

Operation manual

Action shower „Caribbean Storm V2“

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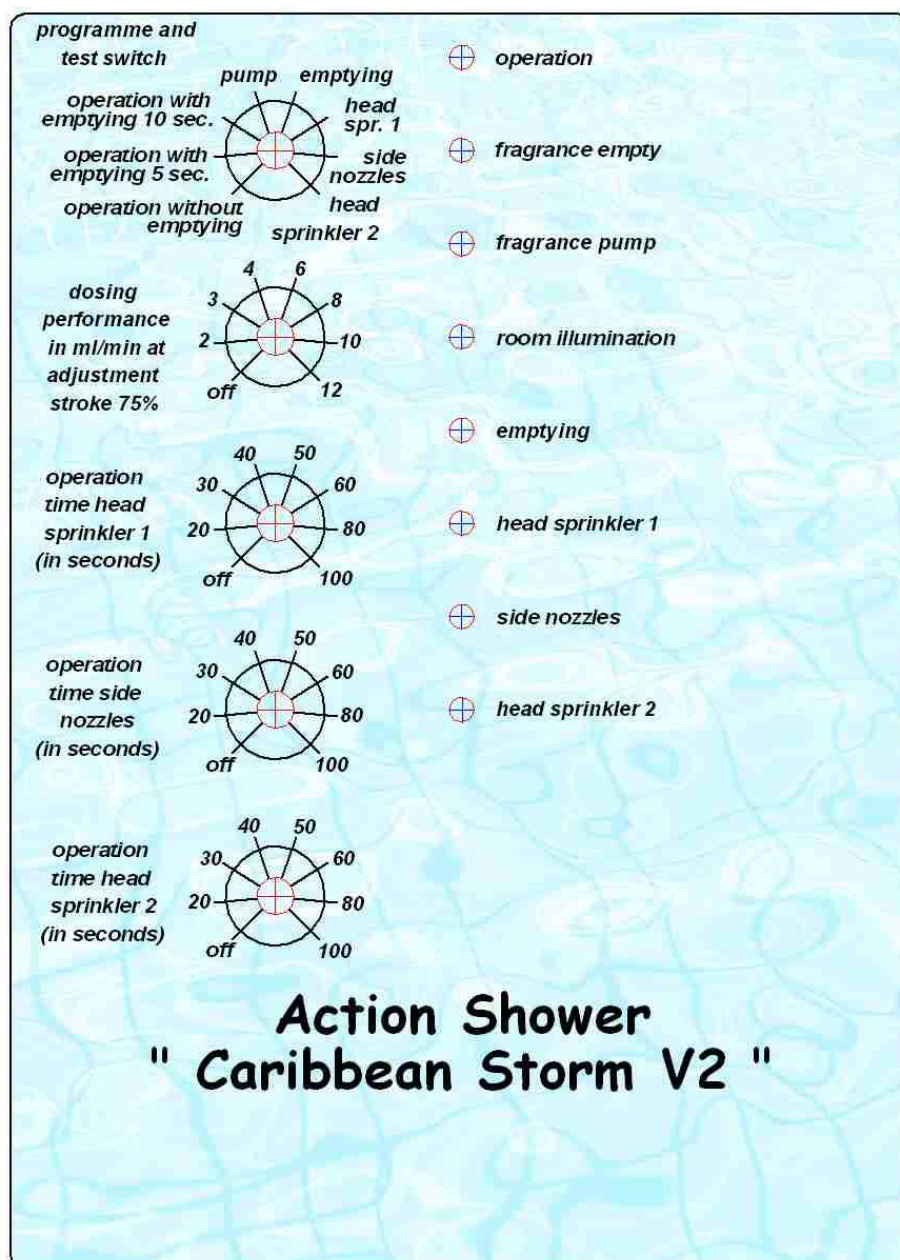


1. Function – programmes

The Action shower „Caribbean Storm“ is a control unit for 3 shower cycles with 4 different programmes. The 4 programmes can be started by a 4-fold push-button from the shower cabinet.

- Head sprinkler 1: warm, aromatized Tropical Rain
- Head sprinkler 2: cold water fog
- Side Nozzles: warm side nozzles
- Caribbean Strom: the above programmes run one after the other

The single adjustment are handled by rotary knobs at the control housing:



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 below 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 housing!!

After the test of the functions the operation mode has to be chosen by the switch position: **operation with 10 (5) sec. emptying**

This mode has to be adjusted at all shower techniques that include emptying valves. The emptying time (5 or 10 seconds) is according to the length of the tubing that has to be emptied.

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 head sprinkler 1 in seconds:

Adjustment of the operation time for the warm aromatized shower from 20 – 100 seconds.

operation time head sprinkler 2 in seconds:

Adjustment of the operation time for the cold shower from 20 – 100 seconds.

operation time side nozzles in seconds:

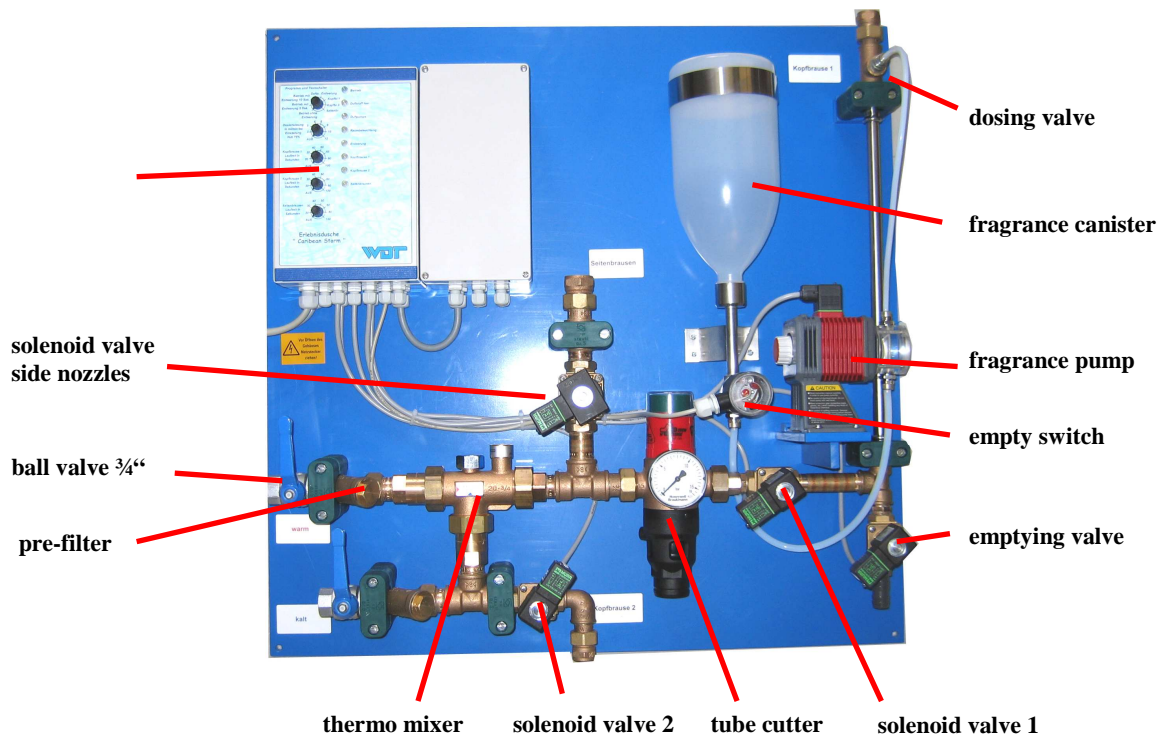
Adjustment of the operation time for the warm side nozzles from 20 – 100 seconds.

The adjusted operation times come up to the interval times of the programme steps of the total programme (Caribbean Storm)!

2. Technical description

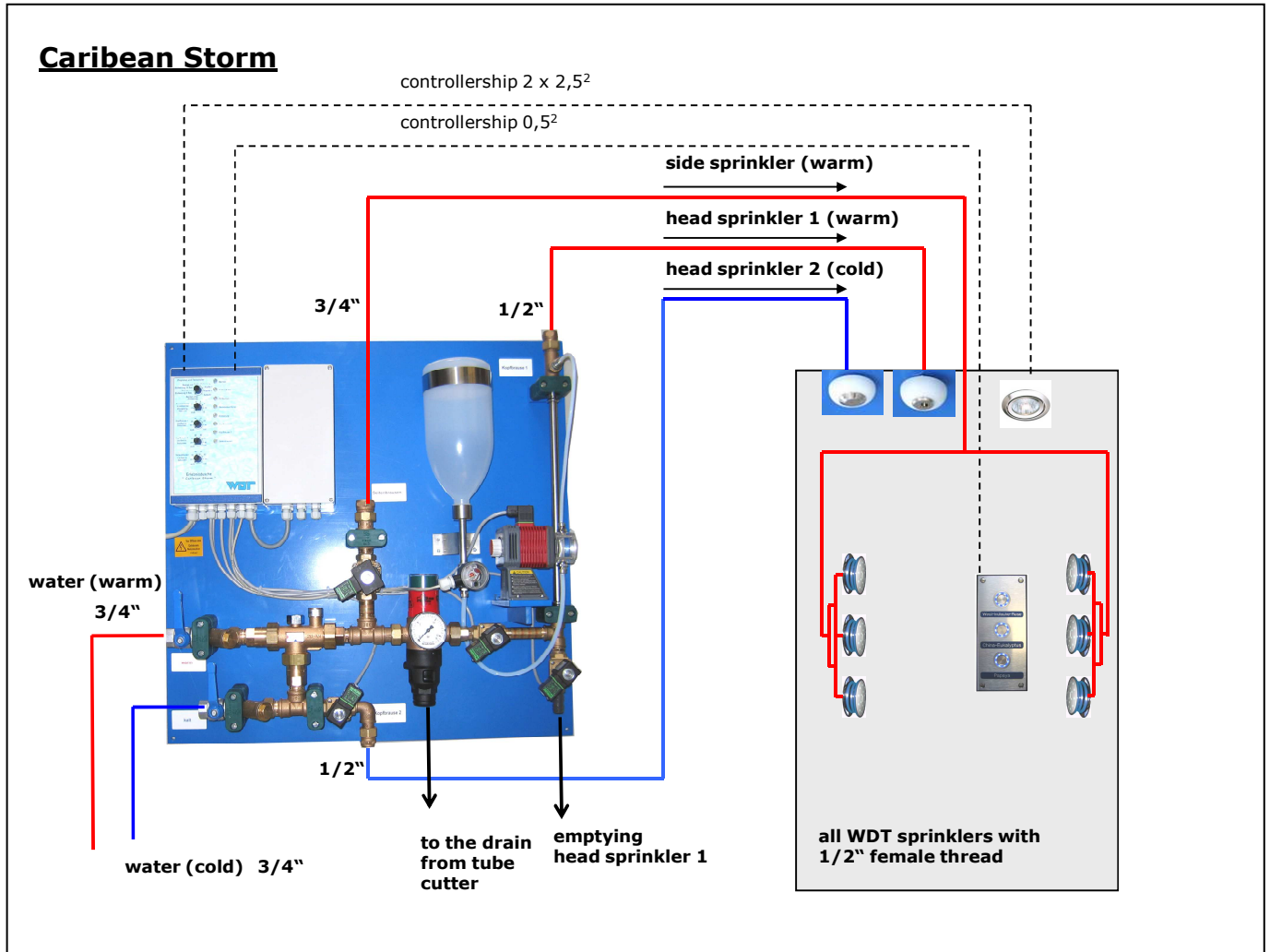
measures: width 75cm, height 75cm, depth 20cm
 weight: app. 12 kg
 power supply: power plug 230V
 water supply pressure: min. 3 bar at a flow through of 3m³/h

The action shower „Caribbean Storm“ consists of the following components:



3. Installation

The control unit „**Caribbean 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. Programme flow

The characteristics of the programmes are describes on page 3. The **4 functions** „Tropical Rain“, „Polar Fog“, „Side Nozzles“ and Caribbean Storm“ are started by the user by a push button from the cabinet. If one programme runs the others are locked.

Example 1:

The operator of the unit sets the time for the Tropical Rain on 30 seconds. If the user in the cabinet presses the according push-button a smooth and warm aromatized rain patters down on him for 30 seconds. After the 30 seconds the emptying valve opens and the water tubing is emptied to prevent bacterial impact and bad smell due to stagnant water.

Example 2:

Every operation time is set on 30 seconds. If the user in the cabinet presses the push button for the “Caribbean Storm” the programme starts with cold fog. After 30 seconds the aromatized Tropical Rain starts additionally. After further 30 seconds the rain nozzle switches off and the side nozzles start to support the fog. Again after 30 seconds all nozzles stop and the programme can be restarted.

6. 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	ca.	ca.	ca.
40	30-45			
48	38-53			
55	45-65	6 K	4 K	2 K

7. 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.

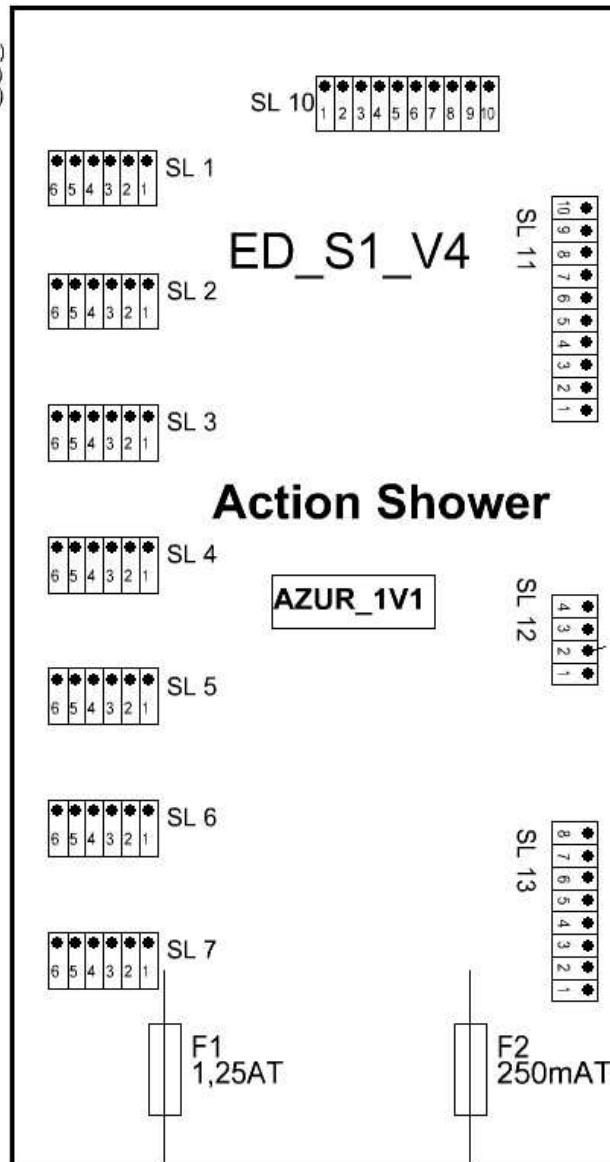
		⇓ <u>to be done!</u>	
1.	<u>Water part</u>	⇓	
1.1	<u>check solenoid valves in test function</u>	OK []	<u>exchange</u> []
1.2	<u>solenoid valve diaphragms all every two years</u>	OK []	<u>exchange</u> []
1.3	<u>clean pre-filter</u>	OK []	<u>clean</u> []
1.4	<u>filter pressure gauge</u>	OK []	<u>clean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

8. Spare part list

13080	fragrance pump MPD complete
13103	diaphragm EH0066
12840	pump head EH-B20 complete
12836	pump head without valves
10433	dosing tube PTFE 6 x 1
10432	dosing tube PTFE 4x1mm
10424	ball valve G 3/4" i-a, PN25
12887	filter Ms 3/4"
15955	thermo mixer 3/4"JRG
14871	tube cutter 1/2"
14761	solenoid valve Ms 3/4"
14680	solenoid valve Ms 1/2" M24K
15108	dosing valve 3/8" VA
13082	plug for solenoid valve 230VAC LED 1,5m
15967	controller ED-SeD complete
10959	hosuing 240/160/90
14840	control board ED-V2-11x230V
12985	rotary knob 6mm

9. Wiring diagramme

- SL-1 clamp number
- 1- L1 fragrance empty (for remote control)
 - 2- N fragrance empty (for remote control)
 - 3- PE fragrance empty (for remote control)
 - 4- PE fragrance pump
 - 5- N fragrance pump
 - 6- L1 fragrance pump
- SL-2 clamp number
- 1- L1 room illumination
 - 2- N room illumination
 - 3- PE room illumination
 - 4- PE emptying
 - 5- N emptying
 - 6- L1 emptying
- SL-3 clamp number
- 1- L1 head sprinkler 1
 - 2- N head sprinkler 1
 - 3- PE head sprinkler 1
 - 4- PE side nozzles
 - 5- N side nozzles
 - 6- L1 side nozzles
- SL-4 clamp number
- 1- L1 head sprinkler 2
 - 2- N head sprinkler 2
 - 3- PE head sprinkler 2
 - 4- PE sound head sprinkler 1
 - 5- N sound head sprinkler 1
 - 6- L1 sound head sprinkler 1
- SL-5 clamp number
- 1- L1 sound side nozzles
 - 2- N sound side nozzles
 - 3- PE sound side nozzles
 - 4- PE sound head sprinkler 2
 - 5- N sound head sprinkler 2
 - 6- L1 sound head sprinkler 2
- SL-6 clamp number
- 1- L1 illumination head sprinkler 1
 - 2- N illumination head sprinkler 1
 - 3- PE illumination head sprinkler 1
 - 4- PE illumination side nozzles
 - 5- N illumination side nozzles
 - 6- L1 illumination side nozzles
- SL-7 clamp number
- 1- L1 illumination head sprinkler 2
 - 2- N illumination head sprinkler 2
 - 3- PE illumination head sprinkler 2
 - 4- PE supply AC230V
 - 5- N supply AC230V
 - 6- L1 supply AC230V



- SL-10 clamp number
- 1- push button 1 illumination
 - 2- push button 1 illumination
 - 3- push button 2 illumination
 - 4- push button 2 illumination
 - 5- push button 3 illumination
 - 6- push button 3 illumination
 - 7- locking output 1
 - 8- locking output 1
 - 9- locking output 2
 - 10- locking output 2
- SL-11 clamp number
- 1- push button head sprinkler 1
 - 2- push button head sprinkler 1
 - 3- push button side nozzles
 - 4- push button side nozzles
 - 5- push button head sprinkler 2
 - 6- push button head sprinkler 2
 - 7- empty switch - pressure switch
 - 8- empty switch - pressure switch
 - 9- push button total programme
 - 10- push button total programme
- SL-12 clamp number
- 1- power output 12 V/DC +
 - 2- power output 12 V/DC -
 - 3- power output 12 V/DC +
 - 4- power output 12 V/DC -
- SL-1 clamp number
- 5- locking input
 - 6- locking input
 - 7- locking input
 - 8- locking input