VENDING

QUICK GUIDE *ZUMEX VENDING 2.0*

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LIFE ESSENCE

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CONTENTS

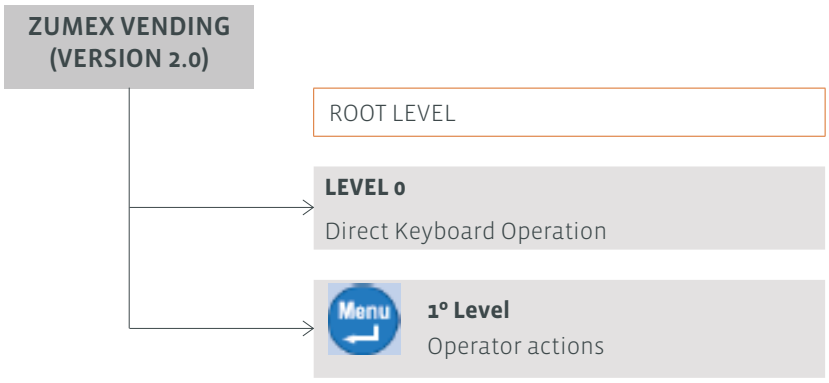
1. PROGRAMMING

This section describes the machine's programming functions. There is now a very simple and visual description of how to handle the programming keyboard where you are shown, step by step, how to adapt the machine to your own particular requirements.

When the machine is switch on , the programming keyboard will show the next message:

ZUMEX VENDING (VERSION 2.0)

The comunication interface have 4 comunication and programming levels, usually the machine performs some of it pressing the buttons directly. The specific operative instructions will be kept by MENUS access or 2º level login:



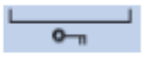
LEVEL 0: (Operator) Direct keyboard operation (cleaning, juice accounting, ...etc).

LEVEL 1: (Operator) Access pressing MENU button and P parameter (0, ...,16) to change.

1.1. DIRECT KEYBOARD OPERATION - LEVEL 0

This key ***"MENU o INTRO"*** together with ***"DEL"*** makes possible to acces programming parameters. This key enters the parameters.

The **"Del"** key, as its name indicates, **"DELETE"**, or if firtsly the "Menu" key is press. It make posible to introduce a login in order to access to the parameters programming.



This key in the level 1º, 2º...etc. programable parameters is used as **DECIMAL DOT** or parenthesis, as well as, special symbols

This key is for making a glass drop into place ready for the juice-making process. In the 1º,2º and 3º level programable parameters this key will be used in order to advance a space on the screen.

The key with the **shower** is for carrying out a cleaning process, which consists in a rinse by two spray nozzles strategically placed for maximum efficiency. These use water under pressure to remove any remains of oranges which might have been left after a number of juices have been made. In this process the squeezing system Works, however the storage commpartment remain immobile.

This key **"ESCAPE"** is for leaving any parameter and return to the principal Menu.

Test Store Motor: by holding key 1 down the motor for supply or storage of the oranges in the machine is started up and made to turn.

Test Squeezer Motor: by holding key 2 down the squeezing system is activated, making the pressing units turn.

Test sweeper Motor: by pressing key 3 the sweeping system is activated, which moves a brush, clearing any pieces of peel or pulp that might be left on the filter as it runs across this.

Glass process: pressing this key will make a glass drop into place ready for the juice-making process.

Water pistol: pressing this key gets the water spray ready for operation (it has to be connected to a water intake by means of the electric valve), activating the water pump during certain time.

Test Fridge Motor: pressing key 4 activates the cooler motor which is for cooling the oranges (you will have to wait roughly 10 seconds after pressing key nº 4, to access this function).

Temperature: pressing key 5 will show the registered machine temperature on the display when it starts working.

Juice accounting : pressing this key will show the count of the juices which have been made. It gives two values:

Accoun. juice.Num:
(1) TOTAL (2) PARTIAL

(1) **TOTAL**: if you press 1 this will state the total number of juices that has been made until that moment, shown as follows:

OK: juices which have been made in complete servings.
BAD: faulty juice process (through not filling the glass, not having sufficient oranges, tests etc).

TOTAL:
OK000.000 BAD000.000

To leave juice accouting screen press **INTRO** 

(2) **PARTIAL**: if you press 2 this is the same function as the previous one, except that this can be reset for a partial time, appering between brackets the last partial time counters start date.

PARCIAL (12.09.2007):
OK000.000 BAD000.000

To reset the counters, press the **DEL**  key to erase. To leave juice partial accounting screen, without erase partial counters press **INTRO** 

Accounting $ money: Pressing key 8 will display a screen similar to the previous section 1 TOTAL and 2 PARTIAL.

Accounting $ money:
(1)TOTAL (2) PARTIAL
Pressing Button 1:
TOTAL :
00.000.000 €
Pressing Button 2:
PARTIAL (12.09.2007):
00.000.000 €

To reset the counters, press the **DEL**  key to erase. To leave juice partial accounting screen, without erase partial counters press **INTRO** 

NOTE: The sign $, €, ...will be select by the operador with the P21 parameter.

Text for glass optical sensors: Makes a check of the photocells (optos), giving an "OK" message on the Display. In the event of any other message coming up, consult the error message section.
Optos OK

1.2. ACTIONS BY PARAMETERS

1.2.1. LEVEL 1º PARAMETERS OR OPERADOR PARAMETERS (PROGRAMABLE BY CLIENT).

Now we are going to take a look at the 1st level programming parameters in the memory of the C.P.U. These parameters control both external and internal values and actions that will define the service conditions, as follows:

- P0 LANGUAGE
- P1 NAME
- P2 DATE & HOUR
- P3 TELEPHONE
- P4 FRIDGE CONTROL
- P5 AVERAGE TEMPERATURE
- P6 TYPE OF CLEANING
- P7 WATER SUPPLY MODE
- P8 GENERAL CLEANINIG PER NUMBER OF DAYS (WARNING)
- P9 CLEAN DRAIN (WARNING)
- P10 CLEAN FILTER (WARNING)
- P11 TYPE OF ORANGES
- P12 JUICE LEVEL
- P13 TYPE OF SERVICE
- P14 JUICE NUMBER ORANGES
- P15 LIGHTS PROGRAM
- P16 OPTOS LEVEL

We should always enter the parameters by pressing the “MENU” key, which will be confirmed with the word “PARAMETERS” on the screen of the C.P.U, the screen show **P_** and, after getting to this point, use the numeri

cal keys to go into these parameters (from 0 to 9) and always using the (**INTRO**) 

key to accept.

Key uses:

By way of example:

A, B, C, a, b, c.

We will use the keys number for writting , using the **INTRO** 

key in order to validate and the **DEL** 

key in order to **ERASE** in case of an error.

P0 – CHANGE LANGUAGE

With this parameter you can personalise the language that comes up on the external and internal display. (consumer, operator,..).The language activated by defect will be Spanish "ESPAÑOL" (1), although the following languages can be selected via the menu:

the messages coming up on screen will be:

1. ESP (spanish by defect)
2. ing (English)
3. fra (french)
4. deu (german)
5. ita (Italian)

LANGUAGE 1/5:
1. ESP

LANGUAGE 5/5:
5. ITA

In this parameter we use the keys  to move forward or back in the list, whilst we should use the **ENTER**  key to select the language. *The selected option will be displayed in block capitals.*

P1 - NAME

With this parameter you can personalise the name that comes up on the display. The types of characters that you can enter are : alphanumerical or blank spaces.

COMPANY NAME:

The maximum number of characters allowed to indicate the company name is 16.

P2 – DATE AND TIME

This parameter can be used to personalise the date and time. The order to follow will be the year, month and date, and the messages coming up on screen will be:

New Year (2008-2999) : (2008) NEW:	New Month (1-12): (01) NEW:	New Day (1-31): (01) NEW:

the message will be shown to introduce the date format:

1 DD.MM.A 2 mm.dd.a

The select option will appear in capital letters.

A point (".") symbol will be used to separate the day, month and year.For example: **01.12.2007 010101.12.2007**

The message displayed to enter the hour and minutes will be as follows :

New Hour (0-23): (00) NEW:	New Minute (0-59): (00) NEW:	Hour Format: (1) AM-PM (2) 0-24h

The select option will appear in capital letters.

P3 - TELEPHONE

This parameter allows us to personalisethe telephone number, which will be shown on the external display :

Telephone number:

(00) 00.000.00.00

To enter the telephone, press each of the numbers (brackets can be used, as can points for separation). Using the **ENTER** key  we shall proceed with validation, whilst with the **DEL** keys  and we can **DELETE** and  move around the characters entered by mistake. In order to enter a "New Telephone Number", first delete the previous number using the **DEL** key  and then enter the new number.

P4 – FRIDGE CONTROL

Using the combined "Temperature + time" programme we can programme the cold group work mode (compressor operation time and halt time), allowing us to prolong the useful life of the cold group. In standard situation, select (1)

Temperature and time (subsequently programmable using the parameters **P50 and P51**).

Temperature Only.

CONTROL GROUP CONTROL

1.TEMP+TIME 2.temp

P5 - TEMPERATURE

This parameter allows us to personalise the temperature between 5 and 15°C (41 to 59°F); this will be the mean temperature inside the machine, **with the current refrigeration unit temperature being displayed on the Display (between brackets).** The first message we will obtain on screen will be the selection of the type of temperature unit to be used:

TEMPERATURE UNIT

(1)°CENT (2)°Fahren

Once the measurement and temperature unit (when choosing °C) is selected, we will be asked for the temperature of the refrigeration unit:

The selected option will be displayed in block capitals.

The temperature displayed by defect will be °C

TEMPERATURE (5 ÷15 °C)

(7 °C) NEW:

P6 – TYPE OF CLEANING

With this parameter we can personalise the type of cleaning to be carried out using the water nozzles installed in the extraction group casing, allowing us to choose between two types:

(1) Cleaning after a number of juices (40).
(2) Cleaning at an established time (17:00).

Cleaning can later be programmed using the parameters **P40, P41, P42 and P43.**

The following message will be shown on screen:

TYPE OF CLEANING

(1)Nº JUICES (2)time

The Display will show the selected option in block capitals; in the example shown, the option will be the number of juices.

When choosing the NUMBER OF JUICES option, the message displayed will be:

CLEANING TIME Hour (17) NEW:	CLEANING TIME Minute (00) NEW:

P7 – WATER SUPPLY MODE

This sets the operation mode for the cleaning of the machine in line with the cleaning programme, depending on whether the machine is connected to the ***grid*** or is ***independent.***

WATER SUPPLY	Neither of the two will be selected by defect.
(1)Independent (2)Grid	*The selected option will be displayed in block capitals.*

If neither of the two options has been programmed, the Exterior Display will show the Out of Service message, **OFF 14**.

P8 - GENERAL CLEANING BY NUMBER OF DAYS

This parameter allows us to personalise the period after which the operator should carry out general cleaning of the machine. The value which will be displayed by defect will be (15), i.e. THE MESSAGE WILL APPEAR EVERY 15 DAYS, ACCOMPANIED BY THE EXECUTION DATE. The following message will be shown on screen:

GENERAL CLEANING

DAYS (15) NEW:

This message will appear every time the door is opened, and will only disappear if its reading is confirmed by pressing the **asterisk key**  **DEL** once (1).

The date which will accompany this parameter will show the last date on which general cleaning was carried out, and the message displayed only on the INTERIOR DISPLAY will be:

GENERAL CLEANING

00.00.0000

P9 – CLEANING DRAINPIPE AND GLASS-DISPENSING ITEM

This parameter allows us to personalise the period after which the operator should carry out cleaning of the run-off section of the machine, thus ensuring it does not become blocked. The value which will be displayed by defect will be (2), i.e. THE MESSAGE WILL APPEAR EVERY 2 MONTHS, ACCOMPANIED BY THE EXECUTION DATE.

DRAINPIPE CLEANING (1-6)

Months(2) NEW:

The date which will accompany this parameter every P9 JUICES will show the last date on which the run-off was cleaned, and the message displayed on the INTERIOR DISPLAY only will be:

DRAINPIPE CLEANING

00.00.0000

This message will appear every time the door is opened, and will only disappear if its reading is confirmed by pressing the **asterisk key DEL**  once (1).

P10 - CLEANING RACK

This parameter allows us to personalise the period after which the operator should carry out cleaning of the glass rack, in order to prevent unpleasant smells. The value displayed by defect will be (120), i.e. THE MESSAGE WILL APPEAR EVERY 120 JUICES, accompanied by the execution date. The message displayed on screen every 120 JUICES will be as follows:

RACK CLEANING (1-120)

Juices(120) NEW:

The date which will accompany this parameter every P10 JUICES will show the last date on which the Rack was cleaned, and the message displayed on the INTERIOR DISPLAY only will be:

RACK CLEANING

00.00.0000

P11 – TYPE OF ORANGES

Here you can determine the size of the oranges that you are going to use, choosing from three types, which will be selected as follows :

1.B Large oranges: Caliber 6 and 7 (6 = ø70÷80 mm and 7 = ø67÷76 mm).

2.MED Medium oranges: Caliber 8 and 9 (8 = f64÷73 mm and 9 = f62÷70 mm).

3.SM Small oranges: Caliber 10, 11 and 12 (10=f67÷76 mm 11= f60÷68 mm and 12= f 55÷60 mm).

the messages coming up on screen will be:

TYPE OF ORANGES

1.B 2.med 3.sm

The orange size which displayed by defect in this parameter will be **(1). LARGE**

The currently selected type **will be displayed** in block capitals. Proceed as normal, using alphanumeric characters (1, 2 and 3 only; entering any other value will invalidate it and wait for a new value to be entered).

P12– JUICE LEVEL

With this parameter we can control the type of serving to be carried out, choosing between N*ormal Juice Level and Extra Juice Level*, which will be controlled with the optos.

1. NORMAL JUICE LEVEL: Final juice reading (END OF SERVICE) in **OPTO 5**, with the juice stopping around 15mm from the edge of the glass.

2. EXTRA JUICE LEVEL: Final juice reading (END OF SERVICE) in **OPTO 6,** with the juice stopping around 5mm from the edge of the glass.

JUICE LEVEL

1.NORMAL 2.Extra

P12 NORMAL			P12 EXTRA		
OPTO	READOUT	% SCREEN	OPTO	READOUT	% SCREEN
0	YES	-----	0	YES	-----
1	YES	20	1	YES	17
2	YES	40	2	YES	34
3	YES	60	3	YES	51
4	YES	80	4	YES	68
5	YES	100	5	YES	85
6	-----	-----	6	YES	100

The currently selected type **will be displayed** in block capitals. Proceed as normal, using alphanumeric characters (1 and 2 only). The JUICE LEVEL which will be displayed by defect in this parameter will be **(1).NORMAL.**

P13 –TYPE OF SERVICE

With this parameter we can select the quality of the juice serving, since stopping in **"OPTO 3"** will achieve a finer serving than stopping in **"OPTO 4"**. In the case of large oranges, regardless of the required Juice Level (NORMAL or EXTRA), stopping will always be in **"OPTO 2"**.

We can also carry out what we shall call Quick Serving, in which the level of the juice will depend solely on the size and number of oranges programmed in P14, in which the Optos will only detect the glass and the amount taken away, but not the level.

1.QUICK Serving (Level WITHOUT OPTOS): The juice obtained in each serving only depends on the number of oranges programmed to be squeezed in **P14**, for squeezing in each juice. If we select this option, instead of PARAMETERS being shown on screen, parameter **P14** will be activated and we will be asked us for the number of oranges for the serving.

2.NORMAL Serving (Level WITH OPTOS): Quicker serving and normal juice level setting, *reading in Opto 4*

3. FINE serving (Level WITH OPTOS): Quicker serving and very fine juice level, *reading in Opto 3*.

TYPE OF SERVING

1.Quick 2.Norm 3.Fine

The currently selected type **will be displayed in block capitals**. Proceed as normal, using alphanumeric characters (1, 2 and 3 only).

The TYPE OF SERVING displayed by defect in this parameter will be **(2). NORMAL.**

We will thus have 8 types of serving with 10 types of control:

P11 (Small)	1.- NORMAL Juice Level **P12** (Opto 5) and NORMAL setting **P13** (Opto 4). 2.- NORMAL Juice Level **P12** (Opto 5) and FINE Serving **P13** (Opto 3). 3.- EXTRA Juice Level **P12** (Opto 6) and NORMAL Serving **P13** (Opto 4). 4.- EXTRA Juice Level **P12** (Opto 6) and FINE Serving **P13** (Opto 3).
P11 (Medium)	5.- NORMAL Juice Level **P12** (Opto 5) and NORMAL setting **P13** (Opto 4). 6.- NORMAL Juice Level **P12** (Opto 5) and FINE Serving **P13** (Opto 3). 7.- EXTRA Juice Level **P12** (Opto 6) and NORMAL Serving **P13** (Opto 4). 8.- EXTRA Juice Level **P12** (Opto 6) and FINE Serving **P13** (Opto 3).
P11 (Large)	9.- NORMAL Juice Level **P12** (Opto 5) and halt in (Opto 2). 10.- EXTRA Juice Level **P12** (Opto 6) and halt in (Opto 2).
P11 (Small)	11.- Quick Serving (Without Optos).
P11 (Medium)	12- Quick Serving (Without Optos).
P11 (Large)	13.- Quick Serving (Without Optos).

P12 NORMAL SERVICE					P12 EXTRA SERVICE				
SERVICE	1º		2º		SERVICE	1º		2º	
(P13) ADJUST.	OPTO	READOUT	OPTO	READOUT	(P13) ADJUST.	OPTO	READOUT	OPTO	READOUT
	0	-----	0	-----		0	----	0	----
	1		1			1		1	
	2		2			2		2	
EXACT	3		3	YES	EXACT	3		3	YES
NORMAL	4	YES	4		NORMAL	4	YES	4	
JUICE END	5		5			5		5	
					JUICE END	6		6	

Recommendation: With *small and medium oranges*, set at NORMAL Serving, and with *large oranges* set at FINE Serving. If the Opto level reading is not required, select QUICK serving.

P14 - QUICK SERVING ORANGES

Here we can determine the number of oranges to be squeezed; it is only accessible if in parameter **P13** we chose option (1), **QUICK Serving**. The following message will be shown on screen:

ORANGES JUICE

GRA(M) NEW(K-L) X

The first three digits on the lower line will remind us of the type of orange programmed in parameter **P11** (Small – peq; Medium – med; or Large - gra), followed, between brackets, by the programmed size (M), and **(X)** the new number of oranges to be squeezed.

By defect, the number of oranges recorded in (M) will be the minimum number of oranges programmed in **P78**, in line with their size.

The values K and L will indicate the minimum **(P78)** and maximum **(P79)** programming values, in line with that established in these parameters.

We will later be asked for confirmation to empty the tube (none will be selected by defect). Pressing 2.NO will leave the machine in the previous serving state.

P11 TYPE OF ORANGES	P78 MINIMUM LIMIT ORANGES	P14 RECORDED BY DEFECT	P14 NUMBER ORANGES PER JUICE	P79 MAXIMUM LIMIT ORANGES
1.g (Diameter 6.7)	1	2	1, 2 or 3	3
2.m (Diameter 8.9)	2	3	2, 3 or 4	4
3.p (Diameter 10.11)	3	4	3, 4 or 5	5

This will allow us to later extend the range of servings by simply changing the layout of the optos or the glass rack without changing the electronics.

P15 – PROGRAMME LIGHTS

This parameter allows us to personalise the operation period for the lights on the outside of the machine, with the type currently selected **being shown in block capitals**. The following message will be shown on screen:

EXTERIOR LIGHT

1.ON 2.off 3.time

(1) Light on: the light will always be on.

(2) Light off: the light will always be off.

(3) Time: with this option we can personalise the time the lights will come on and go off every day.

- By defect this parameter will be **(1).ON**
- If we choose to select option (3. time), the following messages will be displayed:

TIME ON (0-23) (XX) NEW:	TIME OFF (0-23) (XX) NEW:
ON MINUTE (0-59) (AA) NEW:	OFF MINUTE (0-59) (AA) NEW:

Una volta impostato l'orario di accensione e spegnimento, sarà chiesto se durante il weekend le luci dovranno essere accese o spente tramite la programmazioni.

WEEK-END

1. SI 2. NO

P16 – STATO DEI SENSORI

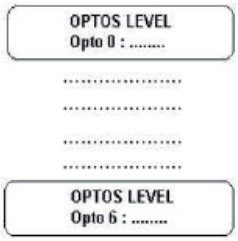
This is only used to carry out checks as ordered by the Technical Service, and allows us to see the operation of the infrared sensors in order to check their state.

By consecutively pressing the **MENU** key we will obtain the reading of the different OPTOS (Opto 0,

Opto 1, Opto 2, Opto 3, Opto 4, Opto 5, Opto 6). If the Opto 0 infrared sensor (the first sensor of the column, starting from the bottom) operates correctly, a random, not necessarily identical, value will be displayed every time parameter **P16** is reviewed, **with this value representing a % of infrared beam reception.**

OPTOS LEVEL

OPTO 0:



Press To get Opto 0 read-out

Example: Let us suppose we wish to review the state of operation of the OPTOS, to which end we shall press the keys to display parameter **P16**. Let us suppose that, in this review, the reading we obtain in Opto 0 is 57, the results we could obtain would be:

JUICE LEVEL NORMAL P12 (Opto 5)									
NO GLASS		GLASS		JUICE		AGUA		ERROR OPTOS	
OPTO	READOUT	OPTO	READOUT	OPTO	READOUT	OPTO	READOUT	OPTO	READOUT
0	57	0	61	0	57	0	57	0	Error
1	57	1	35	1	3	1	2	1	Error
2	59	2	35	2	2	2	2	2	Error
3	53	3	34	3	2	3	3	3	Error
4	50	4	30	4	2	4	2÷3	4	≈
5	49	5	29	5	2	5	2	5	≈
6	33	6	20	6	30	6	20	6	≈

If you have any suggestions or comments that you believe may improve our machines or service network, please get in touch with Zumex directly at the address below:

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