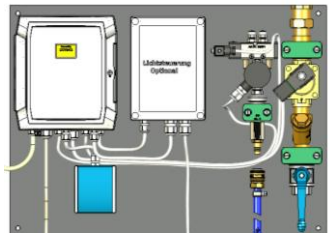
Operating Instructions

Experience Shower Type CRYO-FALL

Waterfall Shower









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(Translation of the Original Installation and Operating Instructions)

Preface

Dear customer,

Thank you for choosing CRYO-FALL from WDT.
CRYO-FALL corresponds to the latest state of the art.
Please contact us if you have any further questions. For queries and spare parts orders, always have the device type and serial number (see identification plate on the device) to hand!
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1 About these instructions / general remarks

1.1 Scope of applicability

These Operating and Installation Instructions describe the functioning, installation, commissioning and operation of the Experience Shower, Type CRYO-FALL. They must be read carefully before use and kept with the device for direct use so that they are available at any time!

These Operating and Installation Instructions are an integral part of the device. If the product is resold, the Operating Instructions must be handed over to the new operator.

If you lose the documentation, you can download it from our website at: https://www.werner-dosiertechnik.de/en/Products/Wellness/Experience-Showers

1.2 Target group

Only our authorised partners and people who have been trained in the device's functions are permitted to work on the device, provided that they have read and understood these Operating Instructions.

1.3 Symbols used

This document uses the following types of safety notices as well as general notices:



DANGER!

"DANGER" denotes a safety notice which, if disregarded, will lead to serious or life-threatening injuries or death!



WARNING!

"WARNING" denotes a safety notice which, if disregarded, may lead to serious or life-threatening injuries or death!



WARNING!

Danger of electric shock!

This safety notice denotes danger due to electric shock, which, if disregarded, may lead to serious or life-threatening injuries or death!



CAUTION!

"Caution" denotes a safety notice which, if disregarded, may lead to injuries!



ATTENTION!

"Attention" denotes a safety notice which, if disregarded, may lead to material damage or may impair the functioning of the device!



ATTENTION!

Danger due to static charge!

This safety notice denotes electronic components that may be damaged by electrostatic discharges.

The generally accepted safety precautions for ESD-sensitive devices must be observed when handling the devices!



NOTICE

A “Notice” denotes information that is of particular importance for smooth operation and that can disrupt the operating process if not observed.



TIP

A “TIP” denotes information that may result in improvements in the operating process.



USE FOOT PROTECTION!

Wear approved foot protection to prevent injuries to the feet due to falling objects.

1.4 Further means of representation

The means of representation used in these instructions denote the following:

- General enumeration

1) Work or operating steps that should or must be carried out in the order listed.

01. Numbering of elements (item numbers)

☑ A step that requires particular checking

Italics Labelling of illustrations or plans

1.5 Warranty

All WDT devices and systems are manufactured using modern production methods and are subject to comprehensive quality control. However, should there be a reason for complaint, any compensation claims shall be directed to the company WDT in accordance with the general terms and conditions of warranty.

1.5.1 General terms and conditions of warranty

The company WDT assumes a 2-year warranty, starting with the commissioning, up to 27 months after delivery; subject to correct installation and commissioning with a completed and signed commissioning protocol.

This excludes wearing parts such as seals, hoses, diaphragms, dosing screws, electrodes, roller carriers and other parts that are subject to mechanical or chemical wear and tear. For these, we issue a ½ year warranty.

Our enterprise resource planning system requires an invoice for each delivery (including warranty services). When returning a defective component, upon review you will receive a corresponding credit, if applicable. We request return within 14 days.

The costs for subsequent damage and for the processing of warranty claims are excluded.

There are no warranty claims for damage caused by frost, water and electrical overvoltage or by improper handling.



NOTICE

In order to protect the warranty claims, please mail the completed commissioning protocol, along with the defective component, to the company WDT.

Without the commissioning protocol, we reserve the right to an exclusion of warranty.

1.6 Additional information

Additional information concerning specific topics, such as design of the shower performance or description of the operating parameters, may be obtained from your specialist dealer, or directly from:

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Fax: +49 8272 / 98697 - 19
Web: www.werner-dosiertechnik.de/en
Mail: info@werner-dosiertechnik.de

1.7 Information regarding support queries / identification plate

The control unit of CRYO-FALL is subject to continued further development of both its firmware and hardware. We always strive to preserve the compatibility of the components used.

For spare part orders, we require the following data. You can find this on the identification plate.

- Device designation
- Device serial number
- Year of manufacture

- Enter the data from your device's identification plate here.



Field 1: Enter code number

Field 2: Enter serial number

Field 3: Enter date of manufacture

In addition, we require the following data for technical support queries. This data is located in the main menu under the menu item ▸ **`Info`**.

- Current software version
- Serial number

NOTICE

Keep the identification plates clean and in a legible condition!

2 Safety notices

2.1 Intended use

The CRYO-FALL device must only be used for the purposes described in these Operating Instructions. Other uses are not permitted.



ATTENTION!

Damage to the device due to incorrect installation!

- **The device's control unit should preferably be installed and operated in the technical room!**
- **Pay attention to the information in the technical data on page *15*.**

Intended use also includes compliance with all conditions and safety instructions prescribed by WDT in accordance with these instructions for:

- Installation
- Dismantling
- Commissioning
- Operation
- Maintenance/servicing
- Disposal

The attachment or installation of additional equipment is only permitted with the manufacturer's written approval.
Pay attention to the nationally applicable regulations for environmental and drinking water protection!

2.2 Personnel



WARNING!

Restricted user group!

This device is not intended to be used unsupervised by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and/or knowledge.

- **A person responsible for the safety of this group of users must be entrusted with supervision and must give appropriate instructions for operation.**
- **Children must be supervised to ensure that they do not play with the device!**

Work on the device and changes in the settings may only be carried out by properly instructed persons or persons who have read and understood the Operating Instructions!

The personnel must be informed by the operator of any hazards that may occur. A copy of the Operating Instructions must be left at the device's place of use.

Persons who transport or work on and with the device must have read and understood the relevant parts of the Operating Instructions, in particular the *Chapter "Safety* notices*" starting on page 9*.

Pay attention to the nationally applicable regulations for accident prevention and work safety!

2.3 Electrical system



WARNING!

Danger of electric shock!

Dangerous electrical voltage!

- **All work on the device must be carried out by specialist personnel only!**
- **All electrical installations and any work on the device's electrical components must be carried out by authorised electricians only!**
- **Prior to starting work, disconnect the device from the power supply and secure it against reactivation!**
- **Pay attention to the warning notices on the device.**
- **After corresponding electrical installation or repair, test all protective measures used (e.g. earthing resistance)!**



ATTENTION!

Damage to the device due to an unsuitable fuse!

- **Use only the original fuses with the prescribed current rating!**
- **Regularly check the device's electrical equipment!**
- **Immediately eliminate defects such as loose connections, scorched cables or damaged electrical insulation!**

The installing specialist company is responsible for an intrinsically safe installation of CRYO-FALL.

2.4 Operating the device



WARNING!

Pay attention to all of the safety and warning notices located on the device!

Carefully read the operating instructions prior to installation and use of the device and pay attention to them during operation!
In the event of malfunctions or faults in the electrical power supply, immediately switch off the device and secure it against reactivation! In this case, also disconnect the supply of water and compressed air.
Faults in the device must be rectified immediately.



CAUTION!

Health hazard due to cold shock

The operator must ensure that personnel and guests are informed of the residual risk of cold shock.



ATTENTION!

Damage to the device due to repeated switching on without fault removal!

- **Rectify any faults immediately!**
- **Carefully read and pay attention to the operating instructions prior to installation and use of the device!**

All protection and warning devices must be tested regularly in order to ensure proper functioning. The device must be checked regularly according to the enclosed maintenance protocol.

The Operating and Maintenance Instructions for the compressor must be read and observed separately!

3 Scope of delivery / accessories / functional description

3.1 Scope of delivery / accessories

The delivery consists of a ready-to-connect experience shower with:

- Mounting plate with completely pre-assembled components, according to the order, incl.:
  - Micro-processor controller CB36 with LC display installed in the housing
  - Cold water inlet ¾" incl. pre-filter, ¾" solenoid valve for filling water tank
  - Compressed air inlet incl. shut-off ball valve with compressed air coupling, pressure regulator, pressure switch and control valve
  - Compressed air connecting hoses
    - Control unit – water tank
    - Compressor – mounting plate
  - Compressed air pressure regulator
  - Pressure switch
  - 1 connection option of the compressor optionally supplied by WDT
- Water tank, 100 l, completely pre-assembled with:
  - Gate valve with outlet cone for shower process
  - Float switch
  - Inlet and overflow connection with flexible connection hoses
  - Perforated plate D 130 mm
  - Cover shield D 172 mm
- Button plate 1x
  - Flush-mounted box for button plate

The following optional accessories are available:

- Compressor (WDT code no. 32057)
- Illumination, various options (e.g. LED spots, LED linelights)
- Fastening materials for water tank (kit with WDT code no. 31960 and further accessories)
- Insulation for water tank (WDT code no. 32072)



NOTICE

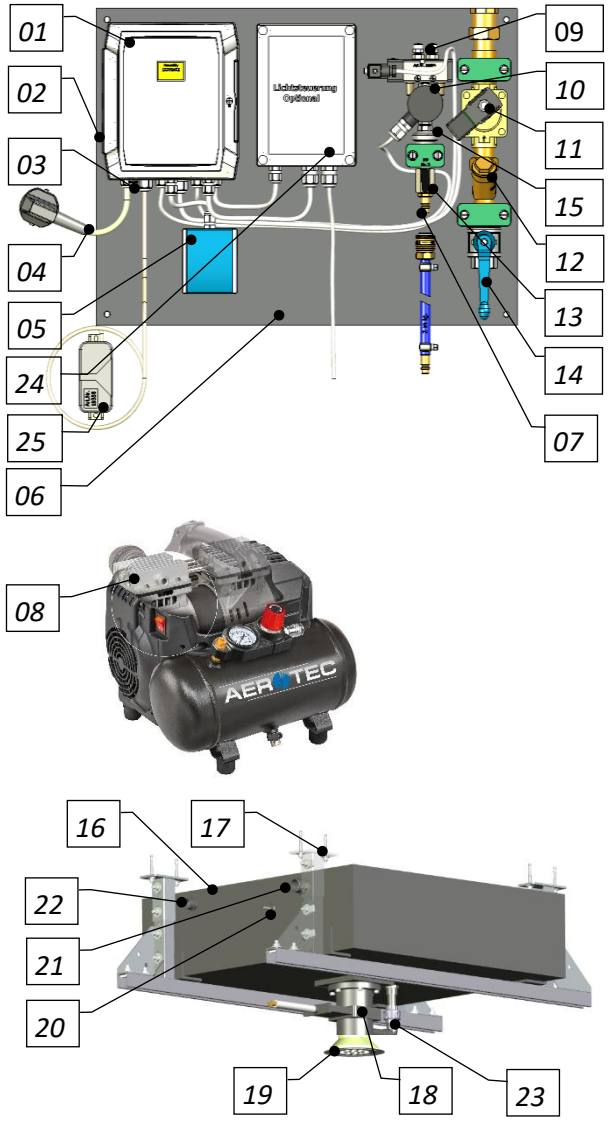
When receiving the device, ensure that:

- the type and serial number on the identification plate correspond to the details in the ordering and delivery documents.
- the equipment is complete and all parts are in perfect condition.

In the event of any transport damage and/or missing parts, immediately notify the forwarding agent or supplier in writing.

Pay attention to the deadlines for notifying the transport companies for the purpose of assessing damage.

3.2 Structure of the overall system



01 Control housing
02 Main switch (covered)
03 Plug-in coupling for start button
04 Mains cable with safety plug
05 Power socket for compressor
06 Mounting plate
07 Compressed air connection mounting plate with compressed air hose
08 Compressor (option)
09 Pneumatic valve for gate valve
10 Pressure switch for pneumatic line
11 Solenoid valve for water tank inlet
12 Fine filter
13 Shut-off valve for pneumatic line
14 Shut-off ball valve for cold water inlet line
15 Pressure regulator

24 Light control unit (LI-C / LI-V), (option)
25 Connection box

16 Water tank
17 Ceiling attachment (option)
18 Gate valve
19 Water jet outlet
20 Level switch for water tank
21 Connection for overflow 2
22 Connection for water inlet
23 Overflow 1 with pipe union

Fig. 1: Mounting plate, compressor, water tank

3.3 Functional description

The CRYO-FALL experience shower is a shower system for ultimate cooling of pool visitors. This waterfall shower produces an invigorating massage effect thanks to a powerful jet of water that falls onto the body like a waterfall. It gives users the sensation of briefly immersing themselves in a cold pool. This type of cooling promotes circulation and imparts a feeling of vitality and freshness.

WARNING!

Danger due to cold shock!

The experience shower is not suitable for people with cardiovascular diseases, pregnant women or older, infirm individuals!

Programme / programme sequence

Switching on:
After the unit is switched on, the inlet solenoid valve closes the opened gate valve. The water tank is partially filled and then automatically emptied. The tank is then automatically rinsed with water. Following that, the gate valve closes and the water tank is automatically filled with cold tap water. This sequence is performed for hygiene reasons so that the water tank is filled with fresh, cold water. The inlet solenoid valve closes the gate valve, and the device is ready for operation.

Starting the shower:
Pushing the button opens the gate valve, and cold water falls from the tank through the perforated plate onto the person below for an adjustable period of time. The optional lighting is deactivated as a standby light and illuminates the shower cabin as an effect light. After a period of time, which can be adjusted on the control unit, the pneumatic valve closes the gate valve again, and the optional lighting switches back to the standby light.

Automatic refilling:
The water level in the water tank is monitored via a float switch. If the water level in the water tank falls, the solenoid valve is opened in order to refill the water tank.
It is possible to configure a blocking period after the shower process. This may be necessary depending on the power of the water inlet. During this blocking period, the push button illumination flashes.

Emptying function:
When the system is switched off, the storage tank empties completely in order to avoid having stagnant water in the water tank.

Compressed air:
Compressed air is produced with the oil-free diaphragm compressor (option). This is needed to control the gate valve via a pneumatic valve.
The compressed air can also be supplied via an on-site compressed air system. It is **important that the compressed air provided be oil-free and as free as possible from residual water and dust!**

Refresh function:
If the waterfall shower is not used for several hours, the water in the water tank warms up. For this reason, the control unit has a **“Refresh” function**. In order to provide the pool visitor with fresh, cold water at all times, some of the water in the tank is automatically drained after an adjustable period of time and the tank is refilled with cold water.

3.4 Description of components

The shower system consists of a 100 l water tank, a mounting plate with a control unit and a push button. The water tank is installed **in a suspended ceiling** directly above the shower in a manner that **allows access for inspection**.

3.4.1 Control unit



Fig. 2: Control unit

The control unit consists of the *control housing (Fig. 1)* with protection class IP44. The electronic components are installed in the housing.

On the control unit, the operating parameters can be set on a 5-line LCD display using 3 operating keys.

The display shows the operating state.

3.4.2 Button plate



Fig. 3: Button plate; sample illustration Aluminium Dibond with name plate

Button plate and flush-mounted box for starting the experience shower.

For details regarding the flush-mounted box, see supplementary sheet **"BB DW 001-03 Installation of flush-mounted box V2"** in *Chapter 12.*

Additional options:

- Button plate made of stainless steel, with special coating, made of Corian, etc.
- Steam room button

WDT push buttons are Piezo buttons that are integrated in a button plate. These button plates are IP65 protected on the front. The push buttons can be ordered with or without a light ring.

3.4.3 Solenoid valve



Fig. 4: Solenoid valve for inlet

The solenoid valve for the water inlet *(pos. 11)* is soft-closing.

The solenoid valve is NC, i.e. normally closed, and is activated via the control unit. The solenoid valve is always opened when water is requested.

3.4.4 Power socket for compressor (pre-assembled)

ATTENTION!

Intended use!

This power socket must <u>not</u> be used as a working socket! The power socket is exclusively used for controlling and supplying power to the WDT compressor.

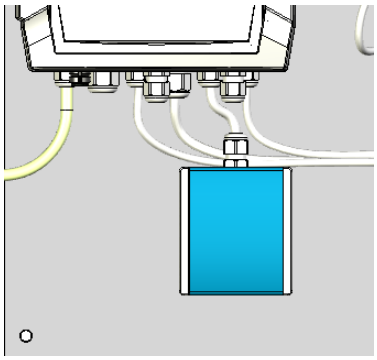


Fig. 5: Power socket for compressor

The power socket is used to supply the optional compressor.

Attention: Maximum connected load

800 watts at 230 VAC!

400 watts at 120 VAC!

3.4.5 Water tank, 100 l



Fig. 6: Water tank

The PVC water tank is equipped with a gate valve, a water outlet and an overflow.

<u>Insulation of water tank (accessories)</u>

The insulation is made up of 13 mm closed-cell foam based on synthetic rubber and is bonded to the whole surface of the water tank.

The water tank is insulated to prevent the formation of condensation and rapid warming of the shower water.

<u>Ceiling attachment (accessories)</u>

Scope of delivery: see Chapter “Installation”

3.4.6 Compressor (option)

Diaphragm pumps are ideally suited for use as compressors and are characterised by very low operating noise, high efficiency and gas-tightness.

The compressor consists of:



31 Air filter for compressor intake
32 Start button
33 Pressure switch (covered)
34 Rubber buffer
35 Compressor motor
36 Compressor pressure outflow
37 Pressure reducer
38 Manometer for outflow pressure
39 Pressure tank
40 Pressure relief valve
41 Drain screw

Fig. 7: Diaphragm compressor

ATTENTION!

Qualified personnel

Installation and connection only by a specialist; after accessories have been attached, a function check must be performed by a qualified electrician.

3.5 Technical data

CRYO-FALL	
Dimensions and weights	
External dimensions of pre-assembled mounting plate Water tank	WxHxD: 55 x 40 x 15 cm WxHxD: 85 x 85 x 24 cm
Compressor	WxHxD: 38 x 38 x 39 cm
Space requirement for mounting plate + compressor **Space requirement, including operation and maintenance** Space requirement for water tank (false ceiling) Space requirement, including operation and maintenance	WxHxD: 80 x 180 x 80 cm WxHxD: 80 x 200 x 80 cm WxHxD: 130 x 90 x 50 cm WxHxD: 140 x 110 x 50 cm; there must be an access panel for the installation space; see Chapter “Installation”.
Height in shower cabin Minimum height for false ceiling	Max. 300 cm, min. 220 cm 49 cm
Weight of pre-assembled mounting plate Weight of water tank – empty/filled Weight of compressor	Approx. 10 kg 60/160 kg Approx. 15 kg
Connection data	
Electrical connection data	100-230 VAC, 50/60 Hz, 4 At, 900 W (incl. 800 W compressor via isolated ground socket at 230 V)
Protection class	IP44
Inlet connection Overflow connection Pneumatic connection Capacity of drain in shower Outlet in technical room	Armoured conduit, female thread ¾“ Armoured conduit, female thread 1 ¼“ 2x DN6 Approx. 160 l/min Min. DN50
Operating pressure – compressor Operating pressure – control unit	8 barg 4 barg
Operating data	
Water consumption	2 seconds of shower time / 5-second blocking period: approx. 80 l/min 3 seconds of shower time / 5-second blocking period: approx. 110 l/min 4 seconds of shower time / 5-second blocking period: approx. 135 l/min 5 seconds of shower time / 5-second blocking period: approx. 150 l/min
Noise emissions of compressor	59 dbA, sound-insulating construction recommended
Temperature of medium	5°C to 40°C
Ambient temperature	5°C to 40°C
Humidity of technical room	Max. 80% relative humidity
Other data	
Ventilation (in and out)	Recommended in the technical room

Table 1: Technical data

4 Transport and storage

4.1 General safety notices



ATTENTION!

Damage to the device due to improper transport!

- **The device must only be transported in its original packaging!**
- **When transporting the CRYO-FALL shower, proceed with caution to avoid damage due to force or careless loading and unloading.**
- **Avoid exposure to frost during transport!**

4.2 Packaging



WARNING!

Danger of suffocation!

- **Keep packaging and packaging residue, in particular plastic bags, out of the reach of children!**



NOTICE

Please pay attention to the notices and pictograms attached to the cardboard box!

4.3 Temporary storage of the device



ATTENTION!

Damage to the device due to improper storage!

The device may be damaged by frost or high temperatures!

- **Avoid exposure to frost during storage!**
- **Do not store systems and devices next to objects with strong heat emission or in direct sunlight.**
- **The device must only be stored in its original packaging. Please ensure careful handling.**

5 Mechanical installation

5.1 General safety notices



WARNING!

Risk of injury!

Personnel who are not familiar with professional installation methods may suffer bodily harm!

- **The installation of this device may only be carried out by qualified personnel (persons who have completed training in the field of sanitary installation or in the field of electrical installation)!**



CAUTION!

Danger of foot injuries!



The device can fall down when installed by a single person!

- **Always carry out the installation with 2 persons!**

WDT accepts no liability for damage caused by incorrect installation!
The attachment or installation of additional equipment is only permitted with the manufacturer's written approval; otherwise, any warranty will be voided.

5.2 Selecting the installation site



ATTENTION!

Damage to the device due to an unsuitable installation site!

- **Installation is only permitted in the technical room!**
- **Also pay attention to the information regarding the installation site and the technical room in the technical data on *page 15*!**

The installation site must have the following properties:

- ☑ Pay attention to the minimum height for the shower cabin and for the false ceiling; *see technical data on page 18!*
- ☑ False ceiling that is accessible for inspection, maintenance and repairs
- ☑ Load-bearing ceiling construction for the weight of the water tank
- ☑ Cold water supply with ¾" line
- ☑ Floor drain, capacity in the shower: min. 160 l/min
- ☑ The installation site must be frost-proof.
- ☑ Due to the noise generated by the compressor, a sound-insulating construction is recommended for the installation space.
- ☑ The device should be set up in a readily accessible location that allows for easy installation and maintenance.
- ☑ The device must be protected from direct sunlight.
- ☑ An electrical power connection with a safety contact is required.
- ☑ It is recommended that the installation space be well aerated and ventilated.
- ☑ The control unit of CRYO-FALL is IP44 protected. Please ensure that the device is not exposed to splashing water at the place of installation.

5.3 Installation notices

The mounting plate and compressor are installed in the technical room.
The water tank is installed in the ceiling above the shower cabin.
The button plate with the flush-mounted housing, the floor drain and the illumination are installed in the shower cabin.

Before starting installation, the following tasks must be carried out:

- Warning and information signs must be installed in compliance with locally applicable accident prevention regulations at the intended locations.

5.4 Installing the waterfall shower



CAUTION!

Danger of foot injuries!



Components of the device may fall when being installed by a single person!

- **Always carry out the installation with 2 persons!**



ATTENTION!

Damage to the device due to improper wall attachment!

Install the mounting plate unit on a stable wall using a stable, non-positive connection

- **Pay attention to the device's operating weight according to the *Chapter Technical data on page 15!***
- **The wall and the fastening materials must be able to bear the specified operating weight!**

The compressor should preferably be placed on the floor.

5.4.1 Installing the mounting plate and compressor

Installation drawing:

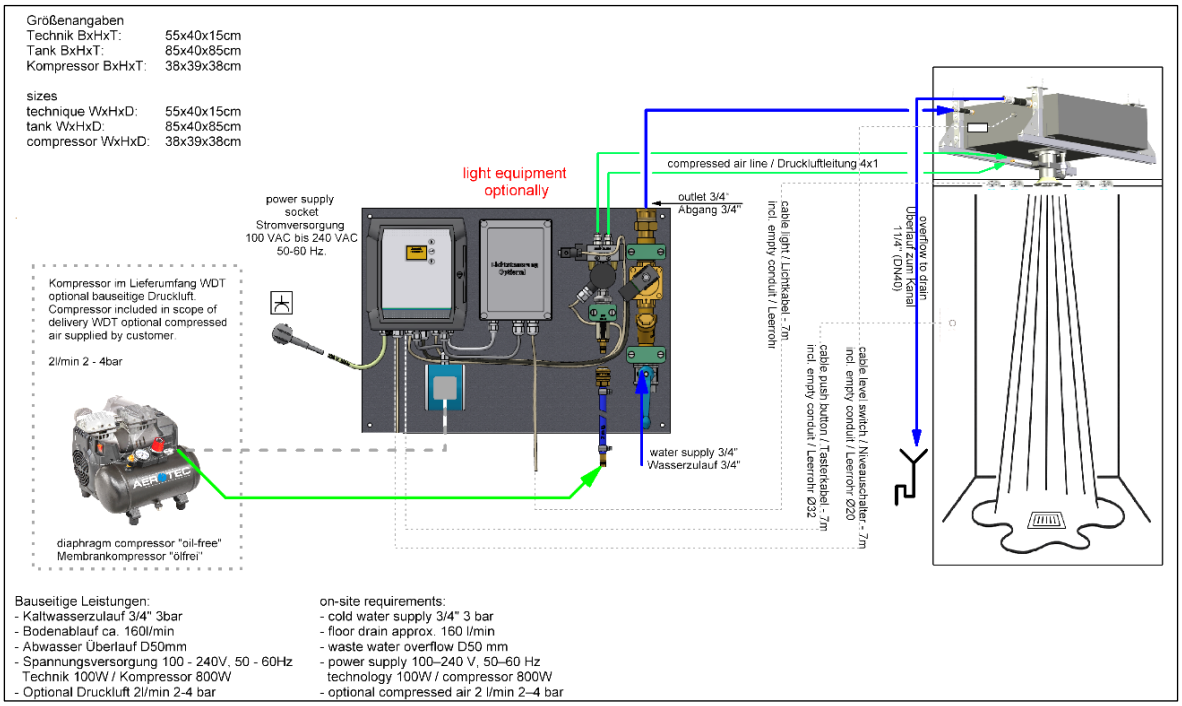


Fig. 8: Installation plan for CRYO-FALL experience shower

1) Securely attach the pre-assembled mounting plate to the wall. Ensure easy accessibility.
2) If an on-site compressed air supply **is available**, it must be connected to the compressed air connection (*pos. 07, page 13*) on the mounting plate.
3) The compressor *(pos. 08)* (option) is required if there is no on-site compressed air supply. Install the compressor on the floor or on a suitable console.
4) Plug the compressor (option) into the power socket *(pos. 05)* on the mounting plate, as the compressor is operated and switched via the power socket.
5) Ensure that all valves and shut-off valves are closed.
6) Install and connect the compressed air hose from the compressor to the mounting plate.
7) Connect the water supply to the mounting plate’s water inlet.

5.4.2 Installing and connecting the water tank

WARNING!

Falling water tank

Condensed water on the water tank can lead to corrosion on the mounting hardware of the water tank, or the tank is inadequately secured.

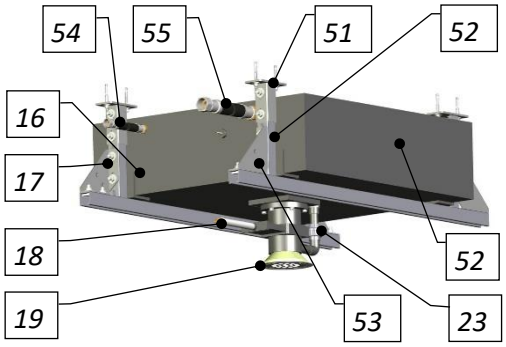
The water tank can fall during installation.

- **Depending on the installation location, it may be necessary to insulate the water tank to avoid condensation.**
- **Select suitable mounting hardware (dowel/screw/anchor); 4 fixings are necessary with at least 100 kg of tensile load per fixing. The suitability of the mounting hardware is to be evaluated on site by the qualified professional.**
- **Repair damaged points in the galvanisation of the supporting structure with corrosion protection.**
- **Carry out the installation of the water tank with least 2 persons.**

Requirements for installation location:

☑ Space requirement on left and right of water tank: at least 5 cm
☑ Space requirement behind water tank: +22 cm
☑ Space requirement in front of water tank: +25 cm; there must be an access panel for the installation space and the gate valve.

Suggested installation



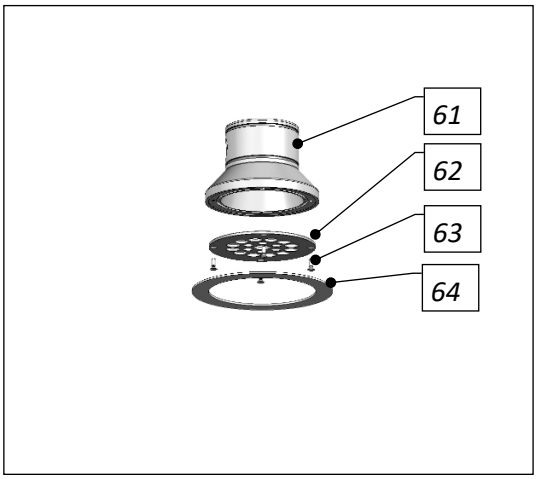
Key:

16. *Water* tank
17. *Ceiling attachment (*option)
18. *Gate* valve
19. *Water jet* outlet
23. *Overflow 1 with pipe* union
    Overflow 1 is used as a support for the outlet cone.

Installation material (option)

51. Profile foot, 4 pc
52. C-channel, 2 x 3 m
53. Frame bracket, 4 pc
54. Armoured conduit 30 cm, ¾“, inlet
55. Armoured conduit 30 cm, 1 ¼“, overflow 2
56. Hammer head bolts M10x60, 24 pc (not shown)
57. Heavy-duty anchor M10x80, 8 pc (not shown)

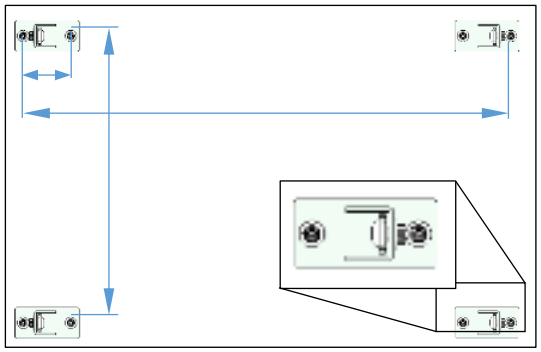
Cut the C-channels according to the circumstances at the installation location



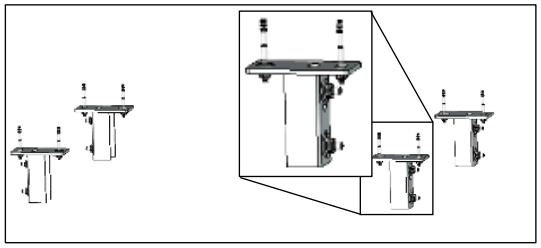
CRYO-FALL outflow element consists of:

61. Outlet cone
62. Perforated plate for waterfall D 130 mm
63. 4 x screws M5 x 12
64. Cover shield, brass, chrome-plated, D 172 mm

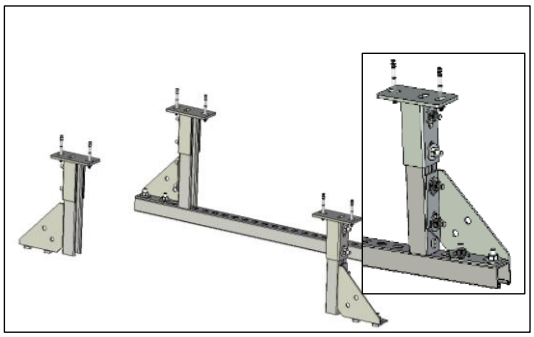
The pipe next to the gate valve serves as overflow 1 *(pos. 23)* and **at the same time as a support for the *Outlet* cone *(61)***.
In order to remove the outlet cone, the pipe union on overflow 1 is to be opened.



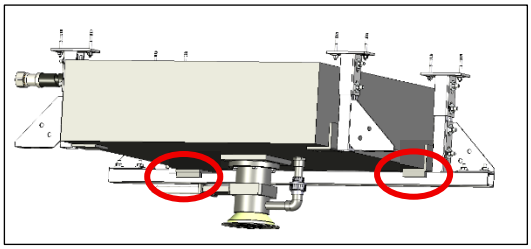
01 Drill attachment holes into the ceiling for the bracket:
drilling spacing approx. 600x800 mm + 5 mm, hole spacing 100 mm +- 2 mm, diameter 10 mm
If possible, the vertical C-channels are to be installed in such a way that they prevent slippage of the water tank. These C-channels should sit flush against the left and right of the water tank to ensure a form-fit connection. If this is not possible, the water tank should be secured against slippage by other means!



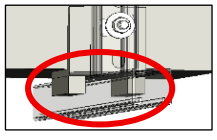
02 Attach profile feet to ceiling.
Necessary load-bearing capacity: at least 100 kg per profile foot!

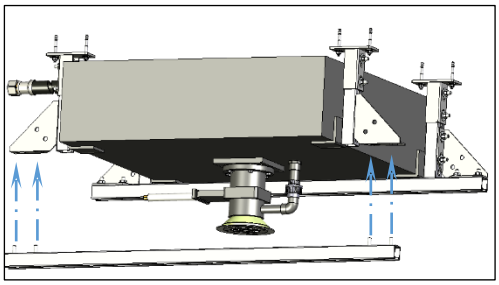


03 Cut C-channels to length as required. Treat the cut edges with corrosion protection (coating). Install C-channels and brackets according to diagram.

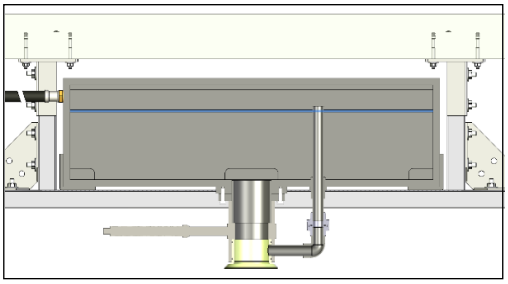


04 At least two people are required for the next steps! Slide the water tank into the holder and secure it in place.
The C-rail should be positioned between the side stop blocks on the water tank to prevent the water tank from slipping.



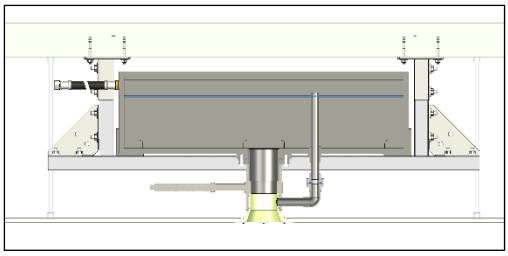


05 Install further channels to secure water tank



06 Tank fully installed

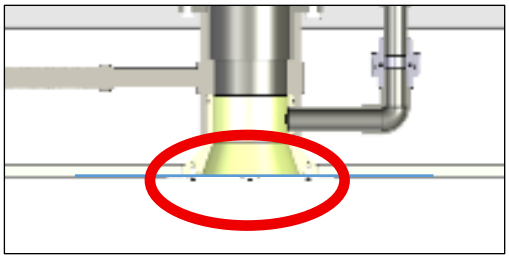
Check for a tight fit and seal of the outlet cone, the overflow pipe and all of the bracket's screw connections x



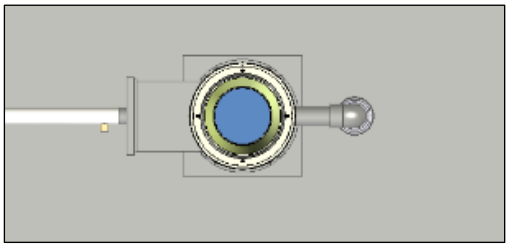
07 Create ceiling construction

Notes on ceiling substructure:

- Create adequate access panel for water tank

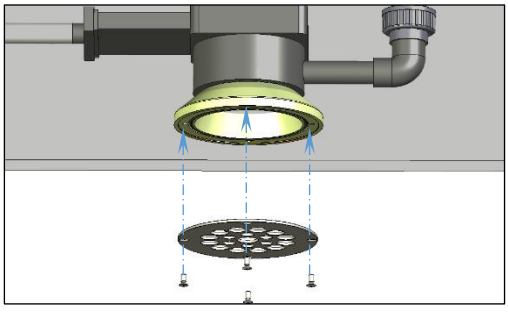


- The suspended ceiling must be flush with the **outlet cone, not with the cover shield!**

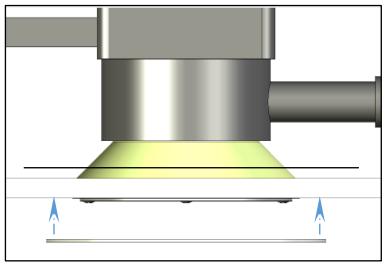


View from below

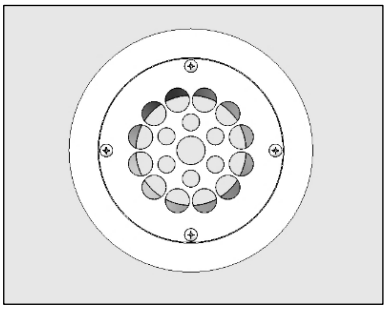
08 Create round ceiling cut-out with a diameter of 135 mm for outlet cone



09 Mount perforated plate with 4 screws



10 Attach cover shield to ceiling with construction adhesive



Outlet element from below

11 Install and connect cable for level switch.

12 Install and connect line for water inlet/cold water line ¾" and insulate it against condensation.

13 Install and connect overflow line 1¼" with free outlet.

14 Install and connect compressed air lines to gate valve. **Ensure correct connection of the flow and return line of the gate valve!** The line connections are labelled accordingly (slide valve "OPEN" – "CLOSED").

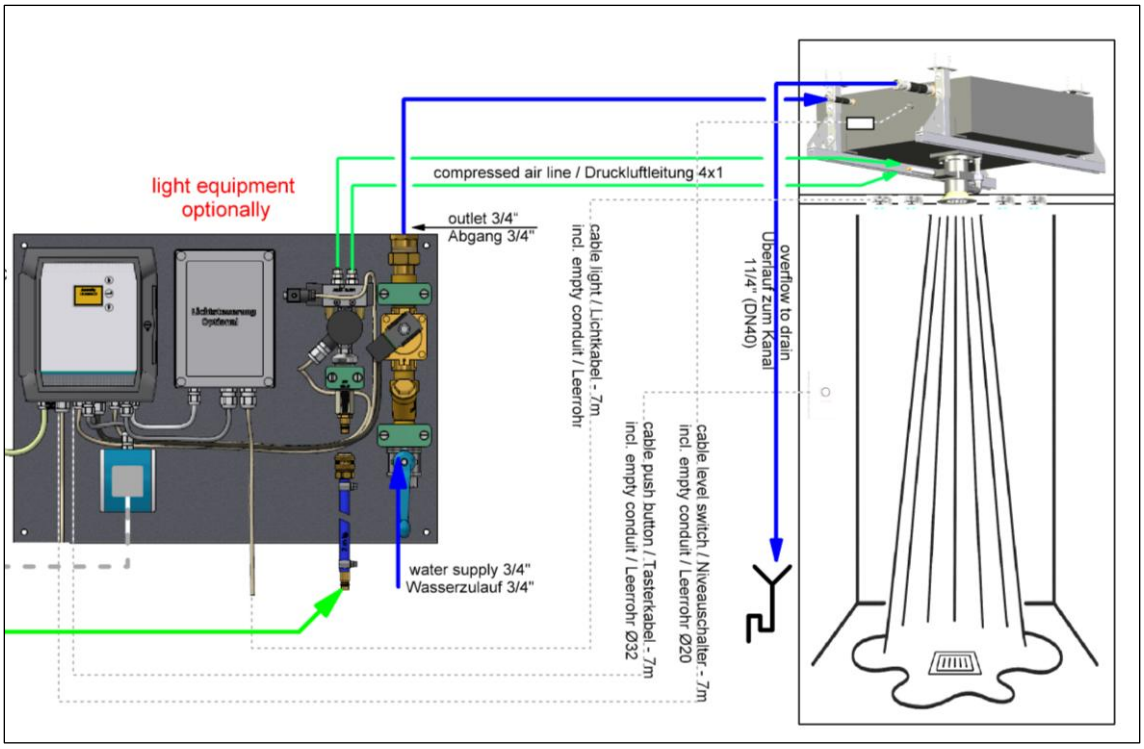


Fig. 9: Connections for CRYO-FALL experience shower

5.4.3 Installing the button plate

The button plate is included in the scope of delivery.

- ☑ The button plate can be installed with or without a flush-mounted housing. WDT recommends the use of a flush-mounted housing.
- ☑ The flush-mounted housing must be installed in accordance with the enclosed installation instructions (see supplementary sheet in *Chapter 12, page 68*).
- ☑ The empty pipe to be installed must have an internal diameter of 25 mm and a minimum bending radius of no less than 30 cm.
- ☑ The push button cable is fully assembled and equipped with a plug on both sides. The standard cable length is 7 or 15 metres, but it can be made in any desired length.
- ☑ Once the push button cable has been pulled in, it can be plugged in at both ends.
- ☑ When installing the button plate in humid rooms, the plate must be sealed to the wall/steam barrier. A suitable permanently elastic sealant must be used for this purpose. This is the responsibility of the company/person carrying out the work!

5.4.4 Installing the illumination

Depending on the supplied illumination, this is to be installed and connected to the shower equipment according to its description.

6 Electrical installation

6.1 Safety notices

WARNING!

Danger of electric shock!

Dangerous electrical voltage!

- **All work on the device must be carried out by specialist personnel only!**
- **All electrical installations and any work on the device's electrical components must be carried out by authorised electricians only!**
- **Prior to starting work, disconnect the device from the power supply and secure it against reactivation!**

NOTICE

Install the cable channels in such a way that there is no tripping hazard.

6.2 Electrical connection

1) Connect button plate to control unit.
2) Connect level switch of water tank.
3) Connect illumination (option)
4) Connect loudspeaker (option)
5) Connect compressor to **power socket on mounting plate**.
6) Connect control unit to power supply (100-230 VAC, 50/60 Hz) using safety plug.

6.3 Additional connection options

The following additional connection options exist:

Description	Bar	Terminals
Collective fault (230 VAC/120 VAC max. 50 W) to CCS (Central Control System) or BCS (Building Control System), potential-free;	SL 4	1/2/3
Operating contact (24 VDC), external control of operating times, energised; switchable via potential-free contact. If necessary, remove wire bridge and connect to external potential-free contact. • When the operating contact is open, the device is in standby (e.g. during downtimes) • When the operating contact is closed, the device is ready for operation (e.g. during operating times)	SL 13	4/5
Connection of the "Effect light" control signal according to the enclosed wiring diagram in *Chapter 11.2 on page 58*. • External actuators, such as a light or sound effect, can be connected to the outputs. (Please pay attention to the performance specifications in the wiring diagram!) • The outputs are activated via the control of the solenoid valve for the compressed air (gate valve). The running time is the configured shower time + the configured blocking period.	SL2	1/2/3

NOTICE

Electric wiring: see wiring diagram in *Chapter 11.2 on page 58*.

7 Commissioning

7.1 General safety notices



CAUTION!

Danger of injury due to crushing of fingers!

With the nozzle plate removed, the user is able to reach through the outlet opening and into the outlet pipe with their hand. On closing (according to the operating sequence), the hand/finger can be crushed by the sliding plate.

- **Switch the device off → De-energise in the open position and secure against reactivation**



ATTENTION!

Damage to the device due to incorrect commissioning!

- **The sequence of the following commissioning steps must be observed!**
- **The information in the commissioning protocol must be observed!**

7.2 General remarks

During commissioning, a distinction is made between:

- **Initial commissioning** following installation or a reset to the factory settings
- **Recommissioning** after extended downtime

The device is delivered with the factory settings.
Adjust the control parameters to the desired mode of operation during initial commissioning and enter them in the operation data sheet in *Chapter 11.4 on page 64*.

7.3 Commissioning steps

The following commissioning steps are described in the chapters below:

- Checking whether all components are correctly installed and connected (electricity, compressed air, water, overflow, etc.)
- Checking the ceiling construction and bracket for the water tank.
- Checking the switch-on button on the compressor or setting it to “On”.
- If all requirements have been met, the device can be switched on at the control unit’s *Main* switch *(pos. 02).*
- Carrying out the start query procedure (language, date, time, shower time, pause time)
- Filling out the commissioning protocol. The commissioning protocol can be found in the accompanying documentation in *Chapter 11.4 on page 64*.
- Conducting a function check
- Carrying out a leak check on all pipes and hose lines for water and compressed air, as well as on the water tank.
- Making the desired settings and adjustments.
- Training personnel, keeping a record of the training

7.4 Display and controls

There are 3 operating keys next to the LCD display. These are used to navigate the menu.

NOTICE

The display has an automatic dimming function:

If no input occurs on the control unit for **60 seconds**, the backlighting is dimmed. The first press of a key (arrow keys, Enter key) then activates the backlighting.

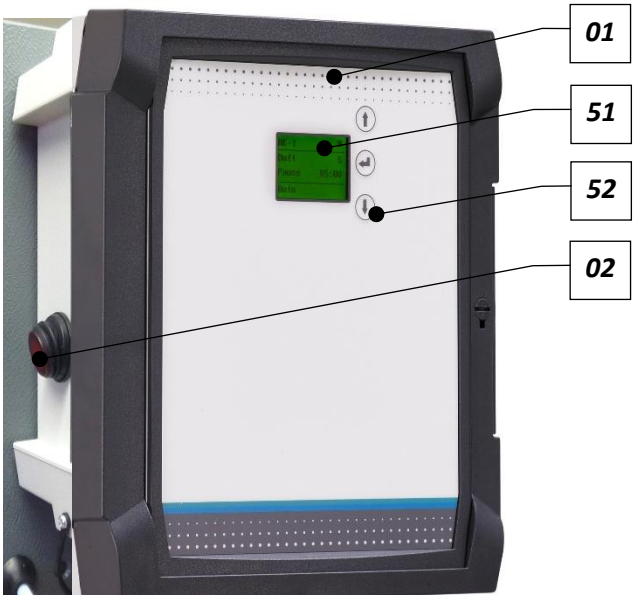


Fig. 10: Display and controls

01 *Control* housing

02 *Main* switch

51. Display

52. 3 operating keys

Navigation upwards ↑

Use the arrow key to navigate upwards or to set numerical values.

Enter key ↵

Use the Enter key to
- navigate to the main menu or
- to the selected submenu, or
- to the next setting value, or
- to confirm the setting value.

Navigation downwards ↓

Use the arrow key to navigate downwards or to set numerical values.

7.5 Switching the device on for the first time

NOTICE

When the device is switched on for the first time, or after a reset, it automatically starts with the **start query procedure**.

7.5.1 Start query / initial starting of device

The following data is queried during the start query procedure:

Language, time, date and the setting parameters for overtravel, shower time, blocking period, filling time and rinse time. The corresponding queries are shown in sequence and are entered via the 3 operating keys. The display then switches to the operating menu. The device begins to fill the water tank.

If the setting values are not yet known at the time of commissioning, the factory settings shown on the display can be adopted. These values can be modified later without any problems.

7.5.2 Reactivating the device

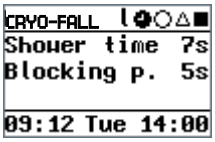


Fig. 11: Display with operating menu

After reactivation, the device starts in the operating menu and is immediately ready for operation.

The display is illuminated.

The display shows the shower time and the blocking period.

The **left footer** always displays the current time.

When the time switch is activated, the **centre/right footer** (e.g. Tue 14:00) displays the next *switch time.*

8 Operation / use

8.1 General safety notices

CAUTION!

Health hazard due to incorrect operation!

- **Pay attention to all safety notices in these instructions, in particular the safety notices in *Chapter 2 on page 9*!**
- **The device must not be put into operation until the installation (mechanical and electrical) and the commissioning have been completed!**
- **The device must only be operated by trained and instructed personnel!**
- **Prior to operation, the operating personnel must have completely read and understood these instructions!**

8.2 Checking for operational readiness

☑ Check whether the power supply is ensured; connect the device if necessary.
☑ Check connections and compressor for leaks; recreate proper seal if necessary.

8.3 Operation

The device is operated via the operating keys next to the LCD display.

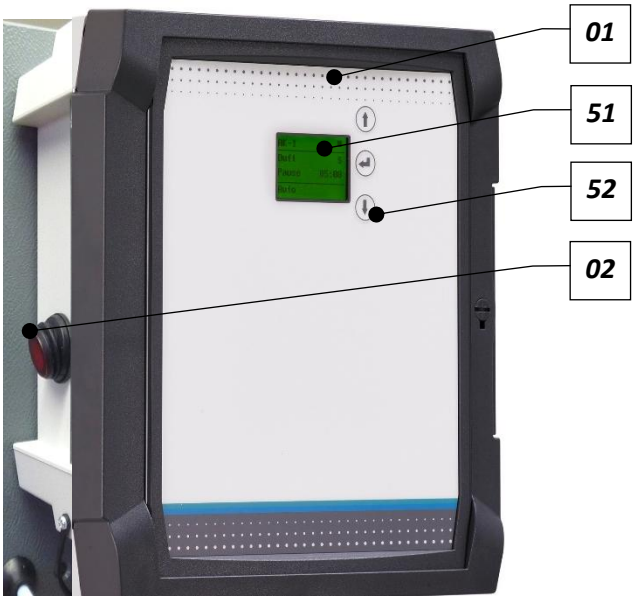


Fig. 12: Display and controls

01 *Control* housing

02 *Main* switch

51. Display

52. 3 operating keys

Navigation upwards ↑
Use the arrow key to navigate upwards or to set numerical values.

Enter key ↵
Use the Enter key to navigate:

- to the main menu or
- to the selected submenu, or
- to the next setting value, or
- use it to confirm the setting value.

Navigation downwards ↓
Use the arrow key to navigate downwards or to set numerical values.

8.4 Switching on/off

The device is switched on at the Main switch *(pos. 02)*; it is in the most recently selected operation mode.

The device is switched off at the *main switch*. The operating parameters are automatically saved.

CAUTION!

Health hazard!

- **Prior to starting work, read and understand the Operating Instructions!**
- **The tasks described here must only be performed by appropriately qualified personnel from a specialist company.**
- **Prior to commissioning, the installed devices must be checked for proper installation and leaks.**

8.5 Function of the push button



Fig. 13: Button plate, sample illustration

Starting the waterfall shower

When the button is pressed, the experience shower starts with the configured parameters.

Restarting the programme

If the button is pushed again after the blocking period has elapsed, the programme starts again. During the blocking period, the push button is locked and the push button illumination flashes.

Push button illumination

The push button illumination can be configured individually. See *Chapter 8.6.22***.**

8.6 Control unit

The menu of the control unit is simply structured and easy to operate. It consists of the **Operating menu** and the **Main menu**. The menu items can be accessed via the arrow keys ↑ and ↓. **You can find the maximum setting ranges in the *Operation*** data sheet ***on page 64.***

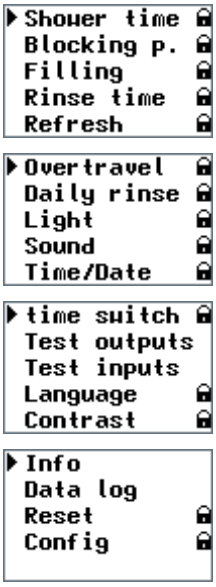


Fig. 14: Menu items in the main menu

Pressing one of the *arrow keys (pos. 52, page 30)* in the **operating menu opens the main menu**. Navigation is performed using the arrow keys ↑ and ↓.

- Shower time (password-protected option)
- Blocking period (password-protected option)
- Filling time (password-protected option)
- Rinse time (password-protected option)
- Refresh (password-protected option)
- Overtravel (password-protected option)
- Daily rinsing (password-protected option)
- Light (password-protected option)
- Sound (password-protected option)
- Time/date (password-protected option)
- Time switch (password-protected option)
- Test outputs
- Test inputs
- Language (password-protected option)
- Contrast (password-protected option)
- Info
- Data log (SD denotes inserted memory card)
- Reset (always with password protection)
- Config (always with password protection)

The black triangle ▶ on the left side of the menu marks the currently selected list item.

The list entry is selected using the Enter key ↵.

All parameters with the addition **“password-protected option”** can be protected with a password by the operator.

NOTICE

If you switch to the main menu from the operating menu, the device’s operation is interrupted so that changes can be made.

After switching from the main menu back into the operating menu, operation is released again.

The main menu can be exited manually using the arrow key ↑. After 60 seconds without any input, the control unit automatically switches from each submenu back to the operating menu. **This function is not active for the test menus** (test outputs/test inputs)**.** The test menus must be actively exited!

8.6.1 Operating menu

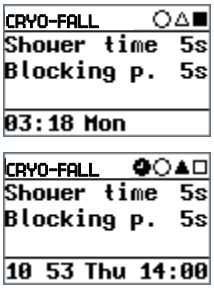


Fig. 15: Operating menu

The operating menu shows the current operating data.

After the device is switched on at the *main switch (page 13, no. 02)*, which is located on the side, the operating menu appears on the display.

Depending on the settings, the operating menu shows the corresponding information:

In Figure 15 (top), operation with time switch deactivated
In Figure 15 (bottom), operation with time switch activated

The **left footer** always displays the current time.

When the time switch is activated, the **centre/right footer** (e.g. Tue 14:00) displays the next *switch time.*

The header contains additional symbols for current operation settings; see the following table.

Symbol	Description
🕘	Time switch is **selected and in standby position** (if the symbol is absent, the time switch is not selected)
🕓	Time switch is **selected and ready for operation** (if the symbol is absent, the time switch is not selected)
☐	Operating contact open (system/device in standby)
■	Operating contact closed (system/device ready for operation)

8.6.2 Setting Config / password protection

Password protection for the main menu can be activated/deactivated in the Config → Password submenu.

The Config menu is always password-protected!

Certain items in the main menu are marked with a padlock symbol 🔒.

The user password **0123** must be entered in order to select these items.
If the password is entered incorrectly (after selecting the last digit on the right), the system returns to the main menu.



Fig. 16: Menu: Config – password protection

The **Config** menu can be found at the very bottom of the main menu. In the **Config** submenu, settings can be protected against being changed with the user password.

This may be necessary if the device is placed in a freely accessible area and needs to be protected from unauthorised operation.

If password protection is activated, all password-protected menu items are marked with a padlock symbol in the main menu. The menu items cannot be protected individually.

The Config and Reset menu items are always password-protected!

1) Select the **Config** entry in the main menu and confirm with the Enter key ↵.
2) Enter the password 0123 in the password dialogue and confirm with the Enter key ↵.
3) Select the **Password** entry using the arrow keys and confirm the entry with the Enter key ↵.
4) Confirm the selection:
   a) Select **Yes** to activate password protection and to navigate back to the main menu
   b) Select **No** to deactivate password protection and to navigate back to the main menu

8.6.3 Setting the shower time

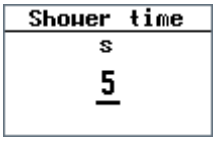


Fig. 17: Menu: Shower time

The shower's gate valve is opened for the duration of the shower time. The cold water then falls onto the person below (waterfall shower).

1) Select the **Shower time** entry in the main menu and confirm with the Enter key ↵.
2) Select the seconds using the arrow keys and save with the Enter key ↵.

   The display returns to the main menu.

8.6.4 Setting the blocking period

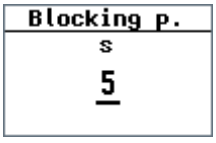


Fig. 18: Menu: Blocking period

The blocking period starts after the shower process and is used to refill the water tank. No shower process can be triggered during the blocking period. The push button is blocked for the set period of time, and the push button illumination flashes.

1) Select the **Blocking p.** entry in the main menu and confirm with the Enter key ↵.
2) Select the seconds using the arrow keys and save with the Enter key ↵.

The display returns to the main menu.

8.6.5 Setting the filling time

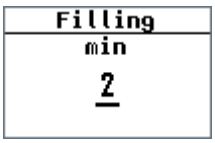


Fig. 19: Menu: Filling time

The filling time is the time needed for complete filling of the tank. The control unit monitors whether the water inlet is functioning correctly. The necessary filling time is set, plus approx. 10-20%, in order to safeguard against pressure fluctuations. If the time is exceeded, a fault indication appears.

1) Select the **`Filling`** entry in the main menu and confirm with the Enter key ↵.
2) Set the **required filling time plus approx. 10-20%** in minutes using the arrow keys and save with the Enter key ↵.

   The display returns to the main menu.

8.6.6 Setting the rinse time

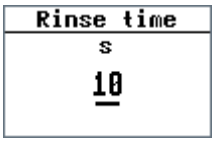


Fig. 20: Menu: Rinse time

For the duration of the configured rinse time, the tank is filled for the rinsing process.

When the waterfall shower is switched on (at the main switch, via the operating contact or via the time switch), the tank is rinsed automatically. As part of this process, the tank is partially filled with water and completely emptied.

The duration of the rinse time determines the water consumption. The maximum fill level is limited by the level switch.

The duration of the emptying process is equal in length to the configured rinse time/filling process.

The tank is then automatically completely filled. During this time, the push button illumination flashes. The waterfall shower is then ready for operation.

1) Select the **`Rinse time`** entry in the main menu and confirm with the Enter key ↵.
2) Select the seconds using the arrow keys and save with the Enter key ↵.

   The display returns to the main menu.

8.6.7 Setting the refresh time

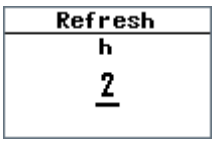


Fig. 21: Menu: Refresh

The refresh time indicates the maximum amount of time that water can stand still in the water tank. If no shower process is started during this time, the water is automatically partially replaced with cold water.

1) Select the **Refresh** entry in the main menu and confirm with the Enter key ↵.
2) Select the desired time in hours using the arrow keys and save with the Enter key ↵.

   The display returns to the main menu.

   When the automatic refresh is carried out, water will flow out of the shower outlet!

   The opening time of the gate valve corresponds to the configured shower time.

8.6.8 Setting the overtravel time

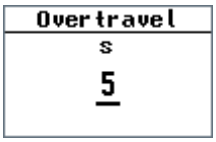


Fig. 22: Menu: Overtravel

For the overtravel time, filling of the water tank continues after the fill level monitor has reacted. This avoids constant opening and closing of the inlet solenoid valve.

1) Select the **Overtravel** entry in the main menu and confirm with the Enter key ↵.
2) Select the seconds using the arrow keys and save with the Enter key ↵.

   The display returns to the main menu.

8.6.9 Configuring the daily rinse = hygienic rinse



Fig. 23: Menu: Daily rinse

The daily rinse function is a hygienic rinse. It completely empties the water tank and refills it with fresh water. It is ensued that no germ contamination can occur in the water tank or in the cold water line. This menu can be used to configure the time of the daily rinse.

1) Select the **Daily rinse** entry in the main menu and confirm with the Enter key ↵.
2) First set the hour using the arrow keys, confirm the entry with the Enter key ↵, then set the minute and save with the Enter key ↵.

   The display returns to the main menu.

8.6.10 Configuring the illumination in the shower

NOTICE

These settings are only possible in combination with installed LED RGBW power packs (light control unit) from WDT series LI-V and LI-C! Connection is via the WDT internal data bus.

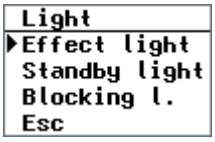


Fig. 24: Menu: Light

Settings such as light intensity and light colour for the illumination in the waterfall shower are adjusted in the Light submenu.

1) Select the **Light** entry in the main menu and confirm with the Enter key ↵.

Notice: There is no automatic return to the main menu from the Light submenu. The submenu must be exited using **Esc** to navigate to the operating menu.

8.6.10.1 Light → Effect light (shower process)

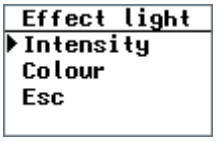


Fig. 25: Menu: Effect light

Settings for the illumination during the shower process are adjusted in the Effect light submenu.

1) Select the **Effect light** entry in the **Light** submenu and confirm with the Enter key ↵.
2) Select the desired menu using the arrow keys and confirm with the Enter key ↵.

Light → Effect light → Intensity

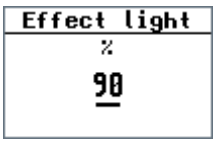


Fig. 26: Menu: Effect light – Intensity

The brightness of the illumination during the shower process is set in the Effect light → Intensity submenu.

1) Select the desired intensity and confirm with the Enter key ↵.
   The display returns to the previous menu item.

Light → Effect light → Colour

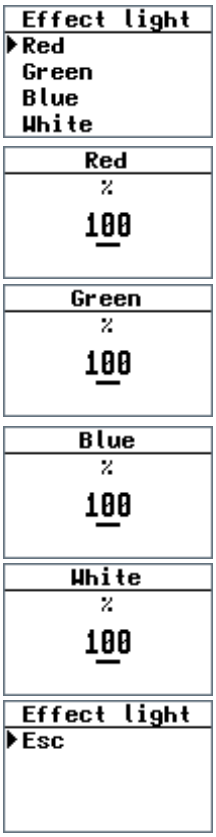


Fig. 27: Menu: Effect light – Colour

The individual colour intensities (RGBW) are set in the Effect light → Colour submenu. The different colour intensities produce the mixed colour of the illumination that appears during the shower process.

Countless colours can be configured. Examples of some hues are listed in the colour table.

Colour table:

Colour	Red	Green	Blue	White
Turquoise	1	89	95	0
Yellow	93	86	6	0
Pink	94	2	78	0
Red	100	0	0	0
Green	0	100	0	0
Blue	0	0	100	0

1) Select the desired colour and confirm with the Enter key ↵.
2) Select the desired intensity of the colour and confirm with the Enter key ↵. The display returns to the previous menu item.
3) Repeat this process for each colour.
4) Use **Esc** to return to the main menu.

8.6.10.2 Light → Standby light

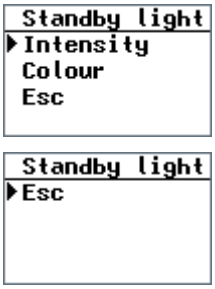


Fig. 28: Menu: Standby light

Settings for the illumination during standby operation (shower ready for operation) are adjusted in the Standby light submenu.

1) Select the **Standby light** entry in the **Light** submenu and confirm with the Enter key ↵.
2) Select the desired menu using the arrow keys and confirm with the Enter key ↵.

Light → Standby light → Intensity

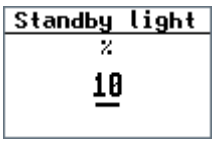


Fig. 29: Menu: Standby light – Intensity

The brightness of the illumination during standby operation is set in the Standby light → Intensity submenu.

1) Select the desired intensity and confirm with the Enter key ↵.
   The display returns to the previous menu item.

Light → Standby light → Colour

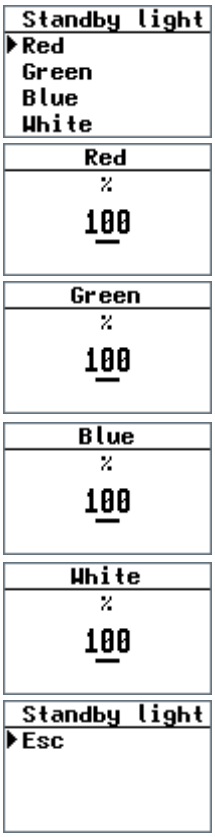


Fig. 30: Menu: Standby light – Colour

The individual colour intensities (RGBW) are set in the Standby light → Colour submenu. The different colour intensities produce the mixed colour of the illumination that appears during standby operation.

Countless colours can be configured. Examples of some hues are listed in the colour table.

Colour table:

Colour	Red	Green	Blue	White
Turquoise	1	89	95	0
Yellow	93	86	6	0
Pink	94	2	78	0
Red	100	0	0	0
Green	0	100	0	0
Blue	0	0	100	0

1) Select the desired colour and confirm with the Enter key ↵.
2) Select the desired intensity of the colour and confirm with the Enter key ↵. The display returns to the previous menu item.
3) Repeat this process for each colour.
4) Use **Esc** to return to the main menu.

8.6.10.3 Light → Blocking light

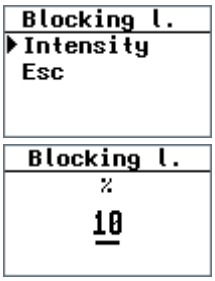


Fig. 31: Menu: Blocking light

If the blocking light is activated, the shower is not ready for operation – for example during the blocking period, during the rinsing time or in the event of a fault. Settings for the illumination are adjusted in the Blocking light submenu.

1) Select the **Blocking l.** entry in the **Light** submenu and confirm with the Enter key ↵.
2) Select the desired menu using the arrow keys and confirm with the Enter key ↵.

Light → Blocking l. → Intensity

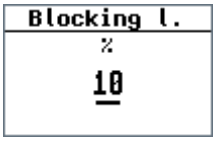


Fig. 32: Menu: Blocking light – Intensity

The brightness of the illumination during the blocking period is set in the Blocking l. → Intensity submenu.

1) Select the desired intensity and confirm with the Enter key ↵.
   The display returns to the previous menu item.

8.6.11 Sound module

NOTICE

These settings are only possible in combination with an installed MP3 player or audio module from WDT! Connection is via the WDT internal data bus.



Fig. 33: Menu: Sound module

Settings for the music in the waterfall shower are adjusted in the sound module submenu.

1) Select the **Soundmodul** entry in the main menu and confirm with the Enter key ↵.

8.6.11.1 Soundmodul → Shower time

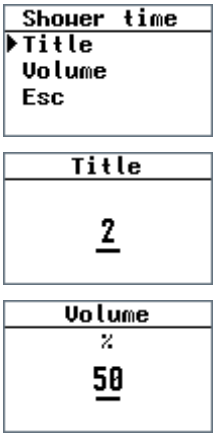


Fig. 34: Menu: Sound module – Shower time

Settings for the music during the shower process are adjusted in the Shower time submenu.

1) Select the **Title** entry in the **Shower time** submenu and confirm with the Enter key ↵.
2) Select the desired title and confirm with the Enter key ↵.
   The display returns to the previous menu item.
3) Select the **Volume** entry in the **Shower time** submenu and confirm with the Enter key ↵.
4) Select the desired volume and confirm with the Enter key ↵.
   The display returns to the previous menu item.
5) Use **Esc** to return to the main menu.
6) The music title is shown as the corresponding number in the **Title** menu.

8.6.11.2 Sound module → Standby

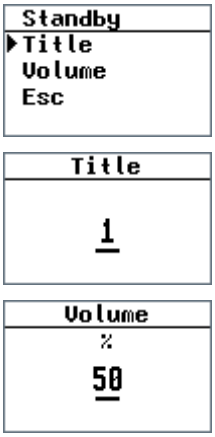


Fig. 35: Menu: Sound module – Standby

Settings for the music during standby operation (shower ready for operation) are adjusted in the Standby submenu.

1) Select the **Title** entry in the **Standby** submenu and confirm with the Enter key ↵.
2) Select the desired title and confirm with the Enter key ↵.
   The display returns to the previous menu item.
3) Select the **Volume** entry in the **Standby** submenu and confirm with the Enter key ↵.
4) Select the desired volume and confirm with the Enter key ↵.
   The display returns to the previous menu item.
5) Use **Esc** to return to the main menu.

8.6.12 Setting the time / date

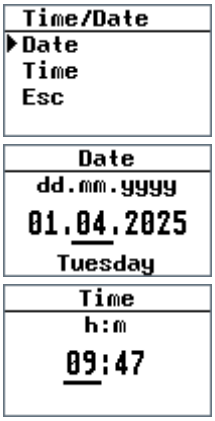


Fig. 36: Menu: Time / date

You can set the time and date in this submenu.

1) Select the **Time/Date** entry in the main menu and confirm with the Enter key ↵.
3) Select the **Time** or **Date** entry using the arrow keys and confirm with the Enter key ↵.

   The entry to be changed (hour, minute, day, month, year) is marked with an underscore.

4) Use the arrow keys to set the value and confirm the entry with the Enter key ↵.

   The display automatically jumps to the next value.

5) Once the last possible entry has been confirmed, the display switches back to the selection of **Time** or **Date**.
6) In the overview, select the **Esc** entry to navigate to the main menu.

TIP

The time must be manually adjusted to summer or winter time!

8.6.13 Setting the time switch / switch times

The Time switch/switch times function is used to set days and time periods during which the system shall be switched on. Per day, 1 time window (On – Off) can be entered.

NOTICE

At the time of switching on, the control unit carries out the process of rinsing the water tank as described in *Chapter 3.3, page 13*.

At the time of switching off, the tank is automatically emptied and the illumination is switched off.

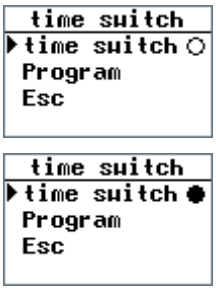


Fig. 37: Menu: Time switch/Time switch

The time switch function can be activated and deactivated with the Enter key in the **Time switch** submenu.

If the time switch is activated, a black dot appears to the right. Switch times can be configured in the Program menu. The waterfall shower can now only be used during the configured switch times.

If the time switch is deactivated, a black circle appears to the right.

1) Select the Time switch entry and confirm with the Enter key ↵ to activate or deactivate the time switch function for all days.

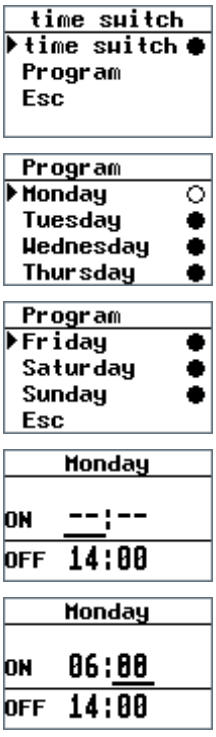


Fig. 38: Menu: Time switch/programme

Days and time periods during which the system is active can be set in the **Time switch → Program** submenu. Per day, 1 time window (**On** – **Off**) can be entered. The time period between the switch-on time and the switch-off time is the daily operating time.

1) Select the **Program** entry and confirm with the Enter key ↵.

   The days of the week are marked with a circle to the right:

   ● Filled circle: A time has been set.
   ○ Empty circle: **No** time has been set. This day of the week has been deactivated.

2) Use the arrow keys to select the day of the week and confirm with the Enter key ↵. The display switches to the input of switch times.
   The entry to be changed (On: hour/minute, Off: hour/minute) is marked with an underscore.

3) Use the arrow keys to set the value and confirm the entry with the Enter key ↵.

   The display automatically jumps to the next value.

4) Once the last possible entry has been confirmed, the display switches back to the screen for selecting the day of the week. The next day can now be set.

5) In the overview, select the **Esc** entry to navigate to the higher-level Time switch menu. All saved times are retained in this case, even when the time switch is deactivated!

6) In the overview, select the **Esc** entry to navigate to the main menu.

NOTICE

If you wish to **deactivate a day of the week**, press the arrow buttons until **no time is shown on the display (--:--)** and confirm the message **"Delete switch time"** with Yes ↵

The newly set times are only saved if they are confirmed with the Enter key. Per day, 1 time period (**On** – **Off**) can be entered.

In the absence of an input, the control unit **automatically** switches from the **Time switch** menu to the main menu after 30 seconds. **In this case, the settings made are not saved**. The menu can actively be terminated with **Esc** to return to the main menu.

If you want the device to be available all day, set the switch-on time to **00:01** and the switch-off time to **23:59**.

NOTICE

You can tell if the Time switch function is activated from the corresponding symbol in the operating menu.

Symbol	Description
🕘	The Time switch function is **selected and in standby position** (outside the set operating times). The time at which operation is released and the waterfall shower can be started is shown on the display at the bottom right. (If the symbol is absent in the operating menu, the Time switch function is switched off.)
🕘	The Time switch function is **selected and ready for operation** (within the set operating times). The time at which operation is terminated and the waterfall shower can no longer be started is shown on the display at the bottom right. (If the symbol is absent in the operating menu, the Time switch function is switched off.)

8.6.14 Testing electrical outputs

NOTICE

The control unit does **not automatically** switch from the test menu to the main menu. The test menu must be actively terminated with **Esc** to return to the main menu.

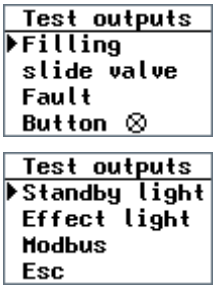


Fig. 39: Menu: Test outputs

In this submenu, various electrical outputs can be tested.

1) Select the **Test outputs** entry in the main menu and confirm with the Enter key ↵.
2) Select the desired component using the arrow keys and confirm with the Enter key ↵. The selected output is activated.
3) The display counts down the respective remaining control time:

- **Filling**: The solenoid valve in the filling line is activated for 20 seconds.

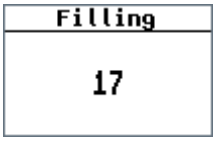


Fig. 40: Test outputs – Filling

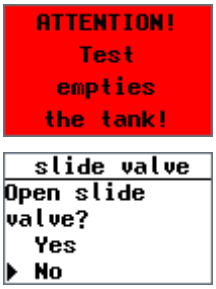


Fig. 41: Test outputs – Slide valve

- **Slide valve**: Opening the slide valve allows the water to flow into the shower cabin. Accordingly, the warning messages "ATTENTION! Test empties the tank!" appears. Confirm this message with the Enter key ↵.
  → The message "Open slide valve? Yes/No" appears
  → Select the desired action using the arrow keys and confirm with the Enter key ↵.
  The output for the gate valve is activated for 20 seconds.
- **Fault**: The fault indication output is activated for 20 seconds.
- **Button**: The output for the push button illumination is activated for 20 seconds.
- **Standby light**: The output for the illumination is activated for 20 seconds. With the settings for the standby light
- **Effect light**: The output for the illumination is activated for 20 seconds. With the settings for the effect light
- **Modbus**: The Modbus output for light and sound is displayed.
  A black dot indicates that the output is active;
  a black circle indicates that the output is not active. Only connected bus subscribers are displayed and can be tested.
  The bus subscribers must be coordinated with the parameters.

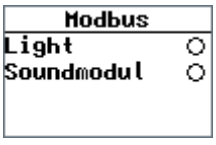


Fig. 42: Test outputs – Modbus

All **output tests can be cancelled** at any time using the Enter key ↵.
Once the respective test has been completed, the display switches back to the overview of the outputs.
In the overview, select the **Esc** entry to navigate to the main menu.

8.6.15 Testing electrical inputs

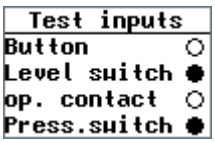


Fig. 43: Menu: Test inputs

In this submenu, the various electrical inputs can be tested.

1) Select the **`Test inputs`** entry in the main menu and confirm with the Enter key ↵.

   The inputs are marked with a circle to the right:

   - ● Filled circle: Input is active
   - ○ Empty circle: Input is inactive

   Depending on the connection and equipment, the operating contact, for example, may not be triggered.

2) Press the Enter key ↵ to exit the menu.

8.6.16 Setting the language

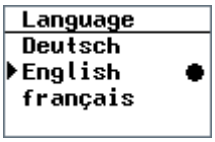


Fig. 44: Menu: Language example

The display language can be configured in this submenu.

1) Select the **`Language`** entry in the main menu and confirm with the Enter key ↵.
   The set language is marked with a circle to the right.
2) Select the language using the arrow keys and save with the Enter key ↵.

   The display returns to the main menu.

8.6.17 Setting the contrast

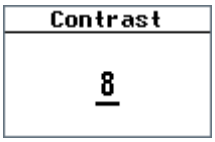


Fig. 45: Menu: Contrast

In this submenu, the contrast of the display can be configured.

1) Select the **`Contrast`** entry in the main menu and confirm with the Enter key ↵.
2) Use the arrow keys to set the value and confirm the entry with the Enter key ↵.

   The display returns to the main menu.

8.6.18 Info – Displaying device information

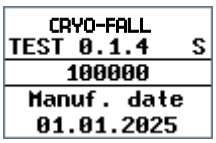


Fig. 46: Menu: Info

Device information is displayed in this submenu.

1) Select the **Info** entry in the main menu and confirm with the Enter key ↵.
   The display shows the device type, software version, serial number and date of manufacturing.
2) Use the Enter key ↵ to return to the main menu.

NOTICE

Have this device information to hand in the case of any support queries!

8.6.19 Displaying the data log

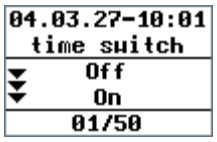


Fig. 47: Menu: Data log

The device saves the last 50 changes or faults. The corresponding information is displayed in this submenu.

1) Select the **Data log** entry in the main menu and confirm with the Enter key ↵.
2) Use the arrow keys to view the individual entries.
3) Use the Enter key ↵ to return to the main menu.

If there is a memory card inserted into the control unit (standard), the letters “SD” appear at the right edge of the display. This means that **all messages** are stored on the memory card.



Fig. 48: Menu: Data log – SD

8.6.20 Performing a reset

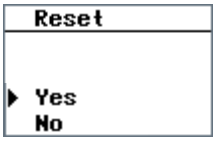


Fig. 49: Menu: Reset

In this submenu, the device can be reset to the factory settings.

Afterwards, the device behaves as it did when it was switched on for the first time. The start query procedure occurs as described *in Chapter 7.5.1 on page 30*.

1) Select the **Reset** entry in the main menu and confirm with the Enter key ↵.
2) Enter the password **0123** in the password dialogue and confirm with the Enter key ↵.
3) Select the **Yes** entry using the arrow keys and confirm the entry with the Enter key ↵.
4) Select **No** to terminate the process.

NOTICE!

After the reset, the device starts with the start query procedure. The setting values (including the timer) are reset to the factory settings. The values must be re-entered.

If the WDT power packs LI-V or LI-C (light control unit) are installed for **illumination** and **a reset has been performed**, the value in the menu item **`Config > Modbus > Light`** must be set to 20!

If the WDT power packs LI-V or LI-C are installed for **sound** and **a reset has been performed**, the value in the menu item **`Config > Modbus > Sound`** must be set to 40!

8.6.21 Setting Config / push button polarity

The push button polarity can be configured individually in this submenu.

This function is important when using external push buttons. If you have any questions, please contact your service partner.

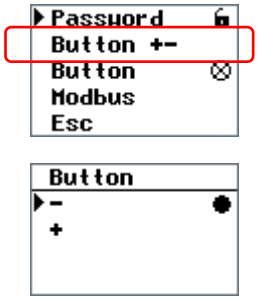


Fig. 50: Menu:
Config – Push button polarity

Button +– = push button polarity

Here, the polarity, i.e. plus side and minus side, of the push button illumination can be **inverted**.

1) Select the **`Config`** entry in the main menu and confirm with the Enter key ↵.
2) Enter the password 0123 in the password dialogue and confirm with the Enter key ↵.
3) Switch to the **`Button +–`** submenu.
4) Select the desired polarity for the push button using the arrow keys and confirm with the Enter key ↵. The factory setting is **`"Button –"`**. With the **`"Button +"`** setting, the control of the push button illumination is **inverted**. (see wiring diagram).
5) Use **`Esc`** to exit the menu

NOTICE

The **`Reset`** and **`Config`** parameter entries are always protected by the user password. The password protection cannot be deactivated here.

8.6.22 Setting Config / Push button dimming

The push button illumination can be configured individually in this submenu.

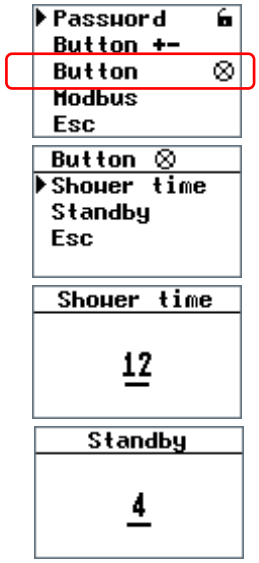


Fig. 51: Menu: Config – Push button dimming

Button ⊗ = push button dimming

The push button dimming is used to configure the push button illumination. There are different settings for the illumination. During the device's shower time and standby time.

1) Select the **Config** entry in the main menu and confirm with the Enter key ↵.
2) Enter the password 0123 in the password dialogue and confirm with the Enter key ↵.
3) Switch to the **Button** ⊗ submenu.
4) Select the desired menu and confirm with the Enter key ↵.
5) Set the desired brightness for the shower time and standby time.
6) Use **Esc** to exit the menu

NOTICE

The **Reset** and **Config** parameter entries are always protected by the user password. The password protection cannot be deactivated here.

8.6.23 Config / Modbus

In this submenu, the Modbus address for light and sound can be set.

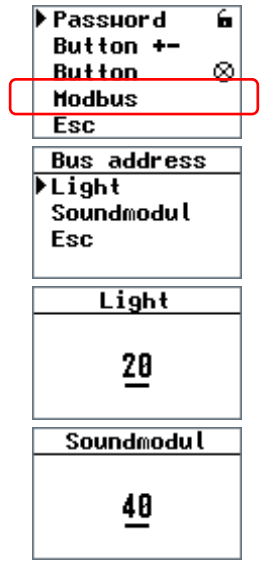


Fig. 52: Menu: Config – Modbus

Modbus interface

The settings in the Modbus interface are used to configure the Modbus interface.

There are different settings for the illumination. During the device's shower time, pause time and standby time (device ready).

1) Select the **Config** entry in the main menu and confirm with the Enter key ↵.
2) Enter the password 0123 in the password dialogue and confirm with the Enter key ↵.
3) Switch to the **Modbus** submenu.
4) Select the desired settings and confirm with the Enter key ↵.
5) Configure the desired settings for light and sound.
6) Use **Esc** to exit the menu.

At the time of the Operating Instructions' creation, the value is "20" for the light and "40" for the sound module.

NOTICE

The **Reset** and **Config** parameter entries are always protected by the user password. The password protection cannot be deactivated here.

9 Maintenance / fault removal

9.1 Opening / closing the control housing

During fault removal, it may be necessary to open the control housing.



WARNING!

Danger of electric shock!

Dangerous electrical voltage!

- **All work on the device must be carried out by specialist personnel only!**
- **All electrical installations and any work on the device's electrical components must be carried out by authorised electricians only!**
- **Prior to starting work, disconnect the devices from the power supply and secure them against reactivation!**



ATTENTION!

Danger due to static charge!

The generally accepted safety precautions for ESD-sensitive devices must be observed when handling the devices!

In particular, the following applies for work on the control board:

- **Only unplug or plug in connectors when they are disconnected from the power supply!**
- **As the person handling the device, please discharge yourself electrostatically for at least 5 seconds before directly touching the devices, e.g. by touching an earthed part of the device or by wearing an ESD antistatic wrist strap connected to an earthing cable!**

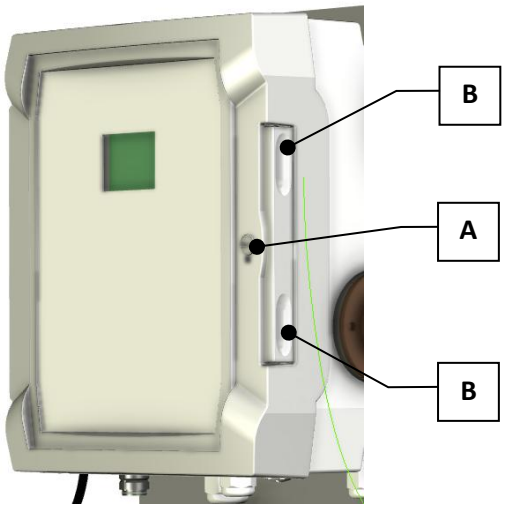


Fig. 53: Open control housing

1) Unlock the *locking knob (A)* with a screwdriver.
2) Forcefully press down on both *recessed grips (B)* until the housing snaps open.
3) Swing the cover to the side.

   Close the housing in reverse sequence.

9.2 Device maintenance

NOTICE

We recommend that you hire a specialist firm to carry out regular maintenance.

To ensure proper functioning of the CRYO-FALL waterfall shower, pay attention to the following points:

- Check water quality (filter etc.)
- Check compressed air supply and/or maintain compressor
- Apart from regular checks, the technology is to be maintained in accordance with the maintenance protocol in *Chapter 11.5 on page 64*.

CAUTION!

Health hazard!

- **Prior to starting work, read and understand the Operating Instructions!**
- **The tasks described here must only be performed by appropriately qualified personnel from a specialist company.**
- **Prior to commissioning, the installed devices must be checked for proper installation and leaks.**

9.3 Faults

9.3.1 General safety notices

WARNING!

Danger of electric shock!

Dangerous electrical voltage!

- **All work on the device must be carried out by specialist personnel only!**
- **All electrical installations and any work on the device's electrical components must be carried out by authorised electricians only!**
- **Prior to starting work, disconnect the devices from the power supply and secure them against reactivation!**

CAUTION!

Health hazard!

- **Prior to starting work, read and understand the Operating Instructions!**
- **The tasks described here must only be performed by appropriately qualified personnel from a specialist company.**
- **Prior to commissioning, the installed devices must be checked for proper installation and leaks.**

CAUTION!

Danger of injury due to crushing of fingers!

With the nozzle plate removed, the user is able to reach through the outlet opening and into the outlet pipe with their hand. On closing (according to the operating sequence), the hand/finger can be crushed by the sliding plate.

- **Switch the device off → De-energise in the open position and secure against reactivation**

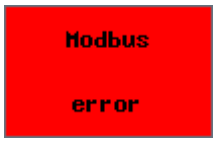
9.3.2 Fault indications

The following fault indications may be displayed on the device.

For the removal of fault indications, see the following fault table.

NOTICE

In the event of a fault in the device, the device functions are stopped. All fault indications can be acknowledged with the Enter key.

Fault indication	Cause / effect	Action
 Compressed air error/fault	• Fault in the compressed air system • Compressed air hose defective, • Compressor defective, • Pressure switch defective, • Malpositioning of pneumatic valve	• Check compressed air system • Check/renew compressed air hose • Check compressor • Check pressure switch • Check pneumatic valve
 Wrong password	• Wrong password entered	• Enter correct password
 Rinsing failed	• Max. level switch faulty • Water influx too weak • Gate valve erroneously OPEN	• Check level switch • Increase water supply pressure • Check gate valve and compressed air supply
 Filling time expired	• Max. level switch faulty • Blocking period too short / shower time too long • Water influx too weak, • Gate valve erroneously OPEN	• Check level switch • Increase blocking period / shorten shower time • Increase water supply pressure • Check gate valve and compressed air supply
 Time switch is off	• Time switch not active	• Activate time switch
 Modbus error	• No response from slave, e.g. linelight or sound module; cause: loose plug, defective cable, defective device	• Check Modbus, • Check power supply • Check cable and plug
 Level switch error	• Cause: max. level switch faulty • Gate valve erroneously CLOSED	• Check level switch • Check gate valve Restart RINSING
Option not installed	On selecting sound or light in the parameter list The sound or light function is not included in the product	• Acknowledge message with Enter key
ATTENTION! Time switch active!	Cause: parameter setting “Daily rinse” is called up & time switch is active	• Acknowledge message with Enter key • Rinsing is carried out after switch time elapses

9.3.3 Fault removal

Fault	Cause / Effect	Action
The device cannot be switched on	• Main switch defective • Power supply interrupted • Fuse defective	• Check main switch • Check power supply • Check/renew fuse
Device without function	• Incorrect configuration • Control board defective • Power plug unplugged • Operating contact open • Outside the configured switch times	• Check/reset settings • Check/renew circuit board • Check power plug • Close operating contact • Correct switch times
Control unit does not respond to push button	• Cable routing defective • Push button defective • Operating contact open • Current time is outside the configured switch times	• Check cable routing • Replace button • Close operating contact • Configure switch times accordingly
Solenoid valve not working correctly	• SV is not activated • SV coil defective • SV dirty • SV diaphragm defective	• Check control signal • Check, exchange if necessary • Clean, exchange if necessary • Check, exchange if necessary
Gate valve not working correctly	• Gate valve/pneumatic valve is not activated • SV coil defective • SV dirty • SV diaphragm defective • Hoses swapped	• Check control signals/pneumatic lines • Check, exchange if necessary • Clean, exchange if necessary • Check, exchange if necessary • Correct hoses
Compressor without function	• Fuse defective • Compressor defective • Compressor deactivated	• Renew fuse • Check/renew compressor • Switch on compressor
Key illumination without function	• Fuse defective • Push button incorrectly connected electrically • Incorrect setting on push button illumination • Push button defective	• Renew fuse • Check electrical connection • Correct settings in Config menu • Renew push button
Experience shower without function	• Power supply interrupted • Fuse defective • SV/gate valve defective • Outlet blocked • Dosing line damaged • Incorrect setting in control unit • Compressor defective • Operating contact open • Current time is outside the configured switch times • Incorrect setting of pressure switch	• Check power supply/main switch • Check/renew fuse • Check/renew SV/gate valve • Clean outlet • Renew dosing line • Check settings • Check/renew compressor • Close operating contact • Configure switch times accordingly • Check/renew pressure switches
Incorrect time of day	• Buffer capacitor defective	• Renew circuit board

Waterfall starts itself or water runs out of shower continuously	• Humidity seeps behind the button plate and causes a short-circuit • The *Solenoid valve for* water tank inlet in the inlet line is defective and water flows continuously into the water tank	• Remove, clean and reseal the button plate; it may be necessary to replace the button plate • Check/renew *Solenoid valve for* water tank inlet *(pos. 11)*.

10 Decommissioning / storage / disposal

10.1 Decommissioning

Pay attention to the following notices when decommissioning the device:

- When decommissioning, disconnect the **compressor** from the power supply (unplug compressor).
- Release the compressed air at the bleed valve.
- Empty the water separator.
- Switch the **device** off at the main switch and disconnect it from the power supply (pull out the plug).

10.2 Storage

Pay attention to the following notices when storing the device:

- After decommissioning, store the device in a dry location protected from frost!
- Pay attention to the notices in *Chapter 4*!

10.3 Recommissioning



ATTENTION!

Damage to the device due to incorrect commissioning!

- **Observe the sequence of the commissioning steps!**
- **Pay attention to the information in the commissioning protocol!**

When recommissioning the device, follow the commissioning steps according to *Chapter 7* on *page 29* and pay attention to the points in the commissioning protocol according to *Chapter 11.3 on page 63*!

10.4 Disposal



ATTENTION!

Environmental damage due to improper disposal!



- **Pay attention to the national and local laws, ordinances and regulations regarding the disposal of mechanical and electronic components!**

Pay attention to the following notices when disposing of the device:



- Clean any dismounted parts prior to disposal.
- Used parts and operating materials must be disposed of according to the regulations applicable at the site of operation, or they must be recycled.
- If this is not possible, dispose of the parts/substances as hazardous waste.
- The device, or rather the electrical and electronic components, must not be disposed of as household waste.
- Batteries must be removed and disposed of separately from the device.
- In case of doubt, information may be obtained from the authorities responsible for disposal at your location.

11 Documents

11.1 Declaration of conformity

WDT Werner Dosiertechnik GmbH & Co. KG
Hettlinger Straße 17 | D-86637 Wertingen
Tel. 0049 8272 98697-0 | Fax 0049 8272 98697-19
info@werner-dosiertechnik.de | www.werner-dosiertechnik.de

Werner Dosiertechnik

EG-Konformitätserklärung
EC declaration of conformity
Déclaration de conformité UE

im Sinne der EG-Maschinenrichtlinie 2006/42/EG, Anhang II 1.A
as defined in the EC-Machinery Directive 2006/42 / EC, Annex II, Part 1A
selon la directive européenne machines 2006/42 / CE, annexe II 1.A

Hersteller WDT - Werner Dosiertechnik GmbH & Co. KG
Manufacturer Hettlinger Str. 17
Fabricant 86637 Wertingen-Geratshofen

Beschreibung und Identifikation des Produktes:
Description and identification of the product:
Description et identification du produit :

Typenbezeichnung:	Art:
• Erlebnisduschen Typ: Water Fun, Nebeldusche, Regendusche, Duftdusche, Erlebnischdusche W3 + WK4, Niagara Rain, Carribian Storm, Midnight Rain, Sibirian Night, Polar Flash, Tropica, Atlantic Ocean, Tropical Thunder, Shower Tunnel, CRYO-FALL,	Maschine

Funktion: Erlebnisduschen für den Wellness-Bereich
Function: Experience showers for the wellness area
Fonction: Douches d'expérience pour l'espace bien-être

Es wird ausdrücklich erklärt, dass das Produkt allen einschlägigen Bestimmungen der folgenden EG-Richtlinien entspricht:
It is expressly stated that the product complies with all relevant provisions of the following EC directives
Il est explicitement dit que le produit est conforme à toutes les dispositions pertinentes des directives CE suivantes :

2006/42/EG RICHTLINIE 2006/42/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung)
2014/30/EU RICHTLINIE 2014/30/EU DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit (Neufassung)

Die folgenden harmonisierten Normen nach Artikel 7 (2) wurden angewandt:
The following harmonized standards as defined in Article 7 (2) were applied:
Les normes harmonisées suivantes selon l'article 7 (2) ont été appliquées :

EN ISO 12100:2010 Sicherheit von Maschinen - Allgemeine Gestaltungsleitsätze - Risikobeurteilung und Risikominderung
EN ISO 13849-1:2023 Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen – Teil 1: Allgemeine Gestaltungsleitsätze
EN ISO 13849-2:2012 Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen – Teil 2: Validierung
EN ISO 14120:2015 Sicherheit von Maschinen – Trennende Schutzeinrichtungen Allgemeine Anforderungen an Gestaltung, Bau und Auswahl von feststehenden und beweglich trennenden Schutzeinrichtungen
EN 60204-1:2018 Sicherheit von Maschinen – Elektrische Ausrüstung von Maschinen – Teil 1: Allgemeine Anforderungen
EN ISO 4413:2010 Fluidtechnik – Allgemeine Regeln und sicherheitstechnische Anforderungen an Hydraulikanlagen und deren Bauteile
EN IEC 55014-1:2021 Elektromagnetische Verträglichkeit - Anforderungen an Haushaltgeräte, Elektrowerkzeuge und ähnliche Elektrogeräte - Teil 1: Störaussendung
EN IEC 55014-2:2021 Kategorie IV Elektromagnetische Verträglichkeit - Anforderungen an Haushaltgeräte, Elektrowerkzeuge und ähnliche Elektrogeräte - Teil 2: Störfestigkeit - Produktfamiliennorm (CISPR 14-2:2015);

Die in der Gemeinschaft ansässige Person, die für die Zusammenstellung der technischen Unterlagen bevollmächtigt ist:
The designated person who is authorized to draw up the technical documentation:
La personne établie dans la communauté qui est autorisée à constituer le dossier technique:

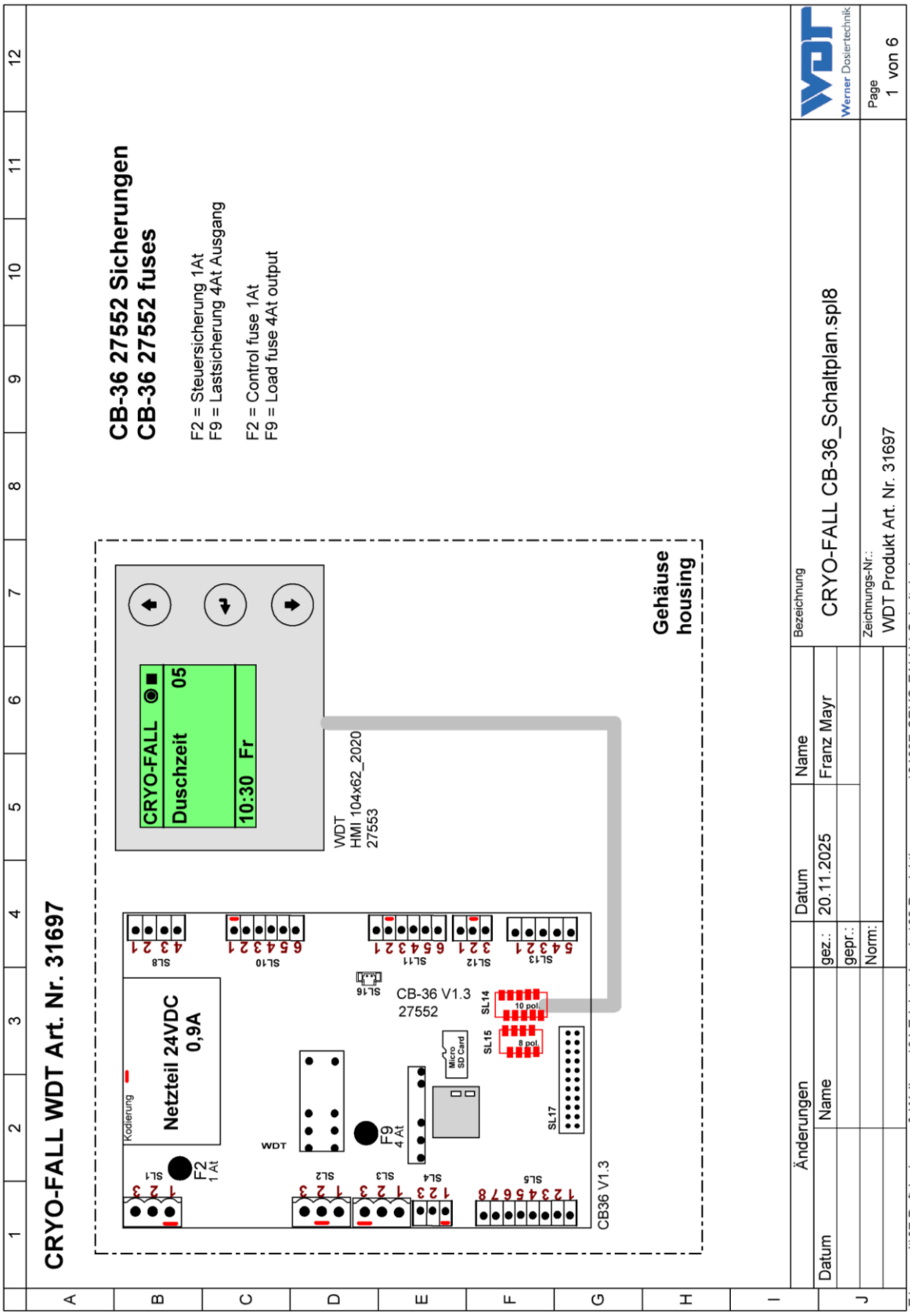
Name: Werner Dosiertechnik GmbH & Co KG
Straße/Nr.: Hettlinger Straße 17
PLZ Stadt: 86637 Wertingen

Wertingen, 13.01.2026
Ort/City/Place, Datum/Date Unterschrift/signature Rainer Rieger, Director

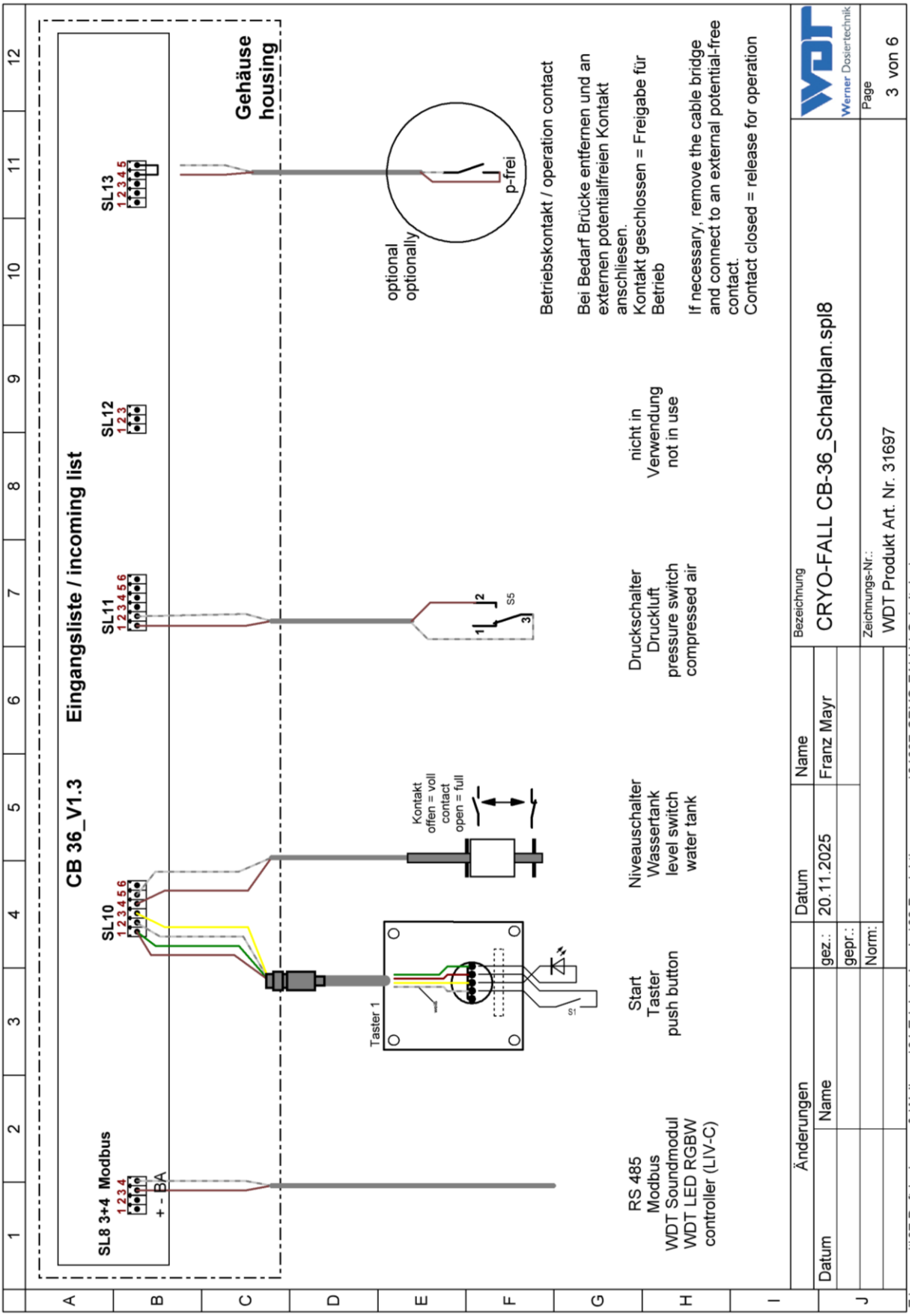
CE DW 004-02 Konformitatserklärung Erlebnisdusche.docx

11.2 Wiring diagrams

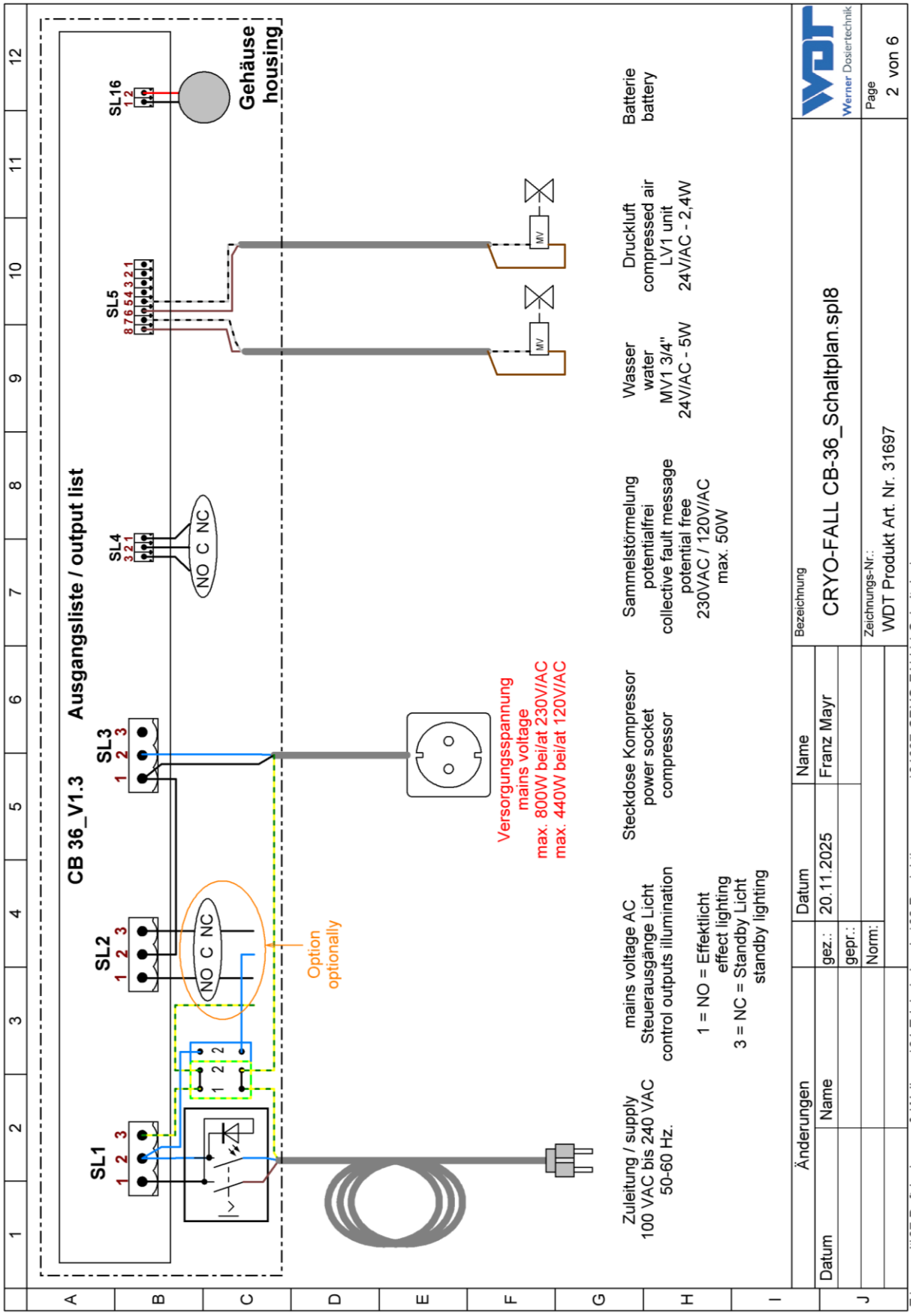
Notice for wiring diagrams: the special wiring diagrams attuned to the optional furnishing of the experience shower are located at the device's control cabinet.



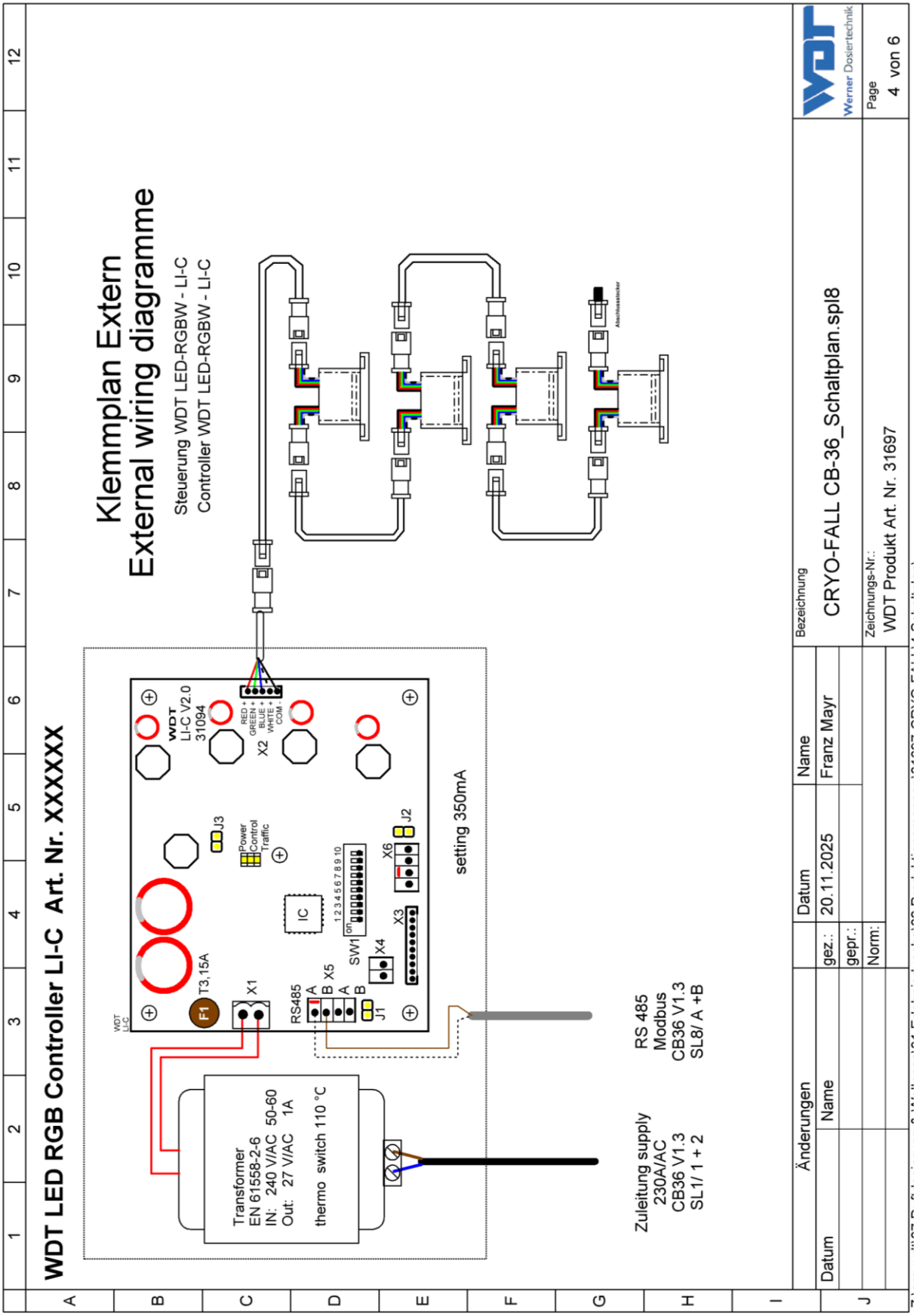
Input list CB36



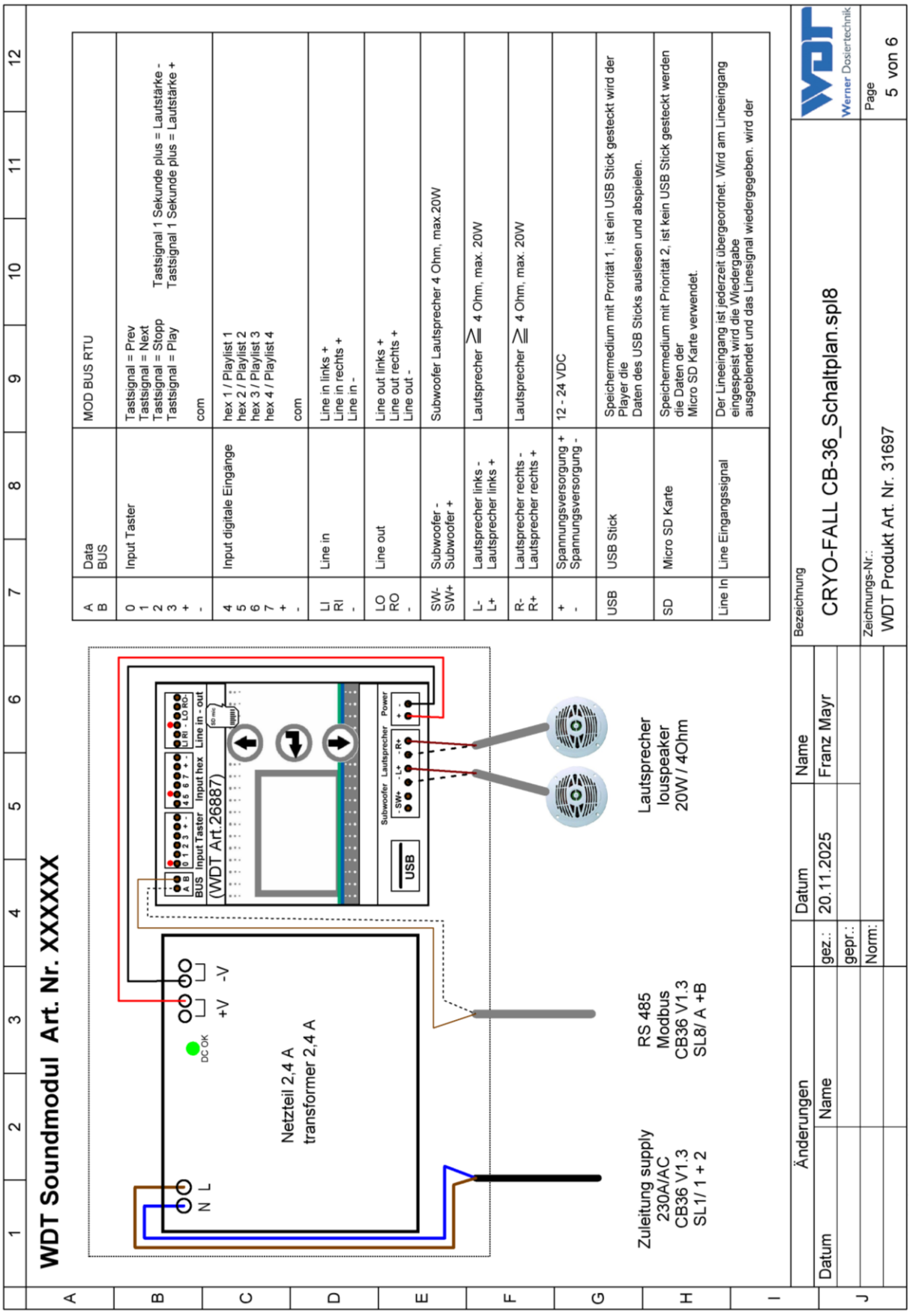
Output list CB36



Light control unit LI-C



Sound module



11.3 Commissioning protocol

This protocol is to be completed by the commissioning technician! Without a completed and signed commissioning protocol, all warranty claims become void!

The commissioning protocol can be found in the accompanying documentation in Chapter 12 on page 68.

11.4 Operation data sheet

NOTICE

During commissioning, enter the operating parameters in the operation data sheet!

Menu	Factory settings	Setting range	During commissioning Date	Optimised during operation Date
Password protection	No (= Off)	Yes / No		
Shower time	5 seconds	2-10 seconds		
Blocking period	5 seconds	0-59 seconds		
Filling time	2 minutes	1-10 minutes		
Rinse time	10 seconds	5-30 seconds		
Refresh time	2 h	0-24 h		
Overtravel	5 seconds	1-10 seconds		
Daily rinse	00:00 h:m	00:00-23:59		
Effect light **Intensity** **Colour**	 90% Red 100% Green 100% Blue 100% White 100%	 50-100% 0-100% 0-100% 0-100% 0-100%		
Standby light **Intensity** **Colour**	 10% Red 100% Green 100% Blue 100% White 100%	 10-90% 0-100% 0-100% 0-100% 0-100%		
Blocking light **Intensity**	 50%	 10-100%		
Sound module **Shower time** **Volume** **Standby** **Volume**	 Title 1 50% Title 2 20%	 0-15 10-100% 0-15 10-100%		
Time switch **Monday** **Tuesday** **Wednesday** **Thursday** **Friday** **Saturday** **Sunday**	○ = Off 06:00-14:00 06:00-14:00 06:00-14:00 08:00-14:00 08:00-18:00 08:00-20:00 08:00-20:00	● ○ On/Off 00:01-23:59 00:01-23:59 00:01-23:59 00:01-23:59 00:01-23:59 00:01-23:59	 _____ _____ _____ _____ _____ _____	 _____ _____ _____ _____ _____ _____
Button polarity	---	+ or -		
Push button dimming	Shower time: 13 Standby: 5	Shower time: 0-15 Standby 0-15		
Modbus **Light** **Address** **Sound module** **Address** **Baud rate** **CRC checksum**	 20 40 9600 On	 20-35 40-50		

Operation data sheet (master copy)

NOTICE

During commissioning, enter the operating parameters in the operation data sheet!

Menu	Factory settings	Setting range	During commissioning Date	Optimised during operation Date
Password protection	No (= Off)	Yes / No		
Shower time	5 seconds	2-10 seconds		
Blocking period	5 seconds	0-59 seconds		
Filling time	2 minutes	1-10 minutes		
Rinse time	10 seconds	5-30 seconds		
Refresh time	2 h	0-24 h		
Overtravel	5 seconds	1-10 seconds		
Daily rinse	00:00 h:m	00:00-23:59		
Effect light **Intensity** **Colour**	 90% Red 100% Green 100% Blue 100% White 100%	 50-100% 0-100% 0-100% 0-100% 0-100%		
Standby light **Intensity** **Colour**	 10% Red 100% Green 100% Blue 100% White 100%	 10-90% 0-100% 0-100% 0-100% 0-100%		
Blocking light **Intensity**	 50%	 10-100%		
Sound module **Shower time** **Volume** **Standby** **Volume**	 Title 1 50% Title 2 20%	 0-15 10-100% 0-15 10-100%		
Time switch **Monday** **Tuesday** **Wednesday** **Thursday** **Friday** **Saturday** **Sunday**	○ = Off 06:00-14:00 06:00-14:00 06:00-14:00 08:00-14:00 08:00-18:00 08:00-20:00 08:00-20:00	● ○ On/Off 00:01-23:59 00:01-23:59 00:01-23:59 00:01-23:59 00:01-23:59 00:01-23:59	_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____
Button polarity	---	+ or -		
Push button dimming	Shower time: 13 Standby: 5	Shower time: 0-15 Standby 0-15		
Modbus **Light** **Address** **Sound module** **Address** **Baud rate** **CRC checksum**	 20 40 9600 On	 20-35 40-50		

11.5 Maintenance protocol

NOTICE

Carry out the specified maintenance tasks in order to protect any warranty claims!

The commissioning protocol can be found in the accompanying documentation in Chapter 12 on page 68.

11.6 Spare parts / wearing parts / consumables

ATTENTION!

Damage due to unapproved spare parts!

- **Only use spare parts approved by the manufacturer!**
- **Only order spare parts from your service partner or your specialist dealer.**

Spare parts list

Device	Pos.	Designation	Code no. WDT
Control unit		Control board CB36 coded with plug	28244
		Control board, HMI 1Platine	27533
		Mains switch DW 2-pole A-E 10A	21468
		Fuse bag 2x1At cpl-round	24949
		Fuse bag 2x4 At cpl-round	23012
		Battery with connection cable	28559
Button plate		Depending on supplied design	
Push button		Push button, ring illumination blue, PIEZO, 24VDC, mG, 22	18741
		Cut-and-clamp terminal for push button	
Water piping		Ball valve thread 3/4" I/A, PN25, BLUE	10424
		Filter, brass, 3/4"	12887
		Solenoid valve, brass, 3/4", 24VDC-8W-UL	31565
		Solenoid valve plug with LED, with 1.5 m cable	13082
Pneumatics		Mini ball valve thread 1/4", brass/PTFE	15790
		Inline pressure regulator thread 1/4" 4 bar	31215
		Sound absorber 1/8" brass/sintered bronze	22862
		Solenoid valve 5/2-24 VDC	31684
		SV plug or cable sw	31685
		Pressure switch M10 1-3 bar Universal	27076
		Pressure switch, protective cap, cpl	10083-1
		Compressed air hose, 2 metres, PVC	32087
Compressor		Piston compressor (diaphragm piston), oil-free	32057
Tank CRYO-FALL		Tank CRYO-FALL, cpl	31693
		Folding float switch. 3 m PVC cable	30594
		PVC gate valve, pneumatic, cpl	31690
		Waterfall outlet cone, PVC	31686
		Hose, flexible stainless steel, union nut/A 3/4" 30 cm	31959
		Hose, flexible stainless steel, union nut/A 11/4" 30 cm	32089
Water outlet		Perforated plate, brass, chrome-plated, D 130 mm	31939
		Cover shield, brass, chrome-plated, D 172 mm	31936
		Screw A4 DIN966 M5x12 SekoLi	31971
Ceiling attachment CRYO-FALL		C-profile channel 41/41, 3 m	32064
		Profile foot for C profile	32066
		Frame bracket for C profile	32065
		Hammerhead bolt, galvanized, M10x60 mm	32067
		Fix anchor M10x80	32068

12 Appendices

- Commissioning Protocol WDT
- Maintenance Protocol WDT
- Installation instructions for flush-mounted box with push button, no.: BB DW BB 001-03 Installation flush-mounted box V2

Personal notes

Commissioning Protocol IP-085-EN
CRYO-FALL Experience Shower

Werner Dosiertechnik

This protocol is to be completed by the commissioning technician! Without a completed and signed commissioning protocol, all warranty claims become void!

Object: _____ Date: __/__/____

City, street, house number: _____

Device type: _____ Year of manufacture: _____ Serial number: _____

	Activity	Completed	Comment
1	**Commissioning**		
1.1	Device checked for correct installation	☐	
1.2	Ceiling construction and bracket for water tank checked	☐	
1.3	Device and lines checked for leaks	☐	
1.4	Commissioning carried out according to Operating Instructions	☐	
1.5	Control parameters adjusted and entered in the operation data sheet of the Operating Instructions	☐	
1.6	All test programmes checked	☐	
1.7	Device checked for correct operation	☐	
2	**Other**		
2.1	Operating Instructions reviewed and handed over	☐	
2.2	Service and operating personnel instructed	☐	

Additional remarks:

_____

_____

_____

_____

_____

_____

_____

_____

Commissioning and instruction carried out by: _____

Instructed persons: _____

Signature of commissioner: ._____

Countersigned by operator: _____

Maintenance Protocol WP-085-EN
CRYO-FALL Experience Shower

Werner Dosiertechnik

This protocol is to be completed by the maintenance technician! We reserve the right to determine the warranty conditions when no completed and signed maintenance protocol is available.

Object: _____ Maintenance year: 20___

City, street, house number: _____

Device type: _____ Year of manufacture: _____ Serial number: _____

	Activity	Maintenance interval in months	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Comment / additional tasks
1	**General**														
1.1	Visual check for obvious damage	1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
1.2	Check cabling	6						☐						☐	
1.3	Check for leaks	1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
1.4	Thoroughly clean the shower equipment	6						☐						☐	Cleaned:
2	**Control unit**														
2.1	Run all test programmes	6						☐						☐	
2.2	Check shower programmes, including light and sound	6						☐						☐	
2.3	Check button plate for leaks and function	6						☐						☐	
3	**Mounting plate**														
3.1	Activate valves and check for function and leaks	6						☐						☐	
3.2	Check solenoid valves and gate valve in test function	6						☐						☐	
3.3	Check/clean fine filter	6						☐						☐	Cleaned:
3.4	Renew the diaphragms of the solenoid valves	24													Renewed:
4	**Compressor**														
4.1	The compressor used must be maintained and documented in accordance with its Operating and Maintenance Instructions														
5	**Nozzles / water tank**														
5.1	Visual check of perforated plate/water outlet	1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
5.2	Clean perforated plate if necessary	6						☐						☐	Cleaned:
5.3	Check ceiling construction and bracket for water tank; sturdiness, condensation, corrosion	12												☐	Checked:

If the shower pressure drops, check/clean the perforated plate and the outlet cone.

Depending on water quality and usage behaviour, shorter maintenance intervals may be needed.

Maintenance Protocol WP-085-EN
CRYO-FALL Experience Shower

Werner Dosiertechnik

Additional remarks:

Maintenance carried out and device checked for function: _____ Date: _____
Signature

Countersigned by operator: _____
Signature

Werner Dosiertechnik

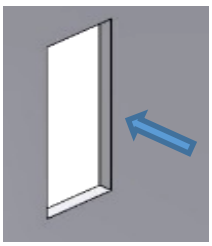
Assembly and sealing of the flush mounted box V2 for push button plates

CAUTION !
Before starting to work, make the electrical lines volt free and protect them against new connection! Wear protective clothes!

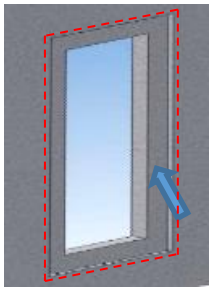
1 Assembly in building panels



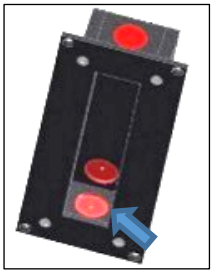
a) Install the empty conduit at the required place!
Diameter empty conduit type 32 (ID 25mm)
Bend radius min. 10cm



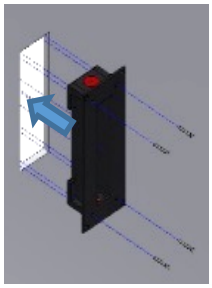
b) Cut out construction plate
Dimensions:
1-fold: HxWxD min. 100x67x55mm
2-fold: HxWxD min. 133x 67x55mm
3-fold: HxWxD min. 166x 67x55mm
4-fold: HxWxD min. 200x 67x55mm



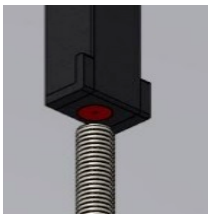
c) Cut a recess to sink the sealing flange with a depth of 3mm
Dimensions:
1-fold: HxW min. 130x97mm
2-fold: HxW min. 163x97mm
3-fold: HxW min. 196x97mm
4-fold: HxW min. 229x97mm



d) Break out an orifice for the empty conduit connection at the desired rated break point



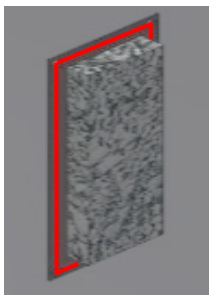
e) Install the flush mounted box and fix with 4 screws if necessary



f) Connect the empty conduit onto the flush mounted box and insert cables



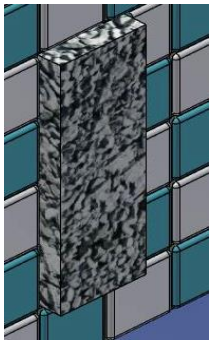
g) Place the supplied construction protection cap in the flush mounted box



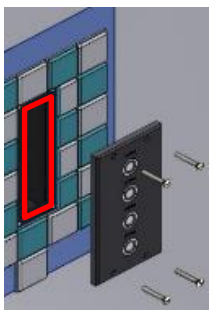
h) Apply sealant for vapour barrier foil



i) Adapt and adhere the vapour barrier foil
No humidity may penetrate!



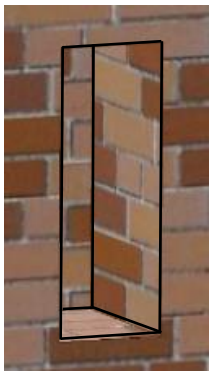
j) Tile the flush mounted box until the construction protection cap



k) Take out the protection cap
Clamp the push button plate.
Seal the push button plate against the flush mounted box: apply appropriate sealant on the flush mounted box and fix with 4 screws

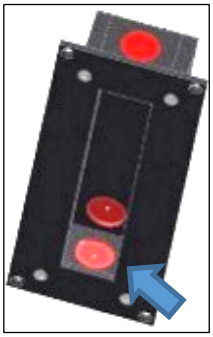
No humidity may penetrate!

2 Installation in brickwork

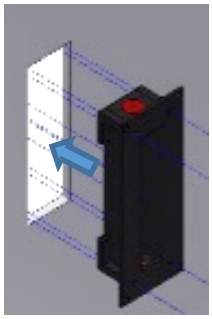


a) Chisel out brickwork for flush mounted box and empty conduit
Diameter empty conduit type 32 (ID 25mm)
Bend radius min. 10cm

Dimensions for break out works
1-fold: HxWxD min. 105x72x60mm
2-fold: HxWxD min. 138x72x60mm
3-fold: HxWxD min. 171x72x60mm
4-fold: HxWxD min. 205x72x60mm



b) Break out an orifice for the empty conduit connection to the desired rated break point

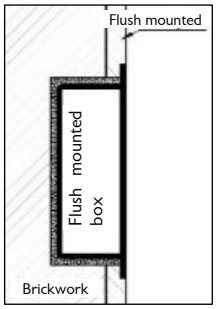


c) Install the flush mounted box and the empty conduit with electrician cast or building foam in the wall, approximately 20 mm protruding due to flush system

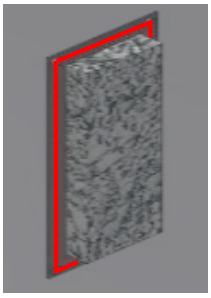
Insert cable



d) Install the supplied construction protection cap in the flush mounted box



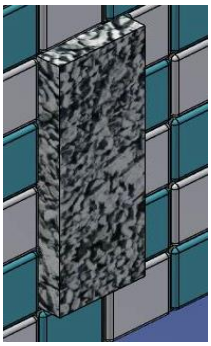
e) Plaster the brickwork so that the flush mounted box flushes with the plaster.



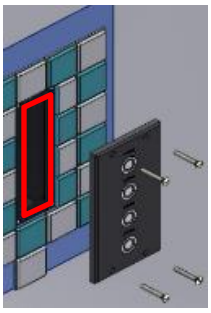
f) Apply sealant for vapour barrier foil



g) Adhere vapour barrier foil
No humidity may penetrate!



h) Enter the flush mounted box until the construction protection cap



i) Remote protection cap
Clamp the push button plate.
Seal the push button plate against the flush mounted box: apply appropriate sealant on the flush mounted box and fix with 4 screws

No humidity may penetrate!

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