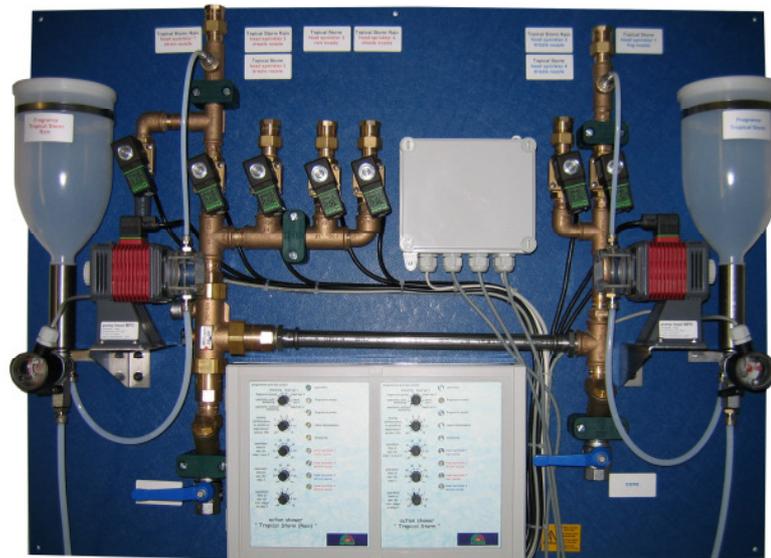


# Experience Shower „Tropical Storm“

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Emptying valve is an option!

## 1. Function – programmes

The Experience Shower „Tropical Storm“ is a control unit for several shower programmes. The programmes can be started by a 2-fold push-button from the shower cabinet.

### *Programme Specification "Tropical Storm"*

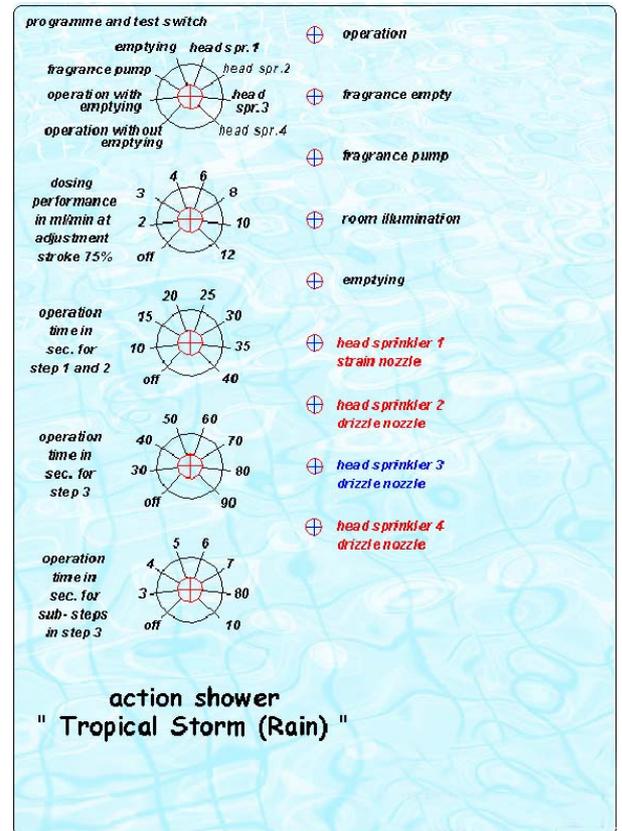
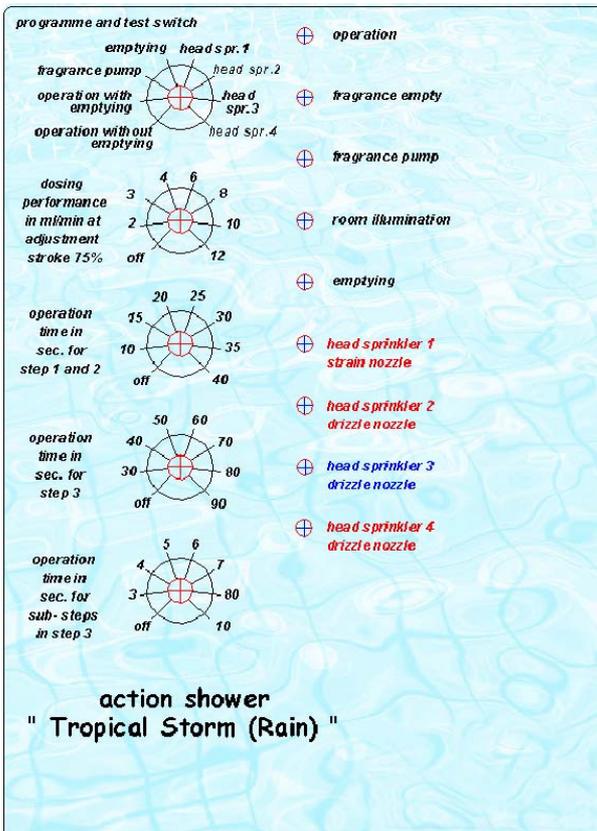
#### **1. Tropical Rain:**

step 1:	warm drizzle rain illumination: <b>red</b>	adjustable 10- 40 sec.
step 2:	warm drizzle rain + warm country rain with fragrance illumination: <b>yellow</b>	adjustable 10- 40 sec.
step 3.1:	warm drizzle rain + warm country rain + cold drizzle rain illumination: colour change <b>yellow</b> - <b>green</b>	step 3 adjustable 30-80 sec. changing between step 3.1 till 3.2 adjustable 3-10 sec.
step 3.2:	warm drizzle rain + warm country rain + warm drizzle rain illumination: colour change <b>rot-</b> <b>green</b>	

#### **2. Storm:**

step 1:	warm drizzle rain illumination: <b>red</b>	adjustable 10- 40 sec.
step 2:	warm drizzle rain + cold fog with fragrance illumination: <b>green</b>	adjustable 10- 40 sec.
step 3.1:	cold fog + warm tropical rain illumination: <b>blue</b>	step 3 adjustable 30-80 sec. changing between step 3.1 till 3.3 adjustable 3-10 sec.
step 3.2:	cold fog + warm drizzle rain illumination: <b>blue</b> and flash light	
step 3.3:	warm drizzle rain + cold drizzle rain illumination: flash light	
step 4:	warm drizzle rain illumination: <b>red</b>	adjustable 10- 40 sec.

The programme parameters can be adjusted at the front panel that you find in the following:



**programme and test switch**

This rotary knob is to test every function of the action shower. Each function is indicated by a burning of the yellow LED on the right side of the control housing. The fragrance pump can only be operated if the fragrance canister is filled or if the pressure switch bellow the pump is bridged.

Before the test of the functions the unit has to be switched on by the *main switch* at the right side of the hosing!!

After the test of the functions the operation mode has to be chosen by the switch position: **operation with (-out) Emptying:**

This mode has to be adjusted at all shower techniques that include emptying valves.

**dosing performance in ml/min at adjustment stroke 75%**

This rotary knob is to adjust the fragrance dosing performance. Pump stroke 75% is adjustment ex works.

**operation time in seconds for step...:**

Adjustment of the time in between one programme step in seconds.

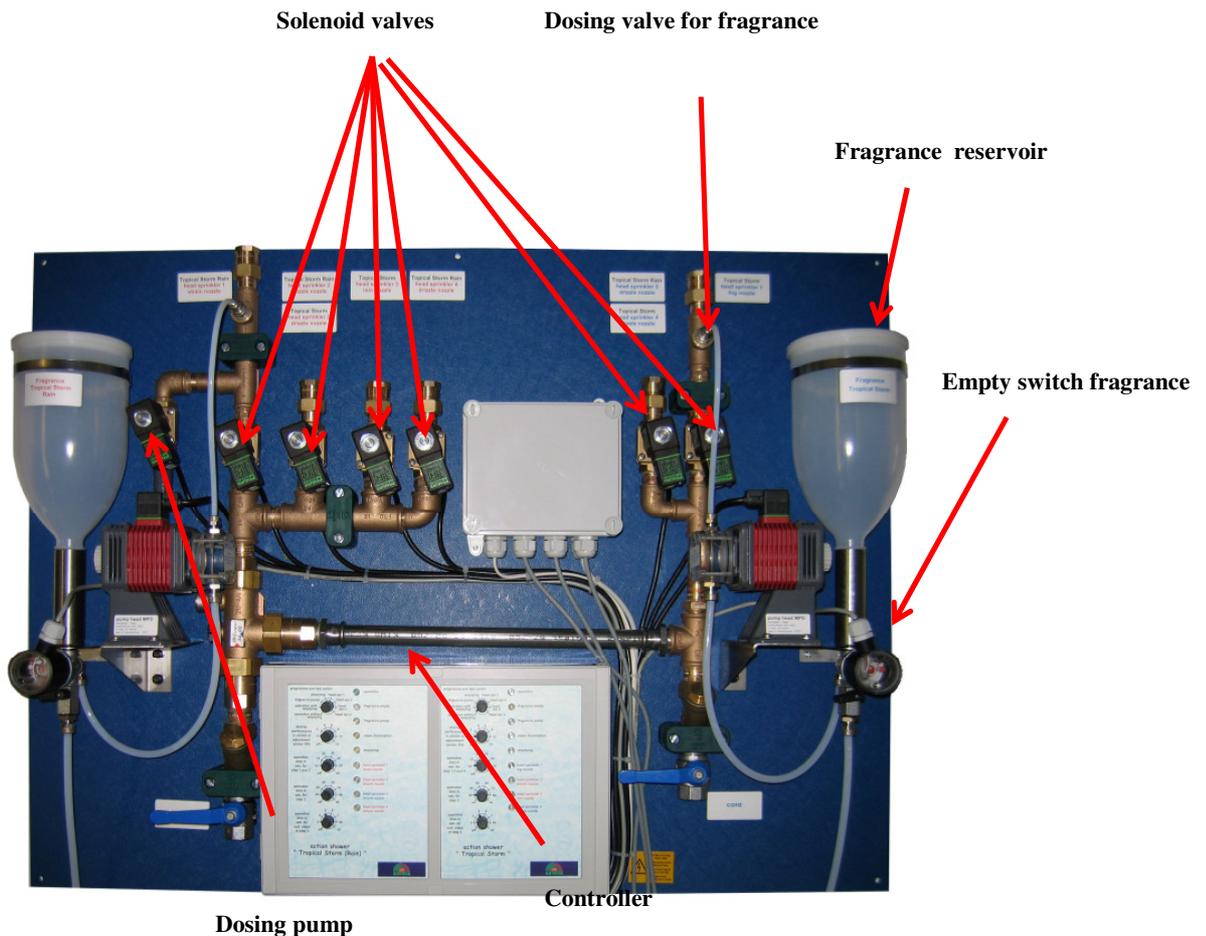
## **Usage:**

The pre-adjustments have to be done by the operator according to the description above. The user releases the single programmes by a start push-button from the cabinet. After the lapse of the programme the aromatized cycle is emptied automatically. Afterwards the unit is ready for a restart. During the flow of a programme or the emptying time the other programmes are locked.

## **2. Technical description**

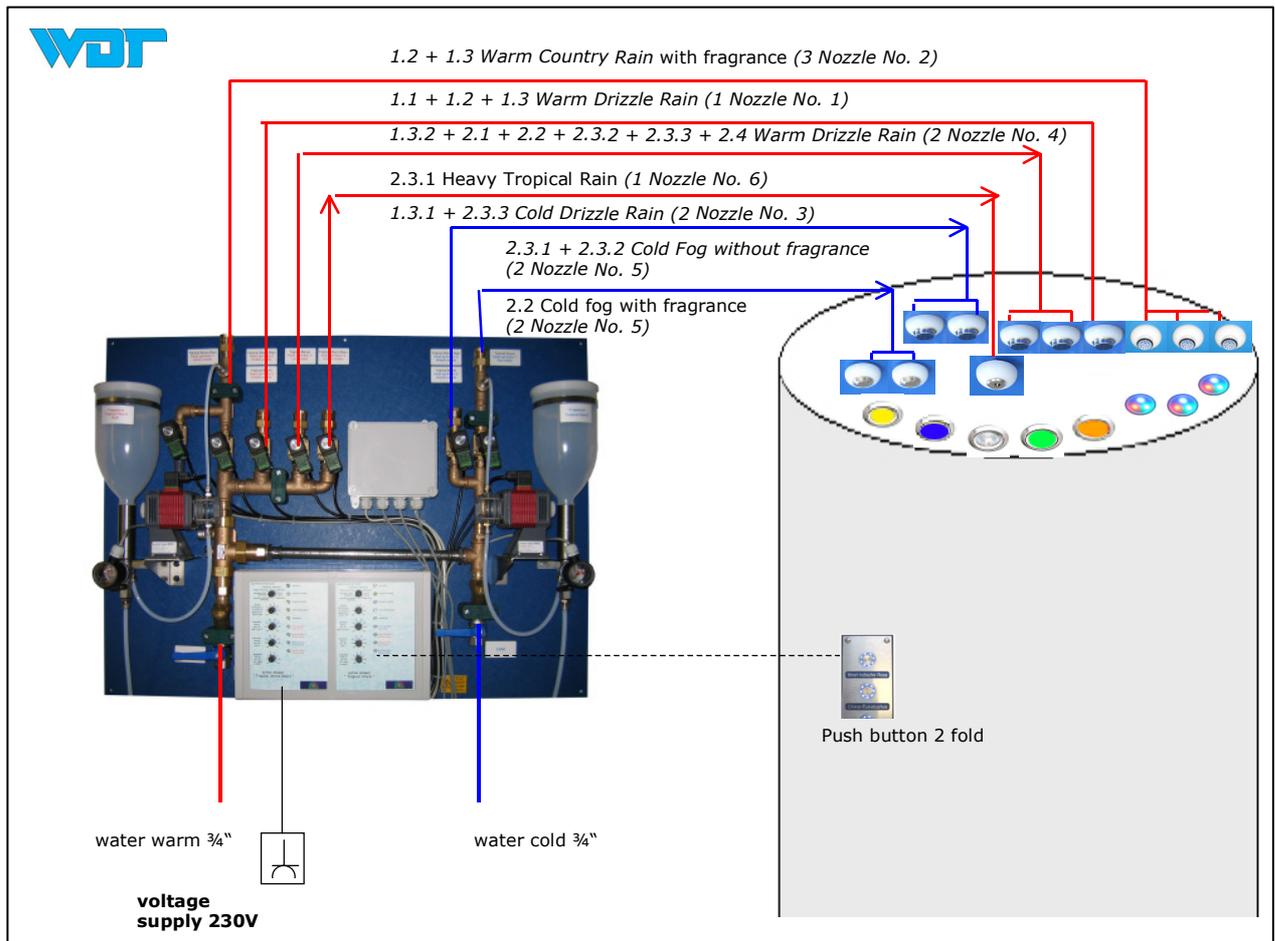
measures: width 120cm, height 75cm, depth 20cm  
weight: app. 17 kg  
power supply: plug 230V  
water supply: min. 3 bar at a flow of 2m<sup>3</sup>/h

The unit consists of the following components:



### 3. Installation

The control unit „**Tropical Storm**“ has to be installed at a capable place next to the shower. The water tubing has to be installed according to the following schema. Electrical supply with power plug 230V/AC. Ensure that the nozzles are not blocked by residues that have been in the tubing if you take the unit into operation for the first time!



- Installation only by authorised staff!!!
- Before taking the unit into operation we recommend to flush all the tubings without nozzles to guarantee that no residues will block the nozzles.
- We recommend to install a fine in-line strainer before the shower techniques!
- We recommend to use (softened) water with a low hardness to prevent residues of calcium!

#### 4. Taking the unit into operation

If the whole tubings and the electrical supply are connected the unit is ready for taking it into operation. Put the „Selector switch 1“ on „0“ and switch-on the unit by the main switch on the left side of the controller housing. The main switch shines red and the operation-LED green. Afterwards all functions can be tested like described above (see page 4). Now the single programme functions can be adjusted according the demanded needs.

If you fill the fragrance canister for the first time, air is getting into the pump head. To ensure a reliable function of the pump it has to be aired. For this reason the pump hose has to be pulled off the dosing valve (see picture). This procedure is only necessary if you take the unit into operation.



#### 5. Temperature adjustment

**Cross section**

- ▶ Warm
- ▶ Cold
- ▶ Mix / blend
- ▼ Circulation
- A Thermostat
- B Valve slide
- C Pin

1 Standard temperature  
2 Limits of the blended water setting range

**Function**

The blended water temperature is transmitted to the thermostat A. This compares it with the setpoint value. If the blended water temperature does not correspond to the setpoint value, then a volume change takes place in thermostat A. This leads to the valve slide B being regulated by the pin C until the blended water temperature corresponds to the setpoint value.

Classification of the thermal blending valves 3400 in accordance with their noise characteristics:

GN	½	¾ - 1 ¼
DN	15	20 -32
Fittings group	I	II

The warm water temperature has to be at least 5 K higher than the blended water temperature.

Standard temperature set by the factory °C	Limits of the blended water setting ranges °C	Change of the blended water temperature with 1 rotation of the key		
		GN ½ - 1	GN 1¼ - 2	DN 65 u. 80
25	20-30			
40	30-45	ca.	ca.	ca.
48	38-53			
55	45-65	6 K	4 K	2 K

## 6. Maintenance

If the unit will be out of operation for a longer period of time we recommend to empty the whole tubing and to switch the unit off by the main switch. If the pressure should fall down immediately the filter inserts in the supply have to be cleaned.

		⇓ <u>to be done!</u>	
<b>1.</b>	<b><u>Water part</u></b>	⇓	
1.1	<u>check solenoid valves in test function</u>	OK [ ]	exchange [ ]
1.2	<u>solenoid valve diaphragms all every two years</u>	OK [ ]	exchange [ ]
1.3	<u>clean pre-filter</u>	OK [ ]	clean [ ]
1.4	<u>filter pressure gauge</u>	OK [ ]	clean [ ]
1.5	<u>check tube cutter</u>	OK	
1.6	<u>check function of thermo mixer</u>	OK	
<b>2.</b>	<b><u>Fragrance pump</u></b>		
2.1	<u>function</u>	OK [ ]	exchange [ ]
2.2	<u>valve inserts of the pump every two years</u>	OK [ ]	exchange [ ]
2.3	<u>diaphragms of the pump every two years</u>	OK [ ]	exchange [ ]
2.4	<u>function of the dosing valve 3/8"</u>	OK [ ]	clean [ ]
2.5	<u>check dosing tubes</u>	OK [ ]	exchange [ ]
2.6	<u>function empty switch</u>	OK [ ]	exchange [ ]
<b>3.</b>	<b><u>Nozzles</u></b>		
3.1	<u>spraying pattern in test function</u>	OK [ ]	clean [ ]
3.2	<u>view of the nozzles</u>	OK [ ]	clean [ ]
<b>4.</b>	<b><u>Controller</u></b>		
4.1	<u>Test all functions</u>	OK [ ]	
4.2	<u>All knobs present?</u>	OK [ ]	
<b>4.</b>	<b><u>Miscellaneous</u></b>		
4.1	<u>Clean the whole unit</u>	[ ]	

## **7. Spare parts**

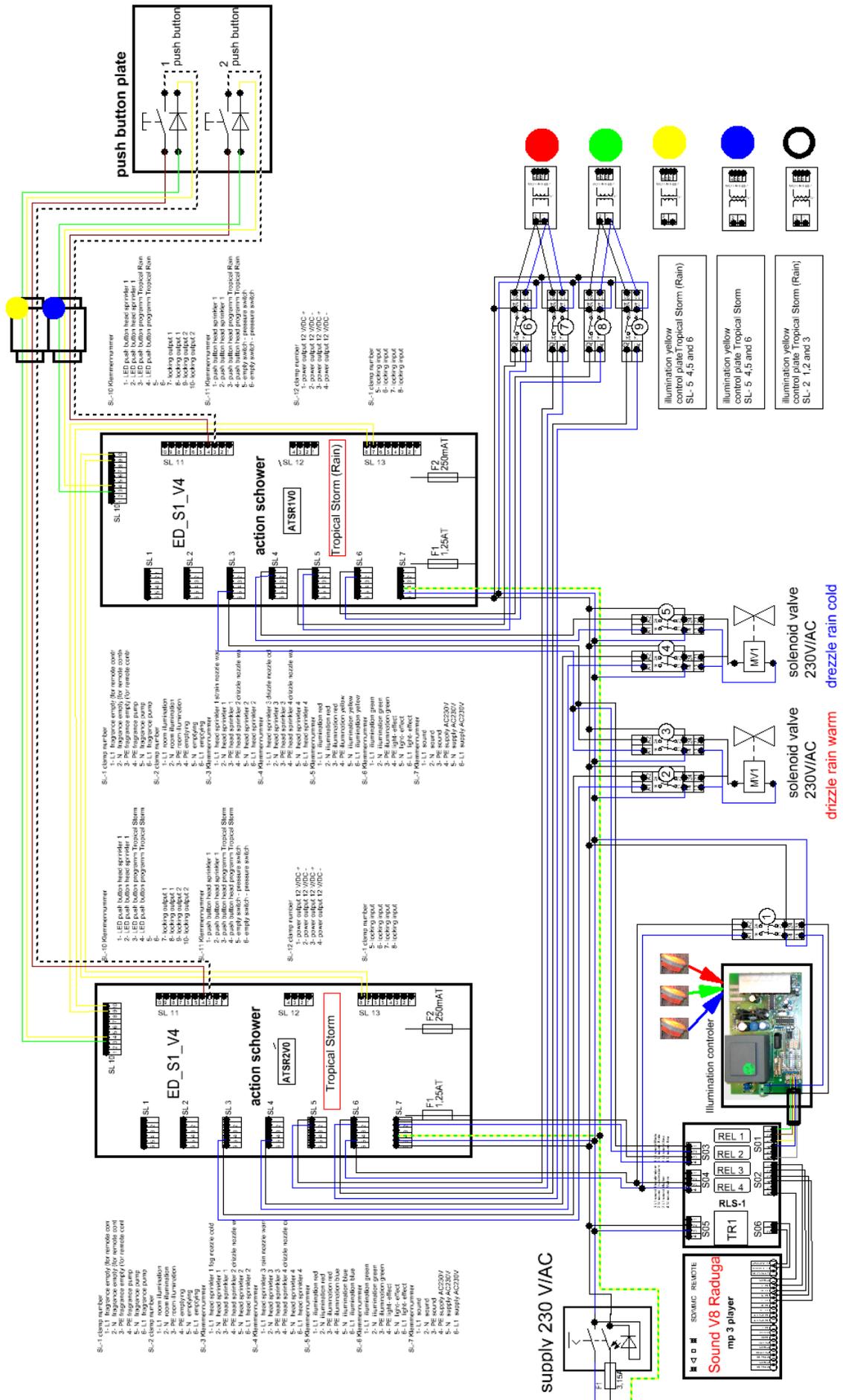
### **7.1 Water part:**

10424	ball valve G 3/4" PN25, Ms/PTFE-FKM
12887	filter Ms 3/4"
14680	solenoid valve Ms 1/2" - 230VAC 2/2-ways
17146	solenoid valve Ms 3/4" - 230VAC 2/2-ways
13082	plug for solenoid valve with LED - 1,5m wire
17808	thermo mixer 3/4" DN 20 - 30-45°C with 3 screwings (2 with non-return valves)

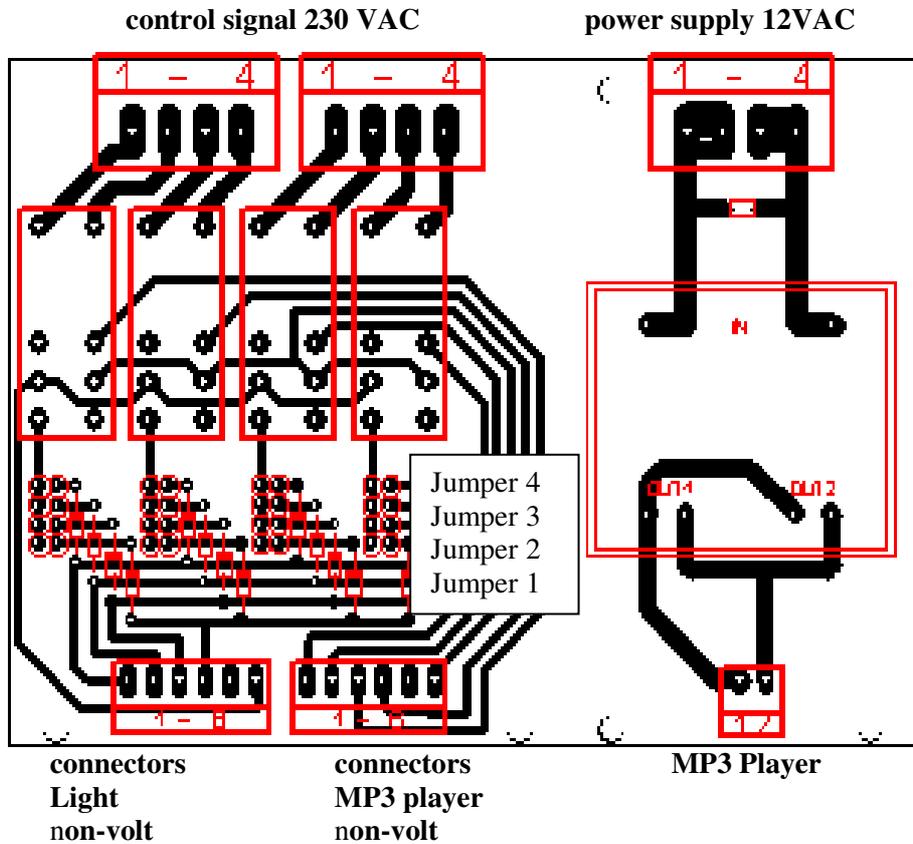
### **7.2 Dosing techniques:**

19723	dosing pump ES-B11 complete
10726	diaphragm for ES-B 11
12840	pump head
12841	connection suction side
12842	connection pressure side
15108	dosing valve for fragrance 3/8" VA
10432	dosing tube PTFE di 4x1mm
10433	dosing tube PTFE di 6x1mm
16975	fragrance reservoir

### 8. Wiring diagramme



### Relay Board for Sound and Light Control



connectors relay board	colour of the wire of light controller	○ ○ Jumper 1 ○ ○ on relay board (example) ● ●	Light colour/ funktion
1	green	1	light off
2	brwon	2	light blue
3	yellow	3	light green
4	blue	4	light red
5	free	3+4	flash light
6	grey/mass	2+4	colour change red - green
		2+3+4	colour change red - green - lue
		2+3	colour change green - blue

output connectors relay board	relay	input connectors relay board	connectors MP3 Player	number of MP3 sound on memory card	
1	4	3+4	IN 1	14	water
2	3	1+2	IN 2	13	thunderstorm
3	2	3+4	IN 3	7	sea rush
4	1	1+2	IN 4	11	birds tweeting
5			free		
6			GND- mass	15	may not be used – is uses for the Stopp of the sounds