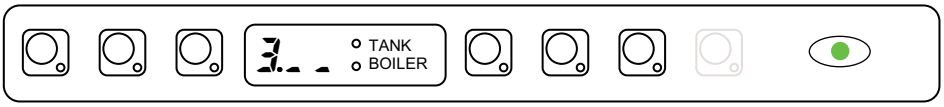
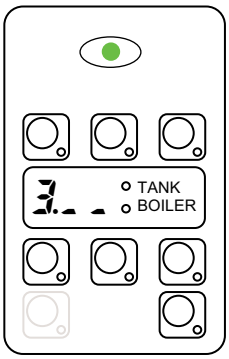
SERVICE MANUAL





CONTENTS: This document contains the instructions to set electronic board parameters via user interface for following dishwashers:

CODE	MODEL	CODE	MODEL	CODE	MODEL	CODE	MODEL
400041	NUC3DD	**502027**	EUCAI60	**504235**	EHTAIAU	**506053**	ZPPWSSG
400055	EUC1	**502028**	EUCAIWS	**504236**	EHTAIMLAU	**506054**	EPPWELG
400056	EUC1DP	**502033**	EUCAIG	**504237**	ZHTAWS	**506055**	EPPWELG60
400057	EUC1WS	**502034**	EUCAIWSG	**504238**	ZHTAID	**506056**	ZPPWELG
400058	EUC1DPWS	**502035**	EUCAIML	**504239**	ZHTAIWS	**506057**	ZPPWSLG
400059	EUC3	**502036**	EUCAIMLWS	**504240**	ZHTAIAU	**690028**	NUC1G
400060	EUC3WS	**502037**	EUCAIMLG	**504241**	ZHTA	**698005**	NUCA1DDG
400061	EUC3DP	**502038**	EUCAICL	**504242**	ZHTA60	**698047**	OHTAROW
400062	EUC3DPWS	**502039**	EUCAICLG	**504243**	ZHTAI	**698048**	OHTAROW60
400063	EUC1G	**502040**	EUCAIWL	**504244**	EHTAIUSPH5	**698049**	NUCA1DPDDG
400064	EUC1DP60	**502042**	EUCAICLW	**504245**	EHTAIUSPH6	**698058**	NHTDPDDG
400065	EUC3DD	**502043**	EUCI	**505036**	EHTAO	**698083**	APPWELG
400066	ZUCADDROW	**502044**	EUCIM	**505046**	EHT	**698085**	APPWESG
400067	ZUCADDROW6	**502045**	EUCIM60	**505047**	EHT60	**698086**	APPWEHG
400116	FUCA3DD	**502046**	EUCAIDPNW	**505048**	EHTAG	**698087**	ET5AIIT
400120	NUC1DPP	**502047**	ZUCI	**505049**	EHTM	**698088**	ET5AIDP
400127	KUC3	**502048**	ZUCID	**505050**	EHTM60	**698089**	ET5AIDPWS
400128	KUC3DP	**502049**	ZUCAI	**505051**	NHT	**698091**	AUCI
400137	EUCA1DP	**502050**	ZUCAIDP	**505052**	NHTD	**698092**	AUCAI
400138	NUC1GMS	**502051**	ZUCAIDPWS	**505053**	NHT60	**698093**	AUCAIDP
400139	EUC3DPCAG	**502052**	ZUCAIG	**505054**	EHTAROW	**698094**	AUCAIDPWS
400140	NUC1	**502053**	ZUCAIDDWS	**505055**	EHTAROW60	**698095**	AUCAIG
400141	NUC1DP	**502054**	ZUCAID	**505056**	ZHTAROW	**698096**	AUCAIWSG
400142	NUC1WS	**502055**	ZUCAI60	**505057**	ZHTAROW60	**698097**	ET12AI
400143	NUC1WSDP	**502056**	EUCAIUSPH6	**505058**	EHTAJ	**698098**	ET12AIT
400144	NUC3	**502057**	ZUCAIDD	**505059**	EHTAJ60	**698110**	NHTAG
400145	NUC3WS	**502058**	EUCAIDD	**505060**	EHTAO60	**698115**	AHTAWS
400146	NUC3DP	**502059**	EUCAIDPJ	**505061**	ZHTAO	**698116**	AHTAIWS
400147	NUC3DPWS	**502060**	EUCAIDPJ60	**505062**	ZHTAO60	**698117**	AHTAIG
400148	NUC3DDWS	**504226**	EHTA	**505063**	KHT	**698118**	AHTAIWSG
400149	NUC1DP60	**504227**	EHTA60	**505064**	NHTM	**698119**	AHTA
400150	NUC1DPA	**504228**	EHTAWS	**505065**	NHTM60	**698120**	AHTAI
400151	ZUCA1	**504229**	EHTAI	**505082**	NHTP	**S49JGF**	
400152	ZUCA3	**504230**	EHTAID	**506048**	EPPWESG	**S49LBN**	
400153	EUCADDROW	**504231**	EHTAIWS	**506049**	EPPWESG60	**S49QL1**	
400154	EUCADDROW6	**504232**	EHTAIDWS	**506050**	EPPWEHG		
502025	EUCAI	**504233**	EHTAIG	**506051**	ZPPWESG		
502026	EUCAIDP	**504234**	EHTAIWSG	**506052**	ZPPWEHG		

EDITION: **06.2012**

INDEX

1 KEYBOARDS

1.1 HOOD TYPE Style

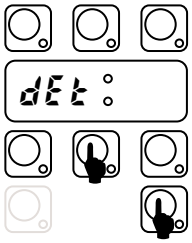


Fig. 1 Detergent dispenser Manual Activation.

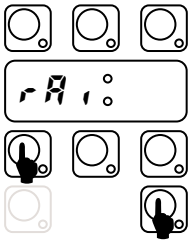


Fig. 2 Rinse Aid Dispenser Manual Activation

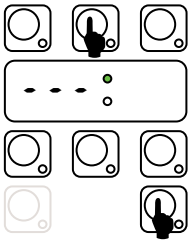


Fig. 3 Rinse Pump Manual Activation (used to EMPTY BOILER)

SETTING MODES:

To enter into one setting mode (Figure 4),(Figure 5) the appliance should be in stand-by: switch on the appliance, no cycles selected. Is useful keep door open to avoid start cycle in case of not simultaneously pressure of the two keys.

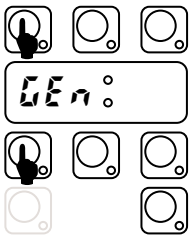


Fig. 4 Enter into General Parameters (Hold down buttons for at least five seconds).

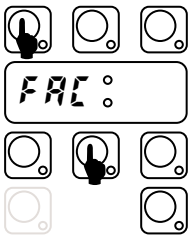


Fig. 5 Enter into Factory Parameters (Hold down buttons for at least five seconds)..

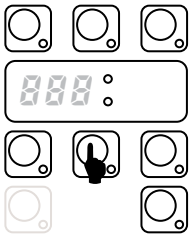


Fig. 6 Next Parameter Family OR Increase Parameter Value(In setting mode only)

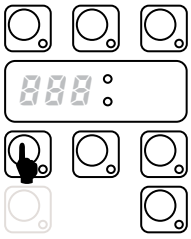


Fig. 7 Decrease Parameter Value(In setting mode only)

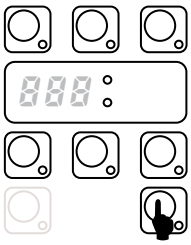


Fig. 8 Confirm Value and go to next Parameter (In setting mode only).

1.2 UNDERCOUNTER Style

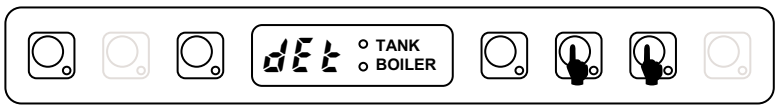


Fig. 9 Detergent dispenser Manual Activation

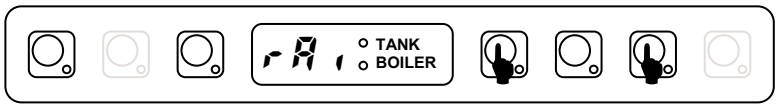


Fig. 10 Rinse Aid Dispenser Manual Activation

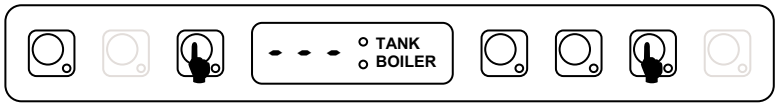


Fig. 11 Rinse Pump Manual Activation (used to EMPTY BOILER)

SETTING MODES:

To enter into one setting mode (Figure 12), (Figure 13) the appliance should be in stand-by: switch on the appliance, no cycles selected. Is useful keep door open to avoid start cycle in case of not simultaneously pressure of the two keys.

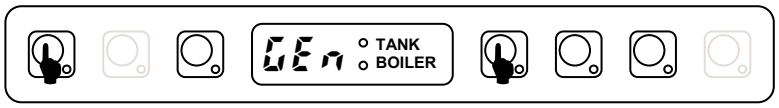


Fig. 12 Enter into General Parameters (Hold down buttons for at least five seconds).

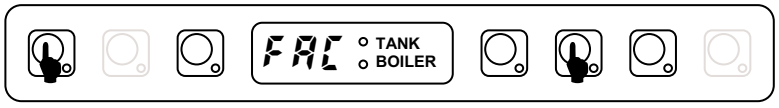


Fig. 13 Enter into Factory Parameters (Hold down buttons for at least five seconds).

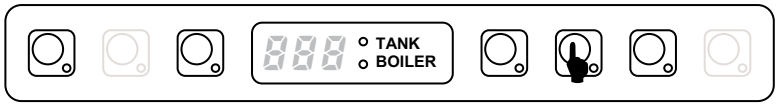


Fig. 14 Next Parameter Family OR Increase Parameter Value (in setting mode only)

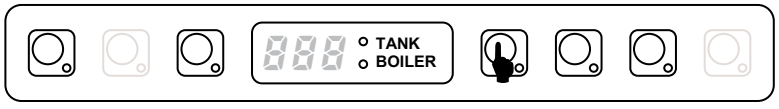


Fig. 15 Decrease Parameter Value (In setting mode only)

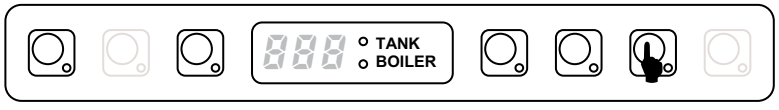
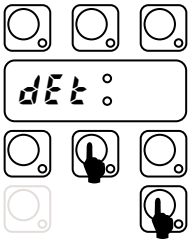


Fig. 16 Confirm Value and go to next Parameter (in setting mode only).

2 MANUAL ACTIVATION OF DETERGENT AND RINSE AID DISPENSERS

When replacing detergents may be necessary activate the dispensers to fill hoses.

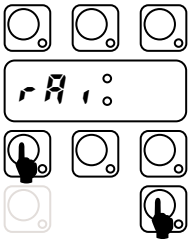
2.1 Detergent Dispenser Activation



Switch on the dishwasher.

Press and hold down CYCLE_2 and CYCLE INFINITE keys, after two 'beep' the detergent dispenser starts work for 20 sec.

2.2 Rinse Aid Dispenser Activation

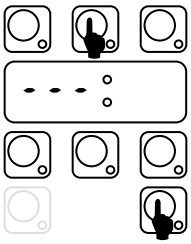


Switch on the dishwasher.

Press and hold down CYCLE_1 and CYCLE INFINITE keys, after two 'beep' the rinse aid dispenser starts work for 40 sec.

3 RINSE PUMP MANUAL ACTIVATION

Use this function to empty the boiler (if the dishwasher is not to be used for a long time, for maintenance operation: ex. before replacing main board).



Switch on the dishwasher.

Close the door and press and hold down DRAIN and CYCLE INFINITE keys. A buzzer signal indicates the rinse pump activation and the display shows three blinking lines. Three beeps indicate the cycle end.

4 DETERGENT AND RINSE AID DOSAGE

In this paragraph is explained how to set the working time for the detergent and rinse aid dispensers.
For each dispenser there are two parameters: the initial time and the time during cycle execution.

4.1 GEn General Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
dIn	Initial Detergent Dosage (during filling tank)	[s]	0	240	90
rIn	Initial Rinse Aid Dosage (starts when tank filled)	[s]	0	180	10
dEt	Detergent Dosage During Cycle Execution (during wash phase)	[s]	0	182 (*)	8
rA,	Rinse Aid Dosage During Cycle Execution (when refilling boiler)	[s]	0	62 (*)	4

How change the duration:

- Switch OFF and switch ON the dishwasher;
- Enter into the USER SETTING mode by pressing and hold down ON/OFF and CYCLE_1 keys for at least **five seconds** the display shows GEn (Figure 17);
- Press CYCLE_INFINITE. The display shows alternatively the symbol dIn and the duration in seconds (Figure 18) and (Figure 19) ;
- NOTE: If User Interface v.3.00 tank led is on if value correspond to factory default (Default 1 - HOOD TYPE).
- Use CYCLE_1 key to decrease the duration and CYCLE_2 key to increase (Figure 19);
- After settled the duration press CYCLE_INFINITE key to **store value**. The display shows the next parameter (Figure 20) and the corresponding value (Figure 21);
- In the same way is possible to change the other duration; when finished switch OFF and switch ON.

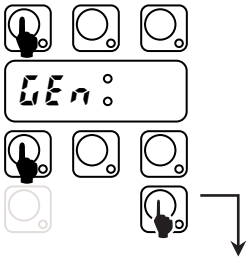


Fig. 17 Enter into User Mode (press for 5 sec)..

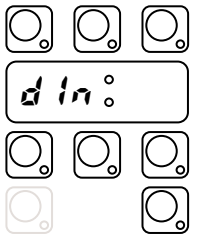


Fig. 18 Initial detergent dosage.

Fig. 19 Change duration. (Tank LED indicates default).

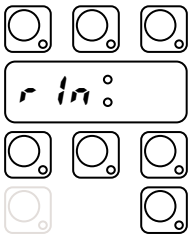


Fig. 20 Initial rinse aid dosage

Fig. 21 Change duration

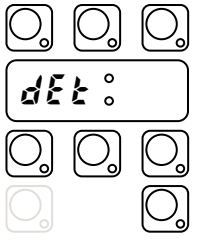


Fig. 22 Cycle detergent dosage.

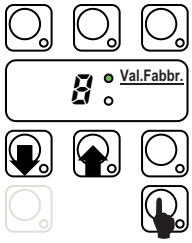


Fig. 23 Change time activation (Tank LED indicates default)

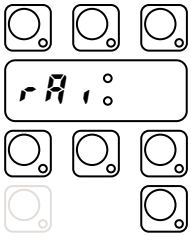


Fig. 24 Cycle rinse aid dosage.

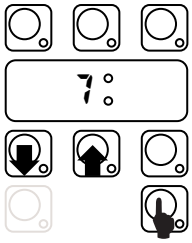
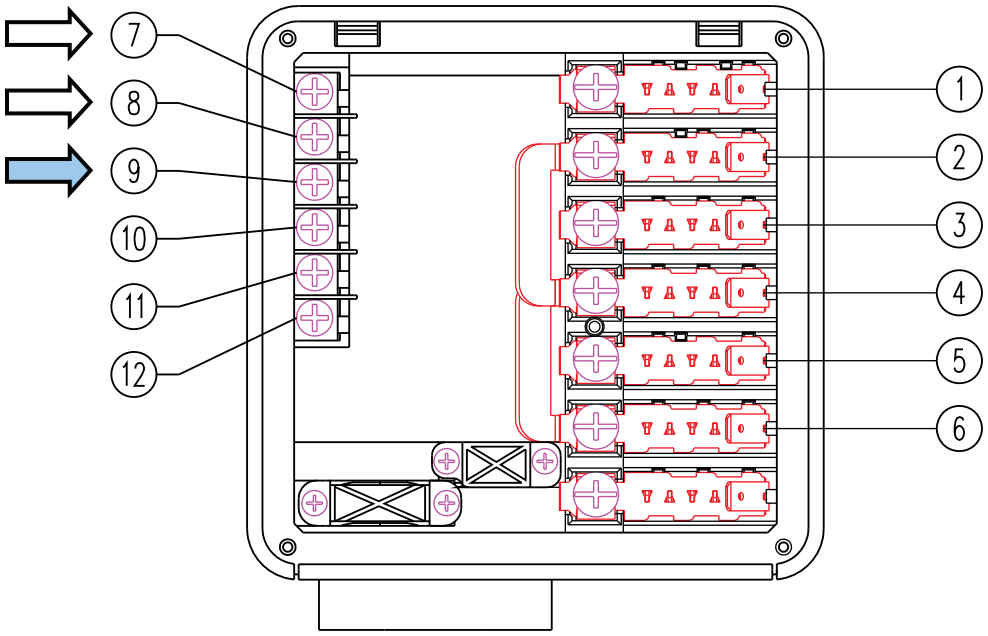


Fig. 25 Change time activation.

(*) Note for external dispensers:

- if dEt: 181 the **detergent dispenser** works when **WASHING PUMP** is being activated; at the same time voltage is supplied between connectors $\mathbf{L1_7–L1_9}$ (main terminal box);
- if dEt: 182 the **detergent dispenser** works when **LOADING EV** is being activated to re-fill boiler level; at the same time voltage is supplied between connectors $\mathbf{L1_7–L1_9}$ (main terminal box);
- if rAi: 61 the rinse aid dispenser works when **LOADING EV** is being activated to re-fill boiler level; at the same time voltage is supplied between connectors $\mathbf{L1_8–L1_9}$ (main terminal box);
- if rAi: 62 the **rinse aid dispenser** works when **WASHING PUMP** is being activated; at the same time voltage is supplied between connectors $\mathbf{L1_8–L1_9}$ (main terminal box);

- For electrical connections refer to electric diagram -



Example

Suppose there is connected an **external detergent dispenser** with a probe into the tank. A typical setting could be:

dIn: 0 the dispenser is not activated during filling tank;

dEt: 181 the dispenser is supplied during washing phase and the probe automatically dose the right detergent amount.

5 COUNTERS

This Parameter Family collects cycle counters and water consumption counters.
For water consumption counters a flow meter must be installed. See PPL (calibration parameter) into dPA section (8 OTHER PARAMETERS).

5.1 Cnt Counters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
CYC	Cycles performed counter. CYC symbol and two numbers blink consecutively. The cycle number is obtained by joining the two numbers. Ex. CYC → 10 → 042 means 10042 cycles executed.	-			
cYc	Cycle counter (resettable). This counter is similar to CYC but is resettable by user (see rSt parameter below).	-			
nnc	Water Consumption (only for dishwashers with incorporated continuous water softener). Counts m^3 of water consumption.	[m^3]			
L	Water Consumption (only for dishwashers with incorporated continuous water softener). Counts litres of water consumption. The total consumption is given by adding nnc [m^3] and L [l] values.	[l]			
L rt	Water Consumption: resettable counter. [present up to software version 3.12] Counts the litres of water and is resettable by user (see rSt parameter below).	[l]			
rSt	Reset resettable counters: cYc and L rt To reset put 1 this parameter, switch off and then on again: cYc and L rt will show zero. Note that cYc is used to count cycles for CAI1 message (see next parameter, nCY).	-			
nCY	Store thousand of cycles after that CAI1 message appears on display. Ex. If this parameter is settled to 20, CAI1 message appears when cYc reach 20.000 cycles.	-			
drn	Drain/Cleaning cycles performed. Similar to CYC but counts Cleaning Cycles.	-			
rCY	Numbers of cycles that can be made after a regeneration cycle (only for dishwashers with non-continuous water softener) [See paragraph 9.1 RESIN REGENERATION CYCLE.].	-			20
nrE	Regeneration cycle counter (only for water softener dishwasher) [See paragraph 9.4 DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER]. nrE only counts efficient regeneration cycles, i.e. those carried out with salt in the special container (only for dishwashers with incorporated continuous water softener)	-			
rES	Counter of regeneration cycles done without salt in the special container. (only for dishwashers with incorporated continuous water softener) [See paragraph 9.4 DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER].	-			

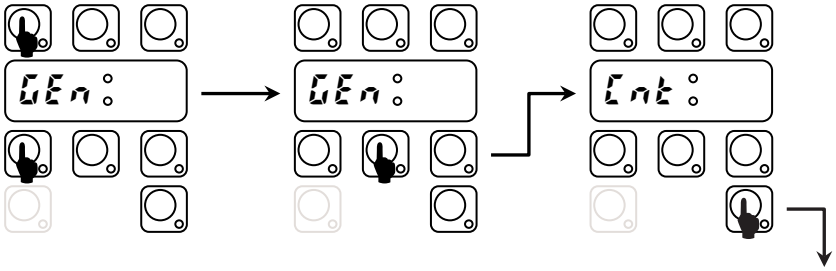


Fig. 26 USER setting mode (press for 5s).

Fig. 27 Next Family

Fig. 28 Counters Fam.: ENTER

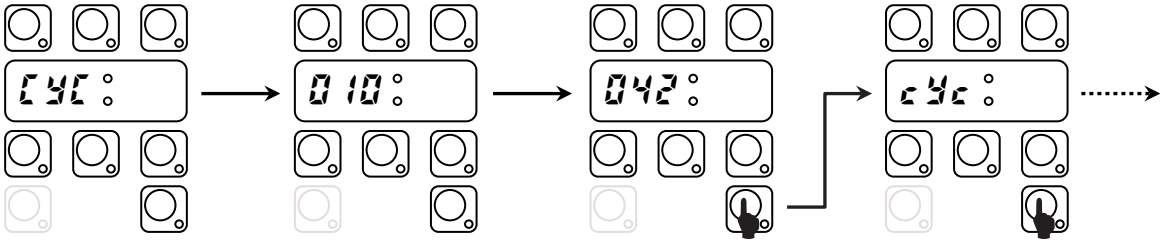


Fig. 29 CYCLES

Fig. 30 Thousand.

Fig. 31 Units.

Fig. 32 Next counter.

6 TEMPERATURE SETTING

In this paragraph is explained how to change temperature thresholds and all parameters related to boiler and tank.

6.1 FAC Factory Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
btC	Boiler Temperature: THRESHOLD. When boiler temperature reaches this value, heaters switch off.	[°C]	45	95	78
btH	Boiler Temperature HISTERESIS, (represent dead band). Heater switch on if boiler temperature is below: btC - btH	[°C]	2	10	2
bH,	Boiler Temperature: HIGH LIMIT. When boiler temperature reaches this value C 2 alarm appears. Put 0 to disable C 2 alarm.	[°C]	0	98	96
bLo	Boiler Temperature: LOW LIMIT. During boiler warm-up, temperature must increase at least bLo °C otherwise E 3 warning appears. Put 0 to disable E 3 warning.	[°C]	0	10	1
bFL	Boiler Filling Timeout. If filling time is longer than bFL, A 1 alarm appears. Put 0 to disable A 1 alarm.	[min]	0	42	5
bAJ	Boiler Temperature Adjust.	[°C]	0	7	4
bP	Boiler Priority (enable boiler wait function) 0=disabled 1=enabled	-	0	1	1
bSt	Booster Function Overheat gap over Boiler Temperature Threshold	[°C]	0	15	2
btd	Boiler temperature negative differential: when the dishwasher is in standby, boiler threshold becomes: btC - btd (Used to save energy during machine inactivity by keeping boiler water at a lower temperature).	[°C]	0	20	0
ttC	Tub Temperature: THRESHOLD When tank temperature reaches this value, heater switch off.	[°C]	40	85	63
ttH	Tub Temperature: HISTERESIS, (represent dead band). Heater switch on if tank temperature is below: ttC - ttH	[°C]	2	30	5
tH,	Tank Temperature: HIGH LIMIT. When tank temperature reaches this value C 3 alarm appears. Put 0 to disable C 3 alarm.	[°C]	0	95	75
tLo	Tank Temperature: LOW LIMIT. During tank warm-up, temperature must increase at least tLo °C otherwise E 2 warning appears. Put 0 to disable E 2 warning.	[°C]	0	10	1
tFL	Tank Filling Timeout. If filling time is longer than tFL, A 1 alarm appears. Put 0 to disable A 1 alarm.	[min]	0	42	20

To modify thresholds do the following:

- Switch OFF and switch ON the dishwasher;
- Enter into the FACTORY SETTING mode by pressing and hold down ON/OFF and CYCLE_2 keys for at least five seconds (Figure 33);
- Press CYCLE INFINITE. The display shows alternatively the symbol bEC (Figure 34) and the corresponding value 76 (Figure 35);
- Use CYCLE_1 key to decrease the value and CYCLE_2 key to increase (Figure 35);
- Press CYCLE INFITE key to confirm. The display shows the next parameter (Figure 36) and the corresponding value (Figure 37);
- In the same way is possible to change the other parameters; when finished switch OFF and switch ON.

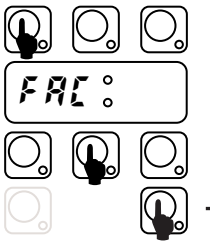


Fig. 33 Factory setting mode.

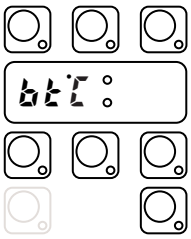


Fig. 34 Boiler temp. threshold

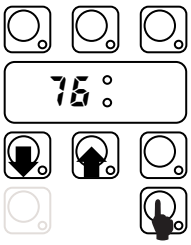


Fig. 35 Change value & Store

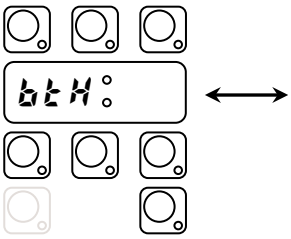


Fig. 36 Boiler Temp Hysteresis

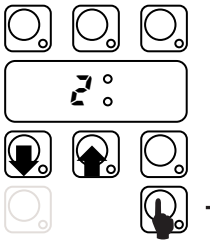


Fig. 37 Change value & Store

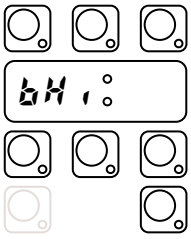


Fig. 38 Tank temp. High limit.

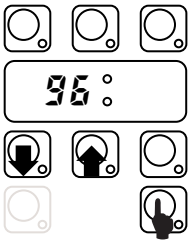
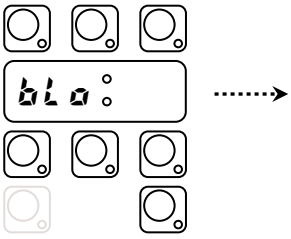


Fig. 39 Change value & Store.



At the end the display will show again FAC and by pressing CYCLE_2 key (Fig. 41) is possible to change cycle duration (see paragraph 7 CYCLE SETTING).
).

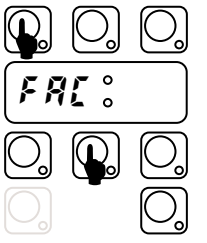


Fig. 40 Factory setting mode

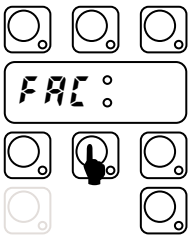


Fig. 41 Next Family

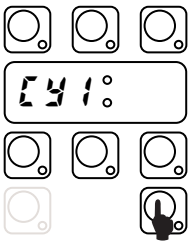


Fig. 42 Cycle 1 Family: ENTER.

7 CYCLE SETTING

IIn this paragraph is explained how to change cycle phases duration (see paragraph 7.1 CYCLE DIAGRAM).

- Switch on the dishwasher;
- Enter into the FACTORY SETTING mode: press and hold down ON/OFF and CYCLE_2 keys for at least **5 seconds** (Figure 43);
- Press CYCLE_2 key to select CYCLE_1 parameters.
- Press CYCLE_INFINITE. The display shows alternatively the symbol Ln1 (Figure 46) and the corresponding value 0 (Figure 47);
- Use CYCLE_1 key to increase the value and CYCLE_2 key to decrease (Figure 47);
- Press CYCLE_INFINITE key to confirm. The display shows the next parameter (Figure 48) and the corresponding value (Figure 49);
- In the same way is possible to change the other parameters;.

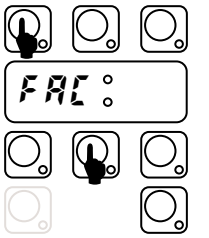


Fig. 43 Factory setting mode.

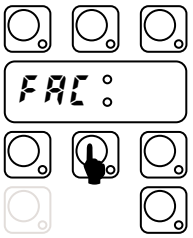


Fig. 44 Select next class.

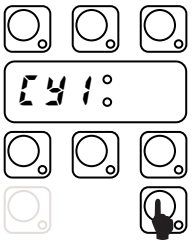


Fig. 45 Cycle 1 Family: ENTER.

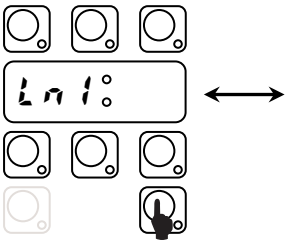


Fig. 46 Wash duration [min].

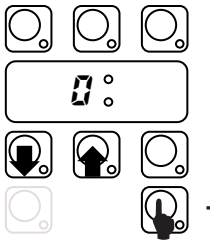


Fig. 47 Change value & Store

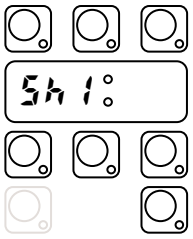


Fig. 48 Wash duration [sec].

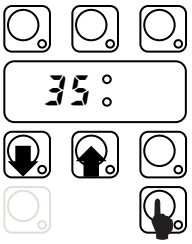


Fig. 49 Wash duration [min]..

After settled all parameters referring Cycle 1, by pressing CYCLE_2 key is possible to change the Cycle 2 parameters (Figure 50), (Figure 51) and so on.

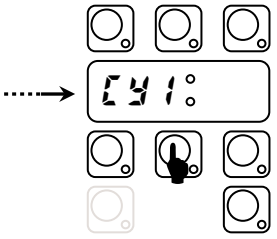


Fig. 50 Cycle 1 Parameters.

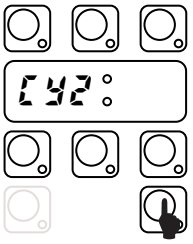


Fig. 51 Cycle 2 Parameters: ENTER.

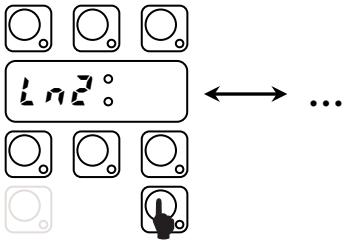


Fig. 52 Wash duration [min].

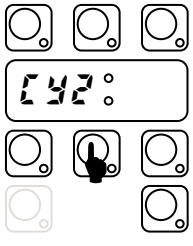


Fig. 53 Cycle 2 Parameters: next Family

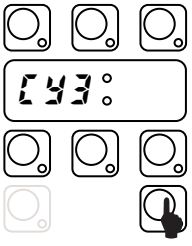


Fig. 54 Cycle 3 Parameters: ENTER

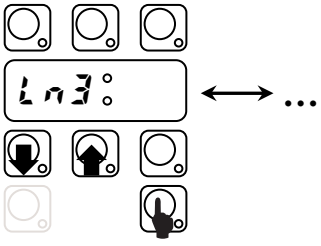
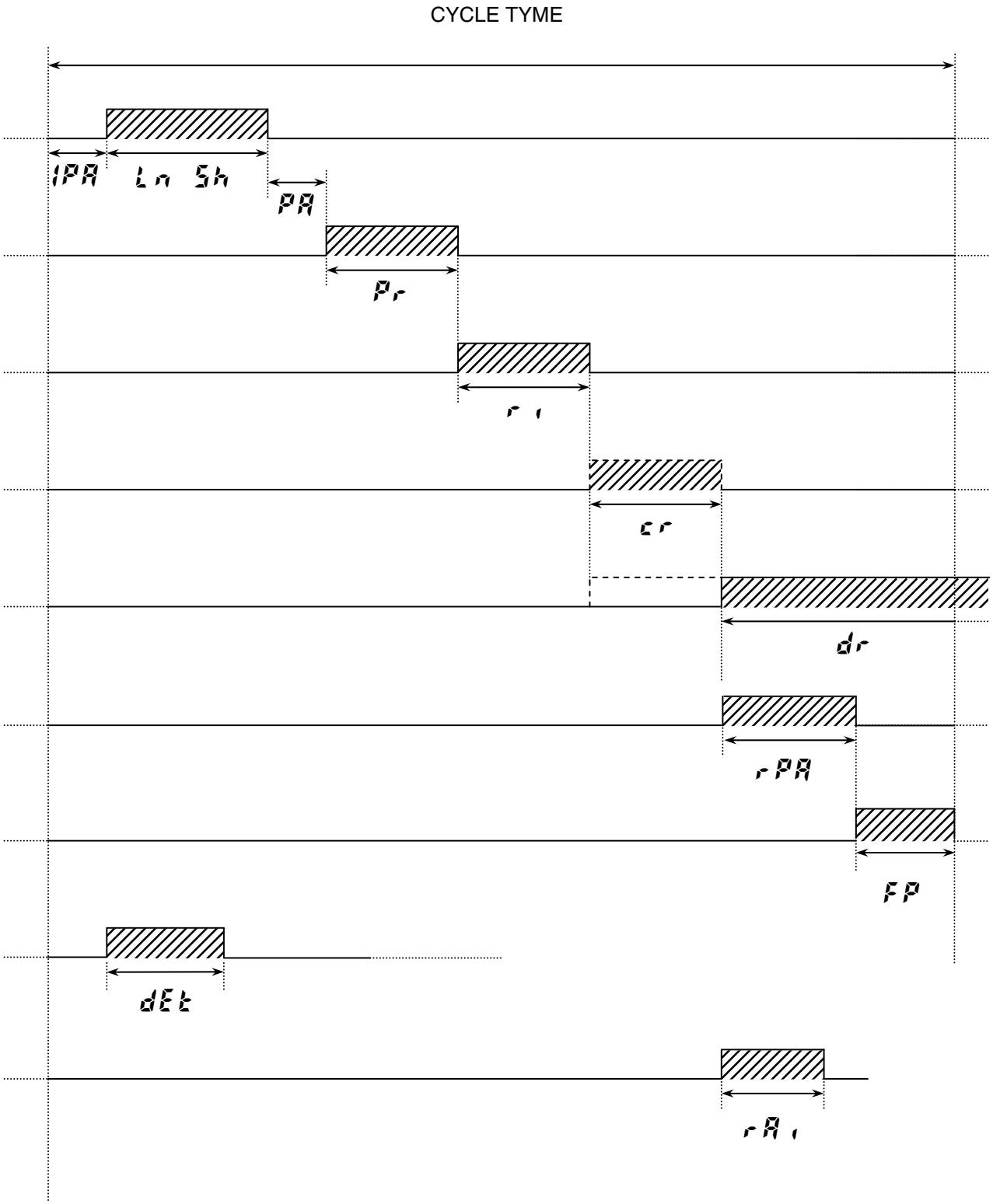


Fig. 55 Wash duration [min].

7.1 CYCLE DIAGRAM



LEGENDA:

- Ln Sh = wash
- Pr = pre rinse
- r 1 = rrinse
- cr = cold rinse
- dr = drain
- rPA = rinse pause
- FP = final pause
- dEt = detergent
- rA 1 = rinse aid

7.2 CY1 Cycle 1 Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
Ln1	Wash Phase Long	[min]	0	20	**0**
Sh1	Wash Phase Short	[s]	1	60	**35**
PA1	Pause	[s]	0	20	**4**
Pr1	Pre-rinse Duration	[s]	0	30	**0**
r n1	Rinse Phase Duration	[s]	10	45	**16**
cr1	Cold Rinse Phase Duration	[s]	0	50	**0**
dr1	Drain	[s]	0	40	**16**
FP1	Final Pause at End of Cycle	[s]	0	60	**0**
tL1	Long wash time in mode Thermal Label	[min]	0	60	**0**
tS1	Short wash time in mode Thermal Label	[s]	0	60	**59**

7.3 CY2 Cycle 2 Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
Ln2	Wash Phase Long	[min]	0	20	**0**
Sh2	Wash Phase Short	[s]	1	60	**45**
PA2	Pause	[s]	0	20	**4**
Pr2	Pre-rinse Duration	[s]	0	30	**0**
r n2	Rinse Phase Duration	[s]	10	45	**16**
cr2	Cold Rinse Phase Duration	[s]	0	50	**0**
dr2	Drain	[s]	0	40	**16**
FP2	Final Pause at End of Cycle	[s]	0	60	**0**
tL2	Long wash time in mode Thermal Label	[min]	0	60	**1**
tS2	Short wash time in mode Thermal Label	[s]	0	60	**12**

7.4 CY3 Cycle 3 Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
Ln3	Wash Phase Long	[min]	0	20	**1**
Sh3	Wash Phase Short	[s]	1	60	**40**
PA3	Pause	[s]	0	20	**4**
Pr3	Pre-rinse Duration	[s]	0	30	**0**
r n3	Rinse Phase Duration	[s]	10	45	**16**
cr3	Cold Rinse Phase Duration	[s]	0	50	**0**
dr3	Drain	[s]	0	40	**16**
FP3	Final Pause at End of Cycle	[s]	0	60	**0**
tL3	Long wash time in mode Thermal Label	[min]	0	60	**2**
tS3	Short wash time in mode Thermal Label	[s]	0	60	**12**
bt3	Boiler Temperature Threshold: only for Cycle 3. This parameter allows having a different rinsing temperature for the third cycle. Only values above 45°C are allowed.	[°C]	0	95	**0**

7.5 drn Drain/Cleaning Cycle Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
1dr	Initial Drain Phase Duration	[s]	0	240	**40**
Fdr	Final Drain Phase Duration	[s]	0	240	**80**
drt	Drain without cleaning cycle	-	0	1	**0**
Cbd	Number of wash cycles possible between one drain cycle and the next	[wash cycles]	0	200	**0**
dto	Indicates the maximum permissible delay between drain cycle start and the reaching of a tank level below the work level. If the set delay is exceeded, alarm B1 occurs.	[s] x 10	0	100	**18**

8 OTHER PARAMETERS

8.1 dPA Dishwashing Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
1PA	Initial Pause before start washing (for ALL cycles)	[s]	0	10	**0**
dLy	Delay for the 2nd wash pump (PW only)	[s]	0	10	**3**
Pdr	Active a drain phase at the end of washing phase.	[s]	0	40	**0**
rPA	Duration of pause after rinse cycle (valid for dishwashers with door/hood lock device) [See par. 9.2 MEDICAL LINE DISH-WASHER WITH DOOR/HOOD LOCK DEVICE].	[s]	0	60	**0**
C F	Celsius/Fahrenheit selection 0 = Celsius 1 = Fahrenheit	-	0	1	**0**
r rt	Rinse Temperature Display. Enable rinse temperature probe (if installed). 0 = during rinse phase the display shows boiler temperature; 1 = during rinse phase the display shows rinse temperature;	-	0	1	**0**
PPL	Pulse Per Litre. This parameter must be settled in according to flow meter installed [present up to software version 3.12].	[p/l]	0	255	**0**
CdE	Number of wash cycles performable without detergent (only for dishwashers with external detergent level sensor – par. 9.3 DETERGENT AND RINSE AID LEVEL SENSORS ACTIVATION) [tES: 1]	-	0	5	**5**
tLE	Enable mode Thermal Label: if set to 1 it enables the mode and disables the "endless cycle" button	-	0	1	**0**
btL	Boiler temperature in mode Thermal Label.	[°C]	45	97	**86**
ttL	Tank temperature in mode Thermal Label.	[°C]	40	90	**75**
tHt	Tank temperature hysteresis in mode Thermal Label.	[°C]	0	30	**2**
1LE	Pressure sensor threshold 1 [present up to software version 2.11].	-	0	255	**140**
1HS	Pressure sensor histeresis 1 [present up to software version 2.11].	-	0	255	**50**
2LE	Pressure sensor threshold 2 [present up to software version 2.11].	-	0	255	**140**
2HS	Pressure sensor histeresis 2 [present up to software version 2.11].	-	0	255	**50**

Note: 1LE, 1HS, 2LE, 2HS parameters emulates a two levels pressure switch, keep in mind that value doesn't correspond to a physical quantity.

8.2 rOn Read Only Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
rEL	Main Board Firmware Release	-	-	-	-
rLS	Water softener board software version. (only for dishwashers with incorporated continuous water softener).	-	-	-	-
ACC	Active column: indicates through which of the two continuous water softener columns boiler filling is being carried out: 0 = column A and 1 = column B (only for dishwashers with incorporated continuous water softener).	-	-	-	-
CAI1	When CAI1 message appears, the parameter value becomes 3. After maintenance, to clear CAI1 message, insert 0.	-	-	-	-
C 8	When C 8 alarm appears, the machine is frozen and this parameter is 3. After maintenance (see alarm codes document), insert 0 to enable the machine.	-	-	-	-
F21	This alarm appears in case of malfunctioning in the continuous water softener. To facilitate fault-finding, see par. 13.3 ALARMS THAT DON'T STOP THE DISHWASHER FOR MODELS WITH INCORPORATED CONTINUOUS WATER SOFTENER.	-	-	-	-

8.3 HCP Communication and HACCP Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
SEr	Serial Device 0 = 8N1 1 = PC connection (DAAS 8E1) 7 = HACCP network (ECAP 8E1+LK485) (LK485 board is necessary) 9 = Dishwashers with incorporated continuous water softener 16 = HACCP printer (8N1) 32 = MODEM GSM (DAAS 8N1) 33 = MODEM GSM (DAAS 8E1) 48 = Hyper Terminal (8N1)	-	0	63	**1**
Adr	Address. This parameter specifies the address of the appliance into the 'HACCP_network'. Works only if 'HACCP network' is selected (see above parameter).	-	0	255	**1**
Prn	Print parameter table.	-	0	1	**1**
bt	HACCP 'Basic' (printer) Boiler temperature: high limit.	[°C]	45	95	**90**
bH	HACCP 'Basic' (printer) Boiler temperature: gap below high limit.	[°C]	0	20	**10**
tt	HACCP 'Basic' (printer) Tank temperature: high limit.	[°C]	35	75	**68**
tH	HACCP 'Basic' (printer) Tank temperature: gap below high limit.	[°C]	0	20	**10**

8.4 CFG Configuration Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
typ	Dishwasher Model: 0 = HOOD TYPE & UNDERCOUNTER 1 = POT WASHER 2 = AUTOMATIC POT WASHER 3 = MEDICAL LINE DISHWASHER WITH LOCK DOOR/HOOD DEVICE	-	0	3	**0**
boi	Boiler type: 0 = ATMOSPHERIC BOILER 1 = PRESSURE BOILER 2 = EXTERNAL BOILER	-	0	2	**0**
doo	Door type: 0 = AUTOMATIC HOOD 1 = MANUAL HOOD 2 = FRONT LOADING 3 = POT WASHER		0	3	**1**
dFL	Default model (see Default tables): 1 = HOOD TYPE 2 = POT WASHER 3 = UNDERCOUNTER	-	0	3	**-**
trc	Solid State Relay (TRIAC). 0 = not enabled; 1 = **SOFT START** enabled; 3 = **SLOW SOFT START** enabled (works only on boards with Solid State Relay).	-	0	3	**0**
b_t	Boiler/Tank heating swap: 0 = boiler heaters and tank heater can work simultaneously; 1 = swap enabled: tank heating starts only boiler temperature is reached; (Note: disabling this function changes the global electrical power of appliance; before enabling this function check available power, supply cable section, fuses in according to User Manual).	-	0	1	**1**
btF	Tank Filling Mode Enable filling tank by means of rinsing cycles. Ex: btF = 75 means that boiler water is heated at 75°C, then follows a rinse phase and so on until tank is full. If btF = 0 the tank is filled by solenoid valve in the traditional way (On machines with incorporated continuous water softener, even if btF is set to 0, filling occurs through subsequent rinses).	[°C]	0	85	**75**
LES	Detergent Level Switches 0 = level switches not enabled; 1 = enable detergent level switches;	-	0	1	**0**
UI	USER INTERFACE MODEL 8 = ACTIVE function disabled **(up to version 3.11 [up to serial nr. 42100099] set to 0)** 9 = hood type, under counter **(up to version 3.11 [up to serial nr. 42100099] set to 1)** 13 = LS5 with atmospheric boiler**(up to version 3.11 [up to serial nr. 42100099] set to 5)** 15 = LS5 with pressure boiler (user interface without display); **(up to version 3.11 [up to serial nr. 42100099] set to 7)** 24 = LS5 with atmospheric boiler **(From Ser. Nr.: 821).** See parameter rEL (family ron) to check the software version installed in the board.	-	0	27	**9**

Sym.	Parameter Description	Unit	Min	Max	Factory Default
rE	Enable “regeneration cycle” key (only for dishwashers with non-continuous water softener) [See paragraph 9.1 RESIN REGENERATION CYCLE].	-	0	1	**0**
ALr	ALARMS ENABLE 0 = alarms disabled (to disable also warnings see bLo and tLo); 1 = alarms enabled; If this function is disabled, faults can be detected so display do not shows any alarm code.	-	0	1	**1**
AAG	Air gap with float level sensor normally closed (the level sensor is closed when the boiler is empty). E.g. the boiler level sensor for machines with incorporated continuous water softener.	-	0	1	**0**
FrG	Forced start of a resin regeneration cycle (only for dishwashers with incorporated continuous water softener). [See paragraph 9.4 DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER].	-	0	2	**0**
SrW	Max. rinse water hardness (only for dishwashers with incorporated continuous water softener). After modifying, disconnect and reconnect the machine's main power supply by means of the main switch. [See paragraph 9.4 DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER].	°fH	4	14	**10**
bPo	Boiler heating control. Defines the max. permissible temperature difference during boiler heating in a time interval of 2 minutes and 30 seconds.	°C	25	80	**50**

8.5 dbG Parameters for automatic hood type dishwashers

Sym.	Parameter Description	Unit	Min	Max	Factory Default
t 1	DELAY_K1 Time (during hood lifting) within which S3” must return to the rest position.	0.1 s	0.0 s.	20.0 s	**15**
t 2	HOOD_TOUT TIMEOUT – max. time allowed for complete hood opening/closing.	0.1 s	0.0 s	20.0 s	**200**
t 3	DELAY_K1_S3 During hood lowering, firstly S3” must cut in and then after a time t3 .the bottom limit switch S3.	0.1 s	0.0 s.	20.0 s	**15**
t 4	DELAY_K Time within which K and K’ must be both closed or both open.	0.1 s	0.0 s.	20.0 s	**10**
t 5	DELAY_S3 Time during hood lifting within which the bottom limit switch must return to the rest position..	0.1 s	0.0 s.	20.0 s	**20**
t 6	DELAY_S5 Time during hood lowering within which the top limit switch must return to the rest position.	0.1 s	0.0 s.	20.0 s	**20**
AL_	Displays the last alarm code relative to automatic hood type dishwashers.	-	-	-	**0**
Ith	Parameter only valid for hood type models. Hood lifting motor absorption threshold. (50 units correspond to a current of approx. 1 ampere).	-	0	250	**100**

9 SPECIAL FEATURES

9.1 RESIN REGENERATION CYCLE

The regeneration cycle is activated by pressing the button shown in the figure, for at least 5 seconds.

For this key to be enabled parameter rE (in family CFG) must be set to 1.

At this point you can enter the number of wash cycles that can be performed after each regeneration: parameter rCY in the counters family Cnt. If rCY is set to zero the counter is disabled, otherwise after the preset number of cycles the message rEG is displayed to confirm that regeneration is possible (this is an information-only message with no effect on operation of the appliance, so you can continue to use the dishwasher). The message is cleared when the regeneration cycle is terminated.

The number of regeneration cycles performed can be checked by consulting the parameter nrE in the Cnt family of counters.

When there are just 15 cycles remaining before the next regeneration cycle, at the end of the wash cycle the display shows the message End followed by 15, at the end of the next wash cycle the display shows End and 14, and so forth, i.e. the display informs the user of the number of wash cycles still available before resin regeneration is required.

Before starting the regeneration cycle remove the siphon spillway.

WARNING:

If the regeneration cycle is accidentally started, it can be switched off by pressing the button shown in the figure, for at least 5 seconds

The hardness of the water exiting the softener can vary between 3°f - 10 °f / 1.7 °d - 5.6 °d / 2.1 °e - 7 °e.

9.2 MEDICAL LINE DISHWASHER WITH DOOR/HOOD LOCK DEVICE

The medical line dishwasher with door/hood lock device has a device that prevents door/hood opening for the entire duration of the work cycle.

For the door/hood lock to be active, the parameter tYP (in the CFG family) must be set to 3.

The dishwasher door/hood is locked at the start of a wash cycle and is released at the end of the final pause after rinse. The wash compartment can be accessed by stopping the work cycle in progress, as the locking device is thus disabled. .

A pause at the end of rinse can be set by means of the parameter rPA (in the dPA family). This parameter is common to all 3 wash cycles. The rinse water temperature is displayed during this pause. Another final pause in the cycle can be set by setting the parameters FP1, FP2, FP3. During the final pause the display shows the time remaining for completion of the cycle. The door/hood lock device will be deactivated at the end of the final pause (FP1, FP2, FP3).

For correct performance of the wash cycle the pause at the end of rinse and the final pause must assume the default values (see Prog 032 – 034 - 035).

9.3 DETERGENT AND RINSE AID LEVEL SENSORS ACTIVATION

By setting the parameter LES (in the CFG family) to 1, management of the level sensors located inside the external detergent and rinse aid tanks is enabled. During the rinse phase, when the rinse aid inside the tank has finished, the message rA, 0 appears on the display.

When the detergent inside the tank is finished, the message dEt 0 is displayed and after a number of wash cycles equal to CdE (in the dPA family) the dishwasher inhibits the activation of other wash cycles. Therefore the detergent level in the tank must be restored.

9.4 DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER

Dishwashers with incorporated continuous water softener have a continuous softener in the water circuit. By means of special resins, this device removes the calcareous substances from the feed water, supplying decalcified water for washing.

To activate the continuous water softener, set the parameter SEr (in the HCP family) to the value 9.

For the continuous softener to work properly the resins must be regenerated periodically with a frequency depending on the hardness of the inlet water, the number of wash cycles carried out and the max. hardness set with the parameter SrU (in the CFG family).

Unlike conventional water softeners, this continuous softener does not require machine stops for regenerating the resins.

To regenerate the resins it is necessary to put coarse salt in the special container located in the dishwasher.

In particular, the salt container must be filled when the dishwasher is started the first time and whenever the message SAL End appears on the display and an audible alarm sounds. The salt container holds up to 1.5 kg of salt

WARNING:

Use only coarse salt with a NaCl purity grade of 99.8 %. The use of salt with a lower purity grade may cause the sale container filter to clog and the water softener to malfunction.

WARNING:

The message SAL End may appear, for several rinse, tank filling or wash cycles, even after replenishing the salt, as the salt must circulate in the entire system. This, however, does not affect correct dishwasher operation.

The number of regeneration cycles performed can be checked by consulting the parameter nrE in the Cnt family of counters.

nrE only counts regeneration cycles carried out with the salt container adequately filled; there is another counter, rES (in the Cnt family) that indicates the number of regeneration cycles done without salt.

If the parameter SrU is set to the value10, according to the factory setting, the water softener outlet water hardness can vary between 3°f - 10 °f / 1.7 °d - 5.6 °d / 2.1 °e - 7 °e.

AUTONOMY OF THE FULL SALT CONTAINER ACCORDING TO THE CHANGE IN INLET WATER HARDNESS

Water hardness			The salt container must be filled approximately every (*):	Using cycle 2 for 30 cycles/day, the salt container must be filled approximately every (*):
°f	°d	°e	Cycles	Days
15	8,4	10,5	1168	39
20	11,2	14	837	28
25	14	17,5	589	19
30	16,8	21,1	506	17
35	19,6	24,6	423	14
40	22,4	28,1	341	11

(*) Considering a rinse time according to the factory settings.

Maximum outlet water hardness can be modified by setting the SrU value. The outlet water hardness can be modified from the value of 4° f to 14° f.

NB: To save the new water hardness value, in addition to the normal parameter modification and saving operations it is necessary to disconnect and reconnect the machine's main power supply by means of the main switch on the external board.

Water softener operation can be checked by forcing the regeneration of resins, without waiting for the outlet water hardness to reach the set max. value (SrU).

To do this, wait for the water softener to finish previous resin washing or regeneration operations and set the parameter FrG (CFG family) to 1 for regenerating column A or to 2 for regenerating column B.

Switch the machine off and on again so that it carries out complete regeneration of the set column. If previous resin washing or regeneration operations were not completed, the manual request for regeneration is not carried out.

It is possible to check which column is being used for boiler filling by querying the parameter AAC (con family): if AAC = 0 column “A” is used, if AAC =1 column “B” is used.

The number of litres used by the machine can be checked by querying the parameters nnc (m3) and L (litres). To calculate the total number of litres used by the machine, add the nnc and L values.

NB: In machines with incorporated continuous water softener, tank filling must be done through subsequent rinses from the boiler and cannot occur by overflow since the filling system does not allow overflow in the tank. Therefore, even if the parameter bEF is set to 0, filling is done by subsequent rinses..

9.5 HOOD-TYPE DISHWASHER WITH CYCLE THERMAL LABEL

WARNING:

Functions present with firmware version 4.04.

If the parameter tLE (Thermal Label enabled) of the family dPA is set to 0, the "Endless cycle" button has the "endless cycle" function and the "high productivity" mode is non-settable.
If the parameter tLE (Thermal Label enabled) of the family dPA is set to 1, the "Endless cycle" button does not have the "endless cycle" function but that of the "high productivity" mode.
This means that the machine can work in 2 modes, "high productivity" and "Thermal Label". When the machine is set in "high productivity" mode, the parameters which define the cycle times and temperature set points are the standard parameters, whereas when the machine is set in "Thermal Label" mode, the parameters are dedicated (they are new parameters listed below).
The mode Thermal Label provides for cycle times, tank hysteresis and tank and boiler temperatures such as to pass the "Thermal Label" test.
Press and hold down the button to switch the machine from "high productivity" mode to "Thermal Label" mode and vice versa.
The "high productivity" button LED is off when the machine is set in "Thermal Label" mode (factory default) and lights up when the button is pressed and the machine is configured in "high productivity" mode. Whenever the machine is shut down, it memorises the mode with which is was switched off and reloads it when switched on the next time.

New parameters:

- tLE (family dPA): if set to 1 it enables the Thermal Label mode (and disables the “endless cycle” button).
- btL (family dPA): temperature set point for the boiler during the cycles Thermal Label.
- ttL (family dPA): temperature set point for the tank during the cycles Thermal Label.
- tHt (family dPA): hysteresis temperature for the tank during the cycles Thermal Label.
- tL 1 (family CY1): long wash time for cycle 1 in Thermal Label mode.
- tS 1 (family CY1): short wash time for cycle 1 in Thermal Label mode.
- tL2 (family CY2): long wash time for cycle 2 in Thermal Label mode.
- tS2 (family CY2): short wash time for cycle 2 in Thermal Label mode.
- tL3 (family CY3): long wash time for cycle 3 in Thermal Label mode.
- tS3 (family CY3): short wash time for cycle 3 in Thermal Label mode.

9.6 DISHWASHERS WITH WASH TANK WATER CHANGE FREQUENCY CONTROL

WARNING:

Function included starting from firmware version 5.00.

If the parameter CbdCycles before drain) of the family drn is set to a value higher than 0, a wash tank water change frequency control is enabled. The purpose of this function is to display a message telling the customer when a tank water drain cycle is required. In this way, if the customer does what the machine suggests, washes will be done with sufficiently clean water.

The value set in the parameter CbdCycles before drain) indicates the number of wash cycles possible between one tank water drain cycle and the next. When the number of wash cycles done since the last tank water change reaches the value contained in the parameter CbdCycles before drain), the display shows the message "drn" at the start of a wash cycle and the message "drn End" at the end of the same cycle. When these messages appear on the display at the start and end of the wash cycle, a tank water drain cycle must be done to ensure washes with sufficiently clean water.

WARNING:

If the tank drain cycle is not done, the machine does not shut down, but will continue to do wash cycles, showing the messages drn and drn End at the start and end of the wash cycle respectively.

10 MAIN BOARD CONFIGURATION

When receiving an electronic board (spare part) may be necessary to configure it in according to the machine where has to be replaced

1. With the machine **CODE** enter into the following table and read the corresponding **Prog.** number
2. Follow the instructions reported into the corresponding **Prog.XXX** sheet (next pages).
3. With the machine **CODE** find the **Layout** number in Par. 12.2 CONNECTORS LAYOUT.

10.1 CODE -> Prog. TABLE

MODEL	CODE	Prog.	Layout
NUC3DD	**400041**	**103**	**16**
EUC1	**400055**	**101**	**11**
EUC1DP	**400056**	**101**	**11**
EUC1WS	**400057**	**102**	**21**
EUC1DPWS	**400058**	**102**	**21**
EUC3	**400059**	**103**	**16**
EUC3WS	**400060**	**104**	**17**
EUC3DP	**400061**	**103**	**16**
EUC3DPWS	**400062**	**104**	**17**
EUC1G	**400063**	**105**	**11**
EUC1DP60	**400064**	**101**	**11**
EUC3DD	**400065**	**103**	**16**
ZUCADDROW	**400066**	**134**	**16**
ZUCADDROW6	**400067**	**134**	**16**
FUCA3DD	**400116**	**135**	**16**
NUC1DPP	**400120**	**101**	**11**
KUC3	**400127**	**103**	**16**
KUC3DP	**400128**	**103**	**16**
EUCAIDP	**400137**	**128**	**11**
NUC1GMS	**400138**	**137**	**11**
EUC3DPCAG	**400139**	**138**	**16**
NUC1	**400140**	**101**	**11**
NUC1DP	**400141**	**101**	**11**
NUC1WS	**400142**	**102**	**21**
NUC1WSDP	**400143**	**102**	**21**
NUC3	**400144**	**103**	**16**
NUC3WS	**400145**	**104**	**17**
NUC3DP	**400146**	**103**	**16**
NUC3DPWS	**400147**	**104**	**17**
NUC3DDWS	**400148**	**104**	**17**
NUC1DP60	**400149**	**101**	**11**
NUC1DPA	**400150**	**105**	**11**
ZUCA1	**400151**	**128**	**11**
ZUCA3	**400152**	**128**	**16**
EUCADDROW	**400153**	**134**	**16**
EUCADDROW6	**400154**	**134**	**16**
EUCAI	**502025**	**106**	**8**
EUCAIDP	**502026**	**106**	**8**
EUCAI60	**502027**	**106**	**8**
EUCAIWS	**502028**	**107**	**8**
EUCAIG	**502033**	**106**	**8**
EUCAIWSG	**502034**	**107**	**8**
EUCAIML	**502035**	**108**	**8**
EUCAIMLWS	**502036**	**109**	**8**
EUCAIMLG	**502037**	**110**	**10**
EUCAICL	**502038**	**111**	**18**

MODEL	CODE	Prog.	Layout
EUCAICLG	**502039**	**111**	**18**
EUCAIWL	**502040**	**112**	**8**
EUCAICLW	**502042**	**113**	**18**
EUCI	**502043**	**114**	**16**
EUCIM	**502044**	**115**	**19**
EUCIM60	**502045**	**115**	**19**
EUCAIDPNW	**502046**	**106**	**8**
ZUCI	**502047**	**114**	**16**
ZUCID	**502048**	**114**	**16**
ZUCAI	**502049**	**106**	**8**
ZUCAIDP	**502050**	**106**	**8**
ZUCAIDPWS	**502051**	**107**	**8**
ZUCAIG	**502052**	**106**	**8**
ZUCAIDDWS	**502053**	**107**	**8**
ZUCAID	**502054**	**106**	**8**
ZUCAI60	**502055**	**106**	**8**
EUCAIUSPH6	**502056**	**125**	**9**
ZUCAIDD	**502057**	**106**	**8**
EUCAIDD	**502058**	**106**	**8**
EUCAIDPJ	**502059**	**106**	**8**
EUCAIDPJ60	**502060**	**106**	**8**
EHTA	**504226**	**120**	**1**
EHTA60	**504227**	**120**	**1**
EHTAWS	**504228**	**121**	**4**
EHTAI	**504229**	**120**	**1**
EHTAID	**504230**	**120**	**4**
EHTAIWS	**504231**	**121**	**4**
EHTAIDWS	**504232**	**121**	**4**
EHTAIG	**504233**	**120**	**4**
EHTAIWSG	**504234**	**121**	**4**
EHTAIAU	**504235**	**122**	**15**
EHTAIMLAU	**504236**	**123**	**4**
ZHTAWS	**504237**	**121**	**4**
ZHTAID	**504238**	**120**	**4**
ZHTAIWS	**504239**	**121**	**4**
ZHTAIAU	**504240**	**122**	**15**
ZHTA	**504241**	**120**	**4**
ZHTA60	**504242**	**120**	**4**
ZHTAI	**504243**	**120**	**4**
EHTAIUSPH5	**504244**	**126**	**2**
EHTAIUSPH6	**504245**	**126**	**2**
EHTAO	**505036**	**124**	**23**
EHT	**505046**	**118**	**13**
EHT60	**505047**	**118**	**13**
EHTAG	**505048**	**119**	**23**
EHTM	**505049**	**118**	**13**
EHTM60	**505050**	**118**	**13**

MODEL	CODE	Prog.	Layout
NHT	505051	118	13
NHTD	505052	118	13
NHT60	505053	118	13
EHTAROW	505054	124	23
EHTAROW60	505055	124	23
ZHTAROW	505056	124	23
ZHTAROW60	505057	124	23
EHTAJ	505058	120	23
EHTAJ60	505059	120	23
EHTAO60	505060	124	23
ZHTAO	505061	124	23
ZHTAO60	505062	124	23
KHT	505063	118	13
NHTM	505064	118	13
NHTM60	505065	118	13
NHTP	505082	118	13
EPPWESG	506048	139	4
EPPWESG60	506049	141	4
EPPWEHG	506050	139	4
ZPPWESG	506051	139	4
ZPPWEHG	506052	139	4
ZPPWSSG	506053	139	4
EPPWELG	506054	140	4
EPPWELG60	506055	142	4
ZPPWELG	506056	140	4
ZPPWSLG	506057	140	4
NUC1G	690028	105	11
NUCA1DDG	698005	136	16
OHTAROW	698047	127	23
OHTAROW60	698048	127	23
NUCA1DPDDG	698049	136	16
NHTDPDDG	698058	119	23
APPWELG	698083	140	4
APPWESG	698085	139	4
APPWEHG	698086	139	4
ET5AIIT	698087	131	8
ET5AIDP	698088	132	8
ET5AIDPWS	698089	133	8
AUCI	698091	114	16
AUCAI	698092	116	8
AUCAIDP	698093	116	8
AUCAIDPWS	698094	117	8
AUCAIG	698095	106	8
AUCAIWSG	698096	107	8
ET12AI	698097	129	4
ET12AIT	698098	130	4
NHTAG	698110	119	23
AHTAWS	698115	121	4
AHTAIWS	698116	121	4
AHTAIG	698117	120	4
AHTAIWSG	698118	121	4
AHTA	698119	120	4
AHTAI	698120	120	4
	S49JGF	103	16
	S49LBN	103	16

MODEL	CODE	Prog.	Layout
	S49QL1	103	16

10.2 PROGRAMMING SHEETS

NUC1 / EUC1 PROG 101

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		boi	1	Pressure boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible).
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	0	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		UI	24	Select user interface for LS5.
		rE	0	Regeneration cycle disabled.
		AIr	0	Alarms not enabled.
		AAG	0	Boiler electronic level sensor.
		FrG	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	82	Boiler Temperature Threshold.
		bHi	96	Boiler temperature: alarm threshold.
		bAJ	3	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tHi	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	40	Short Wash Phase [s].
		PA1	4	Pause [s].
		ri1	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min].
		Sh2	40	Short Wash Phase [s].
		PA2	4	Pause [s].
		ri2	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min].
		Sh3	40	Short Wash Phase [s].
		PA3	4	Pause [s].
		ri3	16	Rinse Phase Duration [s].
		dr3	30	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC1 / EUC1 PROG 101

	dra	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 100	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLy 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 165	Initial Detergent Dosage.
		r In 0	Initial Rinse Aid Dosage.
		dEt 182	Detergent dispenser works when LOAD SOLENOID VALVE in activated.
		rA t 61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUC1WS / EUC1WS PROG 102

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	24	Select user interface for LS5.
rE	1	Regeneration cycle enabled.
AIr	0	Alarms not enabled.
AAG	0	Boiler electronic level sensor.
FrG	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	83	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	2	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	40	Short Wash Phase [s].
PA1	4	Pause [s].
r11	16	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	16	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	16	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC1WS / EUC1WS PROG 102

	dra		Drain parameters family.	
		Idr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA		Set other parameters.	
		IPA	0	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d In	70	Initial Detergent Dosage.
		r In	5	Initial Rinse Aid Dosage.
		dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUC3 / KUC3 / EUC3 PROG 103

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	1	Pressure boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	0	The tank is filled into the traditional way.
LES	0	Detergent level switches not enabled.
U1	24	Select user interface for LS5.
rE	0	Regeneration cycle disabled.
Alr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	84	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	3	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	40	Short Wash Phase [s].
PA1	4	Pause [s].
r11	16	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	16	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	16	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC3 / KUC3 / EUC3 PROG 103

	dra	Drain parameters family.		
		Idr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		IPA	0	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d In	165	Initial Detergent Dosage.
		r In	0	Initial Rinse Aid Dosage.
		dEt	182	Detergent dispenser works when LOAD SOLENOID VALVE in activated.
		rA1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUC3WS / EUC3WS PROG 104

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	24	Select user interface for LS5.
rE	1	Regeneration cycle enabled.
AIr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	83	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	2	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	40	Short Wash Phase [s].
PA1	4	Pause [s].
r11	16	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	16	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	16	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC3WS / EUC3WS PROG 104

	drn		Drain parameters family.	
		tdr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA		Set other parameters.	
		tPA	0	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r tt	0	During the rinse stage, the display shows the boiler temperature.
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d In	70	Initial Detergent Dosage.
		r In	5	Initial Rinse Aid Dosage.
		dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
		rA t	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUC1G / EUC1G PROG 105

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	1	Pressure boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	0	The tank is filled into the traditional way.
LES	0	Detergent level switches not enabled.
U1	24	Select user interface for LS5.
rE	0	Regeneration cycle disabled.
AIr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	82	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	3	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	40	Short Wash Phase [s].
PA1	4	Pause [s].
r11	16	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	16	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	16	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC1G / EUC1G PROG 105

	dr n	Drain parameters family.		
		1dr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d In	165	Initial Detergent Dosage.
		r In	0	Initial Rinse Aid Dosage.
		dEt	182	Detergent dispenser works when LOAD SOLENOID VALVE in activated.
		rA t	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZUCAI / AUCAIG / EUCAI PROG 106

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled.
AIr	1	Alarms enabled.
AAG	0	Boiler electronic level sensor.
FrG	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZUCAI / AUCAIG / EUCAI PROG 106

	dr n	Drain parameters family.		
		1dr	30	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d in	50	Initial Detergent Dosage.
		r in	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZUCAI / AUCAI / EUCAI WS PROG 107

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	9	Select user interface hood type/ undercounter model.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAG	1	Boiler float level sensor.
		FrG	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	80	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	12	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	12	Rinse Phase Duration [s].
		dr1	25	Drain [s].
		FP1	2	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	42	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	12	Rinse Phase Duration [s].
		dr2	25	Drain [s].
		FP2	2	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	3	Long Wash Phase [min].
		Sh3	42	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	12	Rinse Phase Duration [s].
		dr3	25	Drain [s].
		FP3	2	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

ZUCAI / AUCAI / EUCAI WS PROG 107

	dr n	Drain parameters family.	
		idr 30	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLy 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 9	Dishwasher with incorporated continuous water softener.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d in 50	Initial Detergent Dosage.
		r in 10	Initial Rinse Aid Dosage.
		dEt 6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAIML PROG 108

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	8	ACTIVE function disabled.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	90	Boiler Temperature Threshold.
bH1	0	Disable boiler high Temperature alarm (C 2).
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	0	Booster Function.
btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	65	Tub Temperature: Threshold.
tH1	85	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	4	Long Wash Phase [min].
Sh1	10	Short Wash Phase [s].
PA1	4	Pause [s].
r11	35	Rinse Phase Duration [s].
dr1	40	Drain [s].
FP1	15	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	6	Long Wash Phase [min].
Sh2	10	Short Wash Phase [s].
PA2	4	Pause [s].
r12	35	Rinse Phase Duration [s].
dr2	40	Drain [s].
FP2	15	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	9	Long Wash Phase [min].
Sh3	10	Short Wash Phase [s].
PA3	4	Pause [s].
r13	35	Rinse Phase Duration [s].
dr3	40	Drain [s].
FP3	15	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAIML			PROG 108
	dr n	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	50	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAIMLWS PROG 109

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	8	ACTIVE function disabled.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAG	1	Boiler float level sensor.
FrG	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	90	Boiler Temperature Threshold.
bH1	0	Disable boiler high Temperature alarm (C 2).
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	0	Booster Function.
btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	65	Tub Temperature: Threshold.
tH1	85	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	4	Long Wash Phase [min].
Sh1	10	Short Wash Phase [s].
PA1	4	Pause [s].
r11	35	Rinse Phase Duration [s].
dr1	40	Drain [s].
FP1	15	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	6	Long Wash Phase [min].
Sh2	10	Short Wash Phase [s].
PA2	4	Pause [s].
r12	35	Rinse Phase Duration [s].
dr2	40	Drain [s].
FP2	15	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	9	Long Wash Phase [min].
Sh3	10	Short Wash Phase [s].
PA3	4	Pause [s].
r13	35	Rinse Phase Duration [s].
dr3	40	Drain [s].
FP3	15	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAIMLWS			PROG 109
	dr n	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 9	Dishwasher with incorporated continuous water softener.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 50	Initial Detergent Dosage.
		r In 10	Initial Rinse Aid Dosage.
		dEt 8	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAIMLG PROG 110

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	3	Medical line dishwasher with lock door/hood device.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	8	ACTIVE function disabled.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	92	Boiler Temperature Threshold.
bH1	0	Disable boiler high Temperature alarm (C 2).
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	0	Booster Function.
btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	65	Tub Temperature: Threshold.
tH1	85	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	3	Long Wash Phase [min].
Sh1	35	Short Wash Phase [s].
PA1	5	Pause [s].
r11	35	Rinse Phase Duration [s].
dr1	40	Drain [s].
FP1	60	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	6	Long Wash Phase [min].
Sh2	35	Short Wash Phase [s].
PA2	5	Pause [s].
r12	35	Rinse Phase Duration [s].
dr2	40	Drain [s].
FP2	60	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	8	Long Wash Phase [min].
Sh3	35	Short Wash Phase [s].
PA3	5	Pause [s].
r13	35	Rinse Phase Duration [s].
dr3	40	Drain [s].
FP3	60	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAIMLG			PROG 110
	dr n	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	45	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	50	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAICL PROG 111

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	1	Detergent level switches enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAICL			PROG 111
	dr n	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	50	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAIWL PROG 112

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	65	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	55	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	35	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	35	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAIWL			PROG 112
	drn	Drain parameters family.	
		IdrP 30	Initial Drain Phase Duration [s].
		FdrP 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		PdrP 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 25	Initial Detergent Dosage.
		r In 10	Initial Rinse Aid Dosage.
		dEt 4	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAICLW PROG 113

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	1	Detergent level switches enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAICLW			PROG 113
	dr n	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	1	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	90	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZUCI / AUCI / EUCI PROG 114

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	1	Pressure boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	0	The tank is filled into the traditional way.
LES	0	Detergent level switches not enabled.
U1	8	ACTIVE function disabled.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
Alr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	86	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	10	Short Wash Phase [s].
PA1	4	Pause [s].
r11	16	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	16	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	16	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZUCI / AUCI / EUCI PROG 114

	dr n	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 50	Initial Detergent Dosage.
		r In 10	Initial Rinse Aid Dosage.
		dEt 8	Detergent dispensing during the wash cycle (loading during wash stage).
		rA t 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCIM PROG 115

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	1	Pressure boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		UI	9	Select user interface hood type/ undercounter model.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	90	Boiler Temperature Threshold.
		bH1	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	66	Tub Temperature: Threshold.
		tH1	85	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	10	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	40	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	3	Long Wash Phase [min].
		Sh3	40	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	16	Rinse Phase Duration [s].
		dr3	30	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCIM			PROG 115
	dr n	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	5	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	50	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

AUCAI PROG 116

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	8	ACTIVE function disabled.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

AUCAI			PROG 116
	drn	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	50	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
	rA1	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

AUCAIDPWS PROG 117

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
Alr	1	Alarms enabled.
AAG	1	Boiler float level sensor.
FrG	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

AUCAIDPWS			PROG 117
	dr n	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 9	Dishwasher with incorporated continuous water softener.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 50	Initial Detergent Dosage.
		r In 10	Initial Rinse Aid Dosage.
		dEt 6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NHT / KHT / EHT PROG 118

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		boi	1	Pressure boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible)..
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	0	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		U1	8	ACTIVE function disabled.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	84	Boiler Temperature Threshold.
		bHi	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	1	Booster Function.
		btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tHi	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	0	Long Wash Phase [min].
		Sh1	34	Short Wash Phase [s].
		PA1	4	Pause [s].
		ri1	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	10	Short Wash Phase [s].
		PA2	4	Pause [s].
		ri2	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min].
		Sh3	10	Short Wash Phase [s].
		PA3	4	Pause [s].
		ri3	16	Rinse Phase Duration [s].
		dr3	30	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

NHT / KHT / EHT PROG 118

	dr n	Drain parameters family.		
		Idr	40	Initial Drain Phase Duration [s].
		FdR	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		IPA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d In	90	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NHTG / EHTG PROG 119

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible).
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	8	ACTIVE function disabled.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	82	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	1	Booster Function.
		btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	0	Long Wash Phase [min].
		Sh1	36	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	12	Rinse Phase Duration [s].
		dr1	25	Drain [s].
		FP1	2	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	12	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	12	Rinse Phase Duration [s].
		dr2	25	Drain [s].
		FP2	2	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min].
		Sh3	12	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	12	Rinse Phase Duration [s].
		dr3	25	Drain [s].
		FP3	2	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

NHTG / EHTG PROG 119

	dr n		Drain parameters family.	
		1dr	40	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA		Set other parameters.	
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d In	90	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZHTA / AHTA / EHTA PROG 120

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
Alr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	0	Long Wash Phase [min].
Sh1	36	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	12	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	12	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZHTA / AHTA / EHTA PROG 120

	dr n	Drain parameters family.		
		1dr	40	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r 1t	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d 1n	90	Initial Detergent Dosage.
		r 1n	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA 1	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZHTAWS/ AHTAWS/ EHTAWS PROG 121

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAG	1	Boiler float level sensor.
FrG	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	0	Long Wash Phase [min].
Sh1	36	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	12	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	12	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZHTAWS/ AHTAWS/ EHTAWS PROG 121

	dr n	Drain parameters family.		
		1dr	40	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d in	90	Initial Detergent Dosage.
		r in	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZHTAIAU / EHTAIAU PROG 122

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	0	Automatic Hood.
dFL	1	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	0	Long Wash Phase [min].
Sh1	36	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	12	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	12	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZHTAIAU / EHTAIAU PROG 122

	drn		Drain parameters family.	
		tdr	40	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA		Set other parameters.	
		tPA	2	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r tt	0	During the rinse stage, the display shows the boiler temperature.
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d In	90	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA t	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EHTAIMLAU PROG 123

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
boi	0	Atmospheric boiler.
doo	0	Automatic Hood.
dFL	1	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	90	Boiler Temperature Threshold.
bHi	0	Disable boiler high Temperature alarm (C 2).
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	65	Tub Temperature: Threshold.
tHi	85	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	2	Long Wash Phase [min].
Sh1	32	Short Wash Phase [s].
PA1	4	Pause [s].
ri1	35	Rinse Phase Duration [s].
dr1	40	Drain [s].
FP1	15	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	3	Long Wash Phase [min].
Sh2	32	Short Wash Phase [s].
PA2	4	Pause [s].
ri2	35	Rinse Phase Duration [s].
dr2	40	Drain [s].
FP2	15	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	5	Long Wash Phase [min].
Sh3	32	Short Wash Phase [s].
PA3	4	Pause [s].
ri3	34	Rinse Phase Duration [s].
dr3	40	Drain [s].
FP3	15	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EHTAIMLAU			PROG 123
	dr n	Drain parameters family.	
	Idr	40	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	4	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	90	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZHTAROW / EHTAROW / ZHTAO / EHTAO PROG 124

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		typ	0	Hood Type and undercounter.
		boi	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible).
		b_t	0	Boiler heaters and tank heater work simultaneously.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		UI	9	Select user interface hood type/ undercounter model.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAG	0	Boiler electronic level sensor.
		FrG	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	78	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	4	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tank Temperature: Threshold.
		tHi	0	Disable tank high Temperature alarm (C 3).
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	0	Long Wash Phase [min].
		Sh1	36	Short Wash Phase [s].
		PA1	4	Pause [s].
		ri1	12	Rinse Phase Duration [s].
		dr1	25	Drain [s].
		FP1	2	Final Pause [s].
		tL1	0	Long Wash Phase inTermal Label mode [min].
		tS1	59	Short Wash Phase inTermal Label mode [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	12	Short Wash Phase [s].
		PA2	4	Pause [s].
		ri2	12	Rinse Phase Duration [s].
		dr2	25	Drain [s].
		FP2	2	Final Pause [s].
		tL2	1	Long Wash Phase inTermal Label mode [min].
		tS2	12	Short Wash Phase inTermal Label mode [s].

ZHTAROW / EHTAROW / ZHTAO / EHTAO PROG 124

	CY3	Cycle 3 parameters family.	
	Ln3	2	Long Wash Phase [min].
	Sh3	12	Short Wash Phase [s].
	PA3	4	Pause [s].
	r.3	12	Rinse Phase Duration [s].
	dr3	25	Drain [s].
	FP3	2	Final Pause [s].
	tL3	2	Long Wash Phase inTermal Label mode [min].
	tS3	12	Short Wash Phase inTermal Label mode [s].
	bt3	0	Boiler Temperature Threshold for Cycle 3.
	drn	Drain parameters family.	
	Idr	40	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r.t	0	During the rinse stage, the display shows the boiler temperature.
	tLE	1	Termal Label mode enabled.
	btL	86	Boiler Temperature in Termal Label mode.
	ttL	75	Tank Temperature in Termal Label mode.
	tHt	2	Tank Temperature histeresis in Termal Label mode.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d.n	90	Initial Detergent Dosage.
	r.n	10	Initial Rinse Aid Dosage.
	dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
	rA.	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EUCAIUSPH PROG 125

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Manual Hood.
dFL	3	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
Alr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	82	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	0	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	66	Tub Temperature: Threshold.
tH1	80	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	22	Short Wash Phase [s].
PA1	4	Pause [s].
r11	25	Rinse Phase Duration [s].
dr1	40	Drain [s].
FP1	4	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	22	Short Wash Phase [s].
PA2	4	Pause [s].
r12	25	Rinse Phase Duration [s].
dr2	40	Drain [s].
FP2	4	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	4	Long Wash Phase [min].
Sh3	22	Short Wash Phase [s].
PA3	4	Pause [s].
r13	25	Rinse Phase Duration [s].
dr3	40	Drain [s].
FP3	4	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EUCAIUSPH			PROG 125
	dr n	Drain parameters family.	
	Idr	30	Initial Drain Phase Duration [s].
	Fdr	80	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	IPA	5	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	1	Degrees display Fahrenheit.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d In	50	Initial Detergent Dosage.
	r In	10	Initial Rinse Aid Dosage.
	dEt	8	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EHTAIUSPH PROG 126

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
Alr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	0	Long Wash Phase [min].
Sh1	35	Short Wash Phase [s].
PA1	4	Pause [s].
r11	25	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	0	Long Wash Phase [min].
Sh2	45	Short Wash Phase [s].
PA2	4	Pause [s].
r12	25	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	1	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	25	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

EHTAIUSPH			PROG 126
	dr n	Drain parameters family.	
		1dr 40	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		1PA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 1	Degrees display Fahrenheit.
		r 1t 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d 1n 90	Initial Detergent Dosage.
		r 1n 10	Initial Rinse Aid Dosage.
		dEt 8	Detergent dispensing during the wash cycle (loading during wash stage).
		rA 1 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

OHTAROW / OHTAROW60 PROG 127

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	0	Boiler heaters and tank heater work simultaneously.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	0	Disable boiler high Temperature alarm (C 2).
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tank Temperature: Threshold.
tH1	0	Disable tank high Temperature alarm (C 3).

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	0	Long Wash Phase [min].
Sh1	36	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].
tL1	0	Long Wash Phase inTermal Label mode [min].
tS1	59	Short Wash Phase inTermal Label mode [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	12	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].
tL2	1	Long Wash Phase inTermal Label mode [min].
tS2	12	Short Wash Phase inTermal Label mode [s].

OHTAROW / OHTAROW60 PROG 127

	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min].
		Sh3	12	Short Wash Phase [s].
		PA3	4	Pause [s].
		r.3	12	Rinse Phase Duration [s].
		dr3	25	Drain [s].
		FP3	2	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.
		tL3	2	Long Wash Phase inTermal Label mode [min].
		tS3	12	Short Wash Phase inTermal Label mode [s].
	drn	Drain parameters family.		
		Idr	40	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		IPA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r.t	0	During the rinse stage, the display shows the boiler temperature.
		tLE	1	Termal Label mode enabled.
		btL	86	Boiler Temperature in Termal Label mode.
		ttL	75	Tank Temperature in Termal Label mode.
		tHt	2	Tank Temperature histeresis in Termal Label mode.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d.n	90	Initial Detergent Dosage.
		r.n	0	Initial Rinse Aid Dosage.
		dEt	181	Detergent dispenser works when WASH PUMP in activated.
		rA.1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZUCA PROG 128

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled.
AIr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	3	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZUCA			PROG 128
	dr n	Drain parameters family.	
	1dr	30	Initial Drain Phase Duration [s].
	Fdr	100	Final Drain Phase Duration [s].
	drt	0	Drain and cleaning mode.
	Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
	1PA	0	Initial Pause [s] (for ALL cycles).
	dLY	3	Delay for the 2nd wash pump [s].
	Pdr	0	Drain Phase Duration at the end of washing phase [s].
	rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
	C F	0	Degrees Celsius display.
	r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
	SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
	d in	50	Initial Detergent Dosage.
	r in	10	Initial Rinse Aid Dosage.
	dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
	rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ET12AI PROG 129

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	1	SOFT START enabled.
b_t	0	Boiler heaters and tank heater work simultaneously.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	10	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	12	Drain [s].
FP1	4	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	12	Drain [s].
FP2	4	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	1	Long Wash Phase [min].
Sh3	32	Short Wash Phase [s].
PA3	4	Pause [s].
r13	20	Rinse Phase Duration [s].
dr3	20	Drain [s].
FP3	4	Final Pause [s].
bt3	65	Boiler Temperature Threshold for Cycle 3.

ET12AI PROG 129

	dr n	Drain parameters family.		
		Idr	40	Initial Drain Phase Duration [s].
		FdR	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		IPA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d In	90	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	181	Detergent dispenser works when WASH PUMP in activated.
		rA 1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ET12AIT PROG 130

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	10	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	12	Drain [s].
FP1	4	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	12	Drain [s].
FP2	4	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	1	Long Wash Phase [min].
Sh3	32	Short Wash Phase [s].
PA3	4	Pause [s].
r13	20	Rinse Phase Duration [s].
dr3	20	Drain [s].
FP3	4	Final Pause [s].
bt3	65	Boiler Temperature Threshold for Cycle 3.

ET12AIT				PROG 130
	dr n	Drain parameters family.		
		1dr	40	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d in	90	Initial Detergent Dosage.
		r in	10	Initial Rinse Aid Dosage.
		dEt	181	Detergent dispenser works when WASH PUMP in activated.
		rA 1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ET5AIIT PROG 131

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	0	Boiler heaters and tank heater work simultaneously.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	8	ACTIVE function disabled.
		rE	0	Regeneration cycle disabled.
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	82	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	5	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	4	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	35	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	4	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min].
		Sh3	31	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	20	Rinse Phase Duration [s].
		dr3	40	Drain [s].
		FP3	4	Final Pause [s].
		bt3	65	Boiler Temperature Threshold for Cycle 3.

ET5AIIT PROG 131

	dr n	Drain parameters family.	
		1dr 30	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		1PA 5	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r 1t 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d 1n 50	Initial Detergent Dosage.
		r 1n 10	Initial Rinse Aid Dosage.
		dEt 181	Detergent dispenser works when WASH PUMP in activated.
		rA 1 61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ET5AIDP PROG 132

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	0	Boiler heaters and tank heater work simultaneously.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	8	ACTIVE function disabled.
		rE	0	Regeneration cycle disabled.
		AIr	1	Alarms enabled.
		AAG	1	Boiler float level sensor.
		FrG	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	82	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	5	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	4	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	35	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	4	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min].
		Sh3	31	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	20	Rinse Phase Duration [s].
		dr3	40	Drain [s].
		FP3	4	Final Pause [s].
		bt3	65	Boiler Temperature Threshold for Cycle 3.

ET5AIDP PROG 132

	drn	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 80	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 5	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 9	Dishwasher with incorporated continuous water softener.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 50	Initial Detergent Dosage.
		r In 10	Initial Rinse Aid Dosage.
		dEt 181	Detergent dispenser works when WASH PUMP in activated.
		rA 1 61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ET5AIDPWS PROG 133

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	8	ACTIVE function disabled.
		rE	0	Regeneration cycle disabled.
		Alr	1	Alarms enabled.
		AAC	1	Boiler float level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	82	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	5	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	4	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	35	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	4	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min].
		Sh3	31	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	20	Rinse Phase Duration [s].
		dr3	40	Drain [s].
		FP3	4	Final Pause [s].
		bt3	65	Boiler Temperature Threshold for Cycle 3.

ET5AIDPWS PROG 133

	drn		Drain parameters family.	
		tdr	30	Initial Drain Phase Duration [s].
		Fdr	80	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA		Set other parameters.	
		tPA	5	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r tt	0	During the rinse stage, the display shows the boiler temperature.
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	9	Dishwasher with incorporated continuous water softener.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d In	50	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	181	Detergent dispenser works when WASH PUMP in activated.
		rA1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZUCADDROW / EUCADDROW PROG 134

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled.
AIr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	84	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	73	Tub Temperature: Threshold.
ttH	2	Tub Temperature: HISTERESIS.
tH1	80	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	0	Long Wash Phase [min].
Sh1	57	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	25	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	25	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	1	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	25	Drain [s].
FP3	2	Final Pause [s].
bt3	65	Boiler Temperature Threshold for Cycle 3.

ZUCADDROW / EUCADDROW PROG 134

	dr n	Drain parameters family.		
		1dr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d In	50	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA 1	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

FUCA3DD PROG 135

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	1	SOFT START enabled.
b_t	1	Tank heater works only if boiler temperature reached.
btF	75	Enable filling tank by means of rinsing cycles.
LES	0	Detergent level switches not enabled.
UI	24	Select user interface for LS5.
rE	0	Regeneration cycle disabled.
AIr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	80	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	0	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	42	Short Wash Phase [s].
PA1	4	Pause [s].
r11	12	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	2	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	42	Short Wash Phase [s].
PA2	4	Pause [s].
r12	12	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	2	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	42	Short Wash Phase [s].
PA3	4	Pause [s].
r13	12	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	2	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

FUCA3DD PROG 135

	dr n	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 100	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 50	Initial Detergent Dosage.
		r In 10	Initial Rinse Aid Dosage.
		dEt 6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA t 4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUCA1DDG PROG 136

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	24	Select user interface for LS5.
		rE	0	Regeneration cycle disabled.
		AIr	0	Alarms not enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	80	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	12	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	12	Rinse Phase Duration [s].
		dr1	25	Drain [s].
		FP1	2	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min].
		Sh2	42	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	12	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	2	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min].
		Sh3	42	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	12	Rinse Phase Duration [s].
		dr3	30	Drain [s].
		FP3	2	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

NUCA1DDG				PROG 136
	dr n	Drain parameters family.		
		Idr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.		
		IPA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d In	50	Initial Detergent Dosage.
		r In	10	Initial Rinse Aid Dosage.
		dEt	6	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	4	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUC1GMS PROG 137

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	0	Hood Type and undercounter.
bo1	1	Pressure boiler.
doo	2	Front loading function.
dFL	3	Default values for Undercounter models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	0	The tank is filled into the traditional way.
LES	0	Detergent level switches not enabled.
U1	24	Select user interface for LS5.
rE	0	Regeneration cycle disabled.
AIr	0	Alarms not enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	82	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	3	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	2	Booster Function.
btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	1	Long Wash Phase [min].
Sh1	12	Short Wash Phase [s].
PA1	4	Pause [s].
r11	14	Rinse Phase Duration [s].
dr1	30	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	2	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
PA2	4	Pause [s].
r12	16	Rinse Phase Duration [s].
dr2	30	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	2	Long Wash Phase [min].
Sh3	40	Short Wash Phase [s].
PA3	4	Pause [s].
r13	16	Rinse Phase Duration [s].
dr3	30	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC1GMS			PROG 137
	dr n	Drain parameters family.	
		Idr 30	Initial Drain Phase Duration [s].
		Fdr 100	Final Drain Phase Duration [s].
		drt 0	Drain and cleaning mode.
		Cbd 0	Wash tank water change frequency control disabled.
	dPA	Set other parameters.	
		IPA 0	Initial Pause [s] (for ALL cycles).
		dLY 3	Delay for the 2nd wash pump [s].
		Pdr 0	Drain Phase Duration at the end of washing phase [s].
		rPA 0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F 0	Degrees Celsius display.
		r it 0	During the rinse stage, the display shows the boiler temperature.
	HCP	Enter into HCP parameter family and set the following parameters.	
		SEr 1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.		
	GEn	Enter into GEn parameter family.	
		d In 165	Initial Detergent Dosage.
		r In 0	Initial Rinse Aid Dosage.
		dEt 182	Detergent dispenser works when LOAD SOLENOID VALVE in activated.
		rA t 61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.		

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

NUC3 / KUC3 / EUC3 PROG 138

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	0	Hood Type and undercounter.
		boi	1	Pressure boiler.
		doo	2	Front loading function.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START enabled.
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	0	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		UI	24	Select user interface for LS5.
		rE	0	Regeneration cycle disabled.
		AIr	0	Alarms not enabled.
		AAG	0	Boiler electronic level sensor.
		FrG	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	84	Boiler Temperature Threshold.
		bHi	96	Boiler temperature: alarm threshold.
		bAJ	3	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	2	Booster Function.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tHi	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	40	Short Wash Phase [s].
		PA1	4	Pause [s].
		ri1	16	Rinse Phase Duration [s].
		dr1	30	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min].
		Sh2	40	Short Wash Phase [s].
		PA2	4	Pause [s].
		ri2	16	Rinse Phase Duration [s].
		dr2	30	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min].
		Sh3	40	Short Wash Phase [s].
		PA3	4	Pause [s].
		ri3	16	Rinse Phase Duration [s].
		dr3	30	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

NUC3 / KUC3 / EUC3 PROG 138

	dr n		Drain parameters family.	
		1dr	30	Initial Drain Phase Duration [s].
		Fdr	100	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	40	Number of wash cycles possible between one drain cycle and the next.
	dPA		Set other parameters.	
		1PA	0	Initial Pause [s] (for ALL cycles).
		dLY	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r 1t	0	During the rinse stage, the display shows the boiler temperature.
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d 1n	165	Initial Detergent Dosage.
		r 1n	0	Initial Rinse Aid Dosage.
		dEt	182	Detergent dispenser works when LOAD SOLENOID VALVE in activated.
		rA 1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZPPW / APPW / EPPW (EX PW1 / PW1H) PROG 139

1. Switch OFF and then switch ON the machine.
2. CFG — Enter into CFG parameter family and set the following parameters:

tYP	1	Pot Washer.
bo1	0	Atmospheric boiler.
doo	2	Front loading function.
dFL	2	Default values for Pot Washer models.
trc	0	Disabled (for this appliance SOFT START is NOT possible).
b_t	1	Tank heater works only if boiler temperature reached.
btF	0	The tank is filled into the traditional way.
LES	0	Detergent level switches not enabled.
U1	9	Select user interface hood type/ undercounter model.
rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
AIr	1	Alarms enabled.
AAC	0	Boiler electronic level sensor.
FrC	0	Resin regeneration cycle forcing.
SrU	10	Rinse water max. hardness.
bPo	50	Boiler heating control.

3. Switch OFF and then switch ON the machine.
4. Modify Factory parameters:

FAC — Enter into FAC parameter family and set the following parameters.

btC	78	Boiler Temperature Threshold.
bH1	96	Boiler temperature: alarm threshold.
bAJ	4	Boiler Temperature Adjust.
bP	1	Boiler standby function enabled.
bSt	4	Booster Function.
btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	63	Tub Temperature: Threshold.
tH1	75	Tank temperature: alarm threshold.

5. Modify the cycle parameters:

CY1 — Cycle 1 parameters family.

Ln1	2	Long Wash Phase [min].
Sh1	34	Short Wash Phase [s].
PA1	4	Pause [s].
r11	20	Rinse Phase Duration [s].
dr1	12	Drain [s].
FP1	0	Final Pause [s].

CY2 — Cycle 2 parameters family.

Ln2	5	Long Wash Phase [min].
Sh2	34	Short Wash Phase [s].
PA2	4	Pause [s].
r12	20	Rinse Phase Duration [s].
dr2	12	Drain [s].
FP2	0	Final Pause [s].

CY3 — Cycle 3 parameters family.

Ln3	8	Long Wash Phase [min].
Sh3	34	Short Wash Phase [s].
PA3	4	Pause [s].
r13	20	Rinse Phase Duration [s].
dr3	12	Drain [s].
FP3	0	Final Pause [s].
bt3	0	Boiler Temperature Threshold for Cycle 3.

ZPPW / APPW / EPPW (EX PW1 / PW1H) PROG 139

	dr n		Drain parameters family.	
		tdr	120	Initial Drain Phase Duration [s].
		Fdr	90	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
		dto	48	Drain cycle Timeout.
	dPA		Set other parameters.	
		tPA	2	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r tt	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d in	240	Initial Detergent Dosage.
		r in	18	Initial Rinse Aid Dosage.
		dEt	16	Detergent dispensing during the wash cycle (loading during wash stage).
		rA t	7	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

ZPPW / APPW / EPPW (EX PW2) PROG 140

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	1	Pot Washer.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	2	Default values for Pot Washer models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible).
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	0	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		UI	9	Select user interface hood type/ undercounter model.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	78	Boiler Temperature Threshold.
		bH1	96	Boiler temperature: alarm threshold.
		bAJ	4	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	4	Booster Function.
		btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tH1	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min].
		Sh1	34	Short Wash Phase [s].
		PA1	4	Pause [s].
		r11	20	Rinse Phase Duration [s].
		dr1	21	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	5	Long Wash Phase [min].
		Sh2	34	Short Wash Phase [s].
		PA2	4	Pause [s].
		r12	20	Rinse Phase Duration [s].
		dr2	21	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	8	Long Wash Phase [min].
		Sh3	34	Short Wash Phase [s].
		PA3	4	Pause [s].
		r13	20	Rinse Phase Duration [s].
		dr3	21	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

ZPPW / APPW / EPPW (EX PW2) PROG 140

	dr n	Drain parameters family.		
		1dr	180	Initial Drain Phase Duration [s].
		Fdr	90	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
		dto	48	Drain cycle Timeout.
	dPA	Set other parameters.		
		1PA	2	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn	Enter into GEn parameter family.		
		d in	240	Initial Detergent Dosage.
		r in	18	Initial Rinse Aid Dosage.
		dEt	16	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	7	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EPPWESG60 (EX PW1 - 60Hz) PROG 141

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		typ	1	Pot Washer.
		boi	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	2	Default values for Pot Washer models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible).
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	0	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		UI	9	Select user interface hood type/ undercounter model.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	78	Boiler Temperature Threshold.
		bHi	96	Boiler temperature: alarm threshold.
		bAJ	4	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	4	Booster Function.
		btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tHi	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min].
		Sh1	34	Short Wash Phase [s].
		PA1	4	Pause [s].
		ri1	20	Rinse Phase Duration [s].
		dr1	13	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	5	Long Wash Phase [min].
		Sh2	34	Short Wash Phase [s].
		PA2	4	Pause [s].
		ri2	20	Rinse Phase Duration [s].
		dr2	13	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	8	Long Wash Phase [min].
		Sh3	34	Short Wash Phase [s].
		PA3	4	Pause [s].
		ri3	20	Rinse Phase Duration [s].
		dr3	13	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

EPPWESG60 (EX PW1 - 60Hz) PROG 141

	dr n		Drain parameters family.	
		Idr	120	Initial Drain Phase Duration [s].
		Fdr	120	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
		dto	48	Drain cycle Timeout.
	dPA		Set other parameters.	
		IPA	2	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r it	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d in	240	Initial Detergent Dosage.
		r in	18	Initial Rinse Aid Dosage.
		dEt	16	Detergent dispensing during the wash cycle (loading during wash stage).
		rA i	7	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

EPPWELG60 (EX PW2 - 60Hz) PROG 142

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters:		
		tYP	1	Pot Washer.
		boi	0	Atmospheric boiler.
		doo	2	Front loading function.
		dFL	2	Default values for Pot Washer models.
		trc	0	Disabled (for this appliance SOFT START is NOT possible).
		b_t	1	Tank heater works only if boiler temperature reached.
		btF	0	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		UI	9	Select user interface hood type/ undercounter model.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		AIr	1	Alarms enabled.
		AAC	0	Boiler electronic level sensor.
		FrC	0	Resin regeneration cycle forcing.
		SrU	10	Rinse water max. hardness.
		bPo	50	Boiler heating control.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and set the following parameters.		
		btC	78	Boiler Temperature Threshold.
		bHi	96	Boiler temperature: alarm threshold.
		bAJ	4	Boiler Temperature Adjust.
		bP	1	Boiler standby function enabled.
		bSt	4	Booster Function.
		btd	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	63	Tub Temperature: Threshold.
		tHi	75	Tank temperature: alarm threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min].
		Sh1	34	Short Wash Phase [s].
		PA1	4	Pause [s].
		ri1	20	Rinse Phase Duration [s].
		dr1	22	Drain [s].
		FP1	0	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	5	Long Wash Phase [min].
		Sh2	34	Short Wash Phase [s].
		PA2	4	Pause [s].
		ri2	20	Rinse Phase Duration [s].
		dr2	22	Drain [s].
		FP2	0	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	8	Long Wash Phase [min].
		Sh3	34	Short Wash Phase [s].
		PA3	4	Pause [s].
		ri3	20	Rinse Phase Duration [s].
		dr3	22	Drain [s].
		FP3	0	Final Pause [s].
		bt3	0	Boiler Temperature Threshold for Cycle 3.

EPPWELG60 (EX PW2 - 60Hz) PROG 142

	dr n		Drain parameters family.	
		tdr	180	Initial Drain Phase Duration [s].
		Fdr	140	Final Drain Phase Duration [s].
		drt	0	Drain and cleaning mode.
		Cbd	0	Wash tank water change frequency control disabled.
		dto	48	Drain cycle Timeout.
	dPA		Set other parameters.	
		tPA	2	Initial Pause [s] (for ALL cycles).
		dLy	3	Delay for the 2nd wash pump [s].
		Pdr	0	Drain Phase Duration at the end of washing phase [s].
		rPA	0	Duration of pause after the rinse cycle [s] (for ALL cycles).
		C F	0	Degrees Celsius display.
		r tt	0	During the rinse stage, the display shows the boiler temperature.
		tLE	0	Termal Label mode disabled (Functions present with firmware version 4.04).
	HCP		Enter into HCP parameter family and set the following parameters.	
		SEr	1	Machine arranged for remote connection to PC.
6.	Switch OFF and then switch ON the machine.			
	GEn		Enter into GEn parameter family.	
		d in	240	Initial Detergent Dosage.
		r in	18	Initial Rinse Aid Dosage.
		dEt	16	Detergent dispensing during the wash cycle (loading during wash stage).
		rA t	7	Rinse aid dispensing during the rinse cycle (loading during boiler filling stage).
7.	Switch OFF and then switch ON the machine.			

WARNING:

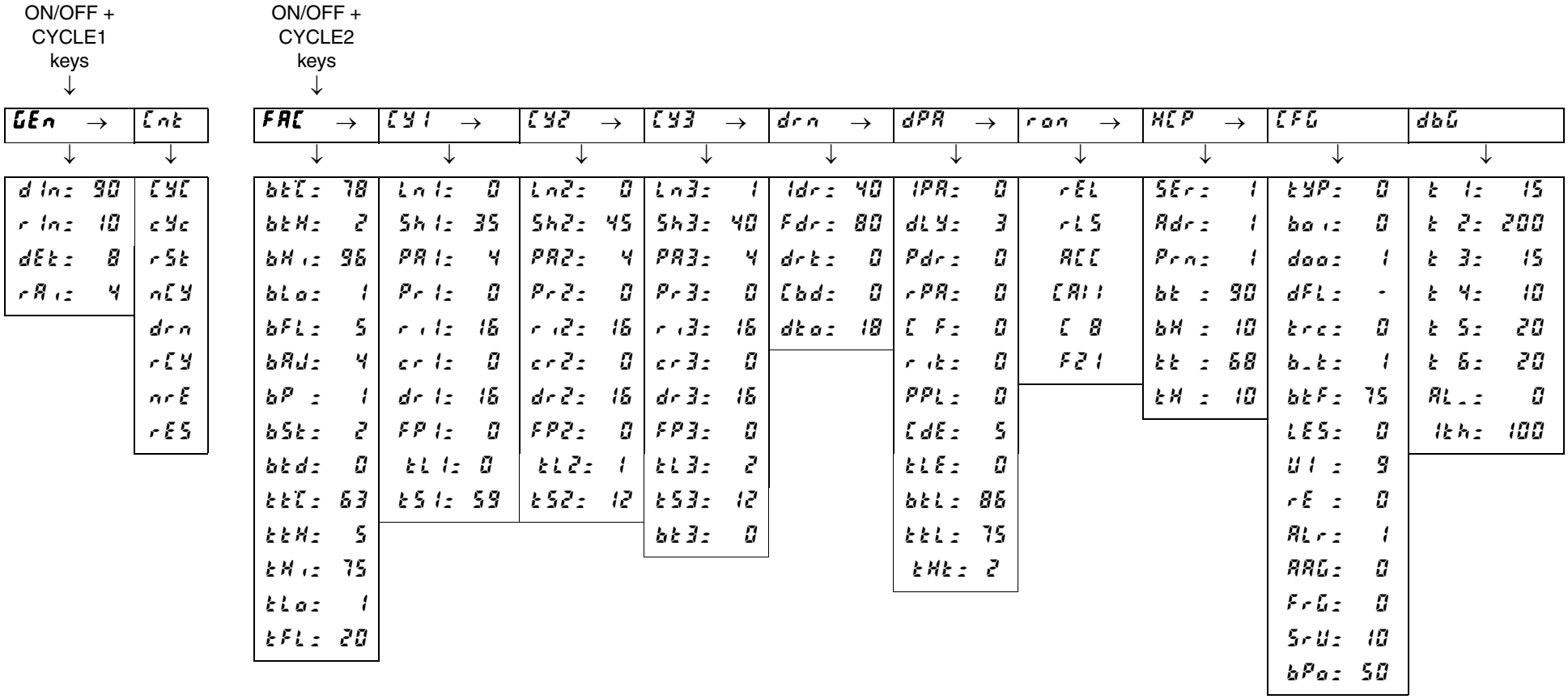
To set the board parameters , carefully follow the order given in this programming file, from point 1 to point 7.

WARNING:

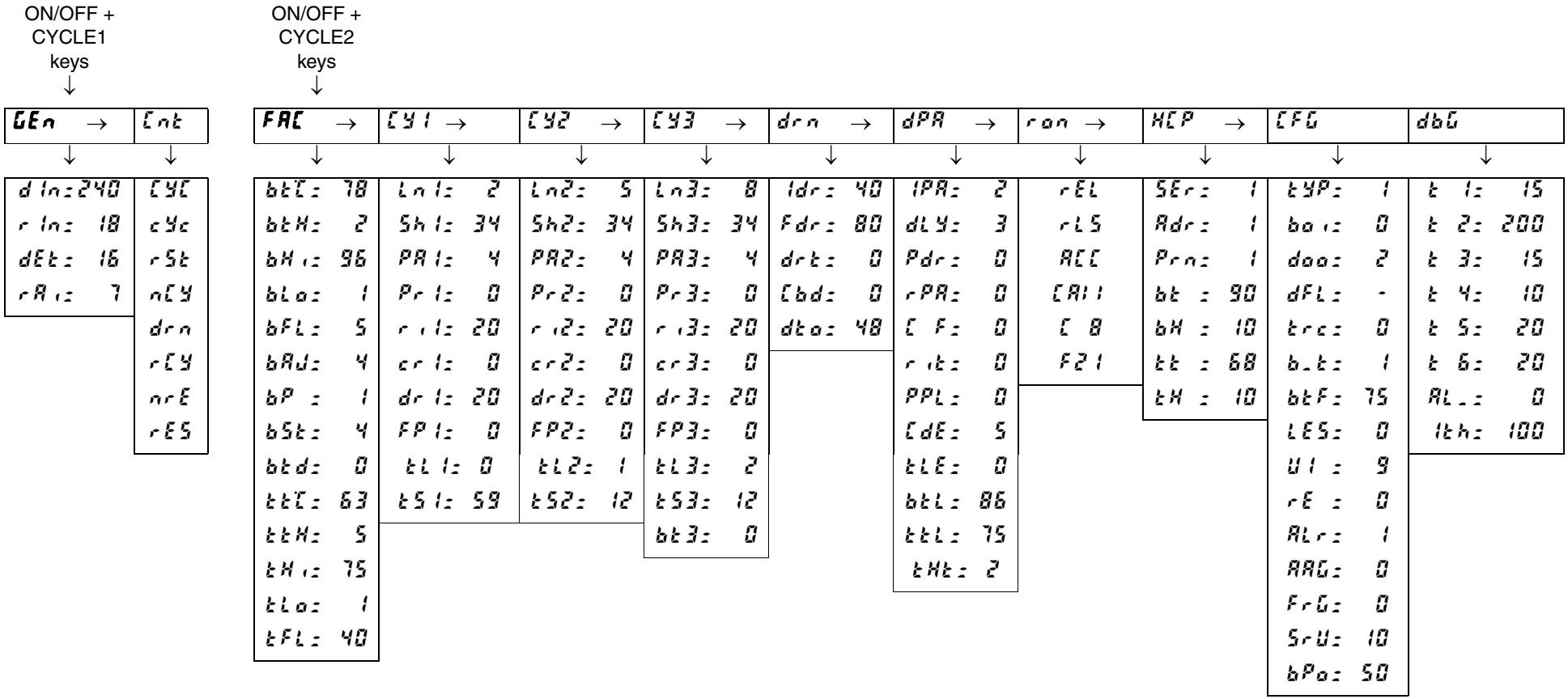
When modifying parameter dFL, all the parameters (except those belonging to the CFG family) assume the default values according to the tables in section 11 DEFAULT VALUES. The parameters of the CFG family are not modified.

11 DEFAULT VALUES

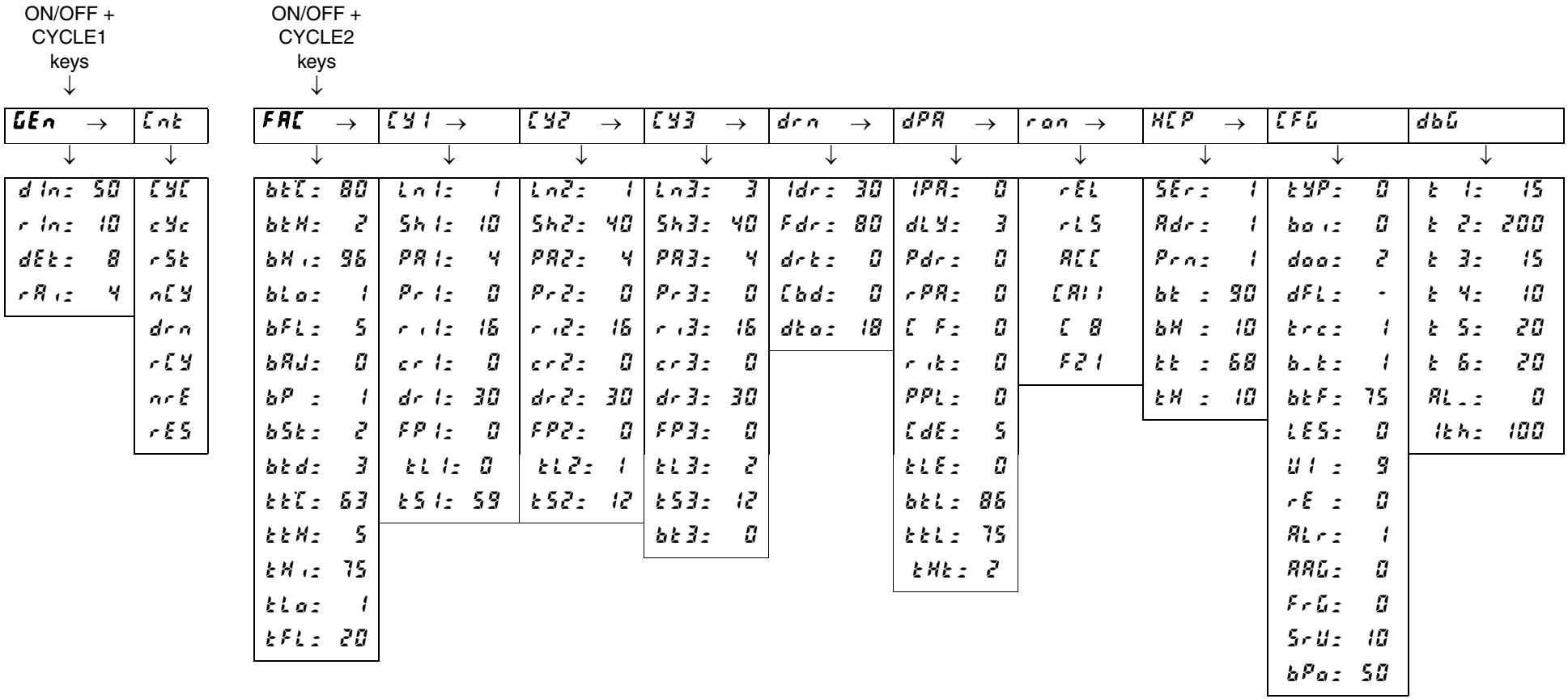
Default 1 - **HOOD TYPE**



Default 2 - POT WASHER



Default 3 - UNDERCOUNTER



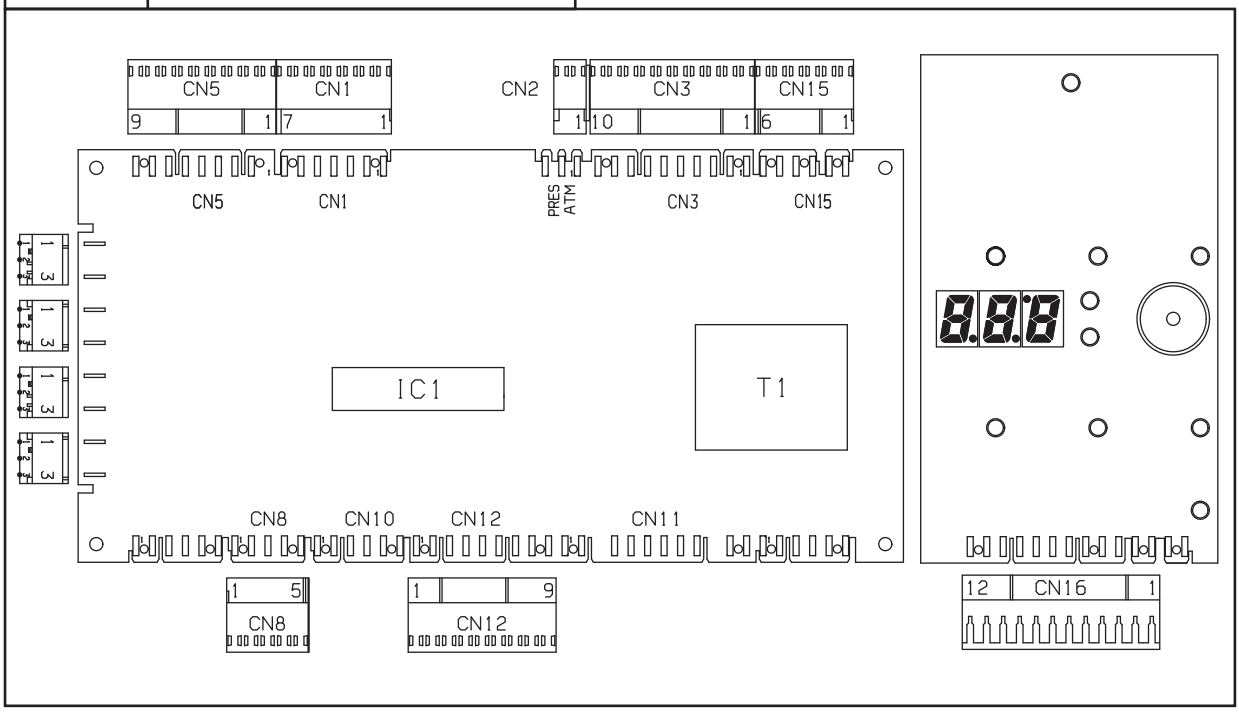
12 USER INTERFACE AND MAIN BOARD CONNECTORS

12.1 MAIN MALFUNCTIONS NOT DUE TO THE MAIN BOARD

The display shows CLOSE with door/hood closed	Check door/hood micro/sensor
No cycle starts	Check the user interface buttons (have they remained pressed? etc.)
A cycle fails to start	Is a user interface button extension missing?
After replacing the main board only the 3rd cycle starts	The main board is still configured for LS5/WT4.
Cycle time longer than that foreseen	Does the boiler work? Is the feed water at 50°C?
Noisy wash pump (only on HT and PP versions)	Check the current for single phase during operation.

12.2 CONNECTORS LAYOUT

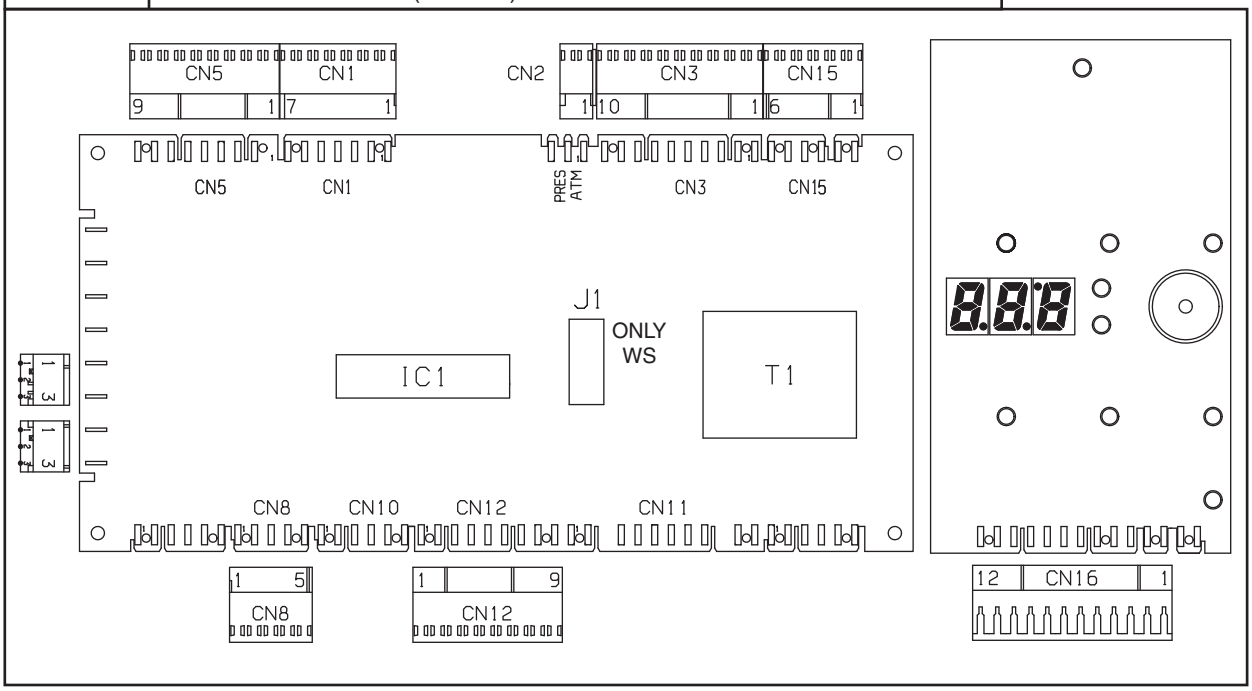
LAYOUT 1 | ZHTA / AHTA / EHTA



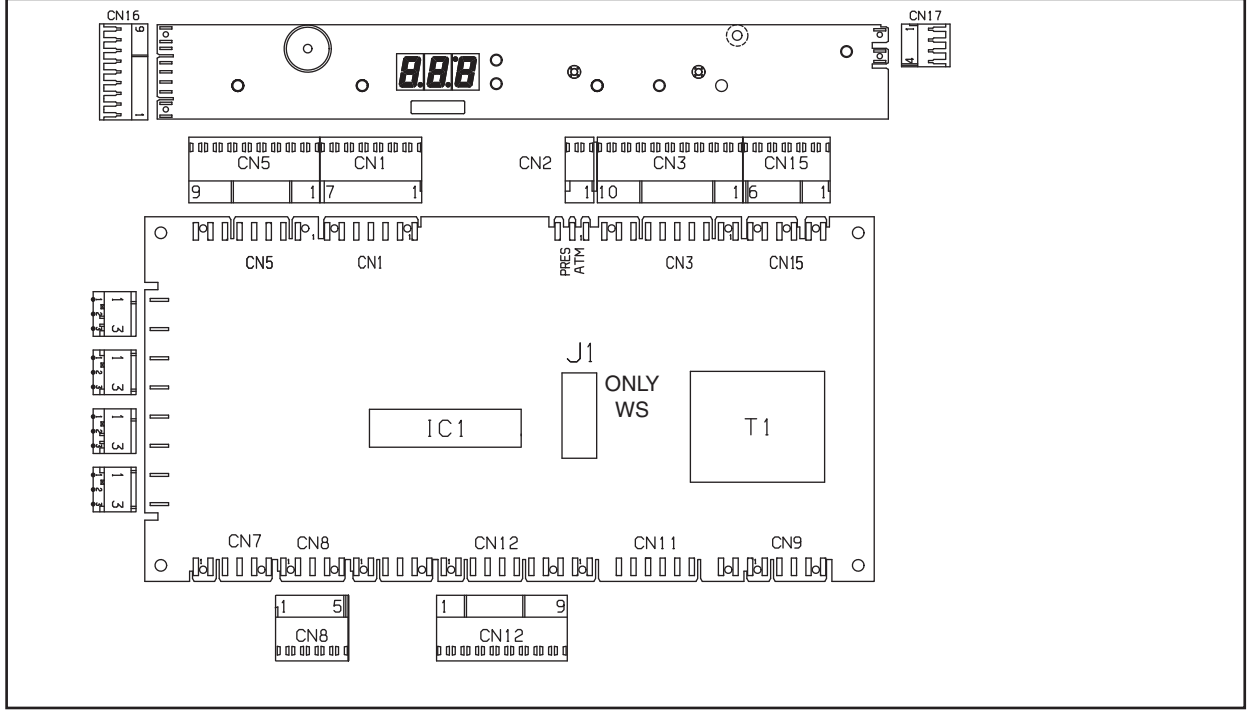
KEY

CN1 Rinse pump/wash pump/solenoid valve outputs
CN2 Pressure/atmospheric dishwasher solenoid valve connection
CN3 Detergent/rinse aid dispenser and drain pump outputs
CN5 Tank/boiler temperature sensor inputs
CN8 Energy peak controller input
CN12 User interface inputs/outputs
CN15 Overflow/tank level/board feed input
CN16 User interface inputs/outputs and hood/door sensor input

LAYOUT 4	ZHTA / AHTA / EHTA / ZHTAWS / AHTAWS / EHTAWS ZPPW / APPW / EPPW (NO AUT)



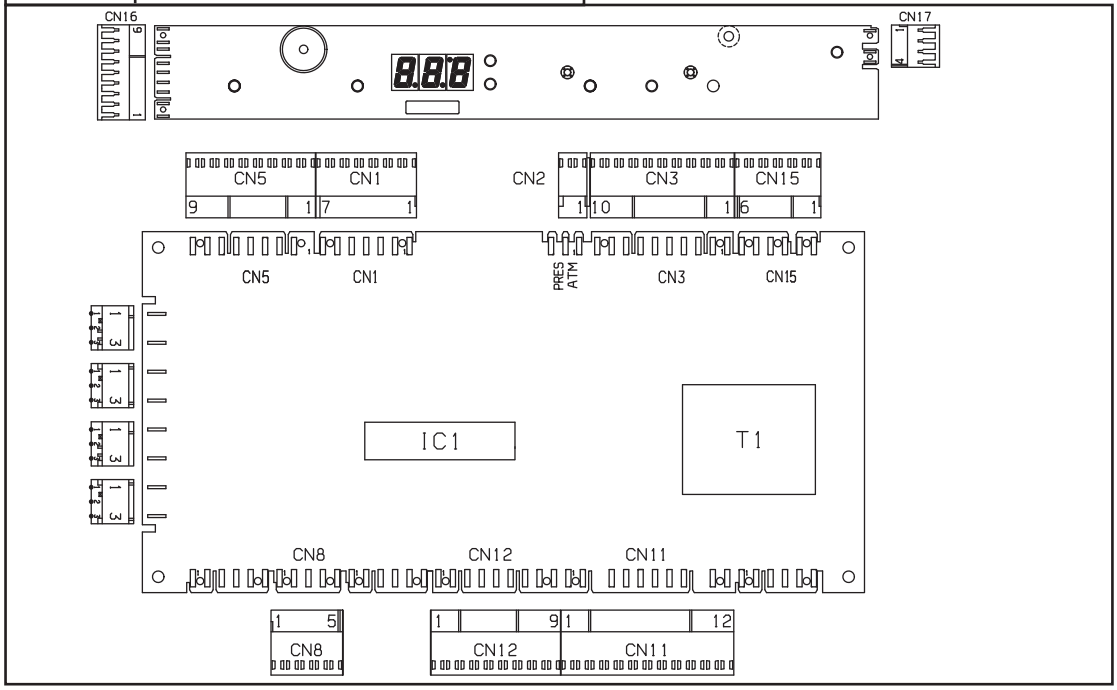
LAYOUT 8	NUC / EUC / NUCWS / EUCWS / NUCI / EUCI / NUCIWS / EUCIWS



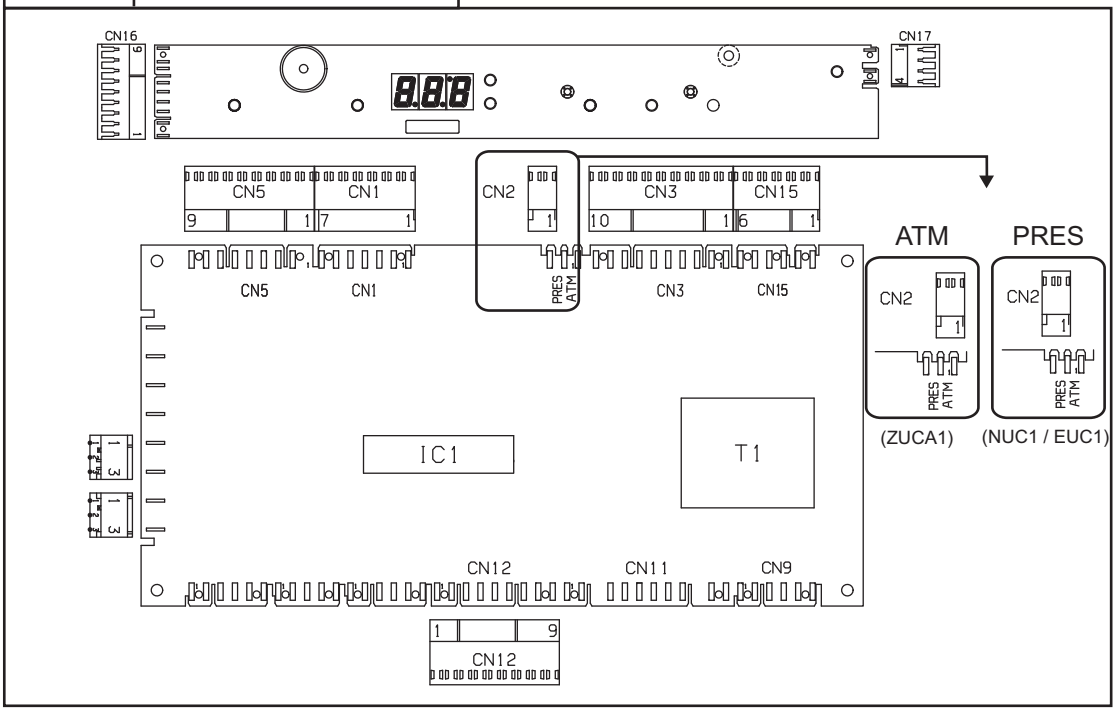
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer, detergent/rinse aid dispenser and drain pump outputs
CN5	Tank/boiler temperature sensor inputs
CN7	Hand safety system microswitch input
CN8	Energy peak controller input
CN10	Safety and upper/lower limit switch input
CN11	Hand safety system input - Gear motor current control input - Gear motor polarity inversion connection
CN12	User interface inputs/outputs
CN15	Overflow/tank level/board feed input
CN16	User interface inputs/outputs and hood/door sensor input

LAYOUT 10 EUCIM / EUCAIMLG



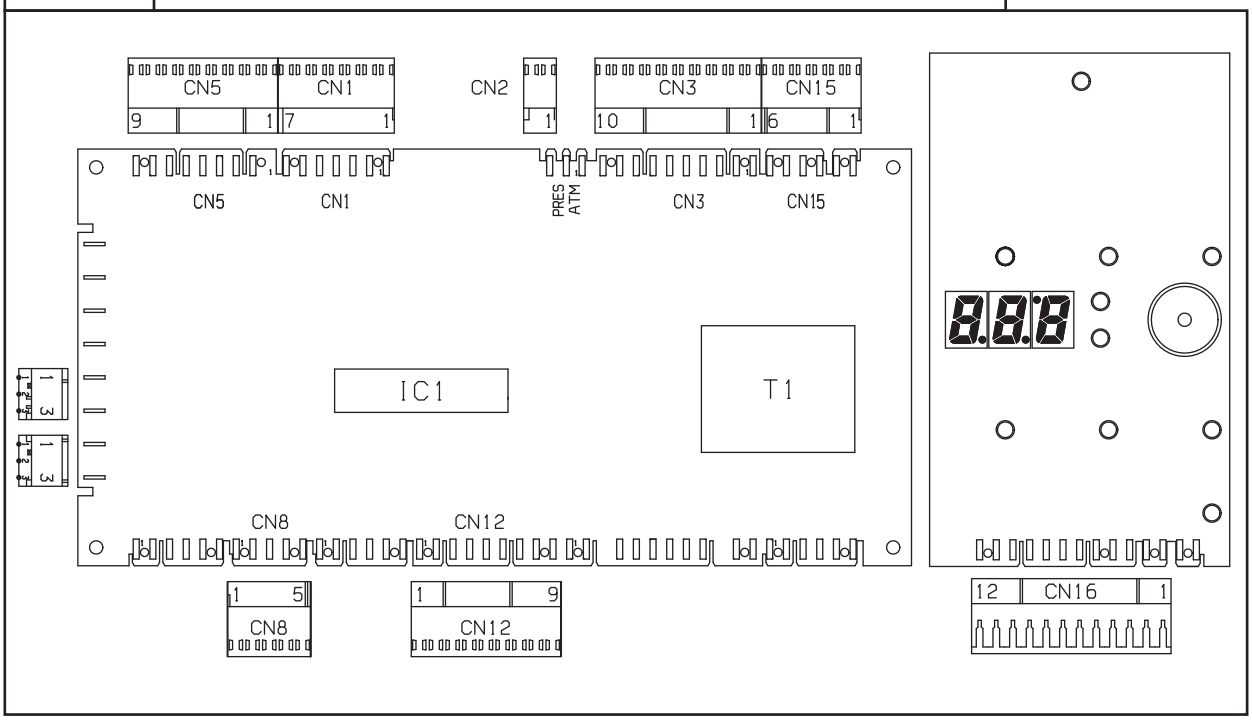
LAYOUT 11 NUC1 / EUC1 / ZUCA1



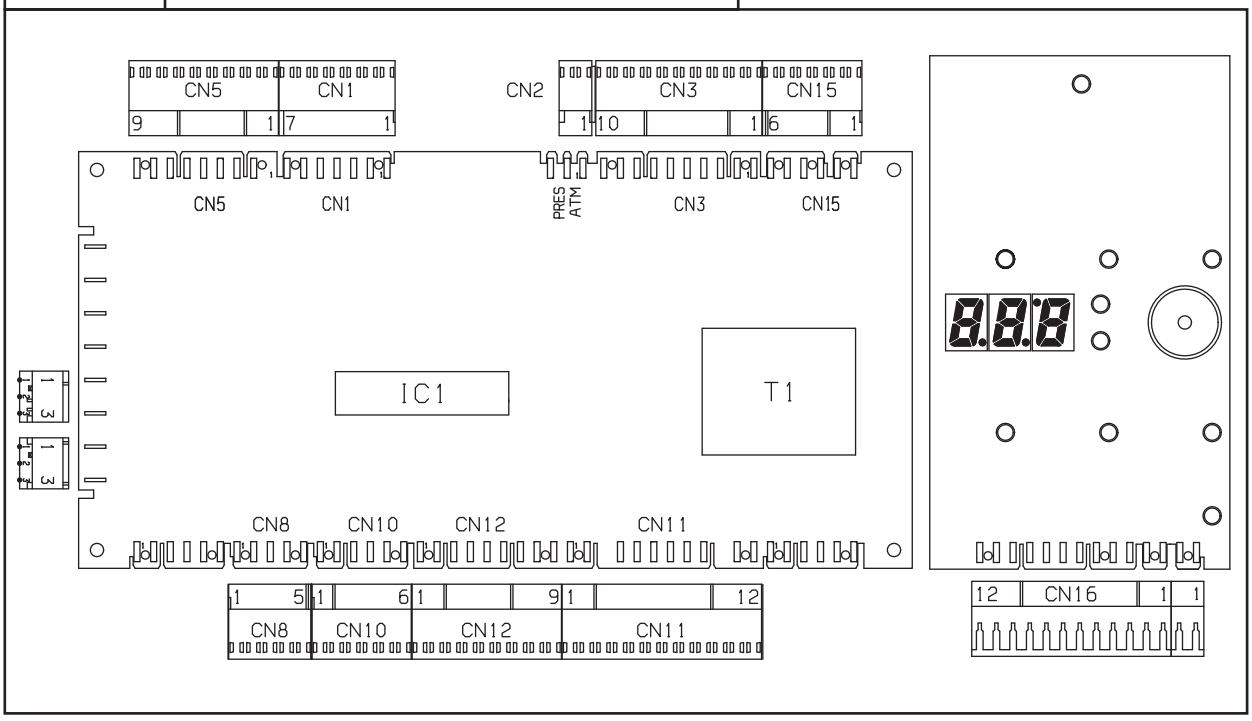
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser and drain pump outputs
CN5	Tank/boiler temperature sensor inputs
CN8	Energy peak controller input
CN11	Door lock electromagnet output
CN12	User interface inputs/outputs
CN15	Overflow/tank level/board feed input
CN16	User interface inputs/outputs and hood/door sensor input
CN17	Door microswitch connector

LAYOUT 13 | NHT / EHT / KHT



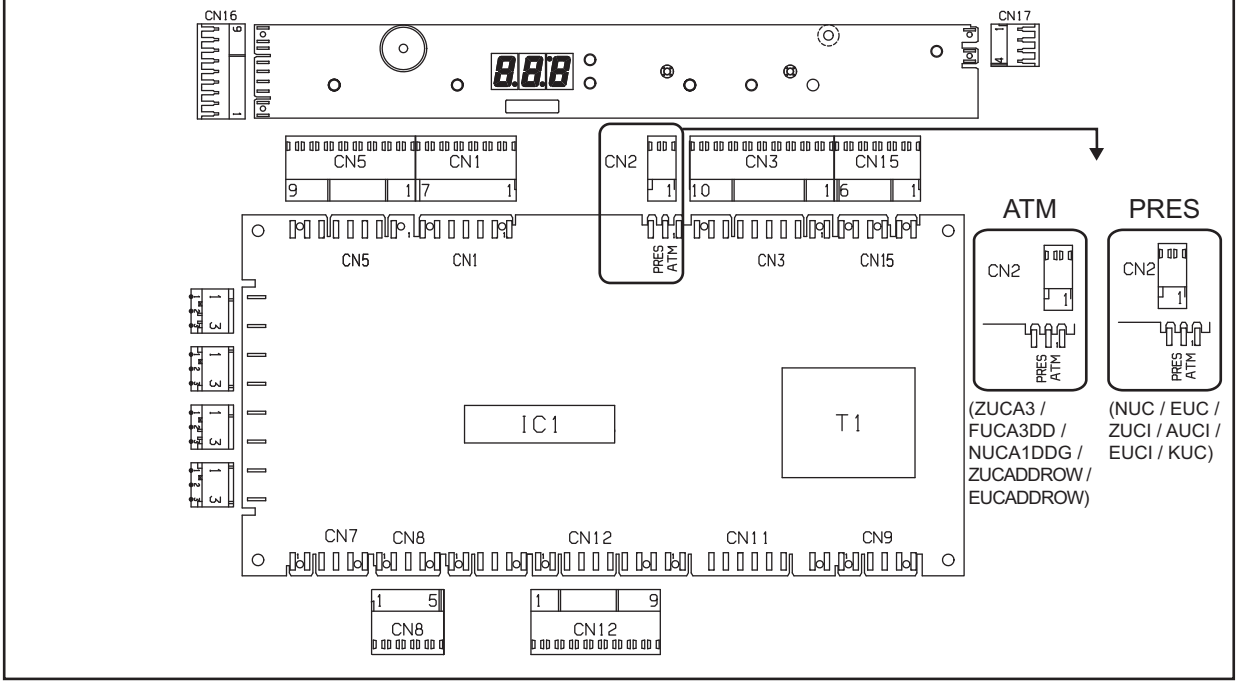
LAYOUT 15 | ZHTAAU / EHTAAU



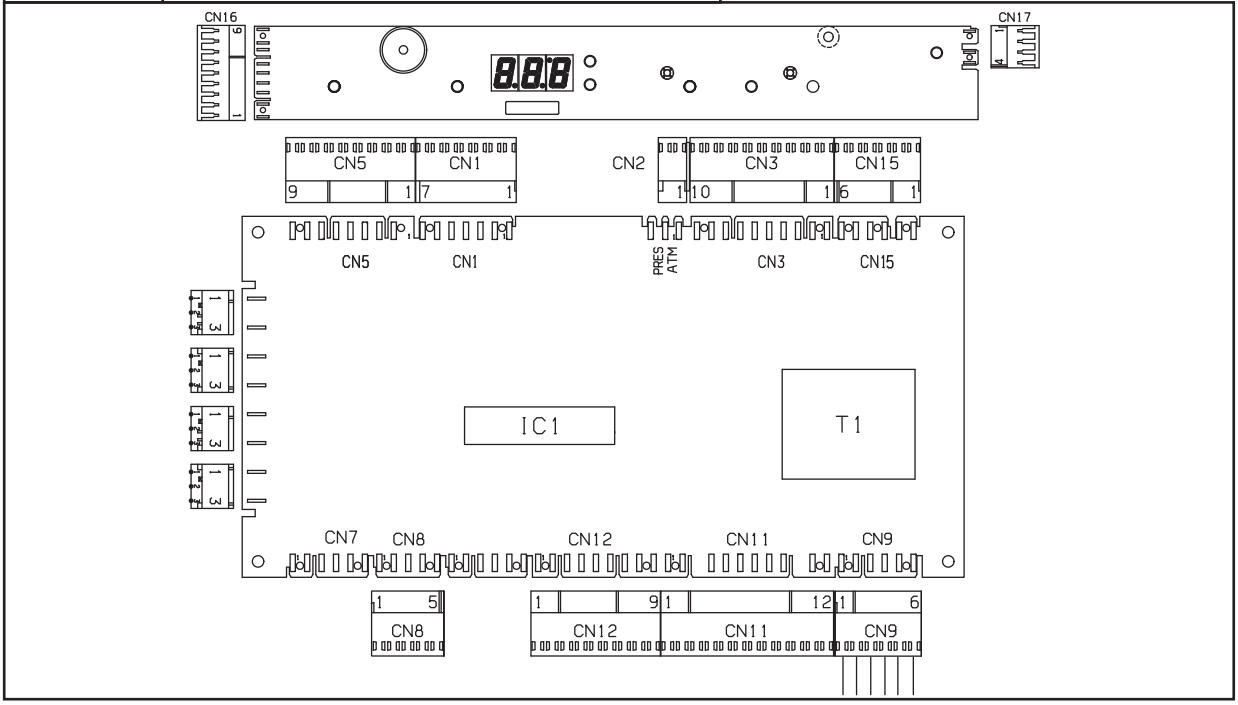
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer, detergent/rinse aid dispenser and drain pump outputs
CN5	Tank/boiler temperature sensor inputs
CN8	Energy peak controller input
CN11	Hood lock electromagnet output
CN12	User interface inputs/outputs
CN15	Overflow/tank level/board feed input
CN16	User interface inputs/outputs and hood/door sensor input

LAYOUT 16	NUC / EUC / ZUCI / AUCI /EUCI / ZUCA3 / FUCA3DD / NUCA1DDG / KUC / ZUCADDROW / EUCADDROW



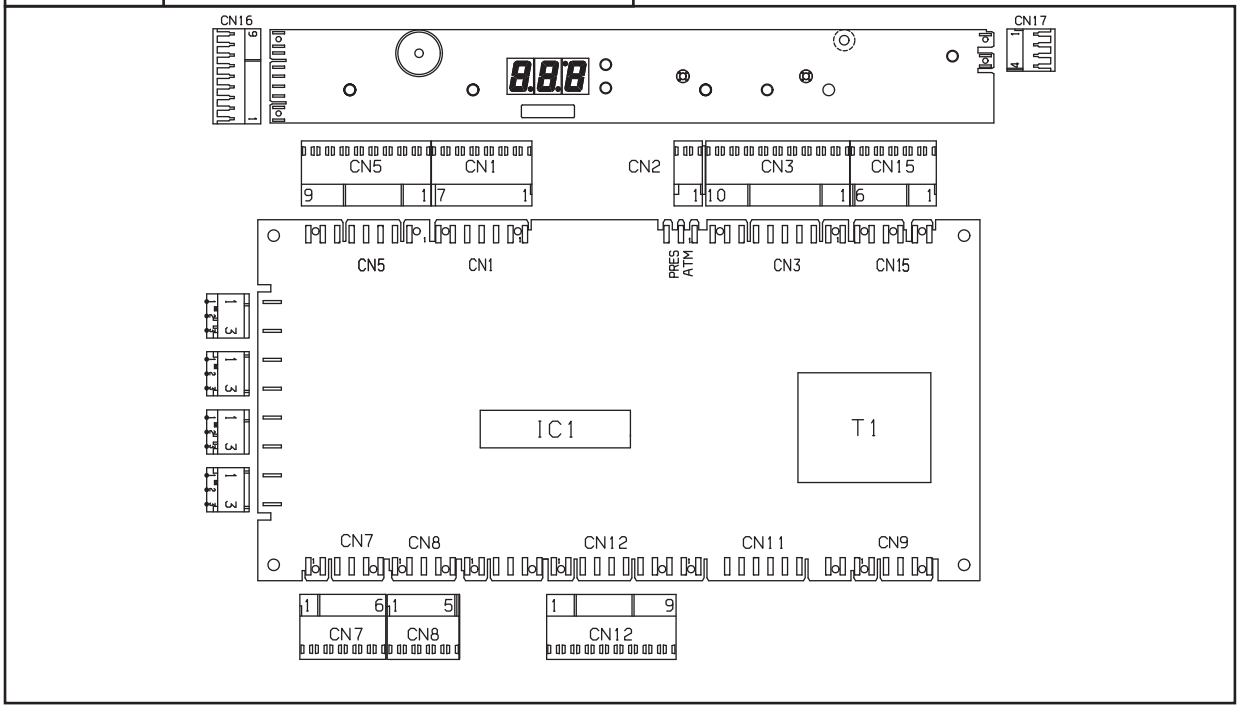
LAYOUT 17	NUCWS / EUCWS



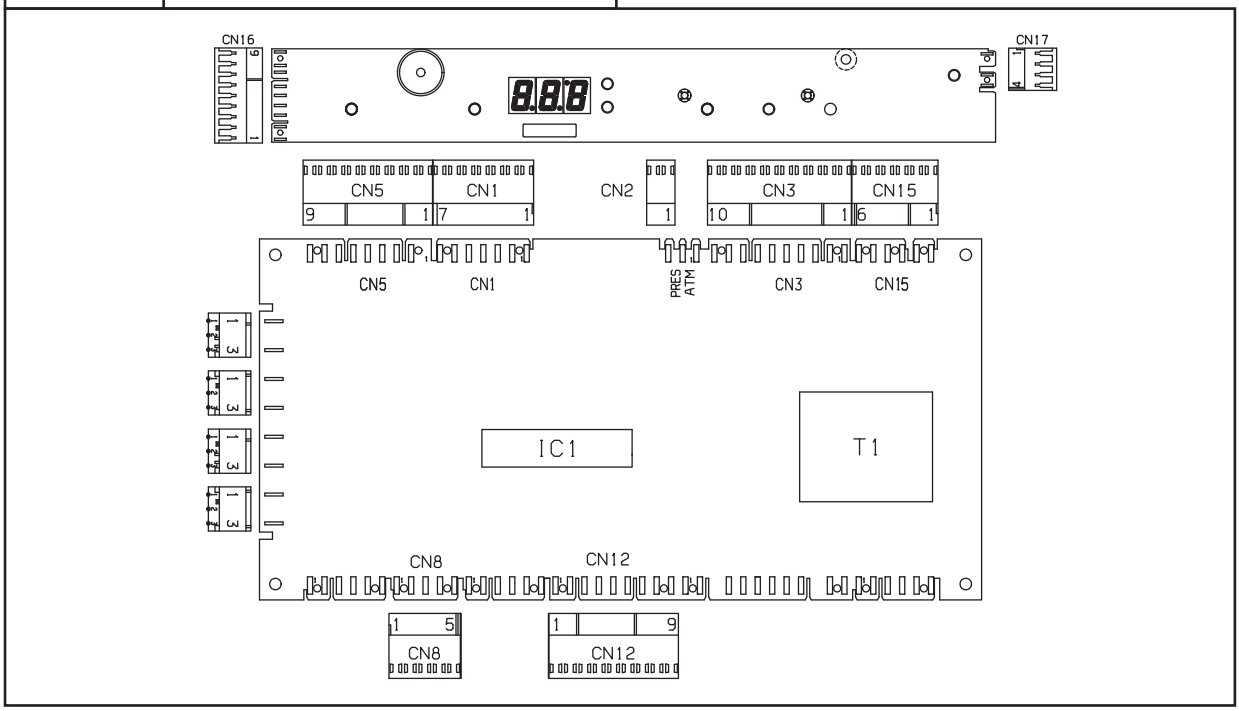
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser and drain pump outputs
CN5	Tank/boiler temperature sensor inputs
CN8	Energy peak controller input
CN9	Salt receptacle drain pump and low pressure solenoid valve outputs
CN11	Brine solenoid valve output
CN12	User interface inputs/outputs
CN15	Overflow/tank level/board feed input
CN16	User interface inputs/outputs and hood/door sensor input
CN17	Door microswitch connection

LAYOUT 18 | EUCAICL



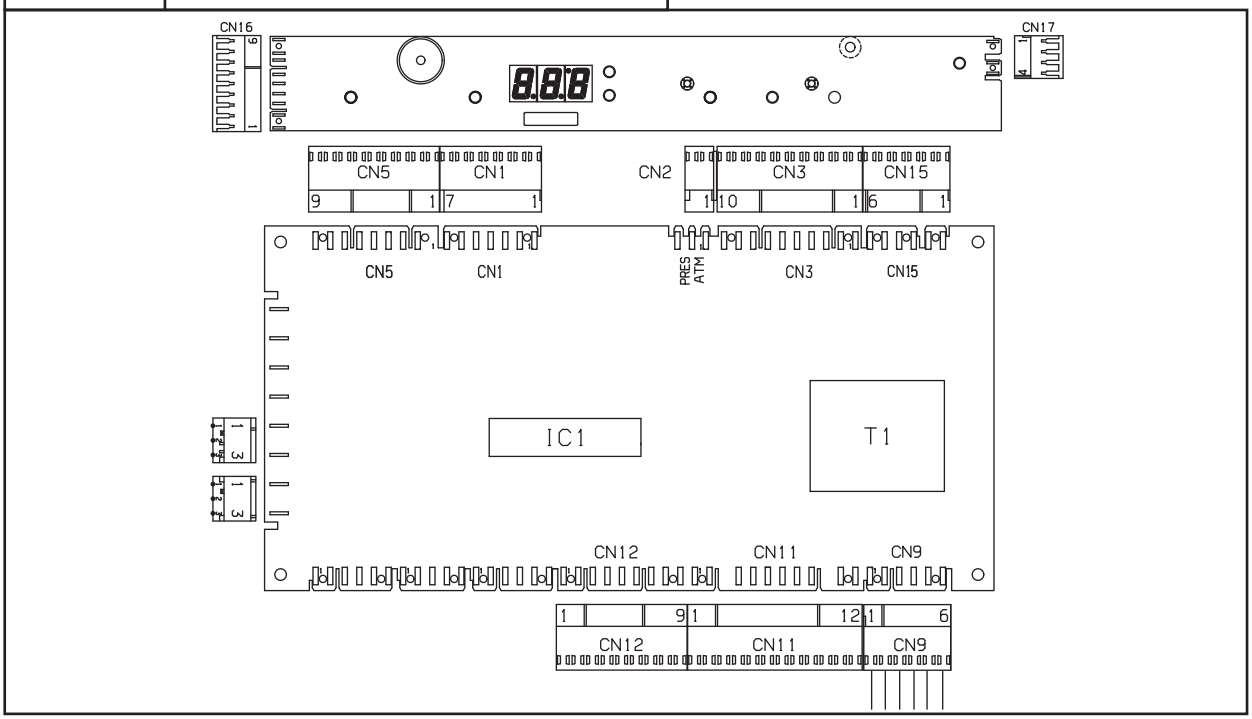
LAYOUT 19 | EUCIM / EUCIM60



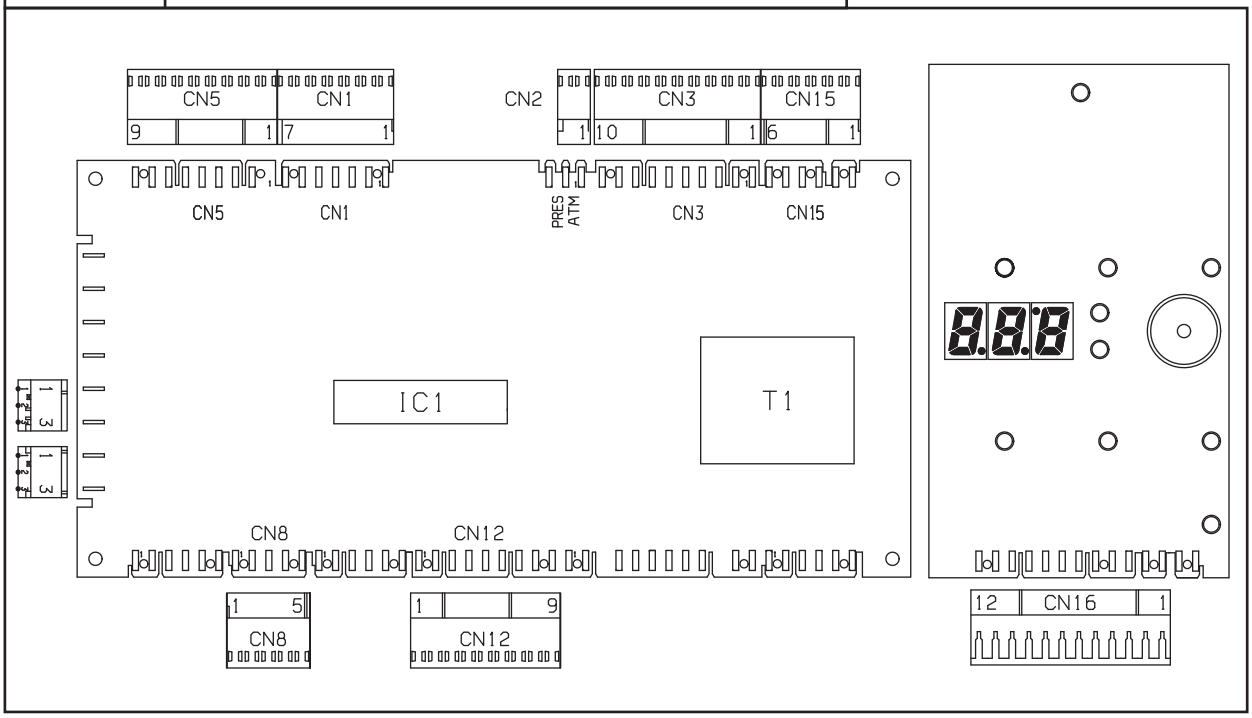
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser and drain pump outputs
CN5	Tank/boiler temperature sensor inputs
CN7	Detergent/rinse aid level sensors input
CN8	Energy peak controller input
CN12	User interface inputs/outputs
CN15	Overflow/tank level/board feed input
CN16	User interface inputs/outputs and hood/door sensor input
CN17	Door microswitch connection

LAYOUT 21 | NUC1WS / EUC1WS



LAYOUT 23 | NHTG / EHTG / ZHTAROW / EHTAROW / ZHTAO / EHTAO



KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser and drain pump outputs
CN5	Tank/boiler temperature sensor inputs
CN8	Energy peak controller input
CN9	Salt receptacle drain pump and low pressure solenoid valve outputs
CN11	Brine solenoid valve output
CN12	User interface inputs/outputs
CN15	Overflow/tank level/board feed input
CN16	User interface inputs/outputs and hood/door sensor input
CN17	Door microswitch connection

13 ALARM MESSAGES AND TROUBLESHOOTING

13.1 ALARMS THAT STOP THE DISHWASHER

A 1	Want of water
	Is the water cock open? Does the water load solenoid valve work? Is the water feed flow a min. of 5 l/min? Is the water inlet filter clean? Is the load solenoid valve filter clean? Is the overflow inserted? Is the main board (ATM-PRES) CN2 connector correctly positioned? Do the tank/boiler pressure switches work properly?
C 8	Rinsing is not done regularly for 2 consecutive cycles
	Are the rinse arms clogged? Does the rinse pump work correctly? Is there water in the level sensor tube? Is there scale in the boiler? Does the boiler level sensor work properly?
	ONLY FOR MACHINES WITH CONTINUOUS WATER SOFTENER: Does the boiler level sensor located inside the water softener work properly? Does the float of the boiler level sensor, located inside the water softener, work properly? Is it free to move upwards and downwards and vice versa? Is the connection from the boiler level sensor to the main board efficient?
	ATTENZIONE: RESETTING THIS ALARM WITHOUT FIRST ELIMINATING THE CAUSE IS DANGEROUS; THE BOILER HEATING ELEMENTS COULD WORK DRY, FURTHER DAMAGING THE INTERNAL PARTS OF THE DISHWASHER. **ATTENZIONE**: C 8 IT MUST BE MANUALLY RESET AFTER ELIMINATING THE CAUSE OF THE MALFUNCTION.
C 9	Automatic hood out of order
	See par. 13.1.1 ALARM CODES FOR AUTOMATIC HOOD TYPE DISHWASHERS.

13.1.1 ALARM CODES FOR AUTOMATIC HOOD TYPE DISHWASHERS

When the alarm C 9 appears, to facilitate fault-finding another parameter providing a more detailed indication has been introduced.

The parameter is AL and is found in the dbC family.

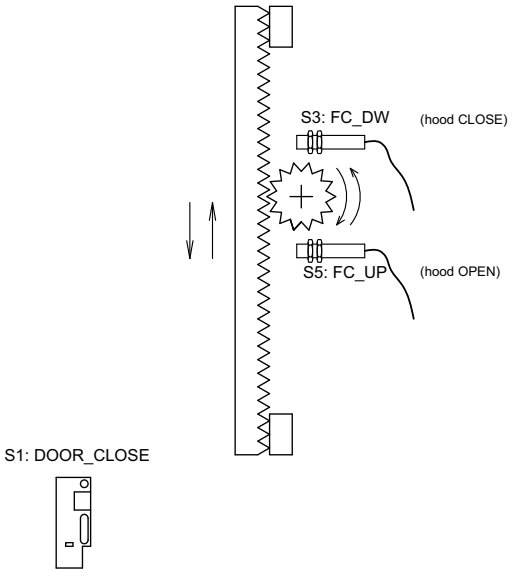
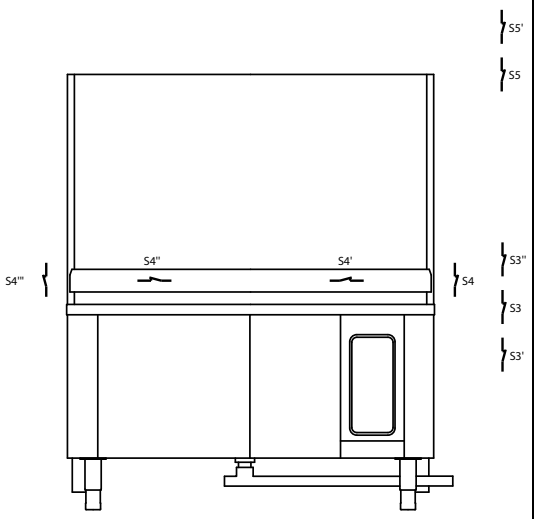
The possible cause of the anomaly can be found (see table below) ?according to the value of the parameter AL.

With pot washers the cause that generated a b3 type alarm can also be found.

E.g.: With an automatic hood type the alarm C 9 appears.

Access the parameter AL in the dbC family.

AL - 8 ⇒ the top limit switch could be disconnected or interrupted.

	Hood	Pot Washer
		
AL_1	Appears with hood closed if the top limit switch (FC_UP) cuts in.	**Appears with hood closed, if:** - the bottom limit switch (S3) returns to the rest position; - the top limit switch (S5) cuts in; - S3" does not cut in.
AL_2	During lifting, the bottom limit switch (FC_DW) has not returned to the rest position. The limit switch must return to the rest position within a time given by the parameter t_5 : a) check that the motor works.	b 3 During the initial lifting phase the bottom limit switch (S3) must return to the rest position within a time given by the parameter t_5? otherwise the alarm b 3 appears. - S3 could be stuck. - S5' could be disconnected. On installation this alarm can occur due to incorrect sequence of the phases: invert the two phases on the power supply terminal board
AL_3		Appears if during lifting S3'' does not return to the rest position within a time t 1.
AL_4	Appears if the bottom limit switch (FC_DW) cuts in during lifting. (Polarity/motor rotation direction inverted?!).	b 3 Appears if the bottom limit switch (S3) cuts in during lifting. On installation this alarm can occur due to incorrect sequence of the phases: invert the two phases on the power supply terminal board.

AL_5	**TIMEOUT-**The time taken for hood lifting was more than the time fixed by parameter t 2 : a) check that the motor works.	**TIMEOUT-** IThe time taken for lifting was more than the time fixed by parameter t 2. Check correct operation of the: a) motor (thermal protection N7); b) top limit switch (S5 and S5').
AL_6	The hood is open but the bottom limit switch (FC_DW) has cut in.	Appears with hood fully open, if: - the limit switch (S5) returns to the rest position; - the bottom limit switch (S3) cuts in; - S3" cuts in.
AL_7	Appears if with hood fully open the "door closed" microswitch cuts in.	Appears if with hood fully open the "door closed" microswitch cuts in. - S5 could be disconnected.
AL_8	During lowering, the top limit switch (FC_UP) has not returned to the rest position. The limit switch must return to the rest position within a time given by parameter t 6: a) check that the motor works; b) (Polarity/motor rotation direction inverted?!)..	b 3 During the initial lowering phase the top limit switch (S5) must return to the rest position within a time given by the parameter t 6 otherwise the alarm b 3 appears. - S5 could be stuck. - S3' could be disconnected. On installation, this alarm can occur due to incorrect sequence of the phases: invert the two phases on the power supply terminal board.
AL_9	-	**Appears if the bottom limit switch S3 cuts in before S3" during lowering.**
AL_10	Appears if the top limit switch (FC_UP) cuts in during lowering. (Polarity/motor rotation direction inverted?!).	b 3 Appears if the top limit switch (S5) cuts in during lowering. On installation, this alarm can occur due to incorrect sequence of the phases: invert the two phases on the power supply terminal board.
AL_11	**TIMEOUT-** The time taken for hood closing was more than the time fixed by parameter t 2 : a) check that the motor works.	**TIMEOUT-** The time taken for lowering was more than the time fixed by parameter t 2. - S3' could be disconnected.
AL_12	-	Appears during hood lowering if, after S3" cuts in, the bottom limit switch S3 does not cut in within the time fixed by parameter t 3.

AL_13	-	The two hand safety contacts K and K' must be both closed or both open. If this does not occur the alarm appears. - One of the two relays (K or K') could be stuck or disconnected. (See parameter t 4)
AL_14	Limit switch combination not allowed: top limit switch (FC_UP) and bottom limit switch (FC_DW) activated at the same time!	**Limit switch combination not allowed. Appears if one of the following combinations occurs:** - top limit switch (S5) and bottom limit switch (S3) both activated (S3 and S5 could be disconnected); - top limit switch S5 and S3" both cut in; - bottom limit switch (S3) cut in but not S3''.
AL_20	During lifting, the current absorbed by the lifting motor has exceeded the threshold (see parameter tth): a) excessive mechanical force during lifting..	-
AL_21	During lowering, the current absorbed by the lifting motor has exceeded the threshold (see parameter tth): excessive mechanical force during lowering.	-
AL_22 AL_23 AL_24 AL_25	The hood should be stopped but the card detects a high current absorption by the lifting motor: the relay RL18/RL19 could be stuck; feeder connector CN32 could be disconnected.	-

13.2 ALARMS THAT DON'T STOP THE DISHWASHER

(SHOWN ON THE USER INTERFACE AT REGULAR INTERVALS)

WARNING:

Alarms marked with the Θ symbol from Serial Number 821 have become alarms which do not lock the machine.

b 1	Drain not efficient
	Has the overflow been removed? Is the water drain blocked? Is the drain pump blocked? Are the air trap and tank pressure switch clean? Is there a constriction in the drain tube? Is the pump breather pipe returning to the tank clogged or constricted? Does the tank pressure switch work properly? Is there a hole in the drain tube (only for versions with drain pump)?
b 2	Overflow alarm
	Is the water drain blocked? Are the air trap and tank pressure switch clean? Does the tank pressure switch work properly? Is the load solenoid valve blocked? (E1 - LOAD_EV) Is the load solenoid valve relay stuck? (RL8 - LOAD_EV)

Θ E 1	Boiler temperature rise too fast
	Does the boiler level sensor work properly? The boiler could be empty. Are non-original power resistances installed?
Θ E 2	Boiler temperature too high
	Has the boiler temperature been changed (btE - increased above 90°C)? Has the software alarm value been modified (bH 1)? Does the boiler level sensor work properly? Is the boiler relay stuck (see RL2, RL3, RL4)?
Θ E 3	Tank temperature too high
	Is the feed water above 60°C? Has the software alarm value been modified (tH 1)? Is the rinse water temperature too high? Is the tank relay stuck (RL5 - TUB_HEAT)?
Θ E 4	Tank temperature sensor out of order
	Is the temperature sensor broken or disconnected (NT1)? Is the temperature sensor connector correctly inserted?
Θ E 5	Tank temperature sensor out of order
	Is the temperature sensor short-circuited (NT1)?

Θ C 6	Boiler temperature sensor out of order
	Is the temperature sensor broken or disconnected (NT2)? Is the temperature sensor connector correctly inserted?
Θ C 7	Boiler temperature sensor out of order
	Is the temperature sensor short-circuited (NT2)?
Θ C 10	Rinse temperature sensor out of order (only on machines with temperature sensor on the rinse circuit)
	Is the temperature sensor broken or disconnected? Is the temperature sensor connector correctly inserted?
Θ C 11	Rinse temperature sensor out of order (only on machines with temperature sensor on the rinse circuit)
	Is the temperature sensor short-circuited?

WARNING:

Alarms C 2, C 6 and C 7 lock the boiler temperature control.

Alarms C 3, C 4 and C 5 lock the tank temperature control.

In the case of alarms C 6 and C 7, the boiler waiting phase is not executed (the rinse may be performed with cold water) and, during the initial warm-up and subsequent rinses (btF > 0), the boiler heating phase is not executed.

In the case of an open probe error (C 4, C 6 e C 10), the displayed temperature is 10°C

In the case of a shorted probe error **(C 5, C 7 e C 11) ,** the displayed temperature is 99°C**.**

E 1	Communication error
	Is the connection between main board and control panel correct? Are the connectors correctly connected? Are connector contacts clean?
E 2	Tank temperature low
	Does the tank heating element work properly? Are the connectors correctly connected? Are the dishwasher feed voltage and current correct? Is the relay RL5 on the board disconnected or faulty?
E 3	Boiler temperature low
	Does/do the boiler heating element/s work properly? Are the connectors correctly connected? Does the possible remote control switch connected to the heating element work correctly? Is there power at the remote control switch input terminals? Does relay RL2 on the board work properly? CAUTION: IF THERE IS A MALFUNCTION ON RELAY RL2 AND THE BOILER HEATING ELEMENTS ARE FED BY MEANS OF A REMOTE CONTROL SWITCH, THE BOARD DOES NOT HAVE TO BE REPLACED; JUST MOVE THE BOILER HEATING ELEMENT CONNECTOR TO ONE OF THE TWO FREE POSITIONS ON THE BOARD. CAUTION: WHEN ONE BRANCH OF THE HEATING ELEMENT DOES NOT WORK AND THE OTHER TWO CONTINUE TO FUNCTION, ON REACHING THE SET TEMPERATURE VALUE, ALARM 3 DISAPPEARS AND REAPPEARS IN THE SUBSEQUENT RINSE PHASE. THIS ALSO OCCURS WHEN A PHASE IS MISSING.

13.3 ALARMS THAT DON'T STOP THE DISHWASHER FOR MODELS WITH INCORPORATED CONTINUOUS WATER SOFTENER

If alarm F21 or F22 appears, the machine indicates it on the display at regular intervals and auto-configures itself in the same way as a machine without water softener. Resin regeneration cycles are not performed and the column used for filling is always the same (column B).

Alarm F21 is reset when the machine is switched off and on from the mains switch (only if the causes that generated it have been eliminated).

Alarm F22 is reset when the machine is switched off and on from the user interface or from the main switch (only if the causes that generated it have been eliminated).

WARNING:

Alarms marked with the Θ symbol from Serial Number 821 have become alarms which do not lock the machine.

Θ F21	Water softener operation errors
	This alarm appears in case of malfunctioning in the continuous water softener. **To reset error F21 it is necessary to disconnect and reconnect the main power supply to the machine by means of the main switch on the external power board.**
Θ F22	Communication errors between the mother board and softener board
	This alarm appears in case of problems in communication between the mother board and water softener board; check the connection between mother board connector J1 and water softener connector ST8

To facilitate the finding of faults signalled by alarm F21, another parameter providing a more detailed indication of the possible cause of malfunction has been introduced in the rON family (see table below).

To reset error F21 it is necessary to disconnect and reconnect the main power supply to the machine by means of the main switch on the external power board.

F21 1	Water softener conductivity sensor short-circuit
	Two or more water softener conductivity sensors are short-circuited. Check the connections between the water softener board and sensors, replacing the connection wiring if necessary.
F21 2	Water softener conductivity sensors open
	One or more water softener conductivity sensors are disconnected. Check the connections between the water softener board and sensors, replacing the connection wiring if necessary.
F21 3	Resin temperature sensor malfunction
	Replace the water softener electronic board.

F21 4	Water softener electronic board malfunction
	Replace the water softener electronic board.
F21 9	Salt water filling malfunction
(F21 6 **up to version** 4.01)	The salt water container in the water softener was not completely filled within the set max. filling time. Make sure: - the water cock is open - the water filling solenoid valve works correctly - the salt container solenoid valve works correctly - the feed water pressure is at least 50 kPa / 0.5 bar - the water inlet filter is clean - the filling solenoid valve filter is clean - the salt container cap is properly closed - the mother board (ATM-PRES) connector CN2 is correctly positioned - the water softener board connector ST5 is correctly positioned - the grille on the bottom of the salt container is clogged with dirt.
F21 10	Inefficient resin washing
	After carrying out the maximum permissible number of resin washes, the resins are not sufficiently cleaned by the salt water used to regenerate them. Make sure: - the water filling solenoid valve works correctly - the feed water pressure is at least 50 kPa / 0.5 bar - the water inlet filter is clean - the filling solenoid valve filter is clean - the mother board (ATM-PRES) connector CN2 is correctly positioned.

14 LIST OF PARAMETERS FOR SUBSEQUENT VERSIONS

The parameters listed below, even if present inside the software, cannot be used in appliances currently in production.

Family GEn:

- parameter ACd
- value dEt : 183

Family Str

Family CFG - alarm F8

- parameter AAG, the maximum value it can be set to is 3, but actually the only significant values are 0 and 1. By setting AAG to 3, alarm F8 may appear, also implemented by the firmware, but not used in any current application.