Whirlpool

Service Information

Washing machine Toploader
AWE 7515/1

8593 751 84084
Last Modification: 09/29/10
Creation Date: 09/28/10

Spare Part List 2

Exploded View 5

Technical Data 7

Wiring Diagram 9

Circuit Diagram 11

Program Chart 13

Testprogram 26

Error Codes 27

Service Bulletin 4812 712 40355 34

Service Bulletin 4812 712 40354 36

Service Bulletin 4812 712 40317 38

Service Bulletin 4812 712 40313 39

Service Bulletin 4812 712 40301 40

Service Bulletin 4812 712 40321 41

Service Bulletin 4812 712 40315 43

This document is only intended for qualified technicans who are aware of the respective safety regulations.
Subject to modifications

© Whirlpool EMEA

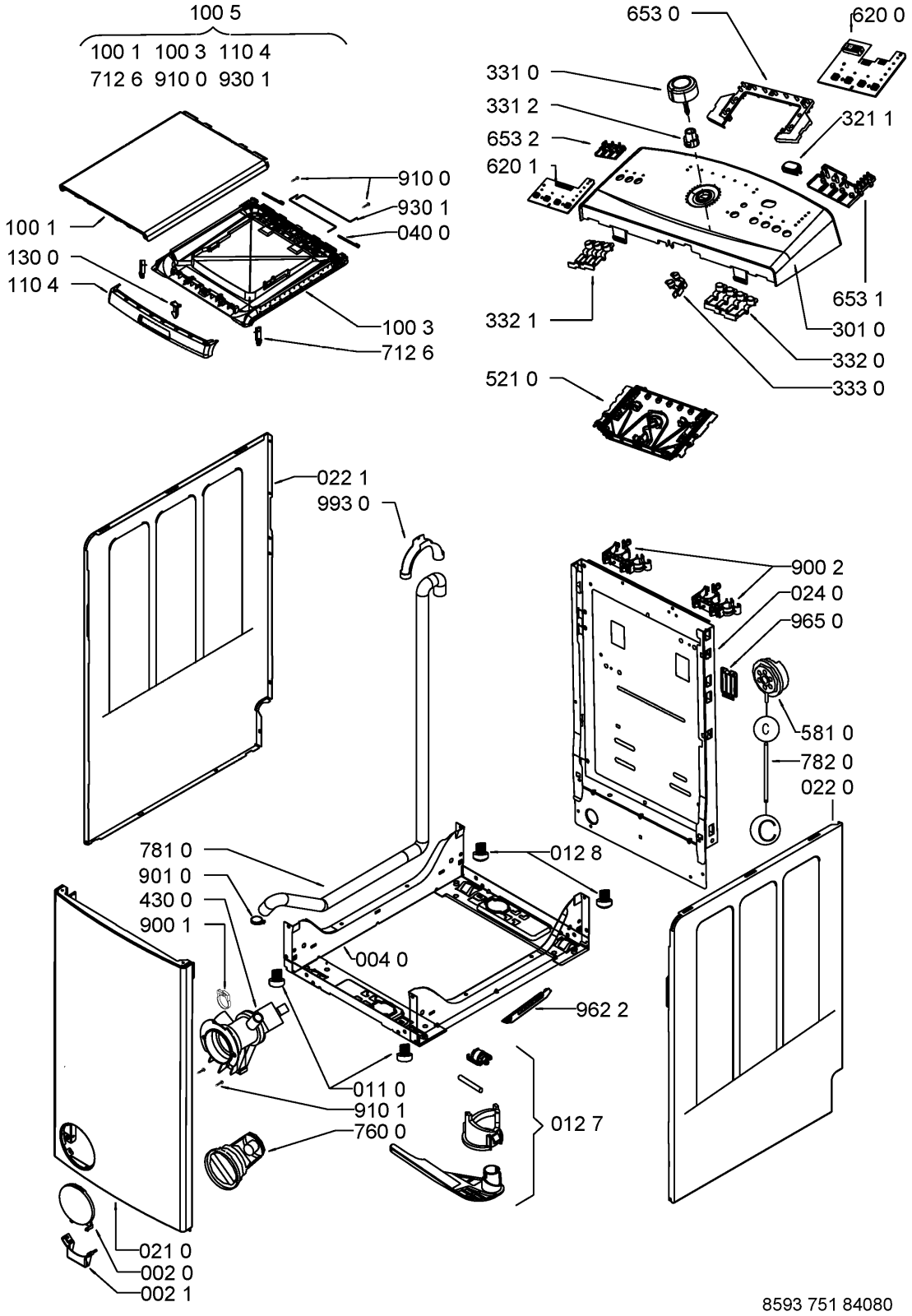
Spare Part List

Pos	12NC	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 11637**	Frame Top+nozzle box KIT
011 0	**4812 462 48054**	Foot
012 7	**4812 310 18497**	Trolley kit front
012 8	**4812 528 78075**	Foot 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 11638**	Rear panel
040 0	**4812 417 19155**	Hinge bolt lid GW
061 0	**4812 466 88995**	Counter weight rear, 5 pts
061 1	**4812 466 88996**	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 98037**	Strap f. bellow
200 0	**4812 418 18692**	Tub LR-5pins/4fix
201 0	**4801 101 00027**	Cover f. tub LR/4fix
220 0	**4801 111 02218**	Drum LR 210/M8, kit
221 1	**4812 310 18843**	Kit latch f.drum
223 0	**4801 101 00104**	Drum lifter low
223 1	**4819 418 49713**	Drum lifter
271 0	**4812 358 18204**	Belt PV 1207 J4 EL
272 0	**4812 528 88083**	Pulley 298 mm
290 0	**4812 532 68078**	Gasket
301 0	**4801 101 00041**	Control panel AWE 7515/1
321 1	**4812 452 17694**	Window DOMINO WH, Remaining time
331 0	**4812 414 58306**	Knob timer
331 2	**4812 414 58307**	Spring Knob timer
332 0	**4812 410 29501**	Push button 4 Opt.
332 1	**4812 410 29502**	Push button 3 Opt. left
333 0	**4812 410 29503**	Push button start/reset
400 0	**4801 111 03472**	Motor MCA 38/ALB4
421 0	**4812 121 18285**	Interf.filter
421 2	**4812 404 38679**	Holder RFI
430 0	**4801 101 00001**	Pump,draining
451 0	**4812 259 28919**	Heating element 2050W, 230V + NTC
490 0	**4819 321 18136**	Cable mains 2m SA
490 1	**4812 321 28367**	Strain relief
521 0	**4801 111 04598**	Control unit WAVE-TCP K1 (K0), basic

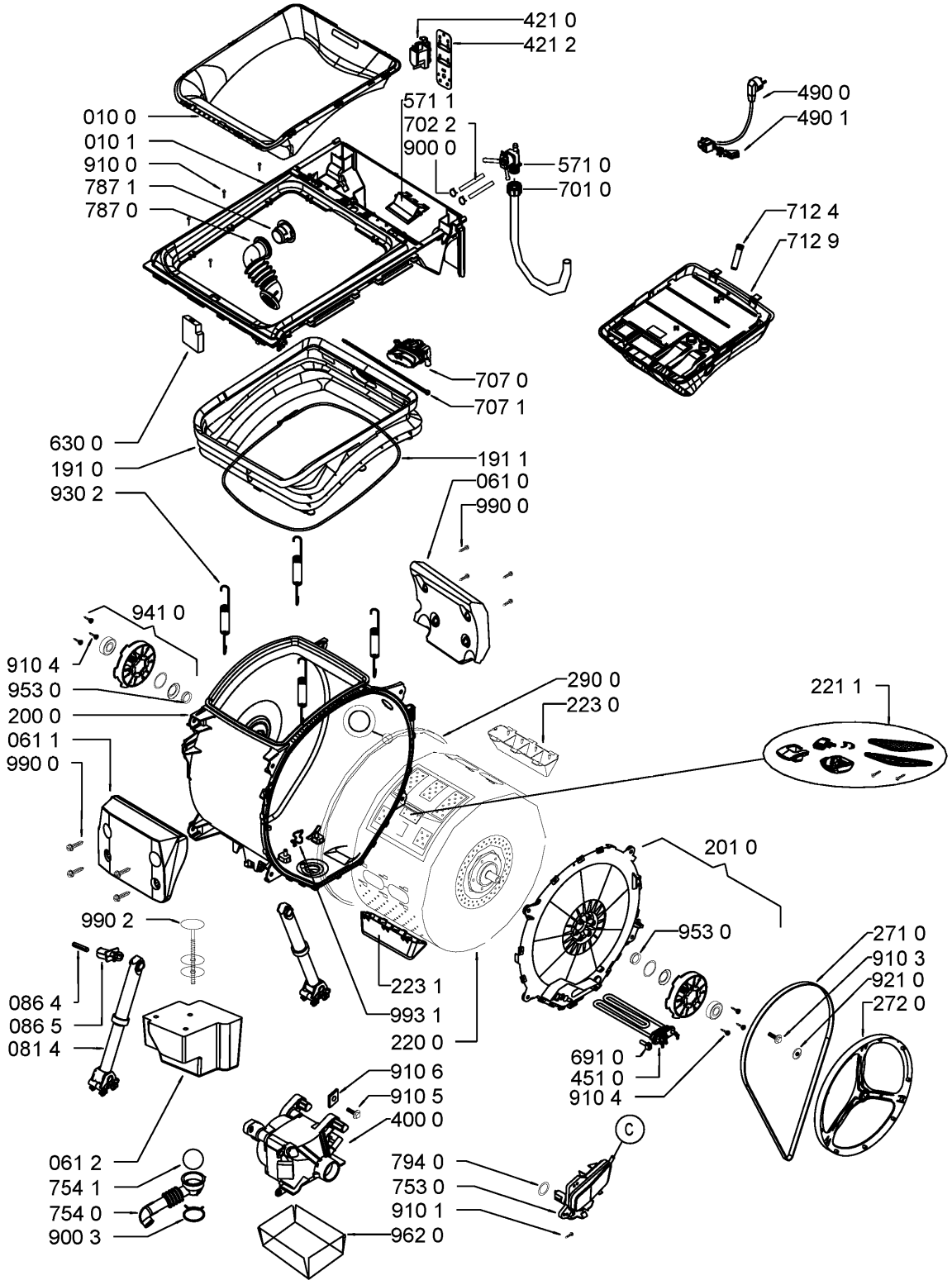
Pos	12NC	Description
521 0	**4801 111 04724**	Control unit WAVE, programmed
571 0	**4812 281 28468**	Valve magnet 1 inlet, 2 outlets
571 1	**4812 281 18069**	Cover for top frame
581 0	**4812 271 28554**	Pressostat
620 0	**4812 239 58076**	Module E4 4 Opt. w. Display
620 1	**4812 239 58046**	Module E3/4 Opt.
630 0	**4801 111 04601**	Door lock
653 0	**4812 134 18079**	Light guide PR.FLOW-START/RST
653 1	**4812 134 18078**	Light guide 4 Opt.
653 2	**4812 134 48375**	Light guide 3 Opt. left
691 0	**4812 282 19485**	Sensor NTC
701 0	**4819 530 28928**	Hose inlet, hot, 2m
702 2	**4812 530 29453**	Hose valve-dispenser
707 0	**4812 526 48244**	Nozzle box cold cpl.
707 1	**4812 526 48049**	Clamp f. nozzle box
712 4	**4812 418 68302**	Siphon f. softener
712 6	**4812 418 68164**	Clip soap dispenser
712 9	**4812 418 68404**	Soap dispenser
753 0	**4812 418 68187**	Chamber,air
754 0	**4812 530 28938**	Drainhose
754 1	**4812 530 28832**	Lock eco
760 0	**4812 480 58403**	Filter
781 0	**4819 530 29035**	Hose draining
782 0	**4812 530 28941**	Hose Pressostat
787 0	**4812 530 29309**	Hose Air Exaust
787 1	**4812 530 29311**	Cover of hose
794 0	**4801 111 01551**	Gasket airtrap
900 0	**4819 401 18686**	Clamp hose
900 1	**4812 401 18431**	Clamp to pump
900 2	**4812 255 18304**	Holder hose
900 3	**4819 401 18529**	Clamp hose
901 0	**4819 401 18872**	Clamp hose
910 0	**4812 502 48347**	Screw,selftap 3,5x14
910 1	**4812 502 38151**	Screw 4x14
910 3	**4812 502 18404**	Hex flange bolt M6x16
910 4	**4812 502 18423**	Screw PT 7x15
910 5	**4812 502 18705**	Screw M8x35
910 6	**4812 505 18367**	Nut push in M 8
921 0	**4812 400 18047**	Washer
930 1	**4812 492 48171**	Torsions spring
930 2	**4812 492 48162**	Spring
941 0	**4812 310 19144**	Bearing kit ALL 1100
953 0	**4812 325 68001**	Shaft seal
962 0	**4812 440 98142**	Cover for Motor AC
962 2	**4812 440 11424**	Spacer
965 0	**4812 462 79974**	Cap Transport blocking
990 0	**4812 310 19224**	Fixing mat.set Counter weight
990 2	**4812 310 18506**	Fixing mat.set bottom
993 0	**4819 530 29028**	U Curve for outlet hose
993 1	**4812 290 18025**	Clamp heating element

Pos	12NC	Description

Exploded View



Exploded View



Technical Data

Dimensions + Weight

Product dimensions	
Height	85 cm
Width	40 cm
Depth	60 cm
Weight	
net	63 kg

Electrical base data

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

Drum data

Volume	42 l
Wash speed	52 rpm
Spinning	
max.	1000 rpm

Pressostat

Level1	11 - 12/14
Overflow	11 - 16

Door lock

Kind of switch	Switch with PTC heater of bimetal
Nominal voltage	230 V +10 %, -15 %
Locking time	< 6 s
Unlock time	40 - 220 s

Inlet valve

Nominal voltage	220 - 240 V / 50 Hz
Rated flow (1.5 - 5 bar)	8 l/min
Pressure range	0.3 - 10 bar
Nominal resistance (20 °C)	3.8 kΩ

Drain pump

Nominal voltage	220 - 240 V / 50 Hz
Total power	26 W
Resistor (coil)	224 Ω
Capacity	14 ± 2 l/min
Position of draining hose outlet	0.9 - 1.25 m

Heating element

Nominal voltage ..... 230 V +10 %, -15 %
Total power ..... 2050 W
Resistance (20 °C) ..... 25 Ω
Leakage current ..... < 0.8 mA
NTC sensor
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

Motor

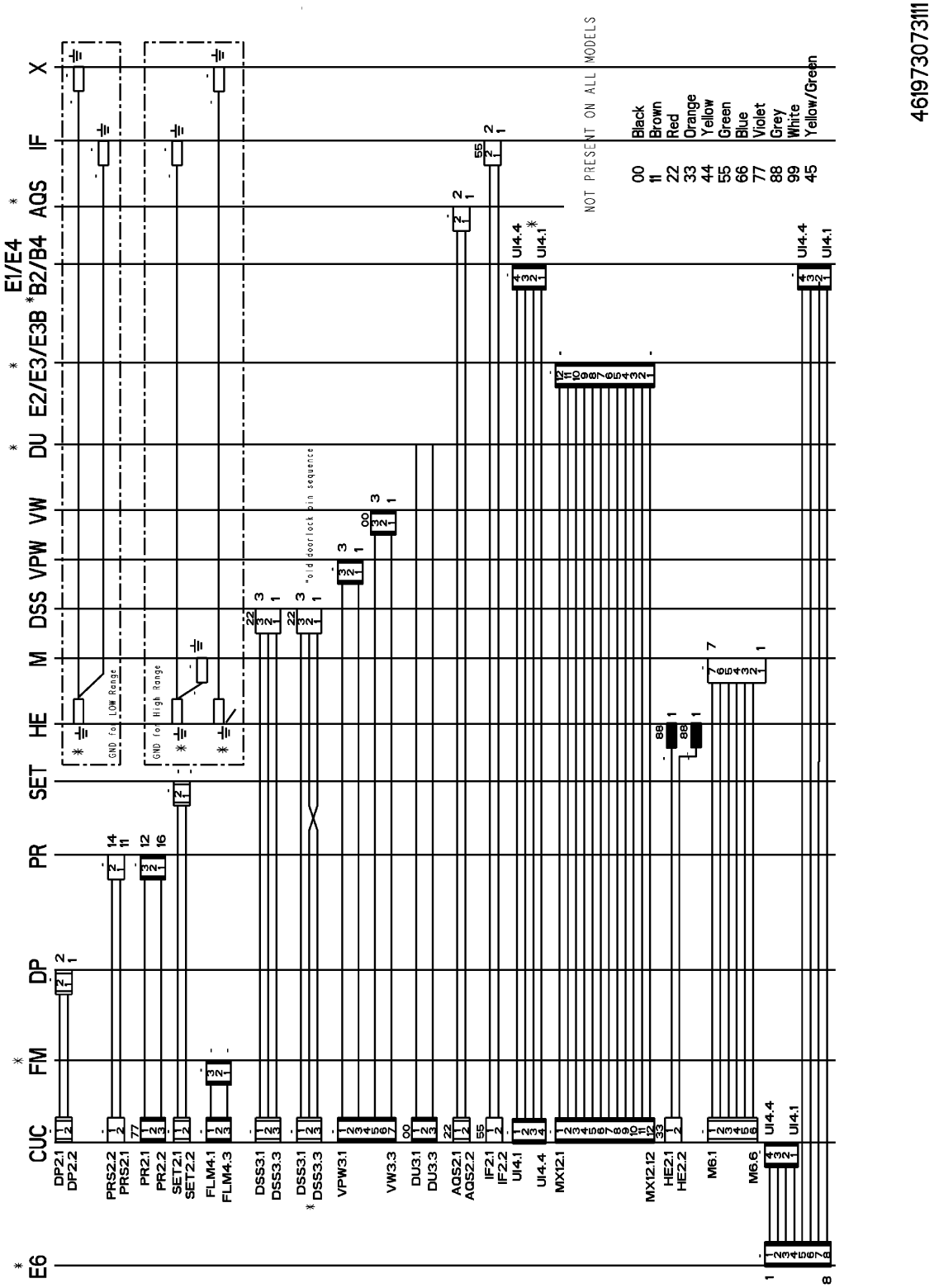
Resistance contacts ..... (20 °C)
Stator (full field) ..... 2.48 Ω
Rotor ..... 2.46 Ω
Tacho generator ..... 68.70 Ω

Control unit

Type ..... WAVE
Nominal voltage ..... 230 V - 240 V
Frequency ..... 50 Hz
Output control unit

Motor	M7.6 - DSS3.2	>40 V
Aquastop	AQ2.2 - DSS3.2	230 V
In pump step	AQ2.1 - DSS3.3	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	—

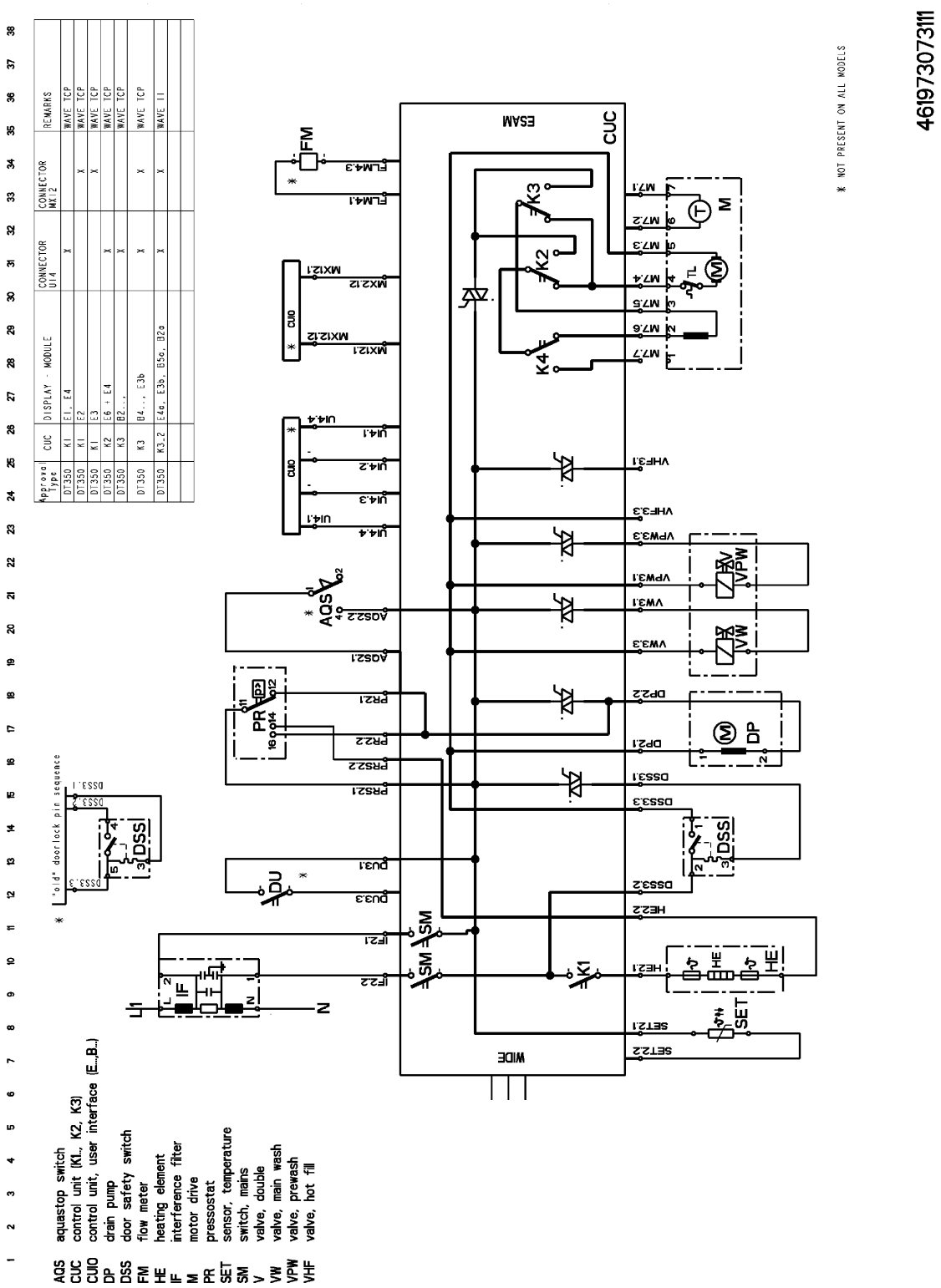
Wiring Diagram



Legend

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

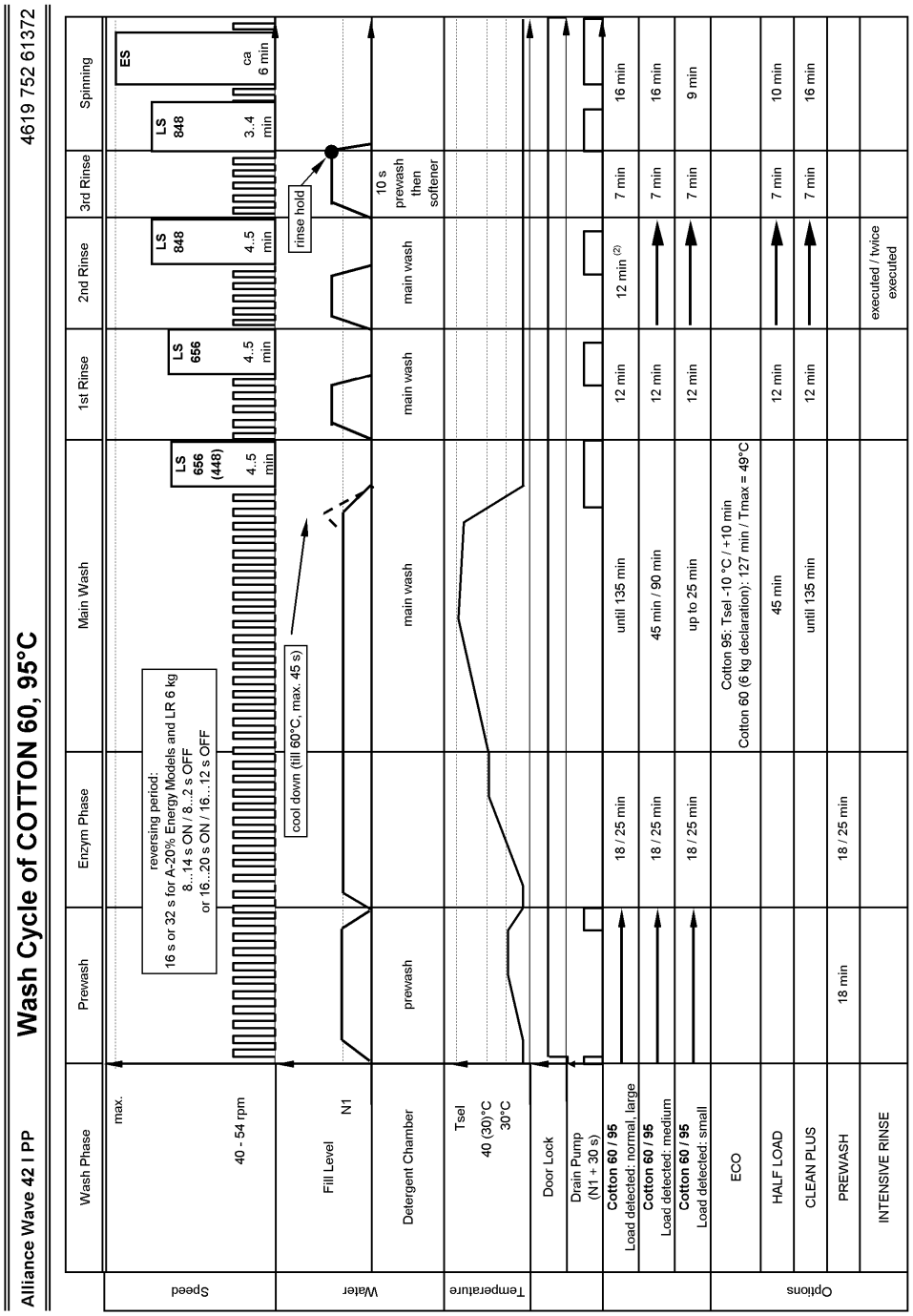
Circuit Diagram



Legend

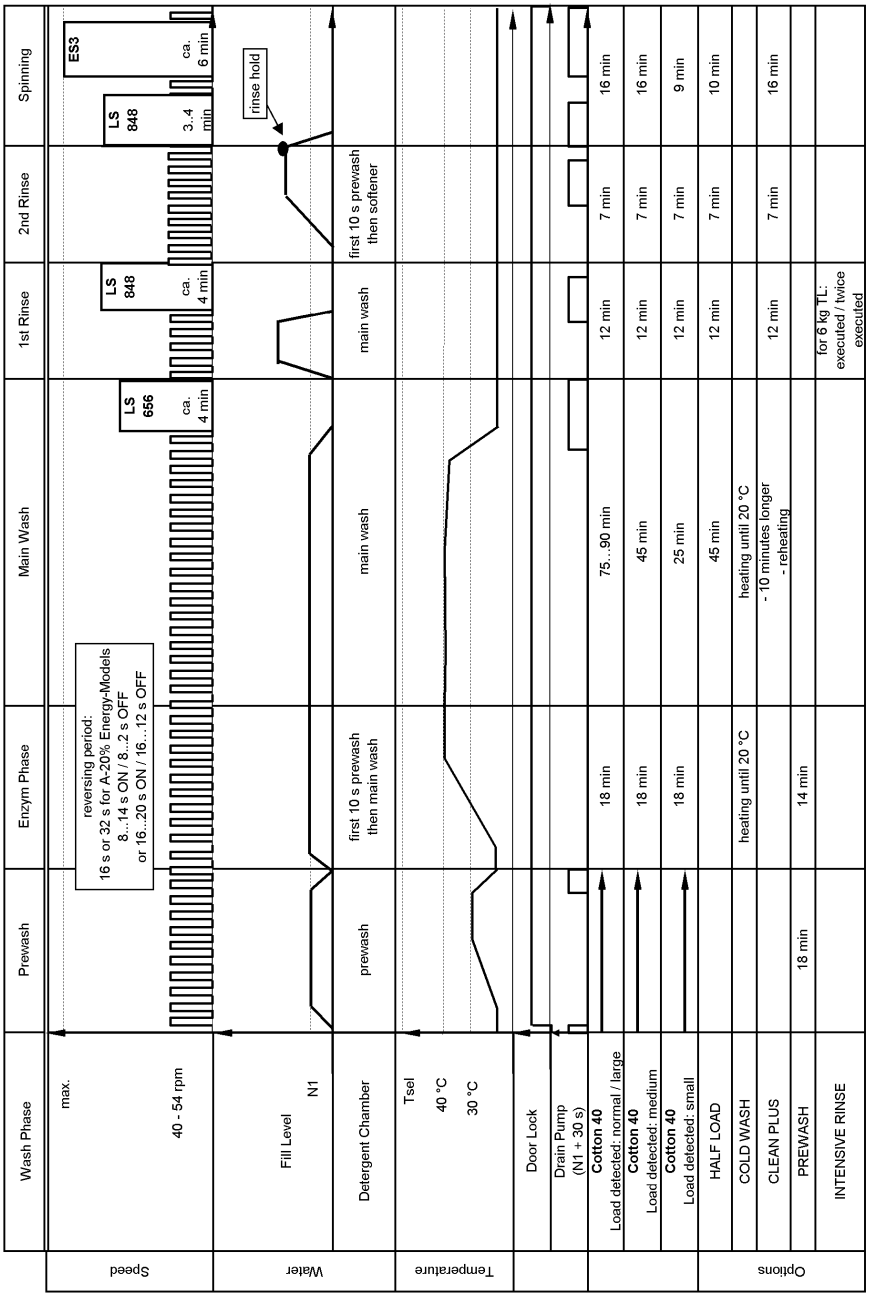
AQS	aquastop switch
CUC	control unit (K1, K2, K3)
CUIO	control unit, user interface (E..., B...)
DP	drain pump
DSS	door safety switch
DU	drum up
FM	flow meter
HE	heating element
IF	interference filter
M	motor drive
PR	pressostat
SET	sensor, temperature
SM	switch, mains
V	valve, double
VW	valve, main wash
VPW	valve, prewash
VHF	valve, hot fill

Program Chart

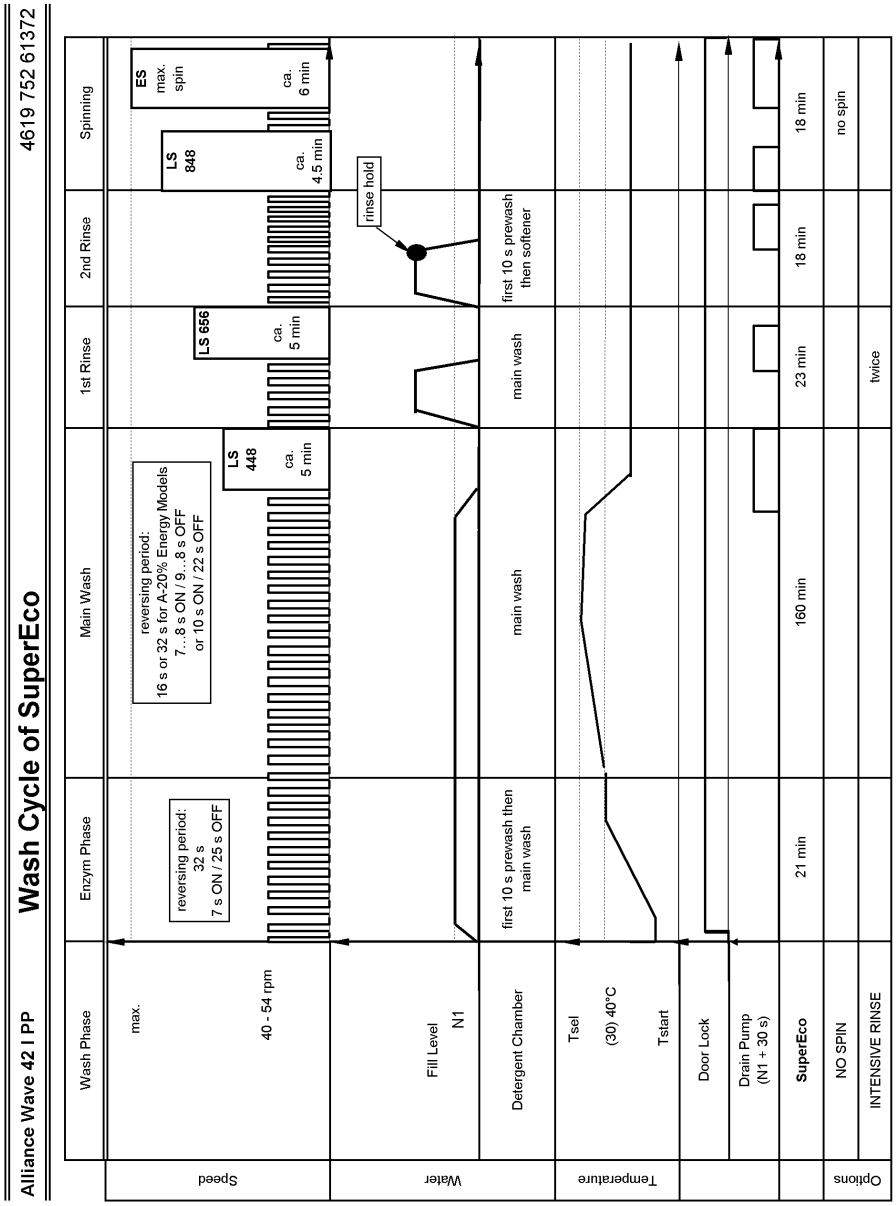


(1) OPTION **NoSpin**: the spinning until rinse 3 is performed , extraction phase is skipped
(2) Appliances with 6kg declaration: 2d Rinse is not performed also for large/normal loads

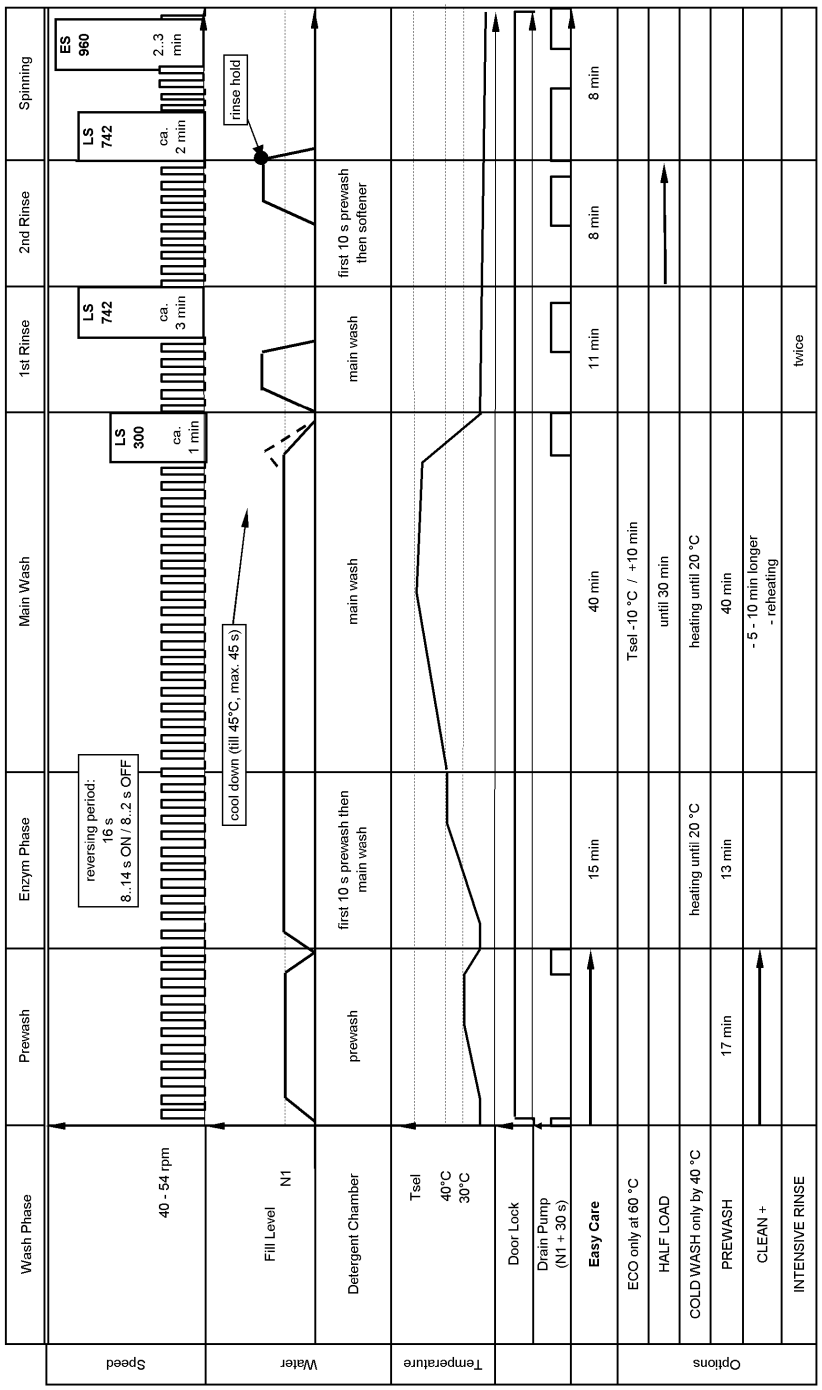
Alliance Wave 42 I PP **Wash Cycle of Cotton 40°C, Jeans** **4619 752 61372**



(1) OPTION **NoSpin**: the spinning until rinse 3 is performed , extraction phase is skipped
(2) Jeans/Baby = Cotton 40°C with integrated intensive rinse option.
The options easy ironing and intensive rinse are not selectable.
The intensive rinse LED doesn't light.
(3) Whites Only = Cotton 40°C with integratted clean+ option


Alliance Wave 42 I PP
Wash Cycle of SuperEco
4619 752 61372
Wash Phase
Enzym Phase
Main Wash
1st Rinse
2nd Rinse
Spinning
Speed
max.
40 - 54 rpm
reversing period:
32 s
7 s ON / 25 s OFF
reversing period:
16 s or 32 s for A-20% Energy Models
7...8 s ON / 9...8 s OFF
or 10 s ON / 22 s OFF
LS 448
ca. 5 min
LS 656
ca. 5 min
LS 848
ca. 4.5 min
ES max. spin
ca. 6 min
Water
Fill Level
N1
rinse hold
Detergent Chamber
first 10 s prewash then main wash
main wash
main wash
first 10 s prewash then softener
Temperature
Tsel
(30) 40°C
Tstart
Door Lock
Drain Pump
(N1 + 30 s)
SuperEco
21 min
160 min
23 min
18 min
18 min
Options
NO SPIN
no spin
INTENSIVE RINSE
twice

Alliance Wave 42 I PP **Wash Cycle of Syntetic, Sport/Leisure/Outdoor** 4619 752 61372

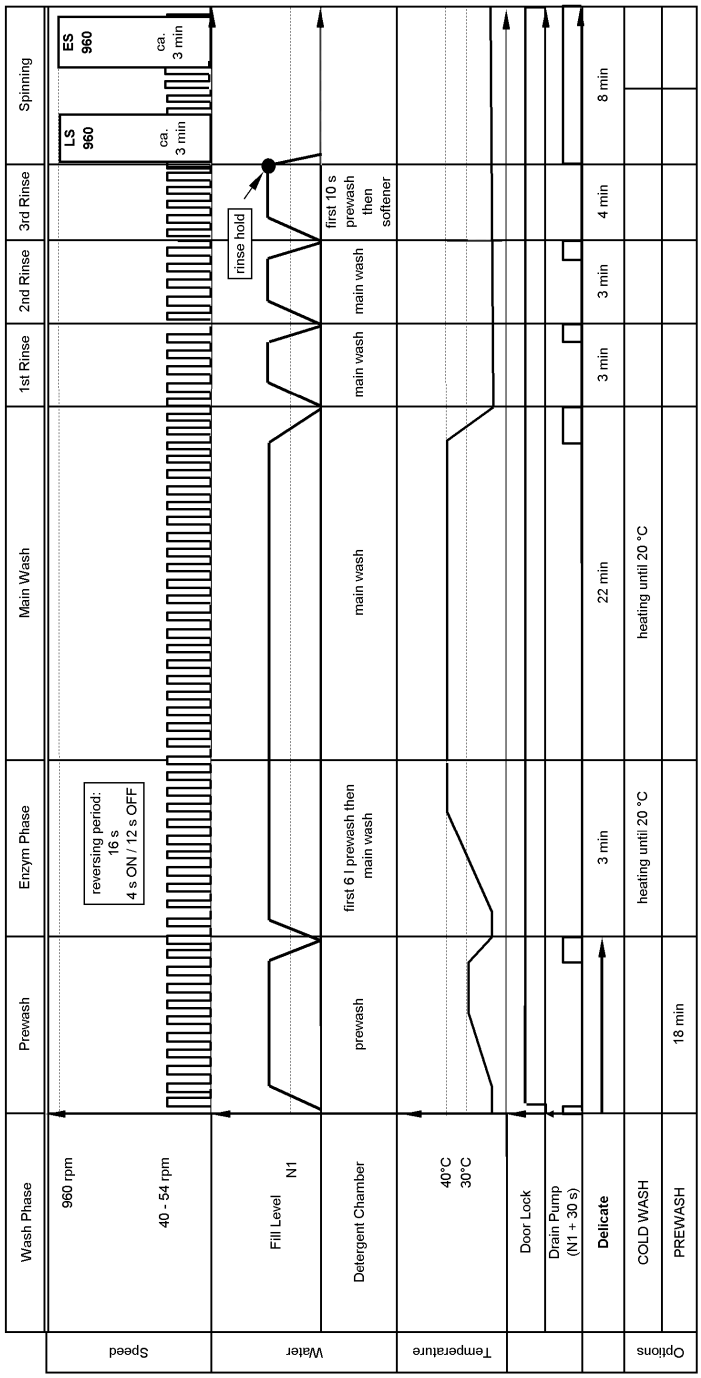


(1) OPTION **NoSpin**: the spinning until rinse 3 is performed , extraction phase is skipped
(2) Sport/Leisure/Outdoor = Synthetic 30°C with integrated prewash option
The options prewash and eco are not selectable

Alliance Wave 42 I PP

Wash Cycle of Delicate

4619 752 61372

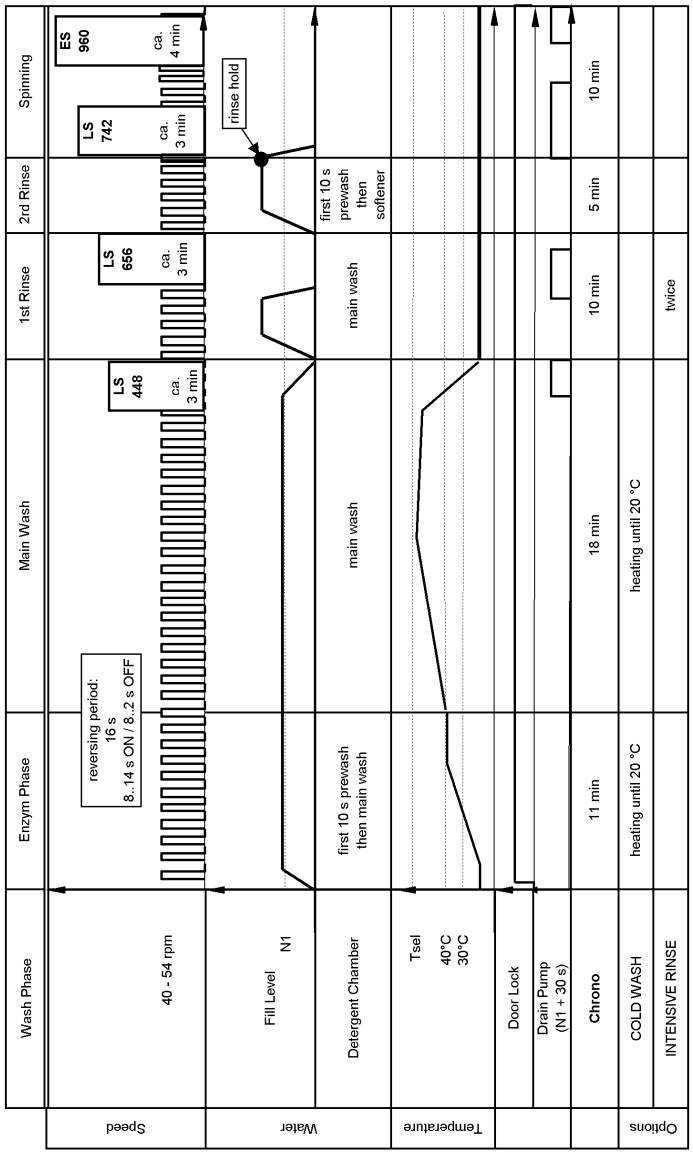


(1) OPTION **NoSpin**: the spinning until rinse 3 is performed , extraction phase is skipped

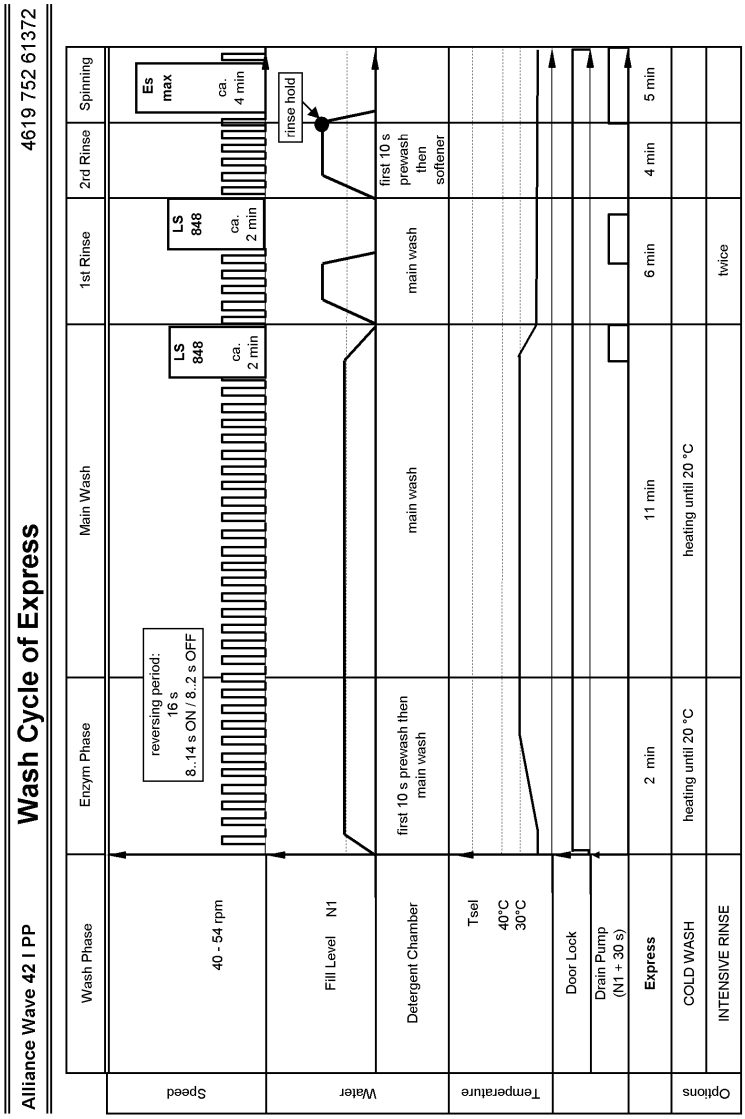
Alliance Wave 42 I PP

Wash Cycle of Chrono (1 h cycle)

4619 752 61372

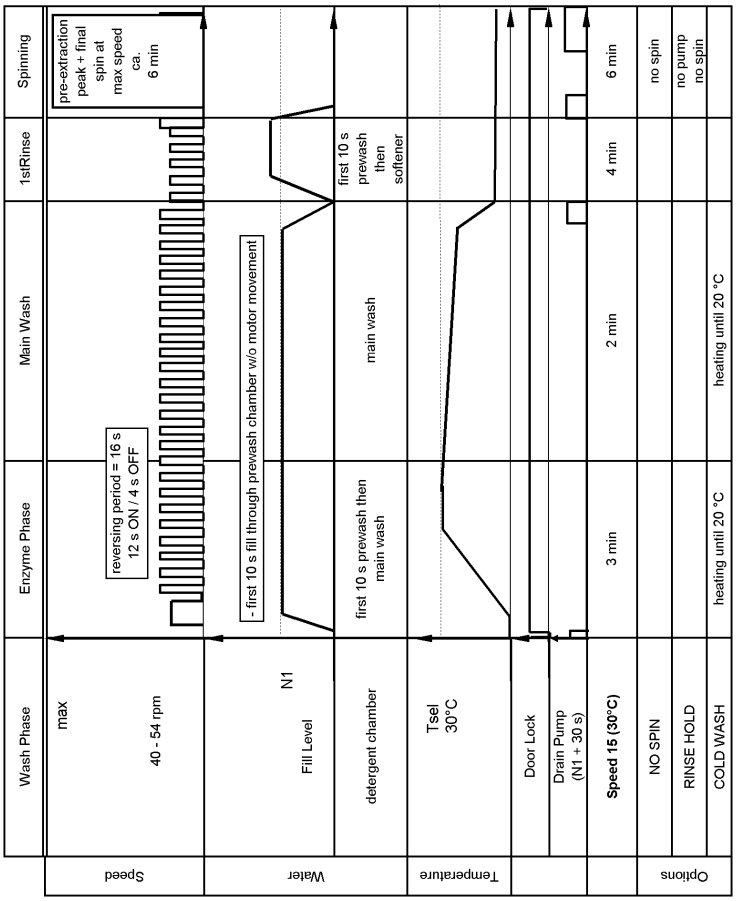


(1) OPTION **NoSpin**: the spinning until rinse 3 is performed , extraction phase is skipped



(1) OPTION **NoSpin**: the spinning until rinse 3 is performed , extraction phase is skipped

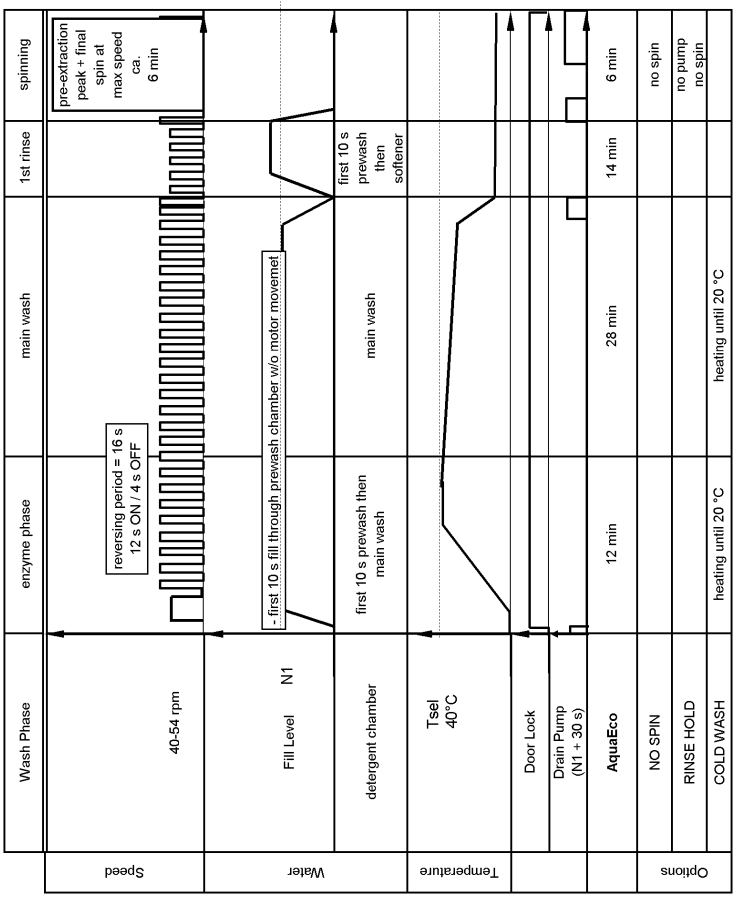
Alliance Wave 42 I PP **Wash Cycle of Speed15** 4619 752 61372

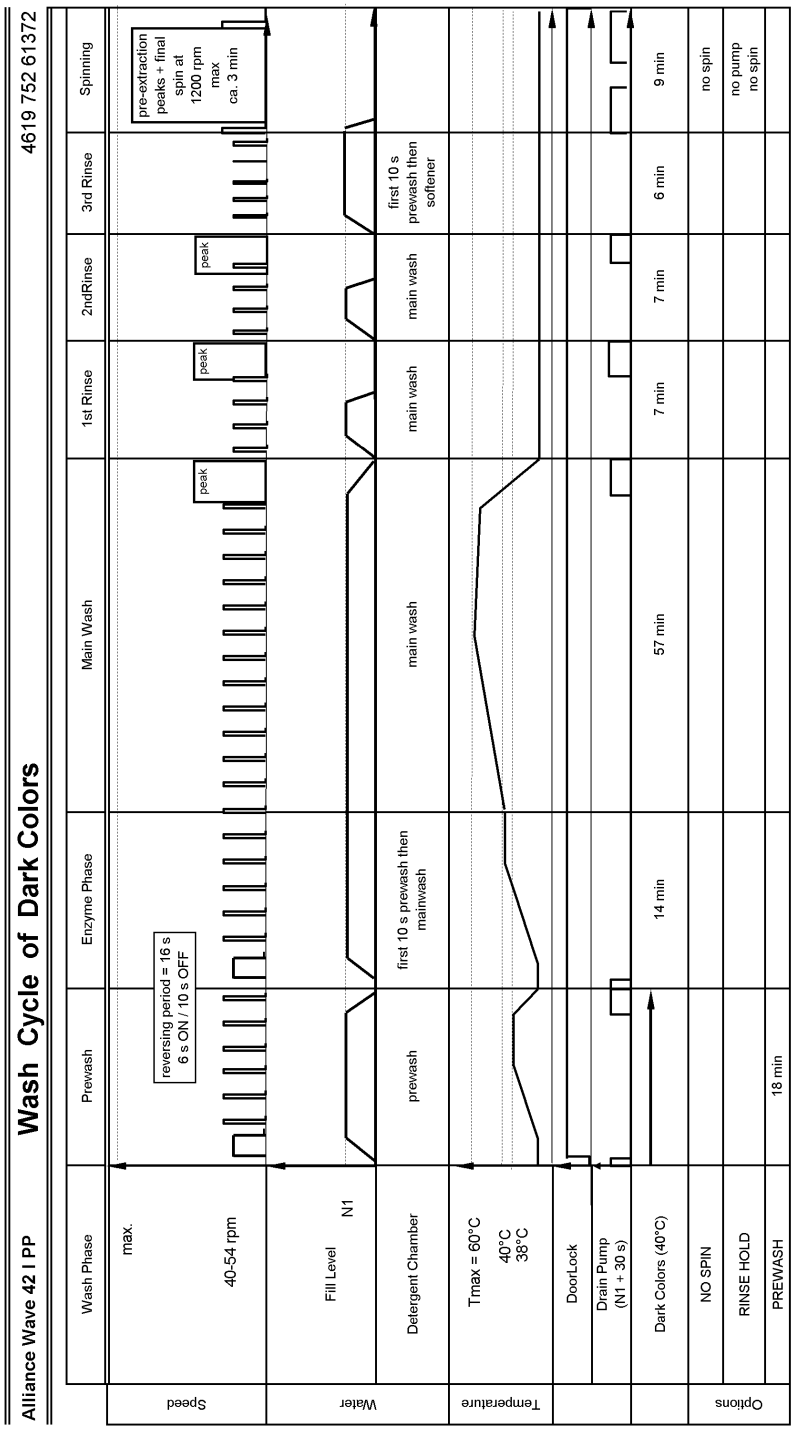


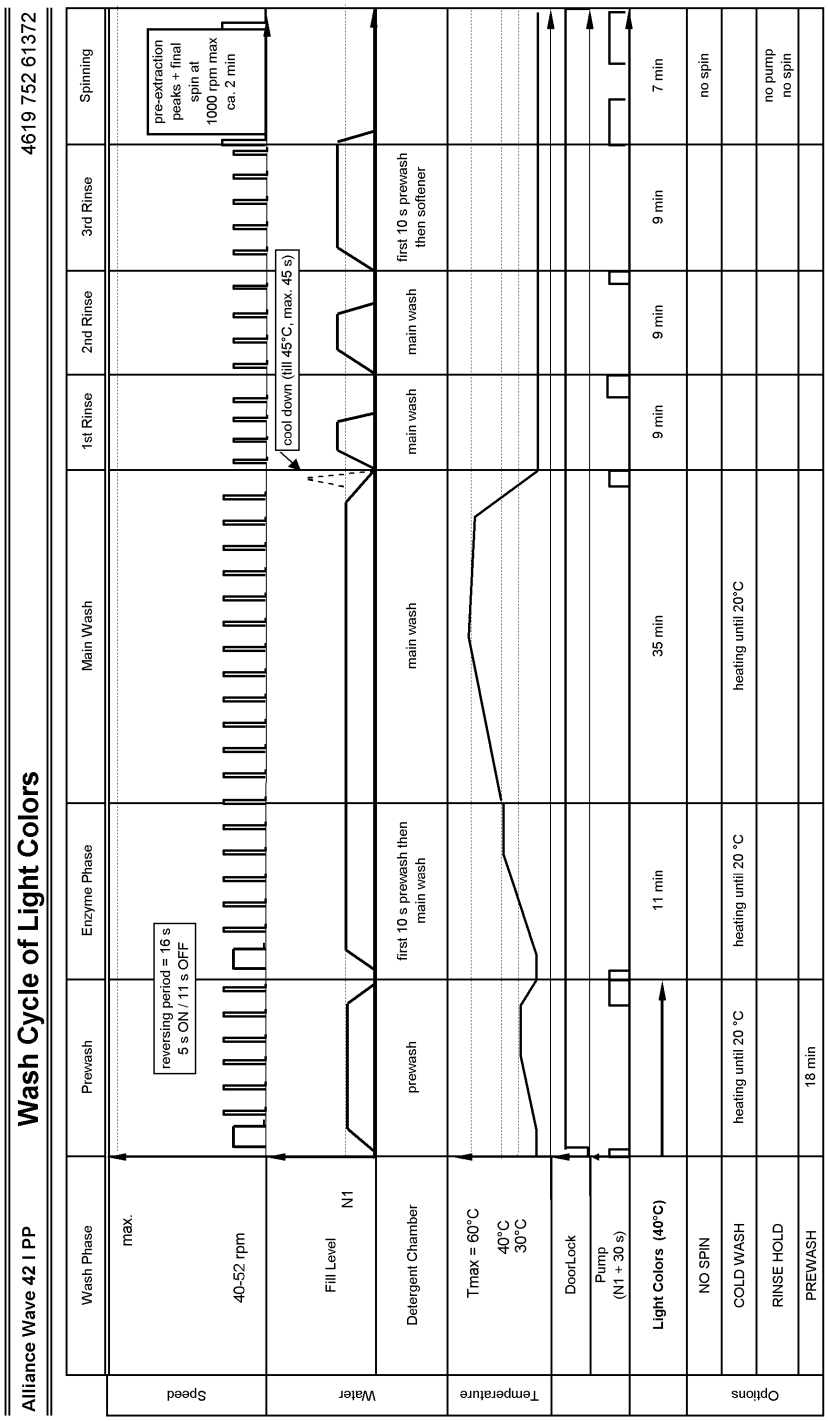
Alliance Wave 42 I PP

Wash Cycle of AquaEco

4619 752 61372



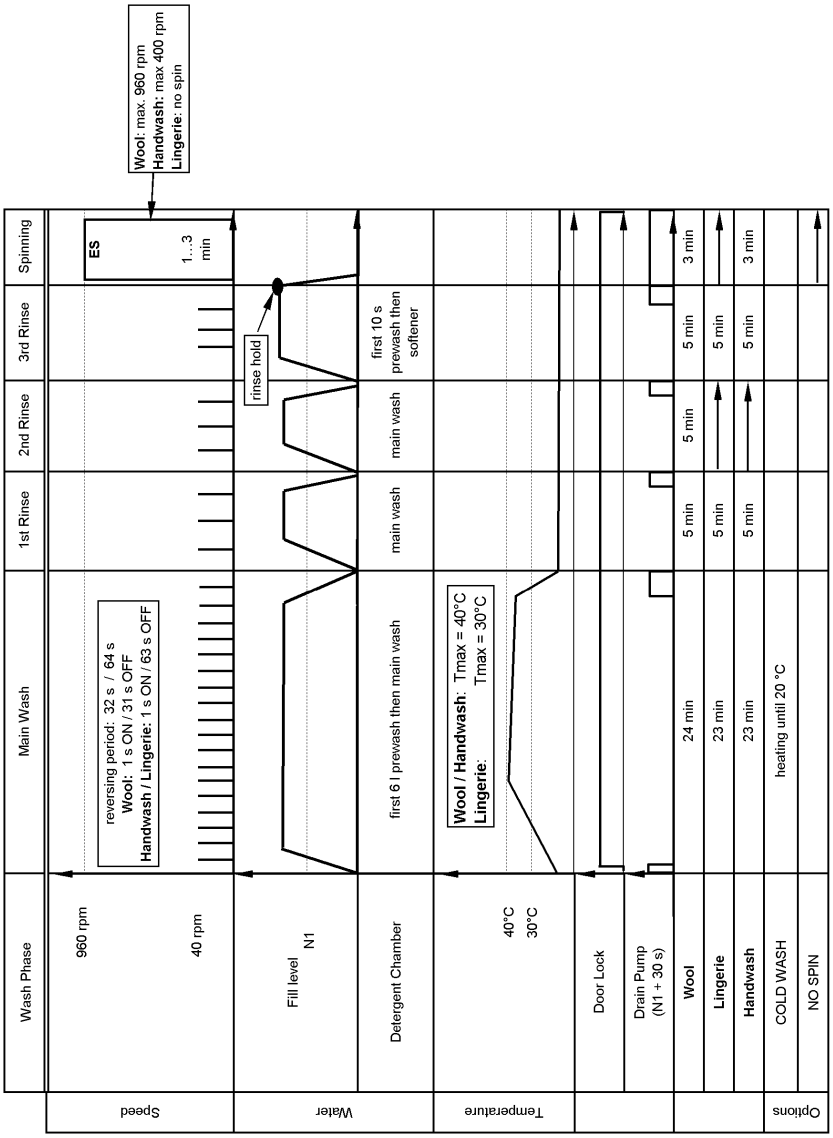

Alliance Wave 42 I PP
Wash Cycle of Dark Colors
4619 752 61372
Wash Phase
Prewash
Enzyme Phase
Main Wash
1st Rinse
2ndRinse
3rd Rinse
Spinning
Speed
max.
40-54 rpm
reversing period = 16 s
6 s ON / 10 s OFF
peak
peak
peak
pre-extraction
peaks + final
spin at
1200 rpm
max
ca. 3 min
Water
Fill Level
N1
Detergent Chamber
prewash
first 10 s prewash then
mainwash
main wash
main wash
main wash
first 10 s
prewash then
softener
Temperature
Tmax = 60°C
40°C
38°C
DoorLock
Drain Pump
(N1 + 30 s)
Dark Colors (40°C)
14 min
57 min
7 min
7 min
7 min
6 min
9 min
Options
NO SPIN
no spin
RINSE HOLD
no pump
no spin
PREWASH
18 min


Alliance Wave 42 I PP
Wash Cycle of Light Colors
4619 752 61372
Wash Phase
Prewash
Enzyme Phase
Main Wash
1st Rinse
2nd Rinse
3rd Rinse
Spinning
Speed
max.
40-52 rpm
reversing period = 16 s
5 s ON / 11 s OFF
pre-extraction
peaks + final
spin at
1000 rpm max
ca. 2 min
Water
Fill Level
N1
cool down (till 45°C, max. 45 s)
Detergent Chamber
prewash
first 10 s prewash then main wash
main wash
main wash
main wash
first 10 s prewash then softener
Temperature
Tmax = 60°C
40°C
30°C
DoorLock
Pump
(N1 + 30 s)
Light Colors (40°C)
11 min
35 min
9 min
9 min
9 min
7 min
Options
NO SPIN
no spin
COLD WASH
heating until 20 °C
heating until 20 °C
heating until 20°C
RINSE HOLD
no pump
no spin
PREWASH
18 min

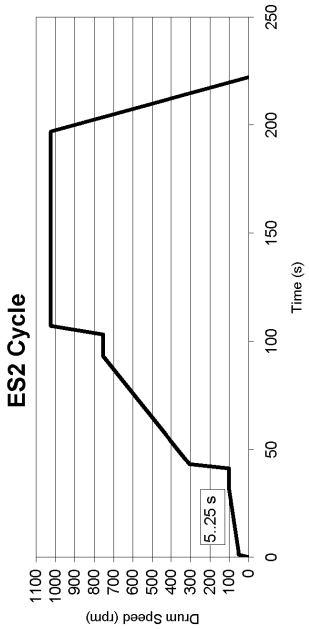
Alliance Wave 42 I PP

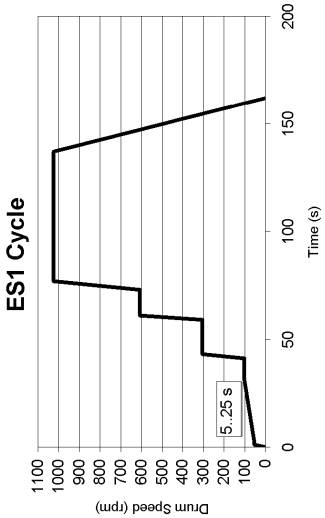
Wash Cycles of Wool, Handwash and Lingerie

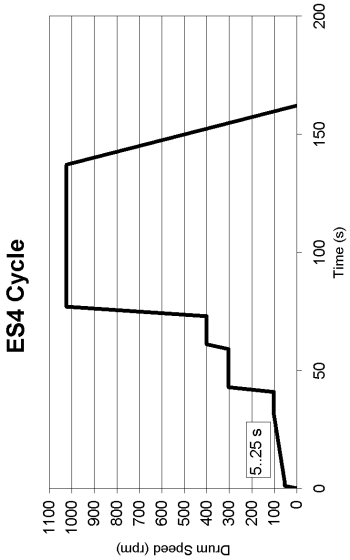
4619 752 61372

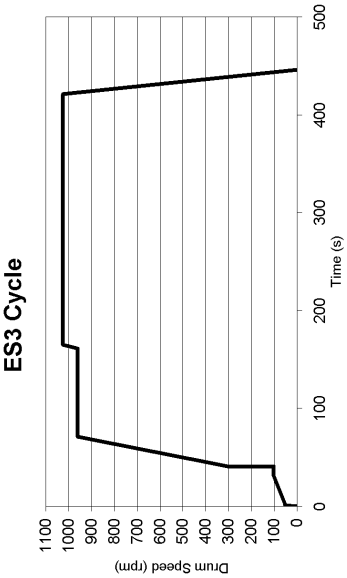


Alliance Wave 42 I PP **Spinning Profiles** Soap dispenser: 3 chambers 4619 752 61372









Peak 1 =	384 rpm	LS1 =	Peak 1 + ES1
Peak 2 =	608 rpm	LS2 =	Peak 1 + Peak 2 + Peak 3 + Peak 4
Peak 3 =	656 rpm	LS3 =	Peak 1 + Peak 4
Peak 4 =	848 rpm	LS4 =	Peak 1 + ES1

Testprogram

1. Switch the appliance ON
2. Close the door

For appliances with program selection by knob

3. Select the first mechanically available position of the rotary program selector on the left of the OFF position (usually “DRAIN” or “SPIN”)
4. Press push button Reset 4 times within 5 seconds
5. To go to next step, press push button Reset twice
6. To go to step C5, press Start button once.

For appliances with program selection by button

3. Press Drain/Reset button
4. Press push button Temperature 4 times within 5 seconds
5. To go to next step, press push button Drain/Reset twice
6. To go to step C5, press Start button once.

Attention: Use the test program only without laundry!

ICON - Phases	Digits Tempera-ture	Description of the Program Flow	Check to perform
↔ Icons are switched on and off in a sequence from left to right and back.	C0	The door is locked. The CCU is performing the Selftest.	CCU detects • F02, F05, F08, F12, F13, F14, F15, F21, F23, F26
	C1	Fill 15” hot valve (only if hot fill appliance) Fill 15” in prewash (PW) Fill 15” in mainwash (MW) Fill 15” in PW + MW (Softener) Fill by MW to wash level. Motor is reversing.	Technician: • Check the valve activation • Check the dispensing into the dispenser • Check the pressure switch
	C2	The heating element is switched ON. Motor is reversing.	Technician: • Check heating element activation • Check if the motor is reversing CCU detects: • F06, F07, F27
	C3	The drain pump is switched ON until the wash level = OFF + 5” motor is reversing.	Technician: • Check drain pump activation • Check pressure switch operation • Check if the motor is reversing CCU detects: • F06, F07, F27, F03
	C4	The motor is driven to maximum speed. Drain pump is ON.	Technician: • Check if the motor is running at max. speed • Check drain pump activation CCU detects: • F28
	C5	Motor is switched OFF. Door is unlocked.	Technician: • Check if the door is unlocked CCU detects: • F13

Digits of “Rest time” are executing an animation, Digits of “Speed” are OFF

WAVE TCP & WAVE 2 4619 714 27081

Error Codes

Failure Indication		Explanation and Recommended Procedure
Icon Active	**On Digits** 3 - 5	
Appliance "dead"	**no indication at all or read out by ESAM** F60 - F63	**CCU failure** **Potential Causes** Read out failure code with ESAM: • If F60 - F63 is displayed: • Check if NTC has a short circuit. • Check if NTC wiring has a short circuit • If NTC and wiring is ok, change the CCU
		Door Lock failure If the CCU is not able to lock the door of the washer after program start within 20", CCU is going to selection mode (LED of start/pause button is flashing) **Potential Causes** • mechanical issue with door/ door hook/ door lock interface • door not completely closed • door lock issue
During normal cycle execution **During test program**	**During normal cycle execution** **Remaining Time** **During test program** F01	**No water detected entering machine or pressure switch trip not detected.** If after 6 minutes the control does not detect water entering machine, then valves will be turned off and the LED Water Tap will be switched ON. The Control is in Pause Mode. If it was possible to remove the failure, by pushing PB Start the appliance will restart. **Potential Causes** • **If there is no water in the unit:** • Make sure that both valves at the water source(s) are turned on all the way. • Check for plugged or kinked inlet hoses or plugged filter in the inlet valves. • Verify inlet valve operation. • **If there is water in the unit:** • Pressure switch hose is in good condition and properly connected to tub and pressure switch. • Verify there is not a siphon problem. • Verify wire harness connections to; inlet valves, pressure switch and central control unit (CCU). • Check all hoses for possible leaks. • Verify pressure switch operation. • Verify CCU operation.
	F02	**Aquastop Failure** If the aquastop contact on the bottom tray of the appliance is closed for more than 30" an aquastop failure will be detected. In aquastop condition the drain pump will run for 3 to 6 minutes. Afterwards the drain pump is off and the door will unlock. **Potential Causes** • **If there is water in the bottom tray of the appliance:** • Check all hoses for any leakage. • Check if there was overfoam due to too much detergent used. • Check the tub for any leakage. • **If there is no water in the bottom tray:** • Check if the aquastop switch has a short circuit. • Check if the aquastop wiring is properly connected. • Verify CCU operation. (Check also for F26: Pump triac short circuit is causing this code.)

© Whirlpool EMEA

During normal cycle execution **During test program**	**Remaining Time** **During test program** F03	**Long Drain** If the drain time exceeds the drain timeout, the LED "clean filter" is turned ON. The timeout is: 4 minutes drains -> 4 minutes impulse draining (10sec.ON /10sec. OFF) -> 4 minutes drain. The control is in Pause Mode. Press start button. If the water can be drained out, the cycle will continue. **Potential Causes** • Check the drain hose and make sure it is not plugged or kinked. • Check the drain pump filter for foreign objects. • Check the electrical connections at the pump and make sure the pump is running. • Check the electrical resistance of the drain pump. • The failure can also be generated by too much foam in wash phase. Read also failure description F18. • Check CCU operation.
	F04	**Too Long Heat Time** If the water temperature is not increasing over 35°C during 50 minutes of the first heating step in the cycle the CCU will display this Error. **Potential Causes** • Check the electrical resistance of the heating element. • Check Wire Harness connections to the heating element, NTC and CCU. • Check the electrical resistance of the NTC (failure can also occur, when NTC resistance is not changing with temperature). • Check CCU operation
	F05	**Water Temperature Sensor Error** If during the water heating step in the wash cycle, the water temperature sensor (NTC) value is out of range, the F05 error code will be displayed. **Potential Causes** • Check the NTC resistance. • Check connections to the NTC and CCU. NTC short circuit (NTC or wiring to NTC): appliance is dead at switch on - read failure code from eeprom: class B failure (F60 - F63)
	F06	**Drive Motor Tachometer Error** The control is unable to properly detect motor speed (several times) and the machine will shut down. **Potential Causes** • Check wire harness connections between the motor and CCU. • Check the resistance of the tachometer circuit on the motor. • Check resistances of the motor windings. • Check tension of belt and fixation of pulley.
	F07	**Motor Control Triac Error** The main control has detected a short circuit in the motor control triac. **Potential Causes** • Check CCU by running Test Program: if failure occurs with universal motor: exchange CCU if failure occurs with CIM, BPM or Direct Drive: exchange motor control unit
	F08	**Heater Circuit Error open circuit** The main control has detected a heater circuit failure. These failure modes are checked before the cycle starts and after the spinning steps. **Potential Causes** • Check the resistance of the heater connectors to the ground. • Check the resistance of the heater. • Check the wiring connectors to the heater and CCU. • Check the CCU.

© Whirlpool EMEA

	F09	**MCU low voltage (only appliances with external motor control unit like CIM, BPM or Direct Drive)** The MCU has detected a too low mains voltage (ca. 170V). It's not a defect of any component. **Potential Causes** • Check mains voltage supply
	F10	**MCU overheat continuously (only appliances with external motor control unit like CIM, BPM or Direct Drive)** The MCU has detected a too high temperature. **Potential Causes** • Check for drum blockage (also laundry can block the drum), noise or friction during the drum rotation • Check if the machine was overloaded • Check the ambient temperature -> instruct the customer **If the failure is permanent** • Check motor for defect (see F06) • Check if motor control unit is defect
	F11	**MCU not initialized / general MCU-failure (only appliances with external motor control unit like CIM, BPM or Direct Drive)** The MCU failed during self-test. **Potential Causes** • Check harness wires between CCU and MCU and motor • Check motor for defect (see F06) • Start cycle door lock has to lock Relay for MCU on CCU has to close "click-noise" MCU self test starts automatically as soon as MCU is connected to voltage self-test was successful when relay on MCU switches - (can be recognized by click sound).
	F12	**Heater Circuit Error short circuit** The main control has detected a heater circuit failure. These failure modes are checked before the cycle starts and after the spinning steps. **Potential Causes** • Check the resistance of the heater connectors to the ground. • Check the resistance of the heater. • Check the wiring connectors to the heater and CCU. • Check the CCU.
Icon Door open is ON	F13	**CCU failure on door lock control circuit** If CCU detects a defect of the door lock triac, F13 is displayed. This check is performed at start of cycle, during the cycle and at the end of the cycle. **Potential Causes** • Check the wiring between the CCU and the door lock. • CCU defect
	F14	**EEPROM Error** The CCU receives its data from an EEPROM on board the CCU. If there is an error reading this data it will cause this failure indication. **Potential Causes** • A power glitch voltage variation or interruption (mains disturbance) may cause this error: Run the Test Program. This will perform a complete check of the EEPROM. If the failure is detected during the Test Program replace the CCU.

© Whirlpool EMEA

	F15	**Drum Up Circuit Missing (only for TOPLOADERS with DRUM UP Circuit)** If the CCU is not detecting the Drum Up switch closing during Motor rotation this failure is displayed. This Error is detected ONLY during the Test Program. **Potential Causes** • Check the position of the electromagnetic device. • Check the position of the reed sensors. • Check the resistance of the reed sensor. • Check the wiring connection between the reed sensor and the CCU.
	F18 FoD	**Foam detected During the Wash Cycle** If the CCU is not able to drain out the water after washing or not able to spin after several trials this alarm code is displayed. **Potential Causes** • Customer used too much detergent. • Check if there is any problem with the pump hoses. • Check the pump for foreign objects. • Check the electrical resistance of the pump. • Check the electrical resistance of the pressure switch. • Check if pressure switch hose is in good condition and properly connected to tub and pressure switch. • Verify there is not a siphon problem.
	F19 F20	**Relay for MCU on CCU is defect (only appliances with external motor control unit like CIM, BPM or Direct Drive)** The central control unit has detected, that the relay to switch the MCU ON and OFF is defect (open or short circuit). The relay is placed on the CCU. **Potential Causes** • Check the wiring between CCU and MCU
	F21	**User Interface Error (detected only with Smart user interfaces)** If the communication between user interface module and CCU is disturbed, this Error is displayed. If the failure is displayed on the digits the display module is not able to “talk” to the CCU. If the failure is displayed on the status LED the CCU is not able to contact the Display module. **Potential Causes** • Check wiring connection to the display module. • Check display module. • Check CCU.
	F22	**MCU communication failure (only appliances with external motor control unit like CIM, BPM or Direct Drive)** **Potential Causes** • Check wiring /connection between MCU and CCU (communication wires) • Check MCU function • Check CCU function
	F23	**Pressure switch Failure** If the CCU detects during the wash cycle that the pressure switch contact for the wash level and the pressure switch level for the heater safety are ON or OFF simultaneously for 10” this failure will be displayed. **Potential Causes** • Check the resistance of the pressure switch contacts. • Check the wiring of the connection to the pressure switch and to the CCU. • Start the Test Program. If the problem persists F23 will be displayed. • Check points of F08 / F12 (Failure can be caused also by Heater circuit failure).

© Whirlpool EMEA

	F24	**Overflow Failure** If the overflow contact on the pressure switch is closed, the drain pump is switched on for 45". The wash programs continue, if the overflow level is reached not more than 4x in a program. The overflow failure indication will occur, if the overflow contact is closed the 5th time. In overflow condition, the door will remain locked and the drain will run in interval mode. **Potential Causes** • Check the drain hose and make sure it is not plugged or kinked. • Check wiring harness connections between drain pump, pressure switch and CCU. • Check/clean drain pump filter of foreign objects. • Check for drain pump failure. • Check the inlet valve for proper shut off. • Check the pressure switch for proper operation.
	F26	**Pump Driver Failure** If the CCU detects during the wash cycle that the triac of the pump is defective it will display this failure. **Potential Causes** • Check the resistance of the pressure switch contacts. • A failure of the pressure switch could also cause the Code. • If OK. Start Service test to check the CCU. If the failure occurs replace the CCU.
Only during test program	**Only during test program** F27	**Reversing relay failure** If the CCU detects that the motor is possible to rotate only in one direction this failure is displayed. **Potential Causes** • Check the harness to the motor. • Check the CCU.
Only during test program	**Only during test program** F28	**Tapped Field Failure** If the CCU is not able to switch ON the tapped field of the Motor, this failure code is displayed. **Potential Causes** • Check if the correct motor is built in. • Check the resistance of the fields of the motor. • Check the harness between Motor and CCU. • If the points above are OK replace the CCU.
	F29 or FdL	**Door Lock can not unlock, mechanical issue of door lock blockage,..** **Potential Causes** • Check if there is a mechanical problem on the door lock system (also door and door hook) • Check wiring between the CCU and the door lock. • Start the test program. If problem persists the error code F29 or FdL will be displayed **WAVE TCP:** Door lock timeout is 4 minutes, but can be expired 2x within the last 16 cycles. If 3rd occurrence within 16 cycles: F29 or FdL is displayed The appliance is locked during the failure mode. The appliance can start a new cycle without waiting for unlocking. For unloading the laundry, the customer must wait for unlocking (ca. 4minutes). **IMPORTANT: The failure indication can be deleted only by running the test program (completely!) or by reprogramming the variant file.** **WAVE 2:** Door lock timeout is increased to 6minutes F29 or FdL is indicated at 1st occurrence. The door lock is not locked during failure conditions. It is not necessary to delete the failure.

© Whirlpool EMEA

	F31 or bdd	**Blocked Drum Detected (only for Top Loader appliances)** CCU detects problems with driving of the motor at the beginning of the cycle or after pause mode when door lock has been unlocked. **Potential Causes** • Check if the drum door are properly closed • Check the belt position • Check the F06 case
	Only during test program F40	**MEB Communication Failure / Low Ambient Temperature** If there is no communication between CCU and the Myst Extension Board (MEB) or if the ambient temperature is lower than 5 °C this failure code will be displayed. **Potential Causes** • Check if there is power at the MEB CU2 connector. • Check if the communication cable is connected to the MEB and to the UI. • Check if the ambient temperature is higher than 5 °C. This is to avoid steaming with ice in the hoses, which would easily cause damages of the hoses. • If the failure code occurs at star of test program, the last cycle was not properly finished. Run a drain cycle, wait until drain cycle is completely finished and start test program again. • If the points above are OK and the failure occurs again, replace the MEB.
	Only during test program F41	**MEB Control Board Failure** If there is any failure detected at the Myst Extension Board (MEB) this failure code will be displayed. **Potential Causes** • Check if there is power at the MEB CU2 connector. • If the point above is OK replace the MEB.
	Only during test program F42	**Steamer Component Failure** If there is any failure at the steamer component or steamer NTC, this failure Code will be displayed. **Potential Causes** Disconnect appliance from mains for all checks on steamer: • Check the harness between Steamer, steamer NTC and MEB. • Check if there is no fuse or reset able thermostat at open state. • Check the electrical resistance of the Steamer Heater (unplug connector HSG3 from MEB measure resistance between pin 1 and 3: ca. 48-57Ohm - measure at harness connector and not at MEB header). • Check if the steamer NTC is not at open or short-circuit state. • Check if the steamer hoses are connected. • Check if the steamer tube is not blocked. • Check water NTC (in wash unit) and wiring connections (see F04 and F05) • If the points above are OK replace the steamer component.
	Only during test program F43	**Steam Valve Failure** If there is no water supply or the steamer valve does not open, this failure code will be displayed. **Potential Causes** • Check if water supply for the appliance is completely opened. • Check the cable between MEB and valve. • Check power supply from MEB to valve (230V). • Check if the hoses to the valve are connected with no leakage. • If the points above are OK replace the valve. • Re-test the machine and if the failure persists replace the MEB.

© Whirlpool EMEA

Domino Class B safety functions:

1) **Wash Level activated during selection mode:**
The Door is locked and Drain routine is started. If the Drain Pump is not defective the Door will be unlocked after Level N0 + 30 seconds;
Led (display) status: normal indication
If Drain Pump is defective Pump failure will be retriven.

2) **Drum Speed is higher than 60rpm in selection mode:**
When the speed > 60 rpm, then after 4 seconds, the doorlock is activated.
Led (display) status: normal indication

3) **Water High Temperature in selection or pause mode:**
If temperature which NTC sensor is detecting is higher than 50°C Door Lock will kept locked.
Led (display) status: normal indication

© Whirlpool EMEA

Service Bulletin 4812 712 40355

AUTHOR: Ronny Schuricht
Last Update: 05/11/11
VERSION: 1.0
TITLE: Water dripping from lid onto side panels.
SUBJECT: In rare cases, when the lid is opened after a washing cycle, water drips down the side panels.

REMEDIAL ACTION

If customer claims wet side panels, remove the lid and put some silicon in the area of the frame like shown in the pictures.

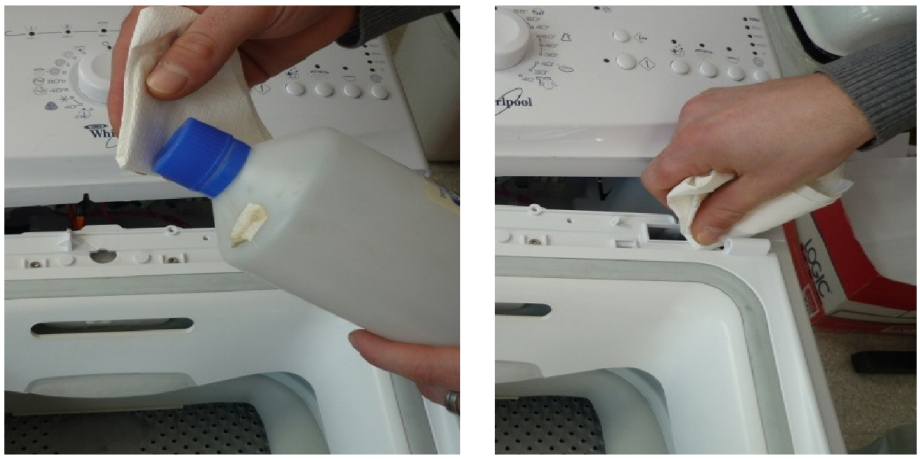
1.

Disassembly of lid

2.

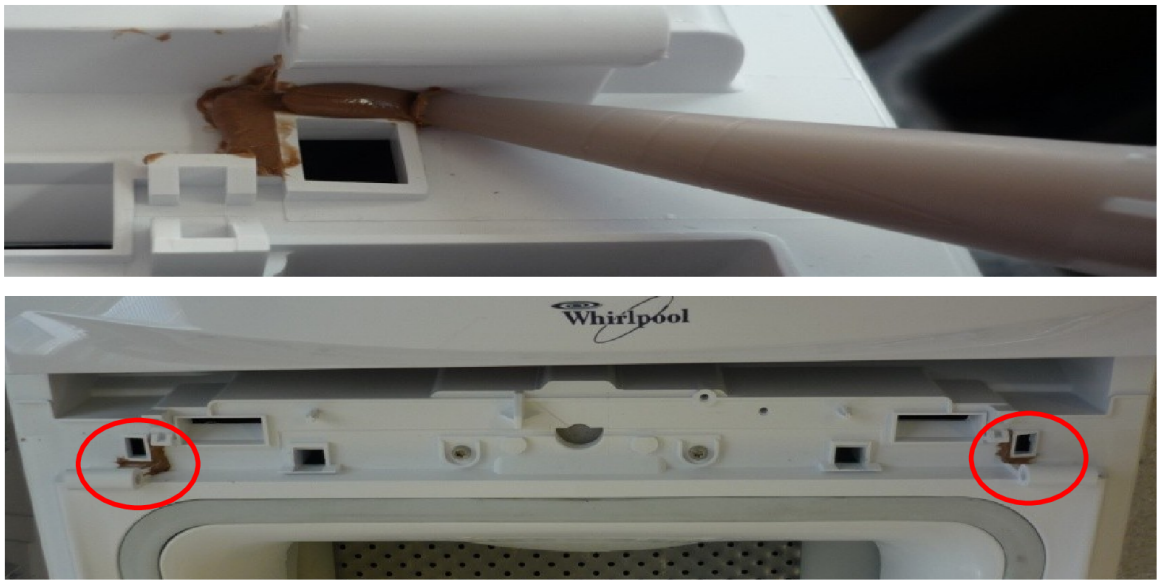
Disassembly of control panel

3.



Clean surface area before sealing

4.



Seal both area surfaces according picture
with white silicon.

Service Bulletin 4812 712 40354

AUTHOR: Ronny Schuricht
Last Update: 02/07/11
VERSION: 1.0
TITLE: new fixation pin for shock absorber
SUBJECT: Since 8th dec. 2010 a new pin fixing the shock absorber to the tub is used in production .

REMEDIAL ACTION

The new pin is interchangeable with the old version. In SPC the old pins will be replaced by the new version.

state	pos	factory code	service code	description
old code	864	461973085291	4812 529 18045	flexible absorber pin
old code	865	461973085303	4812 529 18052	plastic absorber shaft
new code	0865 / 1811	461975039251	**4801 101 00803**	pin shock absorber

old fixation pin

new fixation pin

Dip the pin into soap in order to simplify the fixation and avoid any damages on the rubber of the damper.

Press the pin into the fixation guide by hands.

Use a gaspipe pliers in order to fit the pin in the right position. If you hear a "clicking" sound, the pin is fixed well.

The fixation clip is ensuring a proper positioning.

Service Bulletin 4812 712 40317

AUTHOR: Ronny Schurricht
Last Update: 07/01/09
VERSION: 1.0
TITLE: Heating Element alternative solution.
SUBJECT: In special conditions it can occur that the heating element after a short period gets broken caused by very hard water (limestone) or variations in power supply.

REMEDIAL ACTION

If the heating element gets broken under mentioned conditions we recommend using the alternative heating element that is nickel treated and usable for power supply up to 240V.

According to SPC 600 pieces will be on stock from week 52 onwards.

Item	original Service Code	alternative Service Code	Description
4510	4812 259 28919	4812 259 28823	heating element with NTC

Service Bulletin 4812 712 40313

AUTHOR: Juergen Reinhardt
Last Update: 11/17/09
VERSION: 1.0
TITLE: F06 randomly displayed in Domino controls

CAUSE

Sensible failure detection in drive system for safety reasons

REMEDIAL ACTION

Please check the following points:

Load:

Was there bulky load in the drum or was the machine overloaded ?

Drive system:

Please check the tacho generator (resistance and cable).

Please guarantee a proper and tight seat of the belt on drive shaft and pulley.

Please check the electrical connections between controls and motor.

Service Bulletin 4812 712 40301

AUTHOR: Ronny Schurricht
Last Update: 10/13/10
VERSION: 1.0
TITLE: Start Delay Indication
SUBJECT: Some customers are claiming that the Start Delay function is not working well. The machine seems to start one hour earlier than expected. For example, at Start Delay time 3hours the indication is switching from h:03 to h:02 after 1 minute.

REMEDIAL ACTION

The Start Delay function is working correct.

Reason for this behaviour is following:

If the start time is after 3h 00min it's indicating h:03
If the start time is after 2h 59min it's indicating h:02
If the start time is after 2h 00min it's indicating h:02
If the start time is after 1h 59min it's indicating h:01
If the start time is after 0h 59min it's indicating :59
If the start time is after 0h 30min it's indicating :30

Service Bulletin 4812 712 40321

AUTHOR: Ronny Schuricht
Last Update: 10/14/10
VERSION: 3.0
TITLE: Drum with improved pulley fixation and drum opening.
SUBJECT: There were made some modifications on Alliance drums in production (7.4.2009):
1. Change of hole for pulley screw in the hub from M6 to M8 to improve connection drum pulley. (LR+HR)
2. New hinge of drum door with thickness 1,8 mm (before 1,5 mm) and rivets with diameter 4 mm (before 3 mm). (HR with 210 mm door).
3. New shape of drum door for new hinge of drum. (HR with 210 mm door)
Also the heating element holder (HR), is replaced by a new one with lower shape.
(pls find Service Bulletin 481271240318)

Update 19.07.2010
4. Change of hole in the hub (opposite side of pulley) from M6 to M8. Machines from serial number 341029..... onwards are equipped with the new screw M8x18 and accordingly modified drum. The washer is cancelled.

Update 08.10.2010
5. Substitution of LR drum 4801 111 02217 by LR drum 4801 111 02218 equipped with drum opening of the HR drum, that is more stable.

REMEDIAL ACTION

We introduced new spare parts: drum kits with pulley screw M8x23. In the case of HR also with heating element holder + screw.
The drum with new hinge (1,8 mm) has got a bigger diameter. In order to avoid contact of the drum with the old heating element holder it's necessary to exchange it by the new one when the drum is replaced. In LR machines it is not necessary because of enough space between drum and heating element holder.

Update 19.07.2010
As spare parts the drum kits mentioned in the table below are equipped with the fitting screws. Service codes remain the same like before.

Update 08.10.2010
If the drum of a 5kg LR machine needs to be exchanged the LR drum with 210mm drum opening will be send as spare part. Repair is exactly the same. The drum will fit without any problems.

Item	Old Service Code	New Service Code	Description
220 0	4812 418 18556		Drum LR 195
220 0	4812 418 18557		Drum LR 195
220 0	4812 418 18464		Drum LR 195
220 0	4801 111 00855		Drum LR 195
220 0	4801 111 02217		Drum LR 195/M8, kit
220 0	4812 418 18596		Drum LR 210
220 0	4812 418 18632	4801 111 02218	Drum LR 210/M8, kit
220 0	4812 418 18568		
220 0	4812 418 18595	4801 111 02249	Drum HR 210/M8, kit
220 0	4812 418 18217		
220 0	4812 418 18223		
220 0	4801 101 00142		
220 0	4812 418 18227	4801 111 02219	Drum HR 210/M8,serv,Amiens,kit
200 1	4812 418 18706	4801 111 02216	Tub LR 5 pins/T20/GF30 weld.,kit
910 3	4812 502 18404	4812 502 18817	Screw of pulley M8x23
910 2	4812 502 18404	4801 101 00801	Screw M8x18 (opposite side of pulley)
993 0	4812 290 18031	4801 111 01911	clamp heating element

Service Bulletin 4812 712 40315

AUTHOR: Ronny Schurricht
Last Update: 07/01/09
VERSION: 1.0
TITLE: Bearing kit does not fit.

REMEDIAL ACTION

We have some claims about spare part bearing kits, that doesn't fit in the tub. Reason is a material change in production that causes slightly different measures.
In Alliance LR machines the new bearing kit is used since week 49/2007.

In case of exchanging the bearing kits, it's important to take care about the correct bearing kit according to Service Info.

Item	Old Service Code	New Service Code	Description
941 0	4812 310 18578	4812 310 19144	Bearing kit cpl.