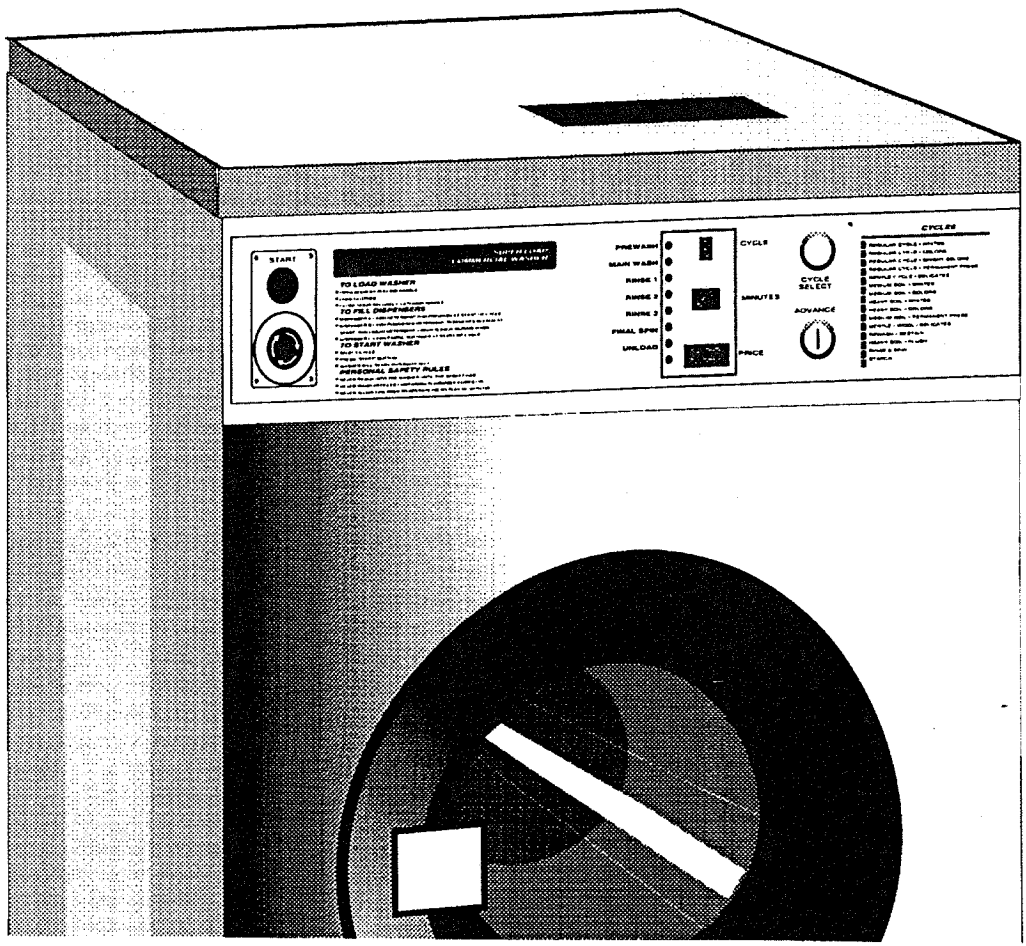
Primus

MKIIA-LC

Programming instructions
Release Date: Jul. 97
Code number: PRI-555-002-333

Electronic programmable control system
For Type R 6/7/10/16/22/30/35
F 6/7/10/16/22 FF 6/7/10/16/22



Coin Switch and Start Button Version

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1. INTRODUCTION

The manufacturer reserves the right at all times to change the specifications contained in this manual without prior notice.

All information given here should be considered as general information, since it is impossible to give all specific details of the machine.

This programming instruction manual is the original English version. For other than English versions, the two versions together therefore constitute the whole manual. In case you do not have this version, ask your dealer.for a copy.

☞ **CAUTION - IMPORTANT NOTE !!!**
Read this manual carefully before using this machine. Improper use of the MKIIA LC control system and the machine may cause serious bodily injury as well as damage to the electronic part and to the washing machine itself.

☞ **DANGER !!!**
Operations that require the machine to be opened must be carried out by qualified personnel who take all the necessary measures to ensure everybody's safety.
At the end of these operations, the machine must be restored to its original state.

☞ **NOTE !!!**
Every circuit board has a serial number and the code number of the board. See figure 2.
On the microprocessor on the circuit board is stuck a label specifying the software number and version and/or the date of the software. See figure 2.
These data, as well as the model and serial number of the machine, must be mentioned in all correspondence or inquiries addressed to the dealer or manufacturer.

☞ **NOTE !!!**
The MKIIA-LC timer is used in both RIGID, FREE STANDING machines and FREE STANDING machines driven by an invertor driven motor.. In the text however, *R* is used for RIGID, *F* is used for FREE STANDING and FF/FFS is used for FREE STANDING INVERTOR DRIVEN machines, regardless the model name.

☞ ***NOTE !!!***
In the installation instruction manual, some paragraphs are only destinated for machines with frequency control. These are recognisable at the text printed in italics on a pale grey background. If your machine is a not frequency controlled machine, you should neglect these paragraphs.

1.1 Description of the control system

This control system has been designed as a flexible and easy-to-operate electronic programmer for a wide range of industrial washing machines.
The MKIIA - LC is based on a carefully thought-out and reliable electronic system and contains only state-of-the-art and thoroughly tested components.

The control system has:

⇒ Easy operation with push buttons.
⇒ Up to 15 programs offering a wide choice of washing technology.
⇒ Programmable number of available programs.
⇒ Switching from coin operation to start button operation and vice versa.
⇒ Software adaptation of washing programs.
⇒ Economic settings with certain programs.
⇒ Temperature can be displayed if desired.
⇒ Washing sequences can be left out or activated.
⇒ Software version can be displayed.
⇒ *Within certain limits, the number of revolutions can be changed per program.*

Manual start version:

⇒ 5 programmable liquid soap signals and possibility of direct control of pumps.
⇒ Programmable advance function in manual version.
⇒ Number of cycles can be displayed

Coin-operated version:

⇒ Programmable coin switch values.
⇒ Programmable price per program.
⇒ Possibility of special price settings per program.
⇒ Number of coins in coin box can be displayed.

During the washing cycle, the display shows the following:

⇒ The washing program that was selected.
⇒ Remaining time until the end of the washing program.
⇒ Indication of heating.
⇒ With coin-operated machines, information about the coins that were inserted.
⇒ Current sequence of the washing program.
⇒ Information about the end of the washing program.
⇒ Error messages in case of malfunction.

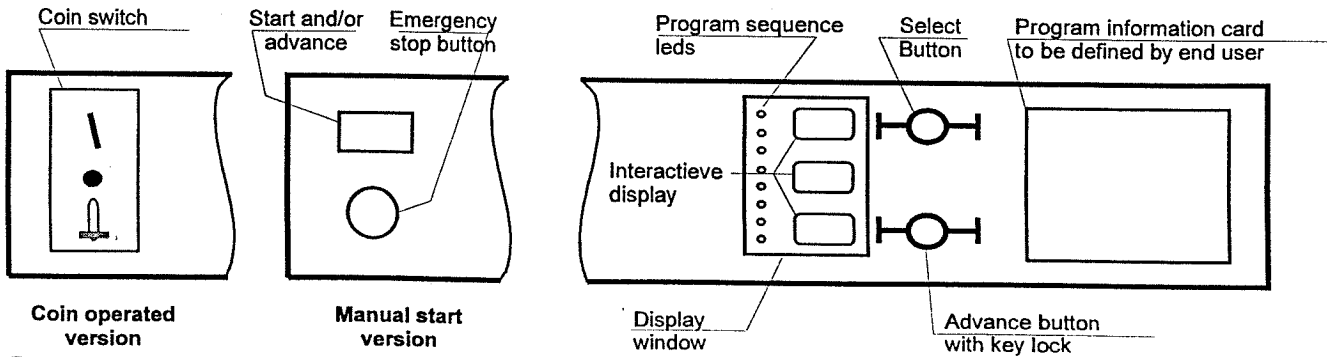


Figure 1: Diagram of control panel

1.2 General technical specifications of the MKIIA LC

☞ WARNING !!!

Connection to the wrong voltage may cause serious bodily injury as well as damage to the electronic part and to the washing machine itself. The voltage may only be changed by qualified personnel, if necessary.
The main board may be changed from 230V to 120V. The manufacturer always presets the board according to the voltage indicated on the type plate.

Technical specifications of main board

Measurements:	325 x 65 x 130 mm
Voltage:	120V, 220V, 240V AC selectable by link to PCB.
Power:	max. 12 VA
Microprocessor:	NEC upd78cp18
Memory:	1K bytes static RAM (on microprocessor)
	32K bytes Eprom (on microprocessor)
	2K bytes Eeprom
Output:	19 relay outputs 240V, 2A
	serial interface port
Input:	8 optically insulated inputs 12V DC
Display:	6 displays, composed of seven segments LEDs
Analog input:	for temperature sensor input

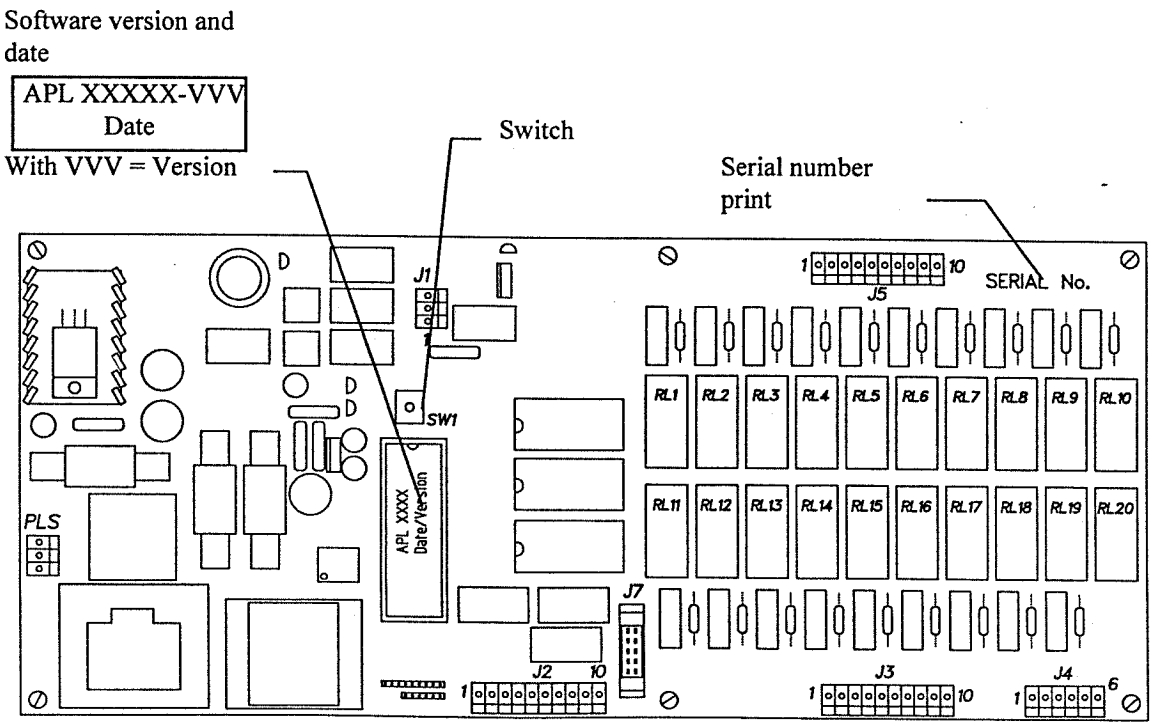


Figure 2: Printed circuit board

2. INITIALIZING THE MACHINE

☞ **WARNING !!!**

A number of important parameters are preset during initialization. The initialization may therefore be carried out by qualified personnel only. A faulty initialization may cause serious bodily injury as well as damage to the electronic part and to the washing machine itself!

2.1 Hardware initialization

When the machine or the electronic circuit is initialized for the first time, the control system has to be initialized. During this process, the control system can be adapted to the customer's wishes.

First the SW1 switch (see fig. 2) on the back of the MKIIA LC board has to be set to the correct position. (Disconnect the machine power supply using the special disconnection device before adjusting this switch.)

☞ **CAUTION !!!**

Disconnect the machine power supply using the special disconnection device provided in the installation before opening the machine.

After the setting has been completed, everything must be reinstalled in its original condition.

Setting options:

Switch no.	Machine	Temperature unit	Time function
1	F + FF/FFS machine	display temperature in °C	wait for heating
2	F + FF/FFS machine	display temperature in °C	do not wait for heating
3	F + FF/FFS machine	display temperature in °F	wait for heating
4	F + FF/FFS machine	display temperature in °F	do not wait for heating
5	R machine	display temperature in °C	wait for heating
6	R machine	display temperature in °C	do not wait for heating
7	R machine	display temperature in °F	wait for heating
8	R machine	display temperature in °F	do not wait for heating

CAUTION - IMPORTANT NOTE !!!

If the machine does not have extra heating, the SW1 switch (see 2.1) has to be set to time function "DO NOT WAIT FOR HEATING". If not, the machine will not finish the selected washing program.

☞ **CAUTION - IMPORTANT NOTE !!!**

After these operations, the machine must be restored to its original state.

2.2 Software initialization

To set the software parameters, the initialization mode of the electronic programmer must be activated. For this purpose, the machine must be in idle mode and you need the key that fits into the advance key. After turning the key, press the **advance** key and, while holding the advance key, press the **select** key. Release both keys as soon as "-" appears on the display.

The display (A) now shows a selection menu. The letters "n", "u", "P", "c", "t", "d" and "o", which each represent a setting routine, appear in turn.
If the software was set for **coin operation**, the letter "d" will not appear. If the **manual start** version was chosen, the letters "c" and "u" will not appear.

To speed up the successive appearance of the letters, press the **advance** key. The same goes for all alternate options in the different setting routines.

Note:
When you enter certain routines, the displays flash each at a time scrolling automaticaly. You can change the value of a flashing display only, using the **select** key.
If you want to speed up the scrolling process, choosing yourself what display you want to change, you can use the **advance** key. Each time you press it, another display will flash in the same order as the automatic scrolling.

To select one of the setting routines, press the **select** key.

2.2.1 Shows a flow chart of the setting routines.

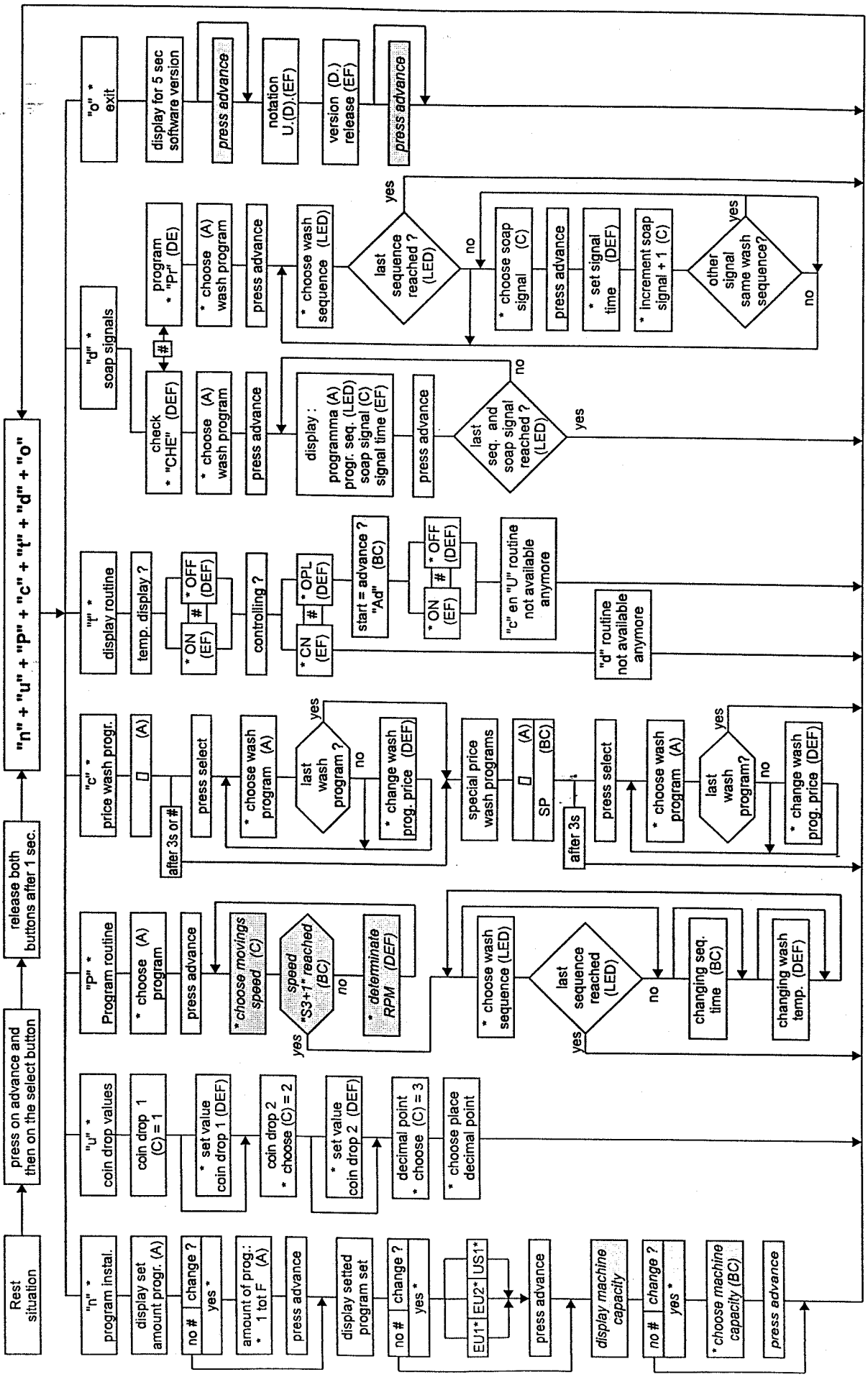
To leave the initialization mode, select setting routine "o".

WARNING
During the software initialization of the machine, it is better not to cut the power supply. This for not to disturb the initialization process. . In case you change the washprogramm set in the "n" routine two flashing lines are shown on the display (B,C) for a short period (± 30 s). Do not cut the power during this periode, it can infect the proper functioning of the machine.

CAUTION - IMPORTANT NOTE !!!
Setting routine "n" offers the possibility to choose a program set (see 2.2.2.). This option gives the standard factory settings. This means that the memory is reset and that all previous settings are lost.

☞ CAUTION - IMPORTANT NOTE !!!
When the software initialization has been completed, do not forget to turn back and remove the key so as to prevent unauthorized persons from changing the initialization.

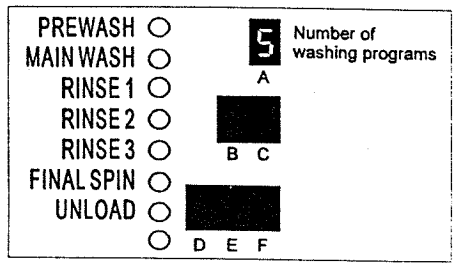
2.2.1 Flow chart of setting routines



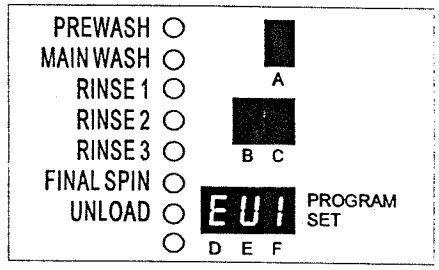
2.2.2 Setting routine "n": Washing program settings

2.2.2.1 Setting a washing program

Display (A) shows the number of washing programs that are available to the user. If this figure does not need to be changed, press the **advance** key; if it does, press the **select** key until the desired number of washing programs appears on the display, then press the **advance** key. The maximum is F, which corresponds to the fifteenth washing program.



Now the bottom display (DEF) shows the current program set. If this is the correct one, press the **advance** key; if not, press the **select** key. Use the **select** key to display the desired washing program set, then confirm with the **advance** key. All settings now are being set, which takesd about 30 s, Do not interupt the power supply during this proces.



The three washing program sets are:

EU.1 is suitable for the European market with cold/soft, cold/hard and hot/soft water supply.
EU.2 is suitable for the European market with only cold/soft and hot/soft water supply.
US.1 is suitable for the American market with cold/soft and hot/soft water supply.

*2.2.2.2 **Important,** RESETTING the memory of the machine.!*

If you change the washing program set, a full reset will follow, which means that all original factory settings are restored into the memory.

If, by any chance, you entered the "n" routine, and you do not want to reset the machine, press the **advance** button as many times as needed to exit the routine.

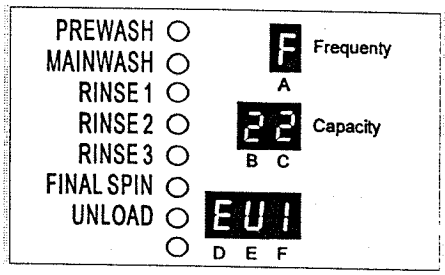
If, by any chance, you selected the program set, and you do not want to confirm the change, in order to avoid a reset, choose the initial washing program set and press **advance**.

In order to reset the machine, following steps are to be taken.

1. Enter the "n" routine.
2. Press the **advance** key.
3. Choose another washing program set than the current one, by pressing the **select** key.
4. Confirm your choice with the **advance** key.
5. Reprogram the machine

2.2.2.3 Insertion of the capacity of the machine

Only for freestanding machines with frequency control, the display will change as follows:



On the top display (A), it is indicated that we work with a frequency controlled machine. By pushing the ***selector*** *switch, we choose the capacity (BC) of the machine. Confirm the chosen value by pussing the* ***advance*** *button. If the capacity shown was correct, you can immediately push the* ***advance*** *button.*

Possible capacities are: 6 for a drum capacity of 60 liters or 6Kg/15lbs
7 for a drum capacity of 73 liters or 7 Kg/18lbs
10 for a drum capacity of 95 liters or 10 Kg/25lbs
16 for a drum capacity of 160 liters or 16 Kg/35lbs
22 for a drum capacity of 220 liters or 22 Kg/50lbs
Remark*: Fill factor 1/10*

REMARK DANGER!!!

Do NEVER choose another drum capacity than the one which has been initialised. Do always check at least 2 times. If the drum capacity is not clear, or if you have a lack of date, do always immediately contact the manufacturer.

Selecting a wrong drum capacity can cause serious physical harm to man and animal, as well as of the environment, the electronic control of the washer extractor, as well as the washer extractor itself.

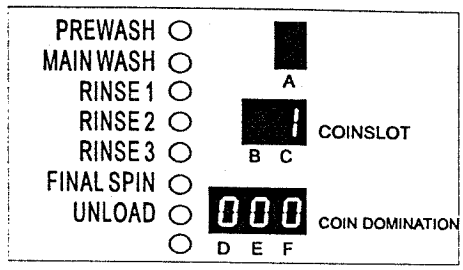
The drum capacity can only be changed, if necessary, by authorized, competent and technically educated personnel.

After a little time, you come back in the select menu.

2.2.3 Setting routine "u": Coin slot values

This part of the software allows you to program the coin denomination for each coin slot.

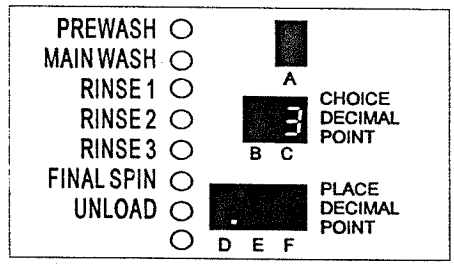
Display (C) shows coin slot 1 which can be changed, while display (DEF) shows the coin denomination. The figures on the displays will light up in turn to indicate that they can be changed. After a short while, the bottom figures begin to flash in turn: each flashing figure can now be changed with the **select** key.



When this has been done, wait until the middle display (C) begins to flash again: now you can change to coin slot 2 by using the **select** key. The display now shows the figure 2 (C) which represents coin slot 2; here you can change the coin denomination (DEF) in the same way as for coin slot 1.
If the machine has only 1 coin slot, the same value as for coin slot 1 should be entered for coin slot 2; on no account "0" should be entered.
If coin slot 2 does not need to be changed, select value 3 in display (C).

When this has been done, wait until display (C) begins to flash again: now you can change to number 3 by using the **select** key in order to determine the position of the decimal point.

The changing display (DEF) indicates the position of the decimal point. Press the **select** key when the decimal point is in the desired position.
The decimal point can also be omitted by pressing the **select** key when the decimal point has disappeared from the display.
After this operation you automatically return to the setting menu.



2.2.4 Setting routine "P": Programming

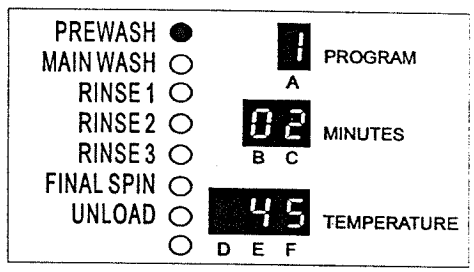
☞ **CAUTION - IMPORTANT NOTE !!!**
The LC timer is designed to create an alternative to a conventional timer, including a few new features. You can easily adjust the programs preset in the timers memory.

Change the changeable parameters within reasonable boundaries of the original value, otherwise you possibly could create a malfunction of the washer, and/or have a reduced washing result.

This setting routine allows you to change the temperature and washing time per sequence, as well as to activate or omit a sequence.

For a machine of the FF/FFS type, it is also possible to change the nummer of revolutions of the drum.

Once "P" has been chosen with the **select** key, "1" will flash in the top display (A). By pressing the **select** key, you can choose the program you wish to change. Once you have selected the program, press the **advance** key to change the selected washing program.



For frequency controlled machines
Per program, the rotation speed for washing, the extraction between cycles and at the end of the cycle can be given in.
(Respectively W,L,H in the washing programs, see part 4)
To change this, S1 (BC) which stands for wash speed, firstly appears.
When the displays (E,F) flicker, it is possible to change this with the ***selector*** *switch. Once this has been determined, the S1 should be augmented to S2 with the* ***selector*** *switch. Now it is possible to change the extraction speed between cycles. To change the high extraction speed,*
the values on display (B,C) should be put on S3.

To leave this program part, S3 should once again being increased by pushing the **selector** switch at the moment that "3" (C) is flickering.
A sequence LED will light up to indicate the relevant sequence of the washing program: the programmed time (BC) and temperature (EF) of the sequence appear on the display.
The positions (B,C) and (E,F) as well as the sequence LED flash in turn. By pressing the **select** key, the figures on these interactive displays can be changed. If you press the **select** key while the sequence LED flashes, the flashing LED moves to the next sequence which can then be changed as well.
Repeat this procedure for all the sequences of the selected washing program that need to be changed.
By pressing **select** again after the last sequence, you leave the "P" setting routine.

Remarks:

- In the pre and main wash, it is possible to change time and temperature. In the other sequences, most of the times only time can be changed.
- When the washing program 2 contains pre wash sequences, after adaptation or not of the first pre wash sequence, the LED won't jump to indicate there is a second pre wash when a following sequence was selected with the selector switch.
- When the washing program 2 contains main wash sequences, after adaptation or not of the first pre wash sequence, the LED won't jump to indicate that there is a second main wash when a following sequence was selected with the selector switch.
- Sequence times can only be increased or decreased per minute.
- It is only possible to change the time of the sequence of the end extraction up to 9 min. as a maximum.
- the maximum temperature input is 92°C.
- If the time of a sequence is put on 0 minutes, then we desactivate this sequence and the electronic programmator goes automatically to the next sequence in the work mode.
- If we change a sequence time of 0 minutes to 1 or more minutes, this sequence is activated.
- *The wash speed "S1" = "W" and "D" can be put in from 7 tpm as a minumum up to 49 tpm as a maximum.*
- *The extraction between cycles "S2" = "L" can be put in from 300 tpm up to 700 tpm as a maximum. It is advisable to limit the extraction speed between cycles to 500 tpm to limit wear of the linen.*
- *High extraction "S3" = "H" can be put in from 300 tpm as a minimum up to 999 tpm as a maximum*
- *It is possible that the real number of revolutions is a bit lower than the number of revolutions which had been given up and this because of some technical reasons (tension, motor parameters, load, imbalance).We can impossibly calculate these factors or keep them under control. The deviations are that small however that they won't have no influence whatsoever on the washing result.*

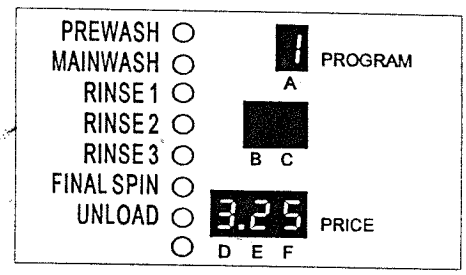
Note:
It is important to take account of the hot water supply when setting the temperatures in the washing sequence. This means that if the machine does not have extra heating, the washing water can never reach a temperature higher than the hot water supply temperature.

2.2.5 Setting routine "c": Price setting

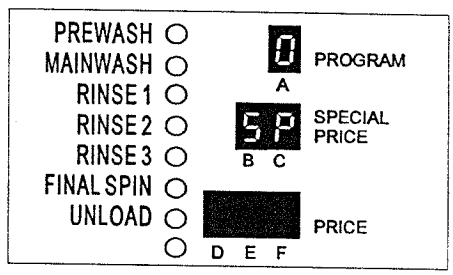
This setting routine allows you to set the price, including a special price per washing program. Before the special price option can be used, certain hardware changes need to be made first. Contact your dealer for this.

To select this routine, press the select key when "c" appears on the select menu (A).
A "0" appears immediately on display (A). Press the **select** key to select the desired program. If you fail to select a program within three seconds, the display will change to special price setting. See below.

The programmed price for the selected washing program now appears on the bottom display (DEF). The figures now flash in turn and can be changed by using the **select** key when they flash.
When the selected washing program flashes again on display (A), another washing program can be selected with the **select** key. To change the price, proceed in the same way.



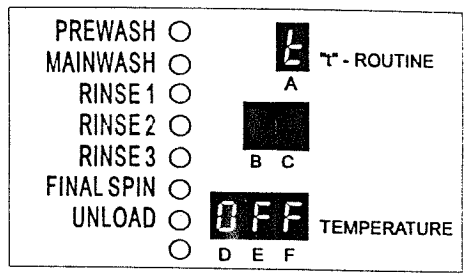
After all programs for the normal price have been completed, the display changes as follows:
Now the special prices can be entered for each washing program. The procedure to change these settings is similar to that for the normal price setting (see above).
If no special prices are required, wait 3 seconds and you automatically return to the setting menu.



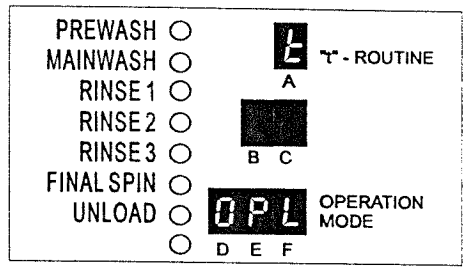
The point in the bottom display can be changed in the "u" setting routine, see 2.2.3.

2.2.6 Setting routine "t": Temperature display and selection of start function

If you press the **select** key when "t" appears on display (A), the display changes as follows:
Here you decide whether or not the temperature of the washing water will be shown on the display while the machine is in operation.
Use the **select** key to set "ON" or "OFF". You can switch between these options by using the **advance** key.

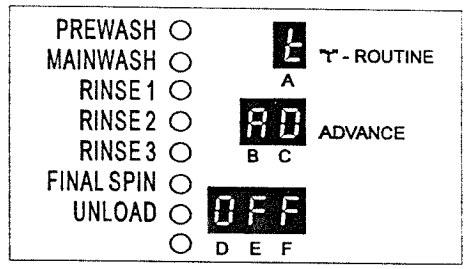


The display now changes as follows: display (DEF) now shows "OPL" or "CN". CN stands for coin operation and OPL for manual start operation. Changing and selecting is done in the same way as above.



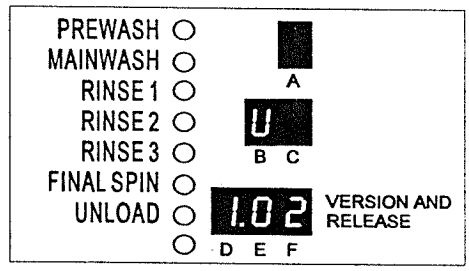
If "OPL" was chosen, setting routines "c" and "U" will not be available. If "CN" was chosen, setting routine "d" will not be available.

Only if manual start operation (OPL) was chosen, display (BC) will show "Ad" and display (DEF) "OFF" or "ON". By pressing the **select** key when "ON" appears on the display, the **advance** key as well as the **start** button can now be used to take a next washing sequence in the operating mode. If you select "OFF", only the **advance** key can be used for this.



2.2.7 Setting routine "o": Software version and EXIT

After selection, the software version and release is instantly displayed for about five seconds. The software version has the following format: **U x. yy**, in which U indicates the version, x (D) the version number and yy (EF) the release number.
The electronic programmer then returns to the operating mode. Returning to operating mode can also be done by disconnecting and after a while reconnecting the power supply.



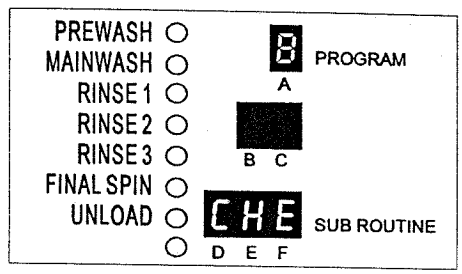
For the FF/FFS type
We can push the **advance** button during the demonstration of the software-version number. When this button is pushed, the frequency control will be placed under tension for checking or installations. For further details, see maintenance manual.
As long as this function is actif, the version nummer stays on the display.
By pushing the **advance** button once again, this function is left.

IMPORTANT REMARK!!!
This function is only meant for service purposes and may consequently only be used by technically competent personell which takes all necessary measures to guarantee the safety of everybody.
Frequently and wrongly use of this function can cause serious physical harm to man and animal, as well as damage to the electronic part of the machine and the machine itself.

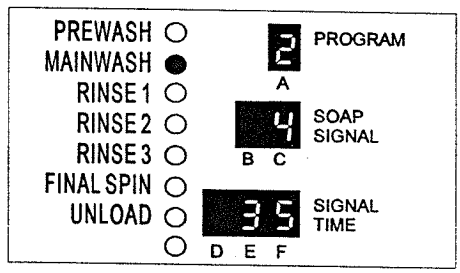
2.2.8 Setting routine "d": Soap signals for machines with manual start function

This setting routine allows you to check and program the soap supply settings in machines with manual start operation.
The routine is composed of two subroutines, "CHE" to check the settings, and "Pr" to program the soap signals.
Because of the different parameters, this is not a particularly simple routine. It is therefore advisable first to write down the desired settings on paper before you start programming and/or checking.

After having chosen "d" with the **select** key, the following display appears:
Use the **select** key to choose the "CHE" or "Pr" routine. You can switch between these options by using the **advance** key.
If you have selected the "CHE" subroutine, figure 1 flashes on display (A). Use the **select** key to choose the washing program in which you wish to check the soap supply. Checking starts after you have pressed the **advance** key..



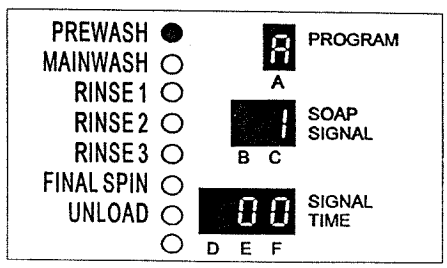
Now the following display appears with the first relevant data: washing program (A), washing sequence (LED), soap signal (C) and programmed time (EF).
Every time you press the **advance** key, you get the next setting. When the last setting has been reached, you automatically return to the setting menu.



In the "CHE"-routine, only the washing sequences with a programmed soap signal are shown.

If you have selected the "Pr" subroutine, figure 1 flashes on display (A). Use the **select** key to choose the washing program in which you wish to program the soap supply. Programming starts after you have pressed the **advance** key.

The washing sequence LED and the soap signal will now flash in turn. Use the **select** key to first select the desired washing sequence (LED) and then the desired soap signal (C) as they flash. Confirm with the **advance** key when the soap signal display (C) flashes.
This gives the following display:
A washing sequence light (LED) lights up to indicate the chosen washing sequence.
Now you can enter the time in seconds on display (EF) by using the **select** key.
Once the time has been entered and when display (C) flashes again, the next signal can be selected by pressing the **select** key; this brings you back to the initial situation. Another signal can now be selected and confirmed with the **advance** key or another washing sequence with the **select** key; follow the same procedure as above.



To return to the setting menu, press the select key when the last washing sequence LED flashes.
NOTE: Soap signals can only be programmed in the washing and rinsing sequences if you have chosen manual start operation. See 2.2.6.

3. OPERATING THE MACHINE

3.1 Switching washing programs

- Coin-operated version

It is possible during the first step of a washing program to switch over to another washing program by pressing the **select** key. The programmer will only accept this if this washing program is the same price or cheaper. If the price is higher than the original washing program, the bottom display (DEF) will indicate the extra cost of this washing program.
If extra payment is required, the machine will continue the originally selected program until the needed extra amount of money is inserted in the machine.
If after 90 seconds the extra money has not been put in or no other washing program has been selected, the machine will return to the normal display and the originally selected washing program will be continued and cannot be changed anymore.

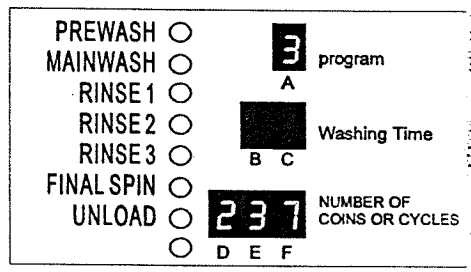
- Manual start version

It is always possible during the first step of a washing program to switch from one program to another.

3.2 Using the advance key

Apart from the use in the initialization mode, the **advance** key has two other functions in the operating mode. Naturally, you need to have the special key to switch the **advance** key into push button mode. The use of the **advance** key is slightly different for the coin-operated version (CN) and the manual start version (OPL).

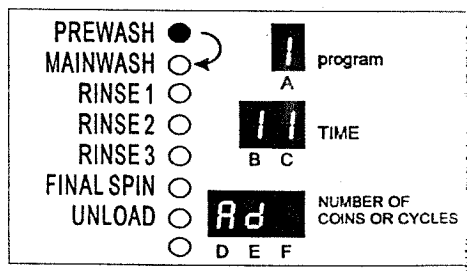
The machine is not washing
Pressing the **advance** key shows the number of cycles (OPL) or the number of coins in the coin box (CN), since this value was last reset. Holding down the **advance** key for more than 5 seconds will reset the value to zero (000).



The machine is washing

OPL: The advance function is instantly available.

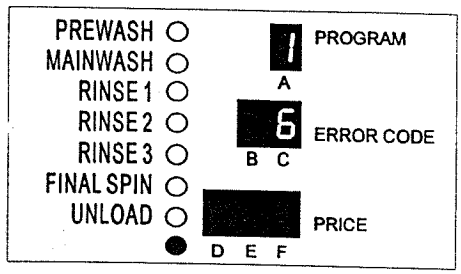
CN: The advance function can be activated by pressing the **advance** key twice for a short time. The display briefly shows "Ad" (Advance) (DE). The advance function is now available. At the end of the program, the function is reset. If you need it again, you have to reactivate it.



Pushing the **advance** key allows you to overrun certain program sequences (All **except spinning**) during the washing cycle. This procedure can be followed on the program sequence LEDs (↻) You can repeat this procedure until the end of the washing program.

3.3 Error messages

The electronic programmer reports faults by means of an LED lighting up and an error code (C). This code can be any figure between 1 and 9: each figure stands for a particular type of fault.



Error code	Type of fault
1	Water drain failure
2	Out of Balance
3	Motor overload
4	Door lock failure
5	Water fill failure
6	Heating Failure
7	Coin input fault
8	Memory Failure
9	*Frequency control Failure*

Once the fault has been corrected, press the advance key to remove the error code. Sometimes you might need to disconnect the power supply for a short while and then reconnect. If an error code appears again when you restart the machine, contact a service engineer or your dealer.

3.4 Economy levels

In the European program sets EU1 and EU2, certain programs have an economy level facility (see part 4). These programs can be used for slightly soiled and/or smaller volumes of laundry. In other cases, these programs will only give poor washing quality.
This option is not available in the US1 program set.

3.5 Water temperature

If the installation is fitted with cold and hot water supply, the MKIIA LC will try to come as close as possible to the programmed washing temperature in order to minimize energy consumption. This temperature function is provided as standard in the software.
The system works with a crossover temperature which is fixed at 45°C/113 °F:

i) If the programmed temperature is lower than the crossover temperature and the actual temperature is lower than the programmed temperature, the hot and cold water valves will be opened. Once the programmed temperature is exceeded, the hot water valves are closed and the cold water valves stay open.

ii) If the programmed temperature is higher than the crossover temperature and the actual temperature is lower than the programmed temperature, only the hot water valves will be opened. Once the programmed temperature is reached or exceeded, the cold water valves will be opened as well.

3.6 Machines without extra heating

If the machine is not fitted with electrical or steam heating, you have no choice but to turn the small SW1 switch on the MKIIA LC board to a position whereby the system does not wait for the target temperature to be reached (see part 2 par. 2.1).
If you fail to do this, the washing program will stall until a heating failure occurs.

3.7 Indication of extra heating

If the machine is fitted with electrical or steam heating, the heating process is indicated by a dot which appears on the time indicator (C). The cycle time will not diminish until the indicator dot has disappeared, which means that the water has reached the programmed temperature.

3.8 Unbalance detection

This only applies for "F and FF/FFS" type machines (free-standing machines).
If an unusually high water level and/or unbalance (uneven distribution of laundry in the drum) is detected at the start of the extraction sequence, the MKIIA LC will make up to eight attempts to redistribute the laundry in the drum. If the eighth attempt fails, the program will advance to the next sequence.

3.9 Flush Function

Some washing programs have a flush function. This function is always a part of the prewash sequence (See washing programs E & F in the program sets EU1 and EU2, and washing - program D in the program set US1). This function is used in heavy soiled programs to remove most solid soil particles. The function does take water for the sequence, without taking the water level into consideration. The water will flush down the overflow pipe, for as long as the set time.
The function "wait for temperature" will not have any effect on the flush function, regardless the setting of the switch SW1 (see 2.1)

3.10 Special prices

The MKIIA LC allows you to program two prices for each washing program if one single coin switch is used.
The special price is selected by an external time clock switch with a potential free contact which is connected to an input on the MKIIA LC board. For this purpose, certain technical adjustments need to be made. Contact your dealer for further information and ask a qualified expert to install the system for you.

4. Washing Programs For The MKIIA LC

4.1 LEGEND

- EU1: European program set with cold/soft, hot/soft, cold/hard water supply.
  EU2: European program set with cold/soft, hot/soft water supply.
  US1: American program set with cold/soft, hot/soft water supply.
- *: Programmable sequences
- Inlets :

Valve No	Sequence	Water type	Soap Hopper
I1	Last rinse	cold soft (EU2)	"C"
		cold hard (EU1)	"C"
I2	Prewash	cold soft	"A"
I3	Direct inlet	hot soft	/
I4	Main wash	hot soft	"B"
I5	Main wash	cold soft	"B"
I6	Direct inlet	cold soft	/

- Temperature unit : US1 -> °F
  EU1 -> °C
  EU2 -> °C
- Water level : E: open drain valve
  EL: low economy level
  EH: high economy level
  NL: low normal level
  NH: high normal level
- Washing action : normal (12" washing 3" rest)
  gentle (3" washing 12" rest)
- RPM (revolutions per minute):

W	:	type F =	washing speed
		type R =	Washing Speed
		type FF/FFS =	Washing speed, standard 42 rpm
D	:	type F =	distribution speed
		type R =	washing speed
		type FF/FFS =	Distribute, not changeable
L	:	type F =	low extraction speed
		type R =	extraction speed
		type FF/FFS =	low extraction speed, standard 350 rpm
H	:	type F =	1,5 min. low + rest high extraction speed
		type R =	extraction speed
		type FF/FFS =	High extraction speedstandard 999 rpm

4.2 Program sets :

4.2.1 Program set : EU1 & EU2

Wash program 1 : Hot Wash 90°C

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	40° C	N L	normal	4 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	4-3	90°C	N L	normal	9 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-4-3	40° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 2 : Warm wash 60°C

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	40° C	N L	normal	4 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	5-4-3	60° C	N L	normal	8 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 3 : Coloured wash 40° C

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	40° C	N L	normal	4 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	5-3	40° C	N L	normal	7 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 4 : Bright coloured wash 30° C

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2-3-6	30° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 1	3-5-6	30° C	N L	normal	7 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	3-5-6	30° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	2.2 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : EU1 & EU2

Wash program 5 : Woollens 15° C

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2-6	15° C	N H	gentle	0 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 1	5-6	15° C	N H	gentle	6 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-6	15° C	N H	gentle	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	gentle	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	N H	gentle	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1(+6 EU2)	-	N H	gentle	2 min	W
* Spin	-	-	E	-	1.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	gentle	30 sec	W

Wash program 6 : Hot Wash 90°C - economy level

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	40° C	E L	normal	3 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	4-3	90° C	E L	normal	8 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	E L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	E H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	E H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	E H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 7 : Warm wash 60°C- economy level

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	40° C	E L	normal	3 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	5-4-3	60° C	E L	normal	7 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	E L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	E H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	E H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	E H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 8 : Coloured wash 40° C - economy level

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	40° C	E L	normal	3 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	5-3	40° C	E L	normal	7 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	E L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	E H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	E H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	E H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : EU1 & EU2

Wash program 9 : Bright coloured wash 30° C - economy level

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2-6-3	30° C	E L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 1	6-5-3	30° C	E L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	6-5-3	30° C	E L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	E H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	E H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1(+6 EU2)	-	E H	normal	2 min	W
* Spin	-	-	E	-	2 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program A : Woollens 15° C - economy level

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2-6	15° C	E H	gentle	0 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 1	5-6	15° C	E H	gentle	6 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-6	15° C	E H	gentle	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	E H	gentle	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	E H	gentle	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1(+6 EU2)	-	E H	gentle	2 min	W
* Spin	-	-	E	-	1.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	gentle	30 sec	W

Wash program B : Hot Wash 90°C for badly soiled laundry

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	2- 3	40° C	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Prewash 2	2-3	60 °C	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	4-3	90° C	N L	normal	7 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	4-3	40° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	3 0 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program C : Warm wash 60°C for badly soiled laundry

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	2- 3	40° C	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Prewash 2	2- 3	60° C	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	5-4-3	60° C	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	3 0 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : EU1 & EU2

Wash program D : Badly soiled coloured wash 40° C

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	2- 3	40° C	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Prewash 2	2- 3	40° C	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Main wash	5-3	40° C	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program E : Flush - Rinse

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	6	-	Flush	normal	0 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	4-3	90° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-4-3	40° C	N L	normal	0 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-3	-	N H	normal	0 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	4-5-3	-	N H	normal	0 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	5 min	W
* Spin	-	-	E	-	6 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program F : Hot Wash 90°C for badly soiled laundry + FLUSH

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	6	-	Flush	normal	0 min	W
Spin	-	-	E	-	30 sec	L
* Prewash 2	2- 3	60° C	N L	normal	4 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	4-3	90° C	N L	normal	8 min	W
Drain	-	-	E	-	30 sec	D
* Main wash 2	5-3	40° C	N L	normal	1.5 min	W
Drain	-	-	E	-	30 sec	L
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1(+6 EU2)	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

4.2.2 Program set : US1

Wash program 1 : White wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	104 °F	N L	normal	3.5 min	W
Spin	-	-	E	-	1 min	L
* Main wash	4-3	194 °F	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	1 min	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	1 min	L
* Rinse 3	1-6	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 2 : Coloured wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	104 °F	N L	normal	3.5 min	W
Spin	-	-	E	-	1 min	L
* Main wash	4-5-3	140 °F	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	1 min	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	1 min	L
* Rinse 3	1-6	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : US1

Wash program 3 : Bright colours

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2-6	-	N L	normal	3.5 min	W
Spin	-	-	E	-	1 min	L
* Main wash	5-6	-	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	1 min	L
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Spin	-	-	E	-	1 min	L
* Rinse 3	1-6	-	N H	normal	2 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 4 : Nylon

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Main wash	5-3	104 °F	N L	normal	6.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D-
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1-6	-	N H	normal	2 min	W
* Spin	-	-	E	-	1 min	L
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : US1

Wash program 5 : Delicat wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Main wash	5-6	-	N H	gentle	6.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	N H	normal	1.5 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1-6	-	N H	normal	2 min	W
* Spin	-	-	E	-	1 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	gentle	30 sec	W

Wash program 6 : Slightly soiled white wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	104 °F	N L	normal	3 min	W
Drain	-	-	E	-	30 sec	D
* Main wash	4-3	194 °F	N L	normal	5 min	W
Drain	-	-	E	-	30 sec	L
* Rinse 1	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1-6	-	N H	normal	3 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : US1

Wash program 7 : Slightly soiled coloured wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2-6	-	N H	normal	3 min	W
Spin	-	-	E	-	30 sec	L
* Main wash	4-3-5	140 °F	N L	normal	7 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1-6	-	N H	normal	3 min	W
* Spin	-	-	E	-	3.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program 8 : Badly soiled white wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	2- 3	104 °F	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Prewash 2	4-3	194 °F	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Main wash	4-3	194 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1-6	-	N H	normal	3 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : US1

Wash program 9 : Badly soiled coloured wash

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	104 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Main wash	5-4-3	140 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1-3	-	N H	normal	3 min	W
* Spin	-	-	E	-	3.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program A : Badly soiled nylon

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	104 °F	N L	normal	3 min	W
Drain	-	-	E	-	30 sec	D
* Main wash	5-4-3	140 °F	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 1	2-5-6	-	N H	normal	3 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1-3	-	N H	normal	3 min	W
* Spin	-	-	E	-	1 min	L
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : US1

Wash program B : Gentle wash action

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Main wash	5-6	-	N L	gentle	8 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	2-5-6	-	N H	gentle	2 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-5-6	-	N H	gentle	2 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1-6	-	N H	gentle	3 min	W
* Spin	-	-	E	-	2.5 min	L
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	gentle	30 sec	W

Wash program C : Treatment for stains

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	2- 3	104 °F	N H	normal	3 min	W
Drain	-	-	E	-	30 sec	D
* Prewash 2	4-3	194 °F	N L	normal	6 min	W
Drain	-	-	E	-	30 sec	D
* Main wash	4-3	194 °F	N H	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	2-6-3-4	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-6-3-4	-	N H	normal	2 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1-3	-	N H	normal	3 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Program set : US1

Wash program D : Badly soiled wash - FLUSH

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash 1	2- 3	104 °F	Flush	normal	3 min	W
Drain	-	-	E	-	2 min	D
* Prewash 2	4-3	194 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 1	4-3	194 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Main wash 2	4-3	194 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	2-6-3-4	-	N H	normal	2 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 2	2-6-3-4	-	N H	normal	2 min	W
Drain	-	-	E	-	30 sec	D
* Rinse 3	1-3	-	N H	normal	3 min	W
* Spin	-	-	E	-	4.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program E : Rincing and spining

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Rinse 3	1-3	-	N H	normal	3 min	W
* Spin	-	-	E	-	1.5 min	L
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

Wash program F : Starched linen

	Inlet	Temp.	Level	Wash action	Time	R.P.M
* Prewash	2- 3	104 °F	N L	normal	6 min	W
Drain	-	-	E	-	40 sec	D
* Main wash	4-3	194 °F	N L	normal	6 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 1	3-4	-	N H	normal	3 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 2	2-6-3-4	-	N H	normal	2 min	W
Spin	-	-	E	-	30 sec	L
* Rinse 3	1-3	-	N H	normal	4 min	W
* Spin	-	-	E	-	3.5 min	H
Slowdown	-	-	E	-	30 sec	-
Tumble	-	-	E	normal	30 sec	W

4.2.3 Washing program form

	Inlet	Temp.	Level	Wash action	Time	R.P.M	Supplys
* Prewash 1	2- 3				min	W	
Spin	-	-	E		30 sec		
* Prewash 2					min	W	
Spin	-	-	E		30 sec		
* Main wash 1	4-3				min	W	
Drain	-	-	E		30 sec		
* Main wash 2	4-3				min	W	
Drain	-	-	E		30 sec		
* Rinse 1					min	W	
Spin	-	-	E		30 sec		
* Rinse 2					min	W	
Spin	-	-	E		30 sec		
* Rinse 3					min	W	
* Spin	-	-	E		min	H	
Slowdown	-	-	E		30 sec	-	
Tumble	-	-	E		30 sec	W	

	Inlet	Temp.	Level	Wash action	Time	R.P.M	Supplys
* Prewash 1	2- 3				min	W	
Spin	-	-	E		30 sec		
* Prewash 2					min	W	
Spin	-	-	E		30 sec		
* Main wash 1	4-3				min	W	
Drain	-	-	E		30 sec		
* Main wash 2	4-3				min	W	
Drain	-	-	E		30 sec		
* Rinse 1					min	W	
Spin	-	-	E		30 sec		
* Rinse 2					min	W	
Spin	-	-	E		30 sec		
* Rinse 3					min	W	
* Spin	-	-	E		min	H	
Slowdown	-	-	E		30 sec	-	
Tumble	-	-	E		30 sec	W	

5. Your settings

SW1: (1 - 8): .....

Initial settings

In "n" routine

Number of programs (1 - F): .....

Program set: **EU1** ☐ **EU2** ☐ **US1** ☐

Type of machine: ..... *(for frequency controlled machines only)*

In "u" routine

Coin slot values: 1: .....

2: .....

Decimal point: ☐ ☐ ☐

In "c" routine:

Wash program	Normal price	Special price
1		
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E		
F		

In "t" routine

Temperature display:..... **ON** ☐ **OFF** ☐

Mode: ..... **COIN** ☐ **OPL** ☐

If OPL: ADVANCE:..... **ON** ☐ **OFF** ☐