



# Service Manual

## Washing machine

## Frontloader

## AWO 12363

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	8592 087 10000	
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	Family	OMEGA



**Global White**

**Technical data**

**Dimensions**

Height	85	cm
Width	59.5	cm
Depth	60	cm

**Weight**

Without packing	77	kg
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**Main connection**

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

**Drum**

Volume	53	l
Wash spin	54	rpm
Ramp spin	90	rpm
Speed spinning max.	1000	rpm

**Capacity of dry laundry**

Cotton/coloured laundry	6	kg
Cotton rapid	3	kg
Easy care	2.5	kg
Easy care rapid	1.5	kg
Delicate	1.5	kg
Wool	1	kg

**Pressostat for washing-machine**

**Level1**

Switching point	50 ± 5	mmWc
Reset	30 ± 5	mmWc

**Overflow**

Switching point	280 ± 20	mmWc
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**Water column drum**

**Level1**

Switching point	31 - 42	mm
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**Overflow**

Switching point	267 - 306	mm
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**Nominal current**

Contacts:

11 - 12	10	mA
11 - 14	10	mA
11 - 16	10	mA

Contactsystem:

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

**Door lock**

Lock time max.	6"	(20 °C)
Unlock time after 600"on	60" - 90"	(20 °C)
Nominal voltage	230	V
Nominal current:		
contact:		
4 - 5	1	mA
11 - 14	10	mA

**Heating element**

Kind of heating	Tubular heating element with NTC- Sensor	
Nominal voltage	230	V
Nominal power	2050	W
Heat conductor resistance R25	22 - 28	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)	3.4 - 4.5	kΩ

## Technical data

### Switch aquastop

Nominal voltage	230	V
Nominal current	3 (1)	mA
Switch energy	<15	cN

### 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	170	$^{\circ}\text{C}$
Capacity (1.25m height)	14	l/min

### Distribution actuator

#### Motor:

Nominal voltage	230 +10%, -15% V
Nominal current	13 mA $\pm 5$
Nominal resistance (20 $^{\circ}\text{C}$ )	6.5 k $\Omega \pm 10\%$

#### Contacts:

Nominal current	1	mA
Nominal voltage	24	V

### Electronic complete

Basic	4619 710 88592
Programmed	4619 744 83341
Nominal voltage	230 V
Frequency	50 Hz
Detergent Dispenser	3 Chamber
Programs	11
Cold fill	yes
Speed	1000 rpm
Ambient temperature	up to 70 $^{\circ}\text{C}$
Storage temperature	up to 85 $^{\circ}\text{C}$

### Program

1. Cotton
2. Easy care
3. Daily
4. Delicate
5. Express
6. Handwash
7. Wool/Silk
8. Rinse & Spin
9. Intensive Spin
10. Gentle spin
11. Drain

### Output

Aquastop (activated)	AQ2.2 - (Vcc)	24 V
Pump (on)	DP2.1 - DP2.2	230 V
Doorlock (on)	DL3.1 - DL3.3	230 V
Valve (on)	V2.1 - V2.2	>170 V
Heating (on)	HE2.1 - HE2.2	230 V
Motor distributor (on)	DI6.1 - DI6.3	230 V
Pressostat	PR6.4 - (Vcc)	24 V
- empty	PR6.6 - (Vcc)	24 V
- full (level1)	PR6.5 - (Vcc)	24 V

### Motor

Type	MCA 52/64 - 148 t.f./ WHE 9 i = 1:15.6
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#### Resistance contacts:

1 - 2	68.7	$\Omega \pm 7\%$
4 - 5	2.15	$\Omega \pm 7\%$
2 - 3	1.89	$\Omega \pm 7\%$
1 - 3	0.84	$\Omega \pm 7\%$

### Radio interference supression

Nominal voltage	230	V
Nominal capacity	470 nFX1 + 2 x 22 nFY	
Nominal inductance	2 x 470 or 2 x 500 $\mu\text{H}$	
Nominal resistance	680	k $\Omega$

### Display module

Type	DM
Fac. code	4619 710 82832
Programmes	11

Switch Start	SST
Switch Start Delay	STD
Switch Pre wash	SPW
Switch Temp. choose	+/-
Switch Rinse intensive	SRI
Switch Rinse stop	SRS
Spin speed reduction	SSR
Switch Easy ironing	SEI
Switch Eco	SEC

### Indication

-Remaining time indication

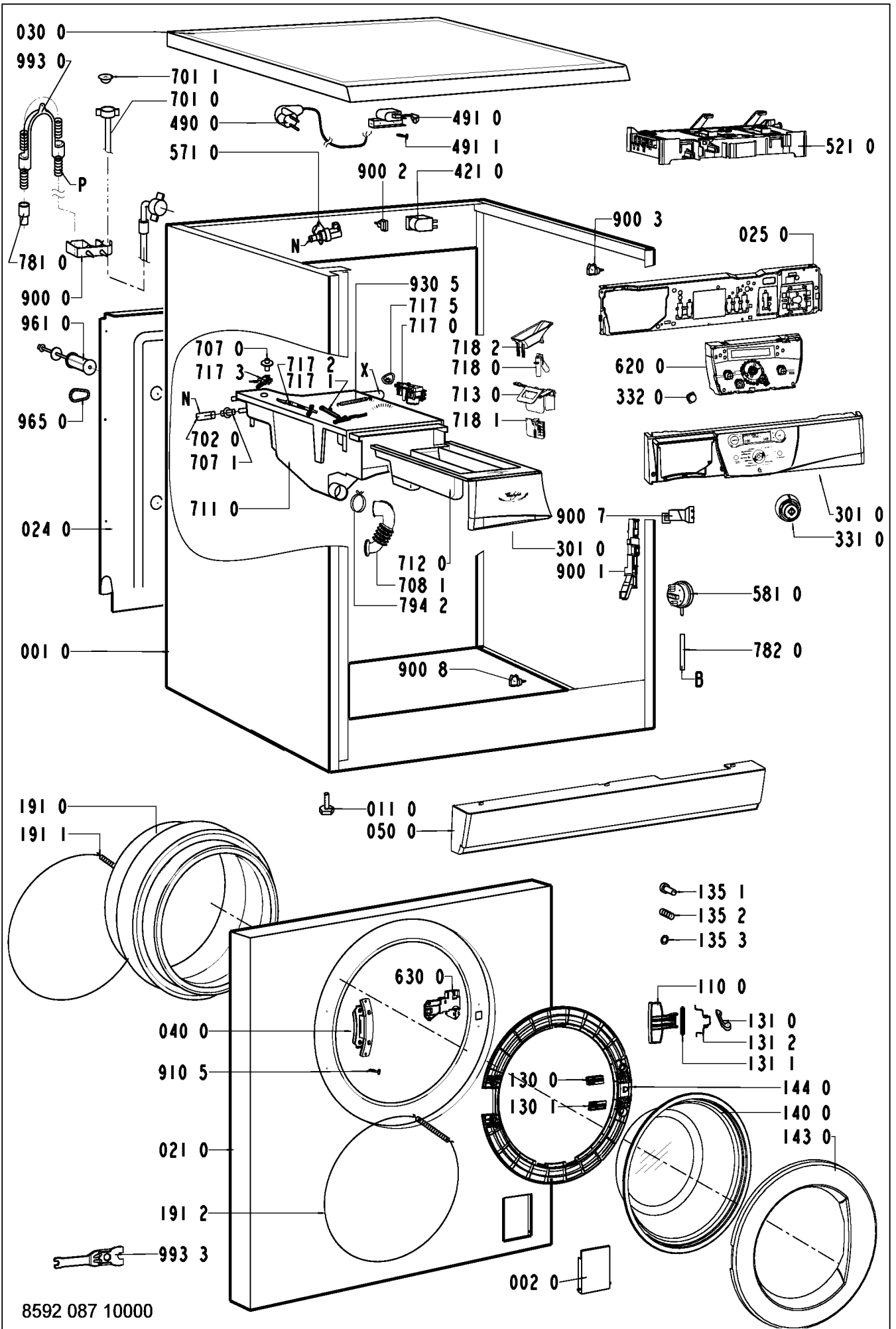
**Spare part list**

**Model** AWO 12363  
**Service No.** 859208710000  
**Version** 859208710000

Pos. No.	12NC Code	Description
001 0	<b>4812 440 10784</b>	Cabinet GW
002 0	<b>4812 440 11131</b>	Flap square EBL
004 0	<b>4812 440 18993</b>	Drip tray assy
011 0	<b>4812 462 48421</b>	Adjust. foot
021 0	<b>4812 440 11132</b>	Front square Flap EBL
024 0	<b>4812 440 18998</b>	Panel, rear
025 0	<b>4812 404 38737</b>	Support EBL
030 0	<b>4812 440 11175</b>	Table top EBL short
040 0	<b>4812 417 18787</b>	Hinge
050 0	<b>4812 440 89097</b>	Plinth EBL
061 0	<b>4812 466 88458</b>	Counterweight upper
061 1	<b>4812 466 88607</b>	Counterweight front
061 2	<b>4819 310 39227</b>	Mounting kit Weight top
061 3	<b>4819 310 39228</b>	Mounting kit Weight bottom
081 0	<b>4812 466 48088</b>	Shock absorber 1400
084 0	<b>4812 466 58001</b>	Silent block
086 2	<b>4812 401 18412</b>	Stopper
110 0	<b>4812 498 18361</b>	Handle, door
130 0	<b>4812 417 28047</b>	Plate Door lock
130 1	<b>4812 417 28048</b>	Plate Door lock Lower
131 0	<b>4812 417 28046</b>	Lock Door
131 1	<b>4812 417 28045</b>	Pin Door Lock
131 2	<b>4812 492 58022</b>	Spring Door Lock
135 1	<b>4812 498 18262</b>	Knob Door Safety GW
135 2	<b>4812 492 58023</b>	Spring Door Safety
135 3	<b>4812 290 68153</b>	Holder, adjust. Door Safety
140 0	<b>4812 450 58983</b>	Door glass
143 0	<b>4812 440 11142</b>	Glass door frame galv. EBL
144 0	<b>4812 440 11139</b>	Frame, door glass
191 0	<b>4812 460 68532</b>	Door bellow WH grease resistance
191 1	<b>4812 492 18017</b>	Strap
191 2	<b>4819 530 58059</b>	Ring
200 1	<b>4812 418 18283</b>	Tub 53l front
200 2	<b>4812 418 18318</b>	Tub 48l rear
200 4	<b>4812 290 88054</b>	Clamp for tub
220 0	<b>4812 418 18281</b>	Drum 53l, 1000
271 0	<b>4819 358 18152</b>	Belt
272 0	<b>4812 528 58027</b>	Pulley DIAM. 298
272 3	<b>4812 505 18371</b>	Nut M 12
292 0	<b>4812 530 58101</b>	Gasket Tub
301 0	<b>4812 452 14875</b>	Control panel + handle drawer
331 0	<b>4812 413 18312</b>	Knob, timer OMEGA LCDA
332 0	<b>4812 513 18154</b>	Push button Start delay/Reset
400 0	<b>4812 361 18301</b>	Motor 800/1000 MCA 52
400 1	<b>4812 502 18401</b>	Screw M8X 35
409 0	<b>4812 362 48004</b>	Brush, carbon motor CESET
421 0	<b>4812 121 18142</b>	Interf. filter 1,00 µ F
430 0	<b>4812 310 28144</b>	Pump, draining KIT
451 0	<b>4812 259 28759</b>	Heating element 2050W + NTC
480 0	<b>4812 321 78109</b>	Cable Motor SC1/OM PP/ALPHA/GA
490 0	<b>4819 321 18136</b>	Cable, mains 2m SA
491 0	<b>4812 321 28367</b>	Strain relief
491 1	<b>4812 502 38152</b>	Screw 4.8x19
521 0	<b>4812 214 79405</b>	Control board OMEGA, 1000
571 0	<b>4812 271 28543</b>	Valve, magnet

Pos. No.	12NC Code	Description
581 0	<b>4812 271 28382</b>	Pressostat single EATON
620 0	<b>4812 276 28421</b>	Module LCDA
630 0	<b>4812 280 58044</b>	Door lock
631 0	<b>4812 271 38358</b>	Switch MICRO
631 1	<b>4812 360 58112</b>	Floater Kit BK, WH
691 0	<b>4812 282 18702</b>	Sensor NTC (SC1,OMEGA,ACCESS)
701 0	<b>4819 530 28848</b>	Hose, inlet
701 1	<b>4819 466 69704</b>	Gasket and filter
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>4812 418 68333</b>	Dispenser OMEGA EBL
712 0	<b>4812 418 68319</b>	Drawer 3 C. cpl. EBL
713 0	<b>4812 418 89042</b>	Flap drawer 3 C. EBL
717 0	<b>4812 323 18006</b>	Actuator f. Distribution
717 1	<b>4812 321 38015</b>	Lever water distr. OMEGA/GAMMA
717 2	<b>4812 321 38014</b>	Lever OMEGA/GAMMA
717 3	<b>4812 321 38016</b>	Lever connection OMEGA/GAMMA
717 5	<b>4812 310 18459</b>	Cam actuator OMEGA/GAMMA
718 0	<b>4812 526 48051</b>	Siphon
718 1	<b>4812 418 89041</b>	Separator 3 C. EBL
718 2	<b>4812 418 89043</b>	Grille drawer 3 C. EBL
753 1	<b>4819 418 68234</b>	Chamber, air
754 0	<b>4812 530 28826</b>	Drain hose
754 1	<b>4812 530 28832</b>	Lock eco
754 2	<b>4812 530 28829</b>	Flange eco
760 0	<b>4812 480 58105</b>	Filter set pump
781 0	<b>4812 530 29342</b>	Hose, draining
782 0	<b>4812 530 28827</b>	Hose Pressostat
787 0	<b>4812 530 28813</b>	Steam hose
787 2	<b>4819 401 18868</b>	Clamp, hose 26.8 mm
794 2	<b>4812 401 18549</b>	Clamp, hose
794 5	<b>4812 530 58098</b>	Gasket Airtrap
900 0	<b>4812 255 18204</b>	Holder Hose outlet
900 1	<b>4812 290 88086</b>	Bracket
900 2	<b>4812 290 88077</b>	Cable clamp
900 3	<b>4812 401 18446</b>	Cable clamp
900 4	<b>4812 401 18414</b>	Clamp, hose
900 5	<b>4819 401 18529</b>	Clamp, hose
900 6	<b>4812 401 18444</b>	Support Heating element
900 7	<b>4812 256 98031</b>	Holder pressostat
900 8	<b>4819 401 18823</b>	Clamp
910 0	<b>4812 502 18383</b>	Screw Torx T40 M 8X 25
910 5	<b>4812 502 18516</b>	Screw 4,2 x 13
930 0	<b>4819 492 38139</b>	Spring Suspension
930 5	<b>4812 492 38359</b>	Spring, Nozzle
941 0	<b>4812 520 28004</b>	Bearing, ball 6206
941 1	<b>4812 520 28066</b>	Bearing, ball 6204
953 0	<b>4812 530 58099</b>	Shaft seal 1200
961 0	<b>4819 532 68829</b>	Spacer
965 0	<b>4812 466 68545</b>	Cover BK/WH
993 0	<b>4812 530 29341</b>	Bow
993 3	<b>4812 395 58004</b>	Tool

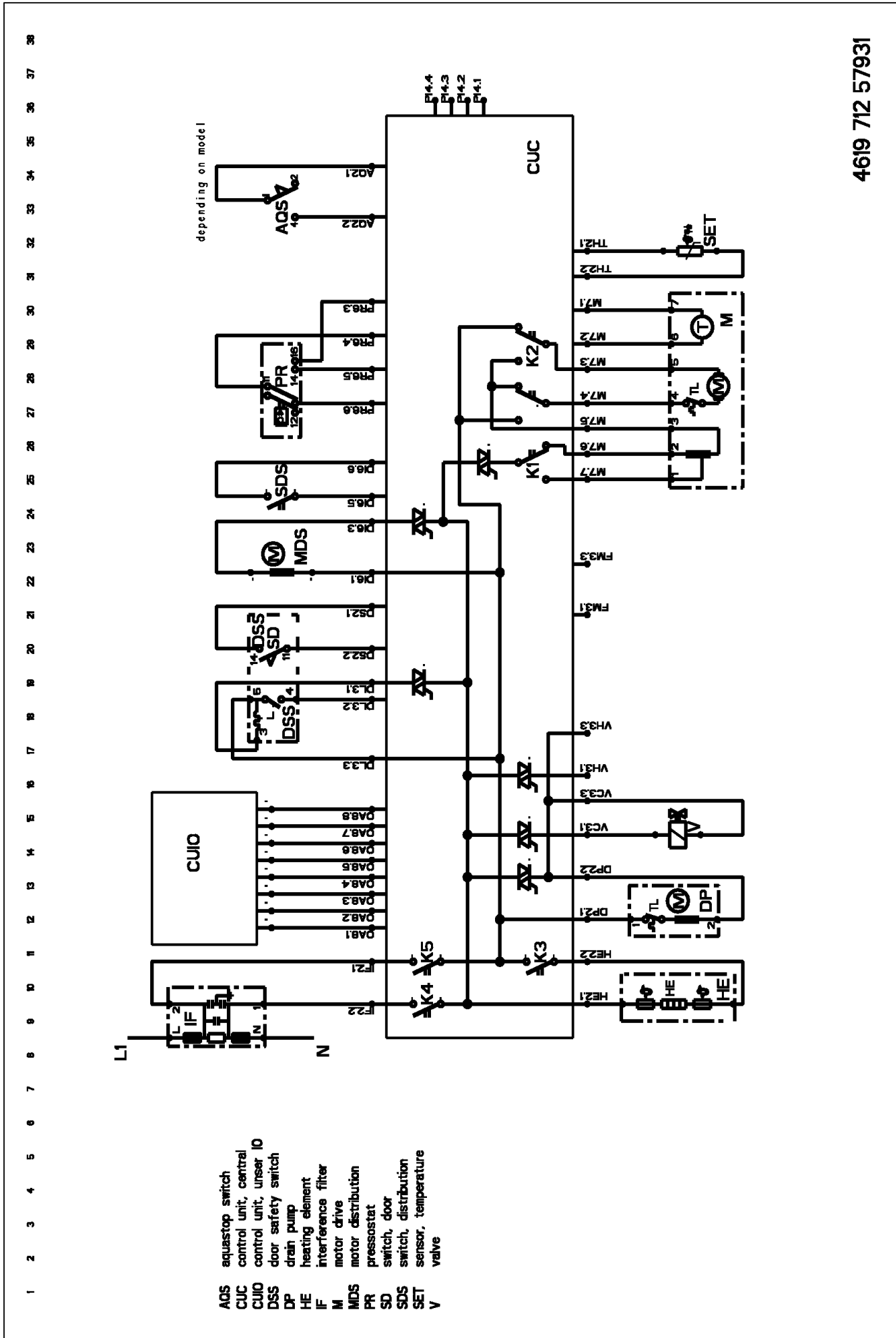
## Exploded view







**Circuit diagram**



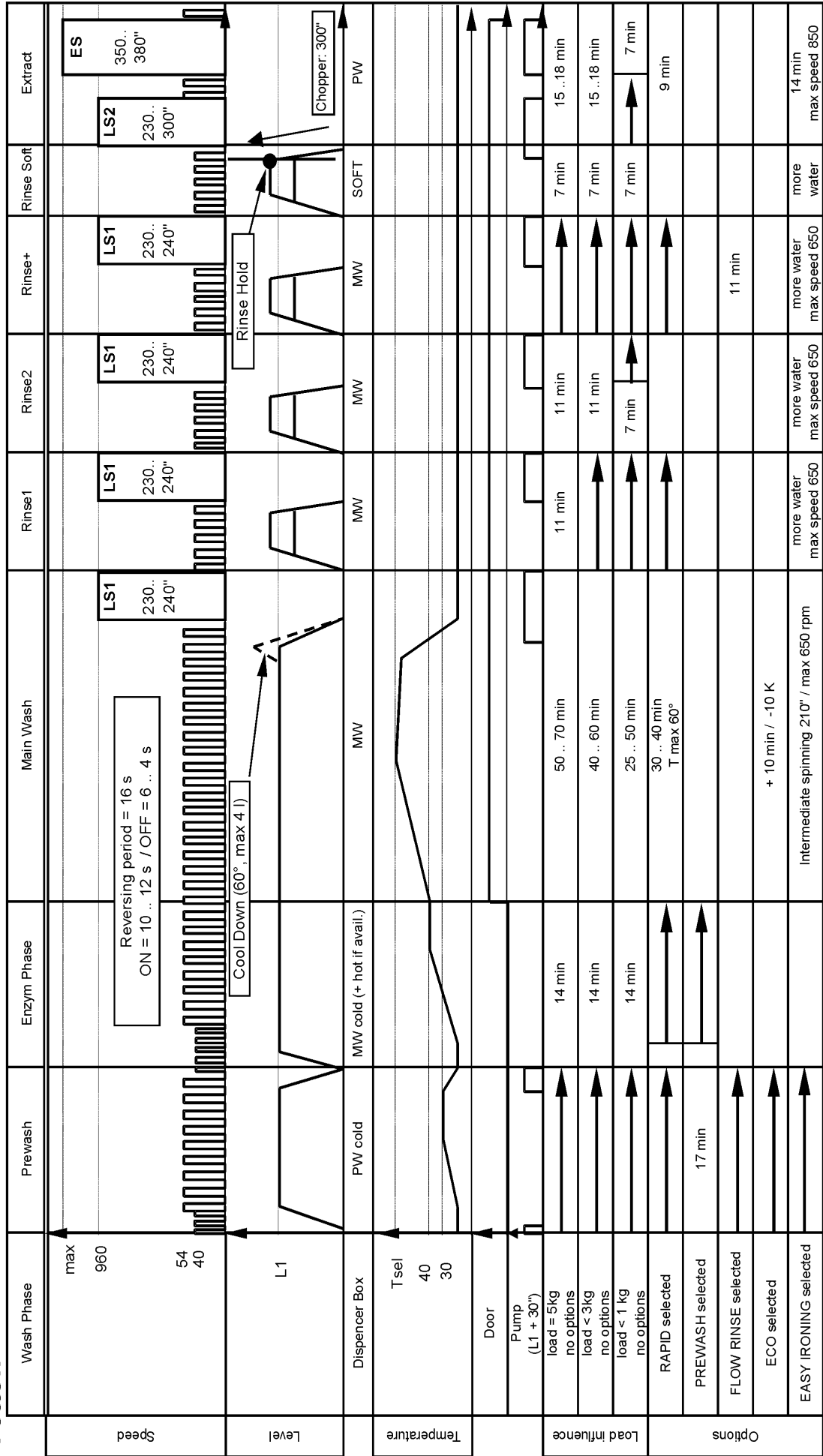


**Program chart**

OMEGA DELTA Soap dispenser: 3 chambers 4619 712 37701-04

**Wash Cycles / Spin Cycles**

**Cotton**



**Program chart**

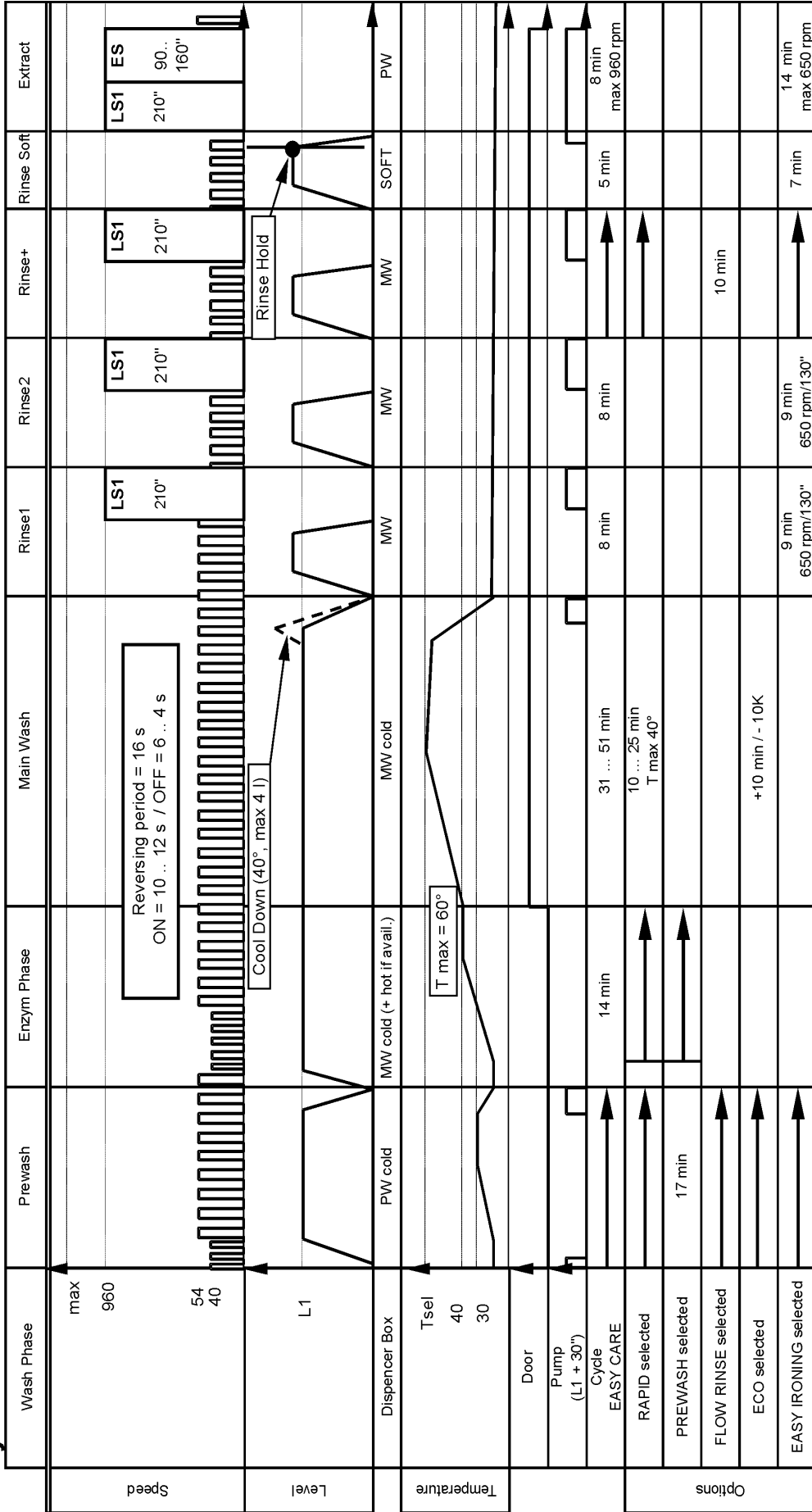
4619 712 37701-04

Soap dispenser: 3 chambers

**Wash Cycles / Spin Cycles**

DELTA

**Easy Care**



**Program chart**

4619 712 37701-04

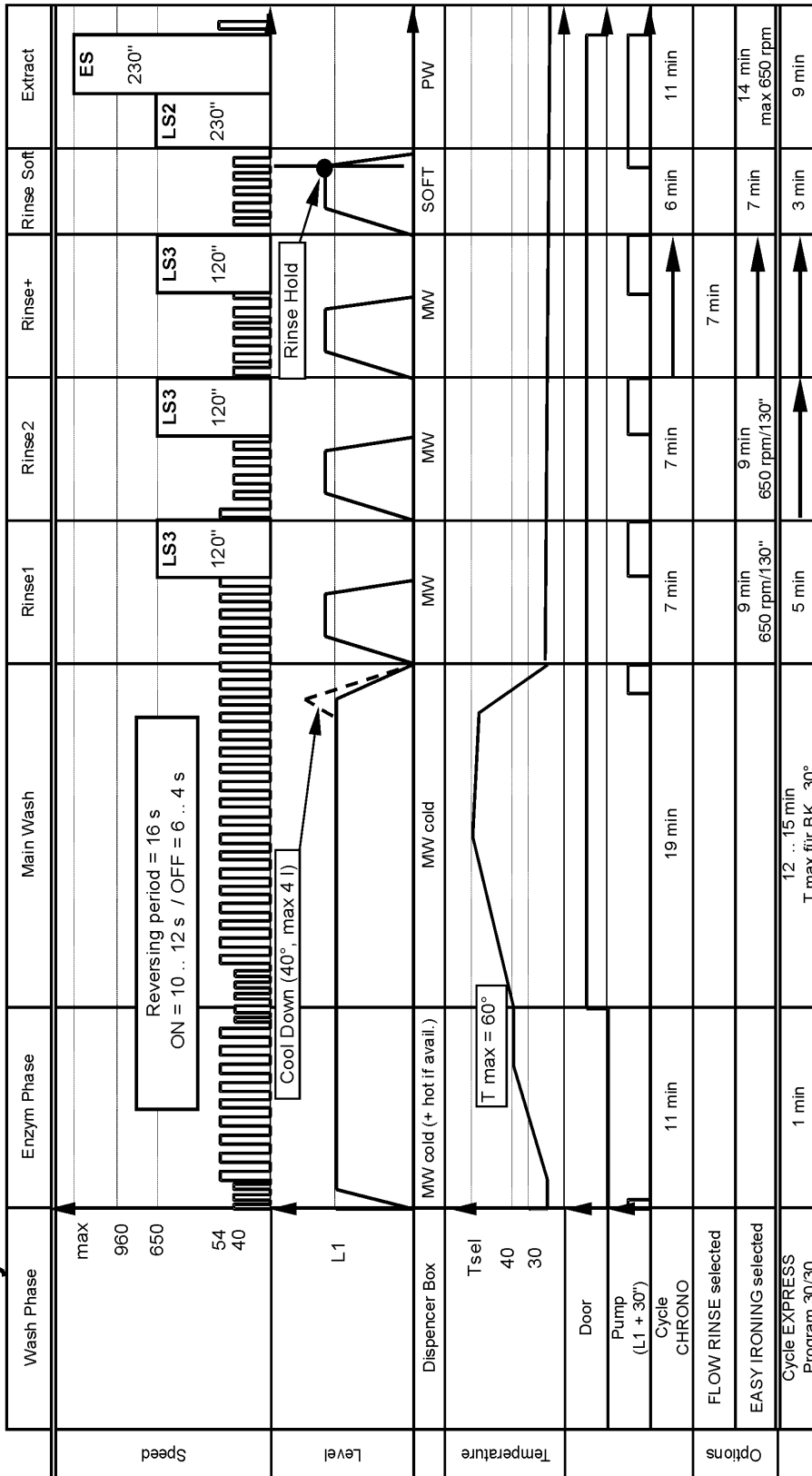
Soap dispenser: 3 chambers

**Wash Cycles / Spin Cycles**

DELTA

OMEGA

**Chrono/Daily 40**



**Program chart**

4619 712 37701-04

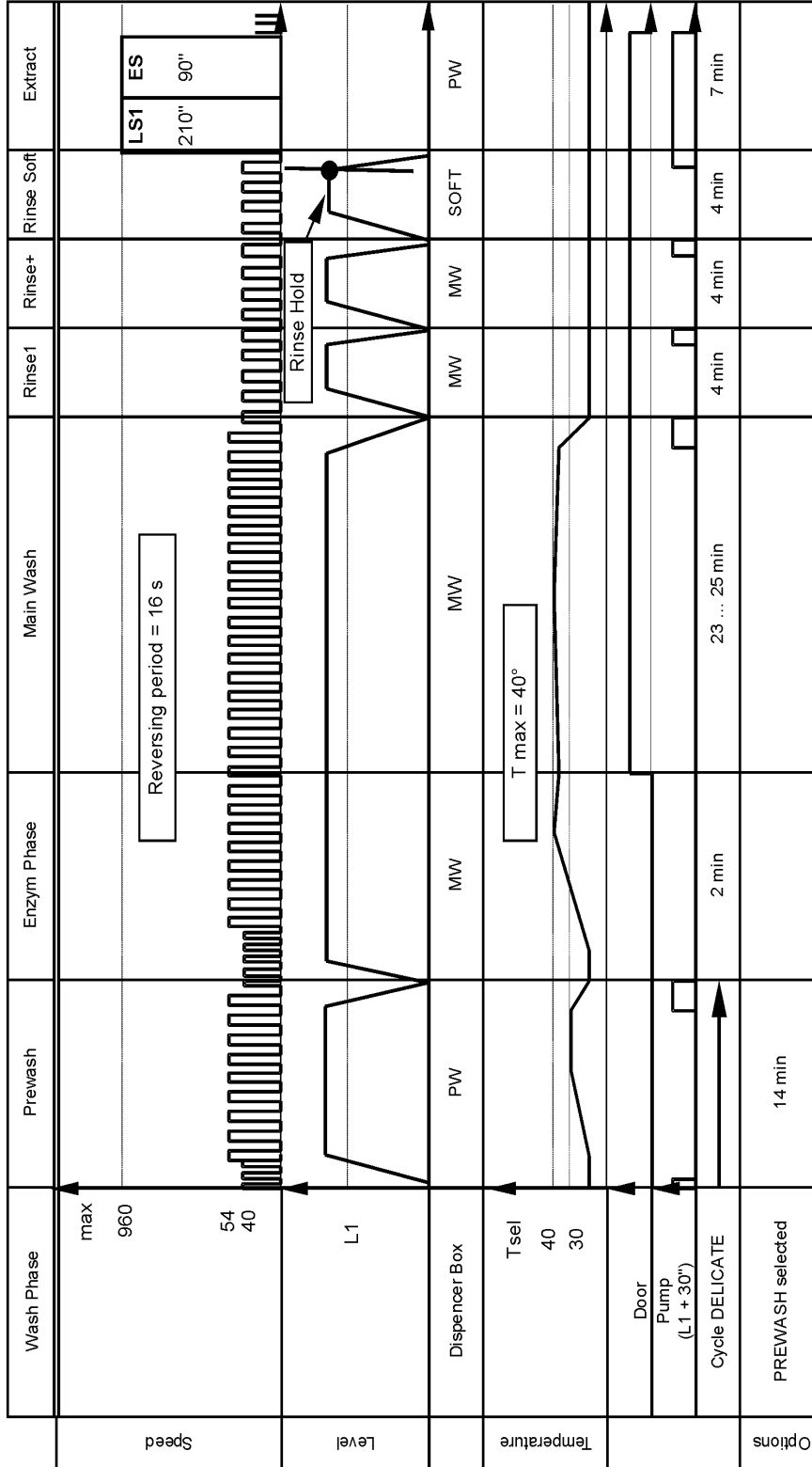
Soap dispenser: 3 chambers

**Wash Cycles / Spin Cycles**

DELTA

**OMEGA**

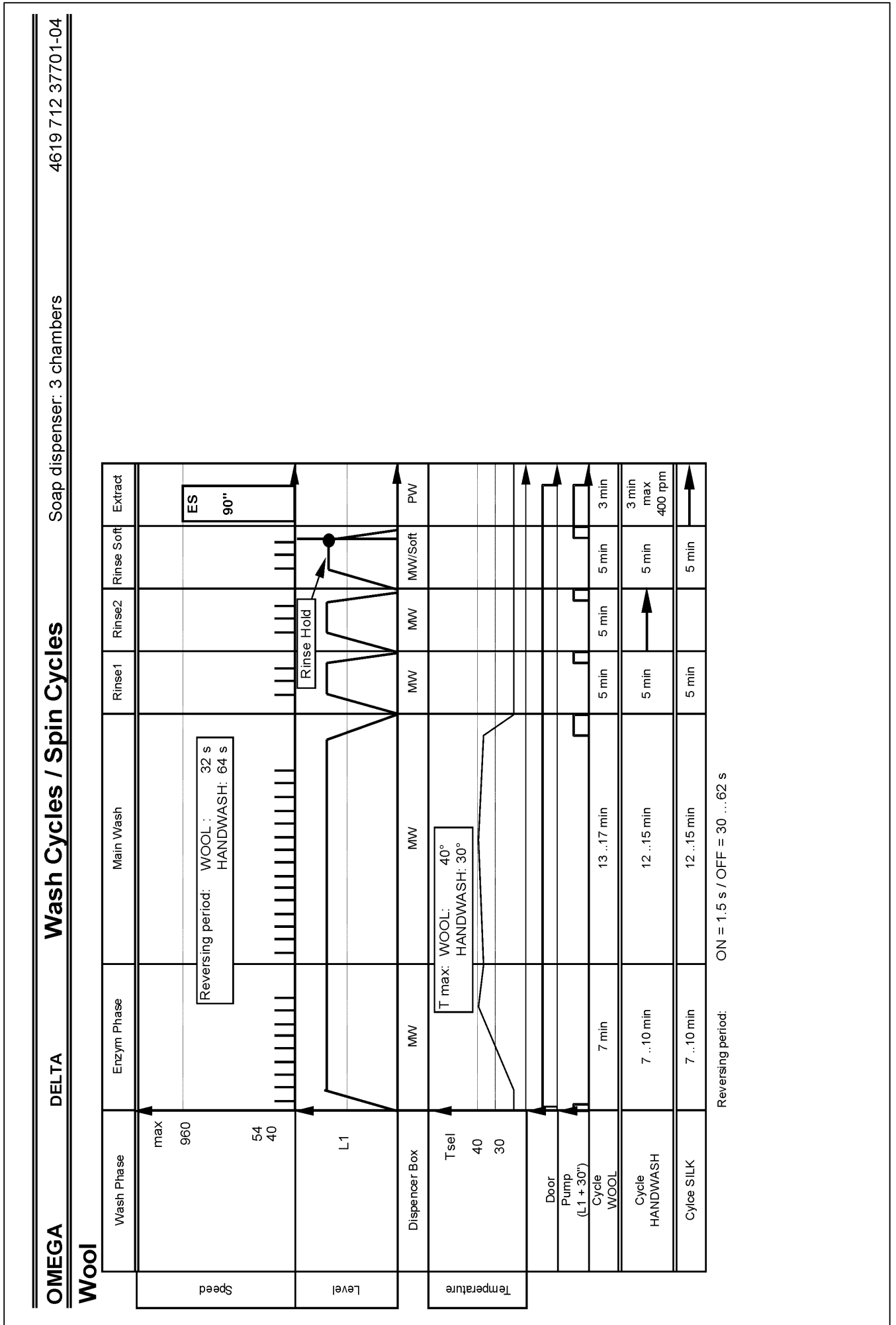
**Delicate**



Normal Rhythm: ON = 4 s / OFF = 12 s

Gentle Rhythm: ON = 2.5 s / OFF = 13.5 s

**Program chart**



**Program chart**

4619 712 37701-04

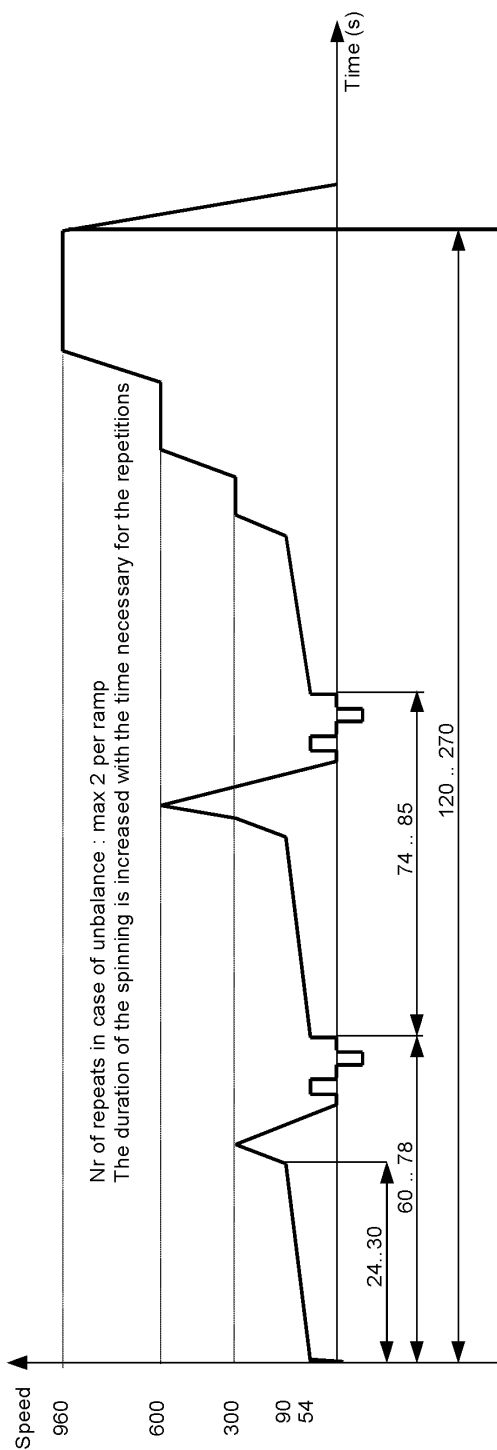
Soap dispenser: 3 chambers

**Wash Cycles / Spin Cycles**

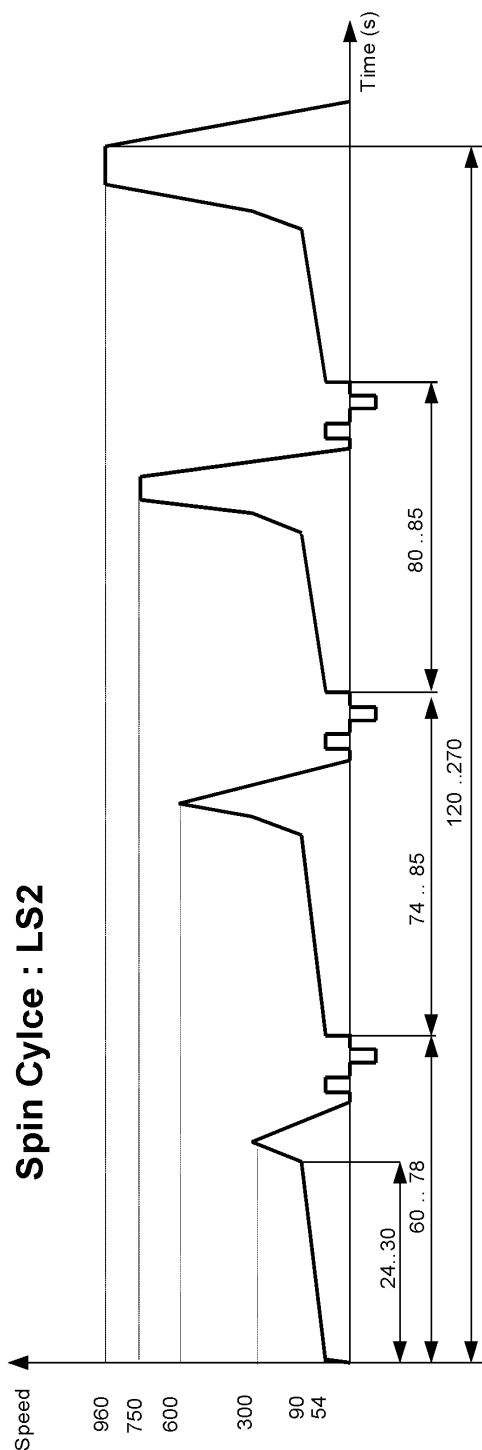
DELTA

**OMEGA**

**Spin Cycle : LS1**



**Spin Cycle : LS2**



**Program chart**

4619 712 37701-04

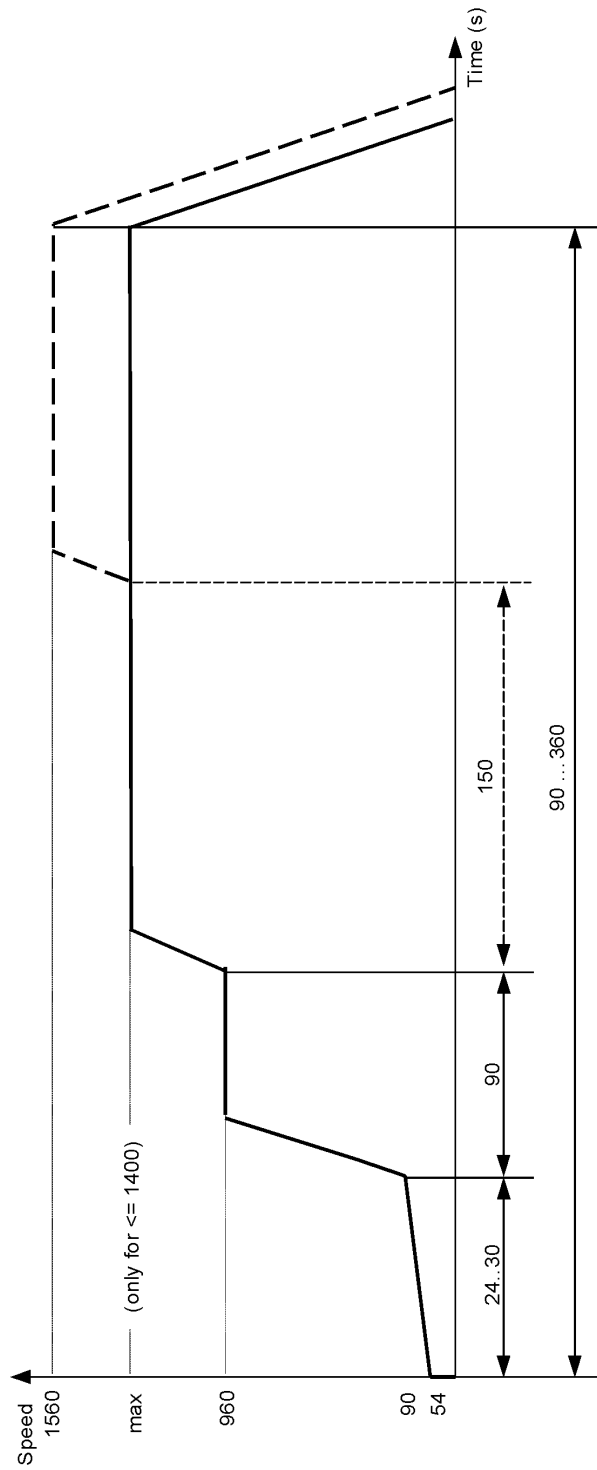
Soap dispenser: 3 chambers

**Wash Cycles / Spin Cycles**

DELTA

**OMEGA**

**Spin Cycle : ES**




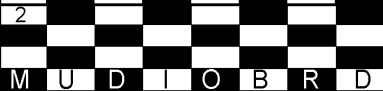
Nr of repeats in case of unbalance: max 11  
 Nr of repeats in case of foam: max 3  
 In the cycles WOOL and HANDWASH we don't have repeats  
 The duration of the spinning is increased with the time necessary for the repetitions

**Text/Legend**

**OMEGA LCDA DELTA                      Test Program                      4619 712 69681**

- 1 → Select program                      Drain
- 2 → Start test program                      Push start delay button 4 times within 5 seconds
- 3 → Indication elements                      LCD indicates chessboard 1 for 5 seconds then chessboard 2  
every pushed button will be indicated by one letter  
LCD indicates current program step
- 4 → Go to next step                      push every button once, finally START (only if chessboard 2 is displayed)  
Push start delay button twice
- 5 → Finish test program                      Move the program selector from the DRAIN position

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

LCD Indication	Function	Duration	Checked	Drum rhythm
chessboard 1		5"	display	
chessboard 2		Untill every button is pushed once	display and buttons	
C0	Lock the door	Until the door is locked	Door Lock Function, Drum Up Switch	
C1	Fill, current dispenser position	Until L1 is reached	Flowmeter	
C2	Move dispenser motor to prewash		Dispenser	
C3	Fill (cold + hot)	L1 + 30"		
C4	Movement	10 ..15"	Motor	Drum CW 54 rpm
C5	Wash + Heat	max 90° (50°) + 1 min	Heater	Drum CW 54 rpm
C6	Drain	L1		Drum CW 54 rpm
C7	Ramp	15"	Motor	Drum CCW Ramp 54 - 90 rpm
C8	Spin (max speed)	240"	Motor	Drum CCW max speed

If failure occurs    The test program is stopped  
Buzzer will beep 30 "  
Failure indication on LC display see next page



## Text/Legend

<b>OMEGA LCDA DELTA</b>	<b>Test Program</b>	4619 712 69681
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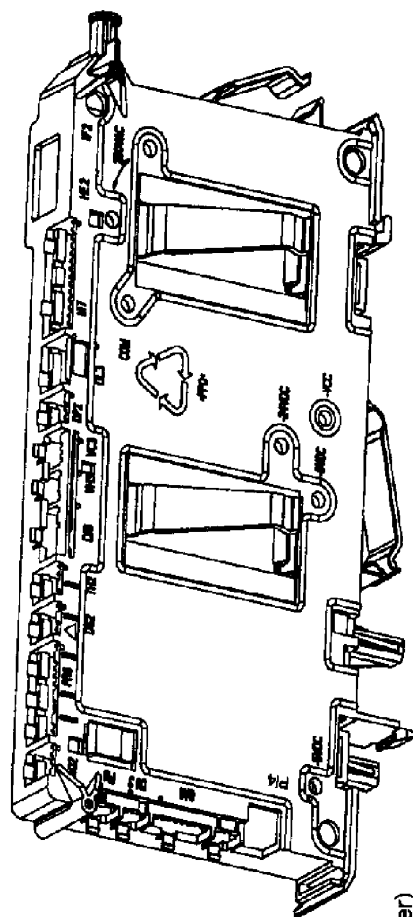
Indication		Detection failure	To be checked
Classification	Failure Code		
Warning		Overfoam	
Warning		Unbalance	
Alarm		Door open	Door lock, wiring to door lock
Alarm		Valve failure (no water inlet)	Water tap, valves
Alarm		Flowmeter short circuit / open circuit	Wiring flowmeter
Failure	2	Overflow contact = ON Aquastop contact = ON	Aquastop switch
Failure	3	Drain failure (no water outlet)	Drain pump / Pressostat
Failure	5	NTC failure	NTC
Failure	6	Tachometer failure (no motor movement detected)	Motor, Tachometer
Failure	7	Motor triac short circuit	Control board, Motor
Failure	8	Heater failure (no feedback on Control board)	Heater, Control board
Failure	12	Heater short circuit to ground or Heater relay SC	Heater, Control board
Failure	13	Dispenser circuit failure	Dispenser actuator
Failure	14	EEPROM failure	Control board
Failure	21	Communication failure Control board - Display board	Control Board, Display Board, wiring to Display Board

In the failure state all actuators are switched OFF. The mains relays are opened.  
Exception: During aquastop/overflow failure the drain pump is switched ON.

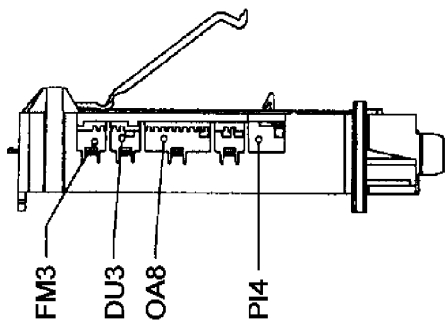
The ERROR state is canceled if the program selector is set to OFF position.

**Text/Legend**

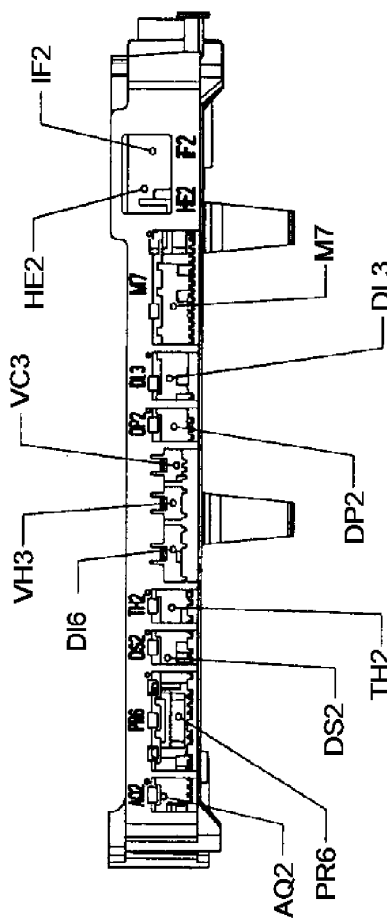
**Timer OMEGA Delta (fully electronic) 230V, 50Hz**



- AQ2 aquastop switch
- OA8 control unit, unser IO
- DS2 door switch (safety)
- DP2 drain pump
- DU3 drum up
- HE2 heating element
- IF2 interference filter
- M7 7 pol. motor
- D16 6 pol. control unit motor (only chopper)
- PR6 switch / motor distribution
- DL3 pressostat
- FM3 door switch (lock)
- TH2 sensor, flow
- VC3 sensor, temperature
- VH3 valve, cold fill
- VH3 valve, hot fill
- PI4 program, input



Test points for Omega 2  
 no longer available!



4619 712 69681