



Service Manual

Washing machine

Toploader

AWA 5100

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	8561 500 29000	
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	Family	ALPHA

Technical data**Dimensions**

Height	85	cm
Width	40	cm
Depth	60	cm

Weight

Net weight	~63	kg
With package	~66	kg

Main Connection

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

Drum

Volume	42	l
Washing	52	rpm
Ramp speed	95	rpm
Speed spinning max.	1000	rpm

Capacity of dry laundry

Cotton	5	kg
Cotton short	3	kg
Synthetics	2	kg
Daily mixed	3	kg
Synthetics short	1.5	kg
Delicate	1.5	kg
Wool	1	kg
Handwash/Silk	1	kg

Pressostat

Kind of switch	1-level pressoswitch	
Type	760	
Nominal voltage	230	V

Water Level

Level 1 (11 - 12, 14)		
Switching point	65 ± 5	mmWc
Switching back point	40 ± 5	mmWc
Overflow (11 - 16)	300 ± 20	mmWc
Water level based to drum	60 ± 10	mm

Nominal currents

Contacts		
11 - 12	0.5 - 1	mA
11 - 14	16 (4)	A
11 - 16	1 (1)	A

Door lock

Type	BP P/5	
Nominal voltage	230	V
Nominal current:		
Contact 4 - 5	16 (4)	A
Lock time	≤5"	
Unlock time	≤180"	

Heating element

Kind of heating	Tubular heating element with NTC - sensor	
Nominal voltage	230 +10%, -15% V	
Nominal power	2050	W ± 5%
Resistance (20 °C)	23.9	Ω ± 5%
Thermo-fuse (switch OFF temperature)	152	°C
Leakage current (<99 °C)	<0.8	mA

Resistance NTC:

0 °C	35.9	kΩ ± 5.8%
30 °C	9.8	kΩ ± 3.7%
40 °C	6.6	kΩ ± 3.1%
50 °C	4.6	kΩ ± 2.6%
60 °C	3.2	kΩ ± 2.0%
70 °C	2.3	kΩ ± 2.5%
95 °C	1.1	kΩ ± 3.7%

Inlet valve

Kind of valve	1-way valve for cold water	
Water temperature	<60	°C
Rated flow >1 bar	8	l/min ± 10%
Pressure range	0,2 - 10	bar
Nominal current	40	mA
Nominal power	8.8	VA ± 10%
Nominal resistance	3.8	kΩ ± 10%

Drain pump (synchronous)

Type	58578	
Nominal voltage	230	V
Nominal/max. current	0.3/0.5	A
Nominal power	34	W
Rotation speed	3000	rpm
Frequency	50	Hz
Resistor (coil) (20 °C)	162	Ω
Capacity (0.55 - 1.0 m)	14 ± 2	l/min
Position of draining hose outlet	min.	0.55 m
	max.	1.0 m

Technical data

Timer

Type	ALPHA 31670006	
Timer basic	4619 730 70961	
Timer programmed	4619 753 01171	
Nominal voltage	230	V
Frequency	50	Hz
Program	32	positions

Motor

Type	MCA 45/64 - 148/ ALB 1	
Belt ratio	i = 1:15.9	

Resistance contacts (20 °C)

Stator (full field)	1.80	$\Omega \pm 7\%$
Rotor	2.00	$\Omega \pm 7\%$
Tachogenerator	67.80	$\Omega \pm 7\%$

Input power (230 V AC)

Washing	210	W $\pm 7\%$
Rinsing	305	W $\pm 7\%$
Spinning	340	W $\pm 10\%$

Radio interference supression

Rated voltage	90 - 250	V
Rated current	16	A
Frequency	50/60	Hz
Nominal capacity	470 nF X1 + 2 x 22 nF Y $\pm 20\%$	
Nominal inductance	2 x 470	μ H-30+50%
Nominal resistance	680	$k\Omega \pm 10\%$
Derivation current (u = 250 V AC)	≤ 4.15 (2 x 2.075) mA	

Main switch

Type	1DLF1006	
Nominal voltage	250	V
Nominal current	16 (5)	A
Poles	2	
Functionality	Normally opened	
Connection in RAST 5	6.3	pins
Connection lamp	2.8	pins

Option switch

Nominal voltage	5	V DC
Nominal current	1	mA
Poles	1	
Functionality	Normally opened	
Connection	RAST 2.5	

Temperature -/Spin speed selector switch

Positions	7	
Nominal voltage	5	V DC
Nominal current	1	mA
Poles	1	
Connection	RAST 2.5	
Value of resistors:		
Pin 5 - 6		
Position 1	<10	Ω
Position 2	0.68	$k\Omega \pm 5\%$
Position 3	1.10	$k\Omega \pm 5\%$
Position 4	1.80	$k\Omega \pm 5\%$
Position 5	2.70	$k\Omega \pm 5\%$
Position 6	3.60	$k\Omega \pm 5\%$
Position 7	4.70	$k\Omega \pm 5\%$

Push button switch

ON/OFF	SM
Eco	OPT. 1
Rinse hold	OPT. 2

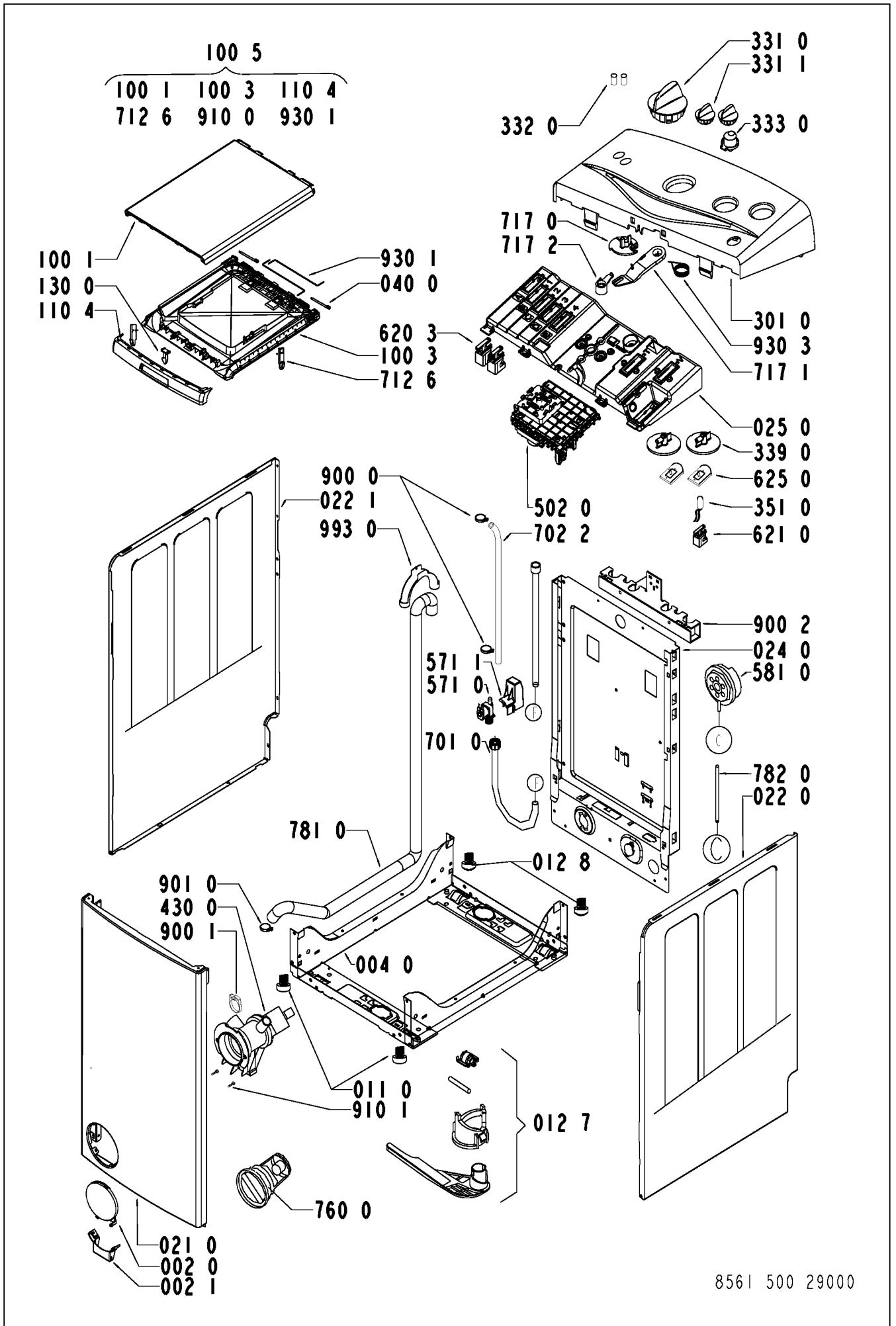
Spare part list

Model AWA 5100
Service No. 856150029000
Version 856150029000

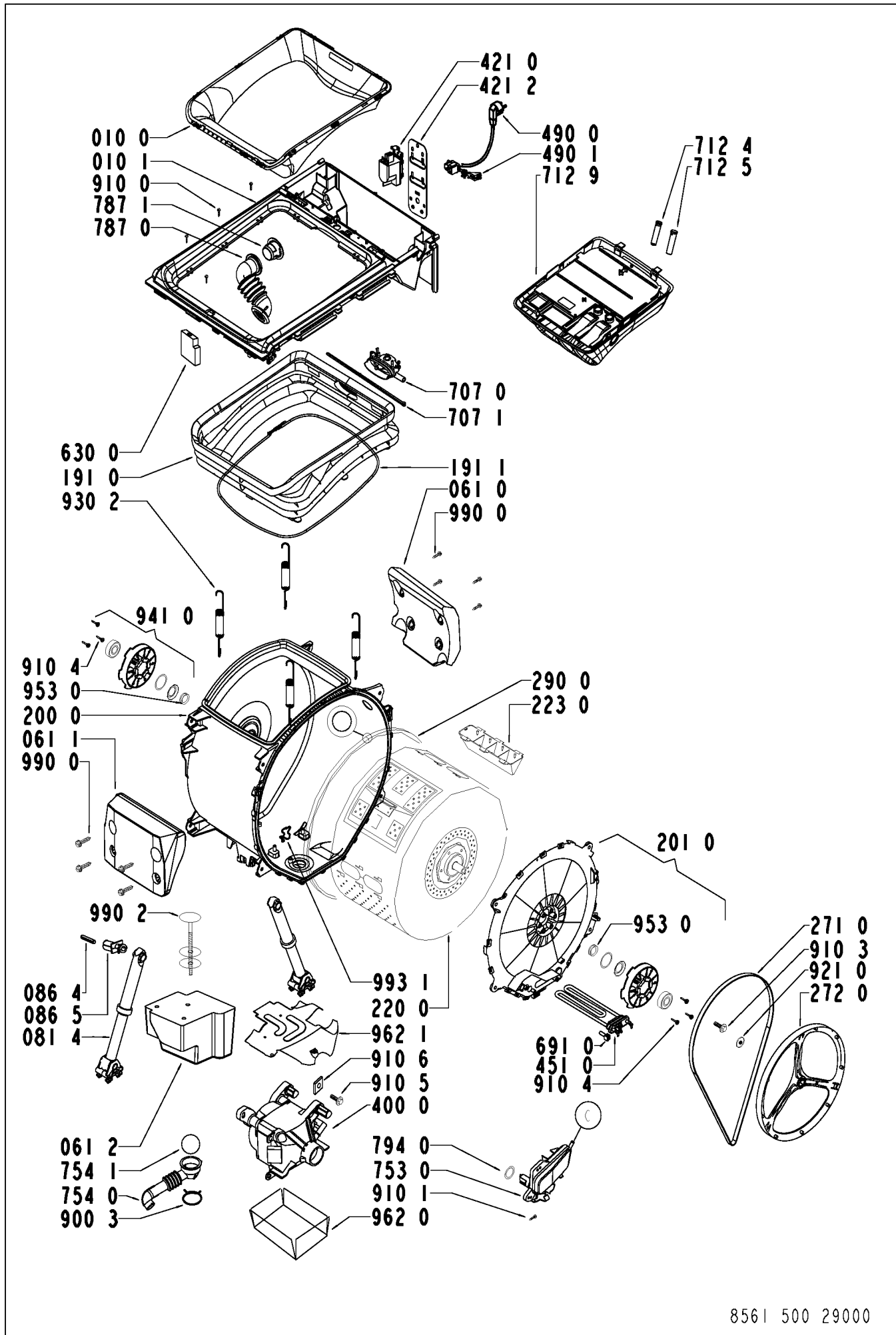
Pos. No.	12NC Code	Description
002 0	4812 459 38057	Flap round GW
002 1	4812 459 38058	Hinge flap GW
004 0	4812 440 19625	Drip tray assy
010 0	4812 459 48175	Door frame inner GW
010 1	4812 440 10835	Frame Top RFI GW
011 0	4812 462 48054	Foot
012 7	4812 310 18497	Trolley kit front
012 8	4812 528 78046	Foot adjustable rear
021 0	4812 440 10838	Front,panel WH GW
022 0	4812 440 10839	Side panel right GW
022 1	4812 440 10841	Side panel left GW
024 0	4812 440 19631	Rear panel
025 0	4812 440 10733	Support Control panel WP M/H
040 0	4812 417 19155	Hinge bolt lid GW
061 0	4812 466 88489	Counter weight
061 1	4812 466 88491	Counter weight front
061 2	4812 466 88492	Counter weight bottom
081 4	4812 529 18043	Shock absorber
086 4	4812 529 18045	Pin f. Shock absorber
086 5	4812 529 18052	Damper f. Shock absorber
100 1	4812 440 10842	Lid outer GW
100 3	4812 440 10843	Lid inner GW
100 5	4812 440 10845	Lid assembly WH GW
110 4	4812 498 18249	Handle cpl. WH GW
130 0	4812 417 19193	Door latch GW
191 0	4812 466 68596	Door bellow
191 1	4812 492 98014	Strap f. bellow
200 0	4812 418 18242	Tub 4fix points
201 0	4812 440 19644	Cover cpl.
220 0	4812 418 18464	Drum 19,5
223 0	4819 418 49713	Drum lifter
271 0	4812 358 18161	Belt
272 0	4812 528 88083	Pulley 298 mm
290 0	4812 532 68078	Gasket
301 0	4812 452 14015	Control panel AWA 5100
331 0	4812 412 58979	Knob Timer WH GW
331 1	4812 412 58981	Knob Options WH GW
332 0	4812 410 29011	Button Options WH GW
333 0	4812 410 29031	Button ON/OFF WP GW
339 0	4812 413 18241	Adapter
351 0	4812 124 98001	Lamp mains
400 0	4812 361 58364	Motor MCA 45/64-148/ALB1
421 0	4812 121 18142	Interf.filter 1,00 µ F
421 2	4812 404 38679	Holder RFI
430 0	4812 360 18529	Pump,draining
451 0	4812 259 28819	Heating element with hole
490 0	4819 321 18136	Cable,mains 2m SA
490 1	4812 321 28367	Strain relief
502 0	4812 282 19604	Timer AA2-1032/45A
571 0	4812 281 28393	Valve,magnet
571 1	4812 281 18049	Cover f. valve
581 0	4812 271 28526	Pressostat AA65/40ELBI
620 3	4819 410 28998	Switch options
621 0	4812 276 18276	Switch ON/OFF
625 0	4812 273 48002	Selector Temp./Spin

Pos. No.	12NC Code	Description
630 0	4812 271 38373	Door lock hybrid
691 0	4812 282 19485	Sensor NTC SC1
701 0	4819 530 29034	Hose, inlet
702 2	4812 530 28871	Hose VALVE-DISPENSER
707 0	4812 526 48122	Nozzle box cold cpl.
707 1	4812 526 48049	Clamp f. nozzle box
712 4	4812 418 68302	Siphon f. softener
712 5	4812 418 68303	Siphon f. bleach
712 6	4812 418 68164	Clip SOAP DISPENSER
712 9	4812 418 68289	Soap dispenser cpl. 4 ch. GW
717 0	4812 321 38029	Cam ALPHA 4ch plast.support
717 1	4812 321 38023	Lever SC1
717 2	4812 323 18021	Lever adjustment (metal)
753 0	4812 418 68187	Chamber,air
754 0	4812 530 28938	Drainhose
754 1	4812 530 28832	Lock eco
760 0	4812 480 58089	Filter set pump
781 0	4812 530 28953	Hose,draining
782 0	4812 530 28941	Hose Pressostat
787 0	4812 530 28942	Hose Air Exhaust
787 1	4812 530 28943	Hose Cover
794 0	4812 530 58098	Gasket Airtrap
900 0	4819 401 18686	Clamp,hose
900 1	4812 401 18431	Clamp to pump
900 2	4812 401 18461	Support cable/hose
900 3	4819 401 18529	Clamp,hose
901 0	4812 401 18462	Clamp,hose drain hose
910 0	4812 502 48347	Screw,selftap 3,5x14SS
910 1	4812 502 38151	Screw 4x14
910 3	4812 502 18404	Screw
910 4	4812 502 18423	Screw PT 7x15
910 5	4812 502 18401	Screw M8X 35
910 6	4812 502 18399	Nut Push in M 8
921 0	4812 400 18047	Washer
930 1	4812 492 48171	Torsions spring
930 2	4812 492 48162	Spring
930 3	4812 323 18019	Spring f. lever
941 0	4812 310 18578	Bearing Kit
953 0	4812 325 68001	Shaft seal
962 0	4812 440 98142	Cover for Motor AC
962 1	4812 440 98143	Cover for Motor
990 0	4812 310 18504	Fixing mat.set front counter
990 2	4812 310 18506	Fixing mat.set bottom
993 0	4819 530 29028	Bow
993 1	4812 290 18031	Clamp heatingelement

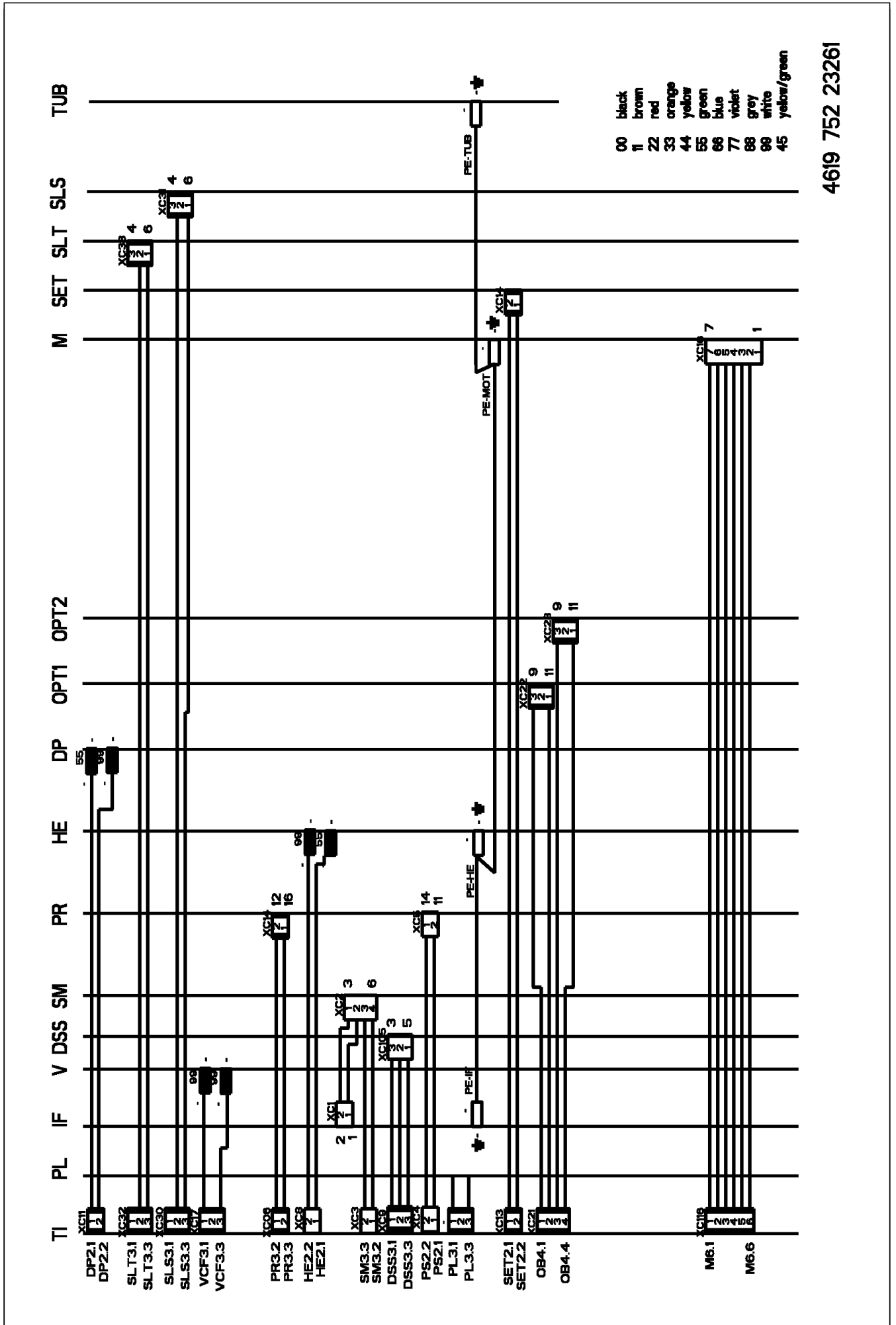
Exploded view



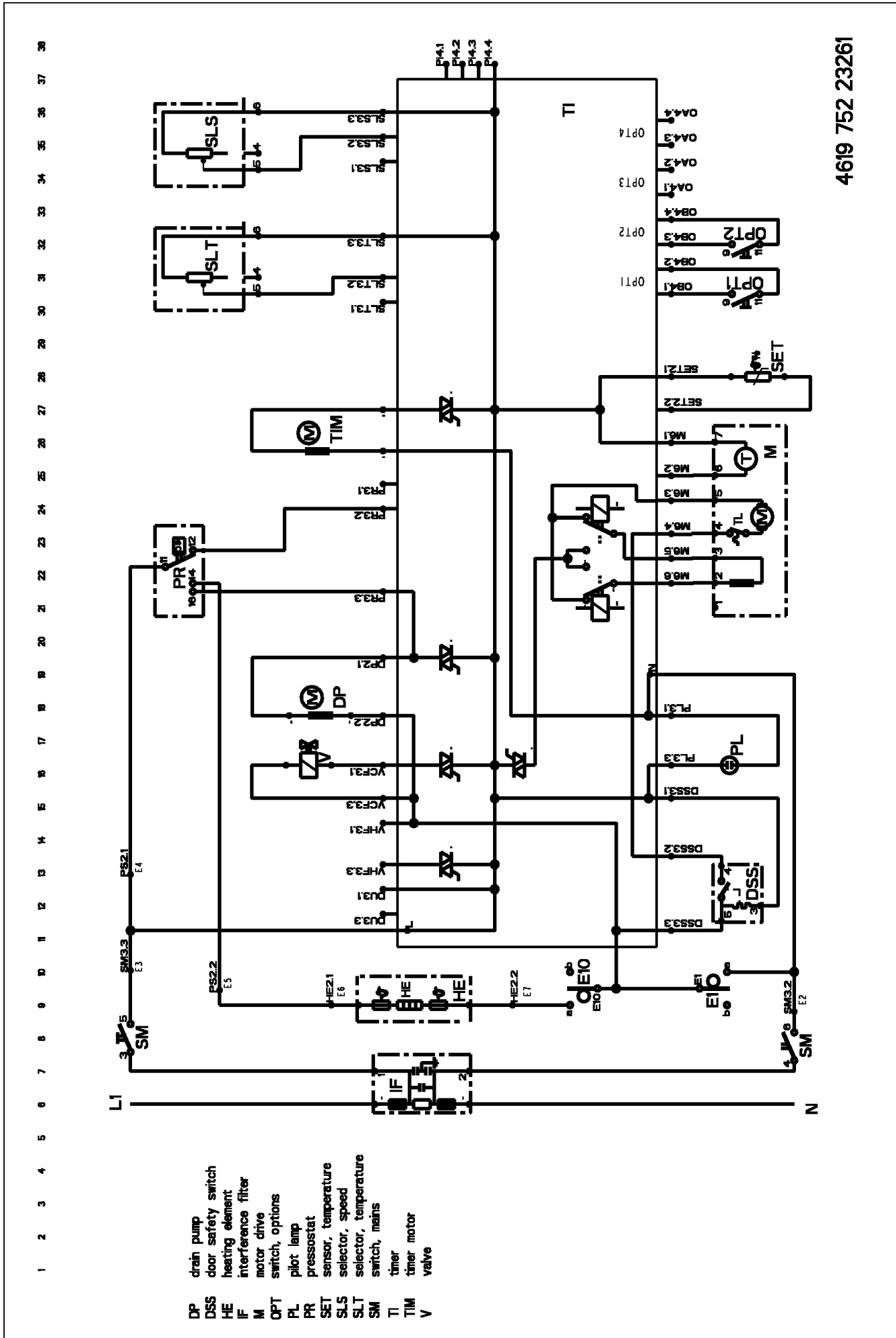
Exploded view



Wiring diagram



Circuit diagram

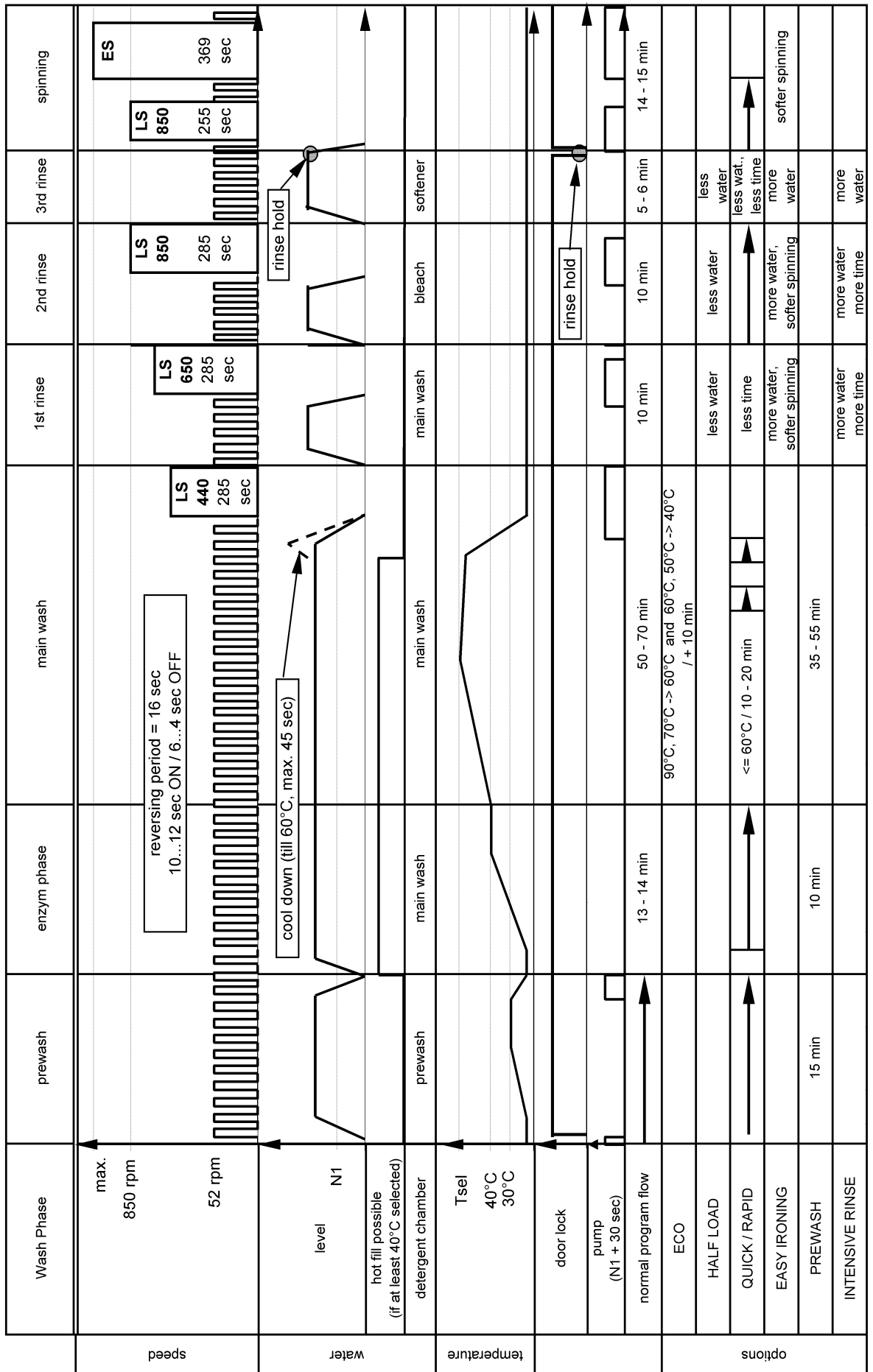


Program chart

4619 752 27251

Wash Cycle of COTTON

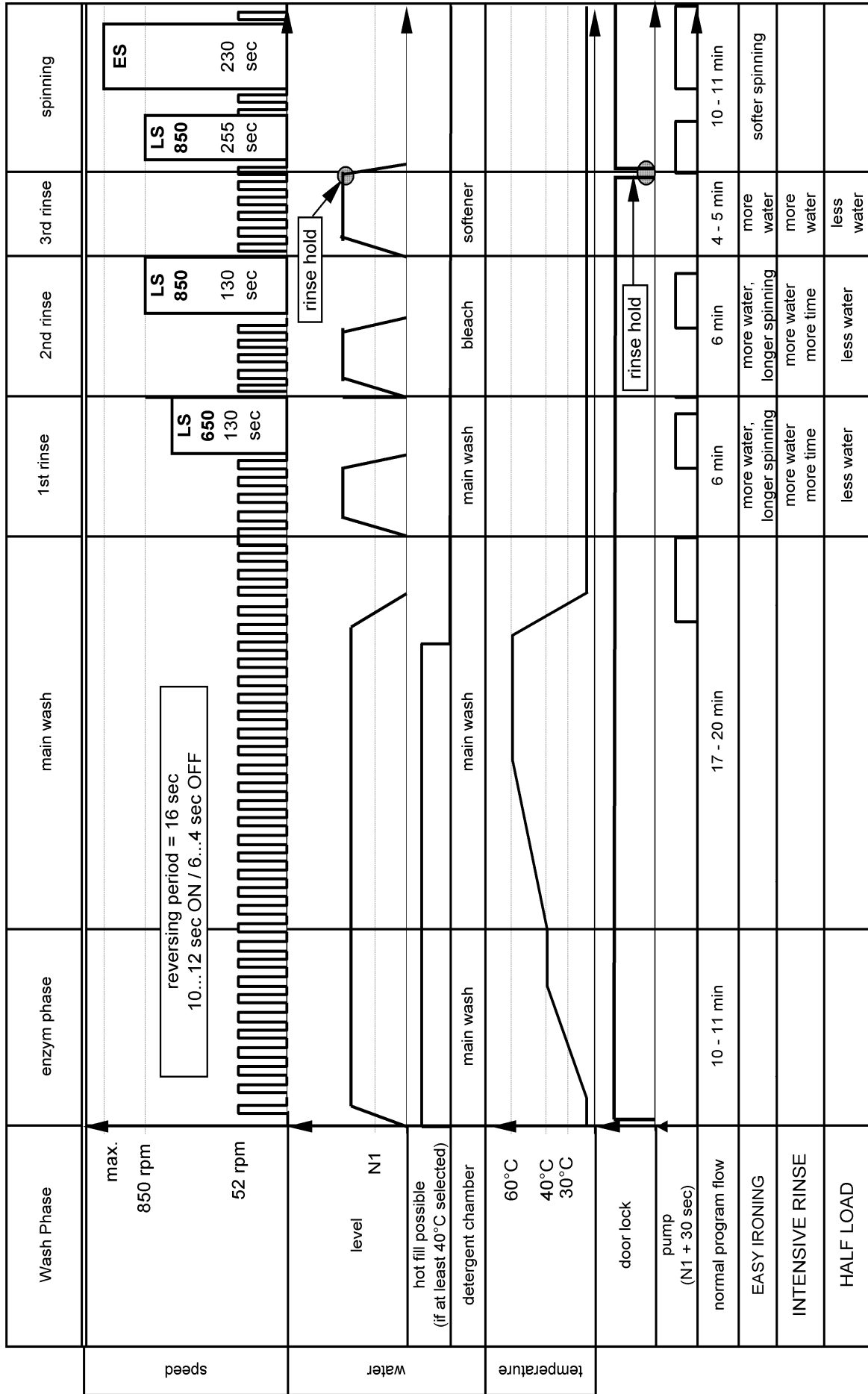
ALLIANCE LR Alpha



Program chart

4619 752 27251

ALLIANCE LR Alpha Wash Cycle of CHRONO

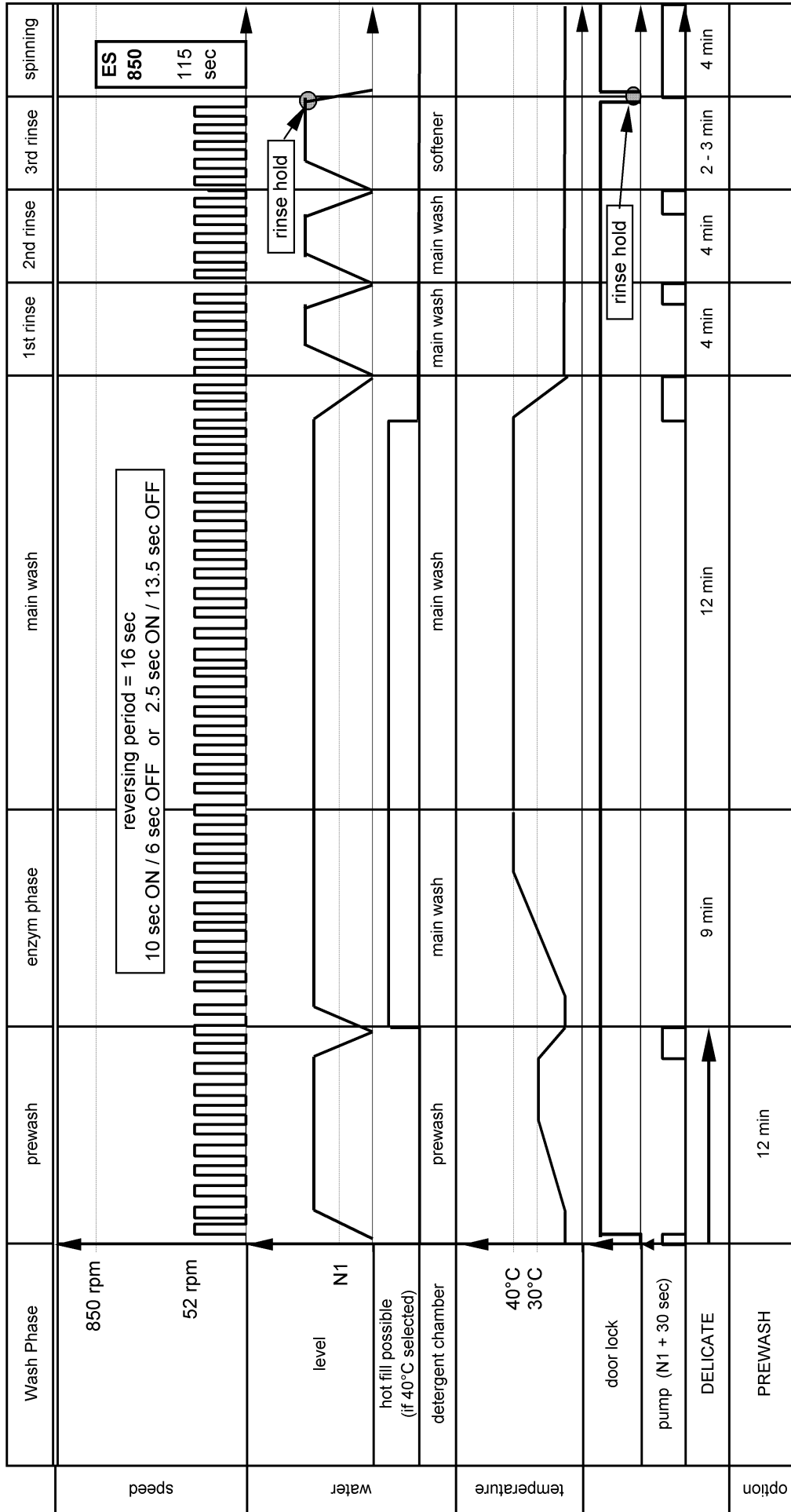


Program chart

4619 752 27251

Wash Cycle of DELICATE

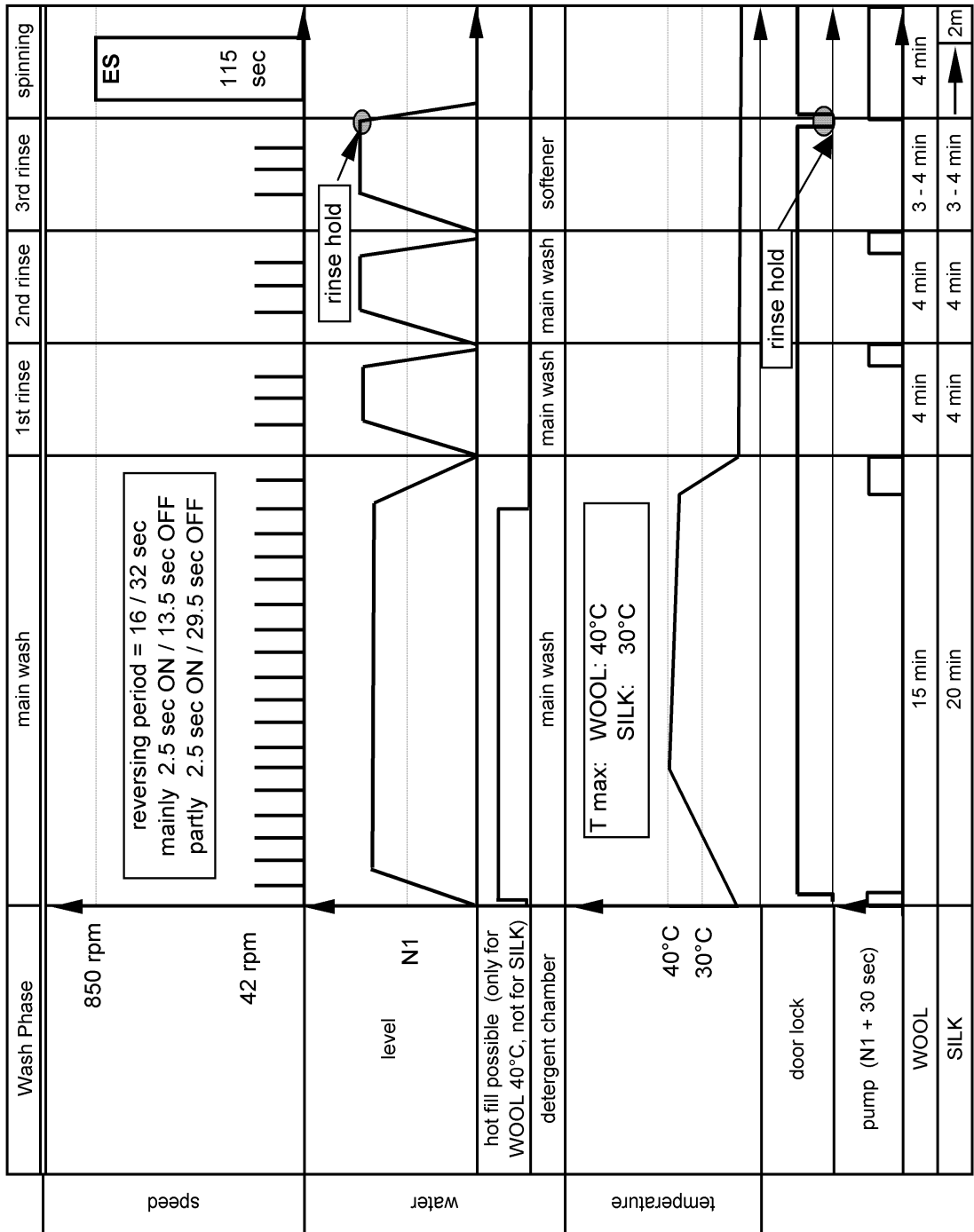
ALLIANCE LR Alpha



Program chart

4619 752 27251

Wash Cycles of WOOL and SILK



Program chart

4619 752 27251

Spinning Profiles

ALLIANCE LR Alpha

