showering and that the thermostatic mixer functions properly.

Daily routine maintenance:

- Clean the strainers on the patient- and cleaning shower handles by rubbing it with your thumb.

Monthly routine maintenance made by on-site engineer or trained staff:

- Make sure the connecting hot/cold water hoses are fitted correctly and do not leak
- Check all screws and bolts
- For maintenance instructions see enclosed manual from the manufacturer of the thermostatic mixer
- Exercise the thermostatic mixing valve to ensure that the delivery of warm water is at a stable and safe temperature. This is described in the enclosed manual from the mixer manufacturer under the headline Commissioning.

Annually Maintenance and inspection by the manufacturer or QUALIFIED STAFF authorized by the manufacturer:

- Moveable components have to be maintained and inspected regularly because they are classified as wear parts! (e.g. fittings, hoses, connections, pipe interrupters. Thermostatic mixing valve.)

Every 5 years:

- Exchanging/replacing all connecting hot/cold water hoses.
- Replace the mixer cartridge and check valves.

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 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 equipment must not be used in any way that varies from the safety precautions and operating procedures detailed in this manual.

The equipment must not be operated by anyone until the user has read and understands the operating manual.

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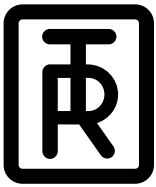
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Labels on the TR 2810

1.		Mandatory to read the operating manual before use	5		Specifies the maximum pressure and temperature for the hot water
2.		Showering	6		Filling Cleaning liquid. Maximum 0,4 gallon
3.		Cleaning liquid	7		TR Equipment AB Logotype
4.		Specifies the maximum pressure for cold water	8		The identification label states the product's model- and part number, serial number, date of manufacture, the manufacturing country and the name and address of the manufacturer. REF = Model- and part number CE = CE marking in accordance with the Medical Devices Directive 93/42/EEC as a Medical Device Class 1. SN = Serial number



