



Service Manual

Washing machine

Frontloader

AWM 040

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	Family	SC1



Technical data

Dimensions

Height	815 - 84	cm
Width	59.5	cm
Depth	57.3	cm

Weight

With noise protection	75	kg
Without noise protection	74	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	95	rpm
Speed spinning max.	1000	rpm

Capacity of dry laundry

Cotton/coloured	5	kg
Cotton rapid	3	kg
Cotton short	5	kg
Easy care	2.5	kg
Easy care rapid	1.5	kg
Easy care short	2.5	kg
Delicate	1.5	kg
Wool/Handwash/Silk	1	kg
Daily 40 °C	3	kg

Water Level

Level 1

Switching point	60 ± 5	mmWc
Switching back point	35 ± 5	mmWc

Overflow

	280 ± 20	mmWc
From 45/00	300 ± 20	mmWc

Water level inside the drum

(Only switching level inside the drum)

Level 1	40 - 51	mm
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Overflow

	260 - 300	mm
From 45/00	280 - 320	mm

Nominal currents

Contacts		
11 - 12	4 (4)	A
11 - 14	16 (4)	A
11 - 16	1 (1)	A
Contact system		
11 - 12 - 14	spring contact	
11 - 16	sliding contact	
Damping system	no	

Door lock

Lock time (20 °C)	3" - 6"	
Unlock time	60" - 90"	
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
resistance R 25	22 - 28	Ω
Resistance NTC :		
0°C	35.9	kΩ
30°C	9.7	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 (20 °C)	3.4 - 4.5	kΩ

Floater

Nominal current	230	V
Nominal power	3 (1)	A
Switch energy	<15	cN

Technical data**Drain pump (synchronous)**

Nominal Voltage	220/240	V
Nominal current	0.3	A
Nominal power	34	W
Frequency	50	Hz
Resistor (coil)	155	$\Omega \pm 7\%$
Motor protection	yes	
Capacity (1,25m height)	15	l/min

Program timer

Type	SC1 - 3313
Timer basic	4619 710 74694
Timer programmed	4619 751 52691
Nominal voltage	230 V
Frequency	50 Hz
Detergent dispenser	3
Cold fill	yes
Spin speed	1000 rpm

Connector

OA4.1 - OA4.2	5. Option
OA4.3 - OA4.4	6. Option
OB4.1 - OB4.2	3. Option
OB4.3 - OB4.4	4. Option
OC4.1 - OC4.2	1. Option
OC4.3 - OC4.4	2. Option

SLT3.1 - SLT3.3	Temp.selector
SLS4.1 - SLS4.4	Spin speed selector
VCF3.1 - VCF3.3	Valve (cold water)
VHF3.1 - VHF3.3	Valve (hot water)
Pi5.1 =	negative supply
Pi5.2 =	data
Pi5.3 =	clock
Pi5.4 =	positive supply
Pi5.5 =	negative supply
PL3.1 - PL3.3	Pilot lamp

Connector

M7.1 - M7.7	Motor
DP2.1 - DP2.2	Pump
AQS2.1 - AQS2.2	Aquastopswitch
SET2.1 - SET2.2	NTC
DSS3.1 - DSS3.3	Door switch
PR2.1 - PR2.2	Pressostat
Single connector	
HE2.1 - HE2.2	Heating element
PS2.1 - PS2.2	Pressostat
SM3.2 - SM3.3	mains switch (3 fold connector)

Program 32 positions

	Cotton/ coloured	Easy care	Delicate	Daily load	Wool	Silk
Pre wash	02 - 06	03 - 06	04 - 06	-	-	-
Main wash	07 - 21	12 - 21	14 - 21	09 - 21	17 - 21	18 - 21
Rinse	22 - 28	22 - 28	22 - 28	22 - 28	22 - 28	22 - 28
Spin	29 - 31	29 - 31	29 - 31	29 - 31	29 - 31	29 - 31
Stop	32	32	32	32	32	32

Temperature

Ambient temperature	up to 70 °C
Storage temperature	up to 85 °C

Spin speed

Wash speed	54 rpm
Ramp speed	95 rpm
Spin speed	1000 rpm

Resistance (at the selector) :

960 rpm	4.7 k Ω
780 rpm	3.6 k Ω
580 rpm	2.7 k Ω
500 rpm	1.8 k Ω
440 rpm	1.1 k Ω
95 rpm	0.68 k Ω
0	0

Output

Motor	M7.6-DSS 3.2	>40 V
Aquastop	AQ2.2-DSS 3.2	230 V
in pump step	AQ2.1-DSS 3.2	230 V
NTC	not measurable	
Pump	DP2.1-DP2.2	230 V
Doorlock	DSS3.1-DSS3.3	230 V
Pressostat	E4 - E2	230 V
- empty	PR2.1 - E2	230 V
- full	PR2.2 - E2	230 V
Valve (Rast 2,5)	V2.1 - V2.2	>170 V
Options	not measurable	
Display module,Time delay		
Program flow indication	Pi5.1 - Pi5.4	5 V
	Pi5.4 - Pi5.5	12 V

Motor

Type	MCA 38/64 - 148/ WHE 2
Belt ratio	i = 1:15.9
Resistance contacts	
6 - 7	68.70 $\Omega \pm 7\%$
Collector directly	2.46 $\Omega \pm 7\%$
2 - 3	2.15 $\Omega \pm 7\%$
1 - 3	1.40 $\Omega \pm 7\%$

Technical data

Radio interference supression

Nominal voltage	230	V
Nominal capacity	470 nF X1 + 2 x 22 nF Y	
Nominal inductance	2 x 470 or 2 x 500	μ H
Nominal resistance	680	k Ω

Or

Radio interference supression

Nominal voltage	230	V
Nominal capacity	1 μ F X1 + 2 x 22 nF Y	
Nominal inductance	2 x 1	mH
Nominal resistance	470	k Ω

Temperature/Spin speed selector

Positions	7	
Nominal voltage	5	V
Value of resistors $\pm$ 5%:		
1 - 2 - 3	internal shunt	
4 - 6	internal shunt	
5 - 6		
Position 1	<10	Ω
Position 2	0.68	k Ω
Position 3	1.10	k Ω
Position 4	1.80	k Ω
Position 5	2.70	k Ω
Position 6	3.60	k Ω
Position 7	4.70	k Ω

Indication of program flow

Input/ Ouput	PI4.1 - PI4.4	5 V DC
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Push buttons

Switch mains ON/OFF	SM
Switch eco	SEC
Switch rapid	SR
Switch rinse stop	SRS

Spare part list

Model
Service No.
Version

AWM 040
857004001900
857004001900

Pos. No.	12NC Code	Description
001 0	4812 440 10748	Cabinet GW
003 0	4812 464 48112	Traverse BK-cold
004 0	4812 440 19479	Drip tray assy BI
011 0	4812 500 18068	Foot variable 50mm
011 1	4812 500 18074	Foot leveling kit 85mm
011 1	4812 500 18075	Foot leveling kit 82mm
021 0	4812 440 10922	Panel,front BI GW
021 1	4812 462 79654	Stopper
024 0	4812 310 18653	Rear panel KIT
025 0	4812 440 19425	Holder Control device
033 0	4812 310 18414	Cover plate BI
040 0	4812 417 18794	Hinge
040 2	4819 417 18939	Hinge
040 3	4812 417 18035	Insert shim 0.2mm
040 3	4812 417 28002	Insert shim 1mm
040 4	4812 417 18811	Cover,hinge BI,WT F.MAGNET
040 5	4812 502 48345	Screw 4X 16-Z
050 0	4812 459 38059	Plinth GW
050 1	4812 440 19433	Spacer f. pedestal
061 0	4812 466 88458	Counter weight upper
061 1	4812 466 88462	Counter weight Lower
061 2	4819 310 39227	Mounting kit Weight top
061 3	4819 310 39228	Mounting kit Weight bottom
081 0	4812 529 18038	Shock absorber until 1200
081 1	4812 502 18454	Screw M8x45
084 0	4812 466 58001	Silent bloc
086 0	4812 401 18409	Holder Shock Absorber
086 1	4812 401 18413	Holder Shock absorber
086 2	4812 401 18412	Stopper
110 0	4812 498 18259	Door handle GW
130 0	4812 417 28053	Plate Doorlock Upper
130 1	4812 417 28052	Plate Doorlock Lower
131 0	4812 417 28051	Lock door
131 1	4812 417 28045	Pin Door Lock
131 2	4812 492 58025	Spring door
131 3	4812 492 58024	Spring Door Safety
134 0	4812 417 48001	Magnet + Buffer
134 1	4812 417 28001	Insert
134 2	4812 502 18007	Screw M 5x16-H
135 1	4812 401 18417	Stopper
140 0	4812 450 68219	Door glass
143 0	4812 440 10749	Glassdoor frame GW
144 0	4812 417 19168	Frame,door glas GW
191 0	4812 460 68532	Door bellow WH grease resistance
191 1	4812 492 18017	Strap
191 2	4812 492 98011	Strap
200 1	4812 418 18369	Tub, half front 48 l
200 2	4812 418 18434	Tub, half rear 48l, 800-1000
200 4	4812 290 88054	Clamp for tub
220 0	4819 418 18339	Drum
271 0	4812 358 18056	V-ribbed belt WH 1250 J5
272 0	4812 528 58027	Pulley DIAM.298
272 2	4812 532 18024	Washer
272 3	4812 505 18371	Nut M 12
290 0	4812 530 58101	Gasket Tub

Pos. No.	12NC Code	Description
301 0	4812 452 12212	Control panel GW
301 3	4812 452 12213	Control panel side part GW
301 4	4812 452 12214	Frame Switch 5-Fold GW
303 0	4812 498 18257	Handle, drawer GW
303 1	4812 498 18258	Handle,cover GW
321 0	4812 452 12746	Insert panel AWM 040
331 0	4812 413 48335	Knob,timer GW blue printed
331 1	4812 413 48336	Knob thermostat GW blue printed
331 2	4812 413 48337	Knob spin speed GW blue print.
332 0	4812 410 29029	Push button Options GW
339 0	4812 413 18216	Adapter timer
339 1	4812 413 18215	Adapter axle 90 degree
339 2	4812 233 18007	Adapter f. Knob
350 1	4812 239 58017	Display Modul Aquastop/Door
351 0	4812 134 18011	Lamp
400 0	4819 361 58264	Motor MCA 38/64 WHE2
400 1	4812 502 18382	Screw M8 X 35
409 0	4812 362 48004	Brush,carbon motor CESET
421 0	4812 121 18142	Interf.filter 1,00 µ F
430 0	4812 360 18532	Pump,draining BI/SC1
451 0	4812 259 28758	Heating element 2050W + NTC
480 0	4812 321 78109	Cable Motor SC1/OM PP/ALPHA/GA
490 0	4819 321 18136	Cable,mains 2m SA
491 0	4812 321 28367	Strain relief
491 1	4812 502 38152	Screw 4.8x19
500 0	4812 282 19437	Timer SC1, 1000
571 0	4812 271 28375	Valve,magnet Single
581 0	4812 271 28441	Pressostat
620 0	4819 410 28998	Switch options
621 0	4819 410 29004	Switch ON/OFF
622 0	4812 413 48279	Selector,switch Temp./Spin
630 0	4812 280 58019	Door lock
631 0	4812 271 38358	Switch MICRO
631 1	4812 360 58112	Floater Kit BK,WH
651 0	4812 134 48294	Light guide
691 0	4812 282 18702	Sensor NTC (SC1,OMEGA PL,access
701 0	4812 530 28781	Hose, inlet 3.8 m (Eltek)
701 0	4812 530 29256	Hose, inlet 1.8 m (Eltek)
701 0	4819 530 28926	Hose, inlet 2.5 m (Eltek)
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 88025	Dispenser BK,WH-3CH
712 0	4812 418 88051	Drawer Detergent
713 0	4812 418 89009	Flap Detergent Container GW
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 88018	Slide
717 4	4812 492 38359	Spring , Nozzle
717 5	4812 282 19435	Cam 3 C. for built in
717 7	4812 502 18623	Screw PT3,5x20-TORx20
718 0	4812 526 48157	Siphon 3 Chamber GW
718 1	4812 418 88018	Separator 3ch

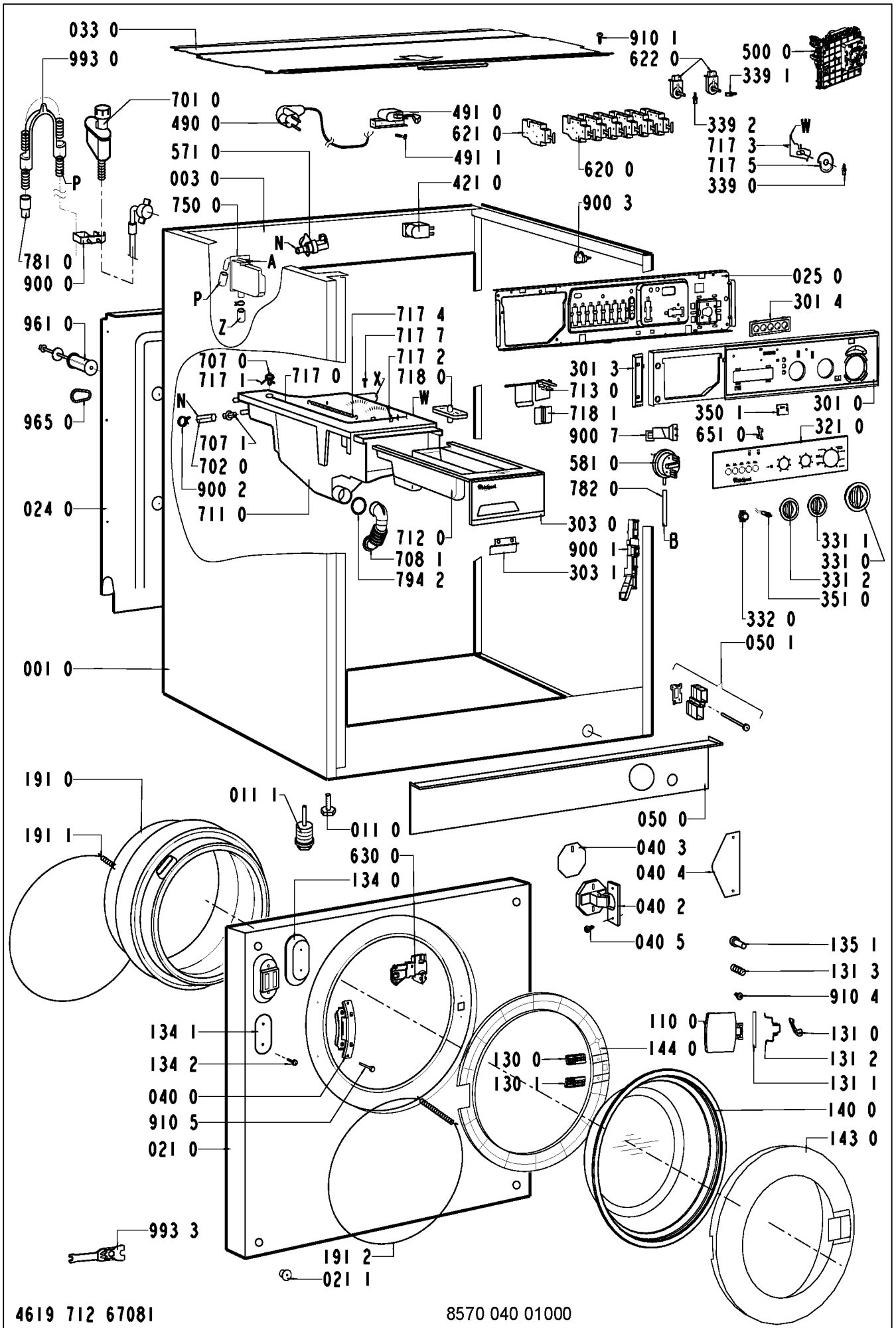
Spare part list

Model
Service No.
Version

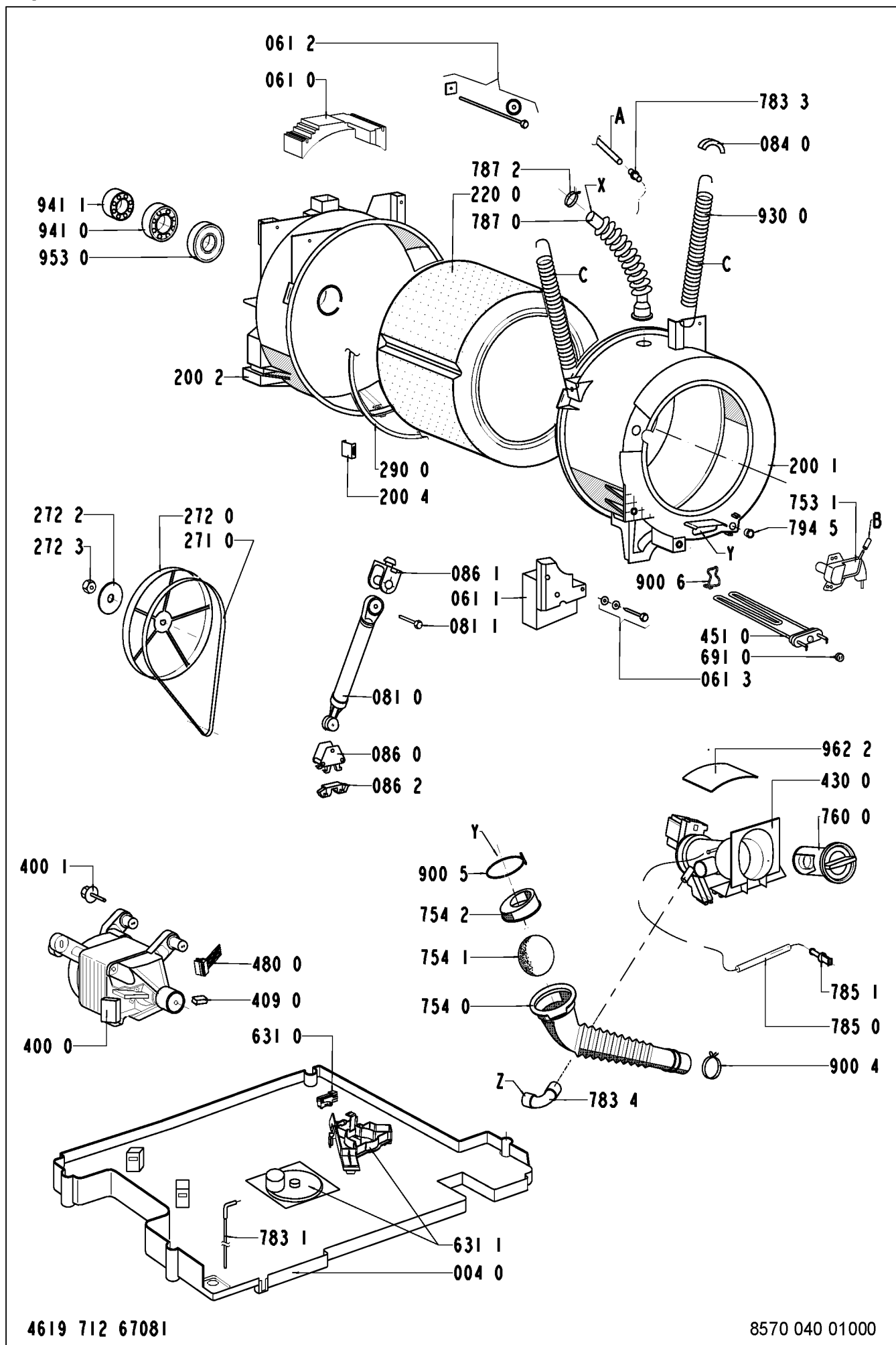
AWM 040
857004001900
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Pos. No.	12NC Code	Description
750 0	4812 530 48153	Chamber,expand. BUILT-IN
753 1	4819 418 68234	Chamber,air
754 0	4812 530 28826	Drainhose
754 1	4812 530 28832	Lock eco
754 2	4812 530 28829	Flange eco
760 0	4819 480 58106	Cover,pump
781 0	4819 530 28959	Hose
782 0	4812 530 28827	Hose Pressostat
783 1	4812 530 28822	Hose
783 3	4812 530 18001	Connection Part
783 4	4812 530 28818	Hose
785 0	4812 530 28812	Hose Draining
785 1	4812 462 78179	Threaded cap
787 0	4812 530 28819	Hose with hole
787 2	4819 401 18868	Clamp,hose 26.8 mm
794 2	4812 401 18549	Clamp,hose
794 5	4812 530 58098	Gasket Airtrap
900 0	4812 255 18204	Holder Hose outlet
900 1	4812 290 88049	Bracket
900 2	4812 401 18501	Clamp,hose 19.2 mm
900 3	4812 290 88048	Cable clamp
900 4	4812 401 18414	Clamp,hose
900 5	4819 401 18529	Clamp,hose
900 6	4812 401 18444	Support Heatingelement
900 7	4812 255 18205	Holder Pressostat
910 1	4812 502 18624	Screw 3.5x10-F A2F
910 4	4812 930 08022	Screw 4.2x13-F-H
910 5	4812 502 18619	Screw M5/8
930 0	4819 492 38139	Spring Suspension
941 0	4812 520 28001	Bearing,ball 6205 2Z C3
941 1	4812 520 28002	Bearing,ball 6203 2Z C3
953 0	4812 530 58097	Shaft seal 800-1000
961 0	4819 532 68829	Spacer
962 2	4812 360 78035	Foil Water protect.
965 0	4812 466 68545	Cover BK/WH
993 0	4819 530 29028	Bow
993 3	4812 395 58004	Tool

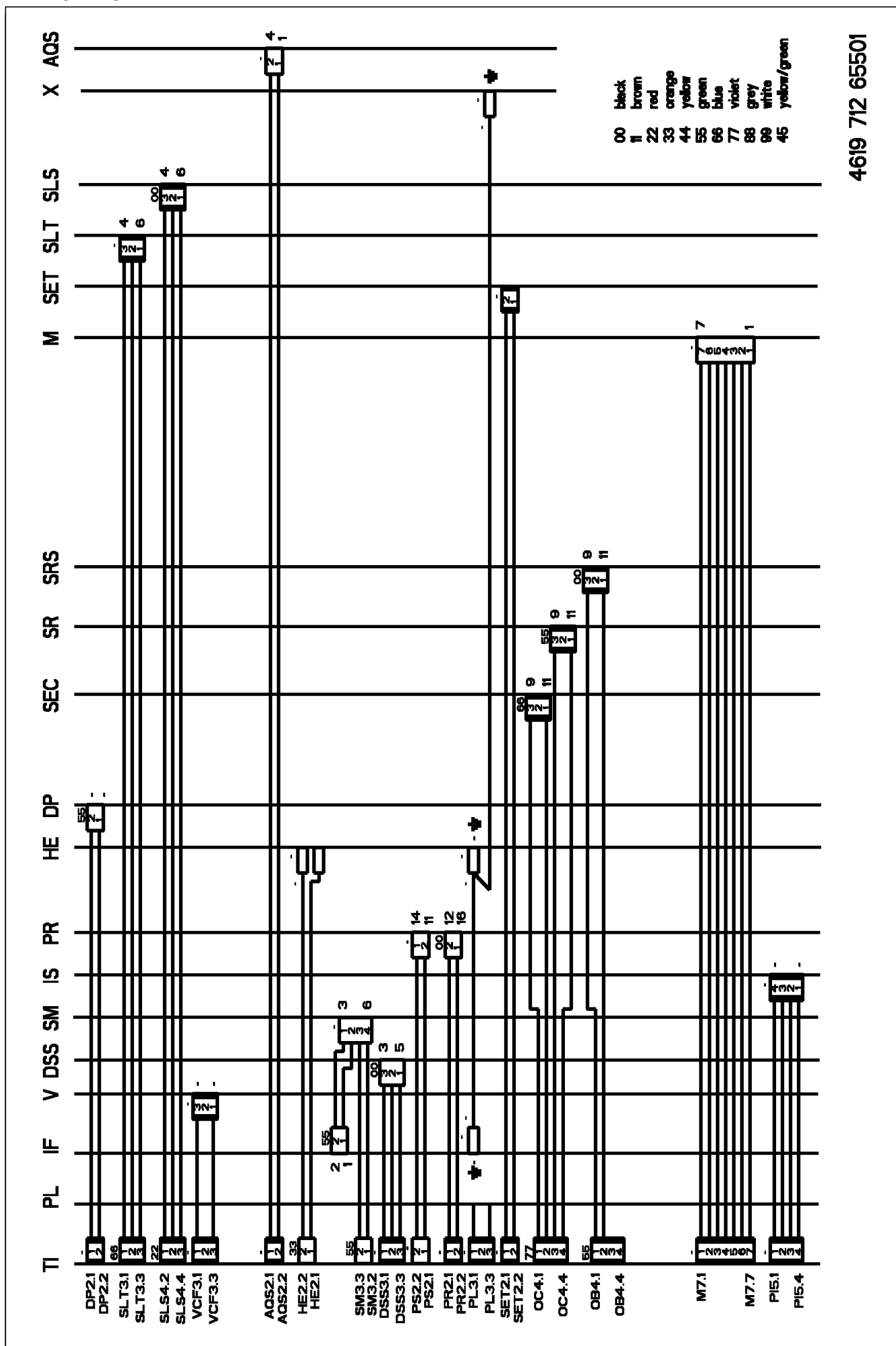
Exploded view



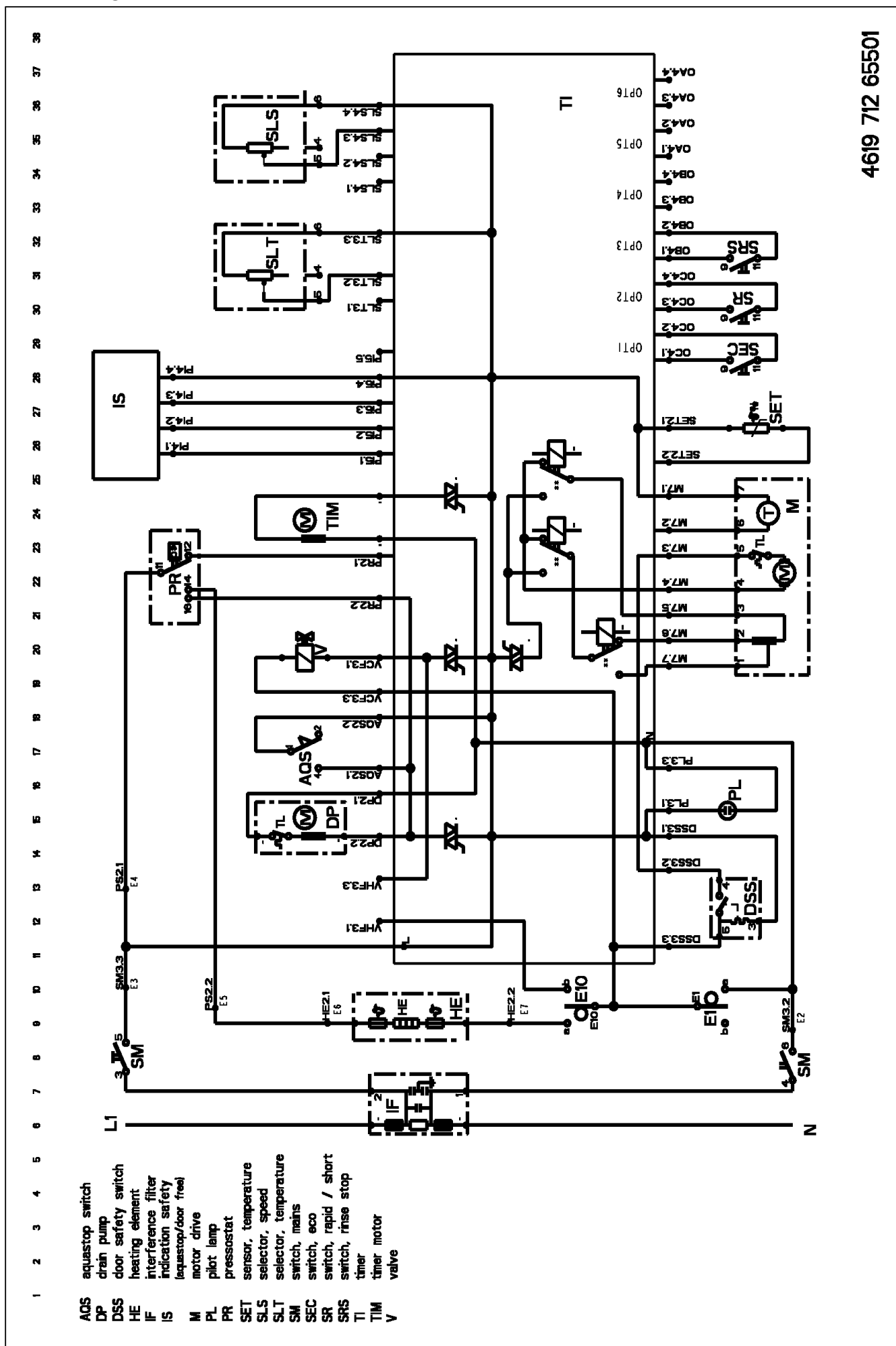
Exploded view



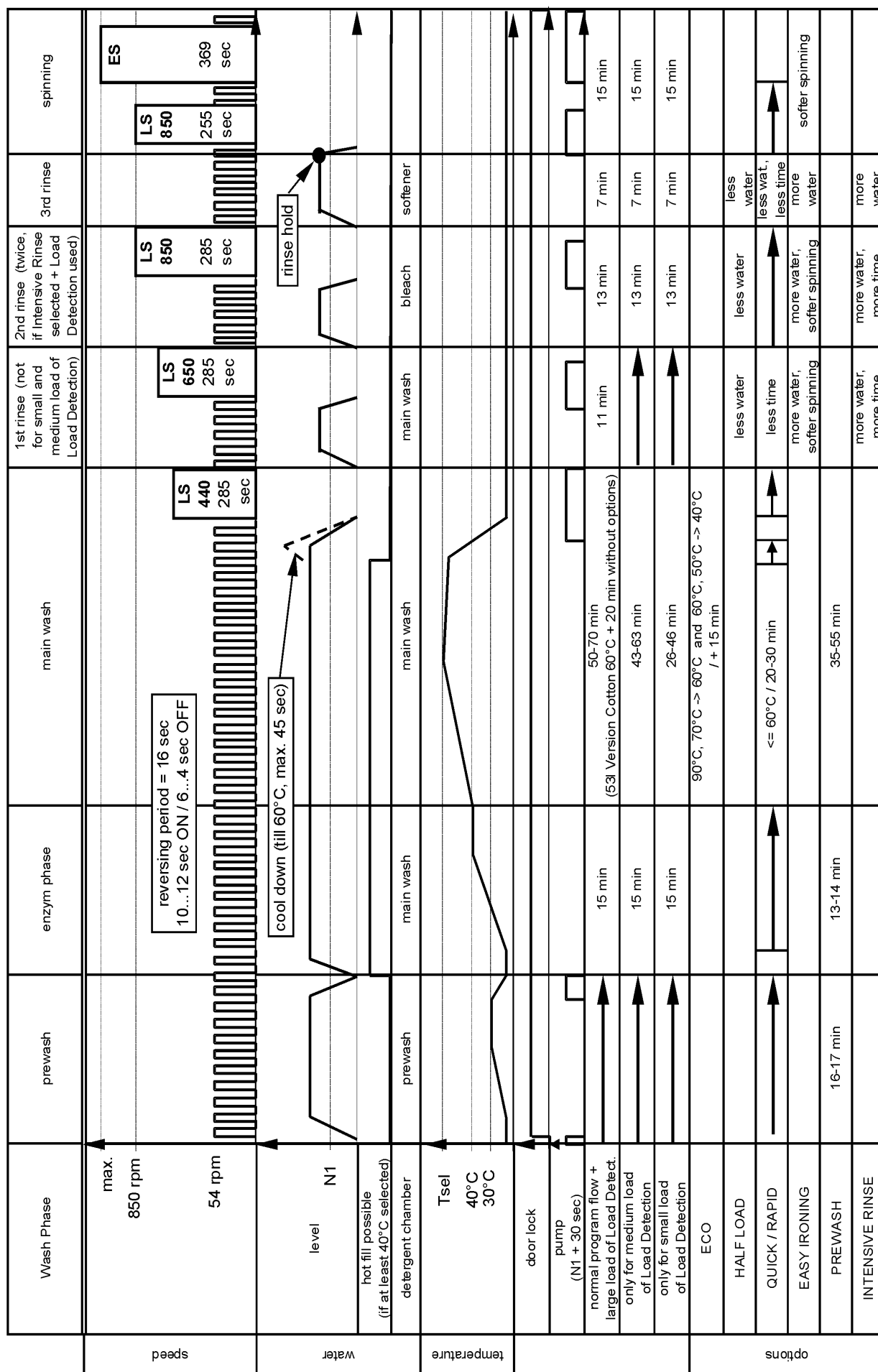
Wiring diagram



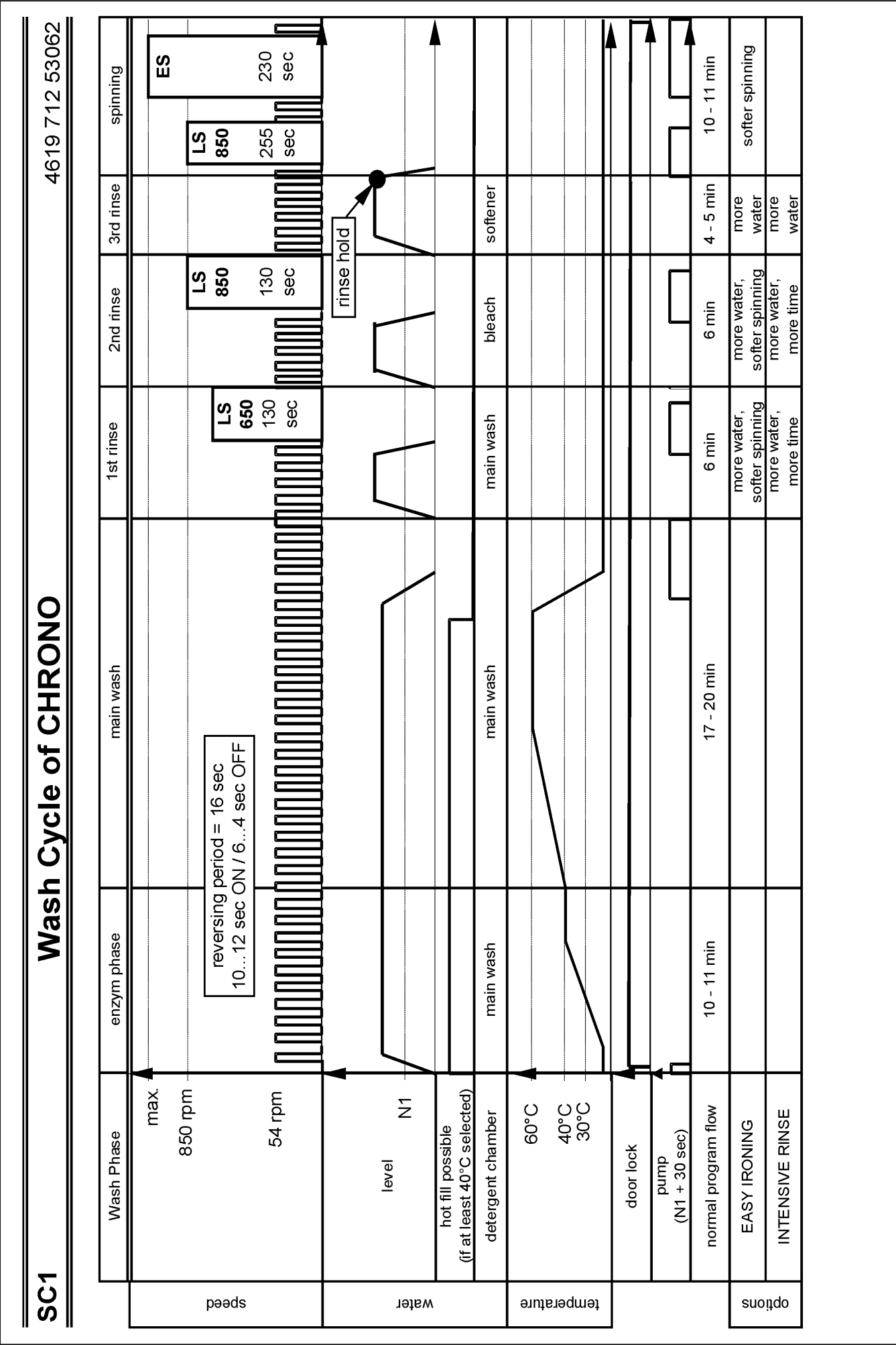
Circuit diagram



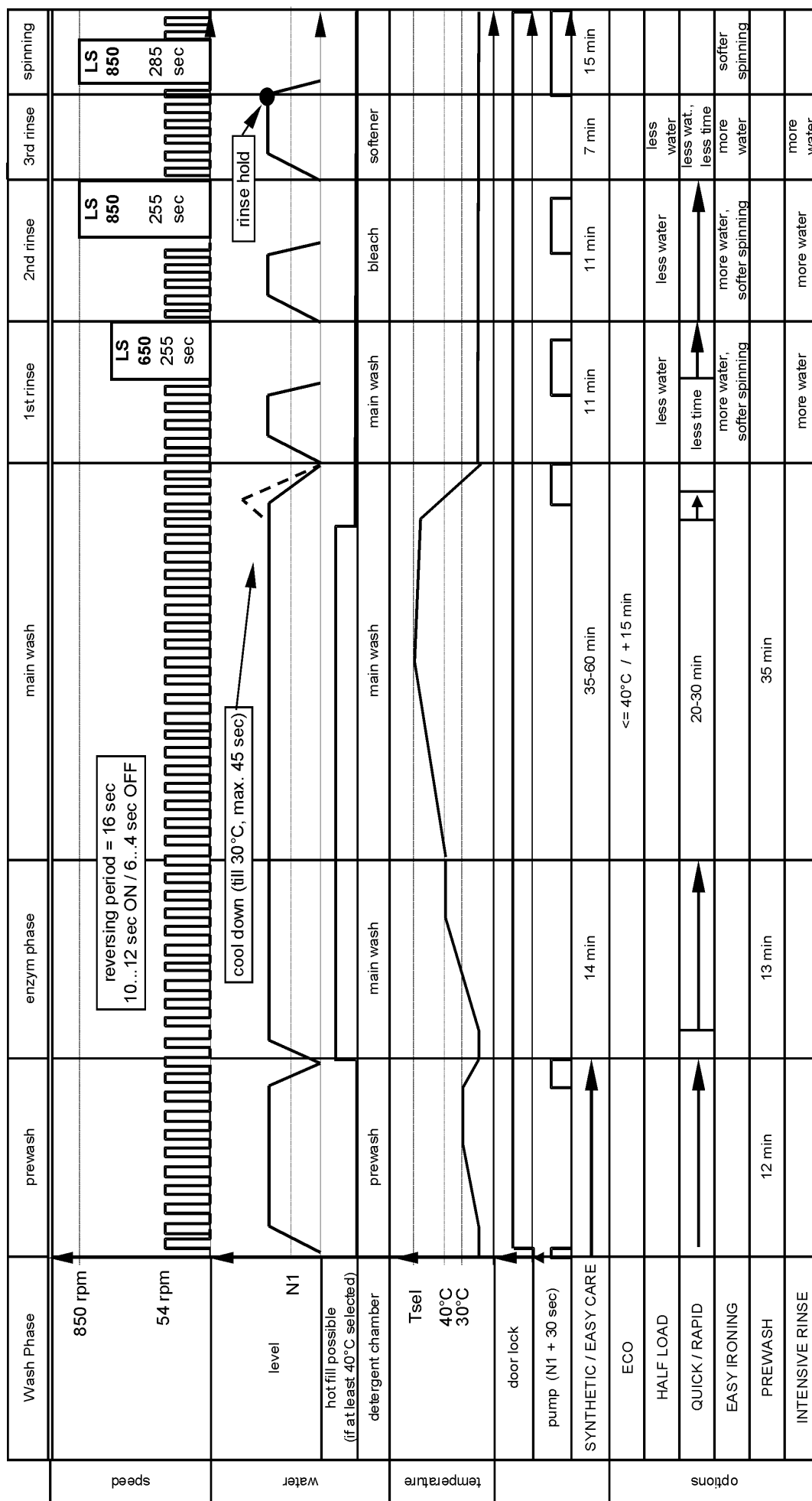
SC1



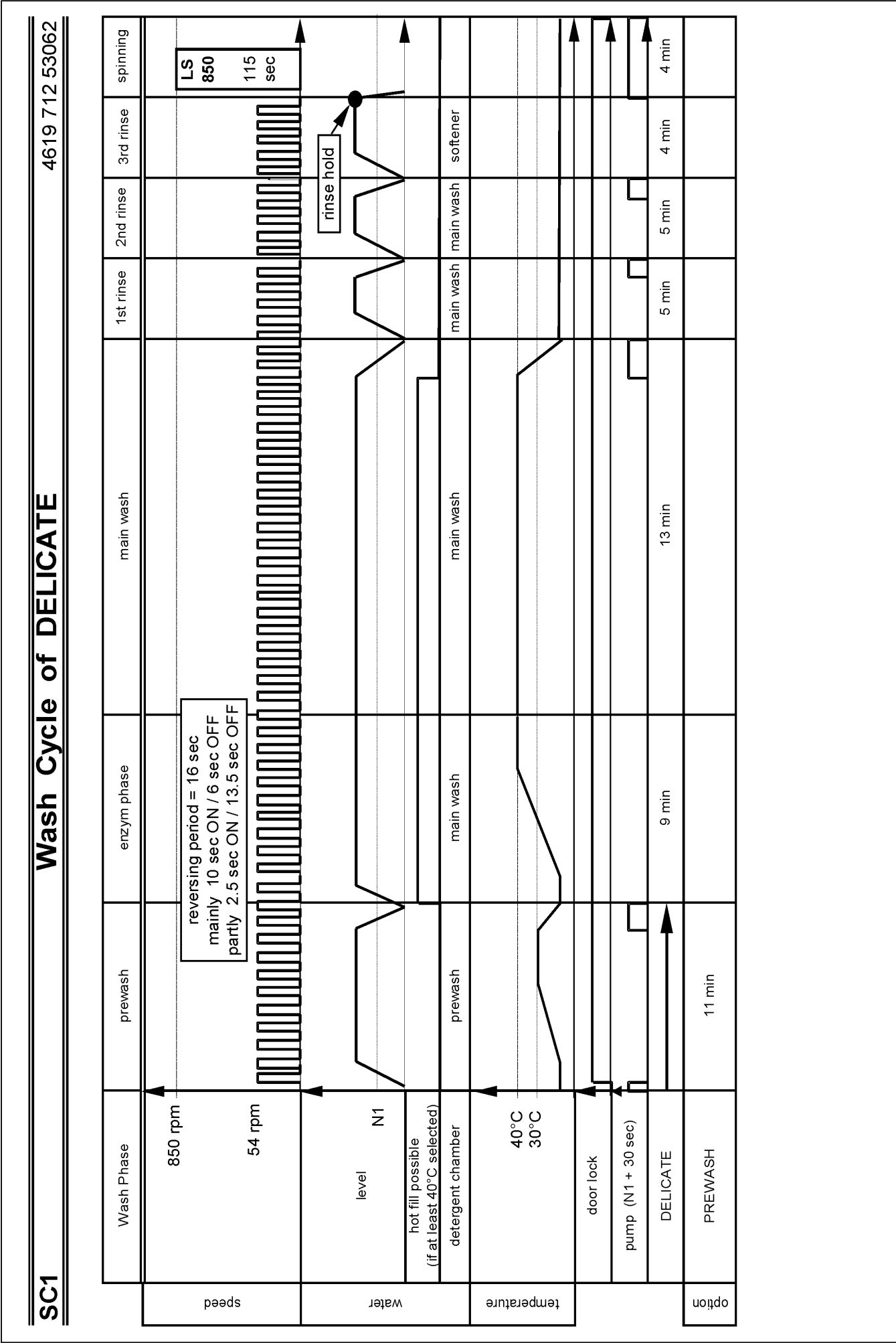
Program chart



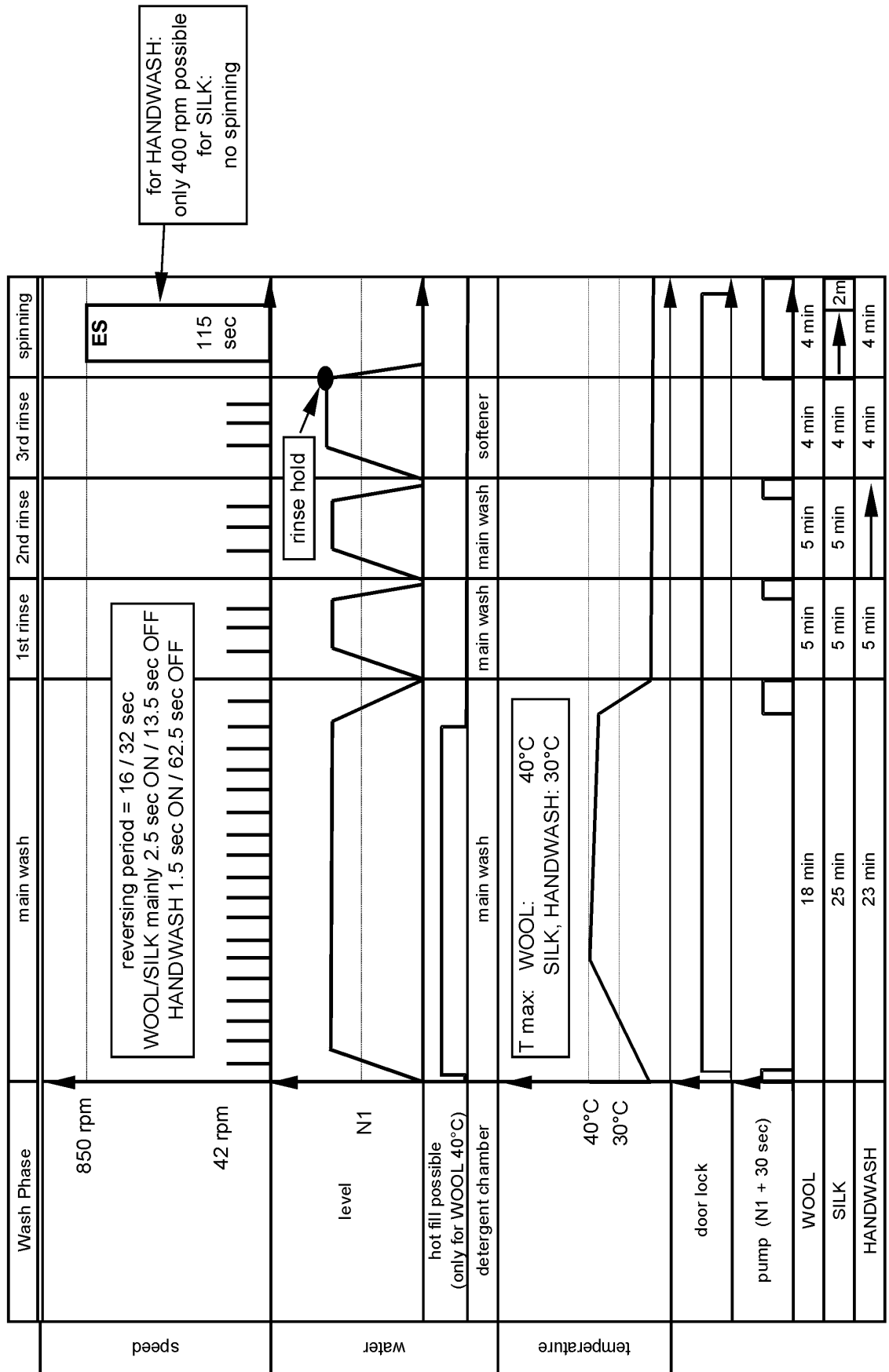
SC1



Program chart



SC1

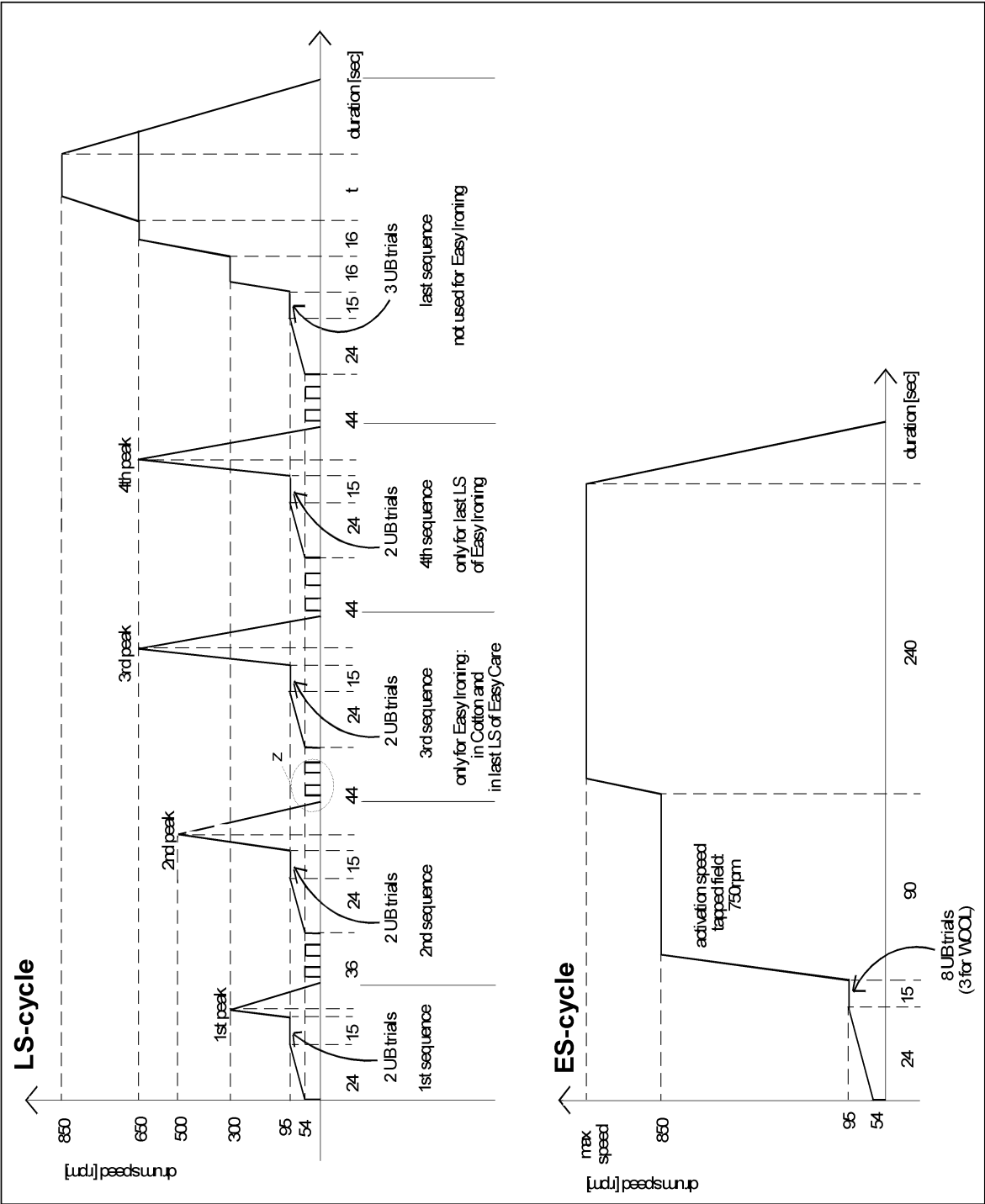


Program chart

4619 712 53062

Spinning Profiles

SC1



Text/Legend

