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I. GENERAL TECHNICAL DESCRIPTION**1. Model Survey**

Type	Model designation	Date of manufacture	Features
WV 22500BY/01	Siwamat 2280	7004-7212	East European version; 2-knob operation, white line, 3 push buttons, 500 rpm spin speed.
WV 22500FG/01	Siwamat 2280	7004-7212	Europe version, otherwise as WV 22500BY/01.
WV 22500PP/01	Siwamat 2280	7003-7212	Portugal version; otherwise as WV 22500BY/01.
WV 22500SK/01	Siwamat 2280	7003-7212	Scandinavia version; otherwise as WV 22500BY/01.
WV 22800BY/01	Siwamat 2280	7005-7110	East European version; 3-knob operation, line white, 4 push buttons, 800/400 rpm spin speed.
WV 22800BY/02	Siwamat 2280	7111-7212	modified drum dimension; otherwise as ../01.
WV 22800FG/01	Siwamat 2280	7004-7110	Europe version; otherwise as WV 22800BY/01.
WV 22800FG/02	Siwamat 2280	7111-7212	modified drum dimension; otherwise as ../01

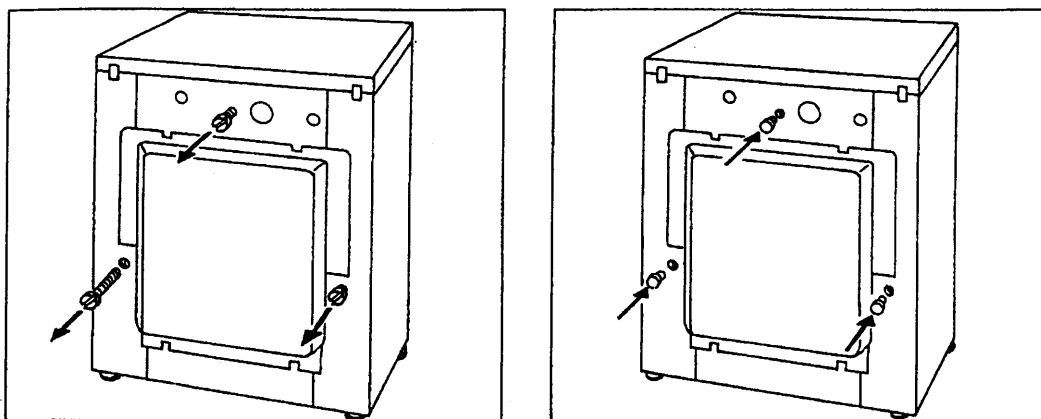
WV 22800KJ/01	Siwamat 2280	7103-7110	Japan and Korea version; 220 V / 60 Hz; otherwise as WV 22800BY/01.
WV 22800KJ/02	Siwamat 2280	7111-7212	modified drum dimension; otherwise as ../01.
WV 22800PP/01	Siwamat 2280	7003-7110	Portugal version; otherwise as WV 22800BY/01.
WV 22800PP/02	Siwamat 2280	7111-7212	modified drum dimension; otherwise as ../01.
WV 22800SK/01	Siwamat 2280	7003-7110	Scandinavia version; otherwise as WV 22800BY/01.
WV 22800SK/02	Siwamat 2280	7111-7212	modified drum dimension; otherwise as ../01.

2. Installation and Connection

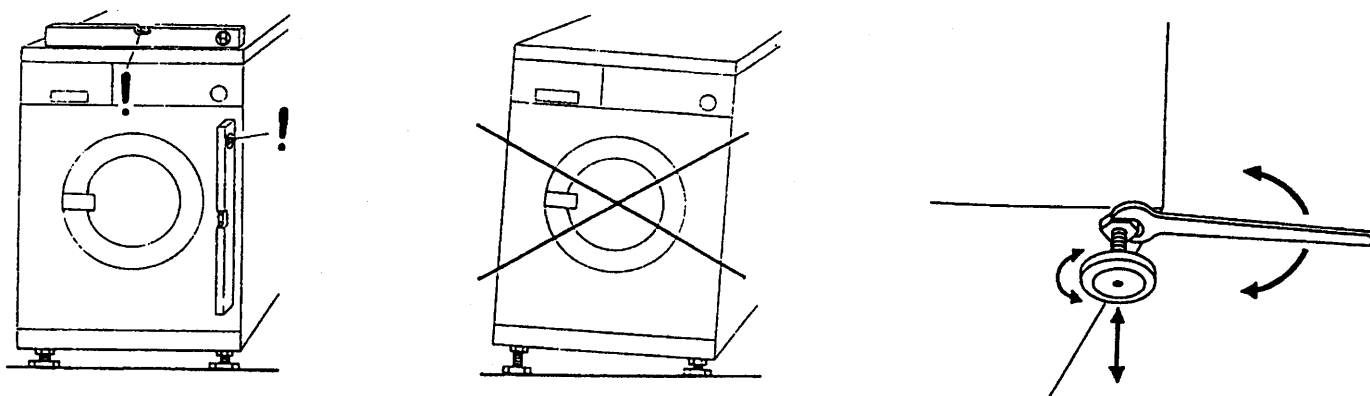
2.1 Installation

The transport retaining fixtures at the rear of the appliance must be removed prior to initial operation of the appliance.

- 1.) Release the three screws.
- 2.) After tilting back the washing machine, remove the three plastic sleeves under the appliance.
- 3.) Close off the holes with the plugs supplied with the machine.



With the aid of a spirit level, align the appliance to all sides. The appliance must be positioned horizontally with all four feet firmly on the floor.



If necessary, the setting of the feet must be corrected. After correction, firmly retighten the lock nuts.
Note: Avoid installing the appliance in a room where there is a danger of frost!

2.2 Connection

Cold and warm water connection (not in all versions) 3/4"; length 1.5 m; minimum water pressure 1 bar; flow rate 8 l/min.

Attach drain hose max. 0.9 m - min. 0.6 m high

Electrical connection lead with earthing-pin plug (not in all versions).

3. Operation

3.1 Program Setting

- Set program selector in clockwise direction to the required program.
- Set temperature selector to the required wash temperature (not in all versions)
- Set speed selector to the required spin speed (not in all versions).
- Press ON/OFF button.

3.2 Push Button Function

Up to three push buttons are additionally available to set the optimum program.

Economy button*: - for half (or less) wash quantity
- energy saving washing of non-iron (wash-and-wear) laundry



Rinse stop*: - the washing remains in the last rinse water



Spin*: - the washing is not spun
ON/OFF - the water is pumped off



* (not in all versions)

II. Technical Data

1. General Data

Automatic washing machine up to 4.5 kg washing, front load, stand alone.

2. Installation and Connection Data

2.1 Dimensions

Width 595 mm
Height 850 mm
Depth 600 mm

2.2 Weight

without packing, approx. 64 - 70 kg

2.3 Electrical Connection

Voltage 220 V / 50 Hz
Voltage 220 V / 60 Hz
Fuse protection 10 A
Max. power consumption 2190 - 2200 W

3. Average Consumption Values

3.1 WV 22500 all Versions

	Energy in kWh	Water in l	Time in min
90 °C without prewash	2.2	95	115
90 °C with prewash	2.7	110	125

3.2 WV 22800 all Versions

	Energy in kWh	Water in l	Time in min
90 °C without prewash	2.2	95	125
90 °C with prewash	2.7	105	145

4. Load Capacities

4.1 Boiled washing 4.5 kg

4.2 Non-iron 2.0 kg

4.3 Wool 1.0 kg

The specified values are only intended as reference values since fluctuations are possible due to different laundry quality, water temperature, load quantity, voltage etc.

5. Date of Important Components

5.1 Control Unit

Control unit	Copreci
Designation	475-944
Voltage	220 V / 50 Hz
Drive	Synchronous motor with gear unit
Winding resistance	approx. 10.5 kΩ
Cycle positions	
- program contact drum	60 positions
- control contact drum	60 positions
Contacts	11 program contacts 3 control contacts

Control unit	EATON
Designation	475-944
Voltage	220 V / 50 Hz
Drive	Synchronous motor with gear unit
Winding resistance	approx. 10.5 kΩ
Cycle positions	
- program contact drum	60 positions
- control contact drum	60 positions
Contacts	14 program contacts 1 control contacts

Control unit	
Designation	471-246
Voltage	220 V / 50 Hz
Drive	Synchronous motor with gear unit
Winding resistance	approx. 10.5 kΩ
Cycle positions	
- program contact drum	60 positions
- control contact drum	60 positions
Contacts	8 program contacts 3 control contacts

Control unit	
Designation	471-288
Voltage	220 - 240 V / 50 Hz
Drive	Synchronous motor with gear unit
Winding resistance	approx. 10.5 kΩ
Cycle positions	
- program contact drum	60 positions
- control contact drum	60 positions
Contacts	8 program contacts 3 control contacts

Control unit	
Designation	471-254
Voltage	220 - 240 V / 50 Hz
Drive	Synchronous motor with gear unit
Winding resistance	approx. 10.5 kΩ
Cycle positions	
- program contact drum	60 positions
- control contact drum	60 positions
Contacts	8 program contacts 3 control contacts

Designation	471-178
Voltage	220 - 230 V / 50 Hz
Drive	Synchronous motor with gear unit
Winding resistance	approx. 10.5 k Ω
Cycle positions	
- program contact drum	60 positions
- control contact drum	60 positions
Contacts	8 program contacts 3 control contacts

5.2 Push Button Switches

ON/OFF	2 make contacts
Economy button	2 break contacts
Spin ON/OFF	1 break contact
Rinse stop	1 break contact (not in all versions)

5.3 Thermostat

Control range	30 °C - 90 °C
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5.4 Detergent Pump

Rated output	90 W
Rated power consumption	0.85 A
Winding resistance	26 Ω \pm 7 %
Delivery capacity	16 l/min, at a delivery height of 0.8 m

5.5 Water Level Regulator

Designation	PD4
Switching points:	
Level I	950/1300 Pa \pm 100 Pa
Level II	1100/1600 Pa \pm 100 Pa
Overflow	> 3000 Pa

Designation	HD528
Switching points:	
Level I	950/1300 Pa \pm 100 Pa
Level II	1100/1600 Pa \pm 100 Pa
Overflow	> 3000 Pa

Designation	P3-332
Level I	750/1100 Pa \pm 100 Pa
Level II	950/1300 Pa \pm 100 Pa
Level III	1100/1600 Pa \pm 100 Pa
Overflow	> 3060 Pa

Designation	786E.P
Level I	750/1100 Pa \pm 100 Pa
Level II	950/1300 Pa \pm 100 Pa
Level II	1100/1600 Pa \pm 100 Pa
Overflow	> 3060 Pa

5.6 Solenoid Valve

Voltage	220 V / 240 V 50 Hz
Flow rate	8 l/min
Operating range	0.3 - 10 bar
Voltage	220 V 60 Hz
Flow rate	8 l/min
Operating range	0.3 - 10 bar

5.7 Heating Element

Voltage	220 V / 240 V
Output	1950 W / 2300 W
Cold resistance	24.8 Ω / 25 Ω
Voltage	220 V
Output	3000 W
Cold resistance	16 Ω

5.8 Potentiometer

Output	0.5 W
Resistance	2.2 k Ω

5.9 Drive motor

Type	2/12
Voltage	220 V / 50 Hz
Capacitor	12.5 μ F
Resistance values	Contact 2 - 4 48.6 Ω
	2 - 5 66.1 Ω
	3 - 6 86.0 Ω
	4 - 5 17.5 Ω

Type	2/16
Voltage	220 V / 50 Hz
Capacitor	14 μ F
Resistance values	Contact 2 - 4 23.7 Ω
	3 - 4 58.6 Ω
	4 - 5 8.9 Ω
	4 - 6 58.6 Ω

Type	2/16
Voltage	240 V / 50 Hz
Capacitor	14 μ F

Type	Nouva IBMEI MCA 62.555 IBY 52 Universal motor with tachogenerator
Voltage	220 / 240 V 50 Hz
Resistance values (at 20 °C)	1-5 (tachogenerator) 150 Ω \pm 7 % 2-6 (armature winding) 1.87 Ω \pm 5 % 3-8 (field winding) 1.51 Ω \pm 5 %

Type	C.E.SET MCA 52/64 - 148
Voltage	Universal motor with tachogenerator 220 / 240 V 50 Hz
Resistance values (at 20 °C)	1-5 (tachogenerator) 150 Ω \pm 7 % 2-6 (armature winding) 1.87 Ω \pm 5 % 3-8 (field winding) 1.51 Ω \pm 5 %

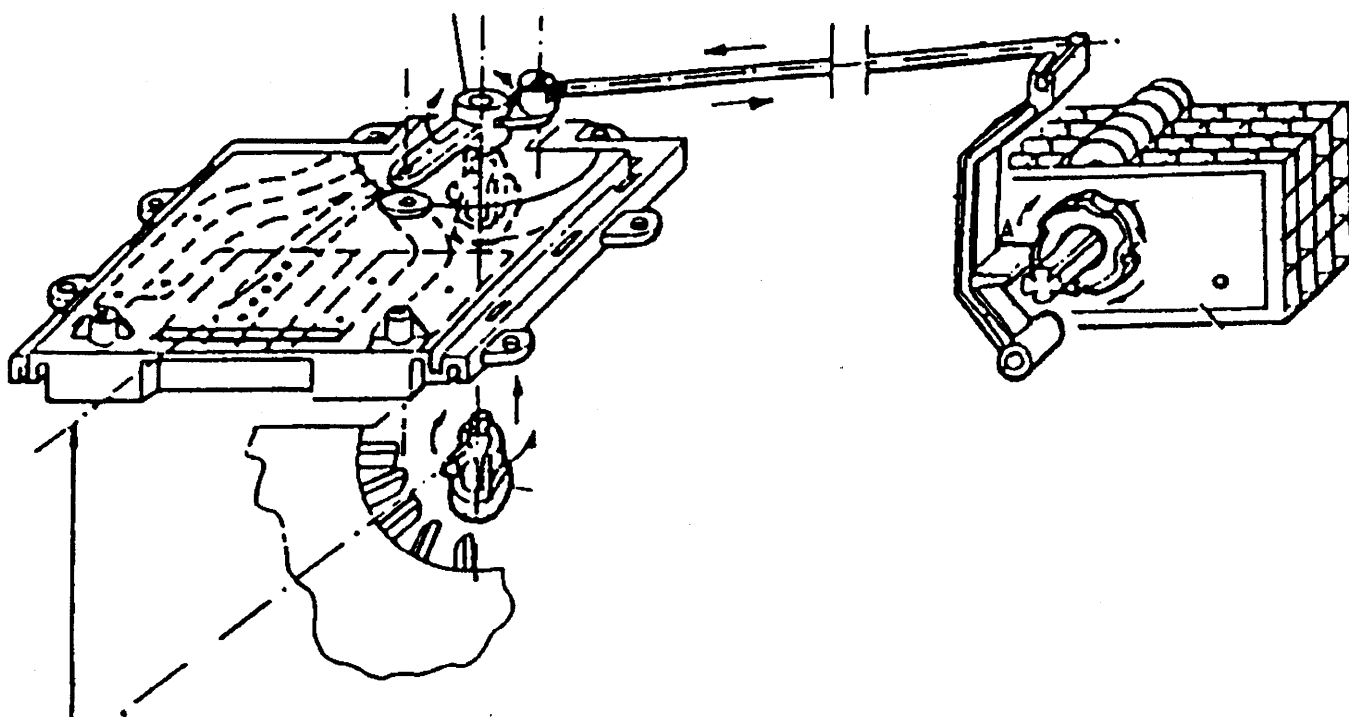
III. Functional Description

6.1 Inlet Tray

Four chambers are available.

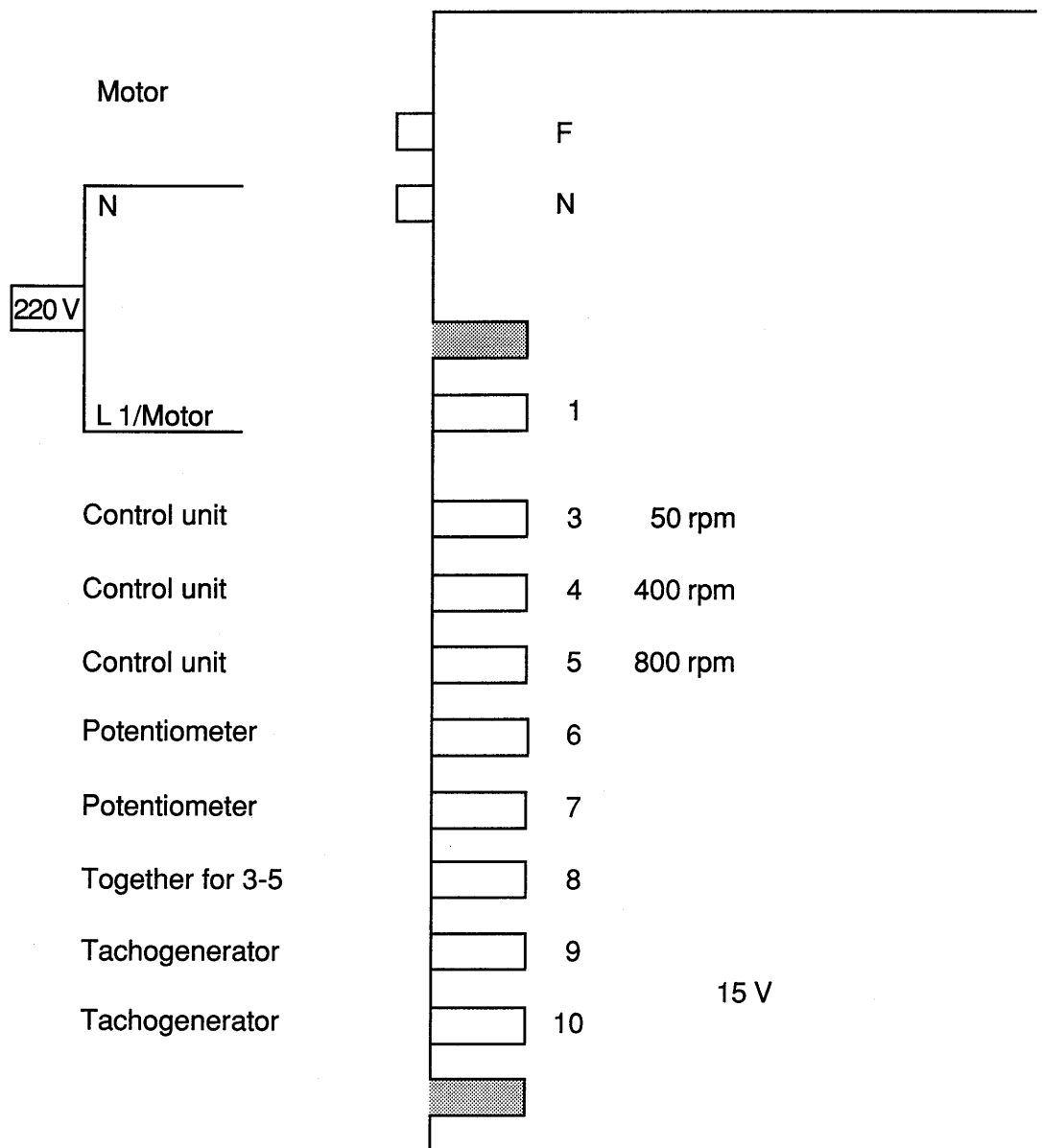
- Prewash
- Main wash
- Softener
- Bleach

A cam disc on the control unit moves the water distributor to the required position of the inlet tray. speed in the event of tachogenerator failure.



6.2 Motor Electronics (not in all versions)

The spin speed is controlled and stabilized by the electronic motor control system. At the same time, the electronics limits the upper speed in the event of tachogenerator failure.



IV. Notes on Repairs

1. General

Disconnect the appliances from the mains before carrying out any kind of repair job. When the repair job has been completed, a functional test must be carried out in accordance with VDE 0701.

2. Worktop

Release the two screws at the rear of the appliance, slide worktop forward.

3. Rotary knobs

All rotary knobs are removed by pulling forward.

4. Panel

4.1 Remove worktop.

4.2 Remove rotary knobs.

4.3 Release two top screws and remove panel from front.

5. Push buttons

5.1 Remove worktop.

5.2 Release retainers using a screwdriver.

6. Control unit

6.1 Remove worktop.

6.2 Remove program rotary knob.

6.3 Release the two front screws in the panel, remove control unit by pulling towards the rear.

7. Thermostat (not in all versions)

7.1 Remove worktop.

7.2 Detach rotary knob for temperature control

7.3 Release the two front screws in the panel, remove control unit by pulling to rear.

8. Potentiometer (not in all versions)

8.1 Remove worktop.

8.2 Detach rotary knob (speed selector).

8.3 Lift potentiometer out of retainer.

9. Heating element

9.1 Remove rear panel.

9.2 Release screw, withdraw heating element.

10. Window seal

10.1 Remove worktop.

10.2 Open window.

10.3 Release the two screws (in 12 o'clock position), detach tensioner.

10.4 Fold sleeve towards inside, release inner clamping ring.

11. Bearing

- 11.1 Remove rear panel.
- 11.2 Remove pulley.
- 11.3 Release clamping ring, detach end cover
- 11.4 Change bearing with commercially available removal and installation tool.

V. Circuit Diagrams see Circuit Diagram Folder

VI. Supplements

1. Problems in Pumping Off

It is possible that the detergent pump runs dry although there is still water in the detergent tank during spinning (formation of a water ring in the drum).

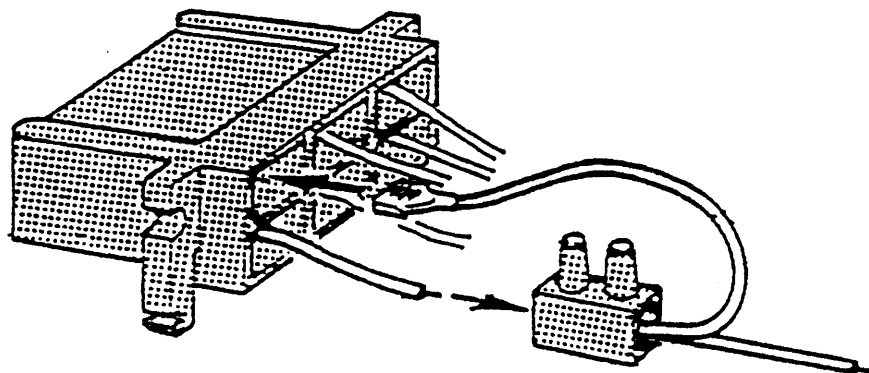
In this case, the reducer sleeve 059 150 must be fitted in the outlet pipe of the detergent pump.

2. Replacement of Drum / Drum Cross

The drum and the drum cross are supplied separately. Initially, the rivets must be drilled out, the components are then joined together again with the set of screws 059 132.

3. Motor

Motors with five connection lines are partly used in production. Motors with six connection lines are supplied by spare parts. In this case, the line 4 must be cut and bridged to the free plug-in location (see Fig.).



4. Ring seal

In some cases the distance between the ring seal and the drum is too great. As a result small laundry items may slip through into the tank. If this is the case, install the ring seal (ident. no. 281280) with extended lip profile.