

# Service Manual

Washing machine

Frontloader

AWM 250/3

<b>Model Version</b>		<b>Page</b>
AWM 250/3 8570 250 10010		
	Technical data	2 - 3
	Spare part list	4
	Exploded view	5 - 6
	Wiring diagram	7
	Circuit diagram	8
	Program diagram	9 - 12
	Text/Legend	13 - 14
	Family	2 a

This documentation is only intended for qualified technicians who are aware of the respective safety regulations.

Date: 17.08.1998

Document-No.: 4812 712 13517

Subject to modification

**Technical data****Dimensions**

Height	85.0	cm
Width	59.5	cm
Depth	55.0	cm

**Weight**

Without packing	75	kg
-----------------	----	----

**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

Contacts system:	
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	$\Omega$
Resistance NTC:		
	0°C	35.9 k $\Omega$
	30°C	9.8 k $\Omega$
	40°C	6.6 k $\Omega$
	50°C	4.6 k $\Omega$
	60°C	3.2 k $\Omega$
	70°C	2.3 k $\Omega$
	95°C	1.1 k $\Omega$

**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	$\Omega$

## 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. $\pm 2$

### 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
------	---

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 $\Omega$

### 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 $\Omega$
	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

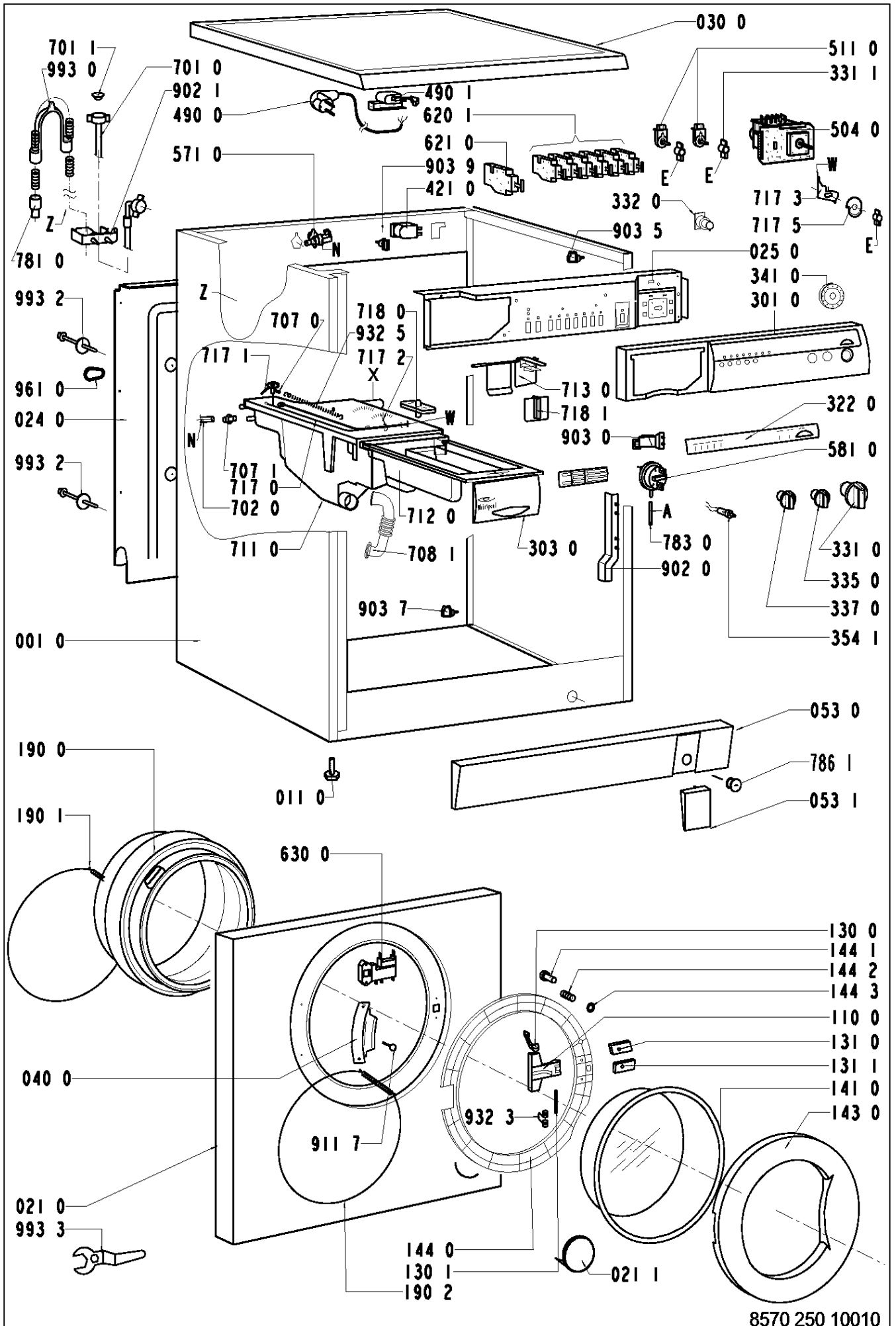
Start stop	SM
1/2 load	SHL
Eco	SEC
Pre wash	SPW
Rapid	SR

**Spare part list**

**Model** AWM 250/3  
**Service No.** 857025010010  
**Version** 857025010010

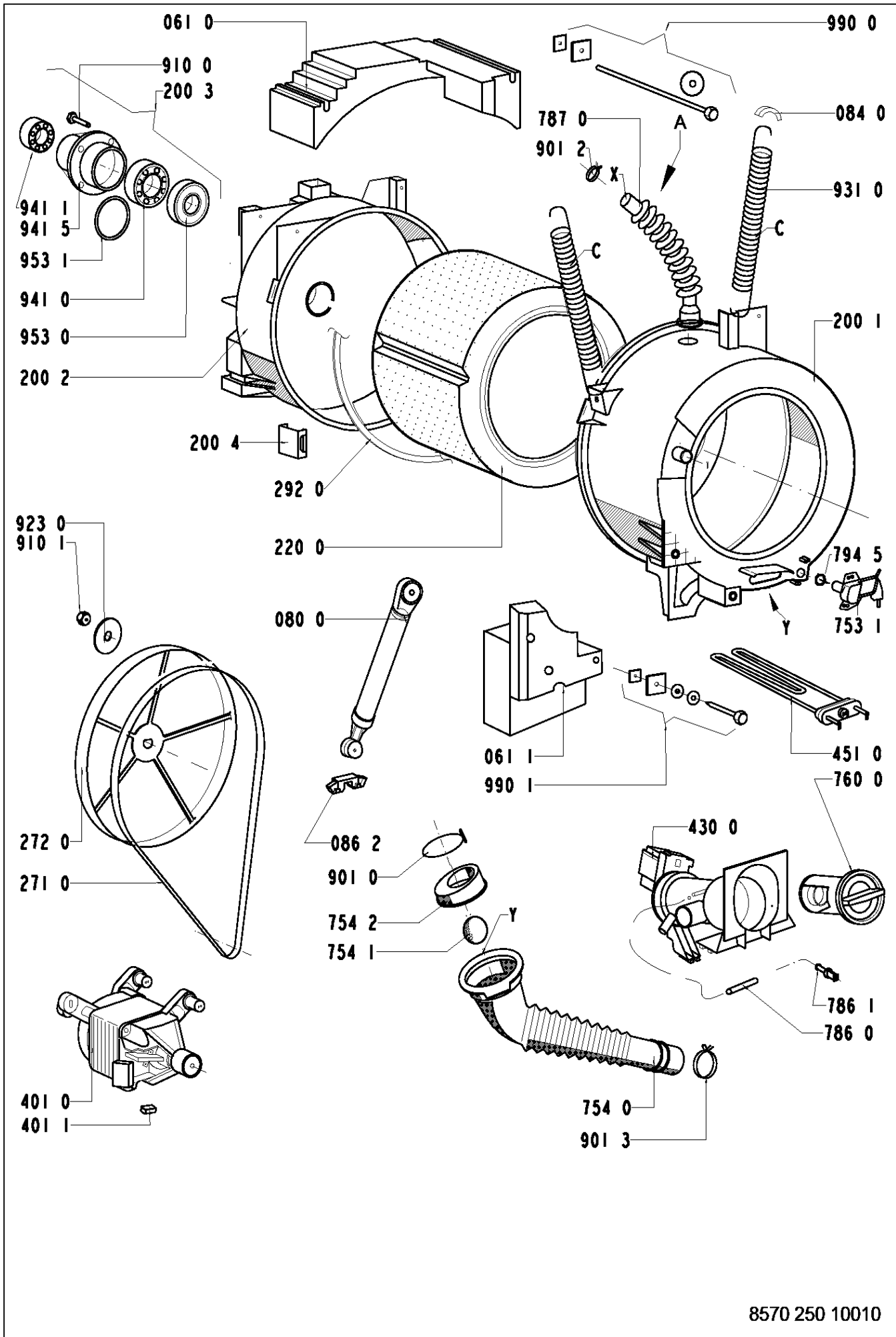
Pos. No.	12NC Code	Description	Pos. No.	12NC Code	Description
001 0	<b>4819 440 19716</b>	Cabinet	630 0	<b>4812 280 58019</b>	Door lock
011 0	<b>4819 462 48472</b>	Foot	701 0	<b>4819 530 28848</b>	Hose, inlet
021 0	<b>4819 440 19715</b>	Front	701 1	<b>4819 466 69704</b>	Gasket and filter
021 1	<b>4812 440 19343</b>	Flap	702 0	<b>4819 530 29019</b>	Hose intern
024 0	<b>4812 440 18998</b>	Panel, rear	707 0	<b>4812 526 48031</b>	Nozzle Distribution
025 0	<b>4812 440 19345</b>	Holder Contr. Device	707 1	<b>4812 526 48028</b>	Nozzle
030 0	<b>4812 310 18396</b>	Cover plate	708 1	<b>4812 530 48143</b>	Bend
040 0	<b>4812 417 18787</b>	Hinge	711 0	<b>4812 418 88026</b>	Dispenser WH-4CH
053 0	<b>4819 440 19714</b>	Plinth	712 0	<b>4812 418 78047</b>	Drawer
053 1	<b>4812 459 38013</b>	Flap Plinth	713 0	<b>4812 418 88028</b>	Flap Detergent Cont.
061 0	<b>4812 466 88458</b>	Counter weight upper	717 0	<b>4819 321 28092</b>	Bowden cable
061 1	<b>4812 466 88459</b>	Counter weight front	717 1	<b>4812 321 38013</b>	Lever , nozzle
080 0	<b>4812 529 18036</b>	Shock absorber 600-1200	717 2	<b>4812 321 38012</b>	Holder,adjust.
084 0	<b>4812 466 58001</b>	Silent bloc	717 3	<b>4812 278 88007</b>	Slide
086 2	<b>4812 401 18412</b>	Stopper	717 5	<b>4812 413 18197</b>	Cam 2A
110 0	<b>4812 498 18139</b>	Handle,door white	718 0	<b>4812 526 48032</b>	Siphon
130 0	<b>4812 417 28046</b>	Lock Door	718 1	<b>4812 418 88024</b>	Accessory
130 1	<b>4812 417 28045</b>	Pin Door Lock	753 1	<b>4819 418 68234</b>	Chamber,air
131 0	<b>4812 417 28047</b>	Plate Door lock	754 0	<b>4812 530 28826</b>	Drainhose
131 1	<b>4812 417 28048</b>	Plate Doorlock Lower	754 1	<b>4812 530 28832</b>	Lock eco
141 0	<b>4812 450 68219</b>	Door glass	754 2	<b>4812 530 28829</b>	Flange eco
143 0	<b>4819 532 28286</b>	Glassdoor frame	760 0	<b>4812 480 58085</b>	Filter SET PUMP
144 0	<b>4812 459 28043</b>	Frame,door glas	781 0	<b>4812 530 28831</b>	Hose,draining
144 1	<b>4812 498 18137</b>	Knob Door safety	783 0	<b>4812 530 28827</b>	Hose Pressostat
144 2	<b>4812 492 58023</b>	Spring Door Safety	786 0	<b>4812 530 28812</b>	Hose Draining
144 3	<b>4812 290 68153</b>	Holder,adjust. Door Safety	786 1	<b>4812 462 78179</b>	Threaded cap
190 0	<b>4812 460 68527</b>	Door bellow	787 0	<b>4812 530 28813</b>	Hose
190 1	<b>4812 492 18017</b>	Strap	794 5	<b>4812 530 58095</b>	Gasket Air trap
190 2	<b>4819 530 58059</b>	Ring	901 0	<b>4819 401 18529</b>	Clamp,hose
200 1	<b>4819 418 18313</b>	Tub, half front	901 2	<b>4819 401 18868</b>	Clamp,hose
200 2	<b>4819 418 18352</b>	Tub	901 3	<b>4812 401 18414</b>	Clamp,hose
200 3	<b>4812 520 18065</b>	Hub 1200,48L	902 0	<b>4812 290 88049</b>	Bracket
200 4	<b>4812 290 88054</b>	Clamp for tub WH	902 1	<b>4812 255 18204</b>	Holder Hose outlet
220 0	<b>4812 418 18191</b>	Drum 1200 0,5MM	903 0	<b>4812 255 18205</b>	Holder Pressostat
271 0	<b>4812 358 18056</b>	V-ribbed belt WH 1250 J5	903 5	<b>4812 290 88048</b>	Cable clamp
272 0	<b>4812 528 58027</b>	Pulley DIAM.298	903 7	<b>4819 401 18823</b>	Clamp
292 0	<b>4812 530 58101</b>	Gasket Tub	903 9	<b>4812 290 88046</b>	Cable clamp
301 0	<b>4812 452 19246</b>	Control panel	910 0	<b>4812 502 18383</b>	Screw Torx T40 M 8X 25
303 0	<b>4812 498 18147</b>	Handle, drawer WH-HIGH	910 1	<b>4812 505 18368</b>	Nut M10
322 0	<b>4819 459 19574</b>	Insert	911 7	<b>4812 903 08014</b>	Screw M5x12
331 0	<b>4812 413 48272</b>	Knob,timer WH-REFRESH	923 0	<b>4812 532 18024</b>	Washer
331 1	<b>4812 413 18198</b>	Adapter Button	931 0	<b>4819 492 38139</b>	Spring Suspension
332 0	<b>4812 410 28562</b>	Push button	932 3	<b>4812 492 58022</b>	Spring Door Lock
335 0	<b>4819 412 58742</b>	Knob thermostat	932 5	<b>4812 492 38359</b>	Spring , Nozzle
337 0	<b>4819 412 58762</b>	Knob,potentiom.	941 0	<b>4812 520 28004</b>	Bearing,ball 6206
341 0	<b>4819 413 79239</b>	Indication disc	941 1	<b>4812 520 28066</b>	Bearing,ball 6204
354 1	<b>4812 134 48221</b>	Lamp On/Off	941 5	<b>4812 520 18067</b>	Hub Bearing
401 0	<b>4812 361 58094</b>	Motor 1200-MCA52/WHEO	953 0	<b>4812 530 58099</b>	Shaft seal 1200
401 1	<b>4812 362 48004</b>	Brush,carbon motor CESET	953 1	<b>4812 530 58096</b>	O-Ring Bearing
421 0	<b>4812 121 18142</b>	Interf.filter 1,00 µ F	961 0	<b>4812 321 48004</b>	Cover
430 0	<b>4812 360 18362</b>	Pump	990 0	<b>4819 310 39227</b>	Mounting kit Weight top
451 0	<b>4812 259 28662</b>	Heating element	990 1	<b>4819 310 39228</b>	Mounting kit Weight bottom
490 0	<b>4819 321 18136</b>	Cable,mains 2m	993 0	<b>4812 530 48149</b>	Bow
490 1	<b>4812 321 28367</b>	Strain relief	993 2	<b>4812 268 18016</b>	Lever,security
504 0	<b>4819 310 39725</b>	Timer KIT 4477-MASK.5	993 3	<b>4812 395 58004</b>	Tool
511 0	<b>4812 413 48279</b>	Switch,rotary BK,WH VAR.SUPPL.			
571 0	<b>4812 271 28375</b>	Valve,magnet Single			
581 0	<b>4812 271 28379</b>	Pressostat single EATON			
620 1	<b>4819 410 28998</b>	Switch options			
621 0	<b>4819 410 29004</b>	Switch ON/OFF			

## Exploded view

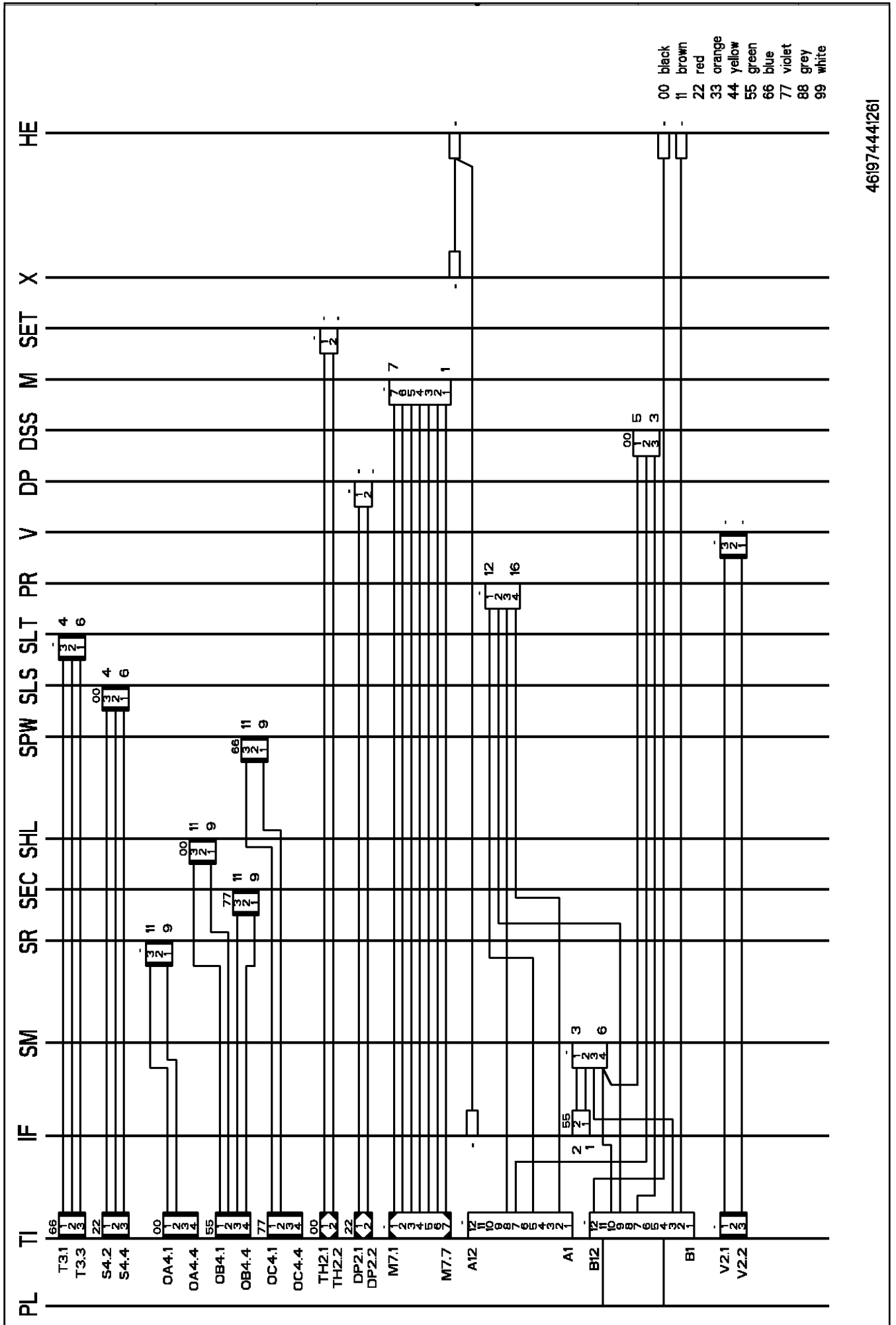


8570 250 10010

**Exploded view**

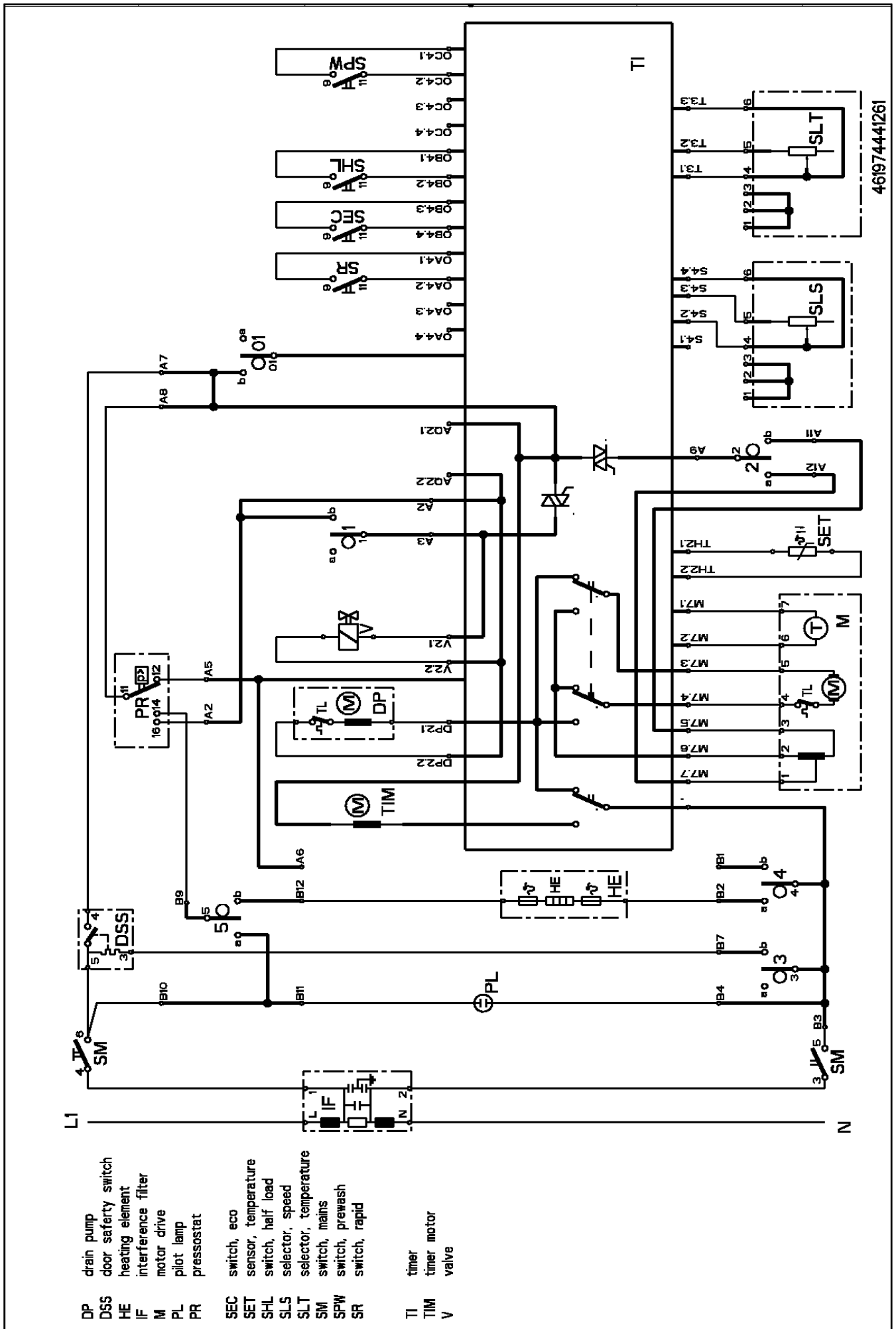


## Wiring diagram



461974441261

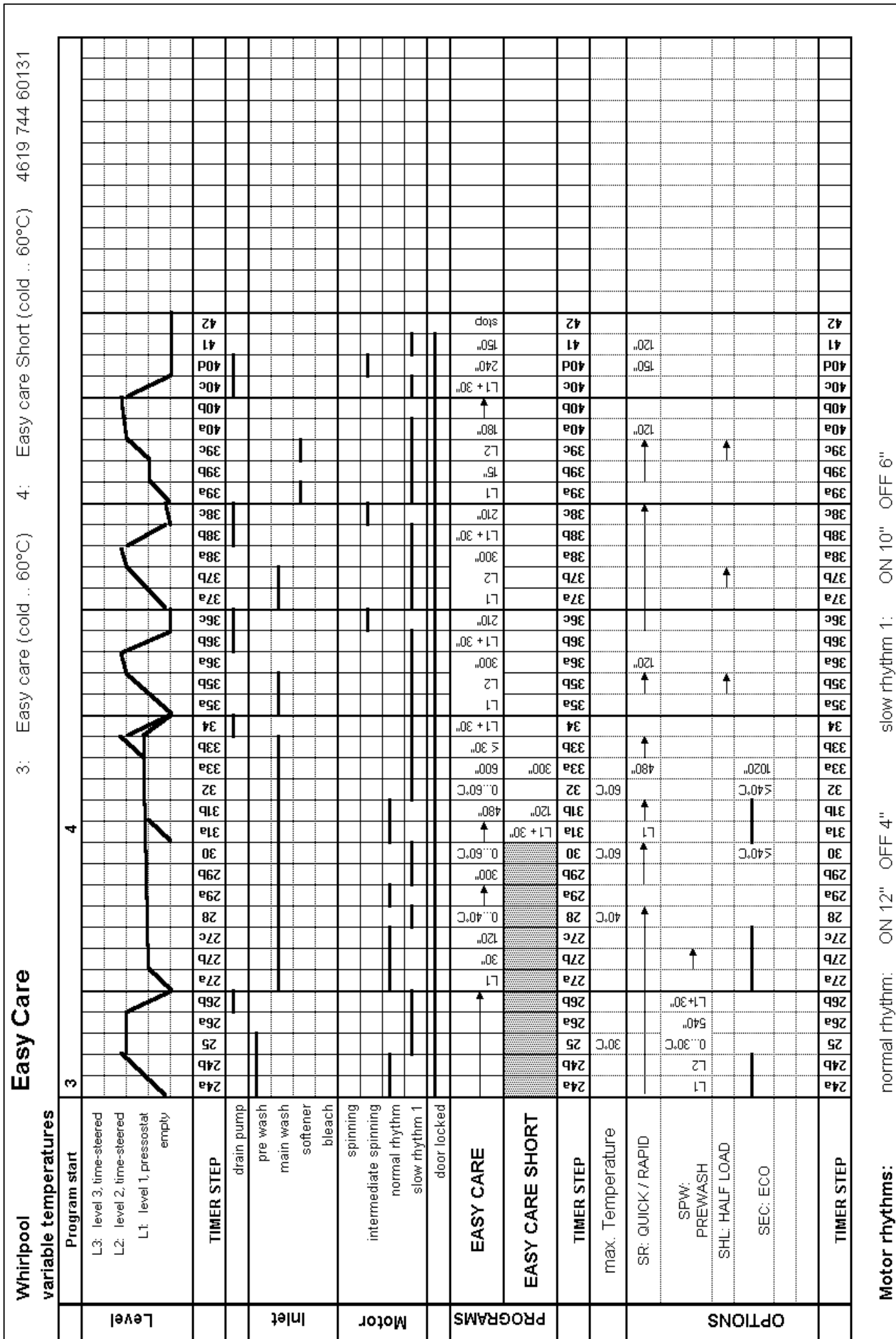
**Circuit diagram**



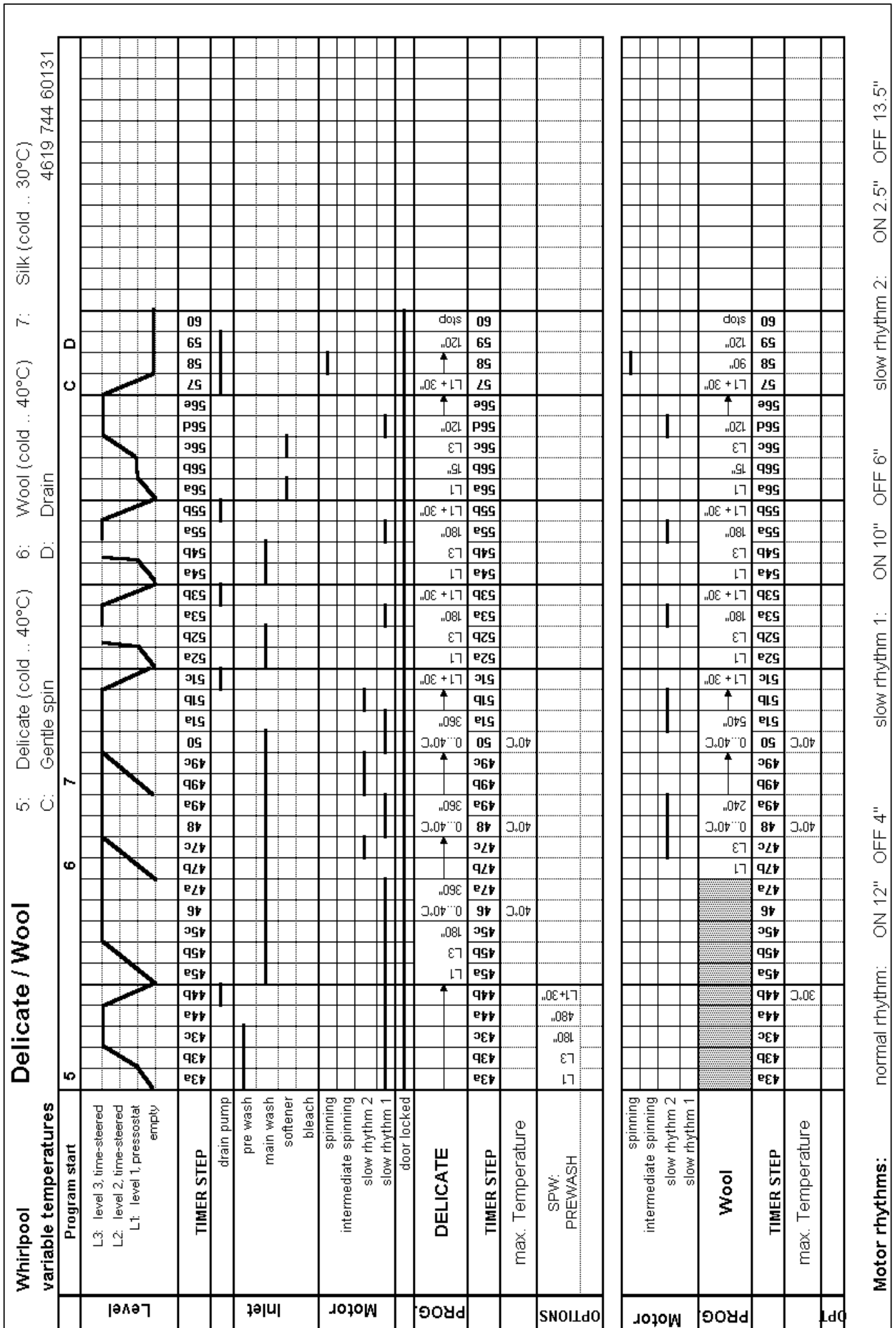




**Program diagram**



## 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

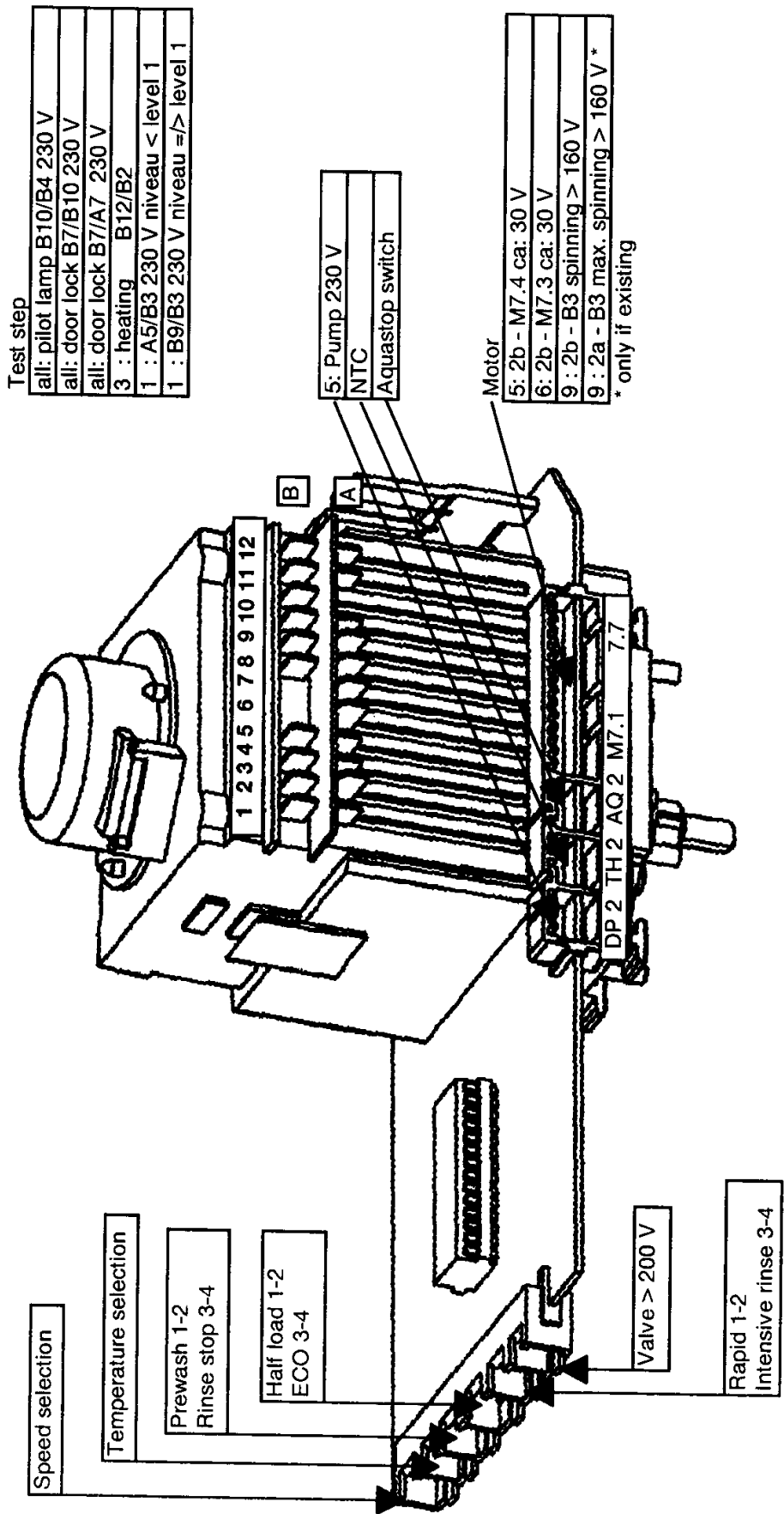
**Attention: Use the test program only without laundry!**

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

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>