



Service Manual

Washing machine

Frontloader

AWM 250/3

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Technical data**Dimensions**

Height	85.0	cm
Width	59.5	cm
Depth	55.0	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. 1200	rpm

Capacity of dry laundry

Cotton/coloured laundry	5.0	kg
Cotton rapid	3.0	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	14.0	l
Wool	16.5	l
Overflow	30.0	l

Quantity of water rinse

Cotton/coloured laundry	12.0	l
Easy care	11.5	l
Delicate	15.0	l
Wool	17.0	l
Overflow	30.0	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

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

Technical data

Drain pump (synchronous)

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

Program timer

Type	Hybridtimer with integrated electronic	
Fab.	EC 4477 (Timer 2 a mask5)	
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 52/64 - 148 t.f./WHE0 i = 1 : 13.1
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Resistance contacts			
6 - 7	68.70	$\Omega \pm 7\%$	
4 - 5	2.15	$\Omega \pm 7\%$	
2 - 3	1.46	$\Omega \pm 7\%$	
1 - 3	0.65	$\Omega \pm 7\%$	

Radio interference supression

Type	Friburg FA 26
Nominal voltage	230 V
Nominal capacity	470nFX1+2x22nFY
Nominal inductances	2 x 1 mH
Nominal resistance	680 k Ω

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 k $\Omega \pm 5\%$
	pos.3 1.10 k $\Omega \pm 5\%$
	pos.4 1.80 k $\Omega \pm 5\%$
	pos.5 2.70 k $\Omega \pm 5\%$
	pos.6 3.60 k $\Omega \pm 5\%$
	pos.7 4.70 k $\Omega \pm 5\%$

Push botton switch

Start stop	SM
1/2 load	SHL
Eco	SEC
Pre wash	SPW
Rapid	SR

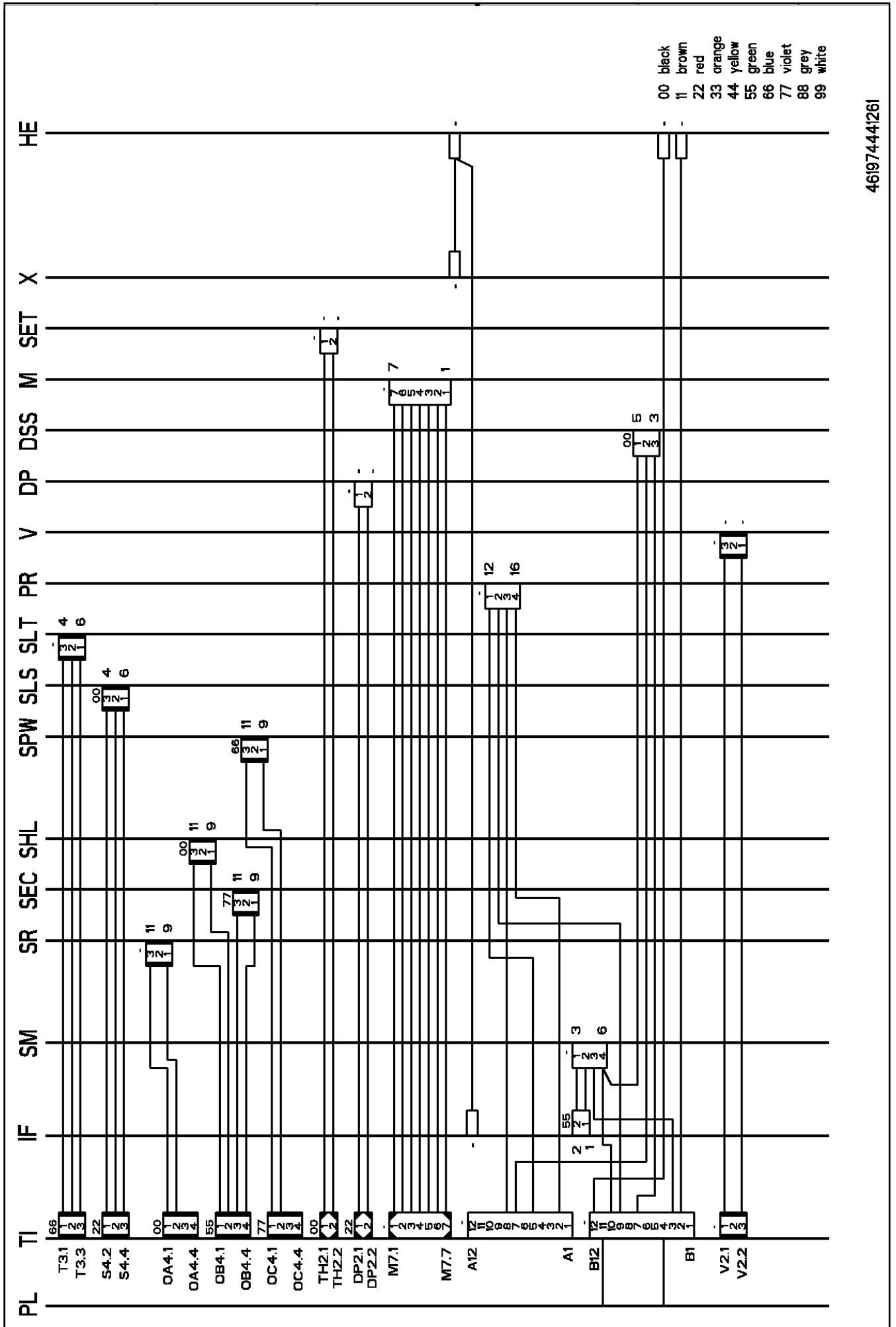
Spare part list

Model AWM 250/3
Service No. 857025010010
Version 857025010010

Pos. No.	12NC Code	Description
001 0	4819 440 19716	Cabinet
011 0	4819 462 48472	Foot
021 0	4819 440 19715	Front
021 1	4812 440 19343	Flap
024 0	4812 440 18998	Panel, rear
025 0	4812 440 19345	Holder Contr. Device
030 0	4812 310 18396	Cover plate
040 0	4812 417 18787	Hinge
053 0	4819 440 19714	Plinth
053 1	4812 459 38013	Flap Plinth
061 0	4812 466 88458	Counter weight upper
061 1	4812 466 88459	Counter weight front
080 0	4812 529 18036	Shock absorber 600-1200
084 0	4812 466 58001	Silent bloc
086 2	4812 401 18412	Stopper
110 0	4812 498 18139	Handle,door white
130 0	4812 417 28046	Lock Door
130 1	4812 417 28045	Pin Door Lock
131 0	4812 417 28047	Plate Door lock
131 1	4812 417 28048	Plate Doorlock Lower
141 0	4812 450 68219	Door glass
143 0	4819 532 28286	Glassdoor frame
144 0	4812 459 28043	Frame,door glas
144 1	4812 498 18137	Knob Door safety
144 2	4812 492 58023	Spring Door Safety
144 3	4812 290 68153	Holder,adjust. Door Safety
190 0	4812 460 68527	Door bellow
190 1	4812 492 18017	Strap
190 2	4819 530 58059	Ring
200 1	4819 418 18313	Tub, half front
200 2	4819 418 18352	Tub
200 3	4812 520 18065	Hub 1200,48L
200 4	4812 290 88054	Clamp for tub WH
220 0	4812 418 18191	Drum 1200 0,5MM
271 0	4812 358 18056	V-ribbed belt WH 1250 J5
272 0	4812 528 58027	Pulley DIAM.298
292 0	4812 530 58101	Gasket Tub
301 0	4812 452 19246	Control panel
303 0	4812 498 18147	Handle, drawer WH-HIGH
322 0	4819 459 19574	Insert
331 0	4812 413 48272	Knob,timer WH-REFRESH
331 1	4812 413 18198	Adapter Button
332 0	4812 410 28562	Push button
335 0	4819 412 58742	Knob thermostat
337 0	4819 412 58762	Knob,potentiom.
341 0	4819 413 79239	Indication disc
354 1	4812 134 48221	Lamp On/Off
401 0	4812 361 58094	Motor 1200-MCA52/WHEO
401 1	4812 362 48004	Brush,carbon motor CESET
421 0	4812 121 18142	Interf.filter 1,00 µ F
430 0	4812 360 18362	Pump
451 0	4812 259 28662	Heating element
490 0	4819 321 18136	Cable,mains 2m
490 1	4812 321 28367	Strain relief
504 0	4819 310 39725	Timer KIT 4477-MASK.5
511 0	4812 413 48279	Switch,rotary BK,WH VAR.SUPPL.
571 0	4812 271 28375	Valve,magnet Single
581 0	4812 271 28379	Pressostat single EATON
620 1	4819 410 28998	Switch options
621 0	4819 410 29004	Switch ON/OFF

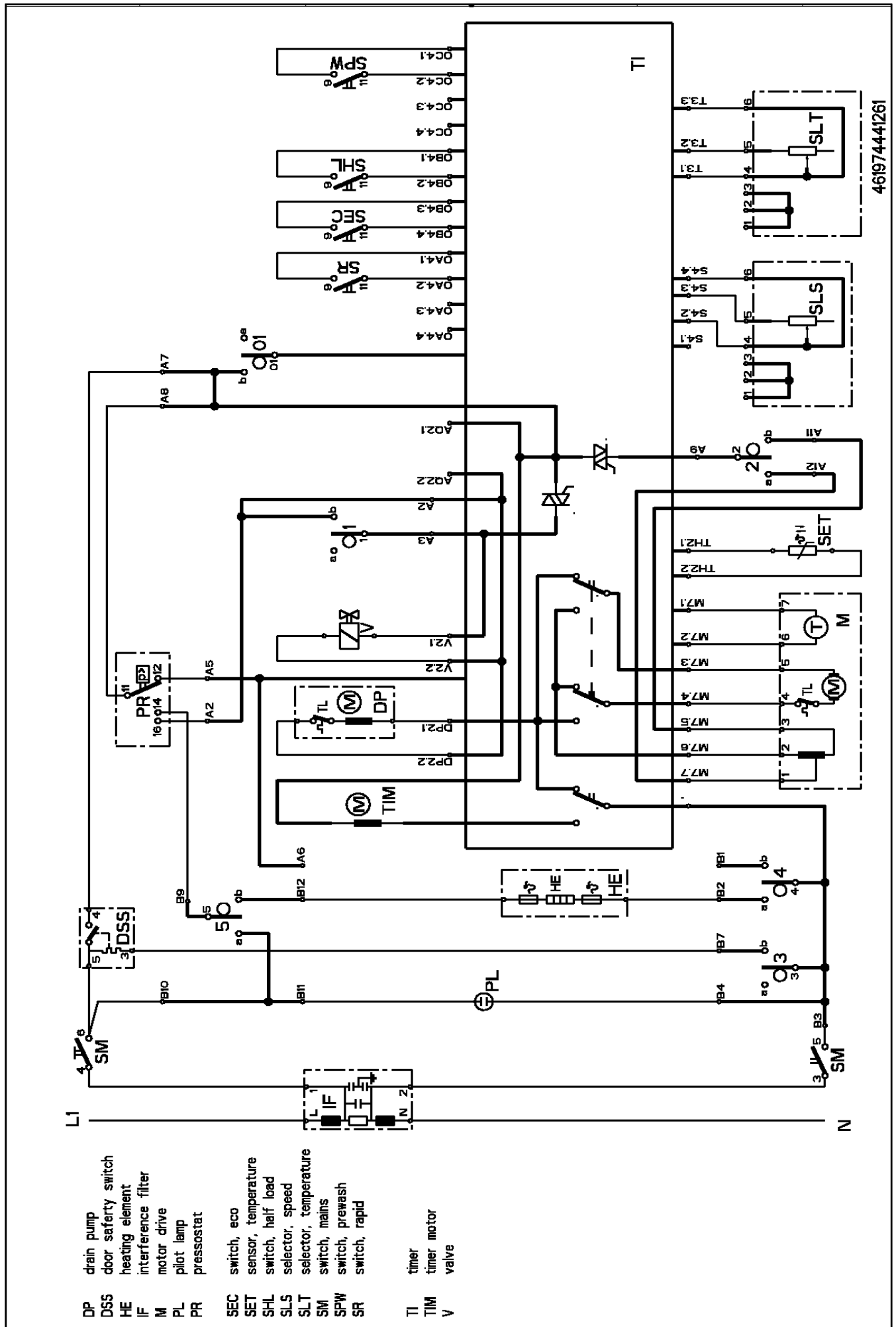
Pos. No.	12NC Code	Description
630 0	4812 280 58019	Door lock
701 0	4819 530 28848	Hose, inlet
701 1	4819 466 69704	Gasket and filter
702 0	4819 530 29019	Hose intern
707 0	4812 526 48031	Nozzle Distribution
707 1	4812 526 48028	Nozzle
708 1	4812 530 48143	Bend
711 0	4812 418 88026	Dispenser WH-4CH
712 0	4812 418 78047	Drawer
713 0	4812 418 88028	Flap Detergent Cont.
717 0	4819 321 28092	Bowden cable
717 1	4812 321 38013	Lever , nozzle
717 2	4812 321 38012	Holder,adjust.
717 3	4812 278 88007	Slide
717 5	4812 413 18197	Cam 2A
718 0	4812 526 48032	Siphon
718 1	4812 418 88024	Accessory
753 1	4819 418 68234	Chamber,air
754 0	4812 530 28826	Drainhose
754 1	4812 530 28832	Lock eco
754 2	4812 530 28829	Flange eco
760 0	4812 480 58085	Filter SET PUMP
781 0	4812 530 28831	Hose,draining
783 0	4812 530 28827	Hose Pressostat
786 0	4812 530 28812	Hose Draining
786 1	4812 462 78179	Threaded cap
787 0	4812 530 28813	Hose
794 5	4812 530 58095	Gasket Air trap
901 0	4819 401 18529	Clamp,hose
901 2	4819 401 18868	Clamp,hose
901 3	4812 401 18414	Clamp,hose
902 0	4812 290 88049	Bracket
902 1	4812 255 18204	Holder Hose outlet
903 0	4812 255 18205	Holder Pressostat
903 5	4812 290 88048	Cable clamp
903 7	4819 401 18823	Clamp
903 9	4812 290 88046	Cable clamp
910 0	4812 502 18383	Screw Torx T40 M 8X 25
910 1	4812 505 18368	Nut M10
911 7	4812 903 08014	Screw M5x12
923 0	4812 532 18024	Washer
931 0	4819 492 38139	Spring Suspension
932 3	4812 492 58022	Spring Door Lock
932 5	4812 492 38359	Spring , Nozzle
941 0	4812 520 28004	Bearing,ball 6206
941 1	4812 520 28066	Bearing,ball 6204
941 5	4812 520 18067	Hub Bearing
953 0	4812 530 58099	Shaft seal 1200
953 1	4812 530 58096	O-Ring Bearing
961 0	4812 321 48004	Cover
990 0	4819 310 39227	Mounting kit Weight top
990 1	4819 310 39228	Mounting kit Weight bottom
993 0	4812 530 48149	Bow
993 2	4812 268 18016	Lever,security
993 3	4812 395 58004	Tool

Wiring diagram

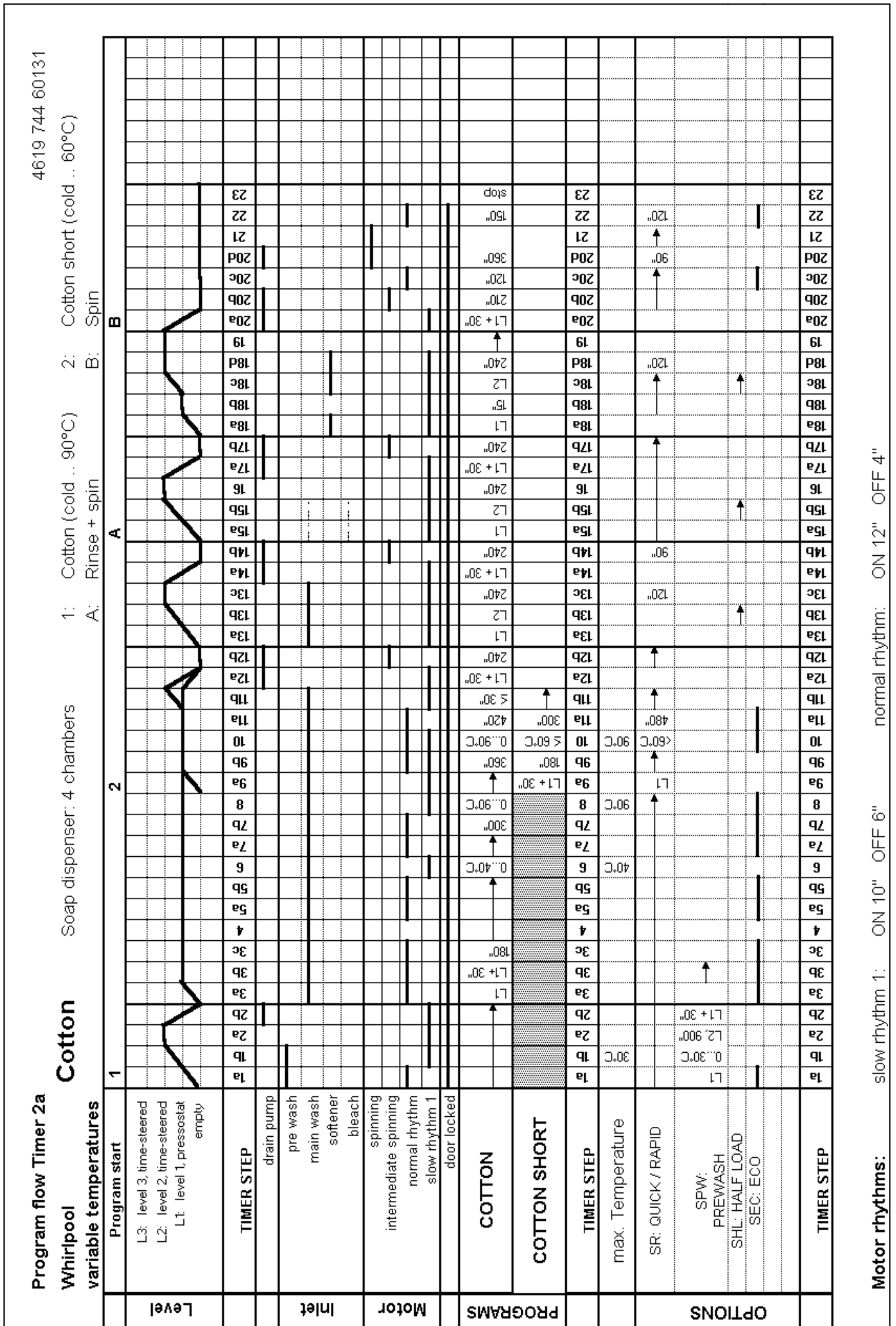


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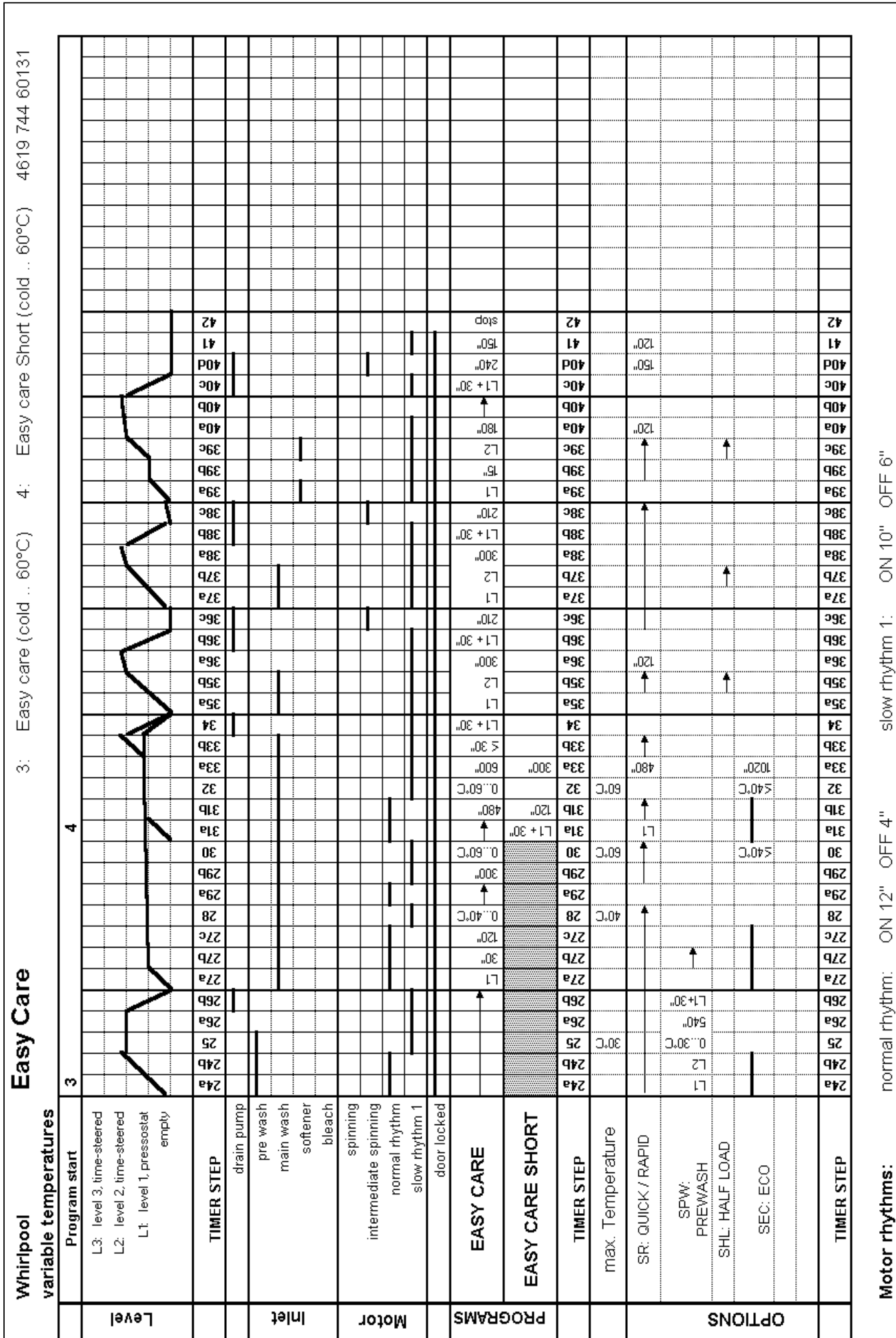
Circuit diagram



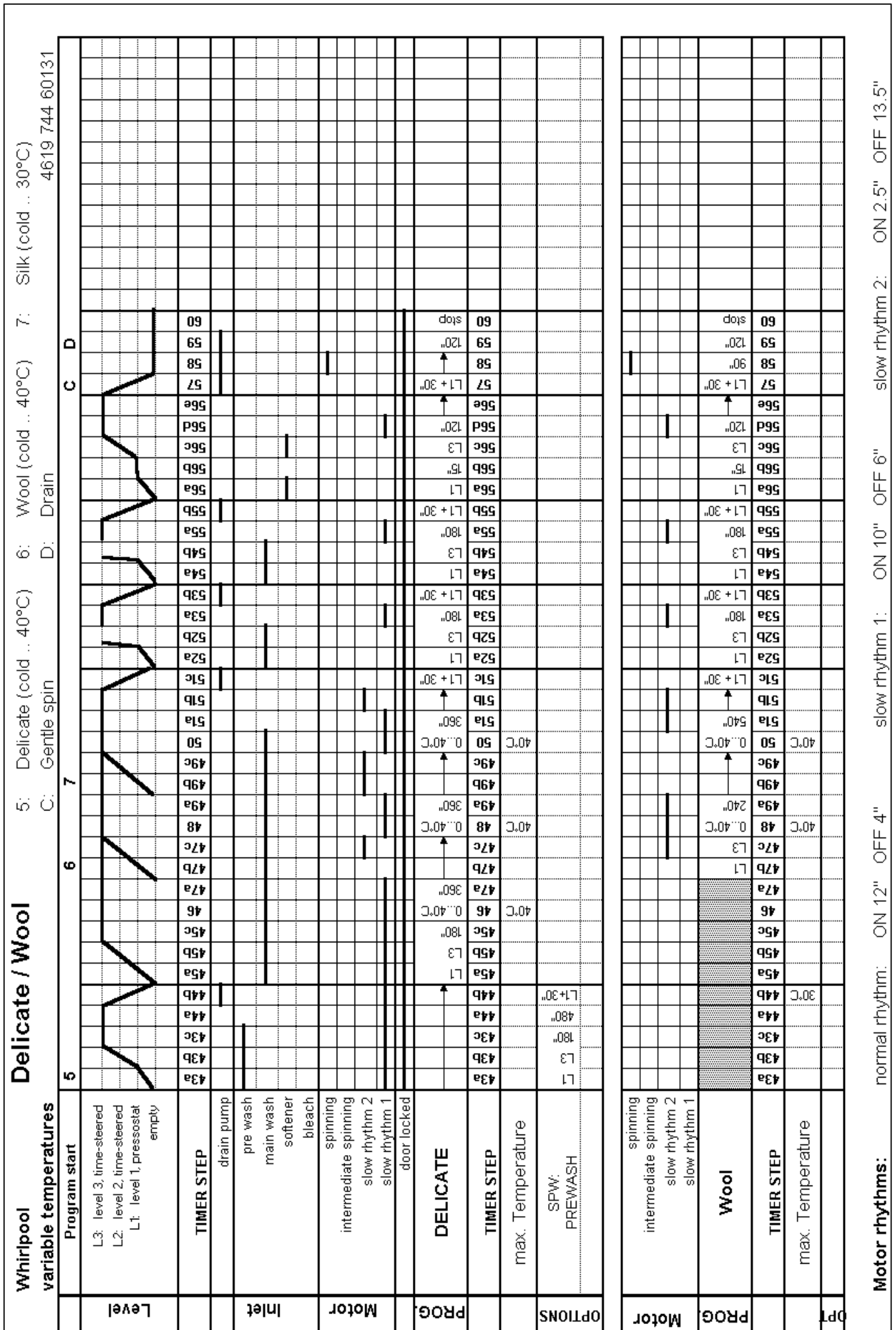
Program diagram



Program diagram



Program diagram



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

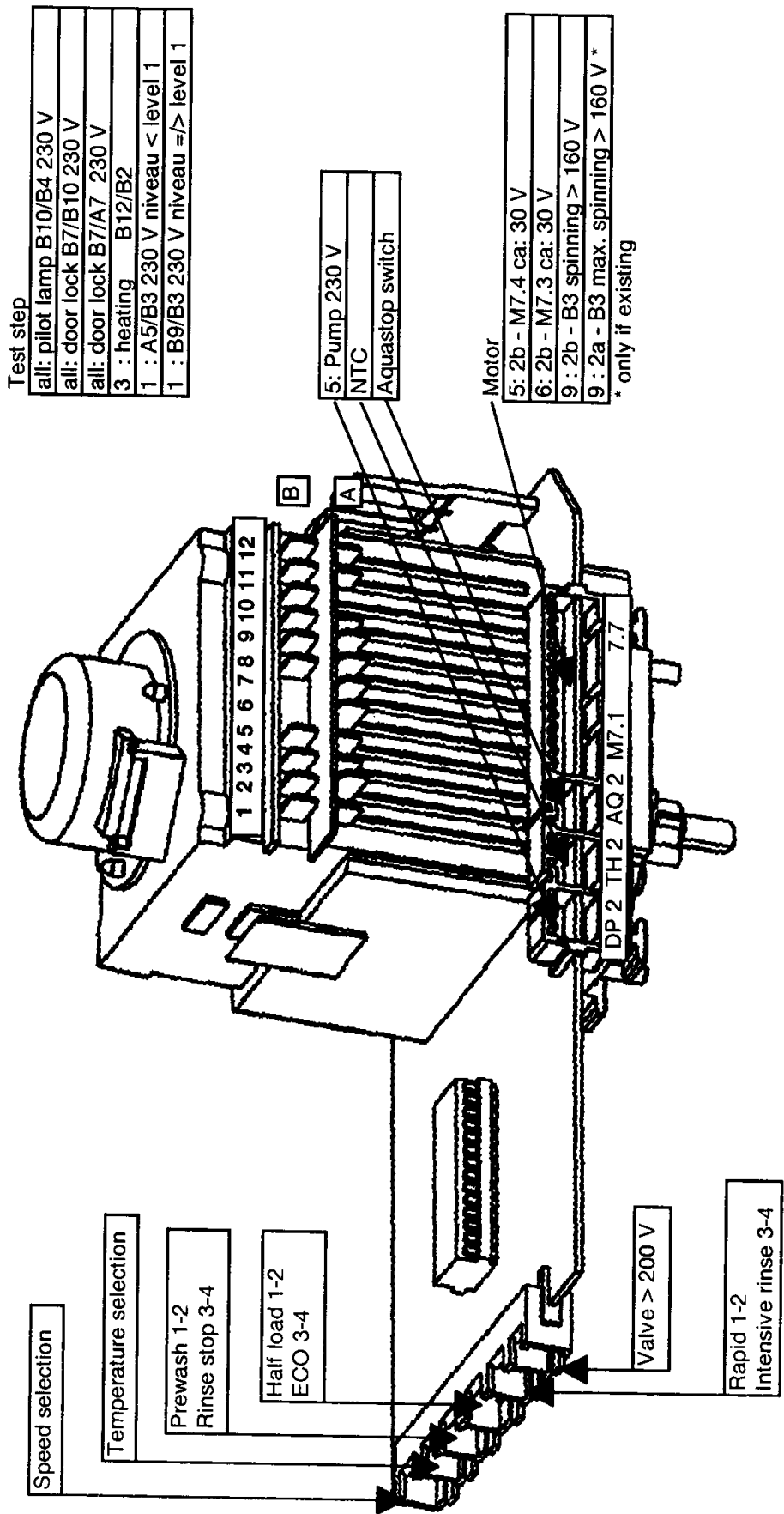
Attention: Use the test program only without laundry!

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