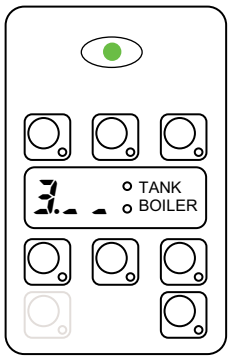
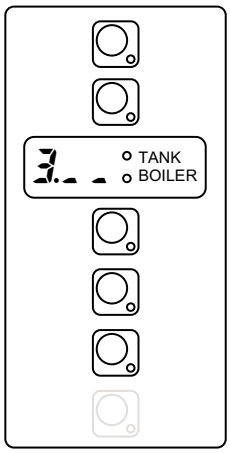
SERVICE MANUAL





CONTENTS: This document contains the instruction to change parameter settings of electronic board by means of user interface.

EDITION: **03.2010**

INDICE

1 KEYBOARDS

1.1 HOOD TYPE Style

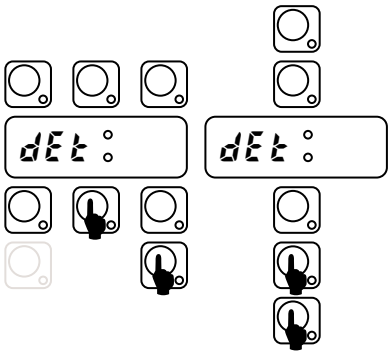


Fig. 1 Detergent dispenser Manual Activation.

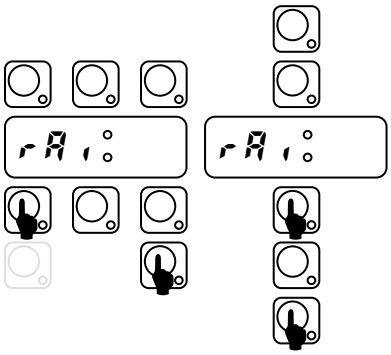


Fig. 2 Rinse Aid Dispenser Manual Activation

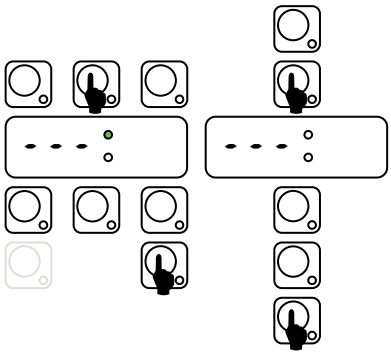


Fig. 3 Rinse Pump Manual Activation (used to EMPTY BOILER)

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.

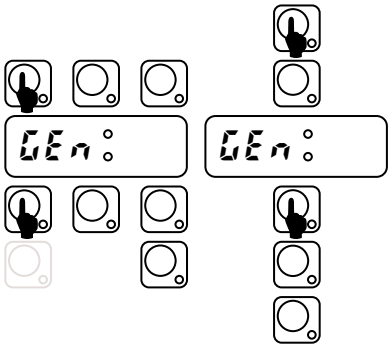


Fig. 4 Enter into General Parameters (Hold down buttons for at least five seconds).

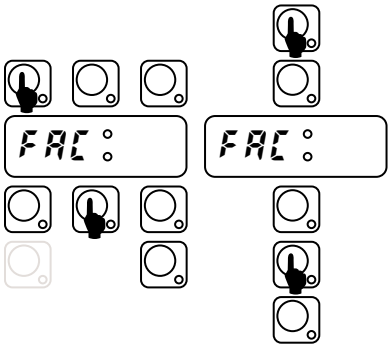


Fig. 5 Enter into Factory Parameters (Hold down buttons for at least five seconds)..

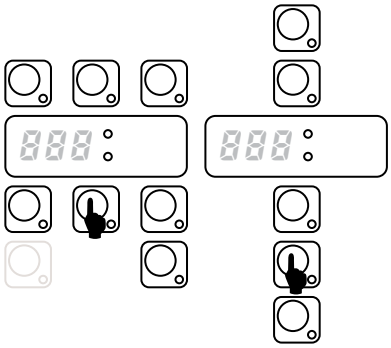


Fig. 6 Next Parameter Family OR Increase Parameter Value(In setting mode only)

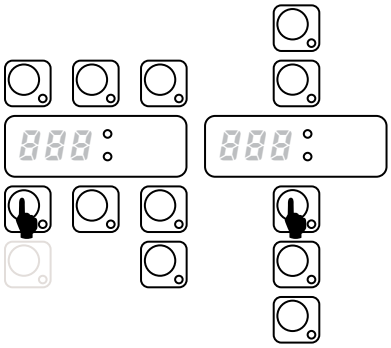


Fig. 7 Decrease Parameter Value(In setting mode only)

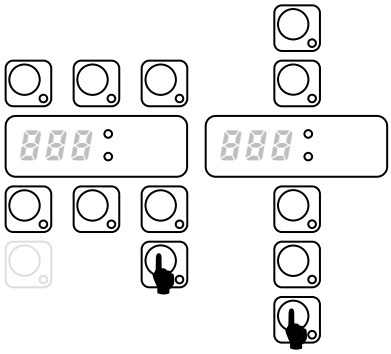


Fig. 8 Confirm Value and go to next Parameter (In setting mode only).

1.2 UNDERCOUNTER Style

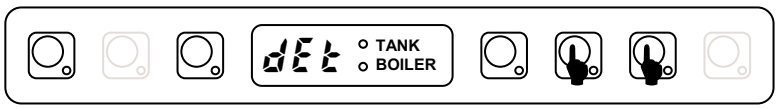


Fig. 9 Detergent dispenser Manual Activation

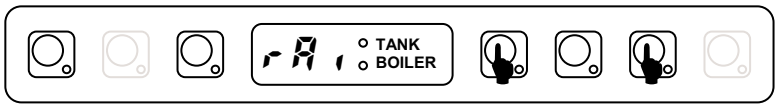


Fig. 10 Rinse Aid Dispenser Manual Activation

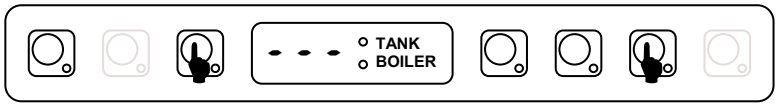


Fig. 11 Rinse Pump Manual Activation (used to EMPTY BOILER)

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.

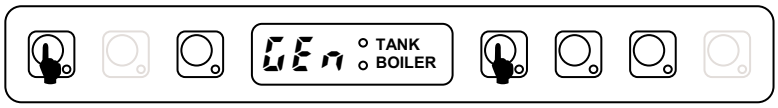


Fig. 12 Enter into General Parameters (Hold down buttons for at least five seconds).

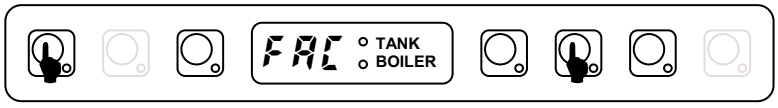


Fig. 13 Enter into Factory Parameters (Hold down buttons for at least five seconds).

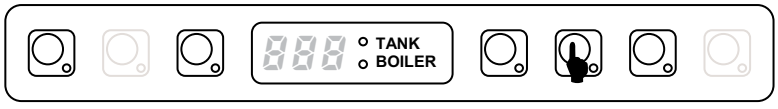


Fig. 14 Next Parameter Family OR Increase Parameter Value (in setting mode only)

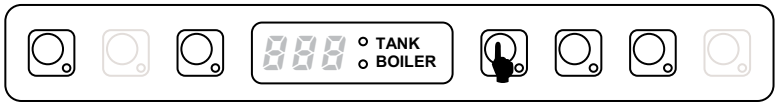


Fig. 15 Decrease Parameter Value (In setting mode only)

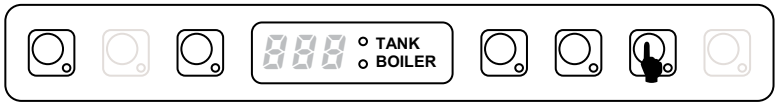
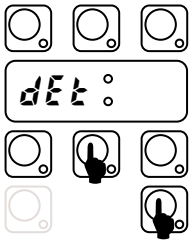


Fig. 16 Confirm Value and go to next Parameter (in setting mode only).

2 MANUAL ACTIVATION OF DETERGENT AND RINSE AID DISPENSERS

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

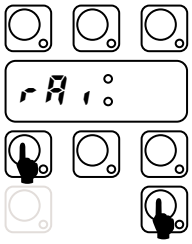
2.1 Detergent Dispenser Activation



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

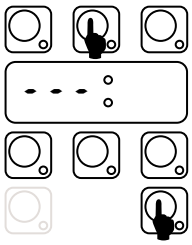


Switch on the dishwasher.

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
rA1	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.

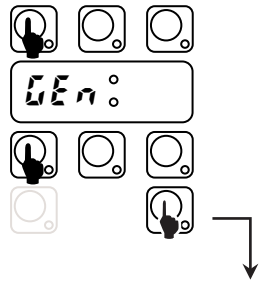


Fig. 17 Enter into User Mode (press for 5 sec)..

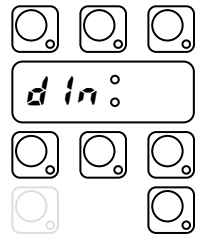


Fig. 18 Initial detergent dosage.

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

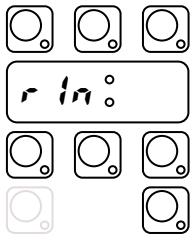


Fig. 20 Initial rinse aid dosage

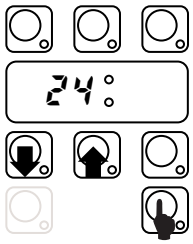


Fig. 21 Change duration

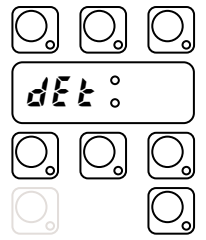


Fig. 22 Cycle detergent dosage.

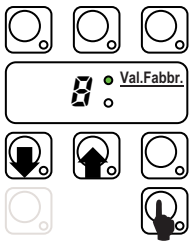


Fig. 23 Change time activation (Tank LED indicates default)

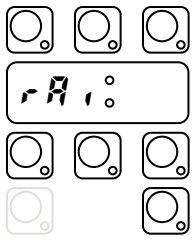


Fig. 24 Cycle rinse aid dosage.

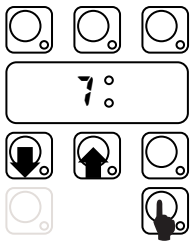
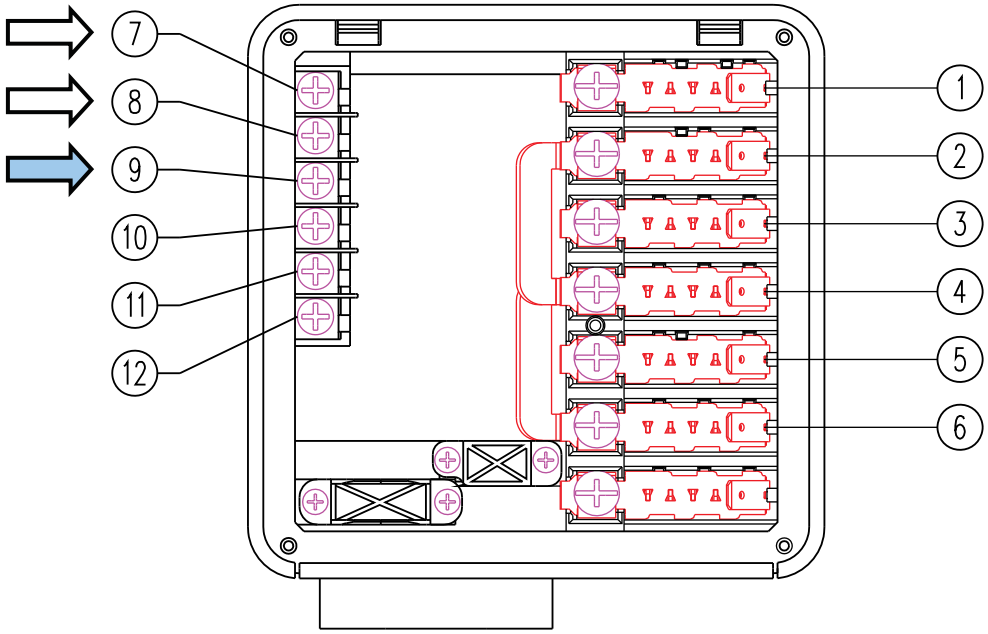


Fig. 25 Change time activation.

(*) 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 **$L1_7$–$L1_9$** (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 **$L1_7$–$L1_9$** (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 **$L1_8$–$L1_9$** (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 **$L1_8$–$L1_9$** (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 CAI! message (see next parameter, nCY).	-			
nCY	Store thousand of cycles after that CAI! message appears on display. Ex. If this parameter is settled to 20, CAI! 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].	-			

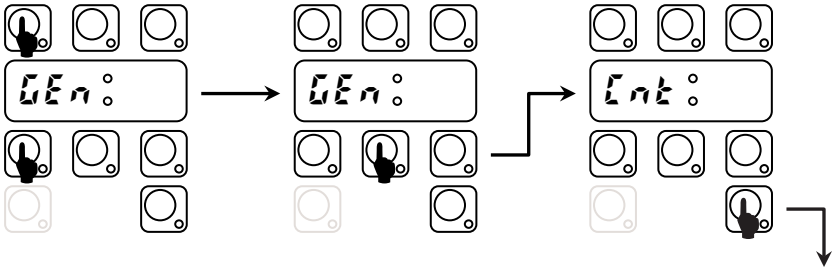


Fig. 26 USER setting mode (press for 5s).

Fig. 27 Next Family

Fig. 28 Counters Fam.: ENTER

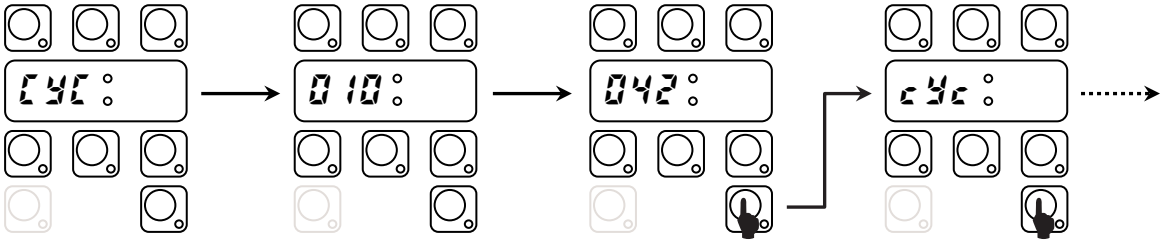


Fig. 29 CYCLES

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 E 2 alarm appears. Put 0 to disable E 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 E 3 alarm appears. Put 0 to disable E 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.

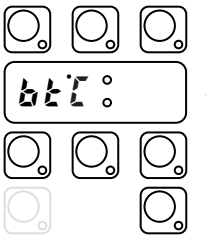


Fig. 34 Boiler temp. threshold

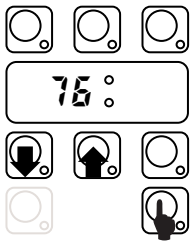


Fig. 35 Change value & Store

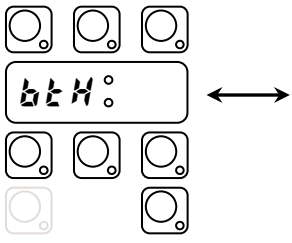


Fig. 36 Boiler Temp Hysteresis

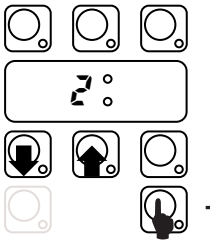


Fig. 37 Change value & Store

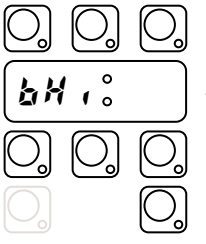


Fig. 38 Tank temp. High limit.

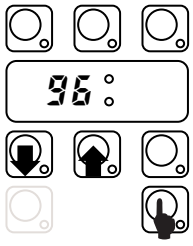
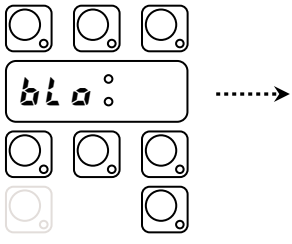


Fig. 39 Change value & Store.



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).
).

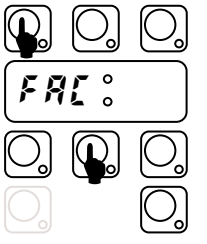


Fig. 40 Factory setting mode

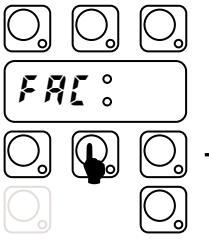


Fig. 41 Next Family

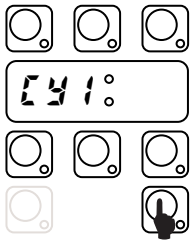


Fig. 42 Cycle 1 Family: ENTER.

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;.

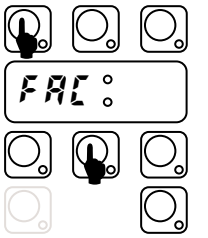


Fig. 43 Factory setting mode.

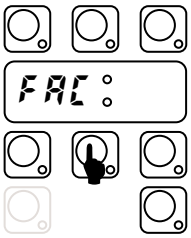


Fig. 44 Select next class.

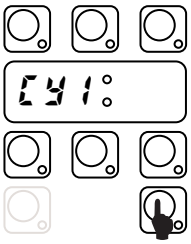


Fig. 45 Cycle 1 Family: ENTER.

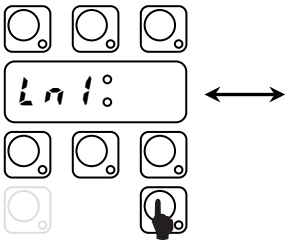


Fig. 46 Wash duration [min].

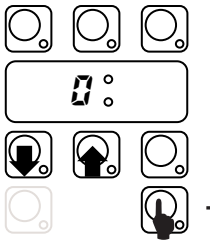


Fig. 47 Change value & Store

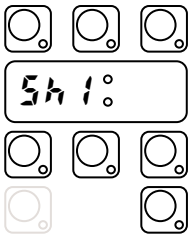


Fig. 48 Wash duration [sec].

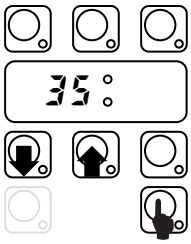


Fig. 49 Wash duration [min]..

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.

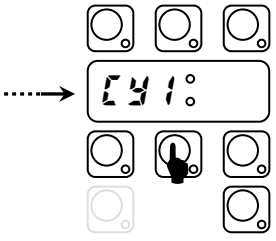


Fig. 50 Cycle 1 Parameters.

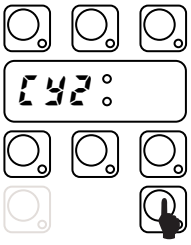


Fig. 51 Cycle 2 Parameters: ENTER.

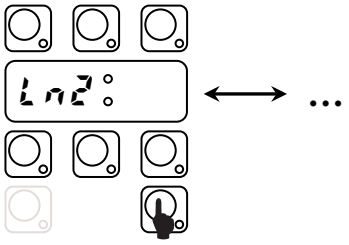


Fig. 52 Wash duration [min].

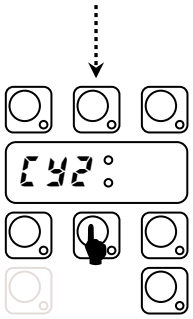


Fig. 53 Cycle 2 Parameters: next Family

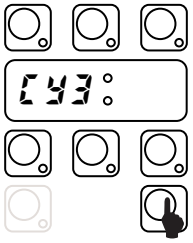


Fig. 54 Cycle 3 Parameters: ENTER

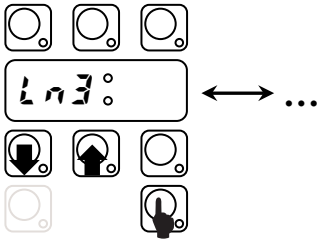
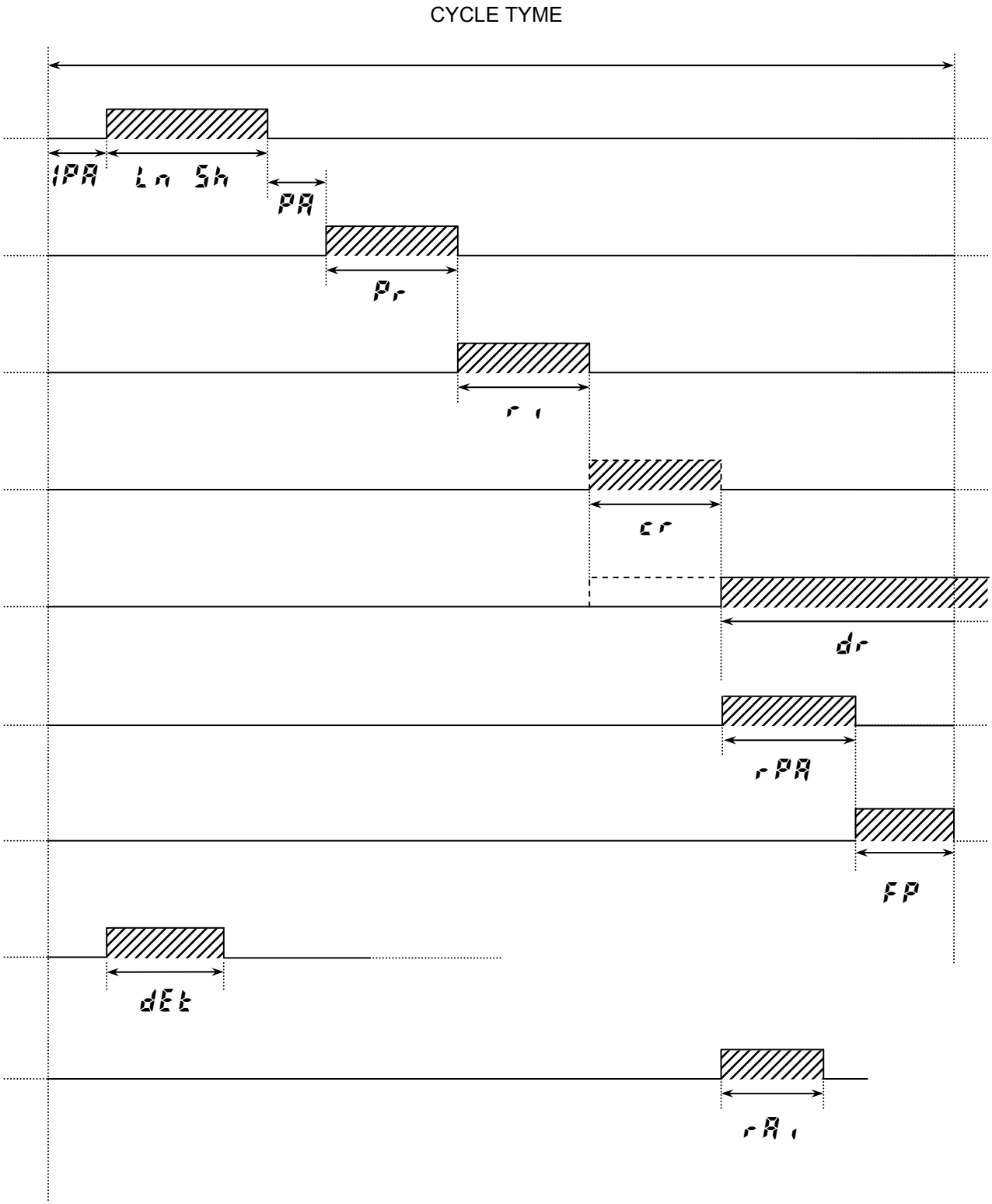


Fig. 55 Wash duration [min].

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
rA1 = rinse aid

7.2 C y 1 Cycle 1 Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
L n 1	Wash Phase Long	[min]	0	20	**0**
S h 1	Wash Phase Short	[s]	1	60	**35**
P A 1	Pause	[s]	0	20	**4**
P r 1	Pre-rinse Duration	[s]	0	30	**0**
r i 1	Rinse Phase Duration	[s]	10	45	**16**
c r 1	Cold Rinse Phase Duration	[s]	0	50	**0**
d r 1	Drain	[s]	0	40	**16**
F P 1	Final Pause at End of Cycle	[s]	0	60	**0**

7.3 C y 2 Cycle 2 Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
L n 2	Wash Phase Long	[min]	0	20	**0**
S h 2	Wash Phase Short	[s]	1	60	**45**
P A 2	Pause	[s]	0	20	**4**
P r 2	Pre-rinse Duration	[s]	0	30	**0**
r i 2	Rinse Phase Duration	[s]	10	45	**16**
c r 2	Cold Rinse Phase Duration	[s]	0	50	**0**
d r 2	Drain	[s]	0	40	**16**
F P 2	Final Pause at End of Cycle	[s]	0	60	**0**

7.4 C y 3 Cycle 3 Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
L n 3	Wash Phase Long	[min]	0	20	**1**
S h 3	Wash Phase Short	[s]	1	60	**40**
P A 3	Pause	[s]	0	20	**4**
P r 3	Pre-rinse Duration	[s]	0	30	**0**
r i 3	Rinse Phase Duration	[s]	10	45	**16**
c r 3	Cold Rinse Phase Duration	[s]	0	50	**0**
d r 3	Drain	[s]	0	40	**16**
F P 3	Final Pause at End of Cycle	[s]	0	60	**0**
b t 3	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 d r n Drain/Cleaning Cycle Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
I d r	Initial Drain Phase Duration	[s]	0	240	**40**
F d r	Final Drain Phase Duration	[s]	0	240	**60**
d r t	Drain without cleaning cycle	-	0	1	**0**

8 OTHER PARAMETERS

8.1 dPA Dishwashing Parameters

Sym.	Parameter Description	Unit	Min	Max	Factory Default
IPA	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 DISHWASHER WITH DOOR/HOOD LOCK DEVICE].	[s]	0	60	**0**
C F	Celsius/Fahrenheit selection 0 = Celsius 1 = Fahrenheit	-	0	1	**0**
r tE	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) [LES= 1]	-	0	5	**5**
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 11 = Machines with incorporated continuous water softener that communicate with LK485 board 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	15	**9**

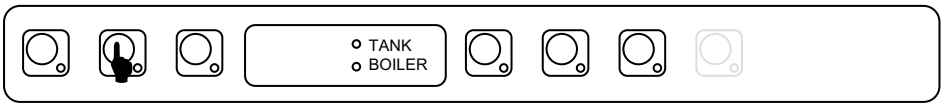
rE	Enable “regeneration cycle” key (only for dishwashers with non-continuous water softener) [See paragraph 9.1 RESIN REGENERATION CYCLE].	-	0	1	**0**
ALr	ALARMS ENABLE 0 = alarms disabled (to disable also warnings see bLo and tLo); 1 = alarms enabled; If this function is disabled, faults can be detected 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°fH - 10 °fH / 1.7 °dH - 5.6 °dH / 2.1 °cH - 7 °cH.

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 or the value 11 if the water softener board is connected to the LK485 board.

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 used for the first time and whenever the messages SAL 0 or SAL End are displayed at the start or end of a wash cycle. 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 messages SAL 0 or SAL End may appear for several wash cycles even after topping-up the salt, as the salt must circulate in the entire system. Correct operation of the dishwasher is not, however, affected

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°fH - 10 °fH/ 1.7 °dH - 5.6 °dH / 2.1 °cH - 7 ° cH.

AUTONOMY OF A COLUMN OF RESINS ACCORDING TO THE CHANGE IN INLET WATER HARDNESS, WITH OUTLET WATER HARDNESS OF 10 °fH / 5.6 °dH /7 °cH (SrU = 10 according to the factory setting).

°fH	°dH	°cH	Number of cycles
15	8,4	10,5	14
20	11,2	14	10
25	14	17,5	7
30	16,8	21,1	6
35	19,6	24,6	5
40	22,4	28,1	4

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

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 RAC (ron family): if RAC = 0 column “A” is used, if RAC =1 column “B” is used.

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

NB: In machines with incorporated continuous water softener, tank filling cannot be carried out through overflowing (btF=0) but only by means of successive rinse cycles (btF= 75). Therefore the btF parameter must be set to 75.

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
WT4	**400007**		
	Up to Ser.: 806	**021**	**11**
	From Ser.: 807	**065**	**11**
WT4B	**400008**		
	Up to Ser.: 806	**020**	**16**
	From Ser.: 807	**064**	**16**
WT4D	**400009**		
	Up to Ser.: 806	**021**	**11**
	From Ser.: 807	**065**	**11**
WT4DB	**400015**		
	Up to Ser.: 806	**020**	**16**
	From Ser.: 807	**064**	**16**
WT46	**400016**	**020**	**16**
WT4G	**400017**	**022**	**8**
WT4DG	**400018**	**022**	**8**
WT4WS1	**400019**		
	Up to Ser.: 806	**024**	**21**
	From Ser.: 807	**066**	**21**
WT4BWS	**400027**		
	Up to Ser.: 806	**012**	**17**
	From Ser.: 807	**063**	**17**
WT4DWS1	**400028**		
	Up to Ser.: 806	**024**	**21**
	From Ser.: 807	**066**	**21**
WT4BDWS	**400029**		
	Up to Ser.: 806	**012**	**17**
	From Ser.: 807	**063**	**17**
WT4D60	**400042**		
	Up to Ser.: 806	**021**	**11**
	From Ser.: 807	**065**	**11**
WT4DDG	**400043**		
	Up to Ser.: 806	**036**	**11**
	From Ser.: 807	**067**	**11**
LS5/1	**400100**		
	Up to Ser.: 806	**021**	**11**
	From Ser.: 807	**065**	**11**
LS5/1 DP	**400102**		
	Up to Ser.: 806	**021**	**11**
	From Ser.: 807	**065**	**11**
LS5/1WS	**400103**		
	Up to Ser.: 806	**024**	**21**
	From Ser.: 807	**066**	**21**

MODEL	CODE	Prog.	Layout
LS5/1WSDP	**400110**		
	Up to Ser.: 806	**024**	**21**
	From Ser.: 807	**066**	**21**
LS5/3	**400112**		
	Up to Ser.: 806	**020**	**16**
	From Ser.: 807	**064**	**16**
LS5/3 DP	**400113**		
	Up to Ser.: 806	**020**	**16**
	From Ser.: 807	**064**	**16**
LS5/3WS	**400114**		
	Up to Ser.: 806	**012**	**17**
	From Ser.: 807	**063**	**17**
LS5/3WSDP	**400115**		
	Up to Ser.: 806	**012**	**17**
	From Ser.: 807	**063**	**17**
LS5/3WSDPD	**400117**		
	Up to Ser.: 806	**012**	**17**
	From Ser.: 807	**063**	**17**
LB5G	**400118**	**022**	**8**
LB5GDP	**400119**	**022**	**8**
LS5/1DP60	**400124**		
	Up to Ser.: 806	**021**	**11**
	From Ser.: 807	**065**	**11**
LS5/1DPAUS	**400125**		
	Up to Ser.: 806	**036**	**11**
	From Ser.: 807	**067**	**11**
LS5/1DPCS	**400126**		
	Up to Ser.: 806	**036**	**11**
	From Ser.: 807	**067**	**11**
LS6EP	**502003**	**013**	**16**
LS6EP/DD	**502004**	**013**	**16**
LS6EA/DD	**502005**	**011**	**8**
LS6EA/DD/DP	**502006**	**011**	**8**
WT38TDE	**502007**	**032**	**10**
WT38/M50	**502008**	**015**	**9**
LS6EADPWS	**502014**	**044**	**8**
LS6EADPWSG	**502015**	**044**	**8**
WT38WS	**502016**	**044**	**8**
WT38WSG	**502017**	**044**	**8**
WT38MEDWS	**502018**	**045**	**8**
WT38PM50	**502019**	**039**	**19**
WT37LEV/9	**502020**	**051**	**18**
LS6EADPDWS	**502022**	**044**	**8**
WT38DWS	**502023**	**044**	**8**
LS6SANA	**502024**	**053**	**10**

MODEL	CODE	Prog.	Layout
WT38M50/4	502029	015	9
LS6EA/UK	502030	011	8
LS6EA/UKDP	502031	011	8
LS6EA/60	502041	011	8
WT 38DD	502110	011	8
WT 37	502111	011	8
WT 38	502112	011	8
WT 37/4.5	502117	011	8
WT 38/4.5	502118	011	8
WT 37/UK	502122	046	8
WT38C	502125	033	18
WT38C60	502126	033	18
WT38CUK	502127	033	18
WT38/4.5NW	502129	011	8
WT 38/UK	502217	011	8
WT37J60	502218	046	8
WT37J50	502219	046	8
LS6AH240U	502312	027	9
WT30H208U	502313	031	9
WT30H240U	502314	031	9
WT30H208DU	502315	027	9
WT30H240DU	502316	027	9
WT30H208RU	502317	031	9
WT30H240RU	502318	031	9
LS6H208DU	502319	027	9
LS6AH208U	502320	027	9
WT 38/60	502321	011	8
WT 38/M60	502322	015	9
WT 38MED	502323	014	8
LS6H240DU	502325	027	9
LS6H208RU	502326	027	9
LS6H240RU	502327	027	9
WT30M208U	502328	034	10
WT30M240U	502329	034	10
WT30M208DU	502339	034	10
WT30M240DU	502341	034	10
WT30M208RU	502342	034	10
WT30M240RU	502343	034	10
WT30C208DU	502344	038	9
WT30C240DU	502345	038	9
WT38PM60	502346	039	19
WT38M60/4	502347	015	9
WT30H208WS	502348	056	9
WT30H240WS	502349	056	9
WT30H208DN	502352	068	9
WT30H240DN	502353	068	9
WT38WL	502514	055	8
LS6EA	502520	011	8
LS6EA/DP	502521	011	8
LS6EAH	502523	011	8
LS6MCD	502524	033	18
LU7PDP	503020	040	24
LU7ADP	503021	041	22
LU7ADPWS	503022	061	22
WTU40PDP	503023	040	24

MODEL	CODE	Prog.	Layout
WTU40ADP	503024	069	22
WTU40ADPWS	503025	070	22
WTU40ADPD	503026	069	22
LS 10	504100	002	1
LS14EA	504101	001	4
LS 10 UK DP	504102	002	1
ET12E	504104	003	1
LS 10/60Hz	504105	002	1
LS 10 CW	504107	002	1
LS 10 INS	504108	002	1
HT 1200 ins DEK	504109	001	1
LS14EA/INS	504110	001	4
LS 10 N	504111	002	1
LS 10 DP	504114	002	1
LS 10 HD	504115	008	1
LS14EA/AU	504116	004	15
LS14EA/60	504117	001	4
LS 10 UK1	504118	002	1
LS 10 UK3	504119	002	1
LS 12 INS	504120	001	1
LS 12	504121	001	1
LS 12 DP	504122	001	1
LS 12 60Hz	504125	001	1
LS 12 CW	504128	001	1
HT 1200 DEK	504129	001	1
LS14EA/ASIA	504131	009	4
LS14EA/G	504133	001	4
WT 60 DP	504134	001	1
WT 60	504135	001	1
WT 60 CW	504136	001	1
WT 60 UK DP CW INS	504137	001	1
WT 60 INS	504138	001	1
WT 60 CW INS	504139	001	1
WT 60 AU CW	504140	004	14
WT 60 AU N	504141	004	14
LS10EA	504142	002	4
WT 60/60HZ	504145	001	1
WT 60/60HZ CW	504146	001	1
WT 60 N	504151	001	1
WT 60 N INS	504152	001	1
LS 12 HD	504153	007	1
LS14EA/DD	504155	001	4
WT65E	504156	001	1
WT65EB	504157	001	4
WT65EI	504158	001	1
WT 60 AU DP	504159	004	14
LS 12 UK/3 CW	504161	001	1
WT 60 UK CW	504162	001	
LS 12 AU	504163	004	14
LS 12 UK DP CW	504164	001	1
ECOTEMP 12 SW	504165	001	1
WT65EBI	504166	001	4
WT65EBIA	504167	004	15
WT65EIA	504168	004	15

MODEL	CODE	Prog.	Layout
WT65E60	**504169**	**001**	**1**
WT65EB60	**504170**	**001**	**4**
WT 60 U/400	**504171**	**006**	
WT 60 U/440	**504172**	**006**	
WT65EBIDG	**504173**	**001**	**4**
WT65EBASIA	**504174**	**009**	**4**
WT65EIM50	**504175**	**006**	**2**
WT65EIM60	**504176**	**006**	**2**
WT 60 MX 220/60	**504177**	**001**	**1**
LS 12 CW INS	**504178**	**001**	**1**
LS14ADP/G	**504179**	**001**	**4**
WT65MED	**504180**	**010**	**4**
WT65EJ50	**504183**	**001**	**1**
WT65EJ60	**504186**	**001**	**1**
LS14AH240U	**504187**	**028**	**3**
WT65H208U	**504188**	**028**	**3**
WT65H240U	**504189**	**028**	**3**
LS 12 ASIACW	**504190**	**009**	**1**
WT 60 ASIACW	**504191**	**009**	**1**
LS 12 ASIANB	**504192**	**009**	
WT60ASIANB	**504193**	**009**	
LS14H208DU	**504194**	**028**	**3**
LS14AH208U	**504195**	**028**	**3**
LS14H240DU	**504196**	**028**	**3**
LS14H208RU	**504197**	**028**	**3**
LS14H240RU	**504198**	**028**	**3**
WT65H208DU	**504199**	**028**	**3**
WT65H240DU	**504200**	**028**	**3**
WT65H208RU	**504201**	**028**	**3**
WT65H240RU	**504202**	**028**	**3**
WT65M208U	**504203**	**035**	**12**
WT65M240U	**504204**	**035**	**12**
WT65M208DU	**504205**	**035**	**12**
WT65M240DU	**504206**	**035**	**12**
WT65M208RU	**504207**	**035**	**12**
WT65M240RU	**504208**	**035**	**12**
LS14EAWS	**504209**	**042**	**4**
LS14ADPWSG	**504210**	**042**	**4**
LS14EAIWS	**504211**	**042**	**4**
WT65EBWS	**504212**	**042**	**4**
WT65BIDWSG	**504213**	**042**	**4**
WT65EBIWS	**504214**	**042**	**4**
WT65MEDWS	**504215**	**043**	**4**
WT65H208WS	**504216**	**057**	**3**
WT65H240WS	**504217**	**057**	**3**
ET12EWS	**504218**	**058**	**4**
WT65ROW	**504219**	**052**	**6**
LS14ROW	**504220**	**052**	**6**
LS14SANA	**504221**	**054**	**12**
WT65EID	**504222**	**001**	**4**
WT65EBIWSD	**504223**	**042**	**4**
LS14ROW60	**504224**	**052**	**6**
WT65ROW60	**504225**	**052**	**6**
LS9P	**505022**	**019**	**13**
LS9P DD	**505033**	**019**	**13**

MODEL	CODE	Prog.	Layout
LS9A UK	**505034**	**018**	**20**
LS9P60	**505035**	**019**	**13**
WT55P	**505038**	**019**	**13**
WT55P6	**505039**	**019**	**13**
LS9ADG1	**505041**	**018**	**23**
WT55ADG1	**505042**	**018**	**23**
LS9PAUS	**505043**	**019**	**13**
WT55PM50	**505044**	**019**	**13**
WT55PM60	**505045**	**019**	**13**
PW1SMG	**506007**	**005**	**3**
PW1MG	**506010**	**005**	**3**
PPW1 M UK	**506011**	**005**	**3**
PPW1 60 Hz	**506012**	**005**	**7**
PW1MHG	**506013**	**005**	**3**
PW2MG	**506014**	**005**	**3**
PPW2 M UK	**506015**	**005**	**3**
PPW2 60 Hz	**506016**	**005**	**7**
PPW2 V	**506017**	**005**	
WT830 M	**506018**	**005**	**3**
WT830 M UK	**506019**	**005**	**3**
WT830M60G	**506020**	**005**	**3**
WT850 M	**506022**	**005**	**3**
WT850 M UK	**506023**	**005**	**3**
WT850M60G	**506024**	**005**	**3**
WT850 V	**506025**	**005**	
WT830MHG	**506026**	**005**	**3**
WT830M208U	**506029**	**037**	**3**
WT830M240U	**506030**	**037**	**3**
WT830H208U	**506031**	**037**	**3**
WT830H240U	**506032**	**037**	**3**
WT850M208U	**506033**	**037**	**3**
WT850M240U	**506034**	**037**	**3**
PW1M208U	**506035**	**037**	**3**
PW1M240U	**506036**	**037**	**3**
PW1MH208U	**506037**	**037**	**3**
PW1MH240U	**506038**	**037**	**3**
PW2M208U	**506039**	**037**	**3**
PW2M240U	**506042**	**037**	**3**
PW2SMG	**506044**	**005**	**3**
ET830M	**506045**	**005**	**3**
ET830MH	**506046**	**005**	**3**
ET850M	**506047**	**005**	**3**
PW1EAG	**506207**	**017**	**5**
PW2EAG	**506212**	**017**	**5**
WT830EA	**506215**	**017**	**5**
WT850EA	**506216**	**017**	**5**
WT830EAG	**506217**	**017**	**5**
WT850EAG	**506218**	**017**	**5**
FL5	**690004**	**020**	**16**
FL5DP	**690005**	**020**	**16**
LV5	**690006**		
	Up to Ser.: 806	**020**	**16**
	From Ser.: 807	**064**	**16**

MODEL	CODE	Prog.	Layout
LV5DP	690007		
	Up to Ser.: 806	020	16
	From Ser.: 807	064	16
LV5/3WSDP	690008		
	Up to Ser.: 806	012	17
	From Ser.: 807	063	17
FL5/3WSDP	690009	012	17
UC5/1DP	690010	021	11
UC5/1WSDP	690011	024	21
LD5DP	690013	020	16
LD5	690014	020	16
UC5/1DITO	690017	021	11
UC5/1DPDITO	690018	021	11
FL5DDG	690027	067	11
FL 620EP	698003	013	16
ET5EDG	698004	023	8
LV6EP	698006	013	16
H3300	698007	029	8
H2500	698008	019	13
H3500	698009	001	4
ET5EDCW	698010	016	8
LV6EADPWS	698011	048	8
HT1200WS	698012	042	4
HT1200IWS	698013	042	4
FL620ADPWS	698014	048	8
H1310SANA	698016	030	8
H1510SANA	698017	010	4
LV1200IWS	698018	042	4
ET7ADP	698019	047	22
HT900P	698022	019	13
LV900P	698023	019	13
LD900	698024	019	13
FL620EAG	698026	011	8
FL620DPWSG	698027	044	8
HT900ADG1	698028	018	23
HT1200BIDG	698029	001	4
LU700PDP	698033	040	24
LU700ADP	698034	047	22
LU700ADPWS	698037	062	22
HT1200BIDWG	698038	042	4
PW100MG	698039	005	3
PW100 M	698040	005	3
PW200 M	698041	005	3
PW200 V	698042	005	3
PW100MHG	698043	005	3
LV100M	698044	005	3
LV200M	698045	005	3
PW200MG	698046	005	3
HT 1200	698050	001	4
HT 1000	698051	002	4
HT 1000 INS	698052	002	1
HT 1200 INS	698053	001	4
HT 1200 DP	698055	001	1
ET12EIG	698056	026	3
ET12EI	698057	025	4

MODEL	CODE	Prog.	Layout
LV1000	698059	002	4
LV1200INS	698060	001	4
ET12EICWG	698061	001	3
ET12EICW	698062	025	3
ET12EIWS	698063	059	4
ET12EIF	698065	050	4
FL 620EA	698070	046	8
FL 620EADP	698071	046	8
ET5E	698076	016	8
ET5ED	698077	016	8
FL 620EP/DD	698078	013	16
FL 620EA/DD	698079	046	8
FL 620EADP/DD	698080	046	8
LV6EA	698081	046	8
LV6EADP	698082	046	8
ET5EDWS	698084	060	8
ET5EDF	698090	049	8
LS10 INS DP	S36220	002	
LS 10 INS	S37858	002	
LS 10	S39968	002	
LS 10/fiera	S42549	002	
LS 10 INS	S43062	002	
LS 10	S43327	002	
HT 1000	S475CH	002	
LS 10 CW	S47APN	002	
LS 10 CW	S47CF5	002	
LS 10 CW	S47DU4	002	
LS 10 CW	S47DU7	002	
LS 10 CW	S47DUA	002	
LS 10 CW	S47DUF	002	
LS 10 CW	S47E17	002	
LS 10 CW	S47E2C	002	
LS 10 CW	S47E2H	002	
LS 10 CW	S47E2M	002	
LS 10 CW	S47E2R	002	
LS 10 UK1	S47E50	002	
LS 10 CW	S47E6M	002	
HT1200	S46002	001	
WT 60 CW INS	S46880	001	
HT 1000	S4734M	002	
WT 60/9	S47539	001	
WT 60/9	S4756O	001	
WT 60/9	S4756P	001	
WT60 INS	S475GJ	001	
WT60 INS	S475GY	001	
WT 60 CW	S476HA	001	
LS 12 HD	S4775E	007	
HT1200	S4777U	001	
LS 12 CW INS	S477BM	001	
WT 60 AU CW	S477JR	004	
WT 60 INS	S477M1	001	
WT 60 INS	S477M1	001	
WT 60 N INS	S477MB	001	
WT 60/60HZ DP	S477QB	001	
LS 12 CW INS	S477V7	001	

MODEL	CODE	Prog.	Layout
WT 60 DP	**S47811**	**001**	
WT 60/9	**S4781D**	**001**	
WT 60/60HZ DP	**S4781I**	**001**	
WT 60/9 INS	**S4786P**	**001**	
WT 60 U/230	**S478KF**	**006**	
LS 12 CW INS	**S478LV**	**001**	
WT 60 CW INS	**S478SP**	**001**	
LS 12 CW INS	**S479VE**	**001**	
WT 60	**S479Z3**	**001**	
WT 60	**S479Z9**	**001**	
WT 60 AU CW	**S47AP80**	**004**	
LS 12 CW	**S47APP**	**001**	
HT 1200	**S47B9I**	**001**	
LS 12 UK/3 CW	**S47BJI**	**001**	
LS 12 CW	**S47C1Z**	**001**	
WT 60 CW	**S47C6B**	**001**	
LS 12 CW	**S47CCS**	**001**	
WT 60	**S47CCY**	**001**	
WT 60 CW	**S47CEA**	**001**	
WT 60/9	**S47CEH**	**001**	
WT 60/9	**S47CEI**	**001**	
WT 60	**S47CKD**	**001**	
LS 12 CW	**D04713**	**001**	
LS 12 CW	**S34369**	**001**	
WT 60 giappone	**S34377**	**001**	
WT 60 giappone	**S34378**	**001**	
WT 60 giappone	**S35178**	**001**	
WT 60 giappone	**S35179**	**001**	
LS 12 CW	**S35246**	**001**	
HT1200	**S35330**	**001**	
WT 60 giappone	**S36384**	**001**	
WT 60 giappone	**S36385**	**001**	
LS 12 CW	**S36846**	**001**	
LS 12 CW	**S36847**	**001**	
HT1200	**S39964**	**001**	
HT1200	**S40472**	**001**	
ECOTEMP 12	**S40785**	**003**	
WT 60/9 INS	**S41170**	**001**	
HT1200	**S41185**	**001**	
LS 12 INS	**S42032**	**001**	
WT 60/60HZ	**S42170**	**001**	
LS 12/fiera	**S42550**	**001**	
WT 60/60HZ	**S42617**	**001**	
WT 60 N	**S43119**	**001**	
LS12 CW	**S43488**	**001**	
LS 12 INS	**S43563**	**001**	
LS 12 DP CW	**S43734**	**001**	
LS 12 CW	**S43806**	**001**	
LS 12 CW	**S43830**	**001**	
WT 60 CW INS	**S44421**	**001**	
LS6EA	**S477BL**	**011**	
WT 37	**S4784U**	**011**	
LS6EA	**S4787B**	**011**	
FL 620EA	**S478BN**	**011**	
WT830 MH	**S46881**	**005**	
PPW1 M	**S4758V**	**005**	
WT830 MH	**S476YZ**	**005**	
PPW1 MH	**S477IT**	**005**	
WT830 M	**S479QS**	**005**	
PPW1 M UK	**S47BKQ**	**005**	
WT 60 CW INS	**S47CPB**	**001**	
WT 60 CW INS	**S47CQS**	**001**	
ECOTEMP 12 SW	**S47CVG**	**001**	
ECOTEMP 12 SW	**S47CVH**	**001**	
WT 60 CW INS	**S47D9Y**	**001**	
WT 60	**S47DCA**	**001**	
LS 12 CW	**S47DE0**	**001**	
LS 12 CW	**S47DMM**	**001**	
WT 60	**S47DSK**	**001**	
WT 60	**S47DWC**	**001**	
WT 60	**S47DWD**	**001**	
PPW1 MH	**S47C37**	**005**	
	S499BK	**064**	16

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.

10.2 PROGRAMMING SHEETS

LS12 - LS14 / WT60 - 65			PROG 001
1.	Switch OFF and then switch ON the machine..		
2.	CFG	Entrare in CFG e settare i seguenti parametri.	
	tYP	0	Hood Type like working cycles.
	bo1	0	Atmospheric boiler.
	doo	1	Manual Hood.
	dFL	1	Default values for Hood Type models.
	trc	0	(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 model **(up to version 3.11 set to 1)**.
	rE	0	Regeneration cycle disabled.
	ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.		
4.	Modify Factory parameters:		
	FAC	Factory parameters family.	
	btC	78	Boiler Temperature Threshold.
5.	Switch OFF and then switch ON the machine.		

LS10			PROG 002
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 like working cycles.
	bo1	0	Atmospheric boiler.
	doo	1	Manual Hood.
	dFL	1	Default values for Hood Type models.
	trc	0	(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 model **(up to version 3.11 set to 1)**.
	rE	0	Regeneration cycle disabled.
	ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.		
4.	Modify Factory parameters:		
	FAC	Factory parameters family.	
	btC	78	Boiler Temperature Threshold.
5.	Modify Cycle parameters:		
	CY1	Cycle 1.	
	Sh1	45	Short Wash Phase [s].
	CY2	Cycle 2.	
	Ln2	1	Long Wash Phase [min]
	Sh2	40	Short Wash Phase [s].
6.	Switch OFF and then switch ON the machine		

ECOTEMP12 PROG 003

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 4)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	65	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
5.	Switch OFF and then switch ON the machine.			

LS12 AU / WT60 - 65 AU PROG 004

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	0	Automatic Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	78	Boiler Temperature Threshold.
5.	Modify the other parameters:			
	CY1	Cycle 1.		
		FP1	2	Final Pause [s].
	CY2	Cycle 2..		
		FP2	2	Final Pause [s].
	CY3	Cycle 3.		
		FP3	2	Final Pause [s].
	dPA	Dishwashing parameters family.		
		IPA	2	Initial Pause.
6.	Switch OFF and then switch ON the machine.			

PW 1 - 2 / WT830 – 850 PROG 005

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	(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 model **(up to version 3.11 set to 1)**.
	rE	0	Regeneration cycle disabled.
	ALr	1	Alarms enabled.
3. Switch OFF and then switch ON the machine.			
4. Modify Factory parameters:			
FAC	Factory parameters family.		
	btt	78	Boiler Temperature Threshold.
5. Switch OFF and then switch ON the machine.			

WT60 - 65 USPH PROG 006

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 like working cycles.
	boi	0	Atmospheric boiler.
	doo	1	Manual Hood.
	dFL	1	Default values for Hood Type models.
	trc	0	(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 model **(up to version 3.11 set to 1)**.
	rE	0	Regeneration cycle disabled.
	ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.		
4.	Modify Factory parameters:		
	FAC	Factory parameters family.	
	btt	78	Boiler Temperature Threshold.
5.	Modify the cycle parameters:		
	CY1	Enter into Cycle 1 parameters family.	
	r.1	25	Rinse Phase Duration [s]
	dr1	25	Drain [s]
	CY2	Enter into Cycle 2 parameters family.	
	r.2	25	Rinse Phase Duration [s].
	dr2	25	Drain [s].
	CY3	Enter into Cycle 3 parameters family.	
	r.3	25	Rinse Phase Duration [s].
	dr3	25	Drain [s].
6.	Select Fahrenheit:		
	dPA	Enter into Dishwashing parameter family.	
	C F	1	Select Fahrenheit degrees.
7.	Switch OFF and then switch ON the machine.		

LS12HD PROG 007

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify the cycle parameters:			
	CY1	Enter into Cycle 1 parameters family.		
		Pr1	20	Pre-rinse Duration [s].
		dr1	36	Drain [s].
	CY2	Enter into Cycle 2 parameters family.		
		Pr2	20	Pre-rinse Duration [s].
		dr2	36	Drain [s].
	CY3	Enter into Cycle 3 parameters family.		
		Pr3	20	Pre-rinse Duration [s].
		dr3	36	Drain [s].
5.	Switch OFF and then switch ON the machine.			

LS10HD — PROG 008

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 like working cycles.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	0	(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 model **(up to version 3.11 set to 1)**.
rE	0	Regeneration cycle disabled.
ALr	1	Alarms enabled.

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

CY1 — Enter into Cycle 1 parameters family.

Sh1	45	Short Wash Phase [s].
Pr1	20	Pre-rinse Duration [s].
dr1	36	Drain [s].

CY2 — Enter into Cycle 2 parameters family.

Ln2	1	Long Wash Phase [min].
Sh2	40	Short Wash Phase [s].
Pr2	20	Pre-rinse Duration [s].
dr2	36	Drain [s].

5. Switch OFF and then switch ON the machine.

LS12 - 14 / WT60 - 65 ASIA — PROG 009

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 like working cycles.
bo1	0	Atmospheric boiler.
doo	1	Manual Hood.
dFL	1	Default values for Hood Type models.
trc	0	(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 model **(up to version 3.11 set to 1)**.
rE	0	Regeneration cycle disabled.
ALr	1	Alarms enabled.

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

FAC — Factory parameters family.

btC	78	Boiler Temperature Threshold.
bP	0	Boiler Priority Disabled.

5. Switch OFF and then switch ON the machine.

WT65MED PROG 010

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	0	Automatic Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	90	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster Function.
		ttC	65	Tub Temperature: THRESHOLD.
		tHi	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min].
		Sh1	32	Short Wash Phase [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].
		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]
		ri3	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause [s]
	dPA	Set other parameters.		
		IPA	4	Initial Pause [s].
6.	Switch OFF and then switch ON the machine.			

LS6 6000W ATM — PROG 011

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			

LS5WS / WT4WS TRIFASE (Up to Ser.Nr.:806) — PROG 012

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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	13	Select user interface for LS5 **(up to version 3.11 set to 5)**.
		rE	1	Regeneration cycle enabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	83	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	C3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	GEn	Enter into GEn parameter family.		
		d In	10	Initial Detergent Dosage [s].
		r In	5	Initial Rinse Aid Dosage [s].
8.	Cnt	Counters.		
		rCY	20	Number of cycles allowed before regeneration.
9.	Switch OFF and then switch ON the machine.			

LS6 PRESS PROG 013

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 like working cycles.
		boi	1	Pressure boiler.
		doo	2	Front loading.
		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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	86	Boiler Temperature Threshold.
5.	Switch OFF and then switch ON the machine.			

WT38MED PROG 014

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		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	8	ACTIVE function disabled **(up to version 3.11 set to 0).**
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC		Enter into FAC parameter family and change boiler threshold.	
		btC	90	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	65	Tub Temperature Threshold.
		tHi	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1		Cycle 1 parameters family.	
		Ln1	4	Long Wash Phase [min]
		Sh1	10	Short Wash Phase [s]
		ri1	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	15	Final Pause at End of Cycle
	CY2		Cycle 2 parameters family.	
		Ln2	6	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
		ri2	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	15	Final Pause at End of Cycle
	CY3		Cycle 3 parameters family.	
		Ln3	9	Long Wash Phase [min]
		Sh3	10	Short Wash Phase [s]
		ri3	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause at End of Cycle
6.	Switch OFF and then switch ON the machine.			

WT38 USPH PROG 015

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	3	Default values for Undercounter models.
		trc	0	(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 model **(up to version 3.11 set to 1).**
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bSt	0	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		btd	3	Booster Function not necessary.
		ttC	66	Tank Temperature Threshold.
		tH1	80	High limit for tank temperature.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	22	Short Wash Phase [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].
		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].
		r13	25	Rinse Phase Duration [s].
		dr3	40	Drain [s].
		FP3	4	Final Pause [s].
	drn	Drain parameters family.		
		1dr	30	Initial Drain Phase Duration [s].
	dPA	Set other parameters.		
		1PA	5	Initial Pause [s].
		C F	1	Fahrenheit.
6.	Switch OFF and then switch ON the machine.			

ECOTEMP 5 PROG 016

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START ENABLED.
		b_t	0	Tank and boiler heaters work simultaneously.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		U1	8	ACTIVE function disabled **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	77	Boiler Temperature Threshold.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min].
		Sh1	10	Short Wash Phase. [s]
		r.1	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].
		r.2	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].
		r.3	25	Rinse Phase Duration [s].
		dr3	40	Drain [s].
		FP3	4	Final Pause [s].
	drn	Drain parameters family.		
		idr	30	Initial Drain Phase Duration [s].
	dPA	Set other parameters.		
		IPA	5	Initial Pause [s].
6.	Switch OFF and then switch ON the machine.			

WT830EA / WT850EA
PW1EAG / PW2EAG

PROG 017

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		tYP	2	Automatic Pot Washer.
		bo1	0	Atmospheric boiler.
		doo	3	Automatic Pot Washer
		dFL	2	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min].
		Sh1	29	Short Wash Phase [s].
		FP1	5	Final Pause [s].
	CY2	Cycle 2 parameters family.		
		Ln2	5	Long Wash Phase [min].
		Sh2	29	Short Wash Phase [s].
		FP2	5	Final Pause [s].
	CY3	Cycle 3 parameters family.		
		Ln3	8	Long Wash Phase [min].
		Sh3	29	Short Wash Phase [s].
		FP3	5	Final Pause [s].
5.	Switch OFF and then switch ON the machine.			

LS9 / WT 55 ATM PROG 018

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	C2	Cycle 2 parameters family.		
		Sh2	55	Short Wash Phase [s].
	C3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

LS9 / WT 55 PRESS PROG 019

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 like working cycles.
		boi	1	Pressure boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	C y2	Cycle 2 parameters family.		
		Sh2	55	Short Wash Phase [s].
	C y3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

LS5 / WT4 PRES (Up to Ser. Nr.: 806)

PROG 020

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 like working cycles.
		bo1	1	Pressure boiler.
		doo	2	Front loading door type.
		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	15	Select user interface without display **(up to version 3.11 set to 7)**.
		rE	0	Regeneration cycle enabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	3	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dIn	165	Initial Detergent Dosage.
		rIn	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.
8.	Switch OFF and then switch ON the machine.			

LS5 / WT4 MONO (Up to Ser. Nr.: 806)

PROG 021

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 like working cycles.
		boi	1	Pressure boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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	15	Select user interface without display **(up to version 3.11 set to 7)**.
		rE	0	Regeneration cycle disabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	3	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	C Y3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	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 i	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
8.	Switch OFF and then switch ON the machine.			

LB5G / WT4 G — PROG 022

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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	13	Select user interface for LS5 **(up to version 3.11 set to 7)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	85	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	C3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	GEn	Enter into GEn parameter family.		
		d In	70	Initial Detergent Dosage [s].
		r In	5	Initial Rinse Aid Dosage [s].
8.	Switch OFF and then switch ON the machine..			

ECOTEMP5 EAG — PROG 023

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			

LS5WS / WT4 WS MONO (Up to Ser. Nr.: 806) — PROG 024

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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	13	Select user interface for LS5 **(up to version 3.11 set to 5)**.
		rE	1	Regeneration cycle enabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btt	83	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	GEn	Enter into GEn parameter family.		
		d In	70	Initial Detergent Dosage [s].
		r In	5	Initial Rinse Aid Dosage [s].
8.	Cnt	Counters.		
		rCy	20	Number of cycles allowed before regeneration.
9.	Switch OFF and then switch ON the machine.			

LS12 ECOTEMP (EUROPE) PROG 025

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(for this appliance SOFT START is NOT possible).
		b_t	0	Tank and boiler heaters work simultaneously.
		btF	75	The tank is filled into the traditional way.
		LES	0	Detergent level switches not enabled.
		UI	9	Select user interface hood type model (**up to version 3.11 set to** 1).
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
5.	Switch OFF and then switch ON the machine.			

LS12 / ECOTEMP UK PROG 026

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC			Enter into FAC parameter family.
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
5.	Modify the cycle parameters:			
	CY1			Cycle 1 parameters family.
		dr1	0	Drain [s].
	CY2			Cycle 2 parameters family.
		dr2	0	Drain [s].
	CY3			Cycle 3 parameters family.
		dr3	0	Initial Drain Phase Duration [s].
	drn			Drain parameters family.
		Idr	30	Initial Drain Phase Duration [s].
	dPA			Set other parameters.
		Pdr	30	Drain Phase Duration at the end of washing phase. [s].
6.	Switch OFF and then switch ON the machine.			

LS6AH PROG 027

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	68	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	37	Short Wash Phase [s]
		PA1	4	Pause [s]
		r11	13	Rinse Phase Duration [s]
		FP1	6	Final Pause [s]
	CY2	Cycle 2 parameters family..		
		Ln2	2	Long Wash Phase [min]
		Sh2	37	Short Wash Phase [s]
		PA2	4	Pause [s]
		r12	13	Rinse Phase Duration [s]
		FP2	6	Final Pause [s]
	CY3	Cycle 3 parameters family.		
		Ln3	3	Long Wash Phase [min]
		Sh3	37	Short Wash Phase [s]
		PA3	4	Pause [s]
		r13	13	Rinse Phase Duration [s]
		FP3	6	Final Pause [s]
	dPA	Set other parameters.		
		C F	1	Fahrenheit
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	6	Detergent Dosage During Cycle Execution (during wash phase)
		rA1	3	Rinse Aid Dosage During Cycle Execution (when refilling boiler)
8.	Switch OFF and then switch ON the machine.			

LS14AH / WT65H PROG 028

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		ttC	73	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
		tH1	83	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Sh1	37	Short Wash Phase [s]
		PA1	4	Pause [s]
		r11	13	Rinse Phase Duration [s]
		FP1	6	Final Pause [s]
	CY2	Cycle 2 parameters family.		
		Sh2	47	Short Wash Phase [s]
		PA2	4	Pause [s]
		r12	13	Rinse Phase Duration [s]
		FP2	6	Final Pause [s]
	CY3	Cycle 3 parameters family.		
		Sh3	37	Short Wash Phase [s]
		PA3	4	Pause [s]
		r13	13	Rinse Phase Duration [s]
		FP3	6	Final Pause [s]
	dPA	Set other parameters.		
		C F	1	Fahrenheit
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	6	Detergent Dosage During Cycle Execution (during wash phase)
		rA1	3	Rinse Aid Dosage During Cycle Execution (when refilling boiler)
8.	Switch OFF and then switch ON the machine.			

H3300 PROG 029

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			

H1310SANA PROG 030

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC			Enter into FAC parameter family and change boiler threshold.
		btC	90	Boiler Temperature Threshold.
		bH1	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	65	Tub Temperature Threshold.
		tH1	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	C Y 1			Cycle 1 parameters family.
		Ln1	4	Long Wash Phase [min]
		Sh1	10	Short Wash Phase [s]
		r11	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	15	Final Pause at End of Cycle
	C Y 2			Cycle 2 parameters family.
		Ln2	6	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
		r12	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	15	Final Pause at End of Cycle
	C Y 3			Cycle 3 parameters family.
		Ln3	9	Long Wash Phase [min]
		Sh3	10	Short Wash Phase [s]
		r13	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause at End of Cycle
6.	Switch OFF and then switch ON the machine.			

WT30H PROG 031

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	68	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	37	Short Wash Phase [s]
		PA1	4	Pause [s]
		r11	13	Rinse Phase Duration [s]
		FP1	6	Final Pause [s]
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min]
		Sh2	37	Short Wash Phase [s]
		PA2	4	Pause [s]
		r12	13	Rinse Phase Duration [s]
		FP2	6	Final Pause [s]
	CY3	Cycle 3 parameters family.		
		Ln3	3	Long Wash Phase [min]
		Sh3	37	Short Wash Phase [s]
		PA3	4	Pause [s]
		r13	13	Rinse Phase Duration [s]
		FP3	6	Final Pause [s]
	dPA	Set other parameters.		
		C F	1	Fahrenheit
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	6	Detergent Dosage During Cycle Execution (during wash phase)
		rA1	3	Rinse Aid Dosage During Cycle Execution (when refilling boiler)
8.	Switch OFF and then switch ON the machine.			

WT38TDE PROG 032

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.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	92	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	65	Tub Temperature Threshold.
		tHi	85	Tank high Temperature limit.
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]
		ri1	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	60	Final Pause at End of Cycle [s].
	CY2	Cycle 2 parameters family		
		Ln2	6	Long Wash Phase [min]
		Sh2	35	Short Wash Phase [s]
		PA2	5	Pause [s]
		ri2	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	60	Final Pause at End of Cycle [s].
	CY3	Cycle 3 parameters family		
		Ln3	8	Long Wash Phase [min]
		Sh3	35	Short Wash Phase [s]
		PA3	5	Pause [s]
		ri3	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP3	60	Final Pause at End of Cycle [s].
	dPA	Set other parameters.		
		rPA	45	Duration of pause after the rinse cycle [s].
6.	Switch OFF and then switch ON the machine.			

LS6MCD PROG 033

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 model (**up to version 3.11 set to** 1).
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			

WT30M PROG 034

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.
boi	0	Atmospheric boiler.
doo	2	Manual Hood.
dFL	3	Default values for Hood Type models.
trc	1	(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 **(up to version 3.11 set to 0)**.
rE	0	Regeneration cycle disabled.
ALr	1	Alarms enabled.

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

FAC — Enter into FAC parameter family and change boiler threshold.

btC	92	Boiler Temperature Threshold.
bHi	0	Disable boiler high Temperature alarm (C 2).
bAJ	0	Boiler Temperature Adjust.
bSt	0	Booster function not needed.
btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
ttC	65	Tub Temperature Threshold.
tHi	85	Tank high Temperature limit.

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]
ri1	35	Rinse Phase Duration [s]
dr1	40	Drain [s]
FP1	60	Final Pause at End of Cycle [s].

CY2 — Cycle 2 parameters family.

Ln2	6	Long Wash Phase [min]
Sh2	35	Short Wash Phase [s]
PA2	5	Pause [s]
ri2	35	Rinse Phase Duration [s]
dr2	40	Drain [s]
FP2	60	Final Pause at End of Cycle [s].

CY3 — Cycle 3 parameters family.

Ln3	8	Long Wash Phase [min]
Sh3	35	Short Wash Phase [s]
PA3	5	Pause [s]
ri3	35	Rinse Phase Duration [s]
dr2	40	Drain [s]
FP3	60	Final Pause at End of Cycle [s].

dPA — Set other parameters.

rPA	45	Duration of pause after the rinse cycle [s].
C F	1	Fahrenheit

6. Switch OFF and then switch ON the machine.

WT65M PROG 035

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.
		boi	0	Atmospheric boiler.
		doo	1	Front loading.
		dFL	1	Default values for Undercounter models.
		trc	0	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 model **(up to version 3.11 set to 1).**
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC			Enter into FAC parameter family and change boiler threshold.
		btC	92	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	65	Tub Temperature Threshold.
		tHi	85	Tank high Temperature limit.
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]
		ri1	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	60	Final Pause at End of Cycle [s].
	CY2			Cycle 2 parameters family.
		Ln2	6	Long Wash Phase [min]
		Sh2	35	Short Wash Phase [s]
		PA2	5	Pause [s]
		ri2	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	60	Final Pause at End of Cycle [s].
	CY3			Cycle 3 parameters family.
		Ln3	8	Long Wash Phase [min]
		Sh3	35	Short Wash Phase [s]
		PA3	5	Pause [s]
		ri3	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP3	60	Final Pause at End of Cycle [s].
	dPA			Set other parameters.
		rPA	45	Duration of pause after the rinse cycle [s].
		C F	1	Fahrenheit
6.	Switch OFF and then switch ON the machine.			

LS5/1DPAUS (Up to Ser.Nr.:806)

PROG 036

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 like working cycles.
		bo1	1	Pressure boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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	13	Select user interface for LS5 **(up to version 3.11 set to 5)**.
		rE	0	Regeneration cycle disabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	3	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	C93	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	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.
8.	Switch OFF and then switch ON the machine.			

PW1-PW2 / WT830-WT850 USA PROG 037

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	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature threshold.
		bH1	98	Boiler Temperature high limit.
		bAJ	0	Boiler Temperature Adjust.
		ttC	70	Tub Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
		tH1	80	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family..		
		Ln1	5	Long Wash Phase [min]
		Sh1	11	Short Wash Phase [s]
		r11	23	Rinse Phase Duration [s]
		FP1	20	Final Pause at End of Cycle [s].
	CY2	Cycle 2 parameters family.		
		Ln2	9	Long Wash Phase [min]
		Sh2	11	Short Wash Phase [s]
		r12	23	Rinse Phase Duration [s]
		FP2	20	Final Pause at End of Cycle [s].
	CY3	Cycle 3 parameters family.		
		Ln3	14	Long Wash Phase [min]
		Sh3	11	Short Wash Phase [s]
		r13	23	Rinse Phase Duration [s]
		FP3	20	Final Pause at End of Cycle [s].
	dPA	Set other parameters.		
		C F	1	Fahrenheit.
6.	Switch OFF and then switch ON the machine.			

WT30C (Cafè Line) PROG 038

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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 model **(up to version 3.11 set to 1).**
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC			Enter into FAC parameter family.
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	68	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
5.	Modify the cycle parameters:			
	CY1			Cycle 1 parameters family.
		Ln1	1	Long Wash Phase [min]
		Sh1	36	Short Wash Phase [s]
		FP1	4	Final Pause [s]
	CY2			Cycle 2 parameters family.
		Ln2	2	Long Wash Phase [min]
		Sh2	36	Short Wash Phase [s]
		FP2	4	Final Pause [s]
	CY3			Cycle 3 parameters family.
		Ln3	3	Long Wash Phase [min]
		Sh3	36	Short Wash Phase [s]
		FP3	4	Final Pause [s]
	dPA			Set other parameters.
		C F	1	Fahrenheit.
6.	Switch OFF and then switch ON the machine.			

WT38PM50 / WT38PM60 PROG 039

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 like working cycles.
		boi	1	Pressure boiler.
		doo	2	Front loading.
		dFL	3	Default values for Undercounter models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	90	Boiler Temperature Threshold.
		bHi	0	Boiler Temperature high limit.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		bSt	0	Booster Function not necessary.
		ttC	66	Tank Temperature Threshold.
		tHi	85	High limit for tank temperature.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	22	Short Wash Phase [s]
		ri1	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]
		ri2	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]
		ri3	25	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	4	Final Pause [s]
	drn	Drain parameters family.		
		Idr	30	Initial Drain Phase Duration [s].
	dPA	Set other parameters.		
		IPA	5	Initial Pause [s].
6.	Switch OFF and then switch ON the machine.			

LU7P / LU700P / WTU40P PROG 040

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 like working cycles.
		bo1	1	Pressure boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	3	SLOW 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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold..		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	10	Short Wash Phase [s].
	CY3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

LU7A / LU700A / WTU40A PROG 041

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	3	SLOW 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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	10	Short Wash Phase [s].
	CY3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

LS14WS / WT65WS — PROG 042

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	78	Boiler Temperature Threshold.
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s].
5.	Modify Communication and HACCP parameters:			
	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.			

WT65MEDWS PROG 043

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	0	Automatic Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	90	Boiler Temperature Threshold.
		bH1	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster Function.
		ttC	65	Tub Temperature: THRESHOLD.
		tH1	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min]
		Sh1	32	Short Wash Phase [s]
		r11	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]
		r12	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	15	Final Pause [s]
	CY3	Cycle 2 parameters family.		
		Ln3	5	Long Wash Phase [min]
		Sh3	32	Short Wash Phase [s]
		r13	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause [s]
	drn	Drain/Cleaning Cycle Parameters.		
		Fdr	80	Drain without cleaning cycle.
	dPA	Set other parameters.		
		IPA	4	Initial Pause [s]
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			

LS6WS PROG 044

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		tYP	0	Undercounter like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
5.	Switch OFF and then switch ON the machine.			

WT38MEDWS PROG 045

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		tYP	0	Under counter like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		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	8	ACTIVE function disabled **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	90	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	65	Tub Temperature Threshold.
		tHi	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	4	Long Wash Phase [min]
		Sh1	10	Short Wash Phase [s]
		ri1	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	15	Final Pause at End of Cycle
	CY2	Cycle 2 parameters family.		
		Ln2	6	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
		ri2	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	15	Final Pause at End of Cycle
	CY3	Cycle 3 parameters family.		
		Ln3	9	Long Wash Phase [min]
		Sh3	10	Short Wash Phase [s]
		ri3	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause at End of Cycle
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			

FL620 / LV6 / WT30 6000W ATM PROG 046

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine			

LU700A / ET7ADP PROG 047

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	1	SLOW 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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	10	Short Wash Phase [s].
	CY3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

FL620WS / LV6WS / WT38WS PROG 048

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		tYP	0	Undercounter like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
5.	Switch OFF and then switch ON the machine.			

ET5EDF PROG 049

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min.]
		Sh1	5	Short Wash Phase [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].
		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].
		r13	20	Rinse Phase Duration [s].
		dr3	40	Drain [s].
		FP3	4	Final Pause [s].
		bt3	65	Boiler temperature[°C].
	drn	Drain parameters family.		
		1dr	30	Initial Drain Phase Duration [s].
	dPA	Set other parameters.		
		1PA	5	Initial Pause [s].
5.	Switch OFF and then switch ON the machine.			
6.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	181	Detergent dispenser works when WASHING PUMP in activated.
		rA1	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
7.	Switch OFF and then switch ON the machine.			

ET12EIF PROG 050

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	80	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	5	Short Wash Phase [s]
		r.1	16	Rinse Phase Duration [s]
		dr1	16	Drain [s]
		FP1	4	Final Pause [s]
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min]
		Sh2	35	Short Wash Phase [s]
		r.2	16	Rinse Phase Duration [s]
		dr2	16	Drain [s]
		FP2	4	Final Pause [s]
	CY3	Cycle 3 parameters family.		
		Ln3	1	Long Wash Phase [min]
		Sh3	31	Short Wash Phase [s]
		r.3	20	Rinse Phase Duration [s]
		dr3	20	Drain [s]
		FP3	4	Final Pause [s]
		bt3	65	Boiler temperature[°C]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	181	Detergent dispenser works when WASHING PUMP in activated.
		rA.	61	Rinse Aid dispenser works when LOAD SOLENOID VALVE in activated.
8.	Switch OFF and then switch ON the machine.			

WT37LEV/9 PROG 051

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify the cycle parameters:			
	drn	Drain/Cleaning Cycle Parameters.		
		drt	1	Drain without cleaning cycle.
5.	Switch OFF and then switch ON the machine.			

L14ROW / WT65ROW PROG 052

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 like working cycles.
		boi	1	Pressure boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btt	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bP	0	Boiler Priority Disabled.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	CY2	Cycle 2 parameters family.		
		Sh2	55	Short Wash Phase [s].
	CY3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

LS6SANA PROG 053

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.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	3	Default values for Undercounter models.
		trc	0	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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	90	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		btd	10	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	65	Tub Temperature Threshold.
		tHi	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	4	Long Wash Phase [min]
		Sh1	10	Short Wash Phase [s]
		ri1	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	15	Final Pause at End of Cycle
	CY2	Cycle 2 parameters family.		
		Ln2	6	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
		ri2	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	15	Final Pause at End of Cycle
	CY3	Cycle 3 parameters family.		
		Ln3	9	Long Wash Phase [min]
		Sh3	10	Short Wash Phase [s]
		ri3	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause at End of Cycle
6.	Switch OFF and then switch ON the machine.			

LS14SANA PROG 054

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.
		boi	0	Atmospheric boiler.
		doo	1	Manual hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	90	Boiler Temperature Threshold.
		bHi	0	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	0	Booster function not needed.
		ttC	65	Tub Temperature Threshold.
		tHi	85	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	2	Long Wash Phase [min]
		Sh1	32	Short Wash Phase [s]
		ri1	35	Rinse Phase Duration [s]
		dr1	40	Drain [s]
		FP1	15	Final Pause at End of Cycle
	CY2	Cycle 2 parameters family.		
		Ln2	3	Long Wash Phase [min]
		Sh2	32	Short Wash Phase [s]
		ri2	35	Rinse Phase Duration [s]
		dr2	40	Drain [s]
		FP2	15	Final Pause at End of Cycle
	CY3	Cycle 3 parameters family.		
		Ln3	5	Long Wash Phase [min]
		Sh3	32	Short Wash Phase [s]
		ri3	35	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	15	Final Pause at End of Cycle
6.	Switch OFF and then switch ON the machine.			

WT38WL PROG 055

1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		tYP	0	Medical line dishwasher with lock door/hood device.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	80	Boiler Temperature Threshold.
		bHi	96	Disable boiler high Temperature alarm (C 2).
		bAJ	0	Boiler Temperature Adjust.
		bSt	2	Booster function not needed.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	55	Tub Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
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]
		ri1	16	Rinse Phase Duration [s]
		dr1	30	Drain [s]
		FP1	0	Final Pause at End of Cycle [s].
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min]
		Sh2	30	Short Wash Phase [s]
		PA2	4	Pause [s]
		ri2	19	Rinse Phase Duration [s]
		dr2	35	Drain [s]
		FP2	0	Final Pause at End of Cycle[s].
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min]
		Sh3	30	Short Wash Phase [s]
		PA3	4	Pause [s]
		ri3	19	Rinse Phase Duration [s]
		dr3	35	Drain [s]
		FP3	0	Final Pause at End of Cycle [s].
	drn	Drain parameters family.		
		Idr	30	Initial Drain Phase Duration [s].

WT38WL PROG 055

6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dIn	25	Initial Detergent Dosage.
		dEt	4	Detergent dispenser works when LOAD SOLENOID VALVE in activated.
8.	Switch OFF and then switch ON the machine.			

WT30HWS PROG 056

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	68	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	37	Short Wash Phase [s]
		PA1	4	Pause [s]
		r11	13	Rinse Phase Duration [s]
		FP1	6	Final Pause [s]
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min]
		Sh2	37	Short Wash Phase [s]
		PA2	4	Pause [s]
		r12	13	Rinse Phase Duration [s]
		FP2	6	Final Pause [s]

WT30HWS PROG 056

	C y 3	Cycle 3 parameters family.		
		L n 3	3	Long Wash Phase [min]
		S h 3	3 7	Short Wash Phase [s]
		P A 3	4	Pause [s]
		r i 3	1 3	Rinse Phase Duration [s]
		F P 3	6	Final Pause [s]
	d P A	Set other parameters.		
		C F	1	Fahrenheit.
6.	Modify Communication and HACCP parameters:			
	H C P	Enter into HCP parameter family and set the following parameters.		
		S E r	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			
8.	Modify Detergent dosage:			
	G E n	Enter into GEn parameter family.		
		d E t	6	Detergent Dosage During Cycle Execution (during wash phase)
		r A i	3	Rinse Aid Dosage During Cycle Execution (when refilling boiler)
9.	Switch OFF and then switch ON the machine.			

WT65HWS PROG 057

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		ttC	73	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
		tt1	83	Tank high Temperature limit.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Sh1	37	Short Wash Phase [s]
		PA1	4	Pause [s]
		r11	13	Rinse Phase Duration [s]
		FP1	6	Final Pause [s]
	CY2	Cycle 2 parameters family.		
		Sh2	47	Short Wash Phase [s]
		PA2	4	Pause [s]
		r12	13	Rinse Phase Duration [s]
		FP2	6	Final Pause [s]
	CY3	Cycle 3 parameters family.		
		Sh3	37	Short Wash Phase [s]
		PA3	4	Pause [s]
		r13	13	Rinse Phase Duration [s]
		FP3	6	Final Pause [s]
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s].
	dPA	Set other parameters.		
		C F	1	Fahrenheit.
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			
8.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	6	Detergent Dosage During Cycle Execution (during wash phase)
		rA1	3	Rinse Aid Dosage During Cycle Execution (when refilling boiler)
9.	Switch OFF and then switch ON the machine.			

ET12EWS PROG 058

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(for this appliance SOFT START is NOT possible).
		b_t	0	Tank and boiler heaters 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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s].
5.	Modify Communication and HACCP parameters:			
	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.			

ET12EIWS PROG 059

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	1	Manual Hood.
		dFL	1	Default values for Hood Type models.
		trc	0	(for this appliance SOFT START is NOT possible).
		b_t	0	Tank and boiler heaters 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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled (only for dishwashers with non-continuous water softener).
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Factory parameters family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s].
5.	Modify Communication and HACCP parameters:			
	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.			

ET5EDWS PROG 060

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	3	Default values for Undercounter models.
		trc	1	SOFT START ENABLED.
		b_t	0	Tank and boiler heaters work simultaneously.
		btF	75	Enable filling tank by means of rinsing cycles.
		LES	0	Detergent level switches not enabled.
		UI	8	ACTIVE function disabled **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	77	Boiler Temperature Threshold.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	10	Short Wash Phase [s]
		ri1	25	Rinse Phase Duration [s]
		dri	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]
		ri2	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]
		ri3	25	Rinse Phase Duration [s]
		dr3	40	Drain [s]
		FP3	4	Final Pause [s]
	drn	Drain parameters family.		
		idr	30	Initial Drain Phase Duration [s].
	dPA	Set other parameters.		
		IPA	5	Initial Pause [s].
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			

LU7ADPWS PROG 061

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	3	SLOW 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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
	CY3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s].
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			

LU700ADPWS PROG 062

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	3	SLOW 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 **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	C Y2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
	C Y3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min]
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s]
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			

LS5WS / WT4WS TRIFASE (From Ser. Nr.: 807)

PROG 063

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 like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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 **(Up to Ser. Nr.: 820)**.
			24	Select user interface for LS5 **(From Ser. Nr.: 821)**.
		rE	1	Regeneration cycle enabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	83	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	40	Short Wash Phase [s]
	CY2	Cycle 2 parameters family		
		Ln2	2	Long Wash Phase [min]
		Sh2	40	Short Wash Phase [s]
	CY3	Cycle 3 parameters family		
		Ln3	2	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	GEn	Enter into GEn parameter family.		
		dIn	70	Initial Detergent Dosage [s].
		rIn	5	Initial Rinse Aid Dosage [s].
8.	Cnt	Counters.		
		rCY	20	Number of cycles allowed before regeneration.
9.	Switch OFF and then switch ON the machine.			

LS5 / WT4 PRES (From Ser. Nr.: 807)

PROG 064

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 like working cycles.
		boi	1	Pressure boiler.
		doo	2	Front loading door type.
		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	8	ACTIVE function disabled **(Up to Ser. Nr.: 820)**.
			24	Select user interface for LS5 **(From Ser. Nr.: 821)**.
		rE	0	Regeneration cycle enabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	3	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	40	Short Wash Phase [s]
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min]
		Sh2	40	Short Wash Phase [s]
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	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.
8.	Switch OFF and then switch ON the machine.			

LS5 / WT4 MONO (From Ser. Nr.: 807)

PROG 065

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 like working cycles.
		bo1	1	Pressure boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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 **(Up to Ser. Nr.: 820)**.
			24	Select user interface for LS5 **(From Ser. Nr.: 821)**.
		rE	0	Regeneration cycle disabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	3	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	40	Short Wash Phase [s]
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min]
		Sh2	40	Short Wash Phase [s]
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		din	165	Initial Detergent Dosage.
		rin	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.
8.	Switch OFF and then switch ON the machine.			

LS5WS / WT4WS MONO (From Ser. Nr.: 807)

PROG 066

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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	8	ACTIVE function disabled **(Up to Ser. Nr.: 820)**.
			24	Select user interface for LS5 **(From Ser. Nr.: 821)**.
		rE	1	Regeneration cycle enabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	83	Boiler Temperature Threshold.
		bAJ	2	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family		
		Ln1	1	Long Wash Phase [min]
		Sh1	40	Short Wash Phase [s]
	CY2	Cycle 2 parameters family		
		Ln2	2	Long Wash Phase [min]
		Sh2	40	Short Wash Phase [s]
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	GEn	Enter into GEn parameter family.		
		din	70	Initial Detergent Dosage [s].
		rin	5	Initial Rinse Aid Dosage [s].
8.	Cnt	Counters.		
		rCY	20	Number of cycles allowed before regeneration.
9.	Switch OFF and then switch ON the machine.			

LS5/1DPAUS (From Ser. Nr.: 807) PROG 067

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 like working cycles.
		bo1	1	Pressure boiler.
		doo	2	Front loading door type.
		dFL	3	Default values for Undercounter models.
		trc	0	(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	8	ACTIVE function disabled **(Up to Ser. Nr.: 820)**.
			24	Select user interface for LS5 **(From Ser. Nr.: 821)**.
		rE	0	Regeneration cycle disabled.
		ALr	0	ALARMS NOT ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	82	Boiler Temperature Threshold.
		bAJ	3	Boiler Temperature Adjust.
		bSt	2	Booster Function.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	40	Short Wash Phase [s]
	CY2	Cycle 2 parameters family.		
		Ln2	2	Long Wash Phase [min]
		Sh2	40	Short Wash Phase [s]
	CY3	Cycle 3 parameters family.		
		Ln3	2	Long Wash Phase [min]
		Sh3	40	Short Wash Phase [s]
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dIn	165	Initial Detergent Dosage.
		rIn	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.
8.	Switch OFF and then switch ON the machine.			

WT30H208DN / WT30H240DN PROG 068

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 like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading door type.
		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	8	ACTIVE function disabled **(up to version 3.11 set to 0)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	ALARMS ENABLED.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family.		
		btC	84	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		btd	3	During stand-by boiler is kept at lower temperature than Temperature Threshold.
		ttC	68	Tank Temperature Threshold.
		ttH	2	HISTERESIS of Tank Temperature.
5.	Modify the cycle parameters:			
	CY1	Cycle 1 parameters family.		
		Ln1	1	Long Wash Phase [min]
		Sh1	37	Short Wash Phase [s]
		PA1	4	Pause [s]
		ri1	13	Rinse Phase Duration [s]
		FP1	6	Final Pause [s]
	CY2	Cycle 1 parameters family.		
		Ln2	2	Long Wash Phase [min]
		Sh2	37	Short Wash Phase [s]
		PA2	4	Pause [s]
		ri2	13	Rinse Phase Duration [s]
		FP2	6	Final Pause [s]
	CY3	Cycle 1 parameters family.		
		Ln3	3	Long Wash Phase [min]
		Sh3	37	Short Wash Phase [s]
		PA3	4	Pause [s]
		ri3	13	Rinse Phase Duration [s]
		FP3	6	Final Pause [s]
	dPA	Set other parameters.		
		C F	1	Fahrenheit.
		rit	1	Rinse Temperature Display.
6.	Switch OFF and then switch ON the machine.			
7.	Modify Detergent dosage:			
	GEn	Enter into GEn parameter family.		
		dEt	6	Detergent Dosage During Cycle Execution (during wash phase)
		rAi	3	Rinse Aid Dosage During Cycle Execution (when refilling boiler)
8.	Switch OFF and then switch ON the machine.			

WTU40A PROG 069

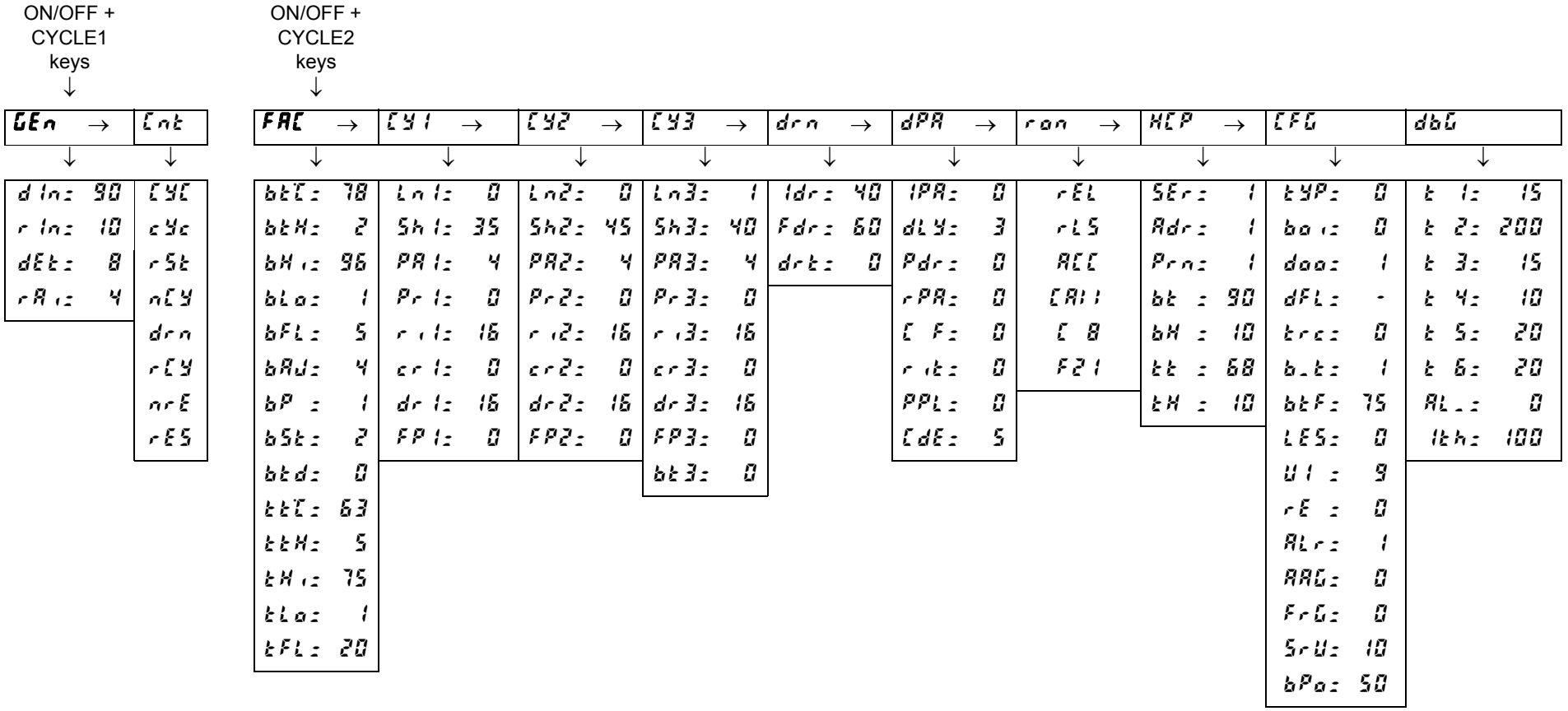
1.	Switch OFF and then switch ON the machine			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		typ	0	Hood Type like working cycles.
		boi	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	1	SLOW SOFT START ENABLED
		b_t	1	Tank 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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	CY2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min].
		Sh2	10	Short Wash Phase [s].
	CY3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min].
6.	Switch OFF and then switch ON the machine.			

WTU40ADPWS PROG 070

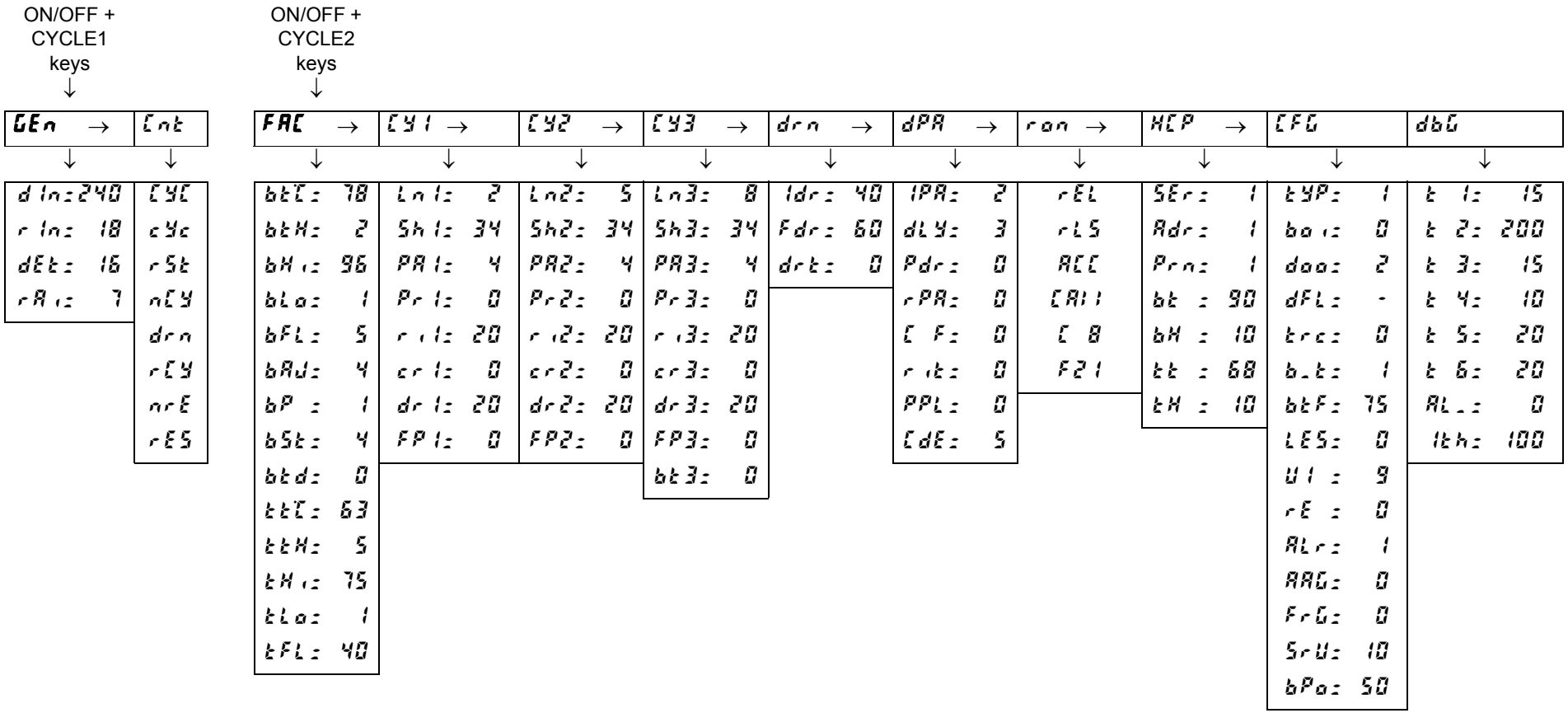
1.	Switch OFF and then switch ON the machine.			
2.	CFG	Enter into CFG parameter family and set the following parameters.		
		tYP	0	Hood Type like working cycles.
		bo1	0	Atmospheric boiler.
		doo	2	Front loading.
		dFL	1	Default values for Hood Type models.
		trc	3	SLOW SOFT START ENABLED
		b_t	1	Tank 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 model **(up to version 3.11 set to 1)**.
		rE	0	Regeneration cycle disabled.
		ALr	1	Alarms enabled.
		AAG	1	Air gap with float level sensor normally closed.
3.	Switch OFF and then switch ON the machine.			
4.	Modify Factory parameters:			
	FAC	Enter into FAC parameter family and change boiler threshold.		
		btC	82	Boiler Temperature Threshold.
		bAJ	0	Boiler Temperature Adjust.
		bSt	1	Booster Function.
5.	Modify the cycle parameters:			
	C2	Cycle 2 parameters family.		
		Ln2	1	Long Wash Phase [min]
		Sh2	10	Short Wash Phase [s]
	C3	Cycle 3 parameters family.		
		Ln3	4	Long Wash Phase [min]
	drn	Drain parameters family.		
		Fdr	80	Final Drain Phase Duration [s]
6.	Modify Communication and HACCP parameters:			
	HCP	Enter into HCP parameter family and set the following parameters.		
		SEr	9	Dishwasher with incorporated continuous water softener.
7.	Switch OFF and then switch ON the machine.			

11 DEFAULT VALUES

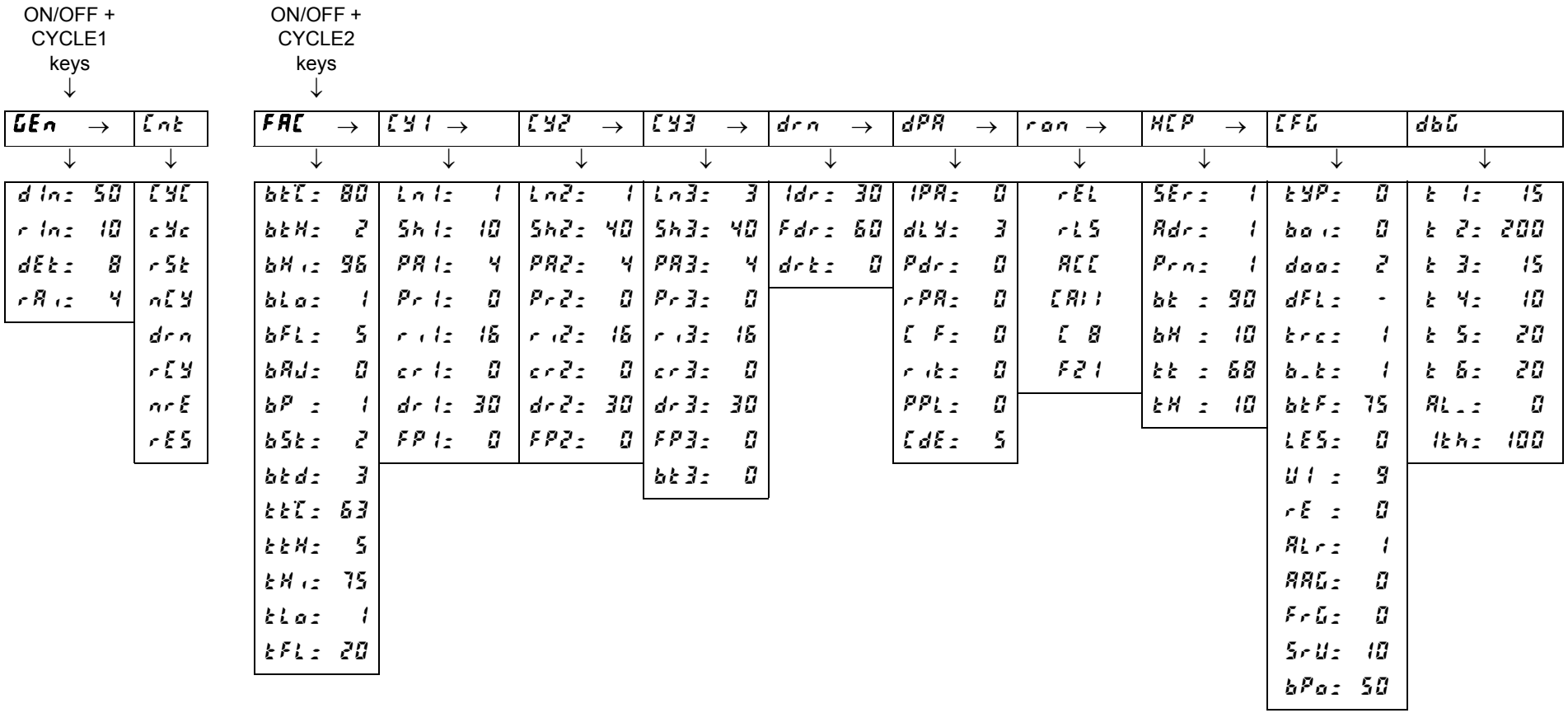
Default 1 - **HOOD TYPE**



Default 2 - POT WASHER



Default 3 - UNDERCOUNTER



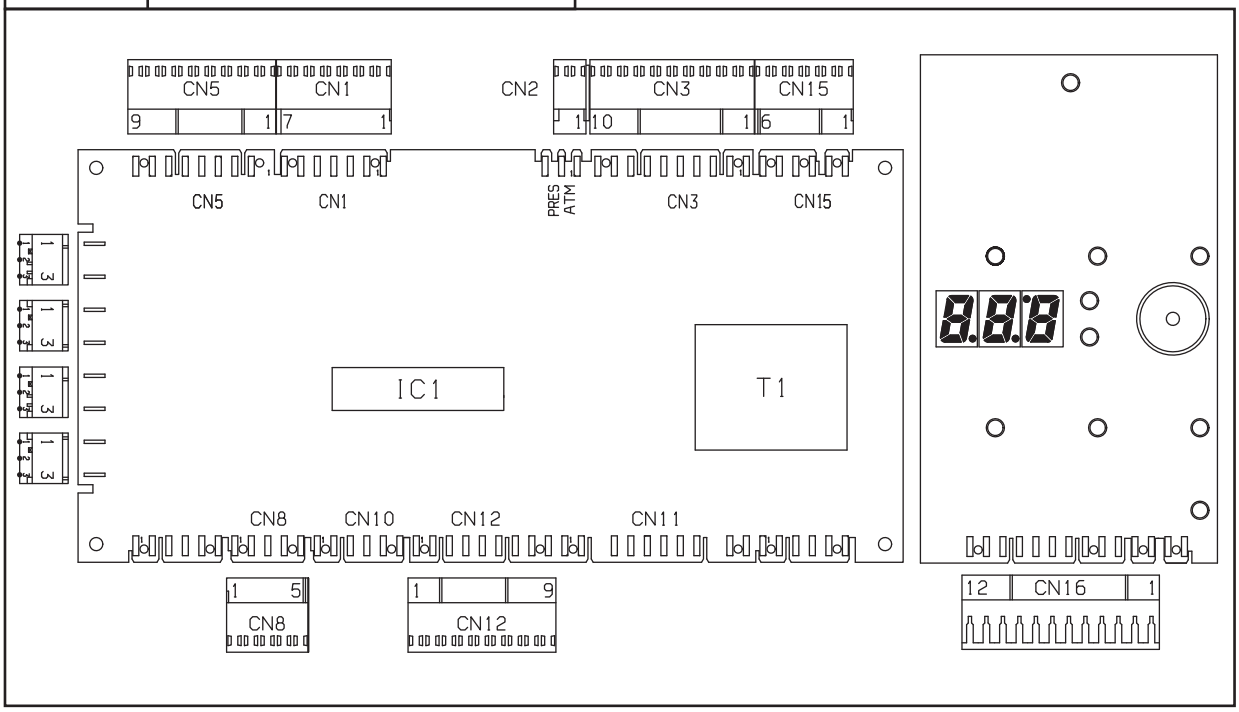
12 USER INTERFACE AND MAIN BOARD CONNECTORS

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

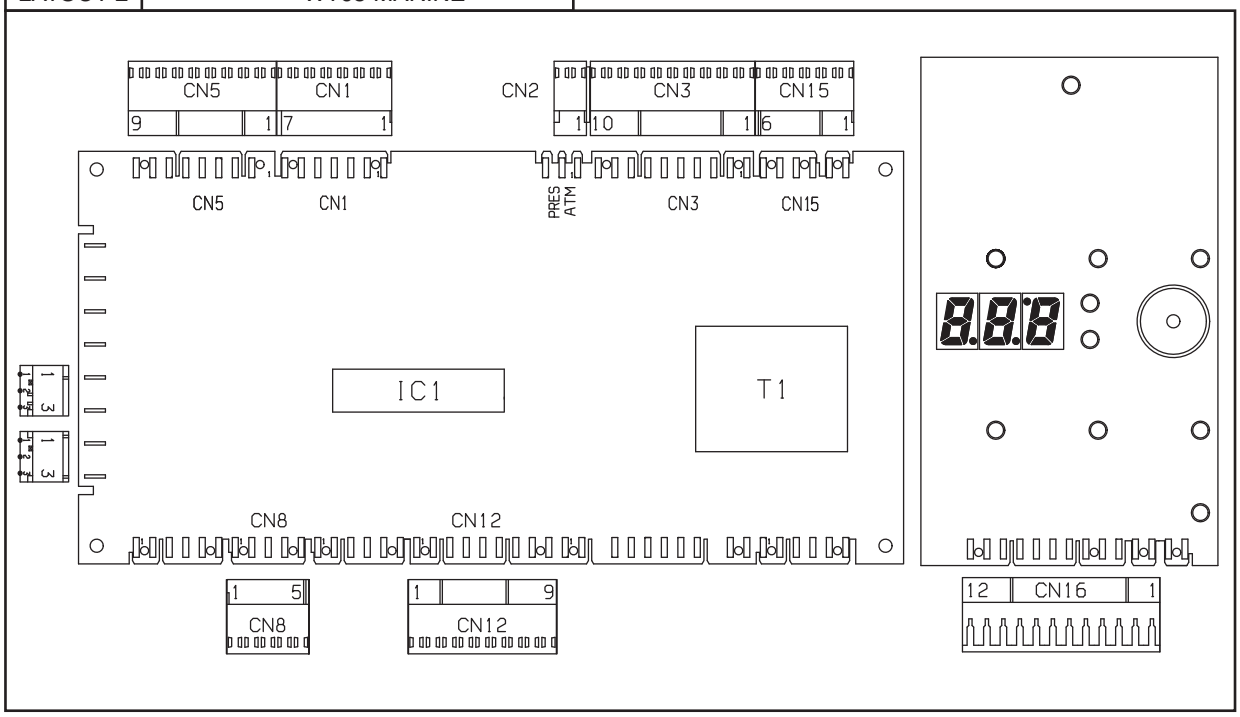
LAYOUT 1 | LS10/LS12/WT60/HT1000/HT1200



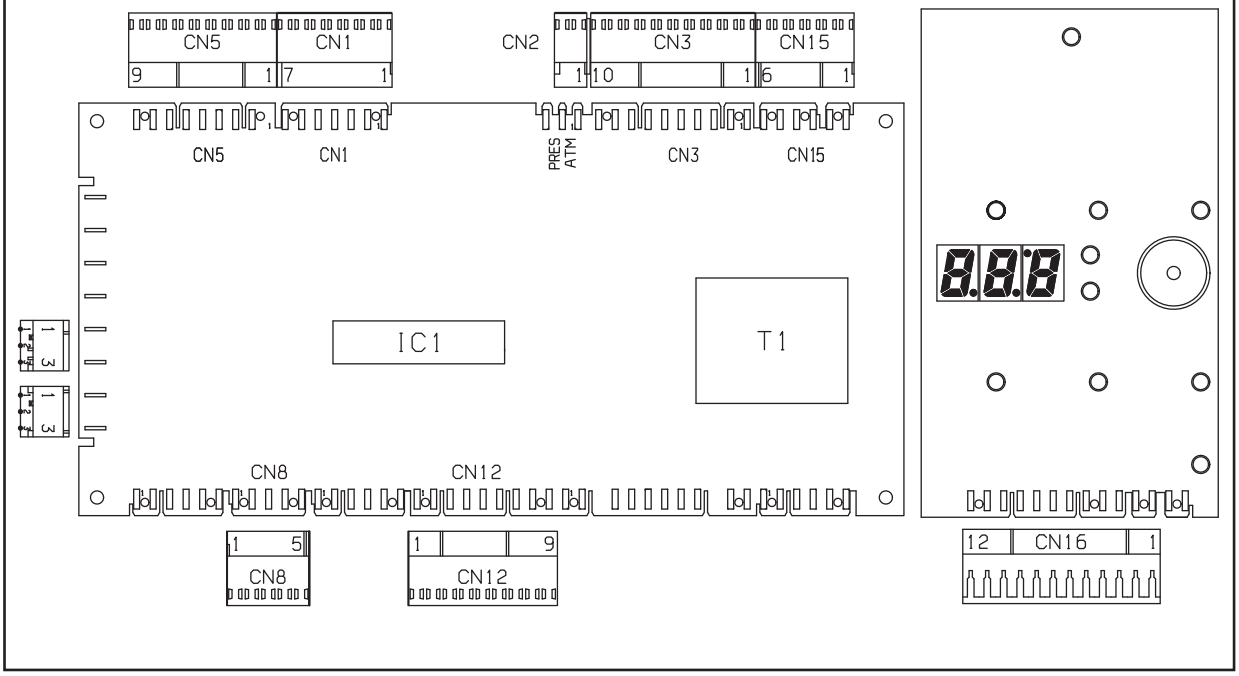
KEY

CN1 Rinse pump/wash pump/solenoid valve outputs
CN2 Pressure/atmospheric dishwasher solenoid valve connection
CN3 Detergent/rinse aid dispenser 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 2	WT65 MARINE



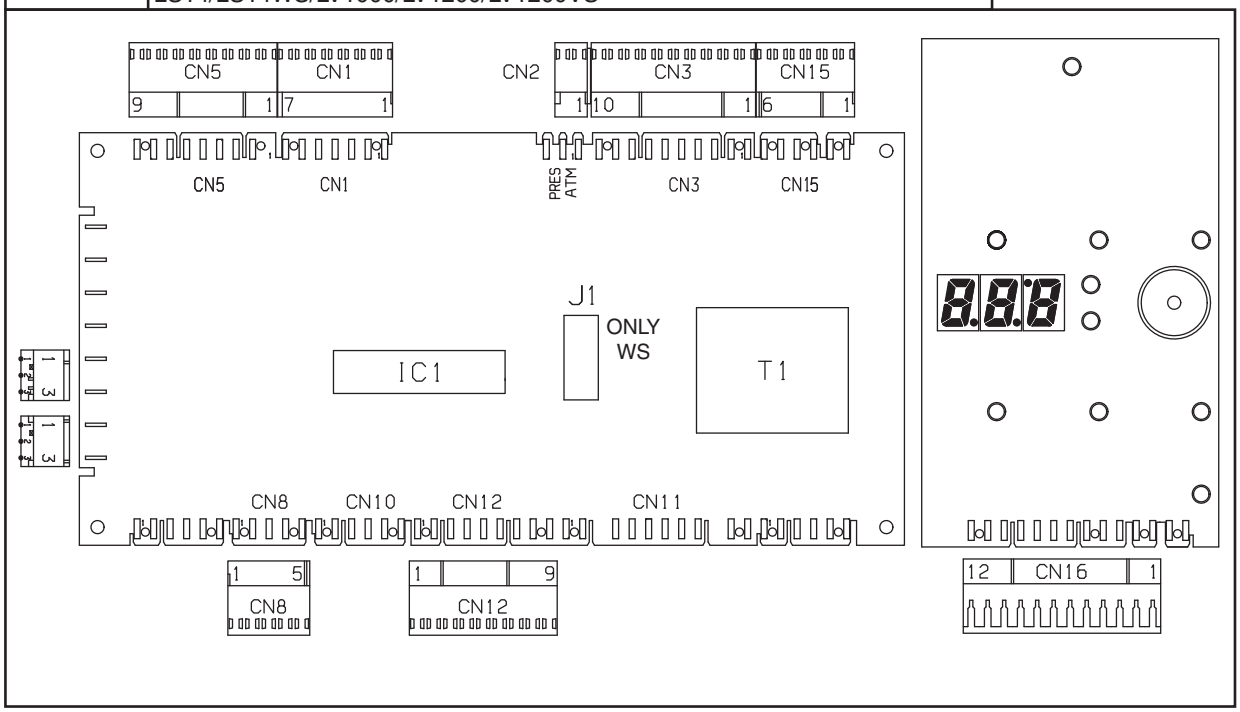
LAYOUT 3	ECOTEMP12 UK/LS14AH - WT65H/PW1M/PW2M/ET830M - E850M/ PW1 - PW2 USA/WT830 - WT850 USA/LV100M/LV200M



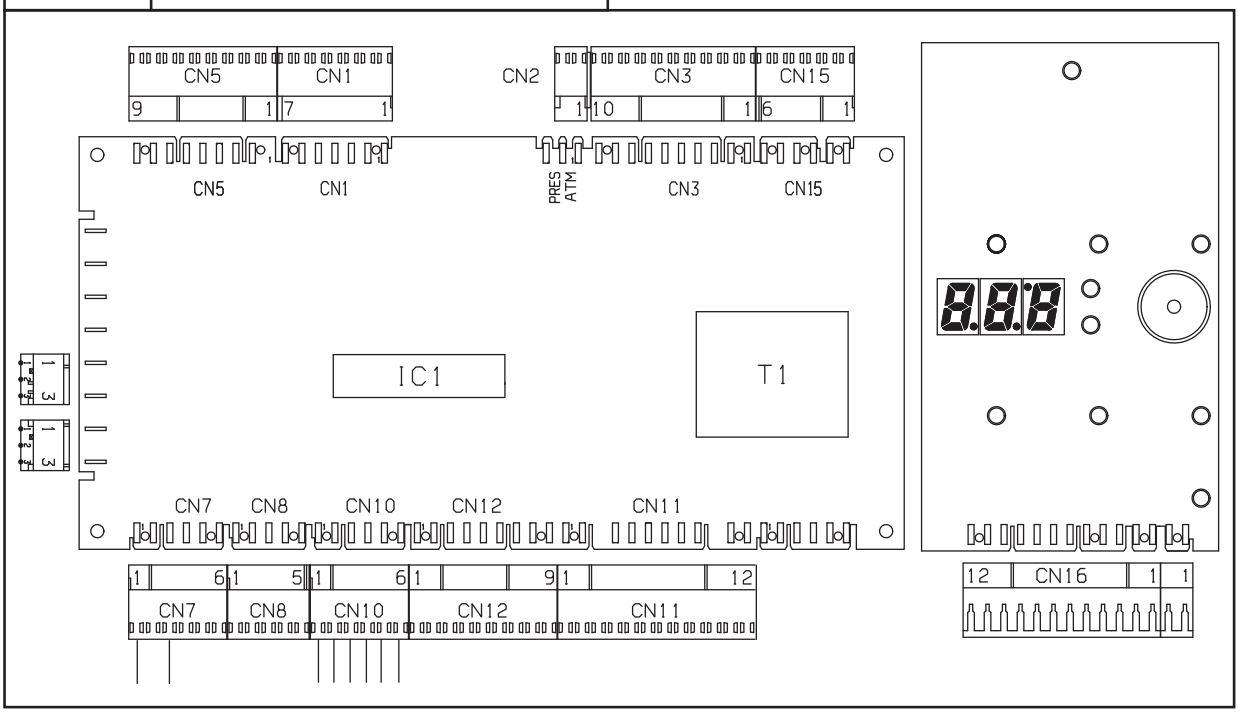
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer and detergent/rinse aid dispenser 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	WT65/WT65MED/WT65WS/ET12E/ET12WS/HT1000/HT1200/HT1200WS/ LS14/LS14WS/LV1000/LV1200/LV1200VS



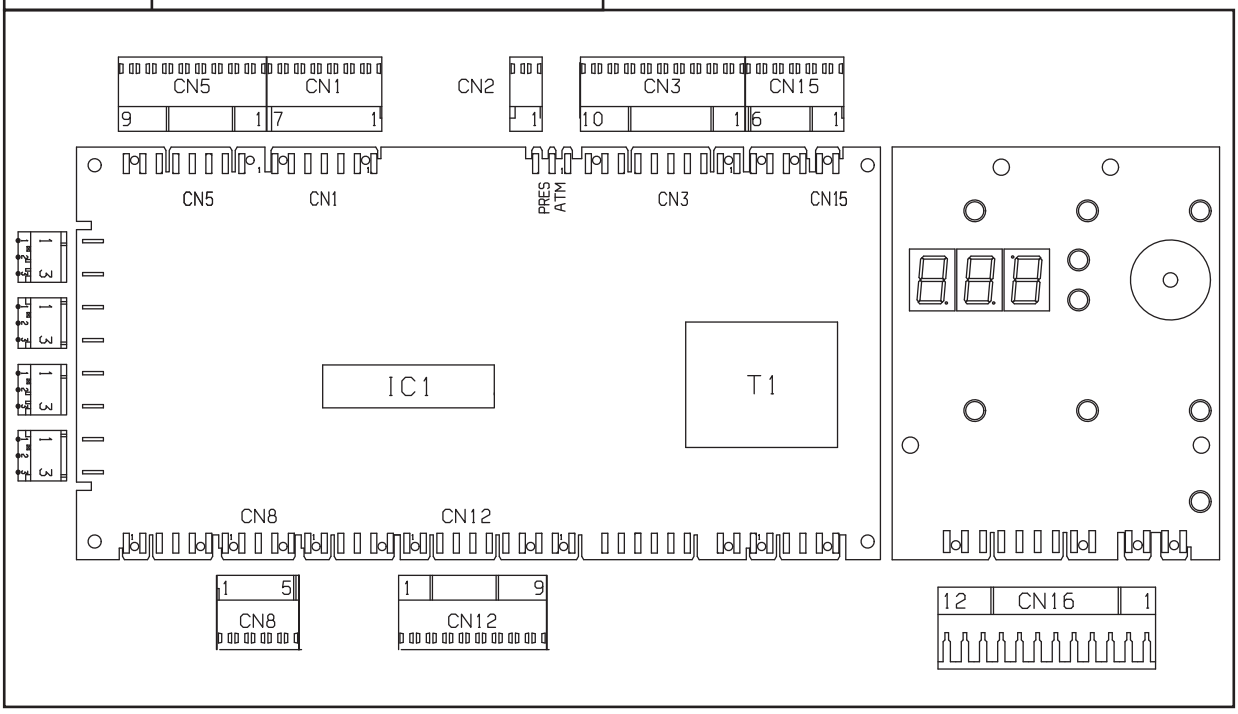
LAYOUT 5	WT830EA / WT850EA



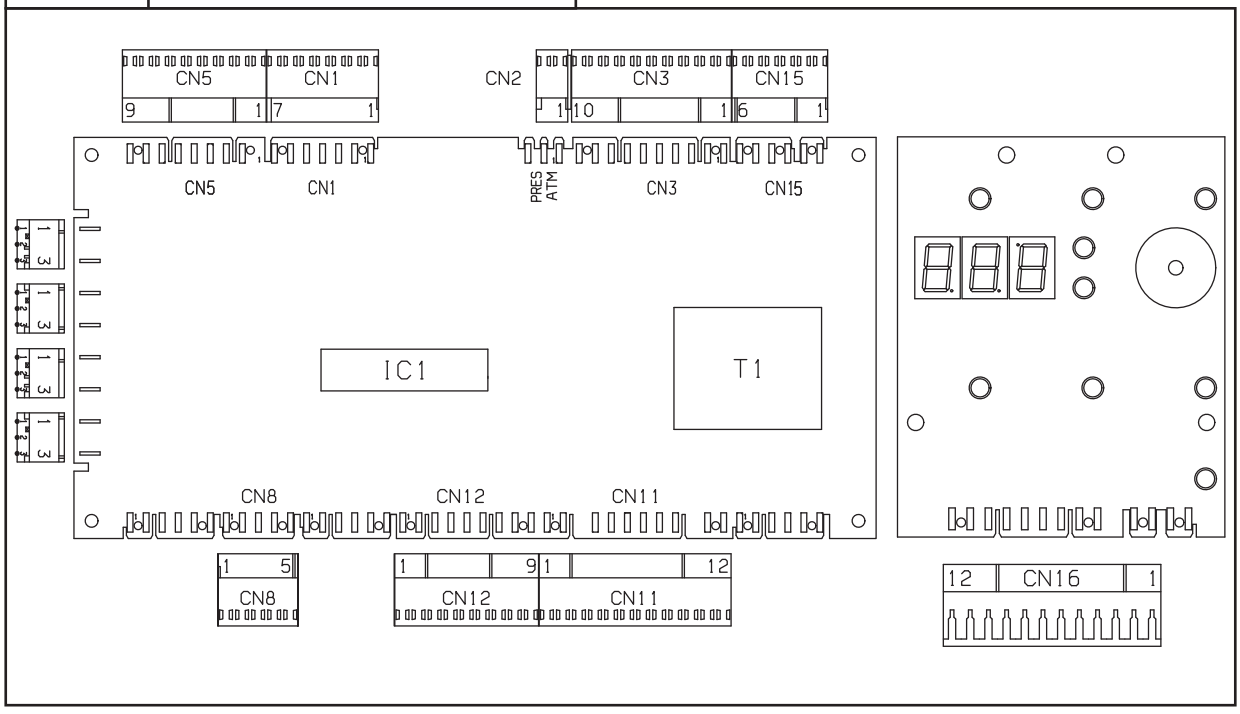
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer and detergent/rinse aid dispenser 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 6	WT65ROW/LS14ROW



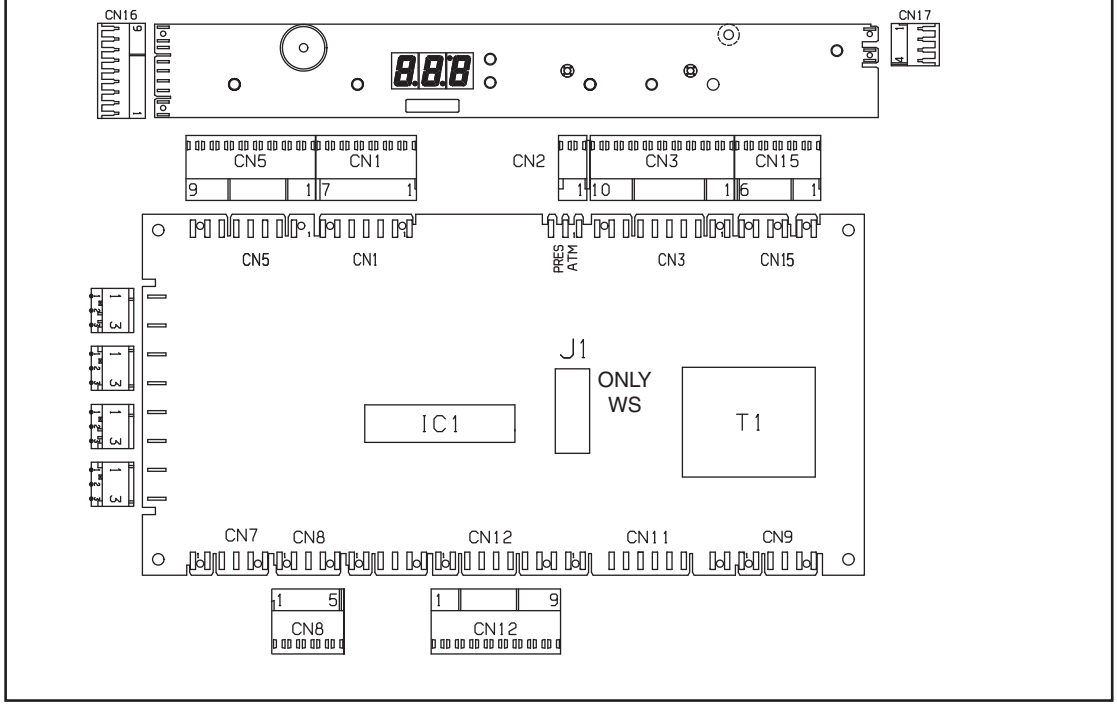
LAYOUT 7	PPW1/PPW2 60Hz



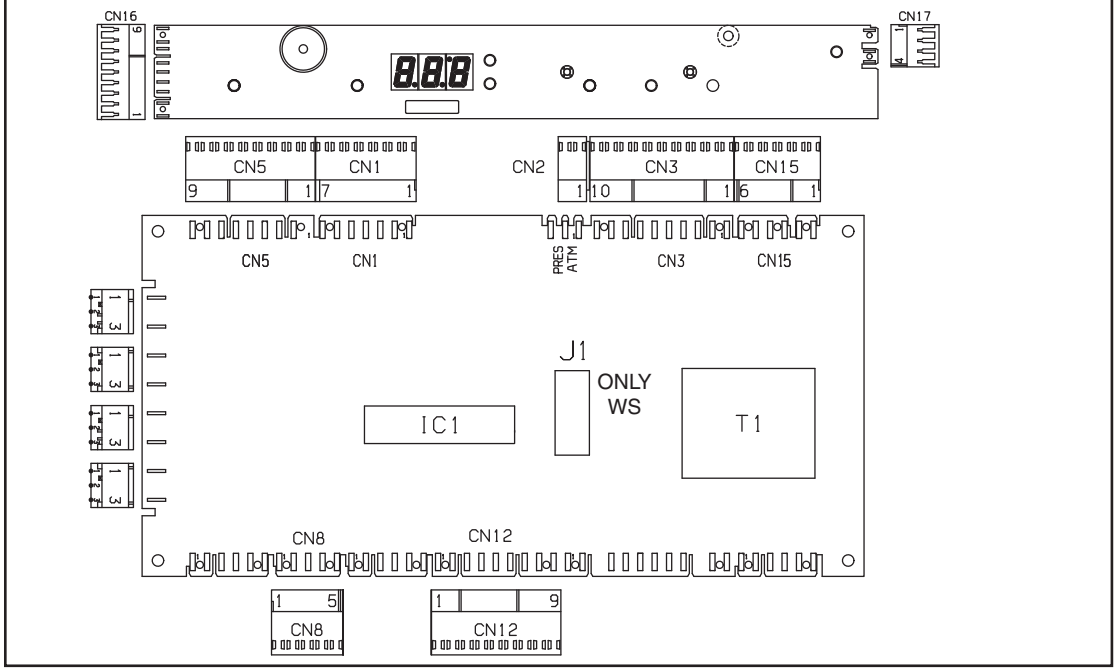
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser outputs
CN5	Tank/boiler temperature sensor inputs
CN8	Energy peak controller input
CN11	Water feed 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

LAYOUT 8	WT4G/LB5G/LS6A/LS6AWS/WT37/WT38/WT38WS/H1310/H3300/ETS/LV6A/LV6WS/FL6A/FL6WS



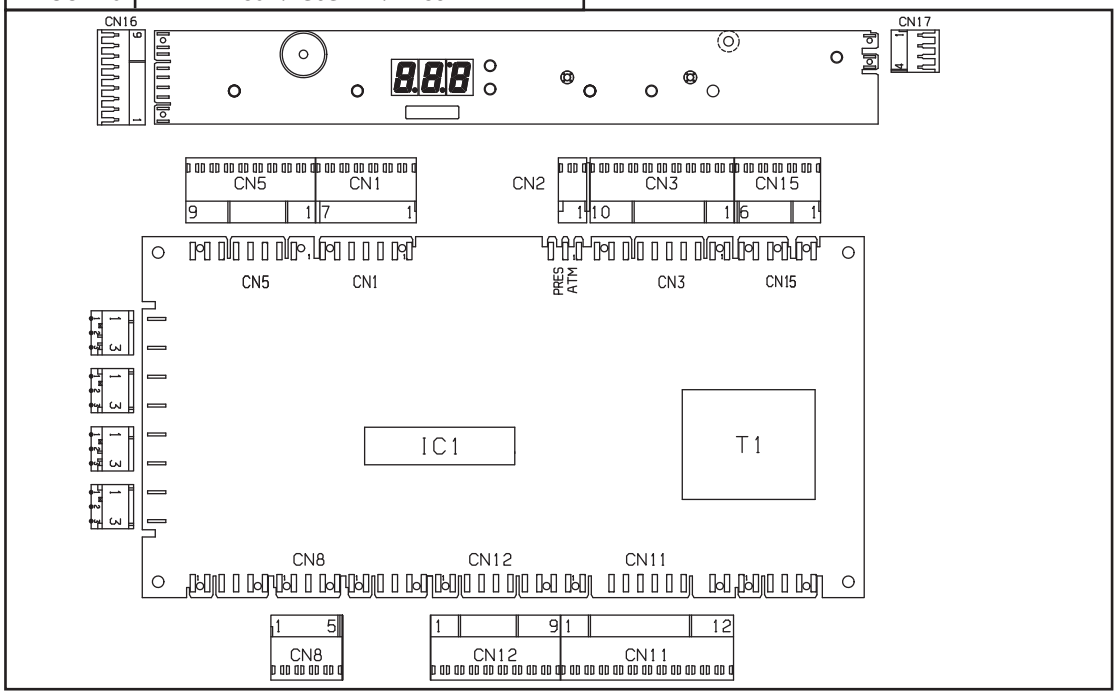
LAYOUT 9	WT38M/LS6AH - WT38H/WT30H WS



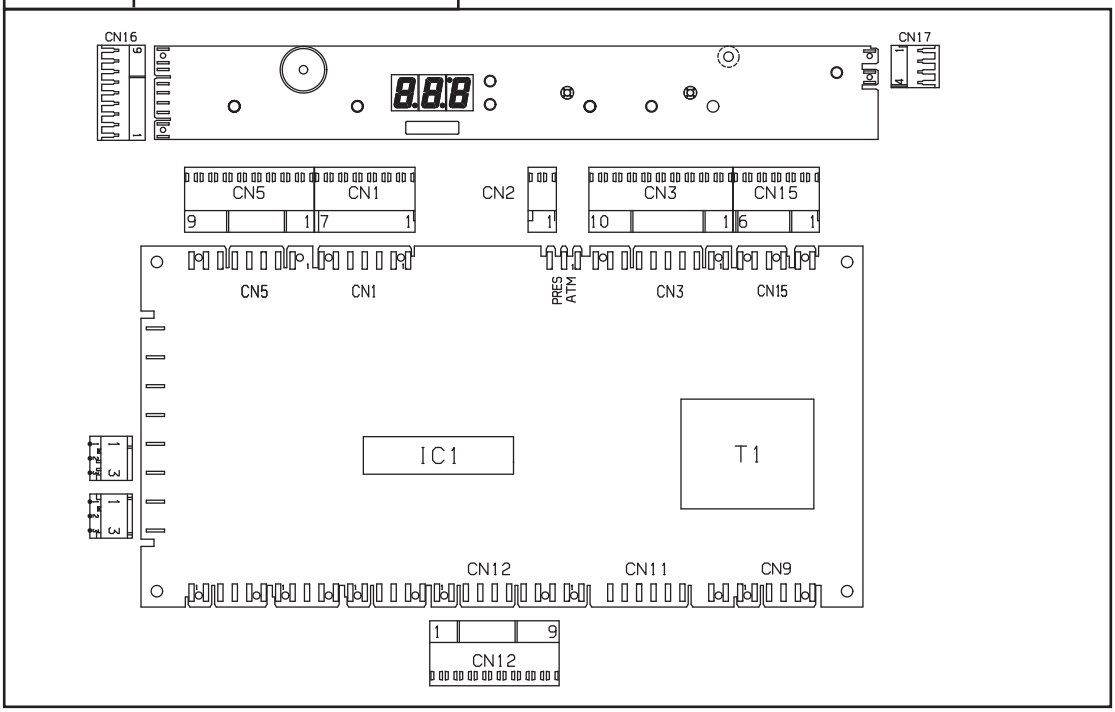
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer and detergent/rinse aid dispenser 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
CN17	Door microswitch connection

LAYOUT 10 | WT30M/LS6SANA/WT38TDE



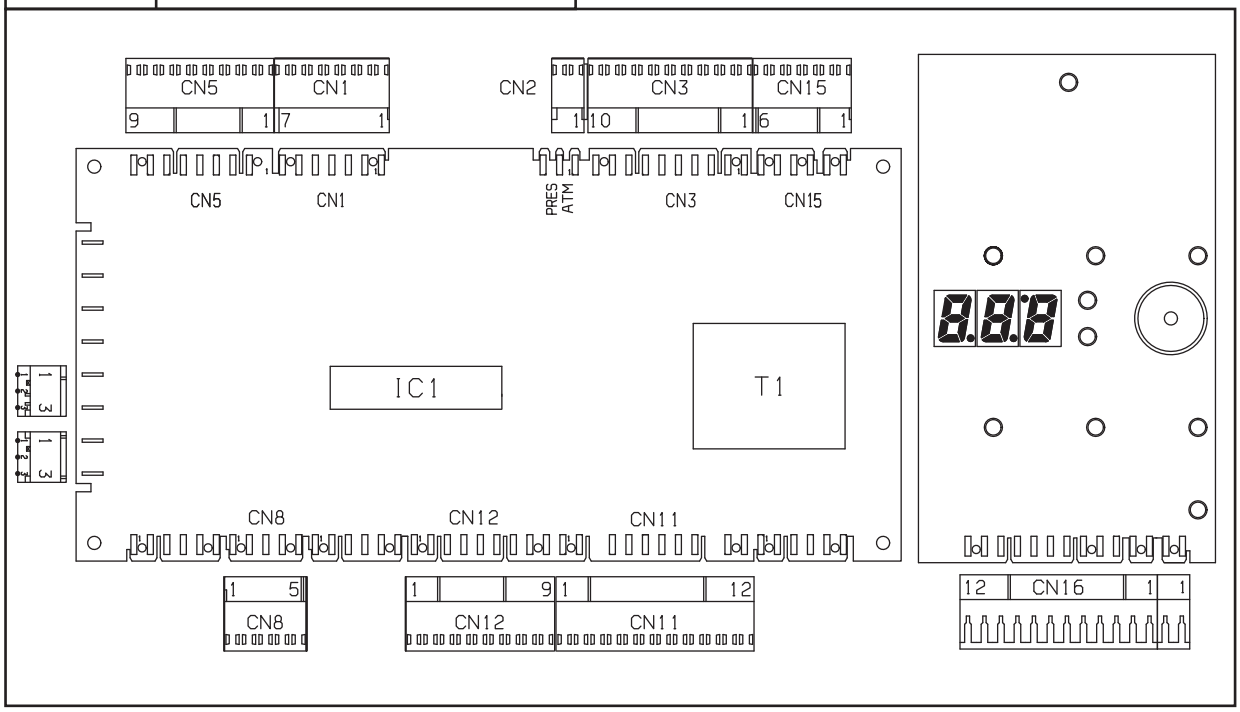
LAYOUT 11 | LS5/1 - WT4/1 - UC5/1



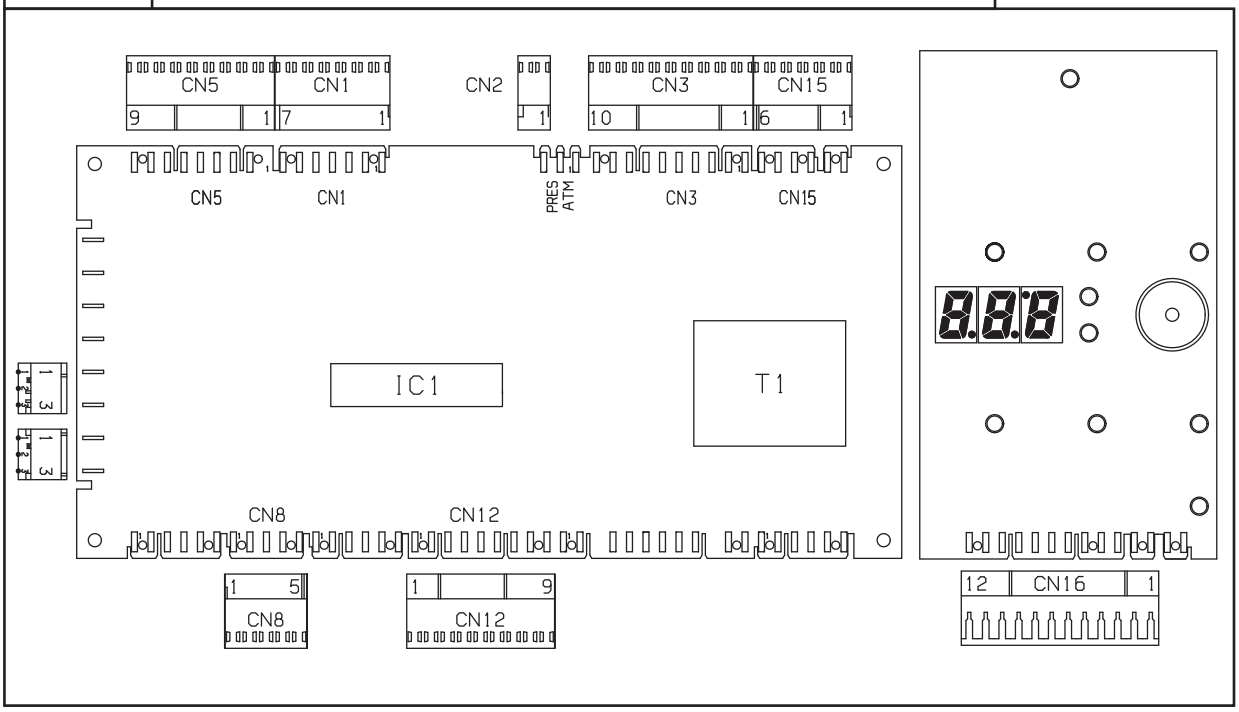
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser 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 12 | WT65M/LS14SANA



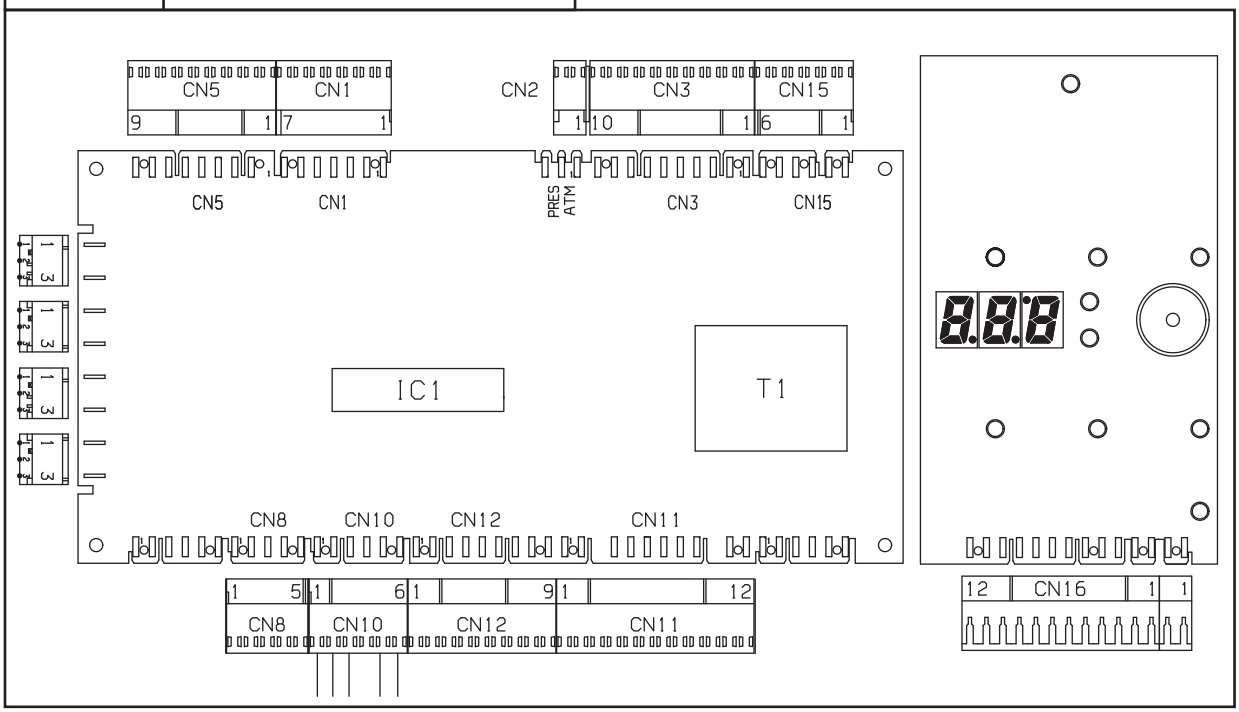
LAYOUT 13 | LS9P/WT55P/WT55PM50/WT55PM60/H2500/HT900P/LV900P/LD900



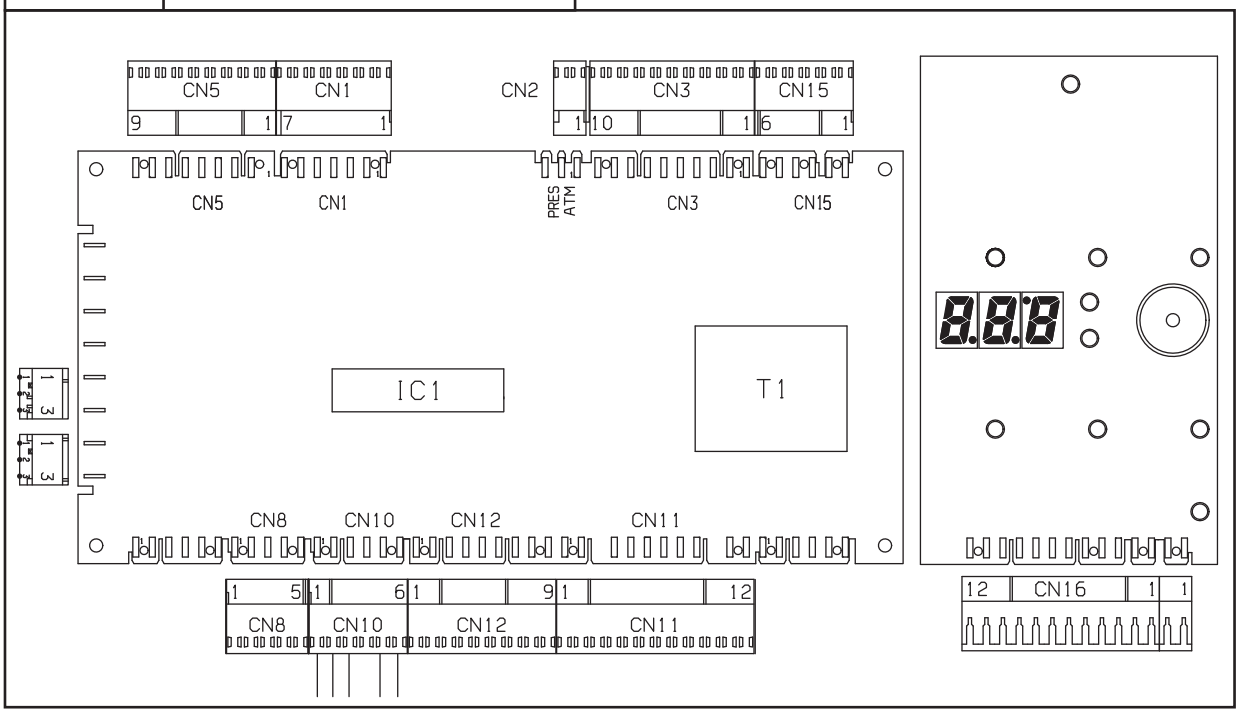
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer and detergent/rinse aid dispenser 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 14 | WT60AU/LS12AU



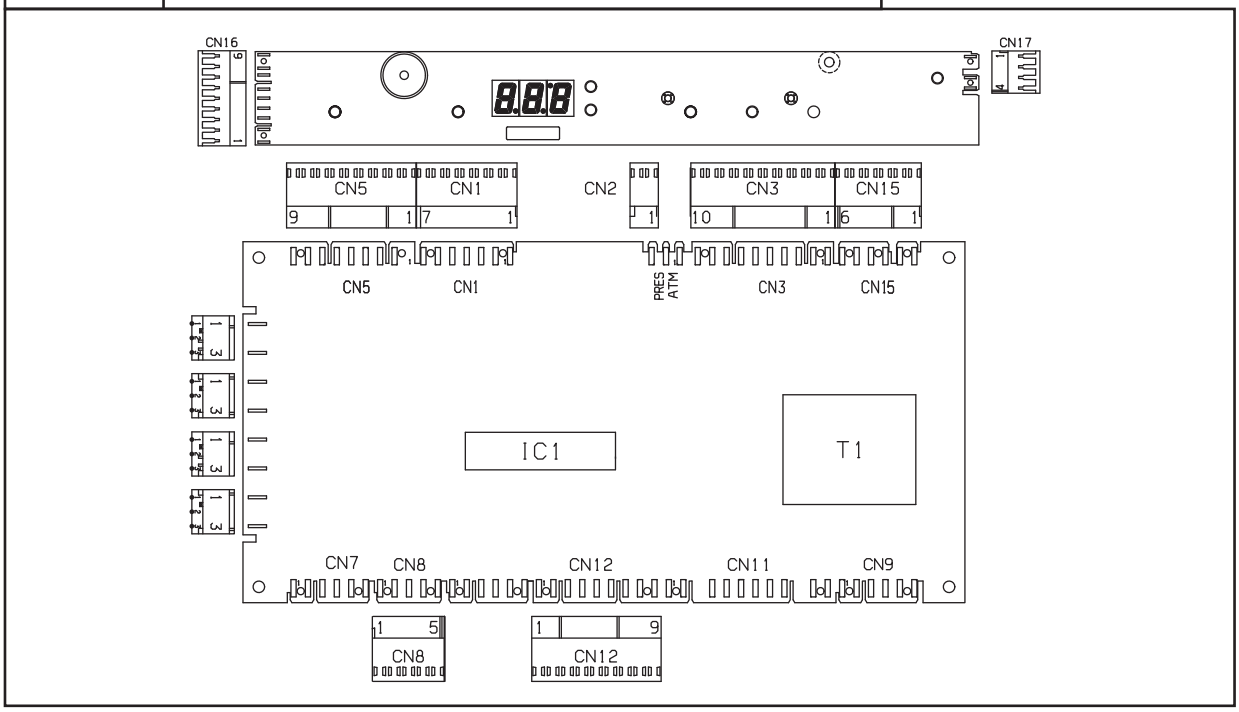
LAYOUT 15 | LS14AU/WT65A



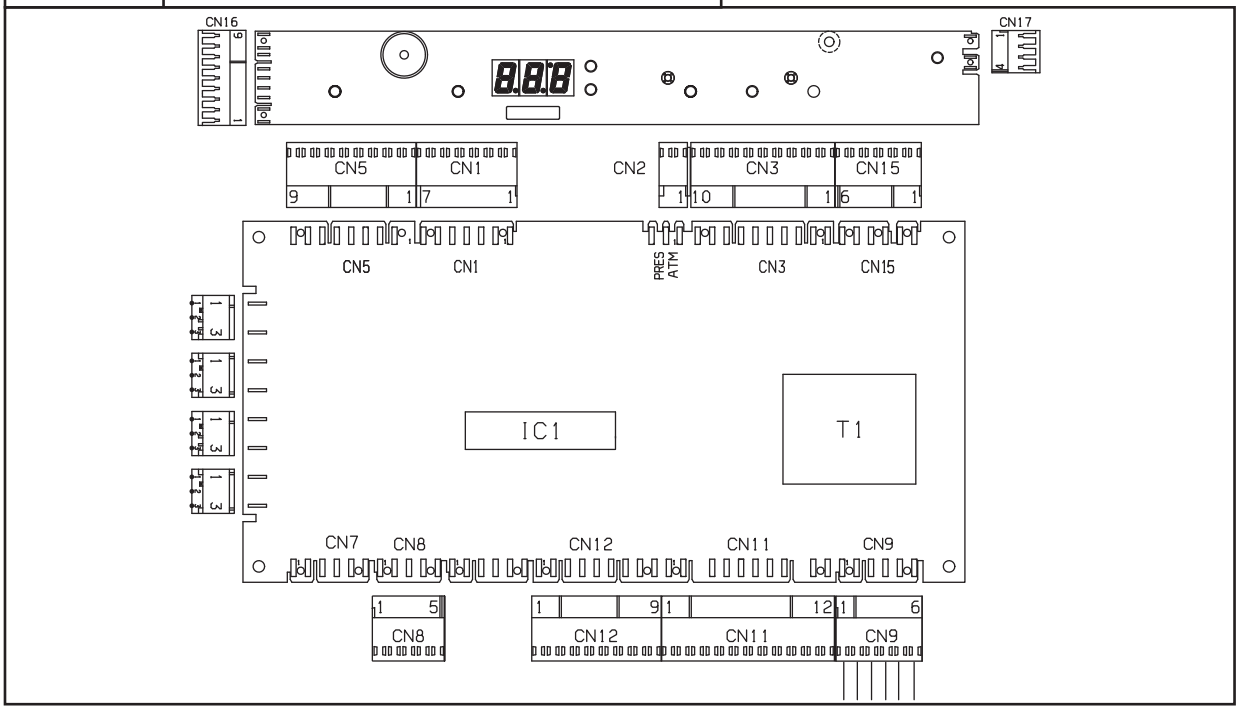
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	ECOTEMP transformer and detergent/rinse aid dispenser outputs
CN5	Tank/boiler temperature sensor inputs
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 16	WT4B/LS5P/LS6P/FL5P/LV5P/LD5P/FL620P/LV6P



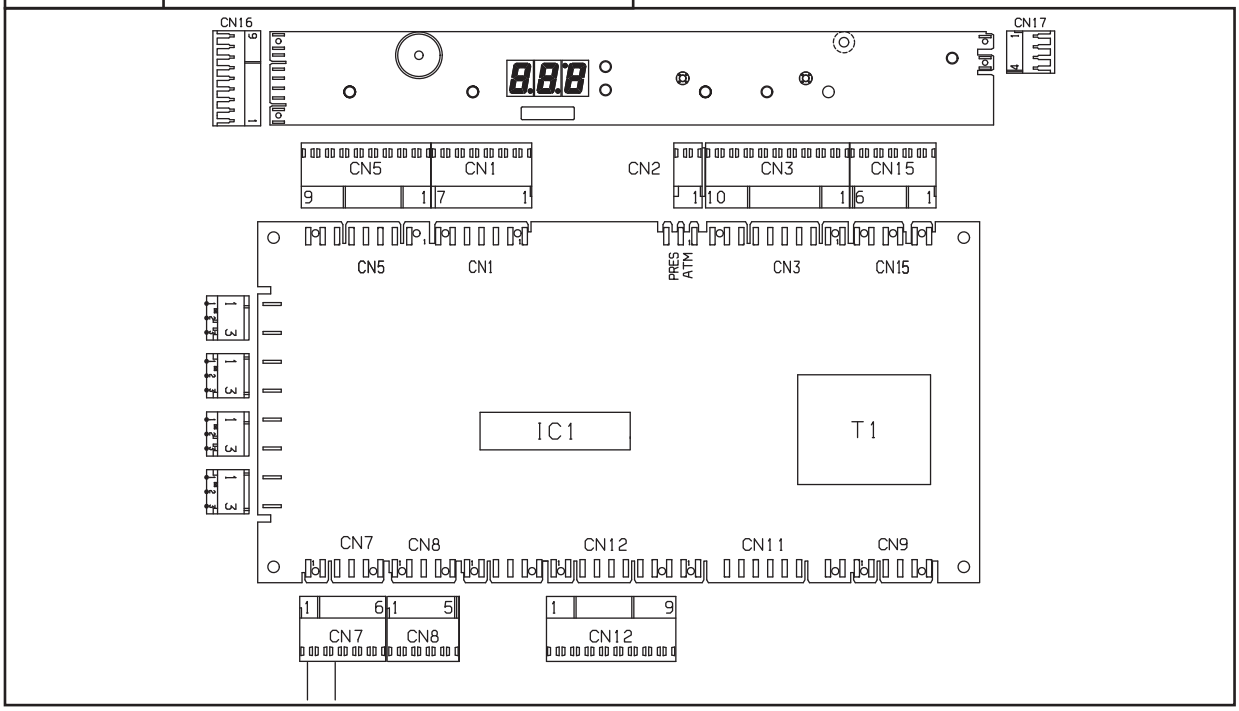
LAYOUT 17	LS5WS/WT4WS/LV5WS/FL5WS



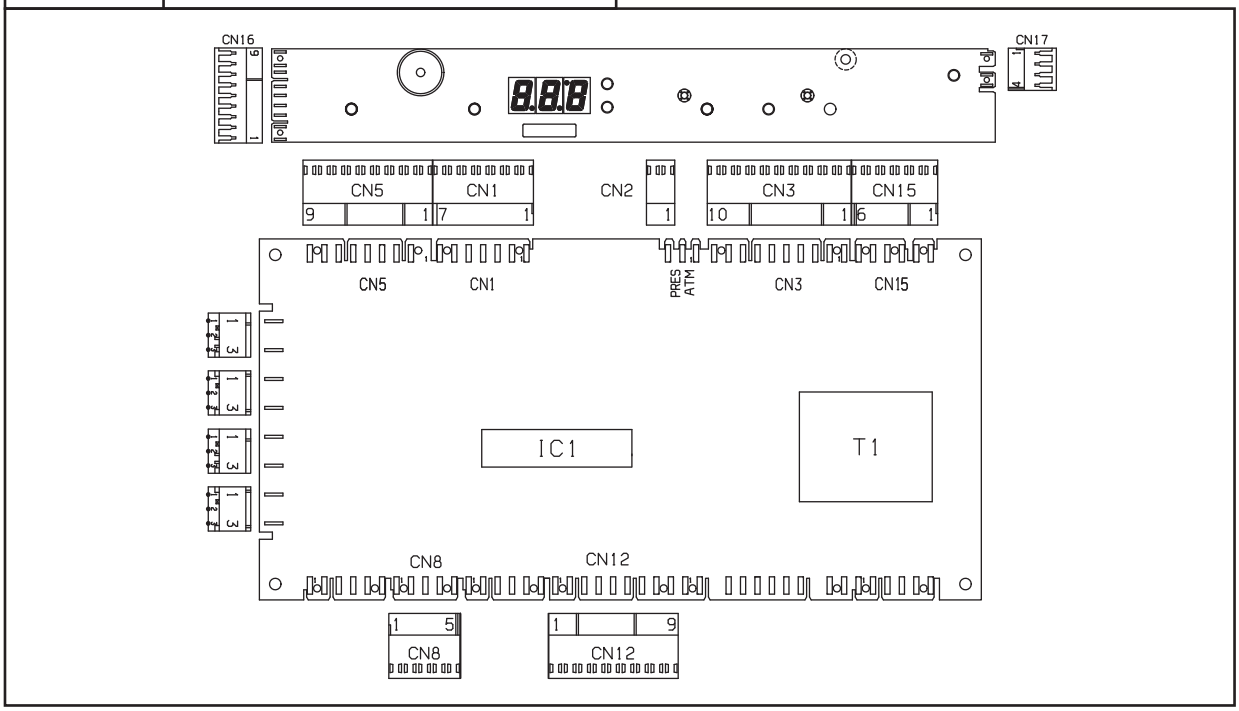
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser 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	WT38C/WT37LEV9/LS6MCD



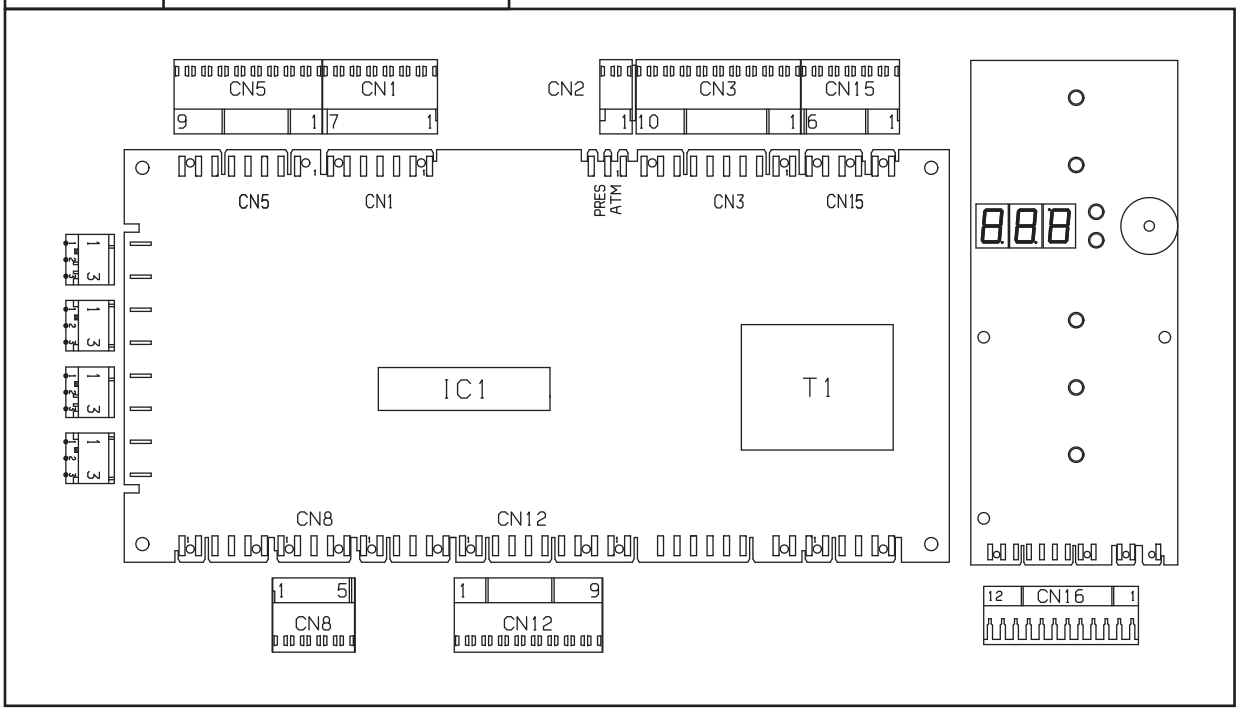
LAYOUT 19	WT38PM50/WT38PM60



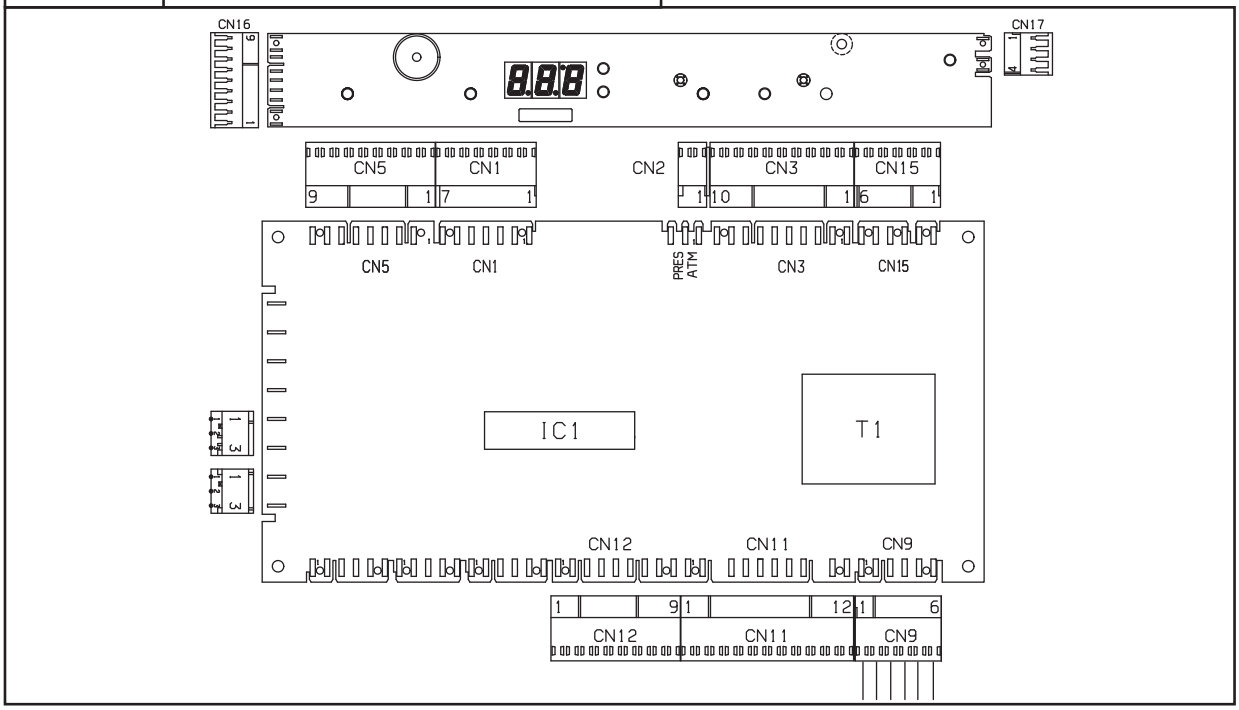
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser 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 20 | LS9UK



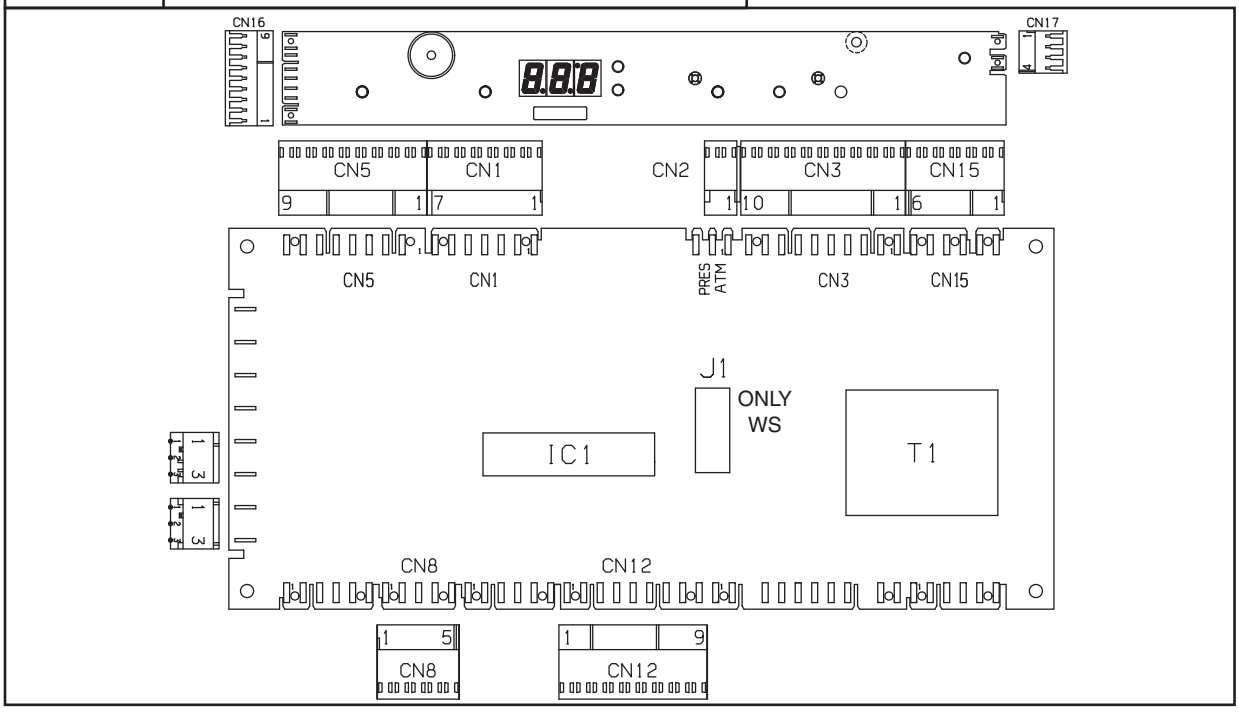
LAYOUT 21 | WT4/1WS - LS5/1WS - UCS/1WS



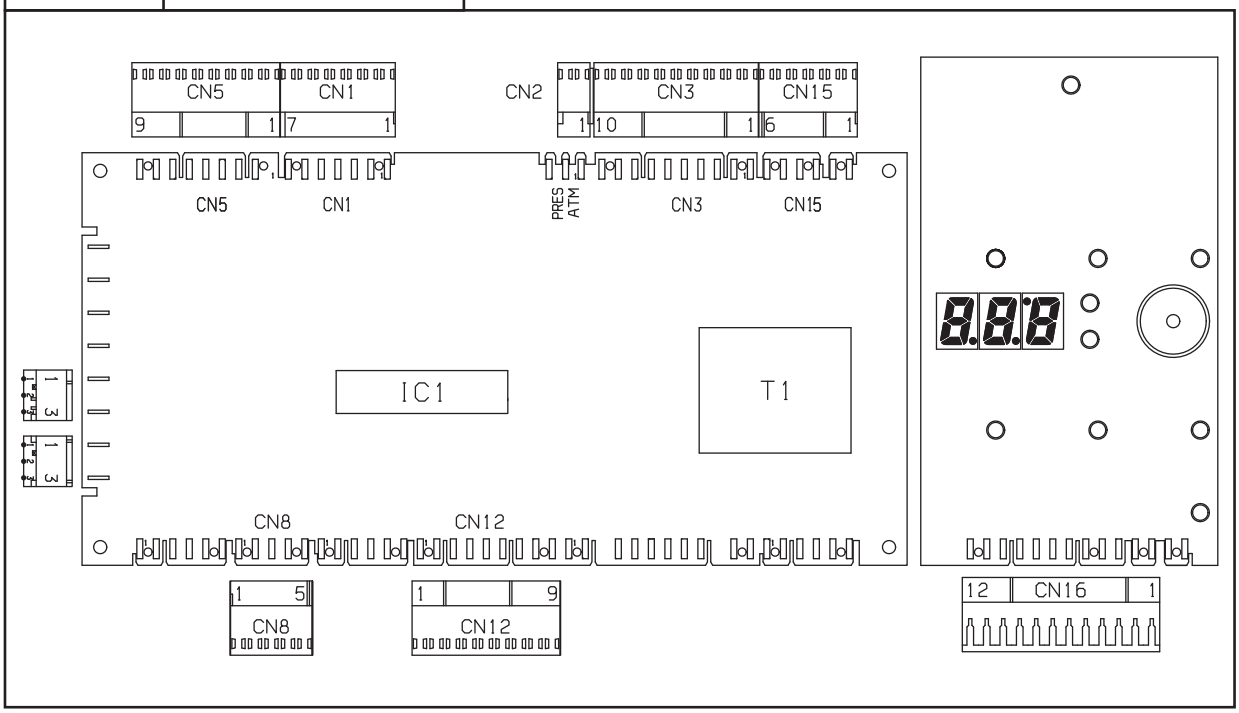
KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser 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 22	LU7A/WTU40A/LU7AWS/WTU40WS/ET7A



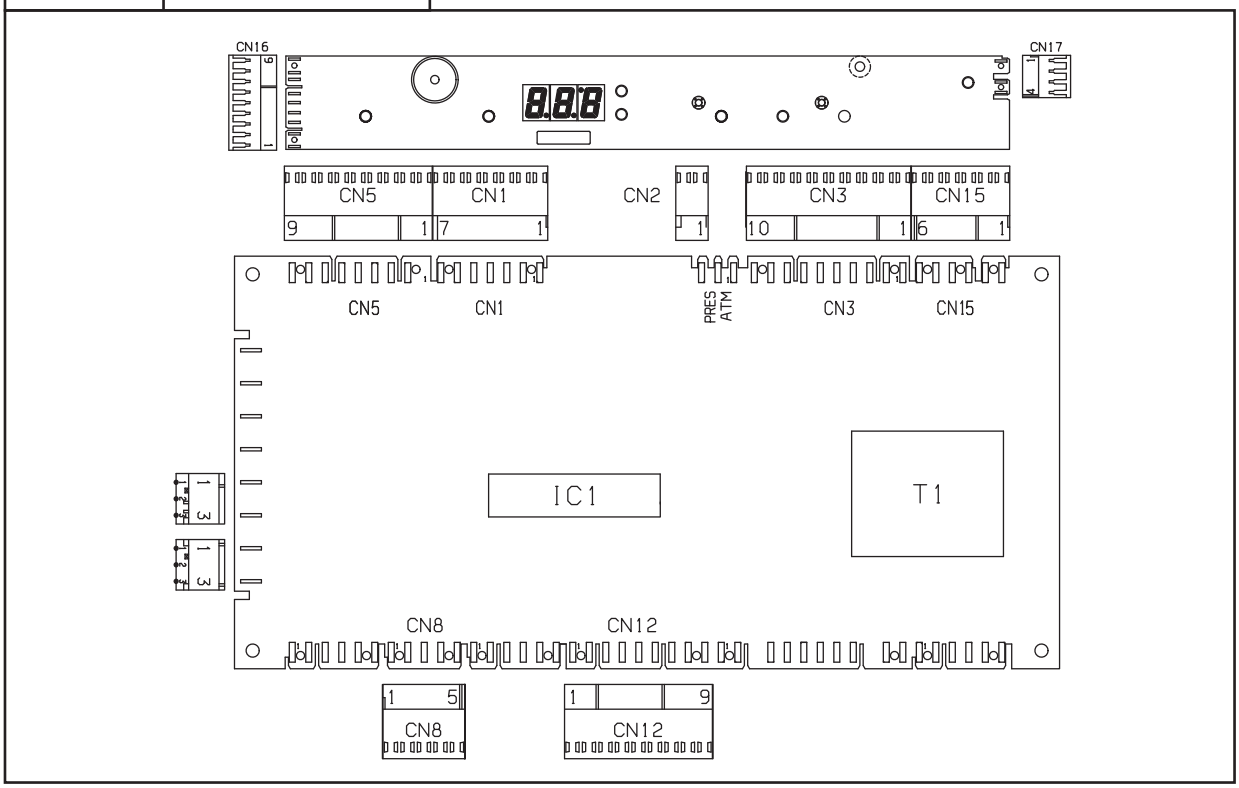
LAYOUT 23	LS9A/WT55A



KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser 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
CN17	Door microswitch connection

LAYOUT 24	LU7P/WTU40P



KEY

CN1	Rinse pump/wash pump/solenoid valve outputs
CN2	Pressure/atmospheric dishwasher solenoid valve connection
CN3	Detergent/rinse aid dispenser 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
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	During rinse phase boiler doesn't empty
	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 dbG family.

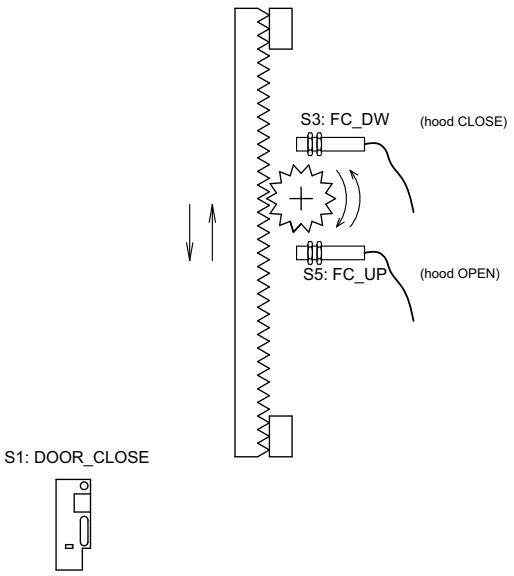
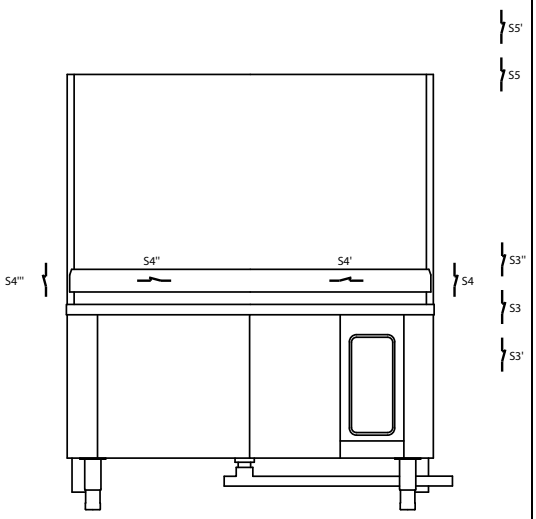
The possible cause of the anomaly can be found (see table below) according to the value of the parameter AL.

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 dbG 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 ? symbol from Serial Number <u>821</u> have become alarms which do <u>not</u> 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 (bEE - 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 (bH 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.