



MANUALE DEL TECNICO

ENGINEER'S MANUAL

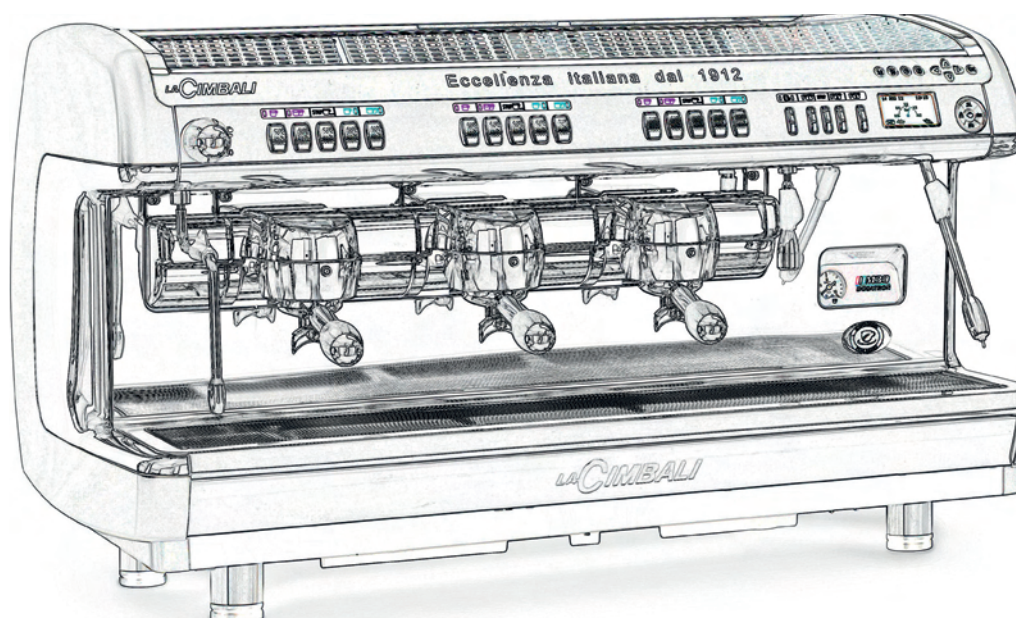
MANUEL DU TECHNICIEN

TECHNIKERHANDBUCH

MANUAL DEL TÉCNICO

MANUAL DO TÉCNICO

M39 Dosatron TE

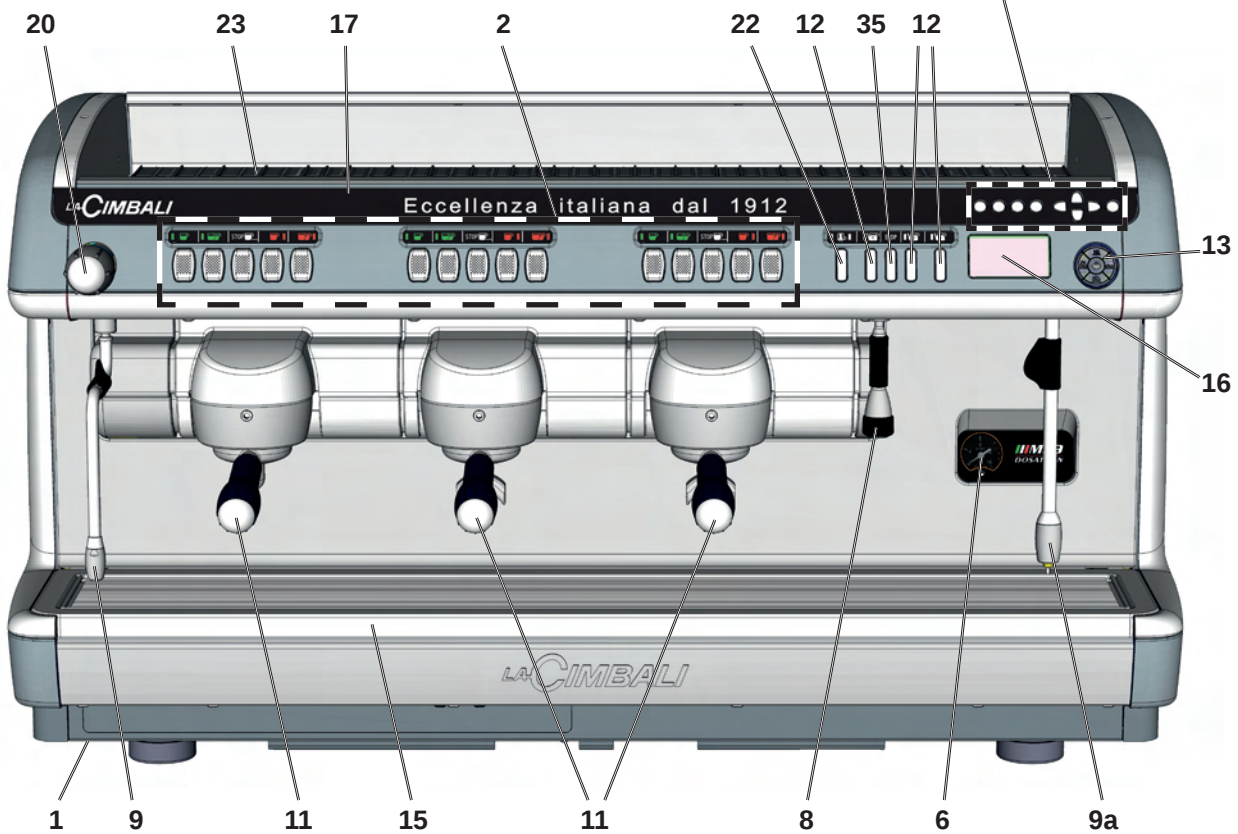
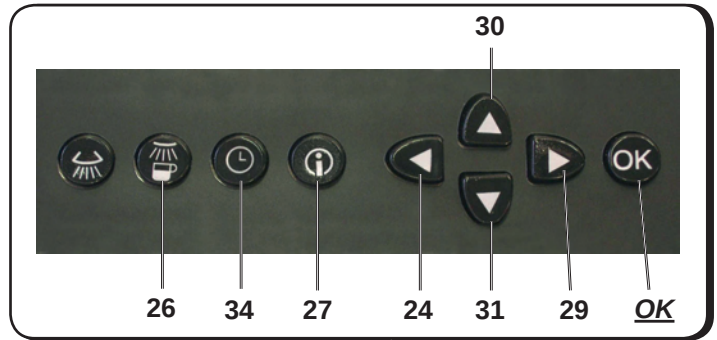


Sat Cafeteras

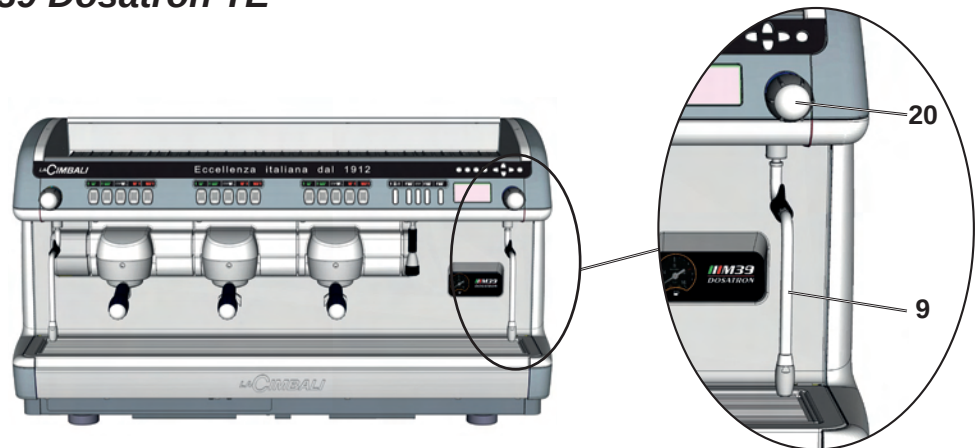
SERVICIO TÉCNICO 24x7

Tfno.: 918 340 428

M39 Dosatron TE TS



M39 Dosatron TE

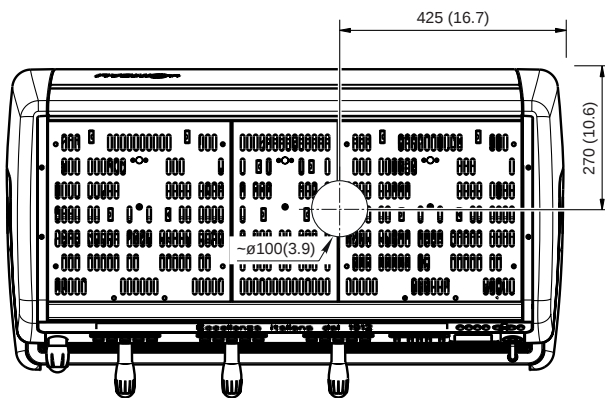
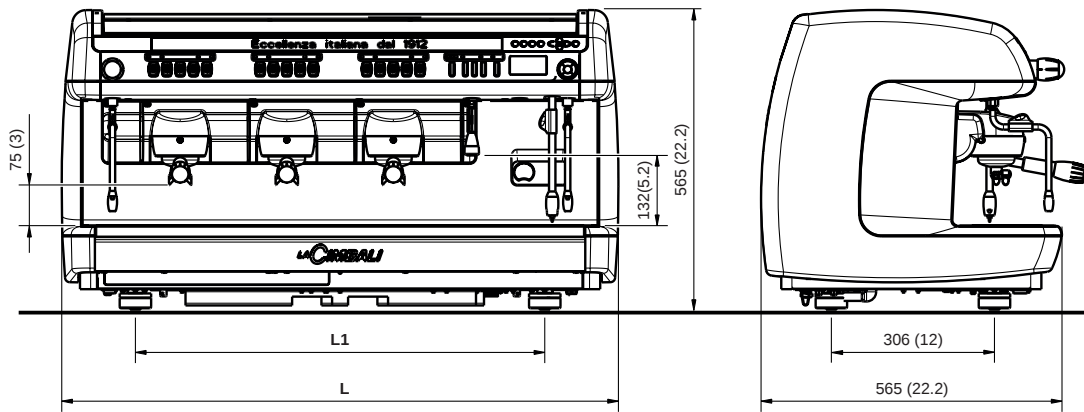


EN LEGEND

- 1** Main Switch
- 2** Selection panel
- 6** Pump Pressure Gauge
- 8** Hot water outlet
- 9** Steam pipe
- 9a** Turbosteam pipe
- 11** Filter-Holder
- 12** Hot water button
- 13** Turbosteam selector
- 15** Tray
- 16** Graphical display
- 17** Ad display (*)
- 20** Steam supply knob
- 22** Electrical cup warmer button (*)
- 23** Cups warmer (*)
- 24** "RES" key (to quit programming mode / cancel entered data)
- 26** Coffee circuit flushing key
- 27** "i" key (displays the number of cycles)
- 29** "PRG" key (to access programming mode / menu)
- 30** "+" key (to modify parameters / clock)
- 31** "-" key (to modify parameters / clock)
- 34** "CUSTOMER PARAMETERS" key
- 35** Hotwater "STOP-CONTINUOUS" key
- OK** On / Off switch boiler resistance - confirm entered data

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

PED / DESP	P _{max} [bar]	T _{max} [°C]	tipo di macchina type of machine type de la machine Maschinentyp modelo de la máquina tipo de la màquina	2 gruppi 2 groups 2 groupes 2 Einheiten 2 grupos 2 grupos	3 gruppi 3 groups 3 groupes 3 Einheiten 3 grupos 3 grupos	4 gruppi 4 groups 4 groupes 4 Einheiten 4 grupos 4 grupos
			Fluido - Fluid - Fluide Flüssig - Fluido - Fluido	Capacità - Capacity - Capacité [L] Fassungsvermögen - Capacidad - Capacidade		
Caldaia Service boiler Chaudière Heizkessel Caldera Caldeira	2 bar	133° C	acqua/vapore water/steam eau/vapeur Wasser/Dampf agua/vapor água/vapor	5 - 11	15	20
Scambiatore Heat exchanger Échangeur de chaleur Wärmeaustauscher Intercambiador de calor Permutador de calor	12 bar	133° C	acqua water eau Wasser agua água	0.18 - 0.25 x 2	0.18 - 0.25 x 3	0.18 - 0.25 x 4



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
2 GR.	380-415V3N 50/60Hz	4.2-5.0 kW	9A	5x1,5 mm ² or 5x2,5 mm ²
	220-240V3 50/60Hz		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
3 GR.	380-415V3N 50/60Hz	6.3-7.5 kW	11A	5x1,5 mm ² or 5x2,5 mm ²
	220-240V3 50/60Hz		19A	4x2,5 mm ²
	220-240V 50/60Hz		31A	3x4 mm ² or 3x6 mm ²
4 GR.	380-415V3N 50/60Hz	6.3-7.5 kW	11A	5x1,5 mm ² or 5x2,5 mm ²
	220-240V3 50/60Hz		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 30mA
GROUNDING	- Required
HYDRAULIC CONNECTION	- Ø 3/8 gas
HYDRAULIC FEEDING PRESSURE	- 0 ÷ 6 bar (0.6 MPa)
WATER DISCHARGE	- Ø min. 50mm

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PROGRAMMING - ENGINEER MODE

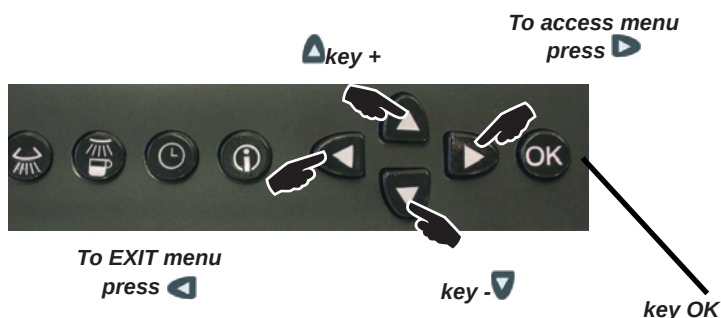
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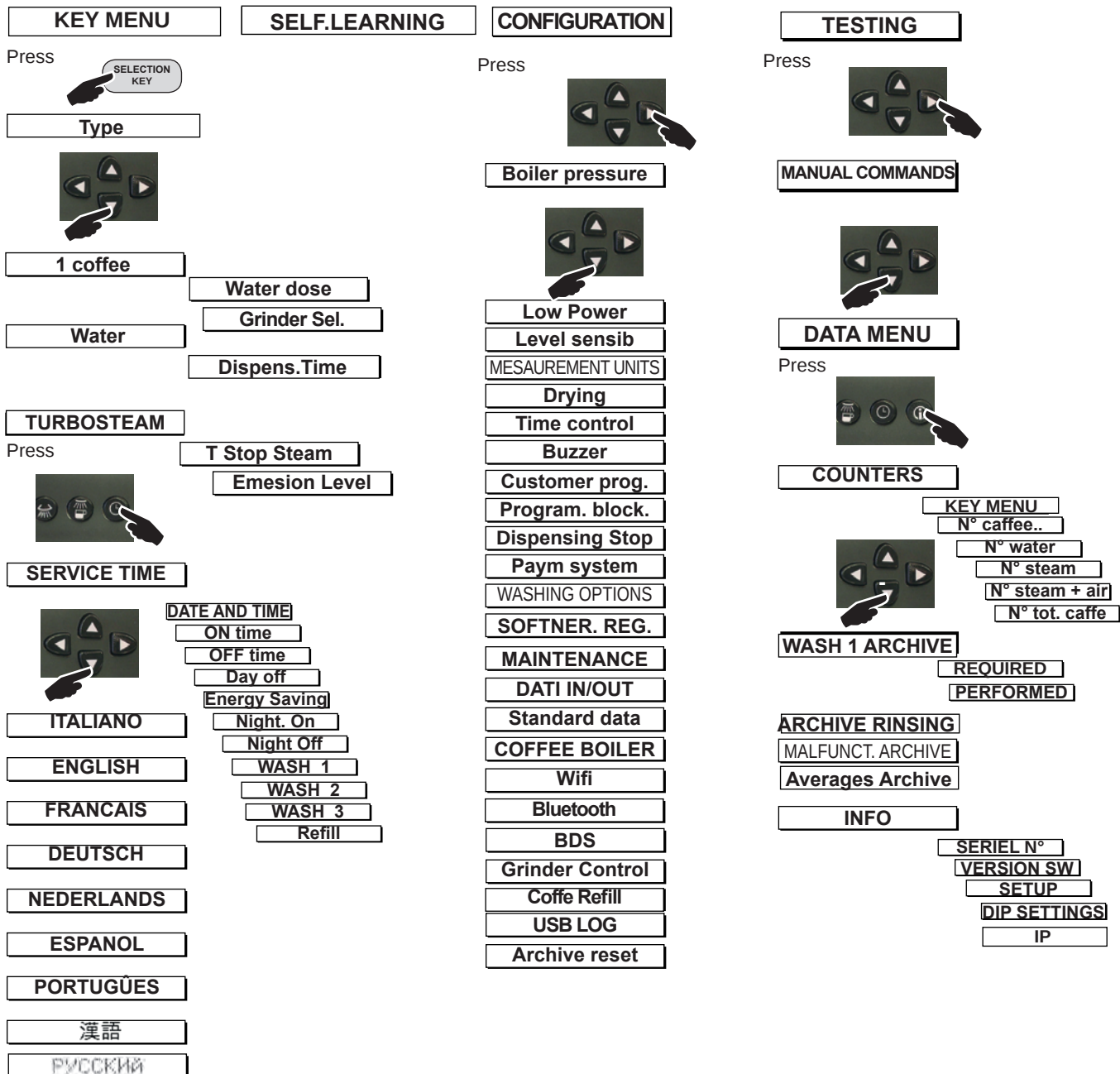
WARNING: Installation and disassembly must only be performed by qualified and authorized technicians.
Switch off the power to the machine before performing these steps.

PROGRAMMING - ENGINEER MODE

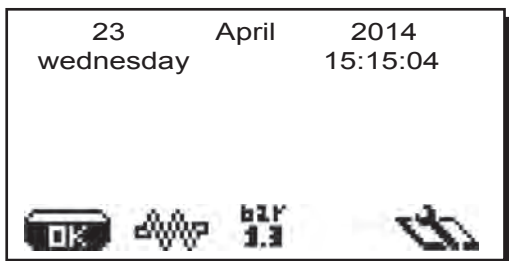
1. Data flow chart - Technician programming



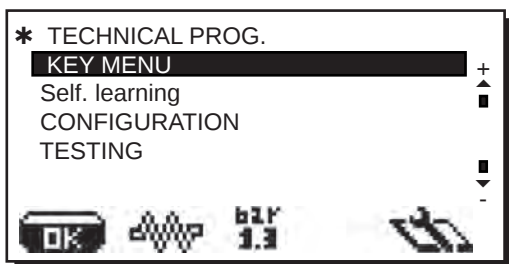
* TECHNICAL PROG.
KEY MENU
SELF.LEARNING
CONFIGURATION
TESTING



2. Technical Programming Access

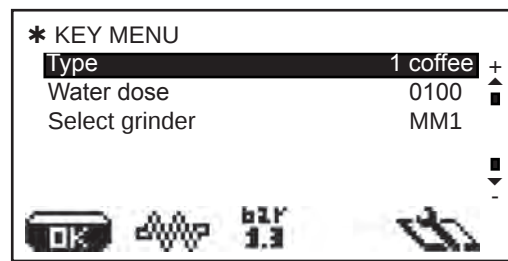


To enter programming, press the key and then OK for 3 seconds. The following message will appear on the display:



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

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



Change the selection or value, again using the and keys **Note:** when editing data, the cursor becomes "→", 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

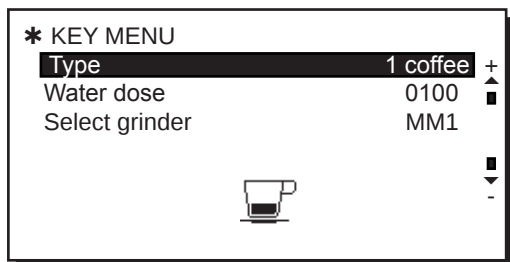
3. Electric heating

The 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:



The coffee selection settings that can be changed are:

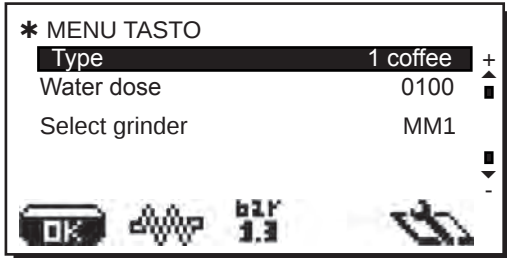
- **type** (key customisation, e.g. 3 espressos for 1 "short, normal, long", 3 espressos for 2 "short, normal, long", stop, disabled).
- **water dose** (volumetric dosing device impulses, 0 ÷ 1999 in steps of 1).
- **Select grinder**(grinding-machine customisation)
- **MM1-MM2** - Possibility of connecting from 1 to 2 grinders with the optional Bluetooth function.

4.1 KEY Menu - Test Frame (Key “i”)

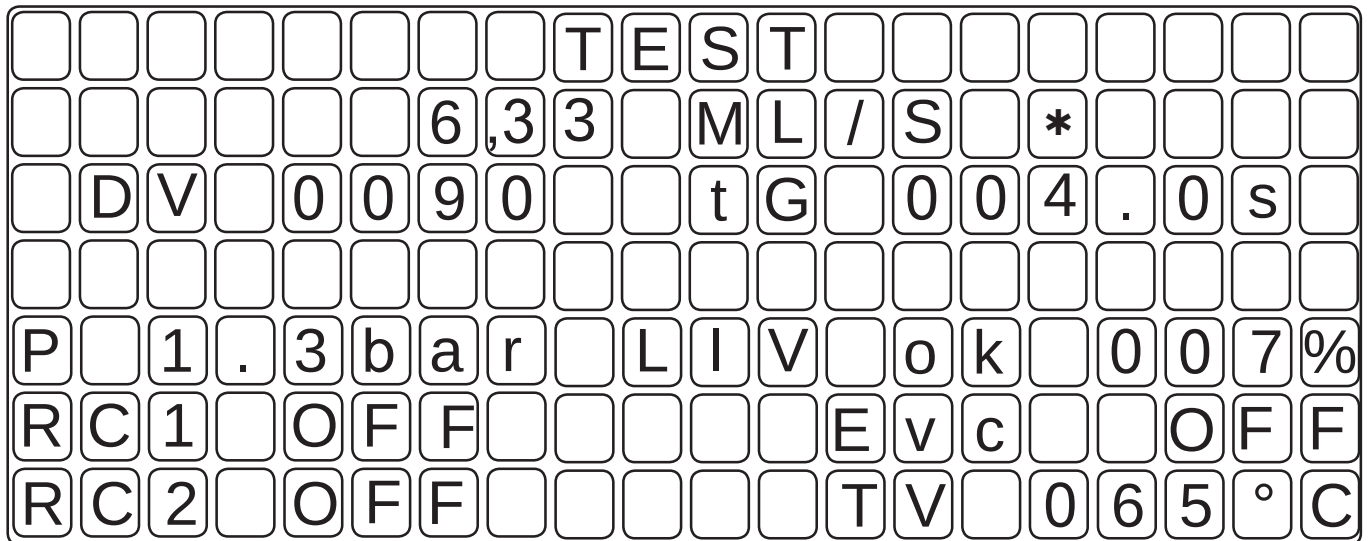
After entering the programming menu, access the key menu by pressing one of the drink-dispensing keys (the associate LED remains lit); the following will be shown on the display:

Pushing the “i” key (27), dispensing occurs and the relative settings are displayed on the screen:

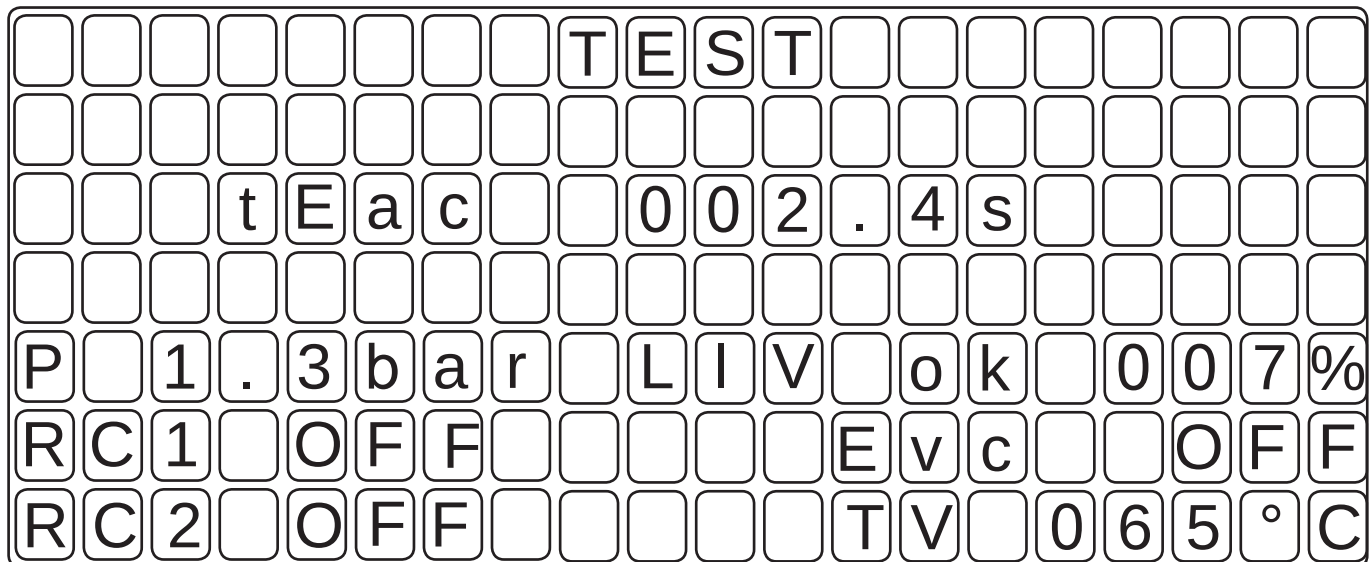
- (E.g. Group 2 Key)



Key menu - Coffee selection



Key menu - Hot water selection



Key menu - Turbosteam selection

								T	E	S	T								
			t	E	t	s			0	2	5	.	9	s					
P		1	.	3	b	a	r		L	I	V		o	k		0	0	7%	
R	C	1		O	F	F						E	v	c			O	F	F
R	C	2		O	F	F						T	V		0	6	5	°	C

Key menu - Grinding Control Selection

								T	E	S	T							
						6	,	3	3		M	L	/	S		*		
	D	V		0	0	9	0			t	G		0	0	4	.	0	s
P		1	.	3	b	a	r		L	I	V		o	k		0	0	7%
R	C	1		O	F	F						E	v	c			O	F
R	C	2		O	F	F						T	V		0	6	5	°C

Legend

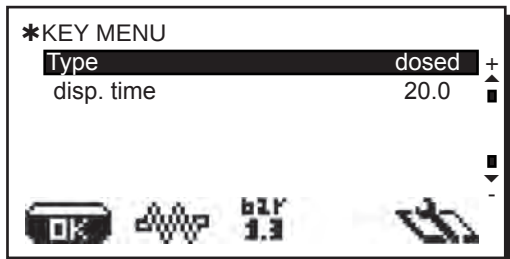
ML/S	Coffee dispensing flow (millilitres/seconds)
*	When * appears, dispensing is taken into consideration with the grinding control algorithm.
R1+R2	Display services boiler resistance status (ON/OFF)
Evc	Solenoid valve charging boiler
P	Boiler Pressure, displayed in "bar" or "psi".
DV	Volumetric dosing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

4.2 Key menu - Hot water selection

Press key (12) hot water dispensing; the display will show:

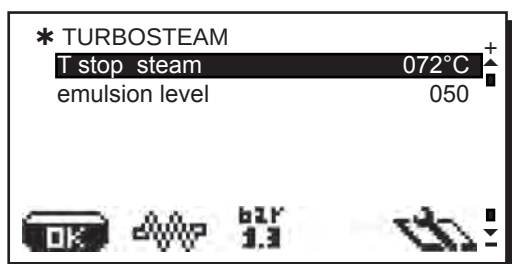
The hot water selection settings that can be changed are:

- 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

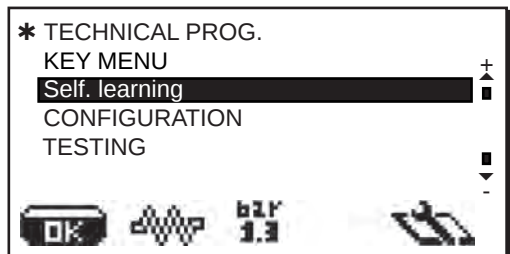
- **emulsion level** (a different emulsion level can be chosen for frothed milk: the value can be set between "0 ÷ 100", where 0 indicates no emulsion and 100 indicates continuous emulsion).



5. Self. learning - Clone

Press the key .

Place the cup or cups underneath the filter-holder nozzles and press the key to be programmed, 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.



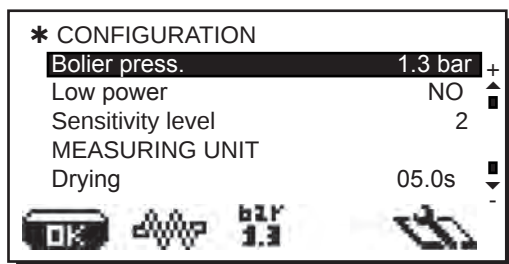
CLONE FUNCTION

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



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

Low power - YES/NO

Sensitivity level - 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

Temperature – 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.

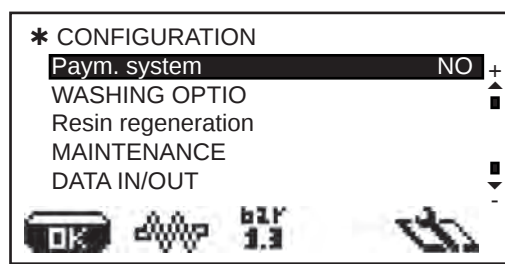
Customer programming - customer programming: YES/NO

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*.

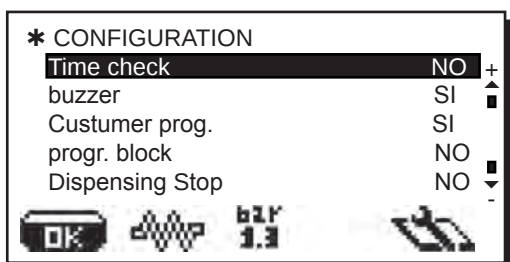
This means that pressing the same button during dispensing interrupts it



Payment system – permits configuration of payment system, when connected.

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

RESIN regeneration - includes the resin regeneration settings: litres of resin (from 0.1 l to 25 l), hardness (from 0 to 45 °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:

NO, 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.

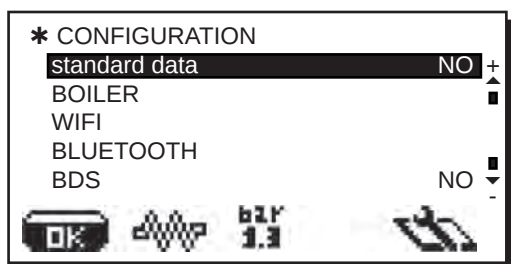
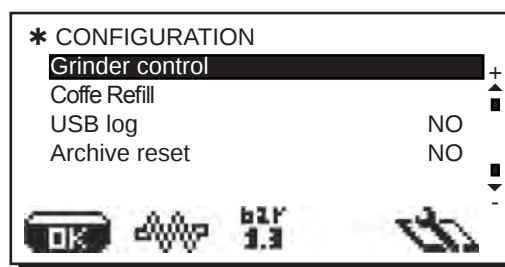
Tx/Rx - to start the data transfer

Boiler - not active.

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

Bluetooth Menu - see section "Bluetooth Connection" in the pages that follow

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



Standard data - loads standard data: YES/NO

Grinder Control - *(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

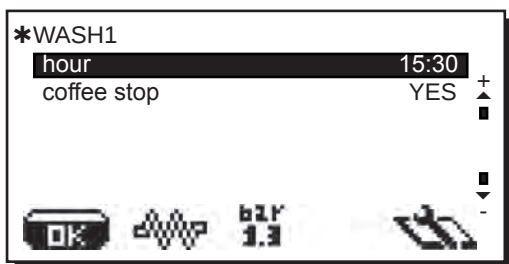
USB LOG - function for recording machine dispensing data on a USB drive, if inserted.

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:

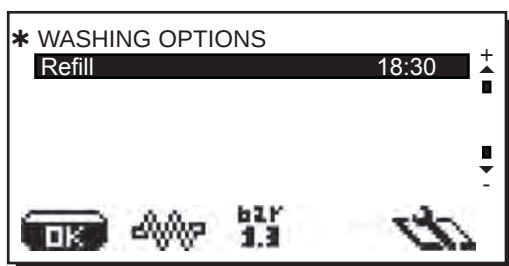


- **time**: the time that washing must take place. The WASHES can be deactivated by setting to OFF.
- **block coffee**: when the function is set (YES), if washing has not been performed within 60 minutes of the "PERFORM GROUP WASH" message being displayed, the machine is blocked, disabling all coffee-based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

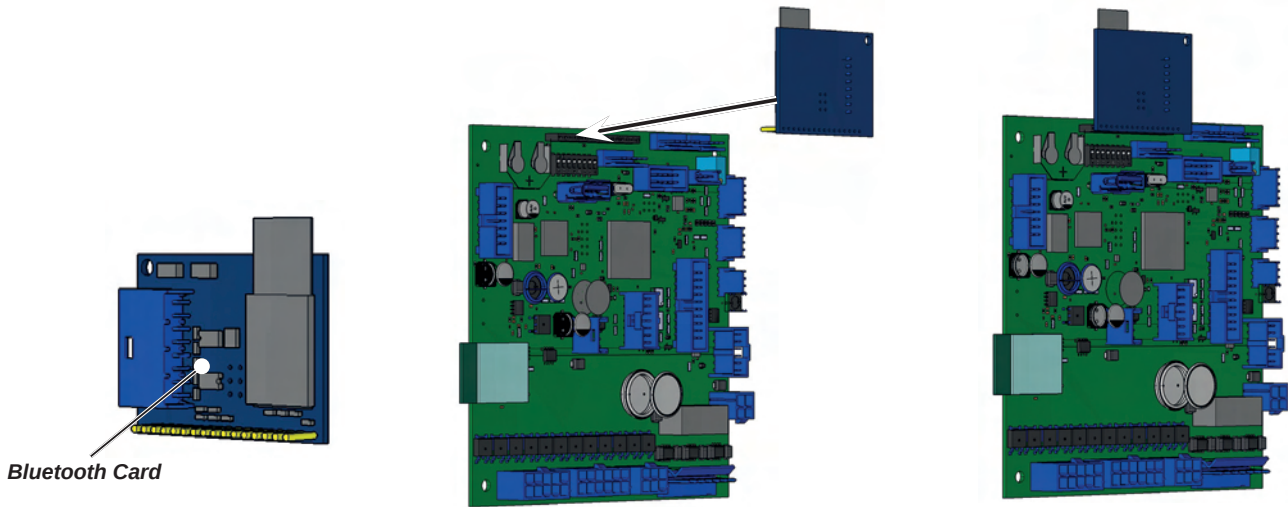
WiFi configuration

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

English



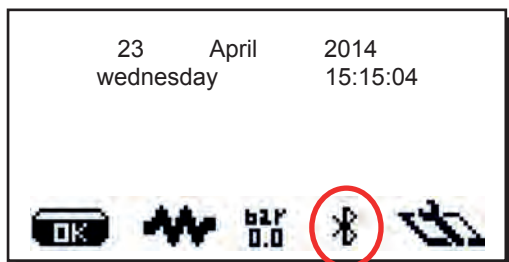
Bluetooth Menu - The parameters that can be set are:

- **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.

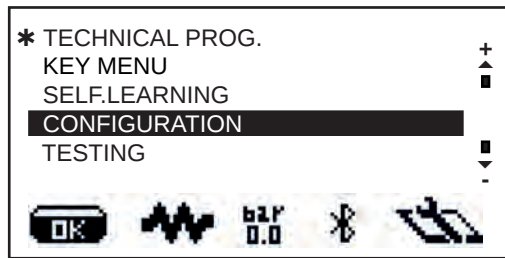
Procedure for Bluetooth connection with the machine-grinder unit

- 1** Turn the machine on; the initial menu appears on the display. The  symbol indicates that the machine can be linked to a Bluetooth device.

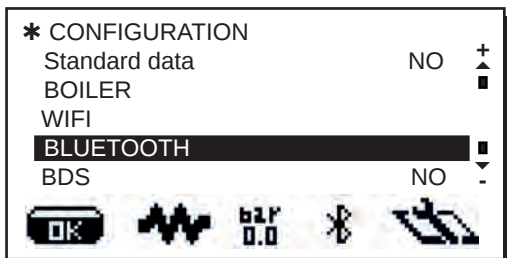


To enter TECHNICAL programming, press the  key and then OK for 3 seconds. The message in Point 2 will appear on the display.

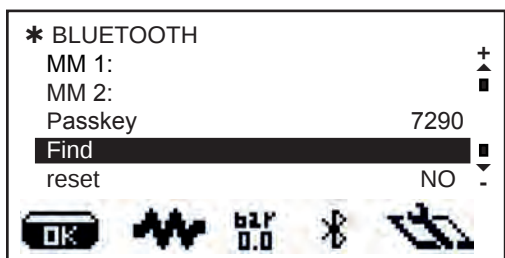
- 2** With the  and  keys, place the cursor on: "CONFIGURATION" in the machine Technical Prog. menu and press the  key:



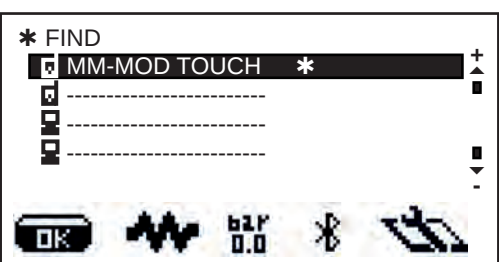
- 3** Position the cursor on the "BLUETOOTH" entry and press the  key:



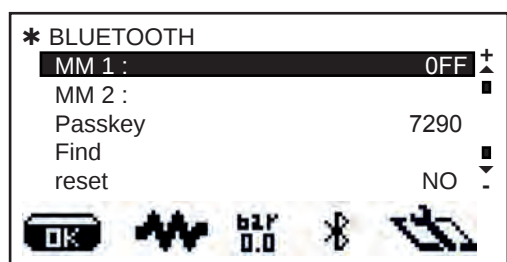
- 4** Position the cursor on the "Find" entry and press the  key:



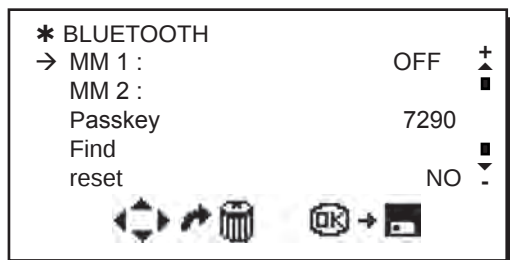
- 5** The machine will find all Bluetooth devices within 10 m. After confirmation of the device selected, an asterisk * will appear next to the grinder/dispenser line indicating that the Bluetooth connection has been made with the machine:



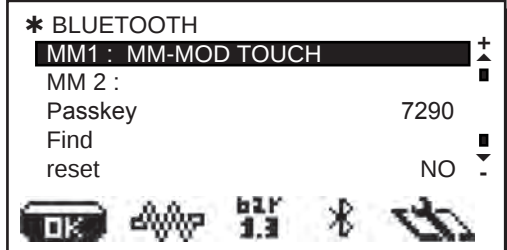
- 6** Return to the Bluetooth parameters by pressing the  key; place the cursor on the "MM 1" item and press the  key:



- 7** Using the  and  keys, move the arrow to the grinder selected, then press OK to confirm:



- 8**



Press  to return to the initial menu.

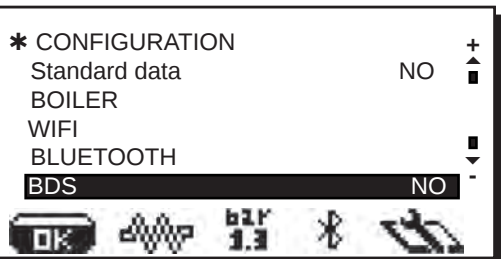
At this point the machine and grinder/dispenser are connected in wireless mode.

In the SW 047.00.H0 and subsequent versions, the connection is automatic and the  symbol is displayed immediately. It is no longer necessary to press a dispensing key if the configuration has been completed successfully. In the event of communication problems, the "COMMUNICATION FAILURE" message will appear on the display followed by the name of the disconnected grinder/dispenser. The message disappears automatically when the Bluetooth connection is restored. A common cause of this failure is the grinder/dispenser being turned off with the machine turned on.

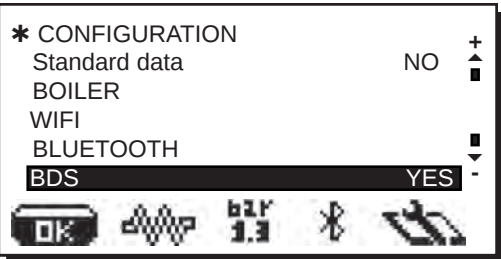
-NOTE: Only for previous versions does the symbol  remain on the display of the machine and the grinder/dispenser after setting wireless communication mode; when a double coffee dispensing key is pressed, the  icons change to  to indicate successful wireless communication. When the machine or grinder/dispenser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

BDS activation and sensor configuration

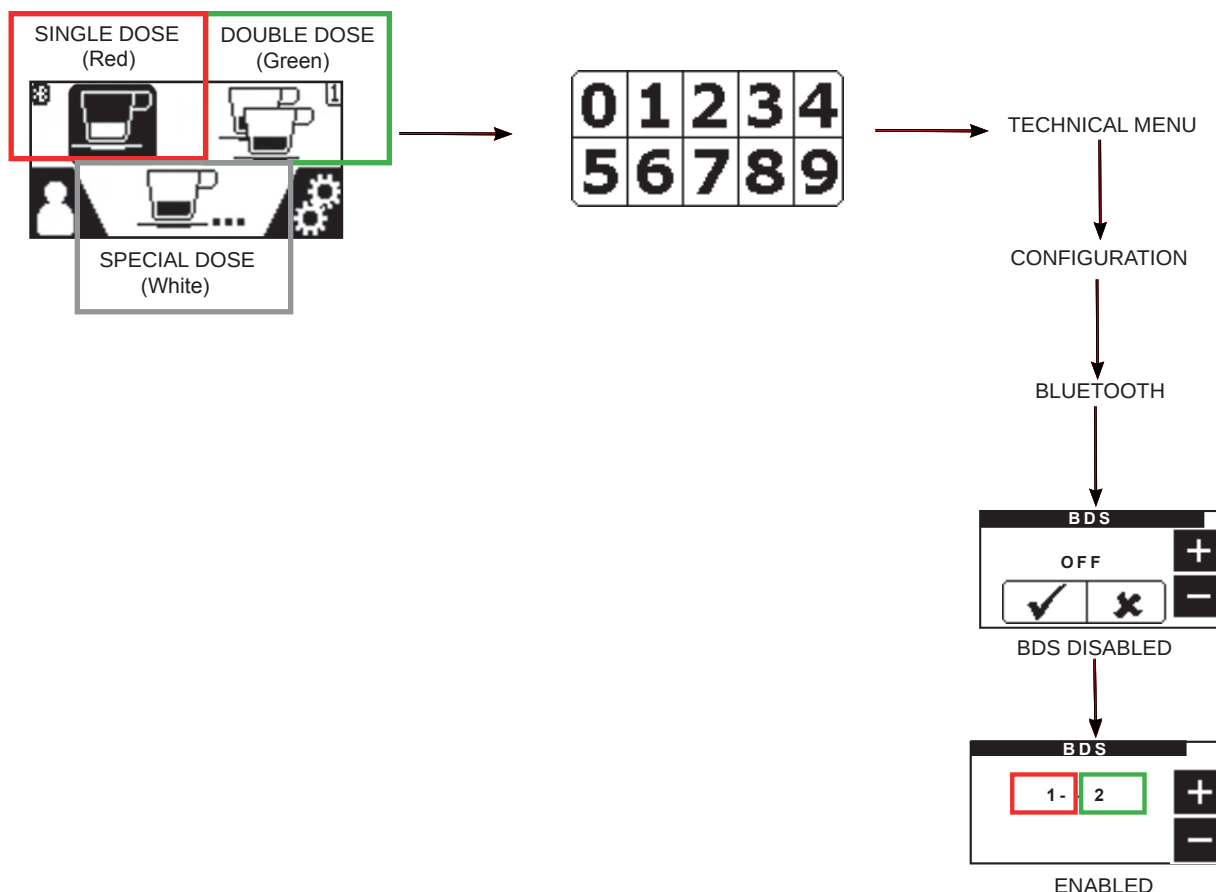
1 Return to the "CONFIGURATION" parameters by pressing the  key; using the  and  keys, move the cursor to "BDS" and press .



2 Use the  and  keys to indicate "YES" and then press the OK key to confirm

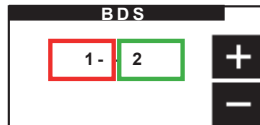
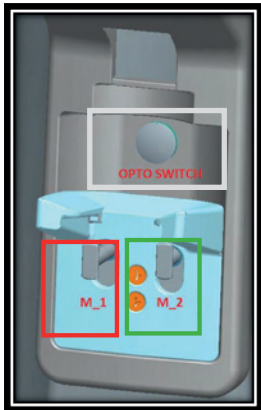


All the TECHNICAL MENU items of the "Magnum Bluetooth" grinder/dispenser can be viewed only after the default technical code has been entered.



CONFIGURATION MAGNUM BLUETOOTH GRINDER/DISPENSER SENSORS

- 0: sensor disabled
- 1: single dose (Red)
- 2: double dose (Green)



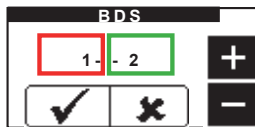
SINGLE DOSE
(Red)



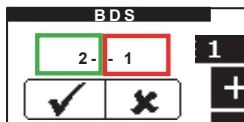
DOUBLE DOSE
(Green)



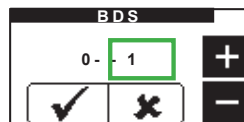
SPECIAL DOSE
(White)



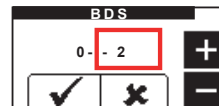
Single dose – Left sensor (Red)
Double dose – Right sensor (Green)



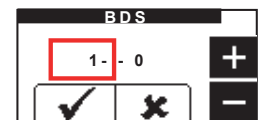
Double dose – Left sensor (Green)
Single dose – Right sensor (Red)



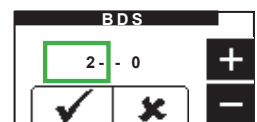
Left sensor disabled
Double dose – Right sensor (Green)



Single dose – Left sensor (Red)
Right sensor disabled



Single dose – Left sensor (Red)
Right sensor disabled



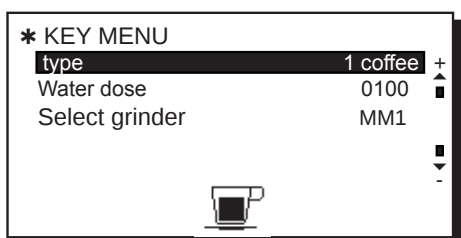
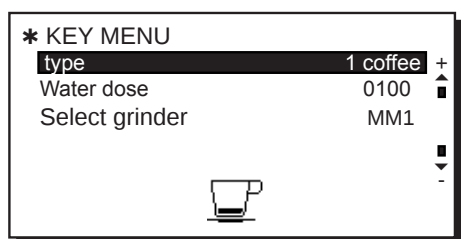
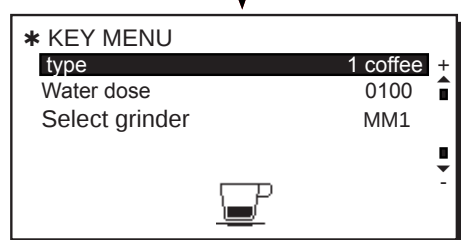
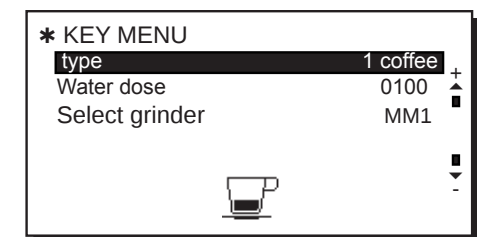
Double dose – Left sensor (Green)
Right sensor disabled

Setting recipes and connections with grinder/dispenser

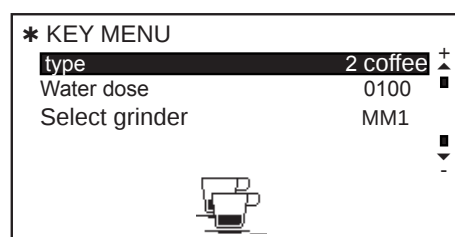
GRINDER/DISPENSER 1

-NOTE: POSSIBILITY TO CONNECT ALSO
WITH GRINDER/DISPENSER 2

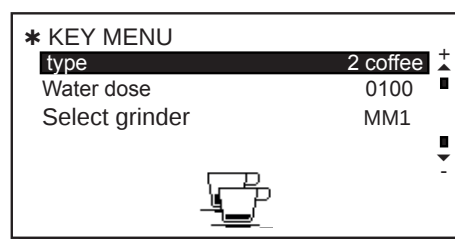
English



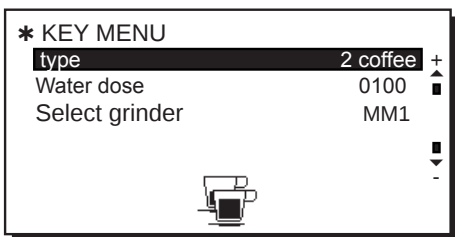
← MEDIUM →



← SHORT →

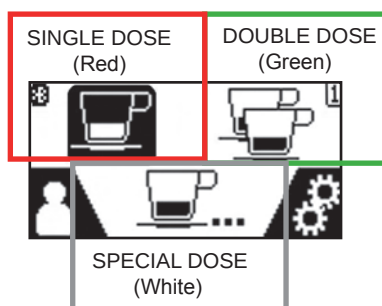


← LONG →



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

BDS system enabled.

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



Dose grinding and dispensing activated (LED on)



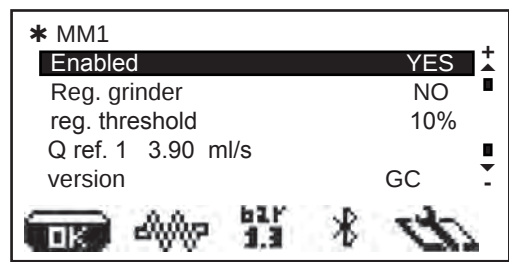
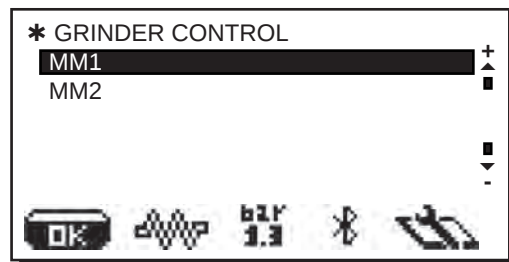
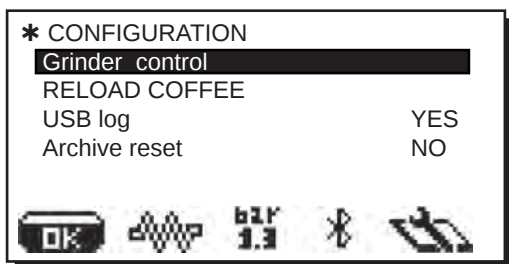
Dispensing will remain active for 2 minutes. During this time, the grinder/dispenser used will be blocked and therefore unable to grind a second dose of coffee.

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



Configuration of grinding parameters

Position the cursor on the "GRINDER CONTROL" entry in the machine configuration menu and press the  key:



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  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.

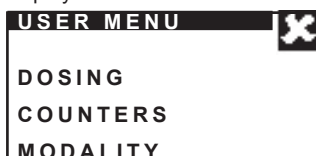
Dose time variation relative to the Magnum Bluetooth grinder/dispenser

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

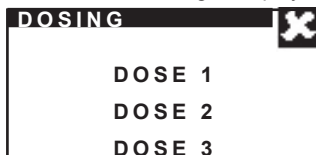
- 1) press the  icon from the main screen:



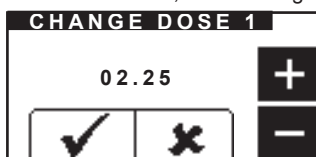
- 2) The following is displayed:



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



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



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

The measure-number correspondence is the following:

DOSE 1 for the single measure  ;

DOSE 2 for the double measure  ;

* DOSE 3 for the continuous measure 

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

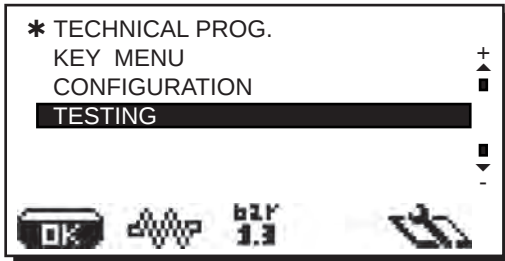
Double-measure's  grinding time variation in user mode is ± 50 hundredths of second ($0 \div 1/2$ second).

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

7. Manual control panel

To access the manual control panels, position the cursor on the line "Testing" using the  and  keys

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



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

Panel 1

G	R	1						G	R	2							G	R	3
0	0	0	0					0	0	0	0						0	0	0
P		1	.	3	b	a	r		L	i	v		O	K		0	0	7	%
R	C	1		O	N							E	v	c			O	F	F
R	C	2		O	N							T	V		0	6	5	°C	
	±		→		P	R	G		→		X	X	X	:		R	E	S	

- Pressing  or  displays the various components;
- Pressing  selects the component to active and takes you to the next panel M2;
- Pressing  exits manual mode.

Panel 2

G	R	1						G	R	2							G	R	3	
0	0	0	0					0	0	0	0						0	0	0	0
P		1	.	3	b	a	r		L	i	v		O	K			0	0	7	%
R	C	1		O	N								E	v	c			O	F	F
R	C	2		O	N								T	V			0	6	5	°C
	±		→		R	E	S		→		X	X	X	:		R	E	S		

- Pressing  or  activates the components:
if they have a direction, use  or  to alternate ("+" Left/"-" Right).
- Pressing  takes you back to panel M1.

Panel

G	R	1						G	R	2							G	R	3	
0	0	0	0					0	0	0	0						0	0	0	0
P		1	.	3	b	a	r		L	i	v		O	K			0	0	7	%
R	C	1		O	N								E	v	c			O	F	F
R	C	2		O	N								T	V			0	6	5	°C
	±		→						→		X	X	X	:		R	E	S		

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

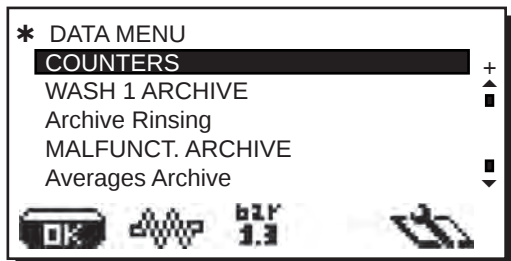
Below are the symbols used to define the components that can be accessed for movement:

RC	Boiler resistance
Evc	Boiler load solenoid valve
P	Boiler pressure
LIV	Boiler water level
TV	Steam temperature (if the Turbosteam system is not present, this parameter is not displayed)

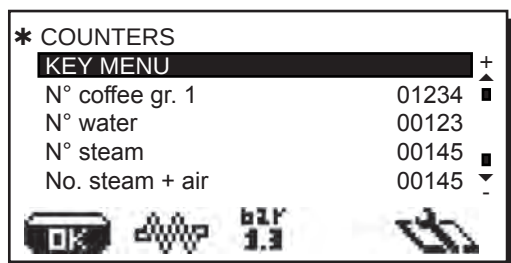
MP	Pump Motor
Em	Anti-backflow solenoid valve
Eds	Drying solenoid valve
Mc	Autosteam compressor motor
Ets	Autosteam solenoid valve
Evc	Charge-boiler solenoid valve
Eaf	Cold-water solenoid valve
Eac	Water solenoid valve
G1÷G4	Dispense-coffee solenoid valve

8. DATA menu: COUNTERS

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



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



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

Note: the settings that cannot be cleared are:

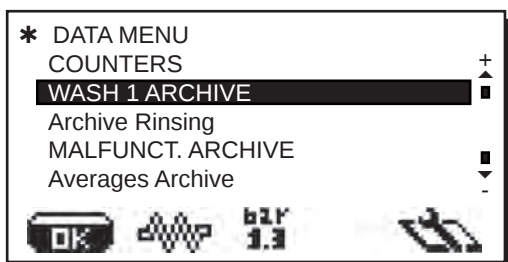
- **tot. coffee**

The settings that are counted are:

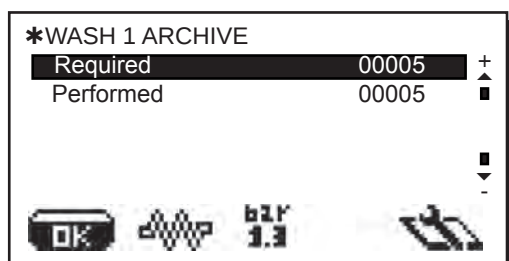
- **select key** (single selection counters)
- **coffee** (number of coffee-based beverages);
- **water** - (number of times water dispensed);
- **steam** (number of times steam dispensed with steam key);
- **steam + air** - (number of times steam and air dispensed with the Turbosteam key);
- **tot.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

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

8.1 DATA menu: Wash 1 Archive

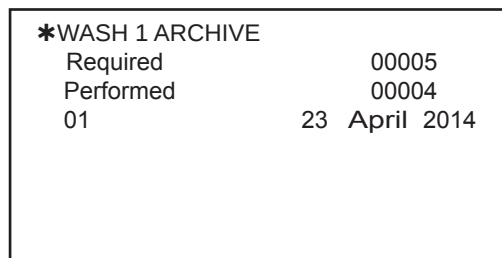


Pressing the key at the line "Wash 1 archive", shows the display:



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

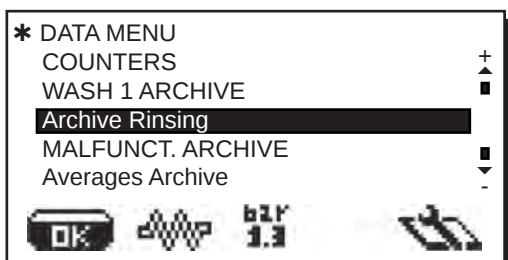
- **Requested:** indicates the number of washes that were requested by the machine.
- **Performed:** indicates the number of washes that were performed within the timeout of 60 minutes.



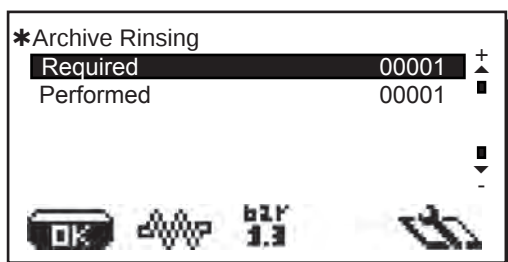
Note: if the requested washes are not performed before the timeout, the list with the last 10 missed washes, numbered and dated, can be viewed under "Performed".

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 and keys and then press the key to go to another menu.

8.2 DATA menu: ARCHIVE RINSING

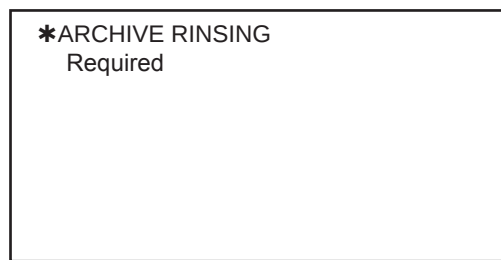


When you press the key at the line "Archive rinsing", the display shows:



The Rinse settings that can be displayed are:

- **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.

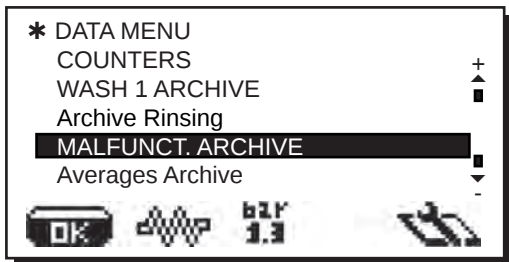


Note: if the requested rinses are not performed before the timeout, the list with the last 10 missed rinses, numbered and dated, can be viewed under "Performed".

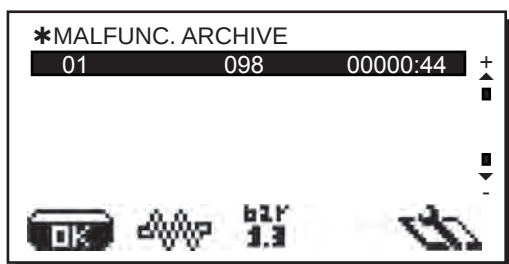
The first line refers to the most recent data.

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

8.3 DATA menu: MALFUNCTIONS ARCHIVE



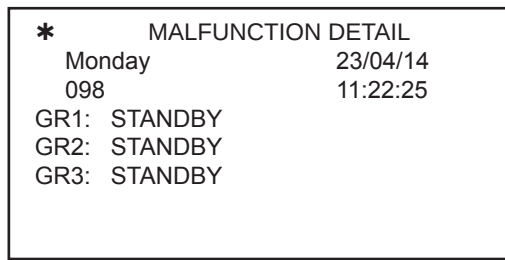
When you press the **▶** key at the line "Malfunctions Archive", the display shows:



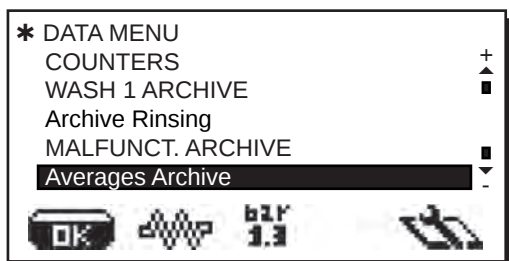
The digits after the "malfunction code" indicate the time elapsed since the last recorded malfunction, in hours and minutes.

Pressing the **▶** key is again takes you to a detailed display that shows:

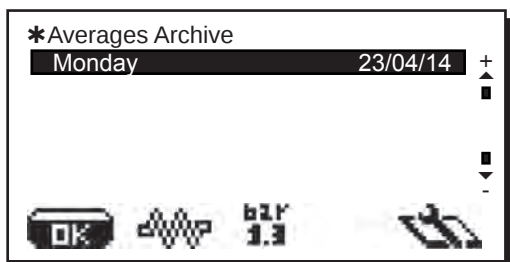
- day and time when the malfunction occurred
- condition of each group at the time of the malfunction.



8.4 DATA menu: Averages Archive

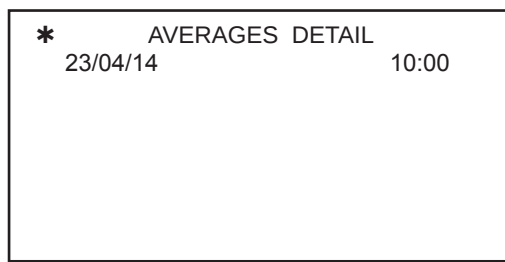


When you press the **▶** key at the line "Averages Archive", the display shows:

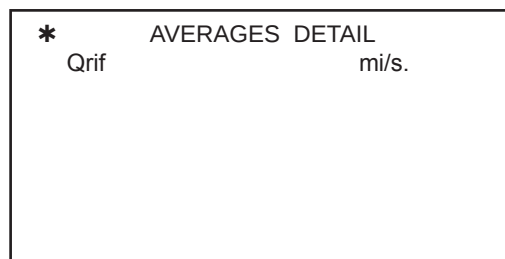


Pressing the **▶** key is again takes you to a detailed display that shows:

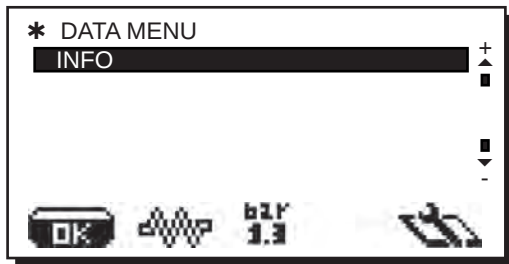
- day and time on which the daily check was made.



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)



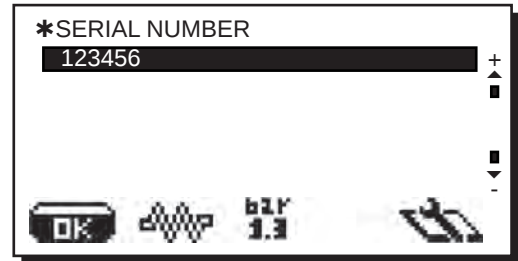
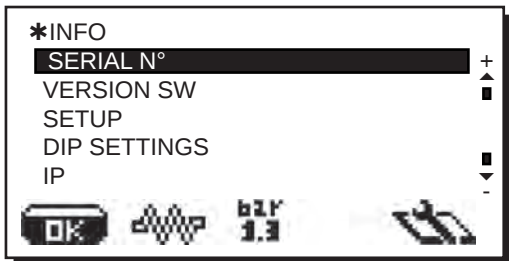
8.5 DATA menu: INFO



Serial number

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

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

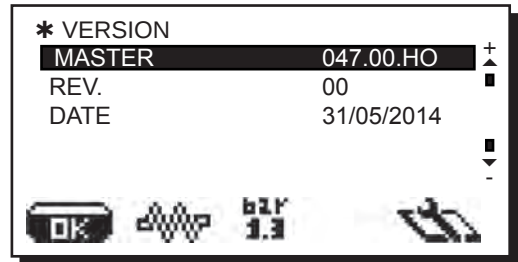
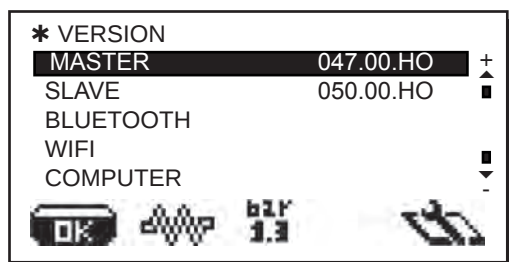


Version

The submenus under "Version" show the memory versions:

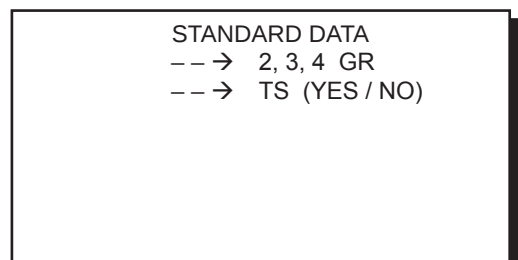
- Master 047.00.H0;
- Slave 050.00.H0;
- Bluetooth;
- WI-FI;
- Computer;
- Barcode.

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



Setup

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

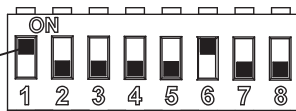
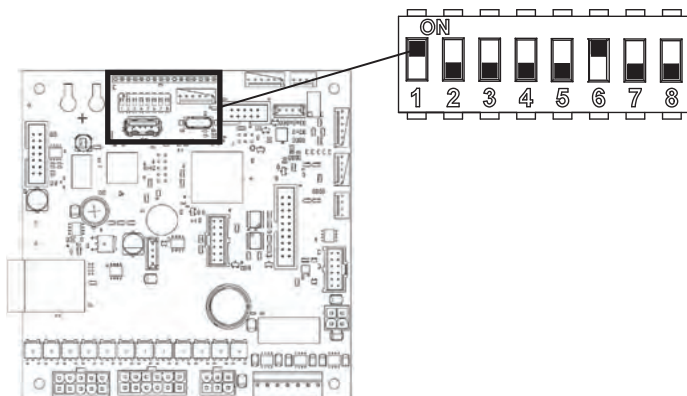


Entering Standard Data

Before performing this operation, turn off the machine and set CPU board **DIP switch 1** to **ON**, 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:

- **TYPE**: 2, 3, 4 groups;
- **TURBOTEAM** YES/NO;



Using the keys **▲** and **▼** choose the settings and then press the **▶** key to confirm the entry.

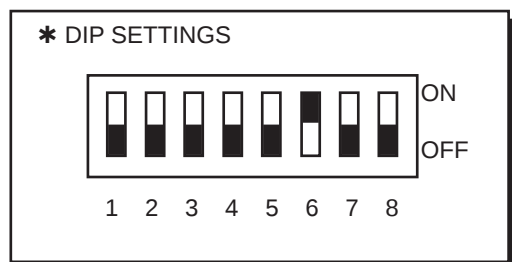
At the end of the operation, turn the machine off and reset CPU board **DIP switch 1** to **OFF**.

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 **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.

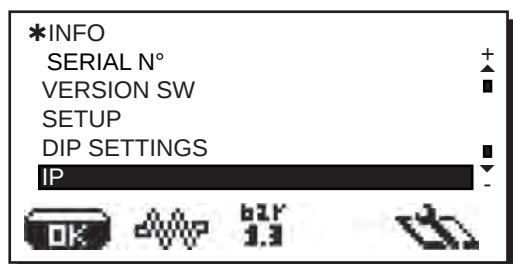
- DIP 1 = OFF - ON standard data entry
- DIP 2 = OFF
- DIP 3 = OFF - ON technical key simulation
- DIP 4 = OFF - ON access to accounting functions
- DIP 5 = OFF - ON enabling of key sequence for programming entry
- DIP 6 = ON
- DIP 7 = OFF
- DIP 8 = OFF

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

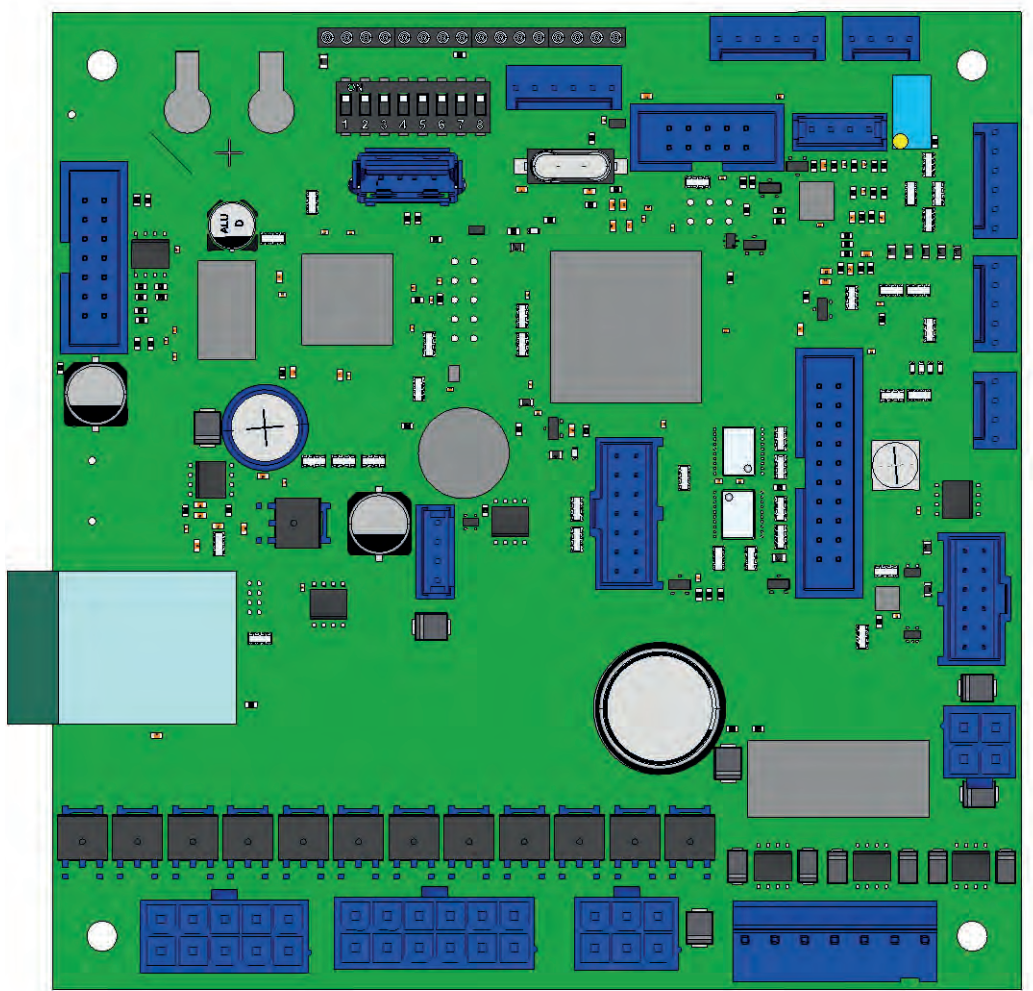
IP

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

IP - displays the IP address assigned to the machine by the wireless access point.



NEWTON



English

CHECK-CONTROL MESSAGES

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
(x)21*	Group boiler pressure sensor x out of range (x = 1, 2, 3, 4) 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
030	Reset slave micro processor		• If the problem persists, replace the Newton board.
051	Temperature sensor signal out of range	• Sensor failure • Card failure	• 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.	• Thermocouple 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	• Thermocouple disconnected • Wrong configuration during 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.

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
060	Boiler-level 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 malfunction 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 operations.
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 malfunction 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.

Faults - * - appear only in some produit configurations.

Smontaggio - Disassembly - Demontage - Abmontierung - Desmontaje - Desmontage

IT SCALDATAZZE: svitare le viti **A** e rimuovere le griglie.

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

EN 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.

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

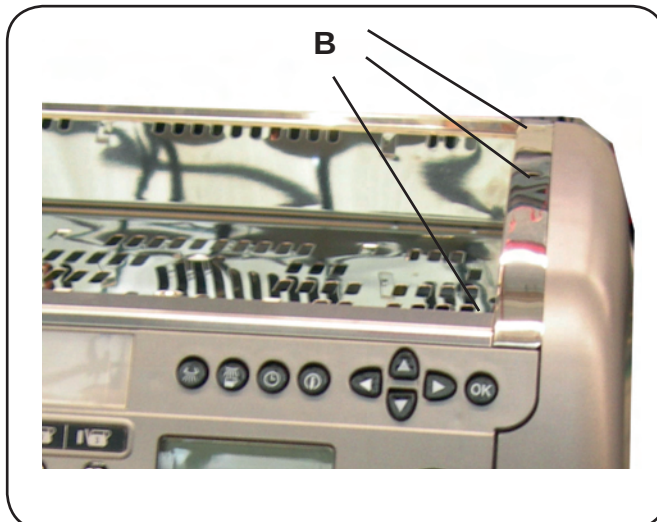
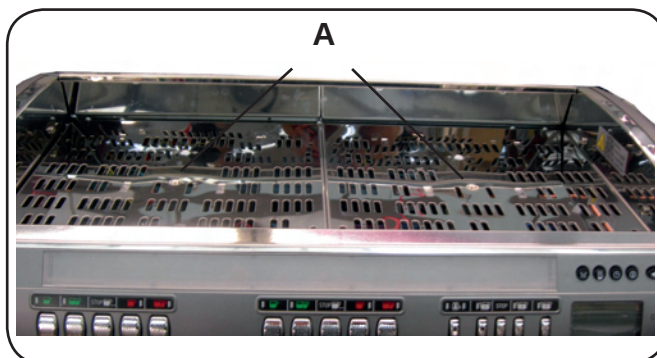
SEITENTEILE: Lösen Sie die unter den Gittern befindlichen Schrauben (**B**) und nehmen Sie das Seitenteil ab.

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.

PT 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.



Smontaggio - Disassembly - Demontage - Abmontierung - Desmontaje - Desmontage

IT

PANNELLO FRONTALE INOX

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

EN

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 fixation du panneau frontal et démonter le panneau frontal en inox.

DE

ABNAHME DES VORDEREN PANEELS AUS EDELSTAHL

Nehmen Sie die Wanne zur Tassenauflage ab.
Lösen Sie die beiden Schrauben (D), und nehmen Sie das vordere Edelstahlpaneel ab.

ES

PANEL FRONTAL INOXIDABLE

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

PT

PAINEL DIANTEIRO INOXIDÁVEL

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



IT

PANNELLO POSTERIORE

Lo smontaggio del pannello posteriore deve essere eseguito solo dopo aver rimosso lo scaldatasse.
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

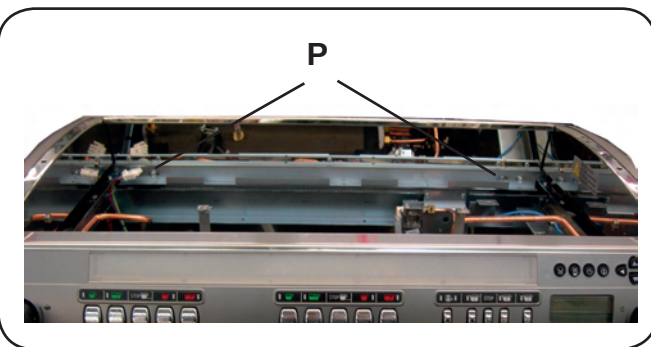
PANNEAU POSTÉRIEUR

Le démontage du panneau postérieur ne doit être fait qu'après avoir enlevé le chauffe-tasses.
Dévisser les (n°..) vis (P) de fixation et enlever le panneau.

DE

ABNAHME DES HINTEREN PANEELS

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



ES

PANEL POSTERIOR

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

PT

PAINEL TRASEIRO

Proceder à desmontagem do painel traseiro só depois de ter tirado o esalda-chávenas.
Afrouxar os (n°..) parafusos (P) de aperto e tirar o painel.

Regolazioni - Setting - Reglages - Einstellungen - Regulaciones - Regulações

IT POMPA VOLUMETRICA CON FILTRO
BY-PASS
A - Dado di regolazione pressione pompa

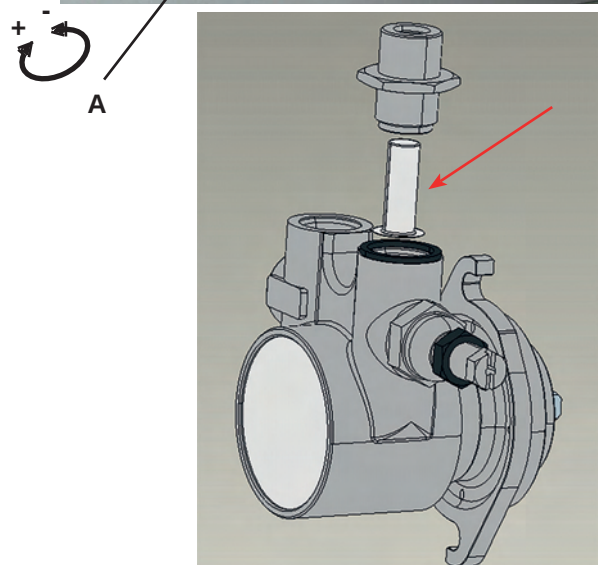
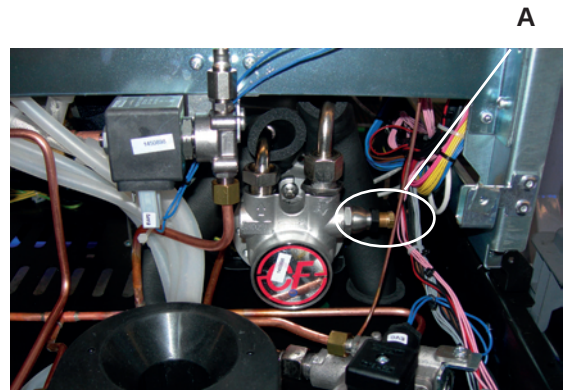
EN VOLUMETRIC PUMP WITH FILTER
BY-PASS
A - Nut for adjusting the pump pressure

FR POMPE VOLUMETRIQUE AVEC FILTRE
BY-PASS
A - Ecrou de réglage pression pompe

DE VOLUMETRISCHE PUMPE MIT FILTER
BY-PASS
A - Pumpendruck-Einstellschraube

ES BOMBA VOLUMETRICA CON FILTRO
BY-PASS
A - Tuerca de regulación bomba

PT BOMBA VOLUMETRICA COM FILTRO
BY-PASS
A - Porta de regulação pressão bomba



Regolazioni - Setting - Reglages - Einstellungen - Regulaciones - Regulações

IT SCATOLA ELETTRICA

Togliere la bacinella appoggiatezze.
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.

FR BOITE ÉLECTRIQUE

Enlever le petit bassin appuie-tasses.
Dévisser le vis (C) et enlever le couvercle (D) de la boîte électrique en le faisant glisser vers la machine.

DE ELEKTROKASTEN

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

ES CAJA ELÉCTRICA

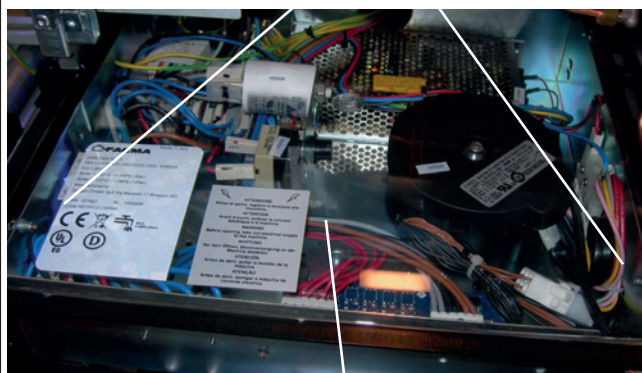
Quitar la bandeja apoya-tazas.
Aflojar lo tornillo (C) y quitar la tapa (D) de la caja eléctrica, haciéndolo correr hacia el interior máquina.

PT CAIXA ELÉTRICA

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



C



D

IT MACCHINA EQUIPAGGIATA CON TERMOSTATO DI SICUREZZA

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

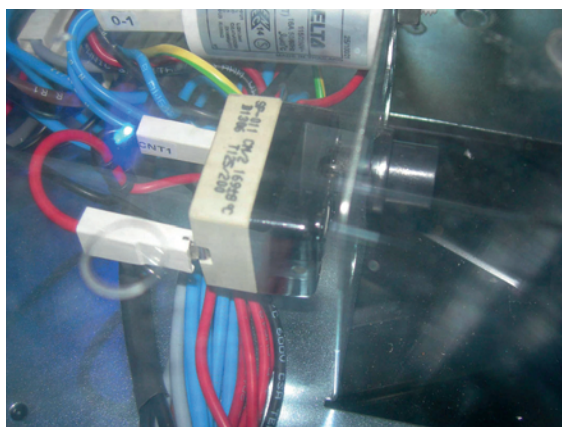
Falls der Thermostat ausgelöst wird, ihn wiedereinschalten

ES MAQUINAS EQUIPADAS CON THERMOSTATO DE SEGURIDAD

En caso de intervención del termostato, reencender de nuevo

PT MAQUINA EQUIPADA COM THERMOSTATO DE SEGURANÇA

Em caso de intervenção do termostato, reacender de novo



Regolazioni - Setting - Reglages - Einstellungen - Regulaciones - Regulações

Chiudere il rubinetto di alimentazione idrica.

Close the water tap.

Fermer le robinet d'alimentation hydrique.

Sperren sie den hahn zur wasserversorgung ab.

Cerrar el grifo de alimentación hídrica.

Fechar a torneira de alimentação hídrica.

I REGOLAZIONE DELLA TEMPERATURA DELL'ACQUA CALDA

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

GB ADJUSTMENT OF HOT WATER TEMPERATURE

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

F REGLAGE DE LA TEMPERATURE DE L'EAU CHAUDE

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

D REGELUNG DER HEISSWASSTERTEMPERATUR

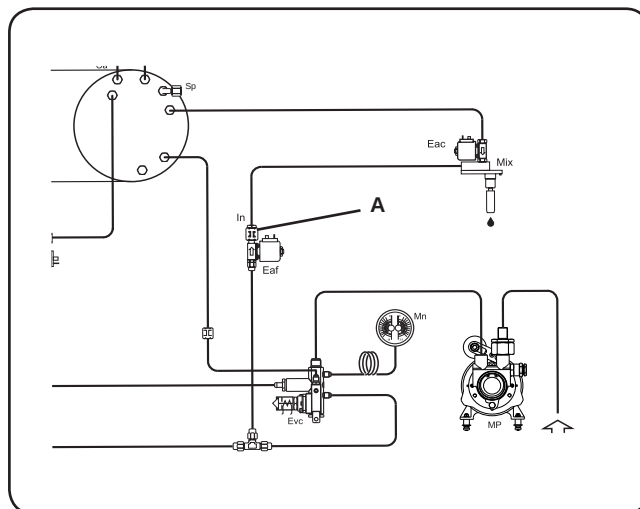
Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

E REGULACIÓN DE LA TEMPERATURA DEL AGUA CALIENTE

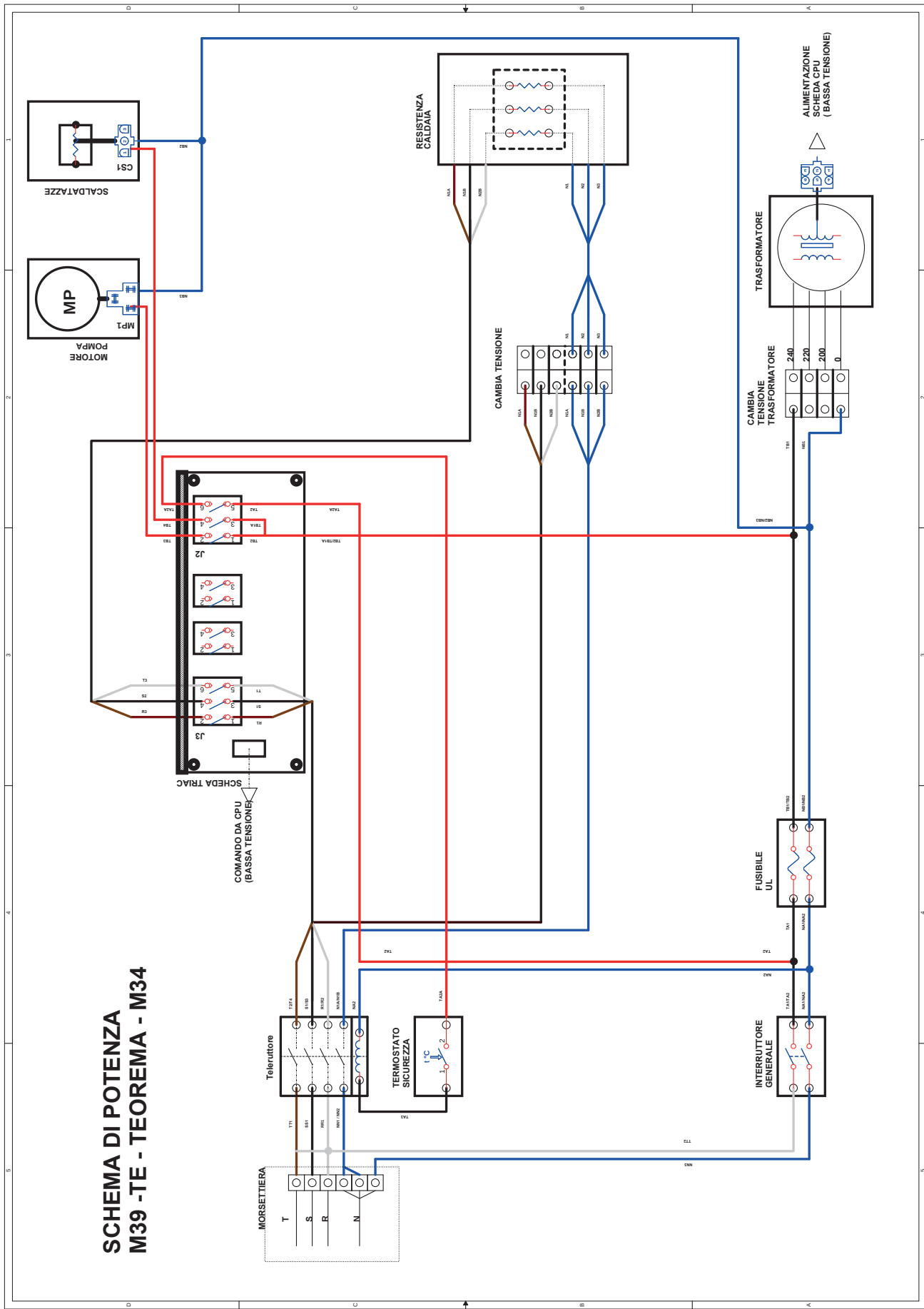
Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

P REGULAÇÃO DA TEMPERATURA DA ÁGUA QUENTE

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

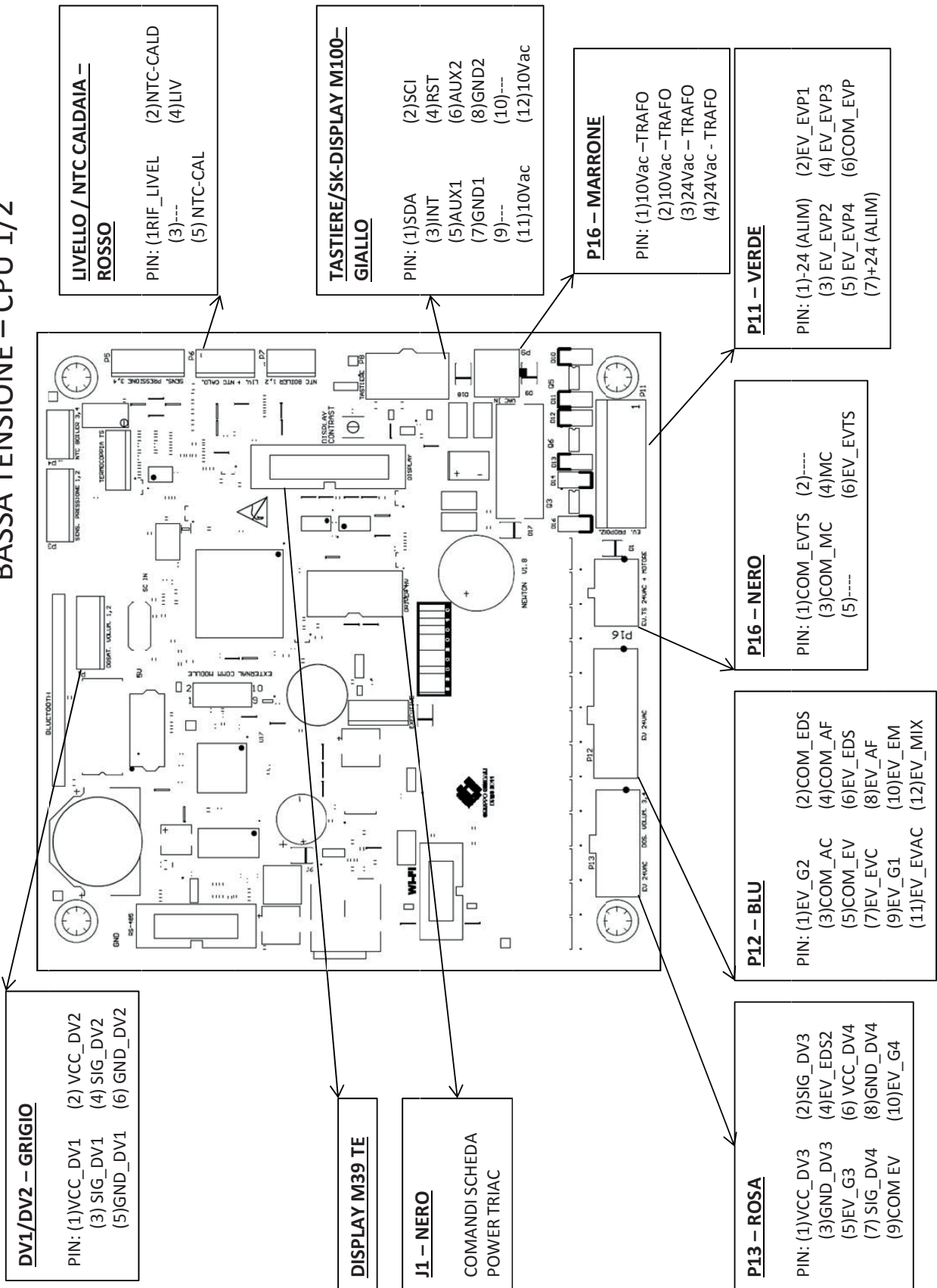


Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico



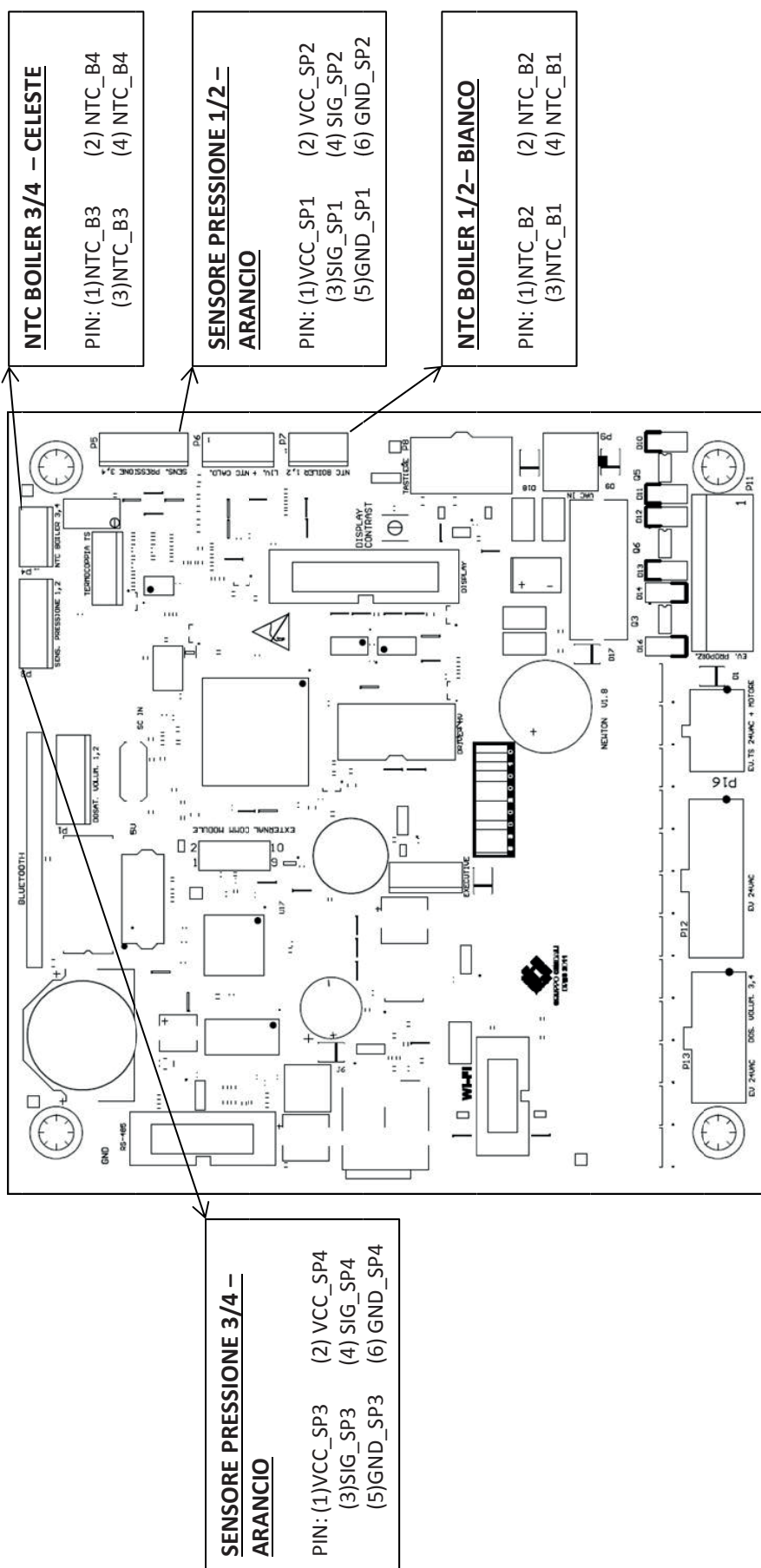
**Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

BASSA TENSIONE – CPU 1/2

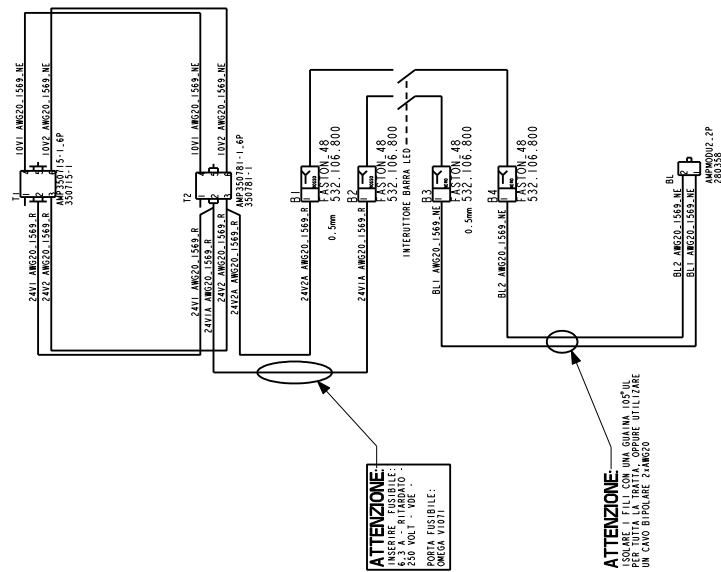
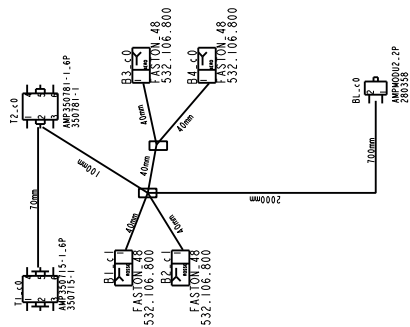


**Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

BASSA TENSIONE – CPU 2/2



Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico



Via A. Manzoni, 17 - 20082 BINASCO (MI) ITALIA Tel. 0290049-1 - Fax 029052546
In compliance with the following directives: 2002/95/CE (RoHS)

MATERIAL		GENERAL TOLERANCES		TREATMENT	
SCALE		FOR ANY LACKING PRESCRIPTION AND NOTES SEE C.F. "N°"		PART NUMBER IF TREATED	
DRAWING SCALE					
DESCRIPTION					
KIT CABLAGGIO BARRA LED M39 RESTYLING					
DATE	DESIGNED BY	CONTROLLED BY	PART NUMBER	L.T. VERSION	
10/01/2012	FLOREA	CECCAROLI	535838002		
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LA CIMBALI

Conforme alle direttive: 2002/95/CE (DIRETTIVA RoHS)

MATERIALE	TOLLERANZE GENERALI ISO 80/5	TRATTAMENTO
SCALA VEDI C. 1. N.	PER NOTE E PRESCRIZIONI MANCANTI. VERIFICARE CON PRODOTTO COD.	PARTICOLARE VERNICIATO O TRATTATO COD.

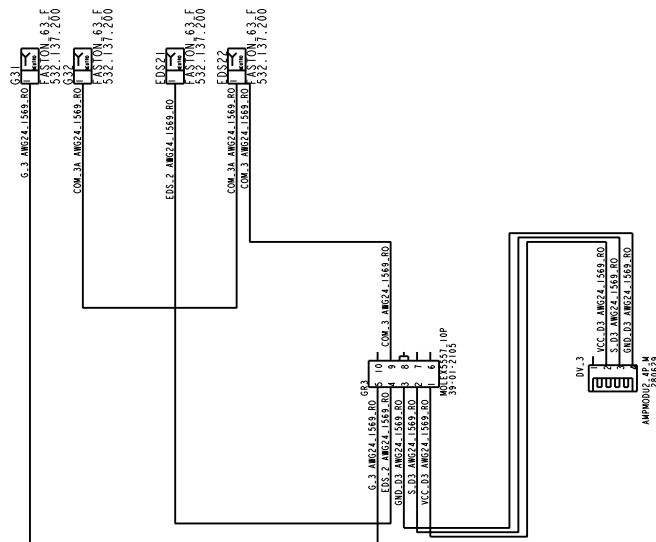
DRAWING SCALE	M34-M39 RESTYLING 3GR DIAGRAM
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DATA	DISEGNATO	CONTROLLATO	DIS. N°
07/10/2011	FLOREA	CECCAROLI	535821002-A

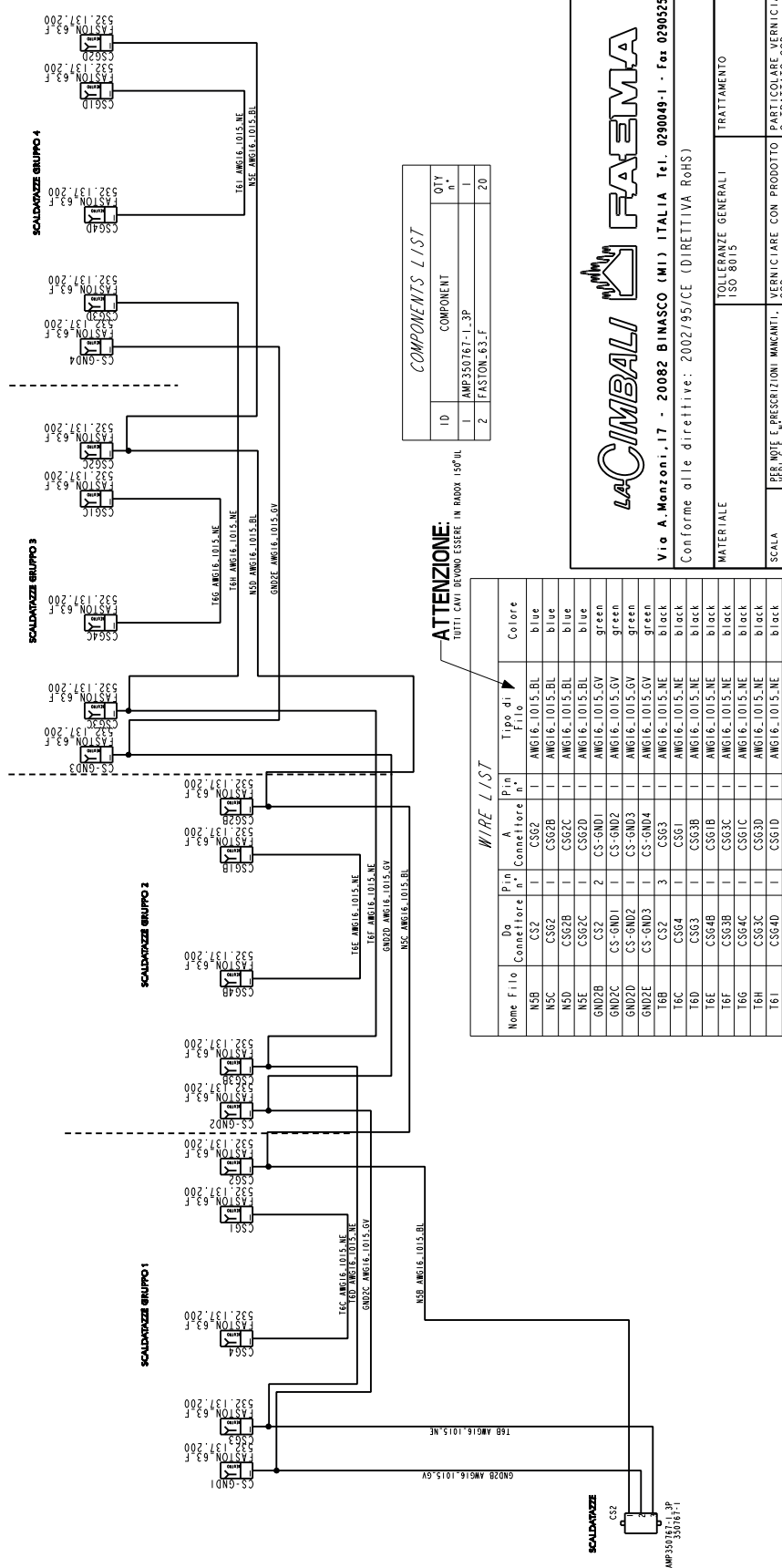
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WIRE LIST						
Nome Filo	Da Connettore	Pin n°	A Connettore	Pin n°	Tipo di Filo	Colore
COM. 3	GR3	9	EDS22	1	AWG24 - 369.90	pink
COM. 3A	EDS22	1	532	1	AWG24 - 369.90	pink
EDS. 2	GR3	4	EDS21	1	AWG24 - 369.90	pink
G. 3	GR3	5	631	1	AWG24 - 369.90	pink
GND. 03	GR3	1	DV. 3	2	AWG24 - 369.90	pink
S.03	DV. 3	3	GR3	2	AWG24 - 369.90	pink
WCC. 03	GR3	3	DV. 3	4	AWG24 - 369.90	pink

COMPONENTS LIST		
ID	COMPONENT	QTY n°
1	AMPMODU2_4P_M	1
2	FASTON_63-F	4
3	MOI FX5557 10P	1



Schema elettrico - Wiring diagram - Schéma électrique - Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico



COMPONENTS LIST		
ID	COMPONENT	QTY n°
1	AMP 350767 - I_3P	1
2	FASION_63_F	20

ATTENZIONE:

Nome	Filo	Da	Pin	A	Pin	File	Color
		Connetto	n°	Connetto	n°	di	
						File	
N5B		CS2	1	CSG2	1	ANG 6-1015, BL	blue
N5C		CSG2	1	CSG2B	1	ANG 6-1015, BL	blue
N5D		CSG2B	1	CSG2C	1	ANG 6-1015, BL	blue
N5E		CSG2C	1	CSG2D	1	ANG 6-1015, BL	blue
GND2B		CS2	2	CS-GND1	1	ANG 6-1015, GY	green
GND2C		CS-GND1	1	CS-GND2	1	ANG 6-1015, GY	green
GND2D		CS-GND2	1	CS-GND3	1	ANG 6-1015, GY	green
GND2E		CS-GND3	1	CS-GND4	1	ANG 6-1015, GY	green
T6B		CS2	3	CSG1	1	ANG 6-1015, NE	black
T6C		CSG4	1	CSG1	1	ANG 6-1015, NE	black
T6D		CSG3	1	CSG3B	1	ANG 6-1015, NE	black
T6E		CSG4B	1	CSG3B	1	ANG 6-1015, NE	black
T6F		CSG3B	1	CSG3C	1	ANG 6-1015, NE	black
T6G		CSG4C	1	CSG3C	1	ANG 6-1015, NE	black
T6H		CSG3C	1	CSG3D	1	ANG 6-1015, NE	black
T6I		CSG4D	1	CSG3D	1	ANG 6-1015, NE	black

[illegible]

MATERIALE	TOLLERANZE GENERALI ISO 8015	TRATTAMENTO
SCALA	PER NOTE E PRESCRIZIONI MANCANTI, VEDI "C.F." N°	PARTICOLARE VERNICIATO O TRATTATO COD.
DRAWING SCALE		
DENOMINAZIONE		
CABLAGGIO SCALDA TAZZE M39-RESTYLING 4 GR		

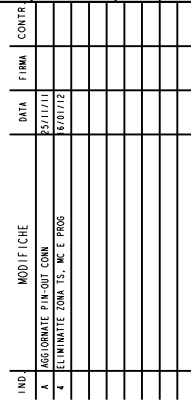
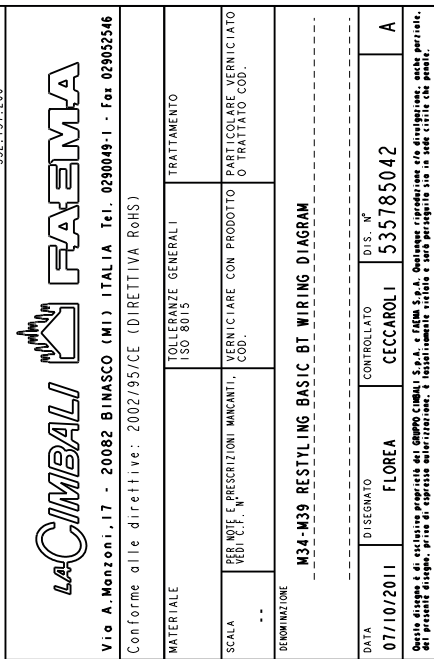
- DIAGRAM -		

DATA	DI SCRIVATO	DIS. N°
		535818002
		A

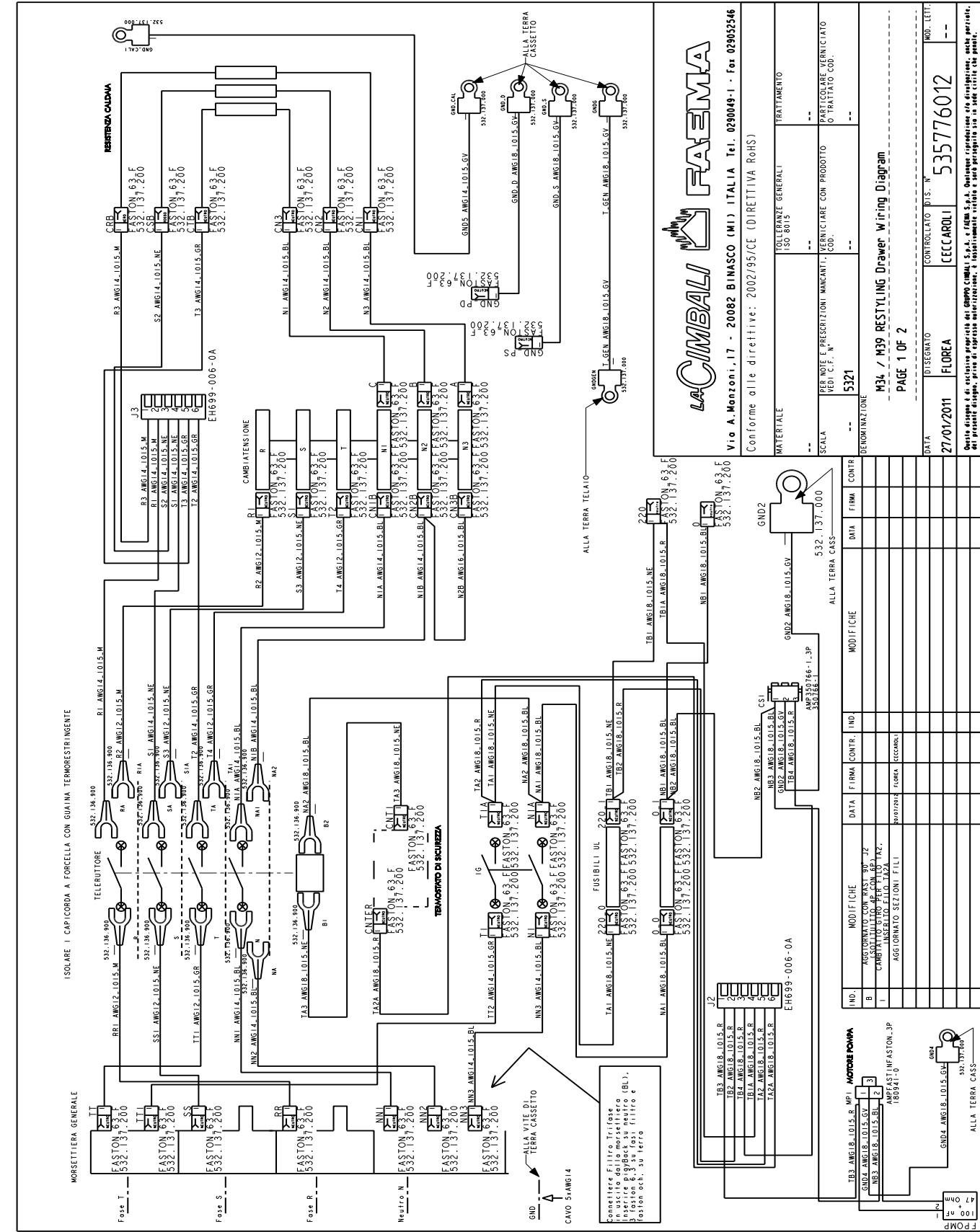
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**Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**



**Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**



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



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



על

HYDRAULIC DIAGRAM LEGEND

Ca	=	Boiler
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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O Constructor reserva-se o direito de modificar sem aviso prévio as máquinas tratadas neste manual

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