

# Service Manual

Washing machine

Frontloader

AWM 285/3

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	Family	2A

## Technical data

### Dimensions

Height	85	cm
Width	59.5	cm
Depth	55	cm

### Weight

Without packing	75	kg
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### Main connection

Voltage	230	V
Frequency	50	Hz
Power consumption	2.3	kW
Fuse rating	10	A

### Drum

Volume	48	l
Wash spin	54	rpm
Ramp spin	110	rpm
Speed spinning max.	800	rpm

### Capacity of dry laundry

Cotton/coloured laundry	5	kg
Cotton rapid	3	kg
Easy care	2.5	kg
Easy care rapid	1.5	kg
Delicate	1.5	kg
Wool	1	kg

### Pressostat

#### Quantity of water washing

Cotton/coloured laundry	9.5	l
Easy care	9.5	l
Delicate	14	l
Wool	16.5	l
Overflow	30	l

#### Quantity of water rinse

Cotton/coloured laundry	12	l
Easy care	11.5	l
Delicate	15	l
Wool	17	l
Overflow	30	l

### Nominal current

#### Contacts:

11 - 12	4 (4)	A
11 - 14	16 (4)	A
11 - 16	1 (1)	A

#### Contactsystem:

11-12-14	jump contacts
11 - 16	slow action contacts

### Door lock

Lock time	3" - 6"	( 20°C )
Unlock time	60" - 90"	
Nominal voltage	230	V
Nominal current:		
contact	4 - 5	16 (4) A

### Heating element

Kind of heating	Tubular heating element with NTC-sensor	
Nominal voltage	230	V
Nominal power	2050	W
Heat conductor		
resistance	24.1	Ω
Resistance NTC:		
0°C	35.9	kΩ
30°C	9.8	kΩ
40°C	6.6	kΩ
50°C	4.6	kΩ
60°C	3.2	kΩ
70°C	2.3	kΩ
95°C	1.1	kΩ

### Inlet valve cold

Water temperature max.	60	°C
Rated flow < 1 bar	8	l/min
Pressure range	0.5-10	bar
Nominal voltage	220-240	V
Frequency	50	Hz
Starting voltage < 6 bar	160	V
6-10 bar	170	V
Nominal current	35	mA
Nominal power	6	VA
Nominal resistor (20°C)	4060	Ω

### Inlet valve hot

Water temperature max.	90	°C
Rated flow < 1 bar	4	l/min
Pressure range	0.5-10	bar
Nominal voltage	220-240	V
Frequency	50	Hz
Starting voltage < 6 bar	160	V
6-10 bar	170	V
Nominal current	35	mA
Nominal power	6	VA
Nominal resistor (20°C)	4060	Ω

## Technical data

### Drain pump (synchronous)

Nominal voltage	230	V
Nominal current	0.3	A
Nominal consumption	34	W
Frequency	50	Hz
Resistor (coil)	155 ±7%	Ω
Motor protection	no	
Capacity (1.25m height)	15 ±2	l/min

### Program timer

Type	Hybridtimer with integrated electronic	
Fab.	EC 4477 (Timer 2a)	
Nominal voltage	230	V
Frequency	50	Hz
Total positions	60	

### Cotton/coloured laundry

Pre wash	pos.	01 - 02
Main wash	pos.	03 - 12
Rinse	pos.	13 - 19
Spin	pos.	20 - 22
Stop	pos.	23

### Easy care

Pre wash	pos.	24 - 26
Main wash	pos.	27 - 34
Rinse	pos.	35 - 39
Spin	pos.	40 - 41
Stop	pos.	42

### Delicate

Pre wash	pos.	43 - 44
Main wash	pos.	45 - 51
Rinse	pos.	52 - 56
Spin	pos.	57 - 59
Stop	pos.	60

### Wool

Pre wash	pos.	-
Main wash	pos.	47 - 51
Rinse	pos.	52 - 56
Spin	pos.	57 - 59
Stop	pos.	60

### Silk

Pre wash	pos.	-
Main wash	pos.	49 - 51
Rinse	pos.	52 - 56
Spin	pos.	57 - 59
Stop	pos.	60

### Motor

Type	MCA 38/64 - 148/WHE1
	i = 1 : 13,1

### Resistance contacts

6 - 7	68.7	±7% Ω
4 - 5	2.15	±7% Ω
2 - 3	1.46	±7% Ω
1 - 3	0.65	±7% Ω

### Radio interference supression

Type	26167C42
Nominal voltage	230 V
Nominal capacity	1nFX1+2x22nFY
Nominal inductance	2 x 1 mH
Nominal resistance	470 kΩ

### Temperature/Spin selector switch

Positions	7
Nominal voltage	5 V
Value of resistors:	
1 - 2 - 3	internal shunt
4 - 6	internal shunt
5 - 6	pos.1 0 Ω
	pos.2 0.68 5% kΩ
	pos.3 1.10 5% kΩ
	pos.4 1.80 5% kΩ
	pos.5 2.70 5% kΩ
	pos.6 3.60 5% kΩ
	pos.7 4.70 5% kΩ

### Push button switch

Start stop	SM
Energy save	SEC
Half load	SHL
Spin speed reduction	SSR

**Spare part list**

**Model** AWM 285/3  
**Service No.** 857028553010  
**Version** 857028553010

Pos. No.	12NC Code	Description
001 0	<b>4819 440 19716</b>	Cabinet
011 0	<b>4819 462 48472</b>	Foot
021 0	<b>4819 440 19715</b>	Front
021 1	<b>4812 440 19343</b>	Flap
024 0	<b>4812 440 18998</b>	Panel, rear
025 0	<b>4812 440 19346</b>	Holder Control Device
030 0	<b>4812 310 18396</b>	Cover plate
040 0	<b>4812 417 18787</b>	Hinge
053 0	<b>4819 440 19791</b>	Plinth
061 0	<b>4812 466 88458</b>	Counter weight upper
061 1	<b>4812 466 88459</b>	Counter weight front
080 0	<b>4812 529 18038</b>	Shock absorber 800-1000
084 0	<b>4812 466 58001</b>	Silent bloc
086 2	<b>4812 401 18412</b>	Stopper
110 0	<b>4812 498 18139</b>	Handle,door white
130 0	<b>4812 417 28046</b>	Lock Door
130 1	<b>4812 417 28045</b>	Pin Door Lock
131 0	<b>4812 417 28047</b>	Plate Door lock
131 1	<b>4812 417 28048</b>	Plate Doorlock Lower
141 0	<b>4812 450 68219</b>	Door glass
143 0	<b>4819 532 28286</b>	Glassdoor frame
144 0	<b>4812 459 28043</b>	Frame,door glas
144 1	<b>4812 498 18137</b>	Knob Door safety
144 2	<b>4812 492 58023</b>	Spring Door Safety
144 3	<b>4812 290 68153</b>	Holder,adjust. Door Safety
190 0	<b>4812 460 68527</b>	Door bellow
190 1	<b>4812 492 18017</b>	Strap
190 2	<b>4819 530 58059</b>	Ring
200 1	<b>4812 418 18226</b>	Tub
200 2	<b>4819 418 18312</b>	Tub, half rear
200 3	<b>4812 520 18068</b>	Hub inner cpl. 800/1000,48L
200 4	<b>4812 290 88054</b>	Clamp for tub WH
220 0	<b>4819 418 18339</b>	Drum
271 0	<b>4812 358 18056</b>	V-ribbed belt WH 1250 J5
272 0	<b>4812 528 58027</b>	Pulley DIAM.298
292 0	<b>4812 530 58101</b>	Gasket Tub
301 0	<b>4819 453 19739</b>	Control panel
303 0	<b>4812 498 18147</b>	Handle, drawer WH-HIGH
322 0	<b>4812 452 19903</b>	Insert panel
331 0	<b>4812 413 48273</b>	Knob,timer WH-REFRESH
331 1	<b>4812 413 18198</b>	Adapter Button
332 0	<b>4812 410 28562</b>	Push button
335 0	<b>4819 412 58742</b>	Knob thermostat
341 0	<b>4819 413 79239</b>	Indication disc
354 1	<b>4812 134 48221</b>	Lamp On/Off
401 0	<b>4819 361 58273</b>	Motor
421 0	<b>4812 121 18142</b>	Interf.filter 1,00 F
430 0	<b>4812 360 18384</b>	Pump
451 0	<b>4812 259 28672</b>	Heating element 240 V
490 0	<b>4819 321 18161</b>	Cable,mains
490 1	<b>4812 321 28367</b>	Strain relief
504 0	<b>4819 310 39725</b>	Timer KIT 4477-MASK.5
511 0	<b>4812 413 48279</b>	Selector,switch Temp./Spin
571 0	<b>4812 281 28382</b>	Valve,magnet cold
571 1	<b>4812 281 28383</b>	Valve,magnet hot

Pos. No.	12NC Code	Description
581 0	<b>4812 271 28381</b>	Pressostat EATON
620 1	<b>4819 410 28998</b>	Switch options
621 0	<b>4812 276 18252</b>	Switch On / Off
621 2	<b>4812 276 18266</b>	Switch Speed Reduction
630 0	<b>4812 280 58019</b>	Door lock
701 0	<b>4819 530 28848</b>	Hose, inlet
701 1	<b>4819 466 69704</b>	Gasket and filter
701 2	<b>4812 530 28869</b>	Hose inlet hot
702 0	<b>4819 530 29019</b>	Hose intern
707 0	<b>4812 526 48031</b>	Nozzle Distribution
707 1	<b>4812 526 48028</b>	Nozzle
708 1	<b>4812 530 48143</b>	Bend
711 0	<b>4819 418 79434</b>	Dispenser
712 0	<b>4812 418 88029</b>	Drawer Detergent
713 0	<b>4812 418 88019</b>	Flap Detergent Container
717 0	<b>4819 321 28092</b>	Bowden cable
717 1	<b>4812 321 38013</b>	Lever , Nozzle
717 2	<b>4812 321 38012</b>	Holder,adjust.
717 3	<b>4812 278 88007</b>	Slide
717 5	<b>4812 282 18459</b>	Cam BK,WH,BI,PL 2A,3CH
718 0	<b>4812 526 48027</b>	Siphon 3 - Chamber
718 1	<b>4812 418 88018</b>	Accessory
753 1	<b>4819 418 68234</b>	Chamber,air
754 0	<b>4812 530 28826</b>	Drainhose
754 1	<b>4812 530 28832</b>	Lock eco
754 2	<b>4812 530 28829</b>	Flange eco
760 0	<b>4819 480 58136</b>	Filter
760 1	<b>4812 418 68138</b>	Gasket Sieve / Rough
781 0	<b>4819 530 28847</b>	Hose,draining
783 0	<b>4812 530 28827</b>	Hose Pressostat
787 0	<b>4812 530 28813</b>	Hose
794 5	<b>4812 530 58095</b>	Gasket Air trap
901 0	<b>4812 401 18415</b>	Clamp,hose Tub
901 2	<b>4819 401 18868</b>	Clamp,hose
901 3	<b>4812 401 18414</b>	Clamp,hose
902 0	<b>4812 290 88049</b>	Bracket
902 1	<b>4812 255 18204</b>	Holder Hose outlet
903 0	<b>4812 255 18205</b>	Holder Pressostat
903 5	<b>4812 290 88048</b>	Cable clamp
903 7	<b>4819 401 18823</b>	Clamp
903 8	<b>4819 404 78449</b>	Support
903 9	<b>4812 290 88046</b>	Cable clamp
910 0	<b>4812 502 18379</b>	Screw M 8 x 25
910 1	<b>4812 505 18368</b>	Nut M10
911 7	<b>4812 903 08014</b>	Screw M5x12
923 0	<b>4812 532 18024</b>	Washer
931 0	<b>4819 492 38139</b>	Spring Suspension
932 3	<b>4812 492 58022</b>	Spring Door Lock
932 5	<b>4812 492 38359</b>	Spring , Nozzle
941 0	<b>4812 520 28001</b>	Bearing,ball 6205 2Z C3
941 1	<b>4812 520 28002</b>	Bearing,ball 6203 2Z C3
941 5	<b>4812 520 18067</b>	Hub Bearing
953 0	<b>4812 530 58097</b>	Shaft seal 800-1000
953 1	<b>4812 530 58096</b>	O-Ring Bearing
961 0	<b>4812 321 48004</b>	Cover

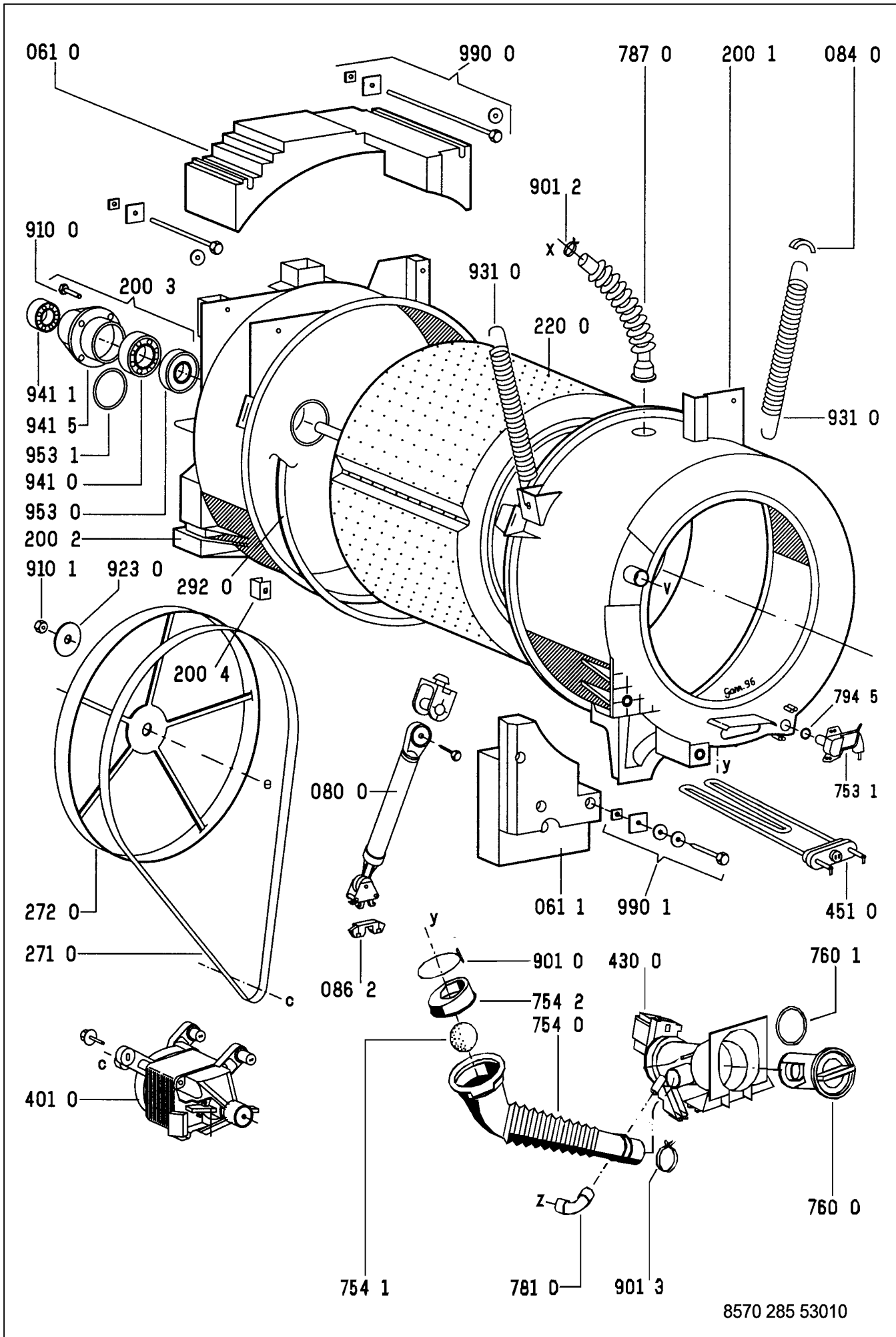
## Spare part list

<b>Model</b>	<b>AWM 285/3</b>
<b>Service No.</b>	<b>857028553010</b>
<b>Version</b>	<b>857028553010</b>

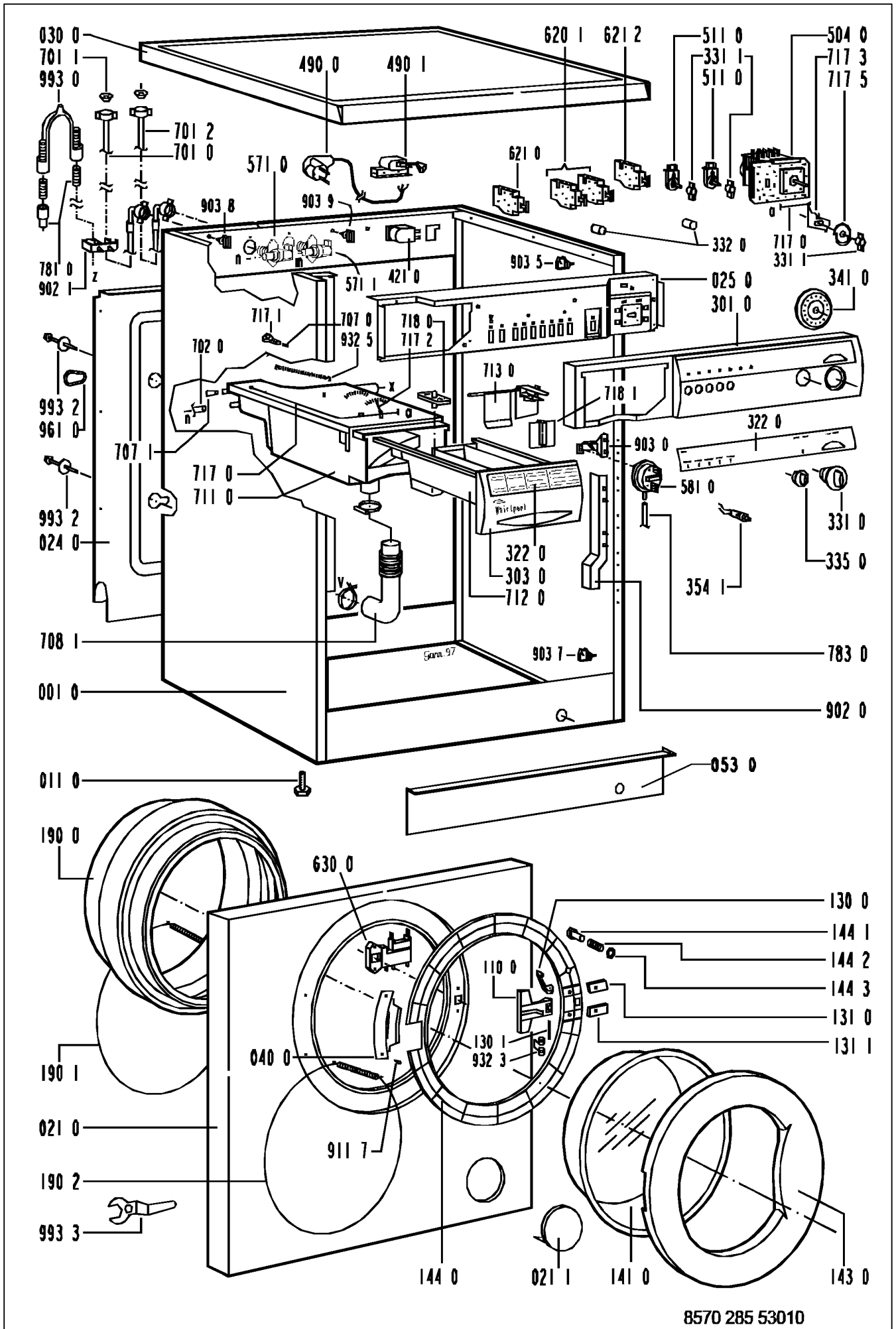
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<b>Pos. No.</b>	<b>12NC Code</b>	<b>Description</b>
990 0	<b>4819 310 39227</b>	Mounting kit Weight top
990 1	<b>4819 310 39228</b>	Mounting kit Weight bottom
993 0	<b>4812 530 48017</b>	Bow
993 2	<b>4812 268 18015</b>	Lever,security
993 3	<b>4812 395 58004</b>	Tool

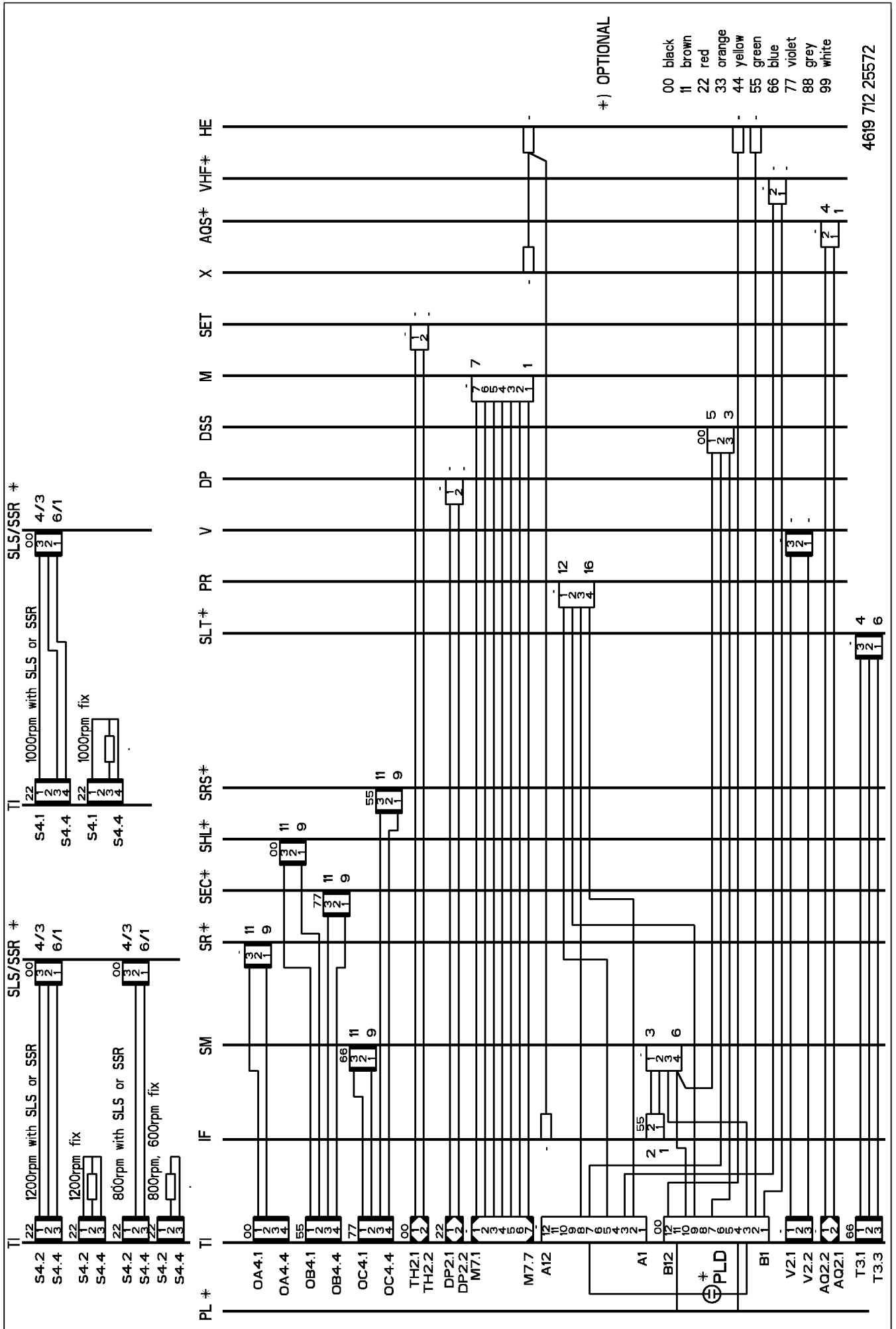
**Exploded view**



## Exploded view

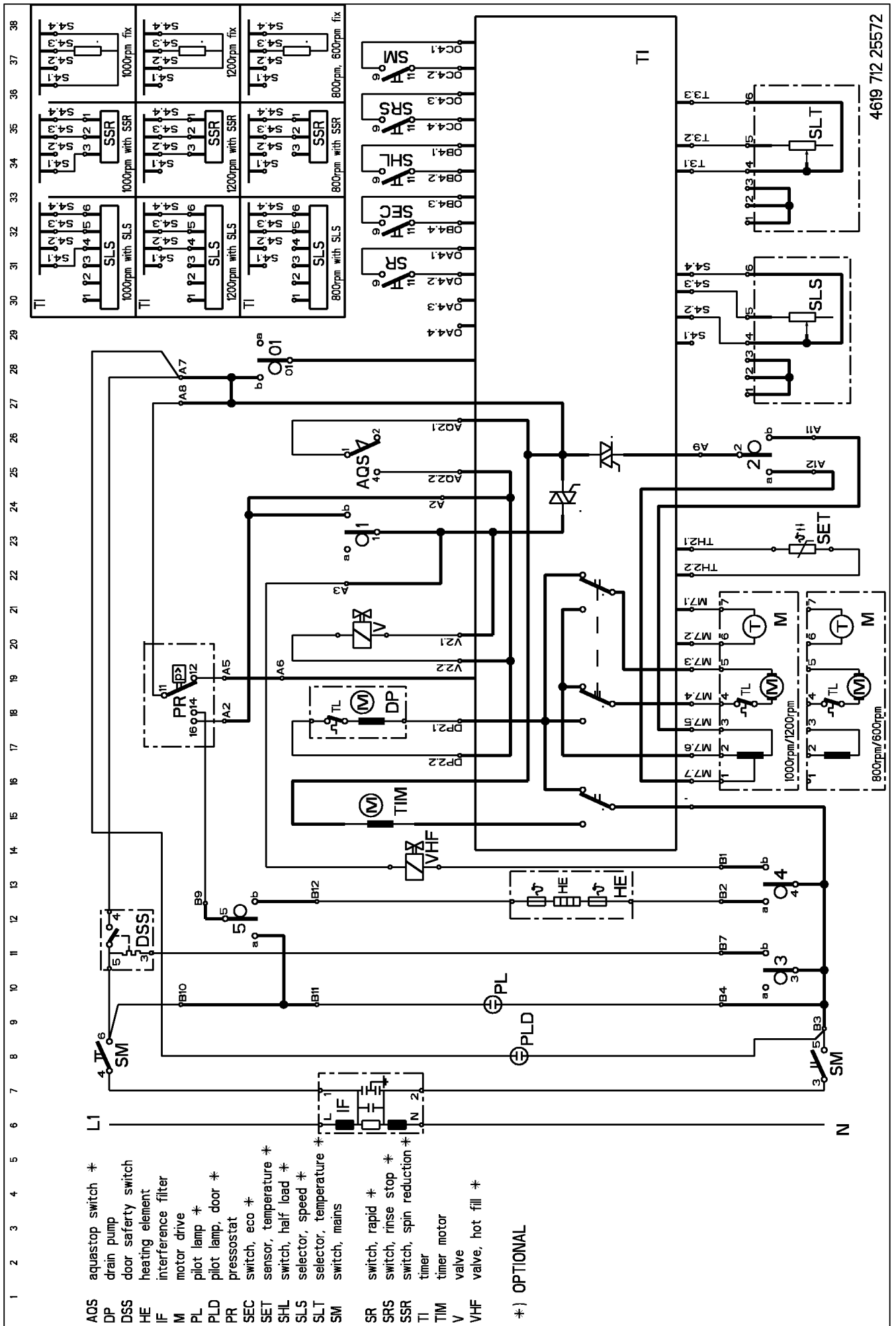


### Wiring diagram

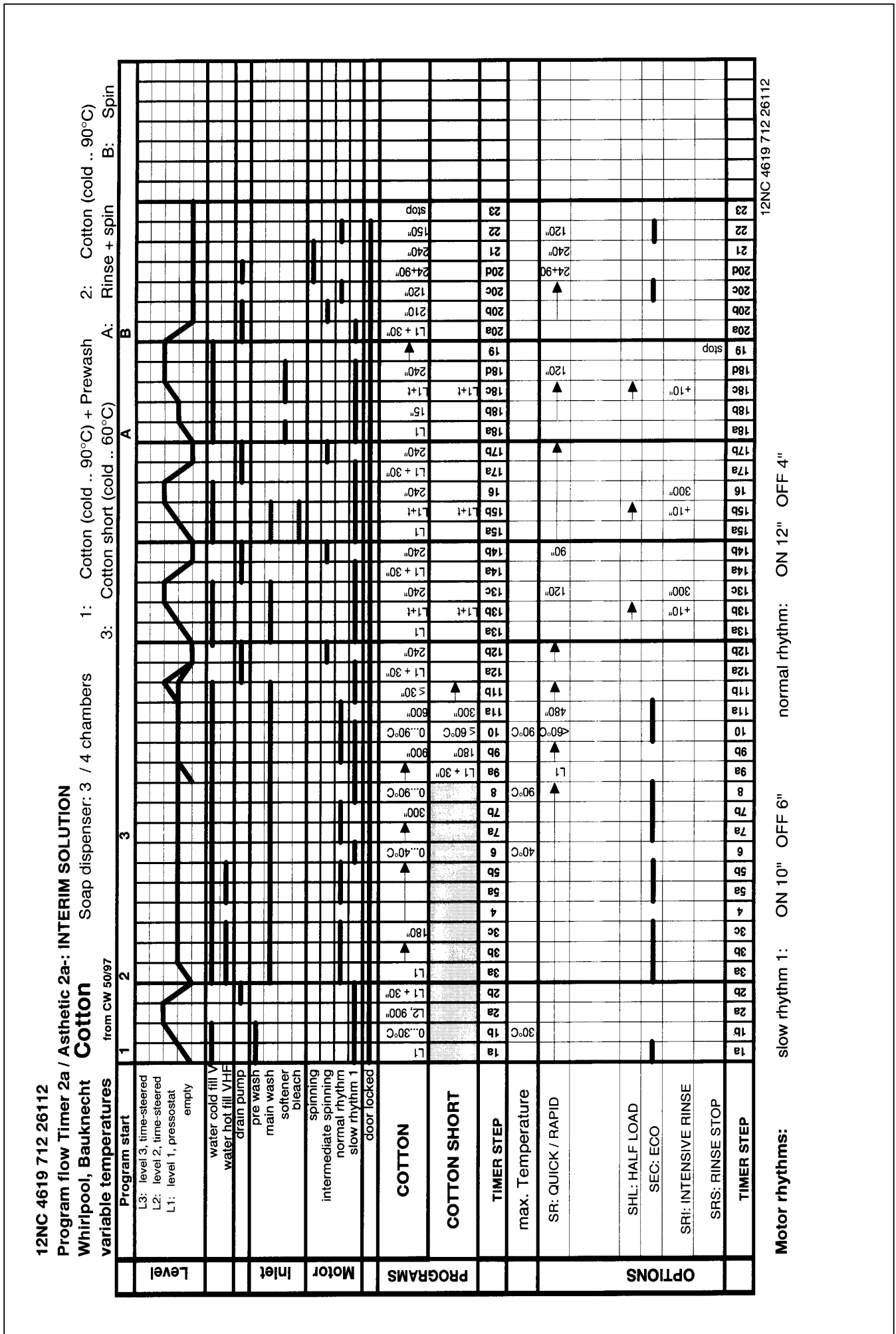




## Circuit diagram



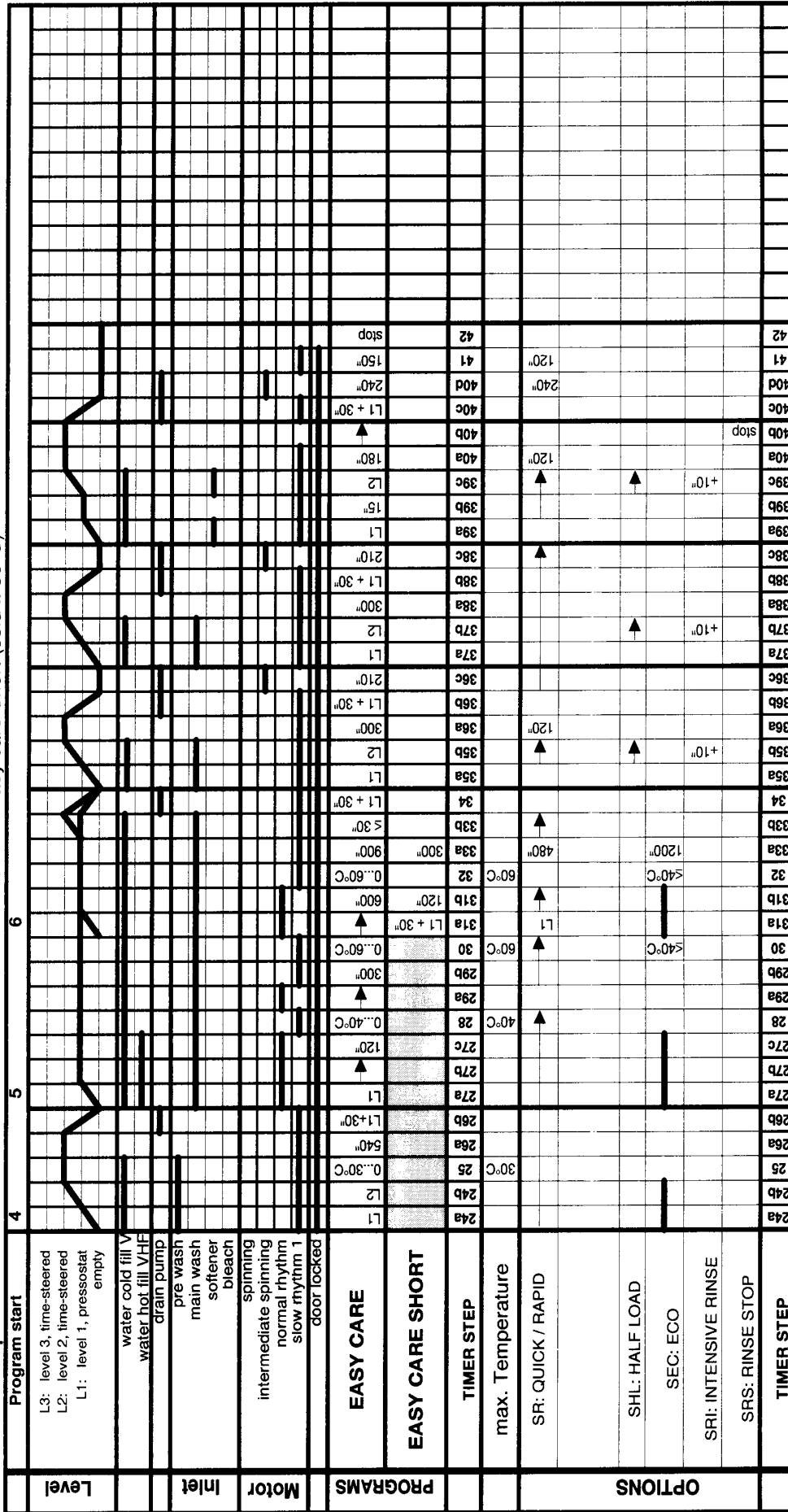
**Program diagram**



**Program diagram**

12NC 4619 712 26112  
Program flow Timer 2a / Asthetic 2a-: INTERIM SOLUTION  
Whirlpool, Bauknecht  
**Easy Care**  
variable temperatures

4: Easy care (cold .. 60°C) + Prewash  
6: Easy care Short (cold .. 50°C)  
5: Easy care (cold .. 60°C)



**Motor rhythms:** normal rhythm: ON 12" OFF 4" slow rhythm 1: ON 10" OFF 6"

**Program diagram**

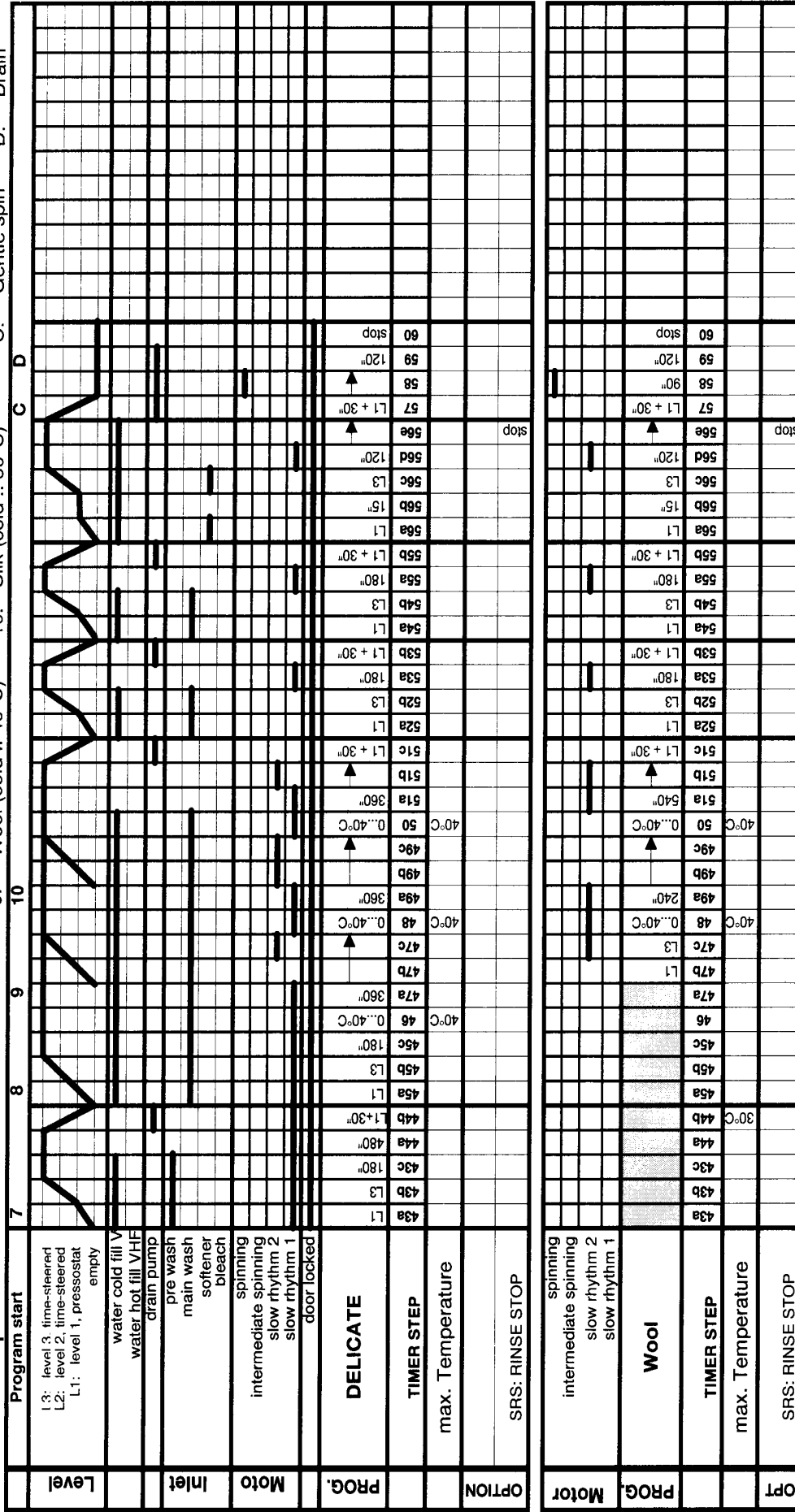
12NC 4619 712 26112

Program flow Timer 2a / Asthetic 2a-: INTERIM SOLUTION

Whirlpool, Bauknecht **Delicate / Wool**

variable temperatures

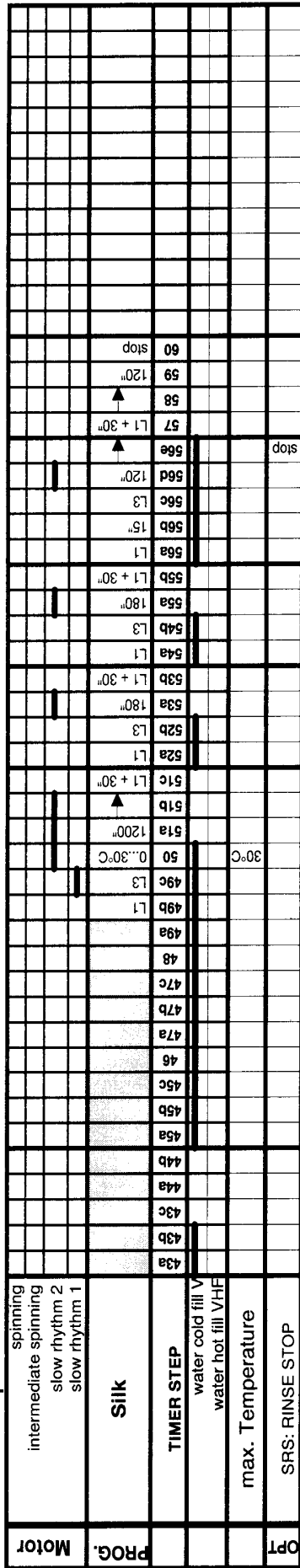
7: Delicate (cold .. 40°C) + Prewash  
8: Delicate (cold .. 40°C)  
9: Wool (cold .. 40°C)  
10: Silk (cold .. 30°C)  
C: Gentle spin  
D: Drain



Motor rhythms: normal rhythm: ON 12" OFF 4" slow rhythm 1: ON 10" OFF 6" slow rhythm 2: ON 2.5" OFF 13.5"

**Program diagram**

12NC 4619 712 26112  
Program flow Timer 2a / Asthetic 2a-: INTERIM SOLUTION  
Whirlpool, Bauknecht **Silk**  
variable temperatures



**Motor rhythms:** normal rhythm: ON 12" OFF 4"      slow rhythm 1: ON 10" OFF 6"      slow rhythm 2: ON 2.5" OFF 13.5"

**Text/Legend**

## Test flow timer 2a type EC 4477

factory code on timer lable: 4619 710 15354 (mask 4)  
 4619 710 15355 (mask 5)

- 1. Select program                      drain  
    temperature max.  
    spin speed max.  
    main switch ON
  
- 2. Start test program                      push pre wash or rinse hold button 4 times                      <5sec  
    timer goes to step 1
  
- 3. Go to the next step                      push pre wash button 2 times  
    or push a other option button 2 times,  
    see test flow (next step)
  
- If failure occurs                              valve off; pump off; for 30' motor right 4"  
    break 3" right 4"; motor off

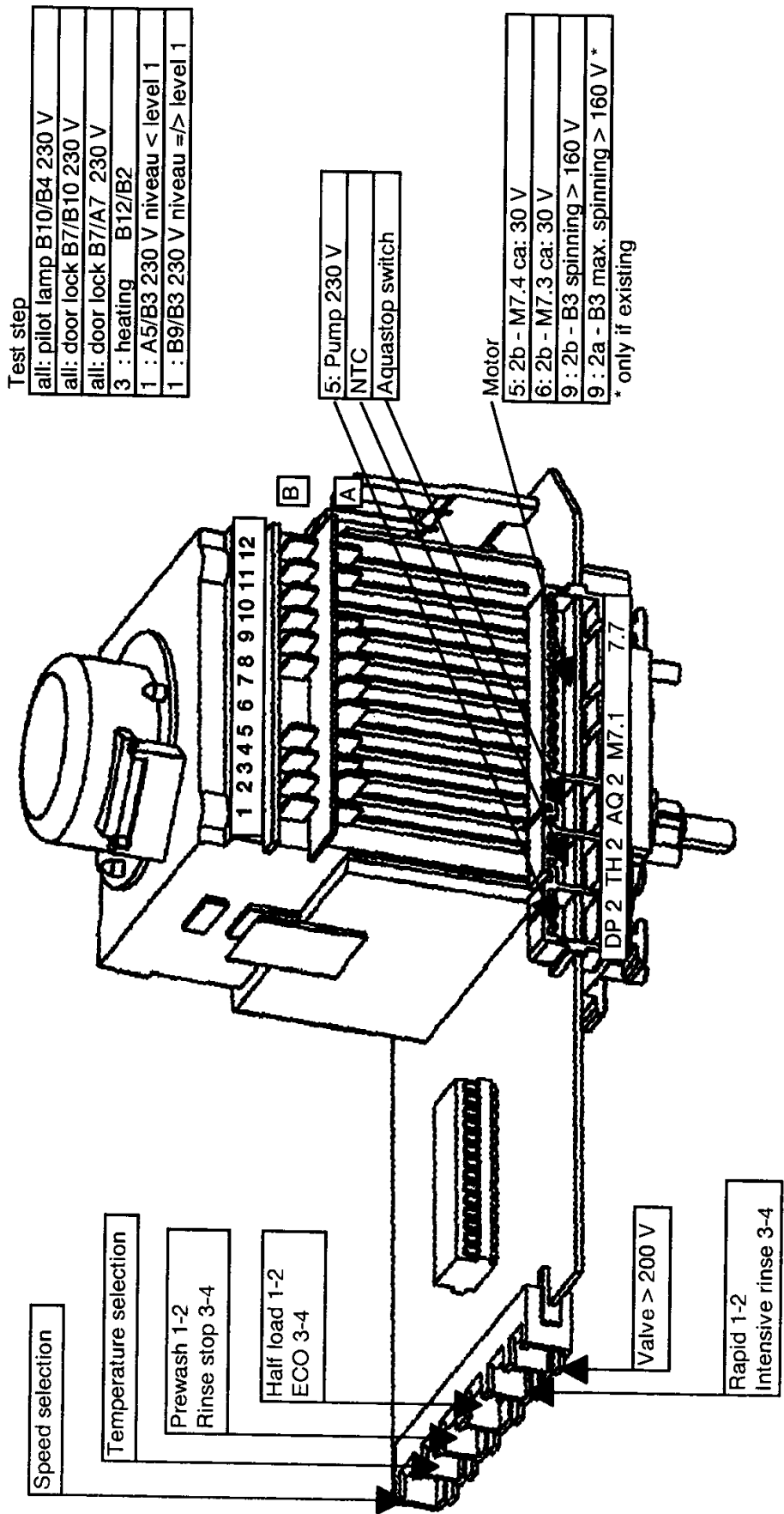
**Attention: Use the test program only without laundry!**

step	function	duration	checked	next step with button/selector
1. step	fill,pre wash	level 1		prewash/rinse hold/intens.rinse
2. step	fill,main wash	level1+30"	hot fill	pre wash/rinse hold
3. step	fill,main wash heat up (Ng)	level 1 90° / 55'	motor motor,NTC	pre wash/rinse hold/half load pre wash/rinse hold/half load/ temp. selector off/on
4.step	Sg1		motor	pre wash/rinse hold/half load
5. step	pump, drum rev.right	level 1+30"	motor	pre wash/eco
6.step	fill,bleach * drum rev.left	level1+30"	motor	prewash/rinse hold/rapid
7. step	fill,softening	level1+30"		rinse hold
8. step	pump	level1+30"		
9. step	pump/spin tapped field	~30 sec. 270 sec.	motor motor	speed selector off/on pre wash/rinse hold/ speed selector off/on
10. step		endless		

6. step \* :    If 3 compartments, main wash  
    If 4 compartments, bleach

Text/Legend

**Timer 2a EC 4477 mask 4 + mask 5**



EC 4477 M5