



Service Manual

Washing machine

Toploader

AWT 7125/S

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	Family	OMEGA



Technical data

Dimensions

Height	85	cm
Width	40	cm
Depth	60	cm

Weight

Net weight	~62	kg
With package	~64	kg

Main Connection

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

Drum

Volume	42	l
Wash spin	52	rpm
Ramp speed	95	rpm
Speed spinning max.	1200	rpm

Capacity of dry laundry

Cotton	5	kg
Cotton short	3	kg
Easy care	2	kg
Daily mixed	3	kg
Super rapid	1.5	kg
Delicate	1.5	kg
Handwash	1	kg
Wool	1	kg

Pressostat

Kind of switch	2-level pressoswitch with overflow contact	
Type	A2-670 f	
Nominal voltage	230	V

Water Level

Foam level (11 - 12, 14)		
Switching point	32 ± 5	mmWc
Switching back point	15 ± 5	mmWc

Level 1 (21 - 22, 24)		
Switching point	50 ± 5	mmWc
Switching back point	30 ± 5	mmWc

Overflow (21 - 26)	280 ± 20	mmWc
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Water level based to drum	40 ± 15	mm
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Nominal currents

Contacts		
21 - 22	0.5 - 1	mA
21 - 24	16 (4)	A
21 - 26	1 (1)	A

Door lock (5-pole)

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

NTC sensor

Class of protection	II		
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 voltage	220 - 240	V	
Frequency	50	Hz	
Nominal current	40	mA	
Nominal power	8.8	VA	± 10%
Nominal resistance	3.8	kΩ	± 10%

Technical data**Drain pump (synchronous)**

Nominal voltage	230	V
Nominal/max. current	0.3/0.5	A
Nominal power	34	W
Frequency	50	Hz
Resistor (coil) (20 °C)	162	Ω
Motor protection	Thermal-fuse	
Capacity (0.55 - 1.0 m)	14 $\pm$ 2	l/min
Position of draining hose outlet	min.	0.55 m
	max.	1.0 m

Power board

Type	Omega2/A43E	
Timer basic	4619 710 72176	
Timer programmed	4619 730 91431	
Nominal voltage	230	V
Frequency	50	Hz

Motor

Type	MCA 52/64 - 148/ALE	
Belt ratio	i = 1:13,3	

Resistance contacts (20 °C)

Stator (full field)	2.17	$\Omega \pm 7\%$
Stator (tapped field)	1.35	$\Omega \pm 7\%$
Rotor	1.90	$\Omega \pm 7\%$
Tachogenerator	68.70	$\Omega \pm 7\%$

Input power (230 V AC)

Washing	240	W $\pm 7\%$
Rinsing	350	W $\pm 7\%$
Spinning (full field)	320	W $\pm 10\%$
Spinning (tapped field)	400	W $\pm 10\%$

Radio interference supression

Rated voltage	90 - 250	V
Rated current	16	A
Frequency	50/60	Hz
Nominal capacity	680 nF X1 + 2 x 22 nF Y	
Nominal resistance	680	k $\Omega \pm 10\%$

Drum up sensor

Nominal voltage	5	V DC
Nominal current	0,5	mA
Poles	1	
Resistance	150	m Ω
Connection	Wires + RAST 2.5	

Display module

Type	DM 2D3D WH01 TL OM
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Programs	11
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Push button switch

Start/Pause	
Easy ironing	OPT. 1
Pre wash	OPT. 3
Rinse intensive	OPT. 4
Rinse stop	OPT. 5
Spin speed reduction	OPT. 6

Temperature selector

Button 1	-
Button 2	+

Spare part list

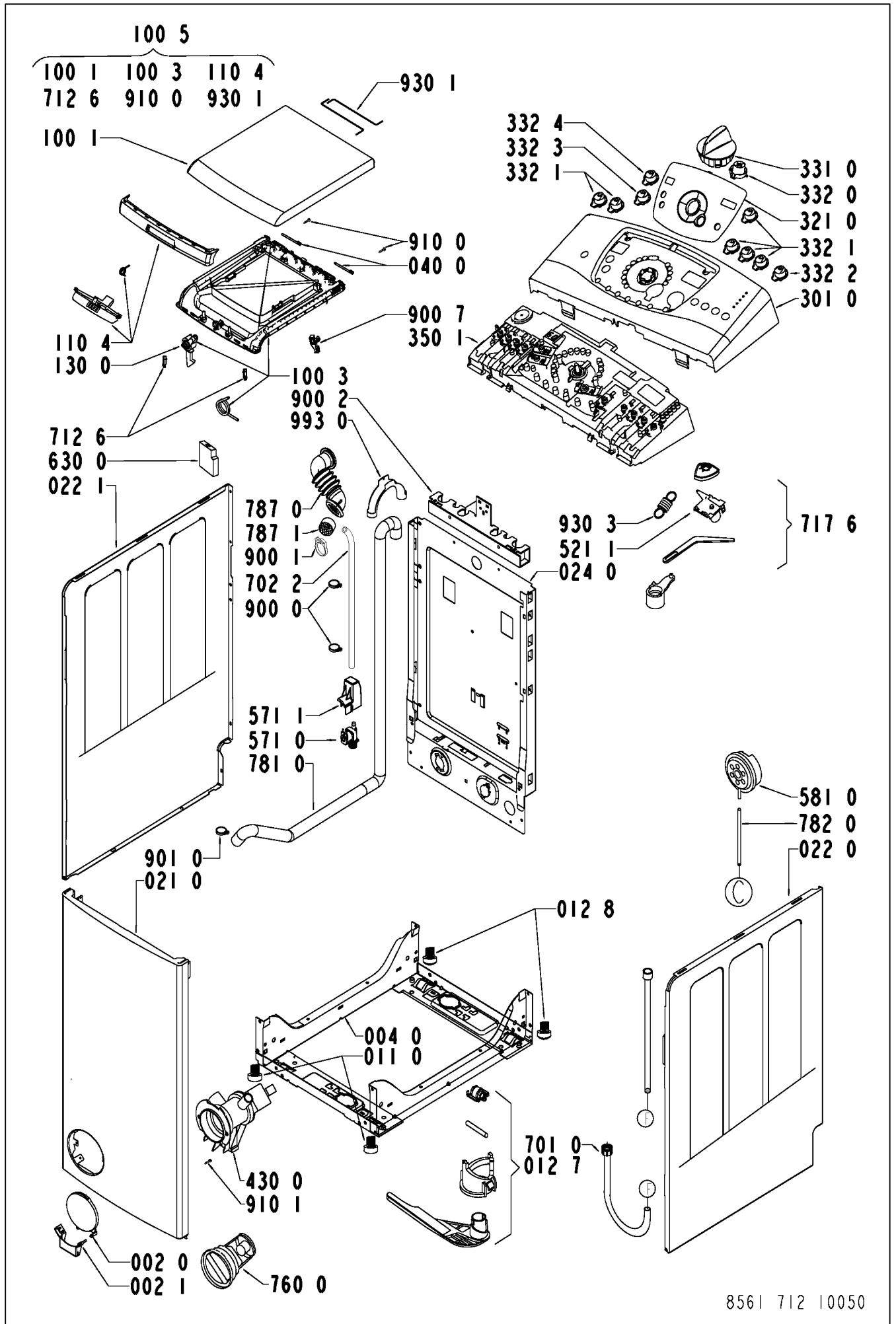
Model
Service No.
Version

AWT 7125/S
856171210050
856171210050

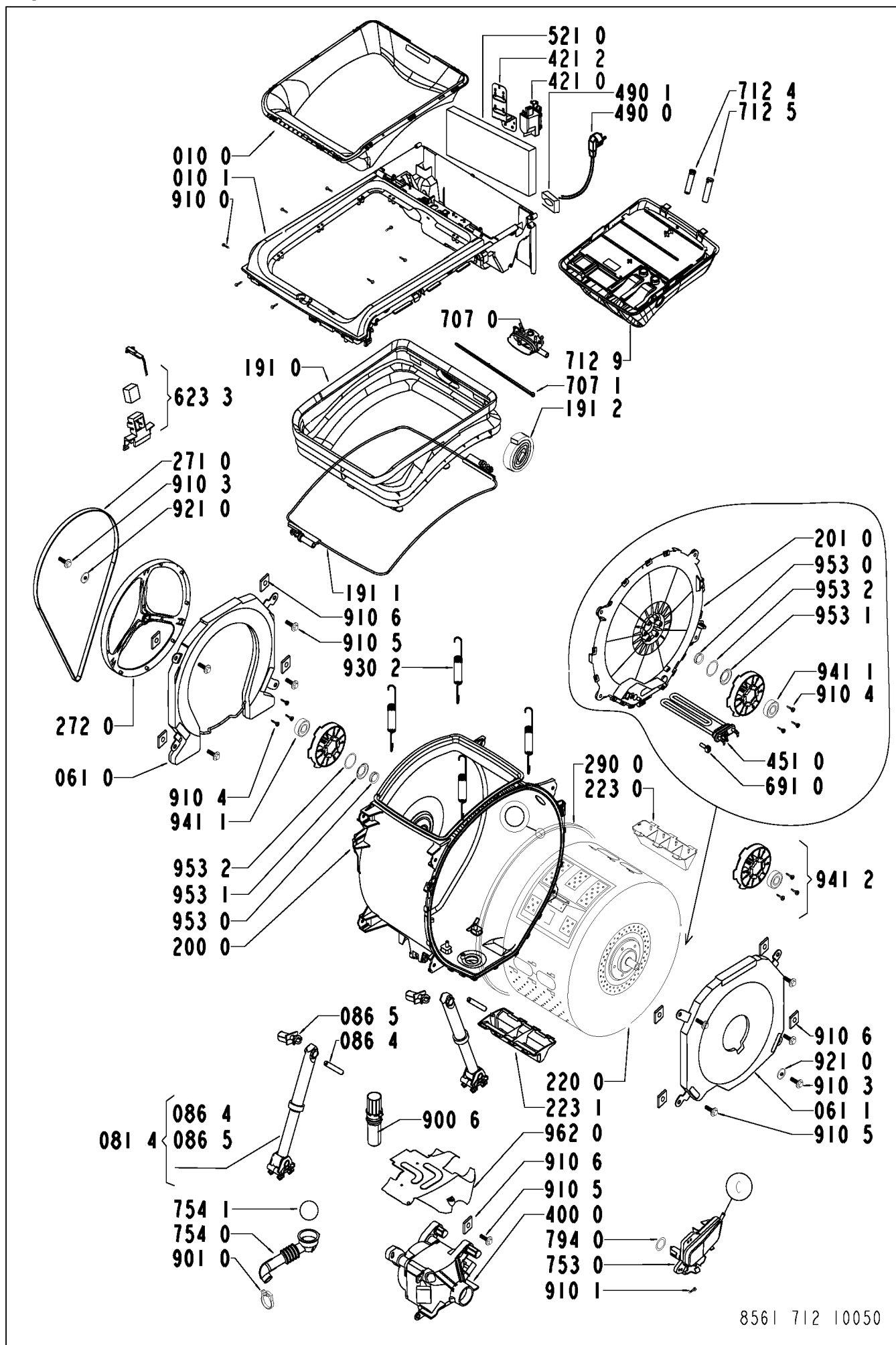
Pos. No.	12NC Code	Description
002 0	4812 459 38057	Flap round GW
002 1	4812 459 38058	Hinge flap GW
004 0	4812 440 10727	Drip tray assy
010 0	4812 459 48185	Door frame inner, soft opening GW
010 1	4812 440 10741	Frame lid outer MH/RFI GW
011 0	4812 462 48054	Foot
012 7	4812 310 18497	Trolley kit front
012 8	4812 528 78046	Foot adjustable rear
021 0	4812 440 10742	Front,panel GW
022 0	4812 440 10743	Side panel right GW
022 1	4812 440 10744	Side panel left GW
024 0	4812 440 10732	Rear panel
040 0	4812 417 19155	Hinge bolt lid GW
061 0	4812 466 88466	Counter weight left
061 1	4812 466 88465	Counter weight right
081 4	4812 466 88699	Shock absorber
086 4	4812 529 18045	Pin f. Shock absorber
086 5	4812 529 18052	Damper f. Shock absorber
100 1	4812 440 10745	Lid outer GW
100 3	4812 440 10746	Lid inner+hook+spring GW
100 5	4812 440 10747	Lid cpl. WH/MH GW
110 4	4812 498 18248	Handle cpl. WH/MH GW
130 0	4812 417 19156	Hook f. Lid GW
191 0	4812 466 68749	Door bellow
191 1	4812 492 98012	Strap f. Doorbellow
191 2	4812 466 88703	Seal
200 0	4812 418 18407	Tub f.Drum latch
201 0	4812 440 19487	Cover f. Tub
220 0	4812 418 18463	Drum 210 latch/soft op.
223 0	4819 418 49713	Drum lifter
223 1	4812 418 48605	Drum lifter 54 mm with weight
271 0	4812 358 18158	Belt
272 0	4812 528 88105	Pulley 298 mm
290 0	4812 532 68078	Gasket
301 0	4812 452 13892	Control panel AWT 7125/S
321 0	4812 452 12145	Insert panel
331 0	4812 412 58978	Knob Timer WH/VBL GW
332 0	4812 410 29015	Button Start GW
332 1	4812 410 29016	Button option with LED GW
332 2	4812 410 29017	Button option speed GW
332 3	4812 410 29018	Button temp. "-" GW
332 4	4812 410 29019	Button temp. "+" GW
350 1	4812 214 58063	Display Omega2/A4
400 0	4812 361 58133	Motor AC6 MCA 52 TF
421 0	4812 121 18142	Interf.filter 1,00 µ F
421 2	4812 404 38708	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
521 0	4812 214 78893	Control board OMEGA
521 1	4812 323 18006	Actuator f. Distribution
571 0	4812 281 28393	Valve,magnet
571 1	4812 281 18049	Cover f. valve
581 0	4812 271 28389	Pressostat

Pos. No.	12NC Code	Description
623 3	4812 418 18446	Drum up OMEGA
630 0	4812 271 38364	Door lock
691 0	4812 259 28692	Resistor,NTC
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 6	4812 323 18005	Distributor System
753 0	4812 530 28874	Chamber,air
754 0	4812 530 29267	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 29268	Hose Pressostat
787 0	4812 530 18043	Hose Exhaust W/O hole
787 1	4812 580 38007	Sponge
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 404 38711	Holder Hose
900 6	4812 400 18048	Pin
900 7	4812 401 18447	Clamp top frame
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 18402	Screw 7x18
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 48086	Spring
930 3	4812 323 18011	Spring f. Lever
941 1	4819 520 18041	Bearing,ball 6203-2Z
941 2	4812 520 28182	Bearing,ball kit
953 0	4812 325 68001	Shaft seal
953 1	4812 520 28073	Ring counterface
953 2	4812 530 68017	O-Ring
962 0	4812 440 19497	Cover f. Motor
993 0	4812 530 29269	Bow

Exploded view



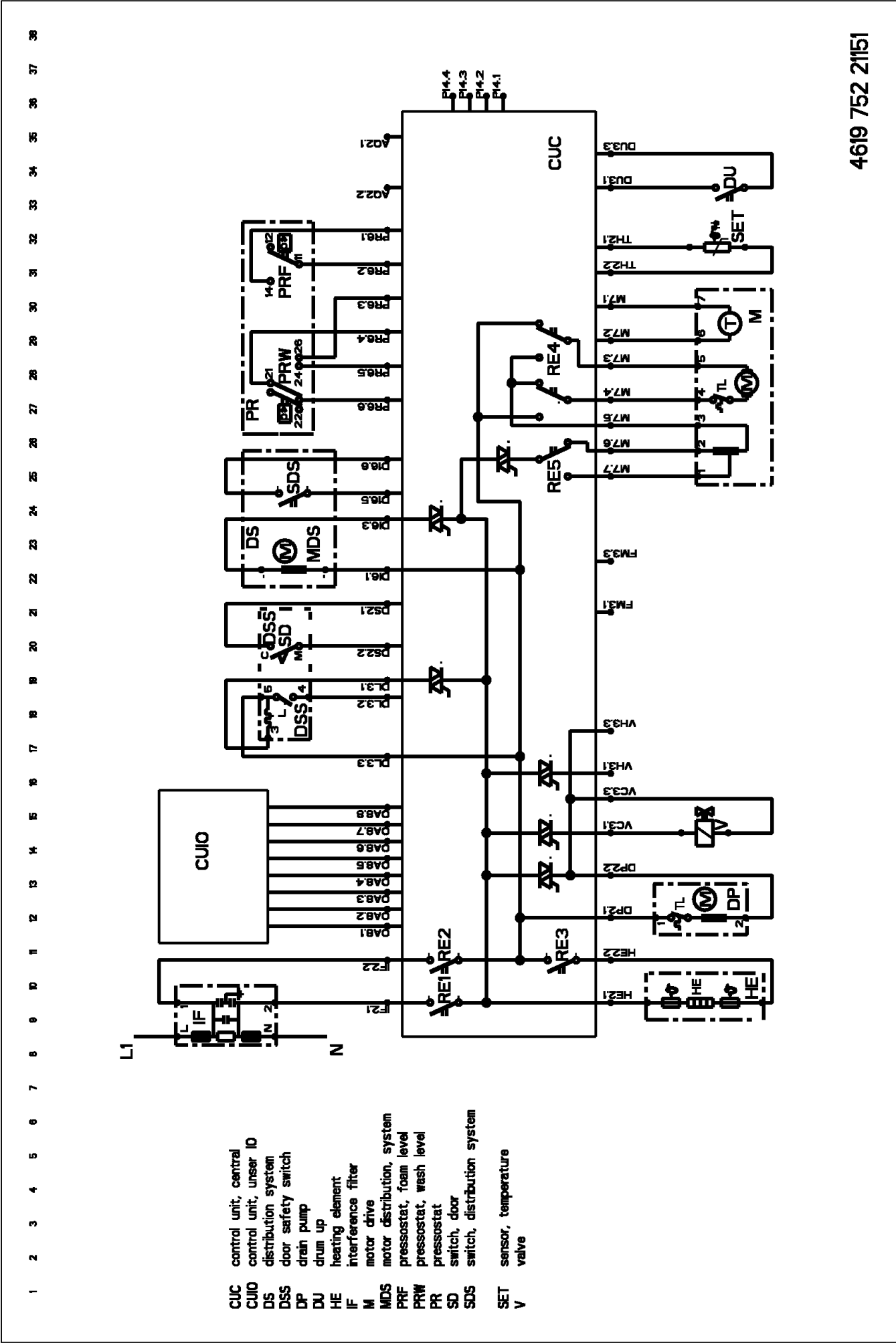
Exploded view



00 black
11 brown
22 red
33 orange
44 yellow
55 green
66 blue
77 violet
88 grey
99 white
45 yellow/green

[illegible]

Circuit diagram



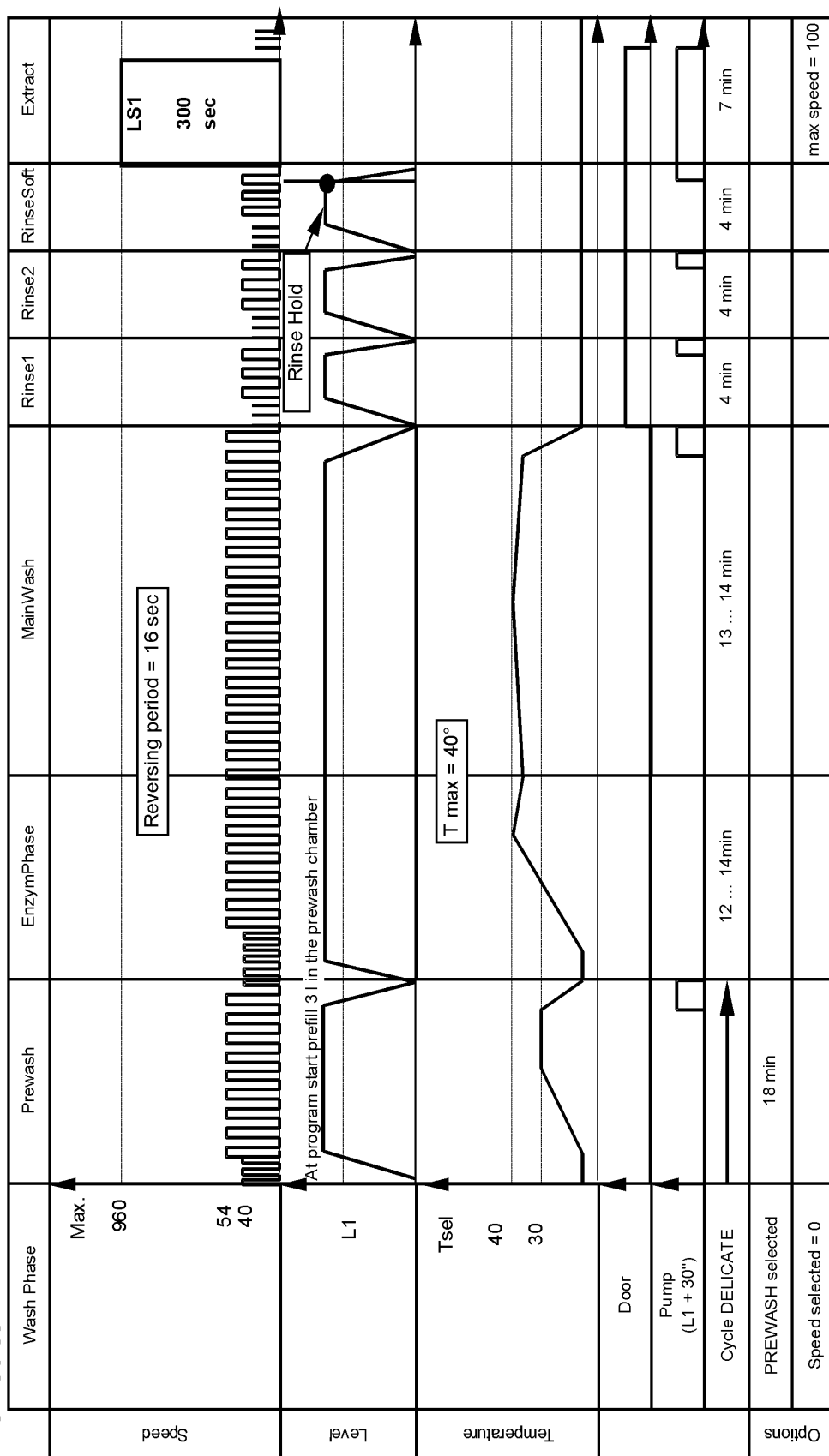
OMEGA

	Wash Phase	Prewash	EnzymPhase	MainWash	Rinse1	Rinse3	RinseSoft	Extract
Speed	Max. 960							
	54 40			Reversing period = 16 sec	LS1 270 sec	LS1 270 sec	LS1 270 sec	LS2 270 sec ES 360 sec
Level	L1			Cool Down (60°, max 4 l) At program start prefill 3 l in the prewash chamber		Rinse Hold		
	Dispencer Box	PW Cold	MW cold + hot (if avail)	MW	MW	BL (MW)	SOFT	PW
Temperature	Tsel 40 30							
	Door Lock							
Load Influence	Pump (L1 + 30")							
	load = 5kg no options	↑	14min	50 .. 70 min	11 min	11 min	7 min	15 min
	load < 3kg no options	↑	14min	40 .. 60 min	↑	11 min	7 min	15 min
	load < 1 kg no options	↑	14min	25 .. 50 min	↑	7 min	7 min	7 min
Options	RAPID selected	↑	↑	30 .. 40 min Tmax = 60 °	↑			9 min
	PREWASH selected	↑	↑					
	FLOW RINSE selected				+ 4 l water + 1 min	+ 4 l water + 1 min	+ 4 l water + 1 min	
	Spin speed = 0				max 400 rpm	max 400 rpm		max speed = 100

Reversing cycle: ON = 10 .. 12 sec / OFF = 6 .. 4 sec

Program chart

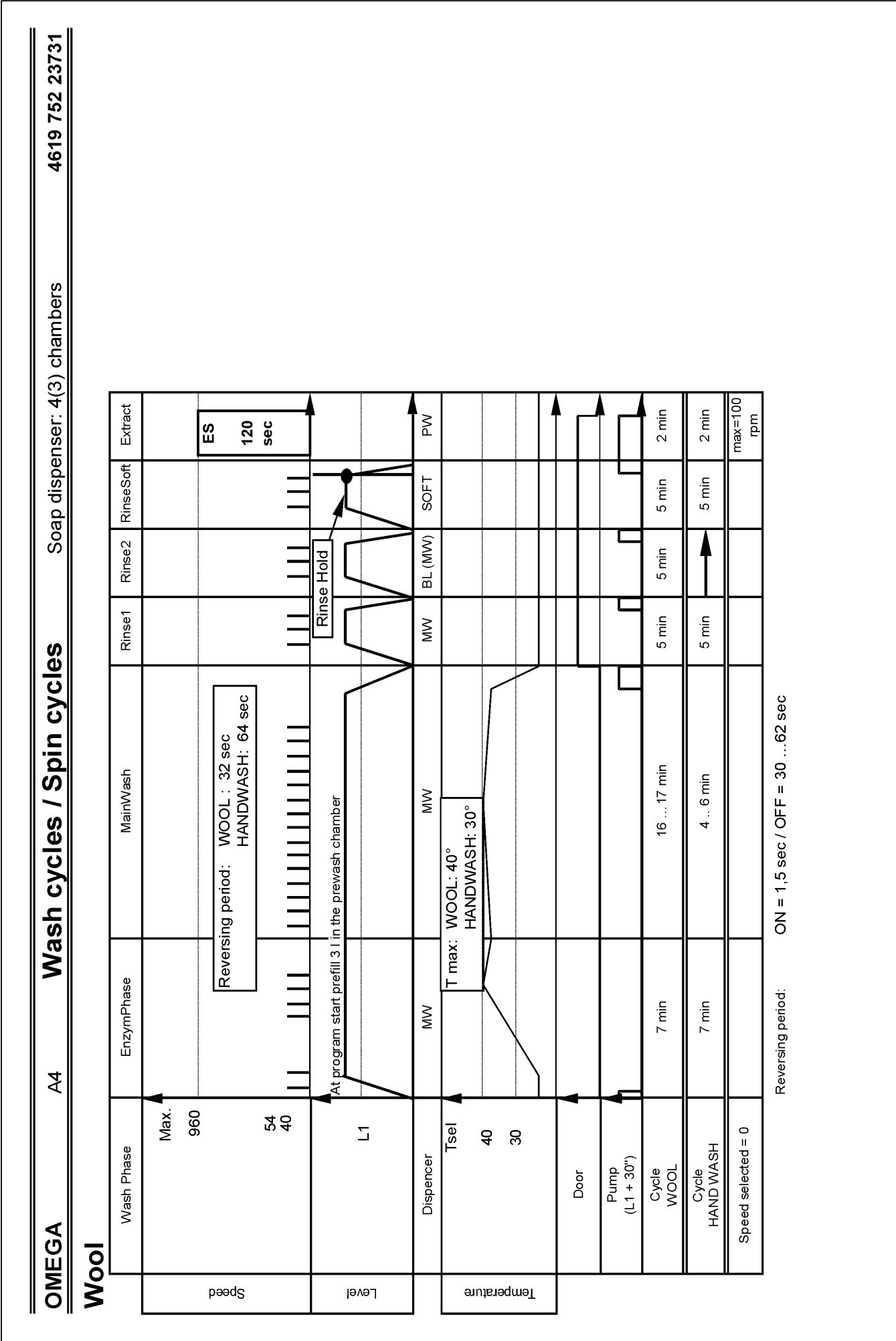
OMEGA A4 **Wash cycles / Spin cycles** Soap dispenser: 4(3) chambers 4619 752 23731

Delicate

Reversing period: Normal Rhythm: ON = 4 sec / OFF = 12 sec

Gentle Rhythm: On = 2.5 sec / OFF = 13,5 sec

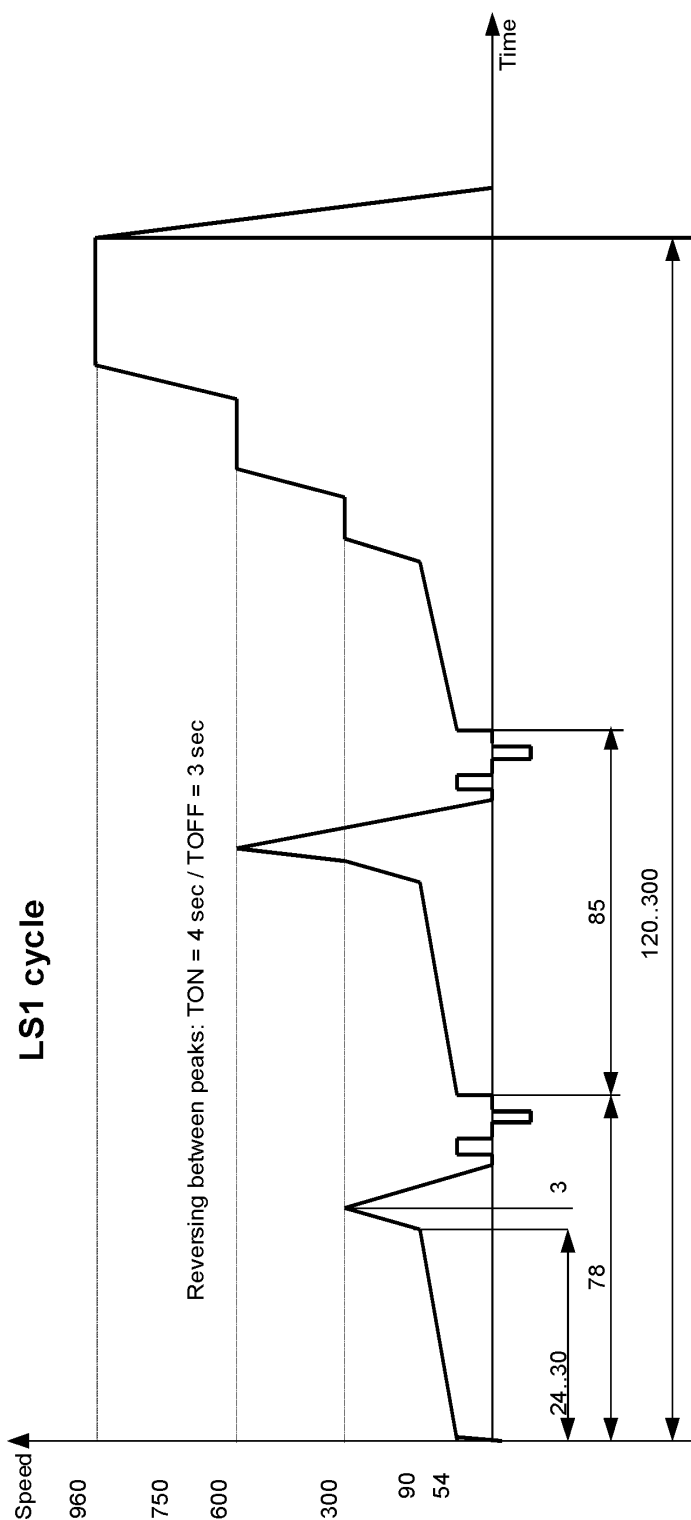
Program chart



Program chart

OMEGA A4 Wash cycles / Spin cycles Soap dispenser: 4(3) chambers 4619 752 23731

LS cycles

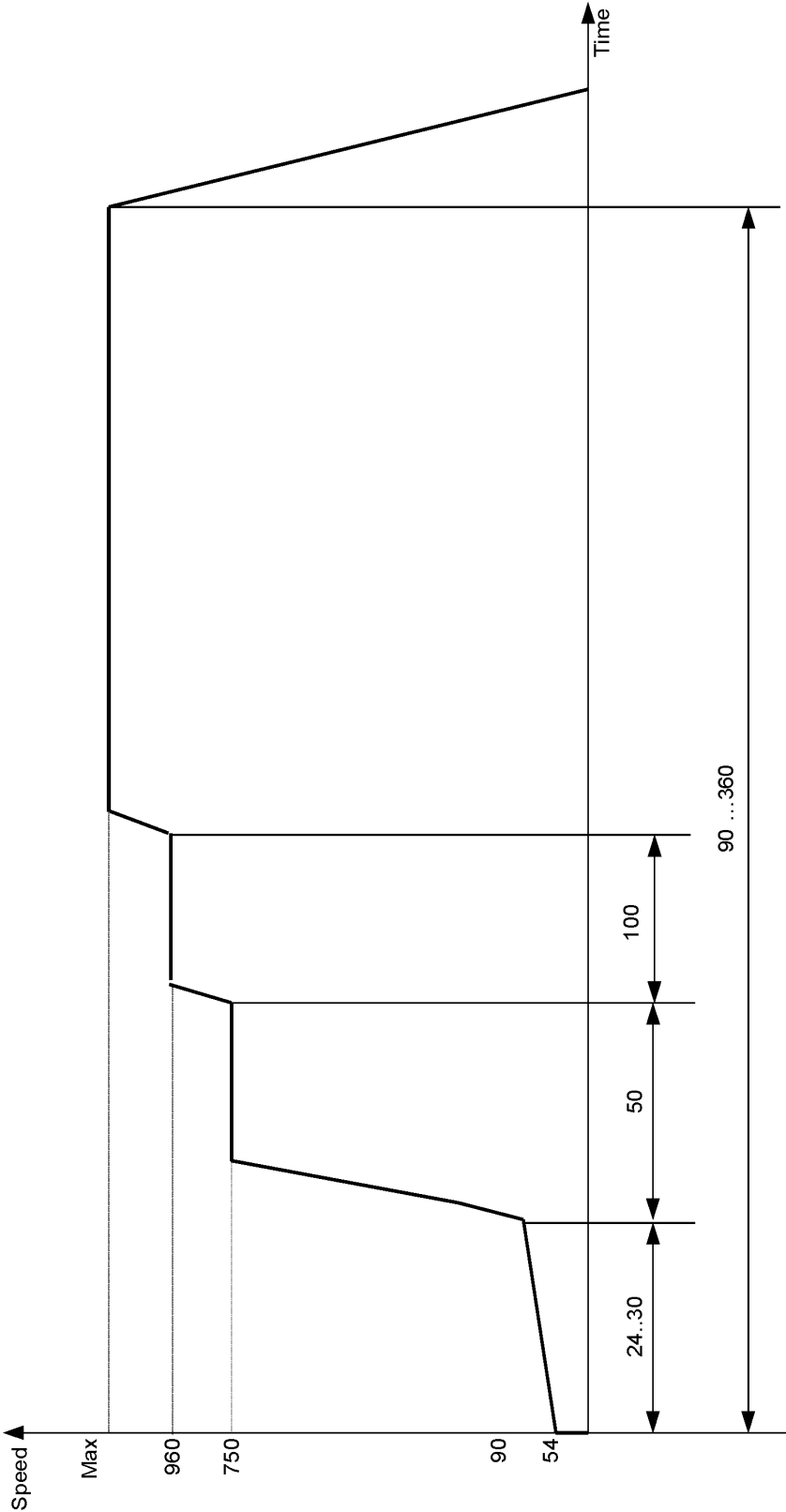


Nr of repeats in case of unbalance : max. 2 per ramp
The duration of the spinning is increased with the time necessary for the repetitions

Program chart

OMEGA	A4	Wash cycles / Spin cycles	Soap dispenser: 4(3) chambers	4619 752 23731
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ES cycle



Nr of repeats in case of unbalance : max. 10
Nr of repeats in case of foam : max. 3
In the cycles WOOL and HANDWASH we do not have repeats.
The duration of the spinning is increased with the time necessary for the repetitions

Text/Legend

OMEGA	Test Flow	Soap dispenser: 4 (3) chambers
1 Select program	Drain	
2 Start Test Program	press prewash option 4 times during 5 sec.	
3 Indication elements WH	LED Rest Time LED Water Tap LED Start	Indicates current program step BLINK ON
Indication elements BK	DIGITS Rest Time LED Water Tap LED Start LED Program Flow	Indicates current program step BLINK ON BLINK
4 Go to next step	Push prewash option 2 times	
5 Finish test program	Move the program selector from the DRAIN position	

Attention: Use the test program only without laundry!

Indication	Function	Duration	Checked	Drum rhythm
C0	Lock the door	Until the door locked	Door lock function Drum Up Switch	
C1	Fill, current dispencer position	until level 1 is reached		
C2	Move dispencer motor to Prewash		Dispencer	
C3	Fill (cold + hot)	L 1 + 30"		
C4	Movement	60"	Motor	Drum CW 54 rpm
C5	Wash + Heat	max 50° + 1 min	Heater	Drum CW 54 rpm
C6	Drain	L1		Drum CW 54 rpm
C7	Ramp	30"	Motor	Drum CCW Ramp 54.90 rpm
C8	Spin (max speed)	60"	Motor	Drum CCW Max speed

If failure occurs The test program is stoped
 Buzzer will beep 30 "
 Speed LEDs are flashing
 Failure indication on RestTime digits and/or temperature digits see next page

Text/Legend

OMEGA

Test Flow

Soap dispenser: 4 (3) chambers

Indication	Detected failure	To be checked
F H	No water inlet	Water Tap / Valve / Flowmeter / Pressostat
F A	Aquastop failure	Aquastop switch
F P	Drain failure	Drain pump / Pressostat
F 4	Temperature failure (no temperature increase)	Heater , NTC
F 5	NTC failure (SC / OC)	NTC
F 6	Tachometer failure (no motor movement detected)	Motor; Tachometer
F 7	Triac short circuit detection	Control unit, Motor
F 8	Heater failure (no feedback on Heater safety)	Heater , Control Unit
F 9	Overflow failure	Pressostat
F 11	Communication failure	Control unit
F 12	Heater safety failure	Heater, Control unit
F 13	Water distributor failure	Distributor
F 14	EEPROM failure	Control unit
F 15	DrumUp failure	Drum Up sensor

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 we set the selector to OFF position.

Text/Legend

OMEGA**General Data Service**

Soap dispenser: 4(3) chambers

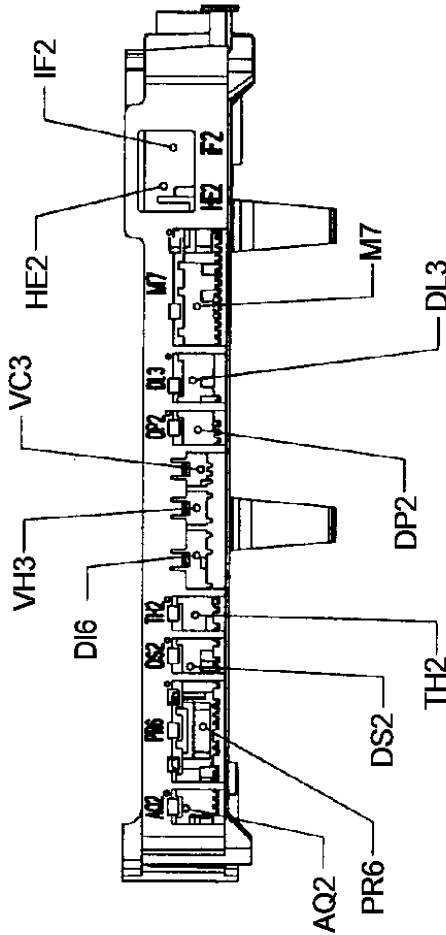
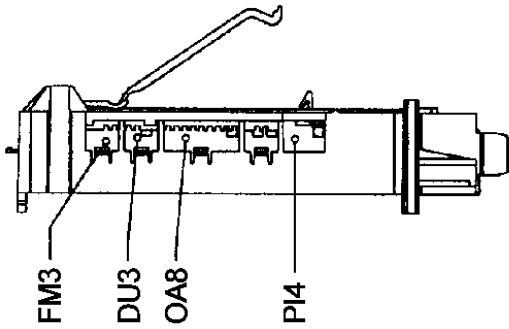
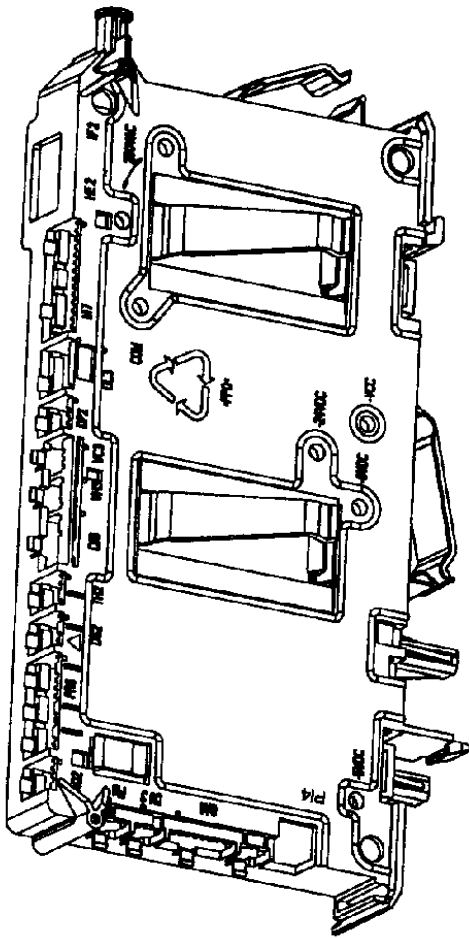
Failure detection:

Detected in step	Description	Detection time	Indication
FILLING	no flowmeter pulses detected at the beginning of the step	15"	FH
FILLING	IF theLevel1 is not switched ON after a certain time	8 min	FH
ALL	If the Aquastop switch = ON: {Drain Pump = ON; Wait 60"} If Aquastop switch = ON {Drain Pump = ON ; Failure Mode}	60"	FA
ALL	If the Overflow contact = ON: {Drain Pump = ON; Wait 60"} If the Overflowcontact = ON {Drain Pump = ON ; Failure Mode}	60"	F9
DRAINING	If the level 1 is not switched OFF after 4 min of draining.	4 min	FP
HEATING	No water temperature increase during 10 min	10 min	F4
HEATING	NTC value = 0 // NTC values > 36 kOhm	10"	F5
HEATING	Heating element interrupted (not connected)	10"	F8
ALL (except HEATING)	Heating relay sticked closed Heater sc to ground	10"	F12
ALL	No tacho signal. Failure is declared after 2 trials.	2"	F6
ALL	Triac short circuit detected. Failure is declared after 2 trials	2"	F7
FILLING	No(Wrong) feedback from the dispencer contact during movement of the Dispencer.	5min	F13
ALL	Wrong data read from internal EEPROM	30"	F14
WHTEST	no drum up signal detected during step C0 of WH test program	3"	F15
ALL	No communication between Main microcontroller and motor microcontroller	3min	F11
SPINNING	IF the contact FOAM = ON then Stop spinning; Drain until the LevelFoam contact = OFF. Reset timing. Restart current peak . Max. 3 repeats		
SPINNING	IF the contact DoorLock = OFF (door not locked) then no Pinning performed		
HEATING	IF the contact DoorLock = OFF(door not locked) then Max temperature = 40°		

Text/Legend

Timer fully electronic (Front- and Toploader) 230 V, 50 Hz

- AQ2 aquastop switch
OA8 control unit, uniser IO
DS2 door switch (safety)
DP2 drain pump
DU3 drum up
HE2 heating element
IF2 interference filter
M7 motor drive
DI6 switch / motor distribution
PR6 pressostat
DL3 door switch (lock)
FM3 sensor, flow
TH2 sensor, temperature
VC3 valve, cold fill
VH3 valve, hot fill
PI4 program, input



Test points for Omega 2
no longer available!

4619 752 23741