



- MANUALE DEL TECNICO
- **ENGINEER'S MANUAL**
- MANUEL DU TECHNICIEN
- TECHNIKERHANDBUCH
- MANUAL DEL TÉCNICO

MANUAL DO TÉCNICO

M39 Dosatron TE







English





- 9a Turbosteam pipe
- 11 Filter-Holder
- 12 Hot water button
- 13 Turbosteam selector Tray
- 15

Π

S

- 16 17
- Graphical display Ad display (*) Steam supply knob
- 20
- Electrical cup warmer button (*) 22
- 23 Cups warmer (*)
- "RES" key (to quit programming mode / 24 cancel entered data)
- 26 Coffee circuit flushing key
- "i" key (displays the number of cycles) 27
- 29 "PRG" key (to access programming mode / menu)
- 30 "+" key (to modify parameters / clock)
- "-" key (to modify parameters / clock) 31
- "CUSTOMER PARAMETERS" key 34
- Hotwater "STOP-CONTINUOUS" key 35
- OK On / Off switch boiler resistance confirm entered data

The components - * - are applied only in some produit configurations

esso anon				9 <i>L1</i>		
			tipo di macchina	2 gruppi	3 gruppi	4 gruppi
500 60			type of machine	2 groups	3 groups	4 groups
			type de la machine	2 groupes	3 groupes	4 groupes
			Maschinentyp	2 Einheiten	3 Einheiten	4 Einheiten
			modelo de la máquina	2 grupos	3 grupos	4 grupos
	P _{max}	T _{max}	tipo de la màquina	2 grupos	3 grupos	4 grupos
[bar] [°C] Fluido - Fluid	Fluido - Fluid - Fluide	Capac	cità - Capacity - Capacité [L]	
			Flüssig - Fluido - Fluido	Fassungsvern	nögen - Capacida	d - Capacidade
Caldaia			acqua/vapore			
Service boiler			water/steam			
Chaudière	2 har	133º C	eau/vapeur	5 - 11	15	20
Heizkessel	2 001	155 0	Wasser/Dampf	5-11	15	20
Caldera			agua/vapor			
Caldeira			água/vapor			
Scambiatore			acqua			
Heat exchanger			water			
Échangeur de chaleur	12 hor	1220 0	eau	0.18 - 0.25	0.18 - 0.25	0.18 - 0.25
Wärmeaustauscher	12 bar	133 0	Wasser	x 2	x 3	x 4
Intercambiador de calor			agua			
Permutador de calor			água			

<u> </u>
E
Q
S
57







DIMENSIONS				
		2 gr.	3 gr.	4 gr.
L	mm	855	1055	1255
	inches	33.7	41.5	49.4
L1	mm	568	768	968
	inches	22.4	30.2	38.1
Weight	Kg	86	104	125
	pounds	190	229	276

MACHINE	POWER SUPPLY	INSTALLED POWER	LINE POWER	SUPPLY CABLE SECTION
	380-415V3N 50/60Hz		9A	5x1,5 mm ² or 5x2,5 mm ²
2 GR.	220-240V3 50/60Hz	4.2-5.0 KVV	12A	4x2,5 mm ²
	220-240V 50/60Hz 4.2-5.0 kW or 3.0-3.5 kW		21A (power reduced 13A)	3x4 mm ² or 3x6 mm ²
	380-415V3N 50/60Hz		11A	5x1,5 mm ² or 5x2,5 mm ²
3 GR.	220-240V3 50/60Hz	6.3-7.5 kW	19A	4x2,5 mm ²
	220-240V 50/60Hz		31A	3x4 mm ² or 3x6 mm ²
	380-415V3N 50/60Hz		11A	5x1,5 mm ² or 5x2,5 mm ²
4 GR.	220-240V3 50/60Hz	6.3-7.5 kW	19A	4x2,5 mm ²
	220-240V 50/60Hz		31A	3x4 mm ² or 3x6 mm ²

SWITCH- Omnipolar, 3mm opening contact distance
- Protection from leakage current with a value equal to 30mAGROUNDING- RequiredHYDRAULIC
CONNECTION- Ø 3/8 gasHYDRAULIC
FEEDING PRESSURE- 0 ÷ 6 bar (0.6 MPa)WATER DISCHARGE- Ø min. 50mm





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WARNING: Installation and disassembly must only be performed by qualified and authorized technicians. Switch off the power to the machine before performing these steps.

Page



PVCCKHA



PROGRAMMING - ENGINEER MODE

1. Data flow chart - Technician programming







2. Technical Programming Access



To enter programming, press the **d** key and then **OK** for 3 seconds. The following message will appear on the display:



Display available menus: using the \triangle and ∇ keys, then press \triangleright . **ACCESSING the menus:** position the cursor on the desired line using the \triangle and ∇ keys, then press \triangleright (press a selection key in the case of the "KEY SELECTION" menu)

The technical staff can activate or deactivate the resistance (if the boiler resistance is disabled, automatic level control is inhibited). Operate as follows:

1) Access the technical programming panels;

2) Press and hold the **OK** key for several seconds to activate/ deactivate the resistance.

4. Key menu - Coffee selection

Press one of the coffee dispensing keys (the relative led will remain on, not flashing). The following message will appear on the display:

* KEY MENU	
Туре	1 coffee +
Water dose	0100
Select grinder	MM1
C C	

Changing menus and sub-menus: position the cursor on the desired line using the \bigwedge and \bigtriangledown keys and then press \triangleright



Change the selection or value, again using the \triangle and values when editing data, the cursor becomes " \rightarrow ", or a slider bar appears with the minimum and maximum values that can be set:



Exiting the programming panels: there are two options:

- 1) Confirm the changes by pressing **OK**
- 2) Exit the menu, leaving the data unchanged, by pressing <
- 3. Electric heating

The coffee selection settings that can be changed are:

- type (key customisation, e.g. 3 espressos for 1 "short, normal, long", 3 espressos for 2 "short, normal, long", stop, disabled).
- water dose (volumetric dosing device impulses, 0 ÷ 1999 in steps of 1).
- Select grinder(grinding-machine customisation)

- **MM1-MM2** - Possibility of connecting from 1 to 2 grinders with the optional Bluetooth function.





4.1 KEY Menu - Test Frame (Key "i")

ramming menu, access the key menu by pressing one of the drink-dispensing keys (the associate LED remains lit); the following will be shown on the display: Pushing the "i" key (27), dispensing occurs and the relative settings are displayed on the screen:

- (E.g. Group 2 Key)



Key menu - Coffee selection



Key menu - Hot water selection







Key menu - Turbosteam selection



Key menu - Grinding Control Selection



Legend

ML/S	Coffee dispensing flow (millilitres/seconds)
¥ R1÷R2 Evc	When * appears, dispensing is taken into consideration with the grinding control algorithm. Display services boiler resistance status (ON/OFF) Solenoid valve charging boiler
P DV TG Liv	Boiler Pressure, displayed in "bar" or "psi". Volumetric dosing device impulse count Coffee dispensing time Water level in boiler
TV	Steam temperature (Seil System Turbosteam not present, this parameter is not displayed)





4.2 Key menu - Hot water selection

ter dispensing; the display will show:

The hot water selection settings that can be changed are:

- water dispensing time (water dispensing time from 0 to 60 seconds)..



4.3 Key Menu - Select Steam and Air

Press one of the Turbosteam (13) selector keys (TS1 ÷ TS4). The following will appear on the display:



The following parameters can be modified: - *T* stop steam ("xxx°C" temperature for hot milk or frothed milk).

Setting options:

- "0" setting: · manual steam stop
- Any number between "40°C ÷ 85°C" (104°F ÷ 185°F) · automatic steam stop

"OFF" setting:

• steam stop disabled

- emulsion level (a different emulsion level can be chosen for frothed milk: the value can be set between "0 ÷ 100", where 0 indicates no emulsion and 100 indicates continuous emulsion).







5. Self. learning - Clone

underneath the filter-holder nozzles and press the d, holding until

the desired level is reached in the cup or cups.

During this phase, the value of the impulses of the volumetric dosing device (top right on the display) is increased; when the key is released, the value reached is stored and appears on the display.

* TECHNICAL PROG. KEY MENU Self. learning CONFIGURATION TESTING

CLONE FUNCTION

This function allows coffee dose settings of the right group to be copied to all other groups.

Once programming of the right group is complete, push **OK**. At the end of the process, all the groups will have the same settings.

6. Configuration menu

* CONFIGURATION	
Bolier press.	1.3 bar +
Low power	NO 😭
Sensitivity level	2
MEASURING UNIT	
Drying	05.0s 📮
	do

Boiler pressure - indicates the pressure of the boiler; 0.6 to 1.6 bar (9 to 23 psi)

Low power - YES/NO

<u>Sensitivity level</u> - indicates the degree of sensitivity of the level probe, which then operates the filling of the boiler with water. For safety reasons, automatic level control of the boiler is disabled when the boiler resistance is turned off.

- Note: set a value of 1 if the machine is installed with very conductive water.

-Note: set a value of 3 if the water used is not very conductive (very soft).

MEASURING UNIT - includes 2 sub-menus

<u>Temperature</u> – can be set to °C Celsius centigrade or °F Fahrenheit degrees.

Pressure - can be set to bar or psi.

Drying - wafer drying time from 0 to 5 with steps of 0.1 seconds "if Drying kit is present".



Time check - view dispensing time on the display: YES/NO

Buzzer - enables/disables all audible signals when keys are pressed or messages are displayed: YES/NO.

Customer programming - customer programming: YES/NO

Block programming - block programming: YES/NO. When this function is activated (YES), the programming keypad can only be used by accessing the technical menu

Stop dispensing: enabled - YES/NO.

YES: each dispensing key performs *start/stop.* This means that pressing the same button during dispensing interrupts it

* CONFIGURATION	
Paym. system	NO +
WASHING OPTIO	
Resin regeneration	-
MAINTENANCE	_
DATA IN/OUT	
	do

 $\ensuremath{\textbf{Payment system}}$ – permits configuration of payment system, when connected.

WASHING OPTIONS - See paragraph *"Washing options"* on the following pages.

<u>**RESIN regeneration**</u> - includes the resin regeneration settings: litres of resin (from 0.1 I to 25 I), hardness (from 0 to 45 $^{\circ}$ F).





6. Configuration menu

MAINTENANCE - includes five items for setting maintenance parameters: Max cycles - the number of cycles initially set: 40000.

Max days - the number of days initially set: 185.

No. cycles - the number of cycles until the next maintenance activity.

No. days - the number of days until the next maintenance activity.

Reset - the choices are:

 $\ensuremath{\text{NO}}\xspace$, countdown of the cycles and days until the next maintenance activity

YES, the number of cycles (40,000) and days (185) are reset **OFF**, all controls related to scheduled maintenance and the "No. cycles" and "No. days" on the maintenance panel are deactivated.

DATA IN/OUT - contains the items IN: transfer from USB drive to machine and OUT: from machine to USB drive.

Tx/Rx - to start the data transfer



Standard data - loads standard data: YES/NO

Boiler - not active.

Wi-Fi Menu - see section "Wi-Fi Configuration" in the pages that follow.

 $\underline{\textbf{Bluetooth Menu}}$ - see section "Bluetooth Connection" in the pages that follow

BDS - see section "BDS Activation" in the pages that follow.



<u>Grinder Control</u> - (only if the machine is connected to a wireless grinder/dispenser).

The parameters that can be set are:

- enabled - MM1 - MM2

Set to "NO" during the machine configuration phase; "YES" once settings have been entered.

- Regulation threshold - see the section "Steps for Bluetooth Coffee

Machine-Grinder/Dispenser Communication" in the pages that follow.

Reload Coffee - specific function for the customer Illy

<u>USB LOG</u> - function for recording machine dispensing data on a USB drive, if inserted.

Reset archive - clears malfunctions (Wash 1 Archive and Malfunctions Archive, Water Change and Averages Archive "only with Bluetooth activation") which occurred and were stored in the machine: YES/NO





Service hours

Washing Groups 1, 2, 3

These are the washes where the time can be programmed, each of which contains two modifiable settings, including:

*WASH1		
hour		15:30
coffee stop		YES 🛔
	62.F 1,3	d

- time: the time that washing must take place.
- The WASHES can be deactivated by setting to OFF.
- block coffee: when the function is set (YES), if washing has not been performed within 60 minutes of the "PERFORM GROUP WASH" message being displayed, the machine is blocked, disabling all coffeebased selections.

NOTE: missing wash 1s will be stored in the "WASH 1 ARCHIVE" as washes not performed.

Changing the water in the boiler

Changing the water in the boiler is a daily programmable change:



- time: the time that the change must take place.
 - THE WATER CHANGE feature can only be activated by the technician and is always set to OFF. It must first be activated and then under "WASHING OPTIONS" (in time panel) it can be changed, or it can be changed by the technician.

WiFi configuration

Wi-Fi Menu - Configure the following Wi-Fi settings as shown below:

- CONNECT to connect to the access point selected.
- **RSSI** signal intensity:
- Values less than -70 dB indicate poor coverage with probable difficulty in transmitting data.
- IP Displays the IP address assigned to the machine by the wireless access point.
- Net enter the name of the access point.
- Security indicate the type of wireless network security:
- Open: no protection;
- WPA: wpa2-psk protection;
- WEP: WEP 128 protection.
- Key enter the password to access a protected Wi-Fi network (WPA or WEP)
- URL enter listener.gruppocimbali.com.
- Port enter 10000.
- RESET To restore the parameters to the standard settings.





Bluetooth Connection



Bluetooth Menu - The parameters that can be set are:

- MM1-MM2 1 to 2 grinders can be connected.
 PassKey on the configuration screen, enter the same code (7290) used for the grinder/dispenser and then press OK to confirm.
- Search the machine will find all bluetooth devices within 10 m.
- Reset cancels the connection with the associated device.

Note: during connection with bluetooth grinders/dispensers, the first one connected is set as MM1.





Procedure for Bluetooth connection with the machine-grinder unit







and subsequent versions, the connection is automatic and the 🎇 symbol is displayed immediately. It is no longer necessary key if the configuration has been completed successfully. In the event of communication problems, the "COMMUNICATION rill appear on the display followed by the name of the disconnected grinder/dispenser. The message disappears automatically onnection is restored. A common cause of this failure is the grinder/dispenser being turned off with the machine turned on.

NO

/ES

-NOTE: Only for previous versions does the symbol 🕷 remain on the display of the machine and the grinder/dispenser after setting wireless communication mode; when a double coffee dispensing key is pressed, the 🛠 icons change to 📢 to indicate successful wireless communication. When the machine or grinder/dispenser are turned off, at the next power-on the 🕏 symbol is shown on the display.

BDS activation and sensor configuration



All the TECHNICAL MENU items of the "Magnum Bluetooth" grinder/dispenser can be viewed only after the default technical code has been entered.







ONFIGURATION MAGNUM BLUETOOTH GRINDER/DISPENSER SENSORS

sensor disabled

- single dose (Red)
- 2: double dose (Green)



Single dose - Left sensor (Red) Double dose – Right sensor (Green)



Double dose - Left sensor (Green) Single dose - Right sensor (Red)



SINGLE DOSE (Red)

DOUBLE DOSE (Green)



SPECIAL DOSE (White)



BDS

x

0 -1



Single dose - Left sensor (Red) Right sensor disabled



Single dose – Left sensor (Red) Right sensor disabled



Double dose - Left sensor (Green) Right sensor disabled



English



Setting recipes and connections with grinder/dispenser

-NOTE: POSSIBILITY TO CONNECT ALSO

WITH GRINDER/DISPENSER 2 * KEY MENU type coffee + Water dose 0100 î Select grinder MM1 -* KEY MENU * KEY MENU coffee type type 2 coffee Water dose 0100 ī Water dose 0100 Select grinder MM1 MEDIUM Select grinder MM1 * KEY MENU * KEY MENU type coffee type 2 coffee Water dose 0100 Water dose 0100 Select grinder MM1 SHORT Select grinder MM1 * KEY MENU * KEY MENU type coffee type 2 coffee Water dose 0100 Water dose 0100 î Select grinder MM1 Select grinder MM1 LONG

Every button on the machine can be configured based on the type and the relative grinder/dispenser. Not all types can be used with the BDS system. The possible choices are:

- Single type
- Short
- Medium -> SINGLE DOSE (Red)
- Long -> SPECIAL DOSE (White)
 Double type
- Short
- Medium -> DOUBLE DOSE (Green)
- Long







Operating logic

Dispensing disabled (LED off) NOTE: Start/Stop key is always active.



English

Dose grinding and dispensing activated (LED on)





Dispensing will remain active for 2 minutes. During this time, the grinder/dispenser used will be blocked and therefore unable to grind a second dose of coffee.

The grinder/dispenser will automatically release when the enabled key is pressed or when the two minutes of waiting time have elapsed.





ūΚ



Configuration of grinding parameters

the "GRINDER CONTROL" entry in the machine nd press the \blacktriangleright key:

***** CONFIGURATION Grinder control **RELOAD COFFEE** USB log YES Archive reset NO 1.3 ПK ★ GRINDER CONTROL MM1 MM2 1.3 ūκ ***** MM1 Enabled YES Î NO Reg. grinder 10% reg. threshold Q ref. 1 3.90 ml/s version GC 611

1.3

∦

The parameters that can be set are:

Enabled - YES/NO.

Set to "NO" during the machine configuration phase; "YES" once settings have been entered.

Grinder adjustment - YES/NO.

Before entering new flow rates (Q ref.), use the ∇ and \triangle keys to change the display to "YES" and then press OK to confirm. Note: after the operation, the setting returns to "NO".

Threshold regulation - This is the percentage of the flow rate (Q ref.) within which grinding does not change.

This parameter can be set in two ways:

1) entering the value directly;

2) by self-learning: after 5 double doses of ground coffee, the value is entered automatically.

The indicative reference value for espresso coffee - 25 cc dispensed in 25 seconds - is 3.0 ml/s.

- NOTE leave the "version" parameter set as GC.





riation relative to the Magnum der/dispenser

To increase or decrease the measure-time operate as follows:





2) The following is displayed:

USER MENU
DOSING
COUNTERS
MODALITY

3) press the DOSING item; the following is displayed:

DOSING	-
DOSE 1	
DOSE 2	
DOSE 3	

4) select the measure to be modified; the following is displayed:



Change the value by the "+" and "-" icons; confirm the entered value by the \checkmark icon or press the \checkmark icon to leave it unchanged.

The measure-number correspondence is the following:

- DOSE 1 for the single measure
- DOSE 2 for the double measure 42° ;

* DOSE 3 for the continuous measure

Note: single-measure's and continuous measure grinding time variation in user mode is ± 25 hundredths of second (0 ÷ 1/4 second).

* Grinding in continuous mode, if equal to zero (DOSE 3 = 0), can only be modified by the technician.



English



7. Manual control panel

I control panels, position the cursor on the line "Testing" using the \triangle and ∇ keys

* TECHNICAL PROG. KEY MENU CONFIGURATION TESTING

When the D key is pressed again, the box below appears on the display:

MANUAL CONTROLS - allows the components to be activated manually using the and verse keys When you press , the following message appears on the display:

★ TESTING MANUAL COMMANDS	+
	•
	II ·
	do

Panel 1



- Pressing or visplays the various components;

- Pressing **>** selects the component to active and takes you to the next panel M2;

- Pressing < exits manual mode.





Panel 2



Pressing or activates the components:
 if they have a direction, use or to alternate ("+" Left/"-" Right).

Pressing < takes you back to panel M1.



Level signal:

-Nominal operating range: from 7 to 53% (approximately) (E.g. 8% level OK; 50% no water, level probe uncovered) -Other values -> signal anomaly, check wiring and connections





Legend

Below are the symbols used to define the components that can be accessed for movement:

RC	Boiler resistance	MP Em	Pump Motor Anti-backflow solenoid valve
Evc	Boiler load solenoid valve	Eds	Drving solenoid valve
Р	Boiler pressure	Мс	Autosteam compressor motor
LIV	Boiler water level	Ets	Autosteam solenoid valve
тν	Steam temperature (if the Turbosteam system is not present,	Evc	Charge-boiler solenoid valve
	this parameter is not displayed)	Eaf	Cold-water solenoid valve
		Eac	Water solenoid valve
		G1÷G4	Dispense-coffee solenoid valve

8. DATA menu: COUNTERS

To enter the data menu, press the vert key and then press the "i" (27) key; the following is displayed:

* DATA MENU	
COUNTERS	+
WASH 1 ARCHIVE	÷1
Archive Rinsing	
MALFUNCT. ARCHIVE	
Averages Archive	÷

When positioning the cursor on the line "COUNTERS" and press the and keys, and then press the key, the following is displayed:

* COUNTERS	
KEY MENU	+
N° coffee gr. 1	01234 🔳
N° water	00123
N° steam	00145 🛯
No. steam + air	00145 -
	do

The settings that are counted are:

- select key (single selection counters)
- coffee (number of coffee-based beverages);
- water (number of times water dispensed);
- steam (number of times steam dispensed with steam key);
- **steam + air** (number of times steam and air dispensed with the Turbosteam key);
- tot. coffee (total number of coffee-based beverages).

The line "No. coffee" appears as many times as the number of groups of the machine.

The counters can be reset by positioning the cursor over the specific item, pressing the \triangleright key and then the \triangle or ∇ keys; press OK to confirm the reset.

Note: the settings that cannot be cleared are:

- tot. coffee





8.1 DATA menu: Wash 1 Archive

т		
	COUNTERS	+
	WASH 1 ARCHIVE	
	Archive Rinsing	
	MALFUNCT. ARCHIVE	
	Averages Archive	-
í		

Pressing the bey at the line "Wash 1 archive", shows the display:



For Wash 1, the settings that can be displayed are:

- Requested: indicates the number of washes that were requested by the machine.
- **Performed**: indicates the number of washes that were performed within the timeout of 60 minutes.



Note: if the requested washes are not performed before the timeout, the list with the last 10 missed washes, numbered and dated, can be viewed under "Performed".

The first line refers to the most recent data. (There is no wash archive 2-3). Scroll down the list of any missed washes using the A and keys and then press the

8.2 DATA menu: ARCHIVE RINSING



- Requested: indicates the number of rinses that were requested by the machine.
- **Performed**: indicates the number of rinses that were performed within the timeout of 60 minutes.



Note: if the requested rinses are not performed before the timeout, the list with the last 10 missed rinses, numbered and dated, can be viewed under "Performed".

The first line refers to the most recent data.

Scroll down the list of any missed rinses using the \triangle and ∇ keys, and then press the \triangleleft key to go to another menu.





When you press the D key at the line "Archive rinsing", the display shows:

*Archive Rinsing			
Required		00001	X
Performed		00001	•
	621 1.3	t	





8.3 DATA menu: MALFUNCTIONS ARCHIVE



When you press the **>** key at the line "Malfunctions Archive", the display shows:



The digits after the "malfunction code" indicate the time elapsed since the last recorded malfunction, in hours and minutes.

Pressing the New is again takes you to a detailed display that shows: - day and time when the malfunction occurred

- condition of each group at the time of the malfunction.



8.4 DATA menu: Averages Archive



When you press the key at the line "Averages Archive", the display shows:



Pressing the b key is again takes you to a detailed display that shows: - day and time on which the daily check was made.

* 23/04	AVERAGES DETA 1/14	AIL 10:00
1		

The related settings (Q ref.) - Flow rate expressed in ml/s (0.1 to 10). The indicative reference value for espresso coffee - 25 cc dispensed in 25 seconds - is 3.0 ml/s. (Q ref measured and Q ref set, reference data for 1 to 2 grinders)

*	AVERAGES DETAIL
Qrif	mi/s.





8.5 **DATA menu: INFO**



English

Serial number

Positioning the cursor on the line "INFO" and pressing the Δ and ∇ keys, and then pressing the **b** key, the following is displayed:

* INFO		
SERIAL N°		+
VERSION SW		Î
SETUP		
DIP SETTINGS		
IP		÷
- 0.0-	62 F	1000
DK NWW	1.3	177

Pressing the **b** key on the line "serial number", the display shows.



Version

The submenus under "Version" show the memory versions:

- Master 047.00.H0;
- Slave 050.00.H0;
- Bluetooth;
- WI-FI;
- Computer; -Barcode.



For some settings, pressing the D key on the lines, data on the revision and the date of the memory is also displayed in addition to the version.

* VERSION			
MASTER		047.00.HO	
REV.		00	•
DATE		31/05/2014	
			-
	62 F	a sha	- 1
OK AWWA	1,3	10	i

Setup

The settings entered during the Standard Data entry step are displayed under "Setup":







Entering Standard Data

5

6 7 8

4

operation, turn off the machine and set CPU board and then turn the machine on.

During Standard Data entry, several parameters are to be set based on the model and type of the machine:

- <u>TYPE:</u> 2, 3, 4 groups;
- TURBOSTEAM YES/NO;

Cubina



Using the keys **a** and **v** choose the settings and **then press the key** to confirm the entry.

At the end of the operation, turn the machine off and reset CPU board **DIP switch 1** to **OFF**.

Then:

- turn the machine on again
- set the date and time and, if necessary, the desired language
- reset the maintenance parameters, if desired
- (see "Configuration Menu Maintenance")
- Reset the archive.
- Press and hold $\boldsymbol{\textit{OK}}$ for several seconds to activate/deactivate resistance.

Dip settings

Under the item "DIP settings", the following DIP switch positions are displayed:



Under standard conditions, the DIP switches are set to OFF.

- DIP 1 = OFF ON standard data entry
- DIP 2 = OFF
- DIP 3 = OFF ON technical key simulation
- DIP 4 = OFF ON access to accounting functions
- DIP 5 = OFF ON enabling of key sequence for
 - programming entry
- DIP 6 = ON
- DIP 7 = OFF
- DIP 8 = 0FF

For more details, please see the technical manual in the section "Settings - CPU DIP switches".

IP

If there is WiFi, the following is displayed at "IP":

*INFO SERIAL N° VERSION SW SETUP DIP SETTINGS IP - displays the IP address assigned to the machine by the wireless access point.





NEWTON



CHECK-CONTROL MESSAGES



8550	910	
5	- A	2
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	211	
	21	Y,
	3550 (4)	SSO CAL

English

5	IPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
	Note: Group 1 is to the far left.	 Sensor failure Card failure 	 Check cabling Replace the sensor Replace the card
024	Clock battery spent or missing	Oxidized contacts.	•Clean the contacts on the battery. •Replace the battery.
029 * LCD display not connected (applies only to machines other than Emblem R and M100) • Check cabling		•Check cabling	
030	Reset slave micro processor		•If the problem persists, replace the Newton board.
051	051 Temperature sensor signal out of range • Sensor failure • Check cabling • Card failure • Card failure • Replace the sensor • Replace the card • Replace the card		•Check cabling •Replace the sensor •Replace the card
(x)51*	Group boiler temperature sensor x out of range (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	• T h e r m o c u p l e disconnected • Sensor failure	•Check cabling •Replace the sensor
052	Boiler heating timeout - 45 minutes	 The safety thermocouple has been triggered The resistance is interrupted (cabling defect) The Triac card is malfunctioning 	 Check if the safety thermostat has been triggered, and reset it if necessary Check if there are interruptions or detached fastons on the cabling Check that the boiler resistance is not interrupted and replace it if necessary Replace the Triac card
(x)52*	Group x boiler heating timeout - 10 minutes (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	 The group x boiler safety thermostat has been triggered The resistance is interrupted (cabling defect). 	 Check if the safety thermostat of the group x boiler has been triggered, and reset it if necessary Check if there are interruptions or detached fastons on the cabling Check that the group x boiler resistance is not interrupted and replace it if necessary
053*	Turbosteam thermocouple signal out of range	 Thermocuple disconnected Wrong configuration du- ring standard data insertion. 	 Enter in the programming mode and insert the correct standard data Check connections. Replace Turbosteam probe.
058	Boiler overpressure alarm	 Level probe failure; Boiler overfilled. Resistance always powered. Temperature sensor out of range. 	•Check cabling •Replace the sensor
059	Boiler: Refill timeout - 15 minutes	 No water Refill EV failure Wiring interrupted Card failure. 	 Check water is supplied from the main line. Replace the refill EV. Check cabling. Replace the card.





	IPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
E	el signal errors.		Check the earthing and insulation of the machine.
(x)66	Error in the group that is dispensing. (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	 No water Flowmeter failure Water circuit blocked Wiring interrupted/ grounded. 	 Check water is supplied from the main line. Check there are no fitting obstructions or leakage. Check flowmeter electrical connections. Replace the broken flowmeter. Replace the broken board.
(x)70	Measure-grinder adjustment: Bluetooth set up by the technician. (x = 1, 2) MM1 > 170; MM2 > 270		The malfuncion is only stored and it doesn't appear on the display during the normal machine operation.
082	Temporary communication problem with keypad.		Check the insulation.Check the wiring and connections.
083	Services key communication error	 Wrong card configuration. Wiring interrupted Card failure. 	 Verify the correct configuration of the dip-switches. Check cabling Replace the card
(x)83*	Group x (x = 1, 2, 3, 4) keypad communication error Note: Group 1 is to the far left. Communication error with light module board (RGB) x = 5	 Wrong card configuration. Wiring interrupted Card failure. 	 Verify the correct configuration of the dip-switches. Check cabling Replace the card
(x)85*	Bluetooth communication error (x = 1, 2) MM1 > 185; MM2 > 285	 Incorrect association with measure grinder. Measure grinder turned off. 	 Turn on the grinder. Repeat device association.
095*	Reset barcode memory (special reload coffee function for Illy customer)		
096	Maintenance needed		•The machine is displaying a message to advice the user that maintenance is needed. Carry out maintenance
097*	Reset standard password	• Action by the user inserting the dedicated code (applicable only to M100).	
098	Historical malfunctions and wash 1 reset	 Breakdown log initialization. 	The malfuncion is only stored and it doesn't appear on the display during the normal machine operation.
099	Default data input		
282	Keypad reset operation carried out by CPU board due to repeated communication problems.		 Check the insulation. Check the wiring and connections.



o - Disassembly - Demontage - Abmontierung - Desmontaje - Desmontage

SCALDATAZZE: svitare le viti A e rimuovere le griglie.

FIANCATE: svitare le viti B posizionate sotto le griglie, quindi rimuovere la fiancata.



IT

CUPWARMER: unscrew screws A and remove the grids.

SIDE PANELS: unscrew screws B under the grids and then remove side panel.

FR CHAUFFE-TASSES: dévisser les vis A et enlever les grilles.

FLANCS: dévisser les vis **B** placées sous les grilles et puis enlever le flanc.



PT

TASSENVORWÄRMER: Lösen Sie die Schrauben (A), und nehmen Sie die Gitter ab.

SEITENTEILE: Lösen Sie die unter den Gittern befindlichen Schrauben (**B**) und nehmen Sie das Seitenteil ab.

ES CALIENTA-TAZAS: afloje los tornillos A y quite las rejillas.

PANELES LATERALES: afloje los tornillos B situados debajo de las rejillas y luego quite el panel lateral.

AQUECEDOR DE CHÁVENAS: desaparafusar os parafusos A e remover as grelhas.

LADOS: desaparafusar os parafusos B posicionados debaixo das grelhas e em seguida, remover os lados.





9900 0000





> - Disassembly - Demontage - Abmontierung - Desmontaje - Desmontage



PANNELLO FRONTALE INOX

Togliere la bacinella appoggiatazze Svitare le due viti di fissaggio (D) e rimuovere il pannello frontale inox.



STAINLESS STEEL FRONT PANEL

Remove the cup tray Loosen the two fixing screws (D) and remove the stainless steel front panel.



FR PANNEAU FRONTAL INOX

Enlever le petit bassin appuie-tasses Dévisser les deux vis (D) de fixage du panneau frontal et démonter le panneau frontal en inox.



ABNAHME DES VORDEREN PANEELS AUS EDELSTAHL Nehmen Sie die Wanne zur Tassenaufsetzung ab. Lösen Sie die beiden Schrauben (D), und nehmen Sie das vordere Edelstahlpaneel ab.



PANEL FRONTAL INOXIDABLE

Quitar la bandeja apoya-tazas Destornillar los dos tornillos de fijación (D) y quitar el panel frontal inoxidable.





PAINEL DIANTEIRO INOXIDÁVEL

Retirar o tabuleiro para apoiar as chávenas Afrouxare os dois parafusos de aperto (D) e tirar o painel dianteiro inoxidàvel.



PANNELLO POSTERIORE

Lo smontaggio del pannello posteriore deve essere eseguito solo dopo aver rimosso lo scaldatazze. Svitare le (n°..) viti di fissaggio (P) e rimuovere il pannello.

EN BACK PANEL

The back panel may be removed only after the cup warmer has been removed.

Loosen the (n°..) screws (P) and remove the panel.

FR PANNEAU POSTÉRIEUR

Le démontage du panneau postérieur ne doit être fait qu'après avoir enlevé le chauffe-tasses.

Dévisser les (n°..) vis (P) de fixage et enlever le panneau.



DE ABNAHME DES HINTEREN PANEELS

Vor der Abnahme des hinteren Paneels müssen TAS-SENWÄRMER abgenommen werden. Lösen Sie die (Anz...) Schrauben (P) zur Befestigung, und nehmen Sie das hintere Paneel ab.



PANEL POSTERIOR ES

El desmontaje del panel posterior se tiene que efectuar sólo después de haber quitado lo calientatazas. Destornillar los (n°..) tornillos (P) de fijación y quitar el panel.

PAINEL TRASEIRO

Proceder à desmontagem do painel traseiro só depois de ter tirado o escalda-chávenas.

Afrouxar os (n°..) parafusos (P) de aperto e tirar o painel.



ni - Setting - Reglages - Einstellungen - Regulaciones - Regulações



A - Porta de regulação pressão bomba











ni - Setting - Reglages - Einstellungen - Regulaciones - Regulações

LETTRICA

Togliere la bacinella appoggiatazze. Svitare la vite (C) e togliere il coperchio (D) della scatola elettrica facendolo scorrere verso l'interno macchina.

EN JUNCTION BOX

Remove the cup tray and the electric box protection below.

Loosen the screw (C) and remove cover (D) from the junction box, making it to slide towards the machine.

Enlever le petit bassin appuie-tasses.

Défisser le vis (C) et enlever le couvercle (D) de la boite électrique en le faisant glisser vers la machine.

DE

Nehmen Sie die Wanne zur Tassenaufsetzung ab. Lösen Sie die Schraube (C), und nehmen Sie den Deckel (D) des Elektrokastens ab (in Richtung Maschineninneres schieben).

ESQuitar la bandeja apoya-tazas. Aflojar lo tornillo (C) y quitar la tapa (D) de la caja eléctrica, haciéndolo correr hacia el interior máquina.

CAIXA ELÉCTRICA PT

Retirar o tabuleiro para apoiar as chávenas. Desapertar o parafuso (C) e retirar a tampa (D) da caixa eléctrica fazendo-o deslizar para a máquina



С



IT	In caso di intervento del termostato, riarmare	
EN	MACHINE EQUIPPED WITH SAFETY THERMOSTAT In case of thermostat intervention, switch on again	
FR	MAQUINE EQUIPÉE DE THERMOSTAT DE SURETÉ En cas d'intervention du thermostat, brancher de nouveau	
DE	MIT SICHERHEITSTHERMOSTAT AUSGESTATTETE MASCHINE Falls der Thermostat ausgelöst wird, ihn wiedereinschalten	
ES	MAQUINAS EQUIPADAS CON THERMOSTATO DE SEGURIDAD En caso de intervención del thermostato, reencender de nuevo	
PT	MAQUINA EQUIPADA COM THERMOSTATO DE SEGURANÇA Em caso de intervenção do thermostato, reacender de novo	





ni - Setting - Reglages - Einstellungen - Regulaciones - Regulações

-	etto di alimentazione idrica.		
Close the water	tap.		
Fermer le robinet d'alimentation hydrique.			
Sperren sie der	hahn zur wasserversorgung ab.		
Cerrar el grifo de alimentación hídrica.			
Fechar a tornei	ra de alimentação hídrica.		
I REGOLAZIO CALDA Per variare la 0,6 montato,	DNE DELLA TEMPERATURA DELL'ACQUA temperatura, dell'acqua sostituire l'ugello (A) da con quello da 0,8 in dotazione.		
GB ADJUSTMEN Per variare la 0,6 montato,	NT OF HOT WATER TEMPERATURE temperatura, dell'acqua sostituire l'ugello (A) da con quello da 0,8 in dotazione.		
F REGLAGE D Per variare la	E LA TEMPERATURE DE L'EAU CHAUDE temperatura, dell'acqua sostituire l'ugello (A) da		
0,6 montato,	con quello da 0,8 in dotazione.		
D REGELUNG Per variare la	DER HEISSWASSERTEMPERATUR temperatura, dell'acqua sostituire l'ugello (A) da		
0,6 montato,	con quello da 0,8 in dotazione.		
E REGULACI CALIENTE Per variare la 0,6 montato,	ÓN DE LA TEMPERATURA DEL AGUA temperatura, dell'acqua sostituire l'ugello (A) da con quello da 0,8 in dotazione.		
P REGULAÇÃo Per variare la	O DA TEMPERATURA DA ÁGUA QUENTE temperatura, dell'acqua sostituire l'ugello (A) da		

0,6 montato, con quello da 0,8 in dotazione.













BASSA TENSIONE – CPU 2/2









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Circuito idraulico - Hydraulic circuit - Circuit hydraulique Hydraulikplan - Circuito hidraulico - Circuito hidráulico





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- **DV** = Volumetric meter (flowmeter)
- Ea = Anti-suction solenoid valve
- **Eac** = Hot water solenoid valve
- **Eaf** = Cold water solenoid valve
- Ets = Turbosteam solenoid valve
- **Evc** = Service boiler water inlet solenoid valve
- Eds = EDS solenoid valve
- **Fi** = Pump filter **G** = Coffee solenoid valve
- **Gc** = Coffee preparation group
- In = Injector
- **MC** = Compressore motor
- Mix = Water mixer
- **Mn** = Pressure gauge
- **MP** = Volumetric pump/ Motor pump
- **Pr** = Pressure microswitch
- **SL** = Boiler level probe
- **Sp** = Pressure sensor
- ts = Turbosteam selector
- Va = Anti-suction valve
- Vs = Boiler safety valve



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