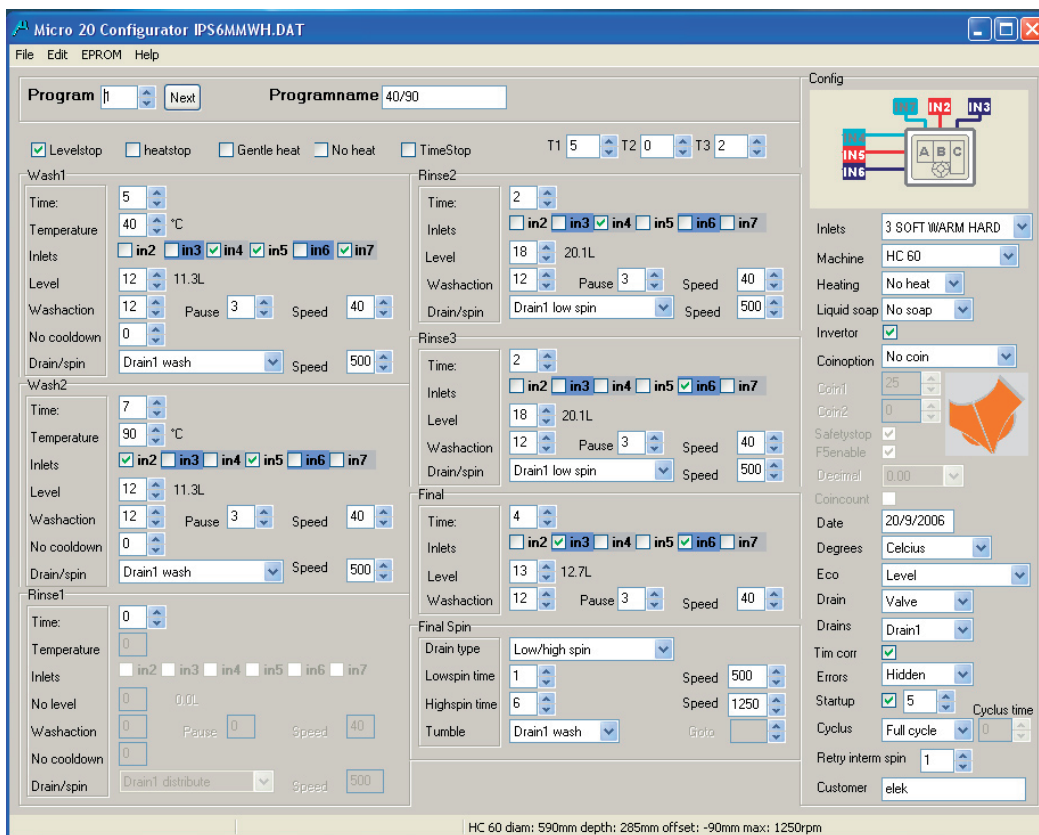


Programming manual

Micro-20



Programming manual Micro-20

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Art. 249/00385/10

D1112

Date: 12/07/2008

Software-version: Micro-20 1.01

1.0. System requirements Micro-20 software

The Micro-20 Programming Software has the following recommended system requirements: keyboard, mouse or other pointing device, and a CD- or DVD drive.

Recommended System:

- Pentium IV 2,86Ghz or higher
- Monitor supporting SGA 1280x1024 resolution or higher
- Windows Vista, XP
- 1 Gb memory capacity
- 4 Gb drive with 100 MB available hard disk space

Minimum System:

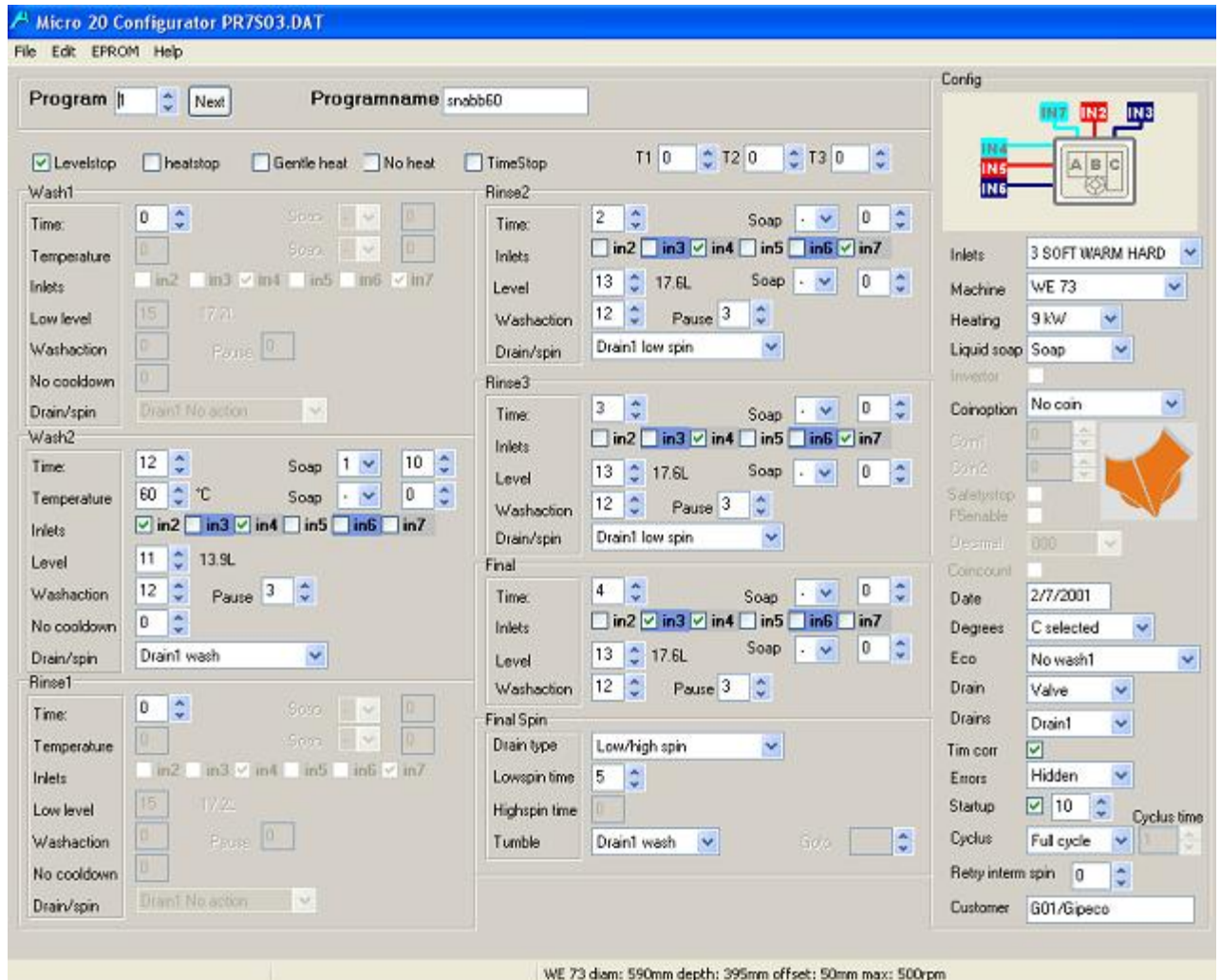
- Pentium III 1 GHz
- Monitor supporting XGA 1024x768 resolution
- Windows 2000, XP Home edition
- 256 Mb memory capacity
- 1 Gb drive with 40 MB available hard disk space

Note:

1. If your system barely meets the minimum system requirements, you will notice that the Micro-20 Programming Software does not perform at acceptable speeds. There is also the possibility that the Micro-20 Programming Software will not operate properly.
2. Adding more RAM to your computer will improve the performance of most software packages, including the Micro-20 Programming Software.
3. Refer to requirements of your computer's operating system

1. 1. Start-up screen of the Micro-20 programming software

On the Micro-20 display there is a complete overview of the important components to create a wash-program:



- Main menu : File-menu / Edit-menu / Eprom-menu and Help

File Edit EPROM Help

- Program-number and name

Program 12 Next Programname 40/900BLITES

- Programming-options

Levelstop heatstop Gentle heat No heat TimeStop

- Water mix time

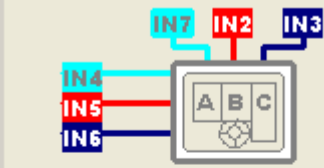
T1 20 T2 0 T3 2

- The wash-programs

Wash1 Time: 6 Temperature: 40 °C Inlets: <input type="checkbox"/> in2 <input type="checkbox"/> in3 <input type="checkbox"/> in4 <input checked="" type="checkbox"/> in5 <input type="checkbox"/> in6 <input checked="" type="checkbox"/> in7 Level: 18 20.1L Washaction: 12 Pause 3 Speed 40 No cooldown: 0 Drain/spin: Drain1 wash Speed 500		Rinse2 Time: 3 Inlets: <input type="checkbox"/> in2 <input type="checkbox"/> in3 <input checked="" type="checkbox"/> in4 <input type="checkbox"/> in5 <input type="checkbox"/> in6 <input type="checkbox"/> in7 High level: 21 24.8L Washaction: 12 Pause 3 Speed 40 Drain/spin: Drain1 low spin Speed 500	
Wash2 Time: 10 Temperature: 90 °C Inlets: <input checked="" type="checkbox"/> in2 <input type="checkbox"/> in3 <input type="checkbox"/> in4 <input checked="" type="checkbox"/> in5 <input type="checkbox"/> in6 <input type="checkbox"/> in7 Low level: 15 15.5L Washaction: 12 Pause 3 Speed 40 No cooldown: 0 Drain/spin: Drain1 wash Speed 500		Rinse3 Time: 3 Inlets: <input type="checkbox"/> in2 <input type="checkbox"/> in3 <input type="checkbox"/> in4 <input type="checkbox"/> in5 <input checked="" type="checkbox"/> in6 <input type="checkbox"/> in7 High level: 21 24.8L Washaction: 12 Pause 3 Speed 40 Drain/spin: Drain1 low spin Speed 500	
Rinse1 Time: 0 Temperature: 0 Inlets: <input type="checkbox"/> in2 <input type="checkbox"/> in3 <input type="checkbox"/> in4 <input type="checkbox"/> in5 <input type="checkbox"/> in6 <input type="checkbox"/> in7 No level: 0 0.0L Washaction: 0 Pause 0 Speed 40 No cooldown: 0 Drain/spin: Drain1 distribute Speed 500		Final Time: 3 Inlets: <input type="checkbox"/> in2 <input checked="" type="checkbox"/> in3 <input type="checkbox"/> in4 <input type="checkbox"/> in5 <input checked="" type="checkbox"/> in6 <input type="checkbox"/> in7 Level: 18 20.1L Washaction: 12 Pause 3 Speed 40	
Final Spin Drain type: Low/high spin Lowspin time: 1 Speed 500 Highspin time: 4 Speed 1250 Tumble: Drain1 wash			

- Configuration of the machine

Config



Inlets: 3 SOFT WARM HARD

Machine: HC 60

Heating: 6 kW

Liquid soap: No soap

Invertor:

Coinoption: No coin

Coin1: 100

Coin2: 20

Safetystop:

F5enable:

Decimal: 0.00

Coincount:

Date: 13/3/2006

Degrees: Celcius

Eco: Level

Drain: Valve

Drains: Drain1

Tim corr:

Errors: Hidden

Startup: 0

Cyclus: Full cycle

Retry interm spin: 0

Customer: HOR/ELECTR

2.1. Main menu

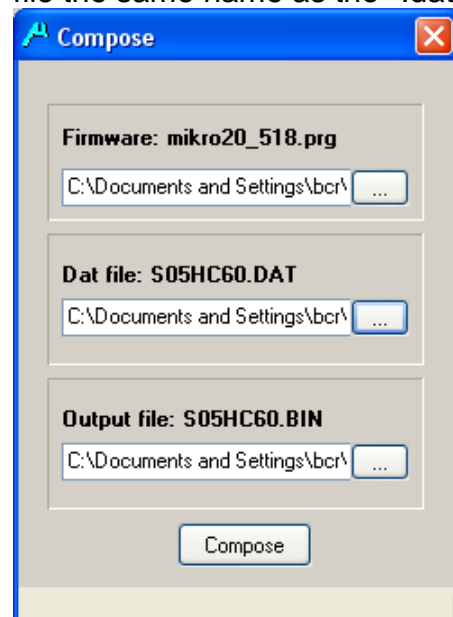
The main menu contains the different functions to be executed with programs:

- The File-menu:
 - New (Ctrl+N) : Start with a new blank program set
 - Open (Ctrl+O): Open a consisting program set
 - Save (Ctrl+S): Save the actual program set
 - Print (Ctrl+P): Print the current values
 - Print All (Ctrl+Alt+P): Print the complete values
 - Exit (Esc) : Quit the program
- The Edit-menu:
 - Copy (Ctrl+C): Copy the selected program
 - Paste (Ctrl+V): Paste the copied program
- The Eprom-menu:
 - Compose (F9): the composition of *.bin file from a *.dat file with systemsoft (*.prg file)
 - Decompose (F10): obtain a *.dat file from a *.bin file

Composing a *.bin file: this is necessary to be able to put the programmed data in an eprom. A *.bin file is a composition of 'systemsoft' (*.prg file) and *.dat file with the programmed data

- select the systemsoft (ex. 20_518.prg)
- select the specific *.dat file
- confirm a name for the *.bin file

To cause as less confusion as possible, it is recommended to give the *.bin file the same name as the *.dat file



--> The most recent programming software & systemsoft can always be found on the extranet !!

2.2. Program-number and name

Fill in the name of the program with the corresponding program-number:

Program 12 Programname 40/900BLITES

2.3. Programming options

Certain parameters can be selected here:

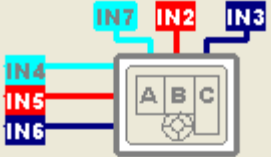
Levelstop heatstop Gentle heat No heat TimeStop

- Level stop: here the program time can be stopped or not when the machine is being filled with water
- Heat stop: here the program time can be stopped or not when the bath is being warmed up
--> when at heating 'NO HEAT' was selected, it is not possible to program heat stop
- Gentle heat: this the change of action and stop time during the 'Heat stop'
--> these times will not be changed if the action time has been programmed shorter than the stop time
- No heat: through this, a program can operate completely without heating. As a result, it is obvious that 'Heat stop' and 'Gentle heat' are no longer possible here.
- Time Stop: the program is stopped at the section-start (the clock stops, the temperature, level and wash action remain as programmed)

3. Configuration of the machine

The complete configuration of the machine according to its technical configuration - characteristics (ex. water inlets, type of machine, heating, Liquid soap option, coin option, machine with valve or pump, start-up, cycle-contact..) Also the choice of options such as Eco-level, temperature indication during the program, ... needs to be made here.

Config



Inlets 3 SOFT WARM HARD

Machine HC 100

Heating 9 kW

Liquid soap No soap

Invertor

Coinoption No coin

Coin1 20

Coin2 5

Safetystop

F5enable

Decimal 000

Coincount

Date 13/2/1998

Degrees Celcius

Eco Level

Drain Valve

Drains Drain1

Tim corr

Errors Hidden

Startup 5

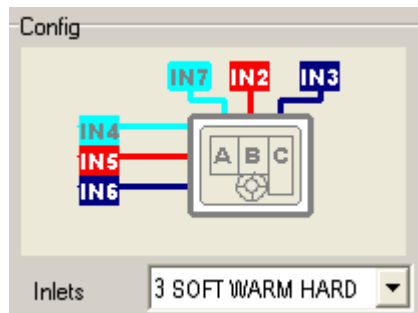
Cyclus Full cycle 0

Retry interm spin 0

Customer horeca/elektrisch

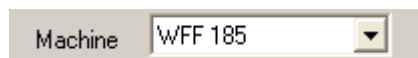
3.1. Water inlet system

The water inlet system of the machine has to be selected here. Select the corresponding type of inlet configurations.



3.2. Machine type

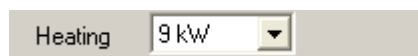
Select the type of machine:



The outputs in the water inlet chart (I2...I7) are automatically adjusted according to the type of machine. Only machines that can be found in the selection bar can be set. Please contact Alliance Int., if your machine cannot be found in the list.

3.3. Heating

Select the type or the electrical capacity of the heating : 3kW, 4.2kW, 6kW, 9kW, STEAM or No heat when no heating system is built in



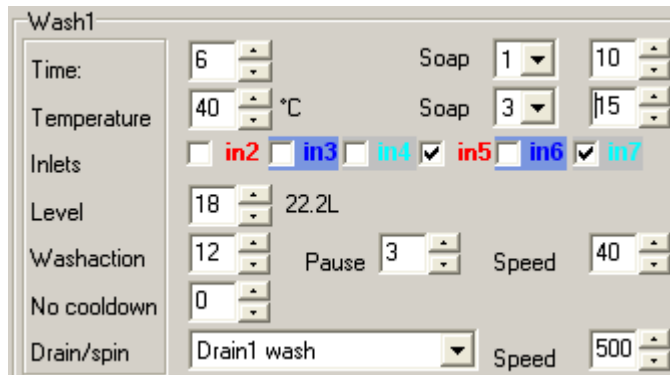
3.4 Liquid soap option

Select the corresponding option:

- NO SOAP: if the machine will not be used with an electronic soap injection
- SOAP: if the machine is equipped with the soap electronic print board (at the back next to the electrical connectors)
- INLETS: if the electronic soap injection will be connected directly to the water-inlets

SOAP: the possibility to activate a liquid soap pump: ex. pump 1: 10 sec / pump 3: 15 sec

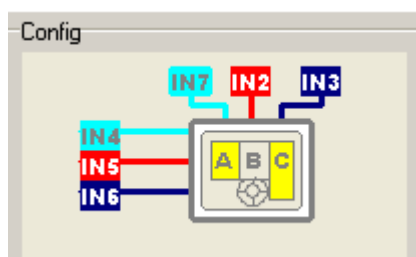
The soap injection time can not be higher than the programmed wash time:
 Max. 900 sec
 Time < 30": adjustable in 1" increments
 30"< Time < 180": adjustable in 2" increments
 Time > 180" : adjustable in 5" increments



INLETS: here you have the possibility to select which one of the inlets I7, I2 or I3 will be used for the soap injection signal:



The selected water inlets will light up yellow in the soap dispenser:



3.5. Inverter drive

If the machine is equipped with a frequency inverter/ frequency controlled motor, please select

Inverter	<input checked="" type="checkbox"/>
----------	-------------------------------------

3.6. Coin option

Here has to be programmed whether the machine will start through a start button or will be coin-operated:

Coinoption	Coin
Coin1	No coin Token
Coin2	Coin
Safetystop	Start, remote start Start, remote pay

NO COIN: when the machine is NOT coin-operated: coin meter token, coin meter or central operating panel

TOKEN: if the machine is equipped with a coin meter token --> see remark

COIN: if the machine is equipped with a coin meter --> see remark

REMOTE START: if the machine will be operated with a central operation panel

REMOTE PAY: if the machine will be operated with a central operation panel - but here 'PAY ' will appear when the machine is available

Remark: When Token or Coin was selected: confirm the coin or token value on Coin 1 and Coin 2 :

Coinoption	Coin
Coin1	0
Coin2	0

3.7. Safety stop enable

Select here if you want to stop the cycle by means of continuously pushing (5") of the middle push button.

Safetystop	<input type="checkbox"/>
------------	--------------------------

(when the machine is equipped with a coin- or token meter, remote start or pay)

3.8. F5 Enable

Select here whether it has to be possible to use the F5-function (rapid advance) and use the F7-function (reading out the speed) in the program:

F5enable	<input type="checkbox"/>
----------	--------------------------

(this function is NOT available on OPL-models)

3.9. Decimal

Through this, you can work with decimal numbers

Select 000. - 00.0 - 0.00

Decimal	0.00	▼
Coincount	000	
Date	00.0	
	0.00	


Example:

coin insertion 1: 0.50 €

coin insertion 2: 1 €

In the configuration you have to fill in:

Coinoption	Coin	▼
Coin1	50	▲▼
Coin2	100	▲▼
Safetystop	<input type="checkbox"/>	
F5enable	<input type="checkbox"/>	



3.10. Coin-count

For the machines with coin operation, you can program whether if the number of coin insertions have to be counted and saved:

Coincount	<input type="checkbox"/>
-----------	--------------------------

3.11. Date

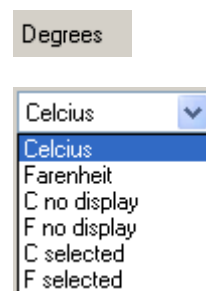
When programming new programs from the installation menu, the date is automatically given. By programming with another program as base, the date can be adapted by pressing the 'RETURN' button or a double click :

Date	13/9/1999
------	-----------

3.12. Degrees

Here you can set what is displayed on the left display group of the machine:

- **Celsius:** the temperature is displayed and expressed in °C, on the control box as well as in the setting program.
- **Fahrenheit:** The temperature is displayed and expressed in °F, on the control box as well as in the setting program.
- **Celsius no display:** the temperature in the setting program is mentioned in °C, the machine shows no value.
- **Fahrenheit no display:** the temperature in the setting program is in °F, the machine shows no value however.
- **Celsius selected:** the temperature in the setting program is in °C, the machine however shows the target temperature.
- **Fahrenheit selected:** the temperature in the setting program is expressed in °F, the machine however shows the target temperature.



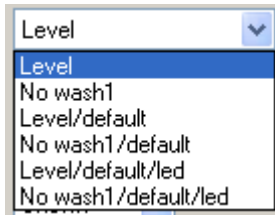
3.13. Eco-level

Through this you can define the ECO-button:

- **Level:** by pressing the ECO-button, all wash baths and rinses are executed with a lower water level of approximately 20%
- **No Wash 1:** by pressing the ECO-button (before you start the program) the pre-wash will be skipped
- **Level / default:** The ECO-level-function will be activated automatically at the start and the led will light up. When the ECO-button is pressed, the function will appear and the led will extinguish
- **No Wash1 / default:** the ECO-level-function will be activated automatically at the start and the led will light up. When the ECO-button is pressed, the function will appear and the led will extinguish
- **Level / default / led:** the ECO-level-function will be activated automatically at the start, but the led will not light up. When the ECO-button is pressed, the function will appear and the led will light up.
- **No wash 1 / default / led:** the ECO-no wash 1-function will be activated automatically but the led will not light up. When the ECO-button is pressed, the function will appear and the led will light up.

--> **REMARK:** The ECO-level and ECO no wash 1 function can be selected for coin-operated machines

Eco



Level

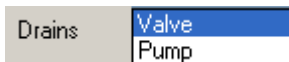
- Level
- No wash1
- Level/default
- No wash1/default
- Level/default/led
- No wash1/default/led

3.14. Drain - pump

Here you need to program the water drain system of the machine:

To select: drain: the machine is equipped with a (NO) drain valve

pump: the machine is equipped with a pump or NC drain valve



Drains

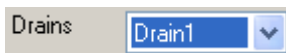
- Valve
- Pump

3.15. Drains

Select the number of drains:

Drain 1: the machine is equipped with 1 outlet

Drain 1 + 2: the machine is equipped with 2 outlets



Drains

- Drain1

(Drain 1 & Drain 2 should be of the same type)

3.16. Time correction

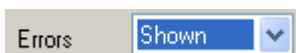
Here you can adjust the program time taking into account the filling and heat-up times of the previous cycle.



Tim corr

3.17. Error-indications

Select if the error-messages will be on the display or hidden



Errors

- Shown

3.18. Default startup

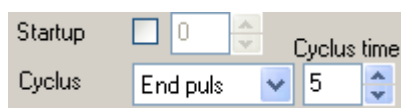
Here you can program the program number, which will be automatically selected as soon as a program is finished or at the power up. This allows to automatically preselect a cold program as security.



3.19. Cyclus contact

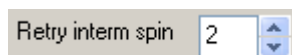
The operation of the cycle contact can be programmed to select:

- **Full cycle:** The cycle contact will be shut during the complete wash cycle
- **Start pulse:** The cycle contact will be shut of for 1 second at the start of the cycle
- **End pulse:** The cycle contact will be shut of for 'cyclus time' at the end of the cycle



3.20. Retry intermediary spin

The spinning-cycle is interrupted in case the unbalance is too big. Afterwards the linen will be redistributed and spinning will start again. Here you can program how many times intermediary spin may be started before this spin-cycle is left over.



3.21. Customer

The name of the customer / project can be programmed :



4.1. Structure of the wash-program

The structure of a washing program consist of a number of cycles such as:

- pre-wash (Wash 1)
- main wash cycle (Wash 2)
- first rinsing cycle (Rinse 1)
- second rinsing cycle (Rinse 2)
- third rinsing cycle (Rinse 3)
- fourth rinsing cycle (Final)
- final spin.

On the cycles the following parameters - wash components have to be set: Time in minutes, temperature, water inlets, water level, wash action and - speed, possible cool-down, and the water drainage between the middle and final extraction.

The screenshot displays a control interface for a washing machine program, organized into several panels for different stages:

- Wash1:** Time: 6; Temperature: 40 °C; Inlets: in2, in3, in4, in5, in6, in7; Level: 18 (20.1L); Washaction: 12; Pause: 3; Speed: 40; No cooldown: 0; Drain/spin: Drain1 wash; Speed: 500.
- Wash2:** Time: 10; Temperature: 90 °C; Inlets: in2, in3, in4, in5, in6, in7; Low level: 15 (15.5L); Washaction: 12; Pause: 3; Speed: 40; No cooldown: 0; Drain/spin: Drain1 wash; Speed: 500.
- Rinse2:** Time: 3; Inlets: in2, in3, in4, in5, in6, in7; High level: 21 (24.8L); Washaction: 12; Pause: 3; Speed: 40; Drain/spin: Drain1 low spin; Speed: 500.
- Rinse3:** Time: 3; Inlets: in2, in3, in4, in5, in6, in7; High level: 21 (24.8L); Washaction: 12; Pause: 3; Speed: 40; Drain/spin: Drain1 low spin; Speed: 500.
- Rinse1:** Time: 0; Temperature: 0; Inlets: in2, in3, in4, in5, in6, in7; No level: 0 (0.0); Washaction: 0; Pause: 0; Speed: 40; No cooldown: 0; Drain/spin: Drain1 distribute; Speed: 500.
- Final:** Time: 3; Inlets: in2, in3, in4, in5, in6, in7; Level: 18 (20.1L); Washaction: 12; Pause: 3; Speed: 40.
- Final Spin:** Drain type: Low/high spin; Lowspin time: 1; Speed: 500; Highspin time: 4; Speed: 1250; Tumble: Drain1 wash; Speed: 500.

4.2. Wash components

You can build your wash-program with the next wash-components:

Time:	44	Soap	-	0		
Temperature	0 °C	Soap	-	0		
Inlets	<input type="checkbox"/> in2	<input checked="" type="checkbox"/> in3	<input checked="" type="checkbox"/> in4	<input type="checkbox"/> in5	<input type="checkbox"/> in6	<input checked="" type="checkbox"/> in7
No level	0	0.0L				
Washaction	12	Pause	3	Speed	40	
No cooldown	0					
Drain/spin	Drain1 wash			Speed	250	

- Time: the duration of the washing time: (without taking into account filling- and heat-up time)
- Temperature: the desired temperature of the bath
- Inlets: the selection of the water inlet valves who have to be activated
 - in2: hot water - compartment B (main-wash)
 - in3: hard water - compartment C (softener)
 - in7: soft water - compartment A (pre-wash)
 - in4: soft water direct tub
 - in5: hot water direct tub
 - in6: hard water direct tub
- Level: the desired water level in cm (+ indication of the corresponding theoretical water volume)
- Wash action: the movement of the drum to wash the linen
 - Wash action: the required action time
 - Pause: the required stop-time
 - Speed: the wash speed of the drum (10-50rpm)
- Cool-down: the required cool-down temperature (lower than the temperature of the bath)

- Drain / Spin: here can be programmed what has to happen after the washing-action
 - drain 1 no action: the water drains for 1 minute. There's no wash action and no spin
 - drain 1 gentle: the water drains and there is a reduced wash action during 1 minute (3/12) without spinning
 - drain 1 wash: the water drains away and there is a normal wash action during 1 minute (12/3) without spinning
 - drain 1 low spin: in a cycle of 1 min. 30 sec. the water drains away (about 30 sec.) and the linen is spinning (about 1 minute) on low spin
 - drain 1 gentle spin: in a cycle of 1 min. 30 sec. the water drains away (about 30 sec.) the linen is spinning on low spin (about 10 sec.) and linen is tumbled (about 50 sec.). This is especially for delicate linen (as curtains)
 - No drain no action: the water stays in the tub, the drum is not spinning and there is no wash action during 1 minute
 - No drain gentle: the water stays in the tub, there is a gentle wash action (3/12) without spin during 1 minute
 - No drain wash: the water stays in the tub, there is a normal wash action (12/3) without spin during 1 minute
 - Drain 1 distribute: the water drains away from the tub and there is a distribution action without spin for 1 minute
 - Skip: this step is skipped, the machine immediately continues its program

4.3. Final Spin + tumble

Final Spin

Drain type	Low/high spin	Speed	500
Lowspin time	5	Speed	1000
Highspin time	9	Goto	
Tumble	Drain1 wash		

Two variables should be programmed, namely the first the nature of the action - drain type - that the drum has to execute and the duration of the action:

Drain type: Low/high spin

- no action: no wash action during the time filled in
 - gentle: reduced wash action (3/12) during the time filled in
 - wash: normal wash action (3/12) during the time filled in
 - low/high spin: low spin time during the time filled in
 - low/high spin: high spin during the time filled in
 - gentle spin: short spin during the time filled in
- every minute of 'gentle spin' consists of: 10 sec. spin + 50 sec. tumbling

Final Spin

Drain type	Low/high spin	Speed	0
Lowspin time	0	Speed	1000
Highspin time	2	Goto	
Tumble	Drain1 wash		

The second variable is spin time and -speed:

Low spin: max. 5 min. - max. 500 rpm -- (from 250 to 500 rpm)

Highspin time: 2 Speed: 1000

High spin: max. 9 min - max. 1000 rpm for high speed machines -- (from 500 to 1000 rpm)

(low spin becomes automatically 1 minute minimum or 2 minutes maximum)

Tumble: Drain1 wash

Tumble: After spin, the linen is tumbled for 1 minute - to select:

- drain1 wash: tumble with wash action
- drain 1 gentle: tumble with reduced wash action

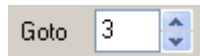
Remarks:

- If the machine is equipped with 2 water outlets, you can also choose 'drain2 wash' and 'drain2 gentle'
- The selection of 'drain1' or 'drain2' at tumble determines also the water

outlet at final spin

Automatically transition to another program:

Should the existing structure of the program card be too limited, several program cards can be coupled to each other. This way, special wash programs (ex. programs with more than 3 warm baths) can be made.



The selection therefore has to be done at 'Tumble' - confirm 'GOTO' with the program number.

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info@alliancels.eu - www.alliancels.eu

