



MANUALE DEL TECNICO

ENGINEER'S MANUAL

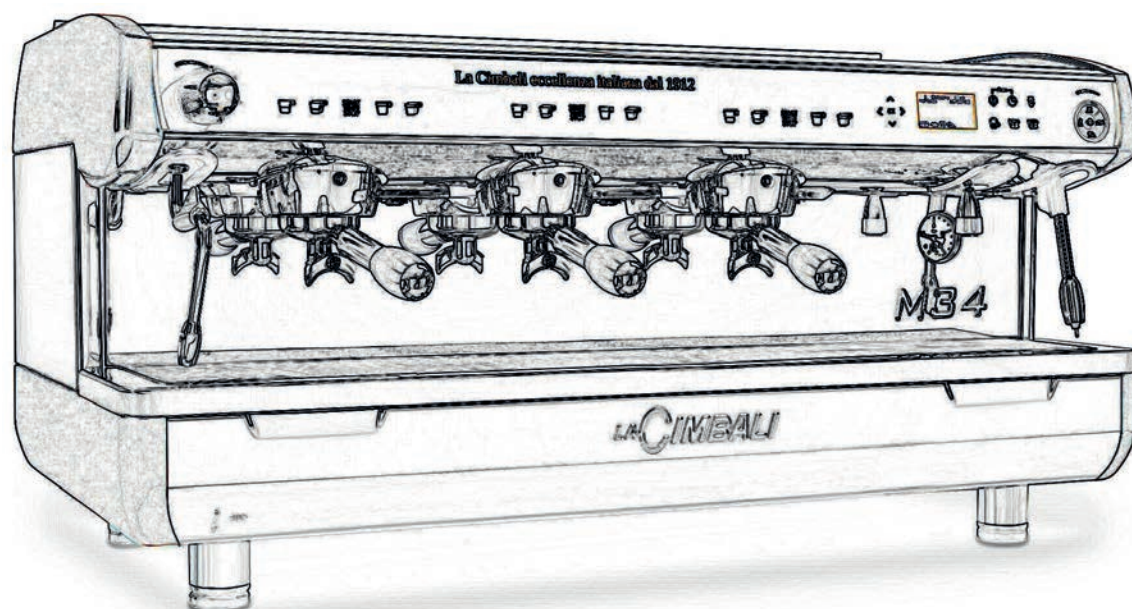
MANUEL DU TECHNICIEN

TECHNIKERHANDBUCH

MANUAL DEL TÉCNICO

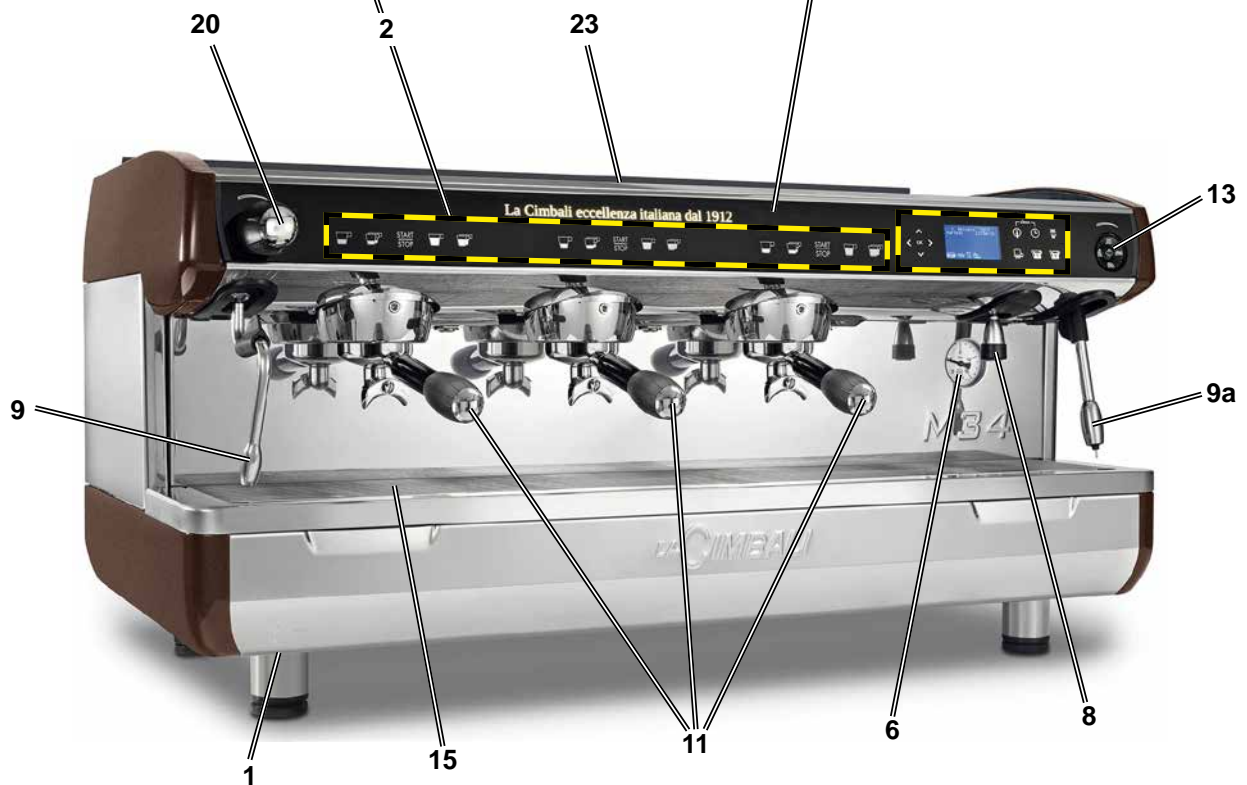
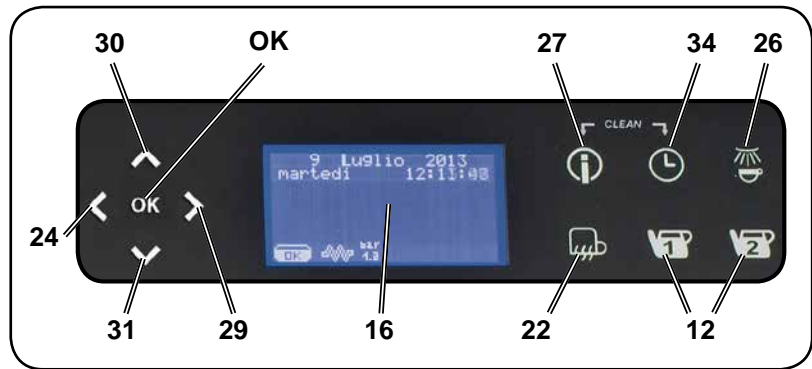
MANUAL DO TÉCNICO

M34 SELECTRON



(rev. MT- M34-N0-1809)

M34 SELECTRON



IT LEGENDA

- 1 Interruttore generale
- 2 Tastiera di selezione
- 6 Manometro pompa
- 8 Erogatore acqua calda
- 9 Tubo (lancia) vapore
- 9a Tubo (lancia) Turbosteam
- 11 Portafiltro
- 12 Pulsante acqua calda
- 13 Selettore Turbosteam
- 15 Bacinella appoggiatezze
- 16 Display grafico
- 20 Manopola erogazione vapore
- 22 Pulsante scaldacqua elettrico (*)
- 23 Piano appoggiatezze (*)
- 24 Tasto ◀ (uscire dalla programmazione / invalidazione dati immessi)
- 26 Tasto lavaggio circuito caffè
- 27 Tasto "i" (visualizzazione numero cicli)
- 29 Tasto ▶ (entrare in programmazione / menù)
- 30 Tasto ▲ (modificare parametri / orologio)
- 31 Tasto ▼ (modificare parametri / orologio)
- 34 Tasto "PARAMETRI CLIENTE"
- OK Pulsante attivazione / disattivazione resistenza caldaia - conferma dati immessi

I componenti - * - sono applicati solo in alcune configurazioni di prodotti.

EN LEGEND

- 1 Main switch
- 2 Selection keypad
- 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
- 20 Steam supply knob
- 22 Electrical cup-warmer button (*)
- 23 Cup warmer (*)
- 24 ◀ key (to quit programming mode / cancel entered data)
- 26 Coffee circuit washing key
- 27 "i" key (displays the number of cycles)
- 29 ▶ key (to access programming mode / menu)
- 30 ▲ key (to modify parameters/clock)
- 31 ▼ key (to modify parameters/clock)
- 34 "CUSTOMER PARAMETERS" key
- OK On / Off boiler resistance switch - confirm entered data

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

FR LEGENDE

- 1 Interrupteur général
- 2 Clavier de sélection
- 6 Manomètre pompe
- 8 Sortie eau chaude
- 9 Buse vapeur
- 9a Buse Turbosteam
- 11 Porte-filtre
- 12 Bouton eau chaude
- 13 Sélecteur Turbosteam
- 15 Bac d'égouttement
- 16 Écran graphique
- 20 Robinet de débit du vapeur
- 22 Bouton chauffe-tasses électrique (*)
- 23 Chauffe-tasses (*)
- 24 Touche ◀ (sortir de la programmation / données introduites non valables)
- 26 Touche de lavage du circuit café
- 27 Touche « i » (affiche nombre des cycles)
- 29 Touche ▶ (entrer en programmation / menu)
- 30 Touche ▲ (modifier les paramètres / horloge)
- 31 Touche ▼ (modifier les paramètres / horloge)
- 34 Touche "PARAMÈTRES CLIENT"
- OK Bouton poussoir d'activation / désactivation résistance chaudière - confirmation des données introduites

Les composants accompagnés d'un * ne sont montés que dans certaines configurations de produit.

DE LEGENDE

- 1 Hauptschalter
- 2 Wahlkasten
- 6 Manometer Pumpe
- 8 Heißwasserausgabe
- 9 Dampfausgaberohr
- 9a Dampfausgaberohr Turbosteam
- 11 Filterhalter
- 12 Heißwasser-Drucktaste
- 13 Wahlschalter Turbosteam
- 15 Auffangschale
- 16 Graphisches Display
- 20 Drehknopf Dampfabgabe
- 22 Elektrischer Tassenwärmerschalter (*)
- 23 Tassenabstellfläche (*)
- 24 Taste ◀ (Verlassen der Programmierung / Löschen der eingegebenen Daten)
- 26 Taste zur Spülung des Kaffee-Kreislaufs
- 27 Taste „i“ (Anzeige der Zyklus-Anzahl)
- 29 Taste ▶ (Zugriff auf Programmierung / Menü)
- 30 Taste ▲ (Parameter / Uhrzeit ändern)
- 31 Taste ▼ (Parameter / Uhrzeit ändern)
- 34 Taste „KUNDENPARAMETER“
- OK Taste zur Aktivierung / Deaktivierung des Heizelements Wasserkessel - Bestätigung der eingegebenen Daten

Bauteile - * - sind nur bei einigen Produkt-Konfigurationen angebracht.

ES LEYENDA

- 1 Interruptor general
- 2 Teclado de selección
- 6 Manómetro bomba
- 8 Boquilla agua caliente
- 9 Tubo vapor
- 9a Tubo vapor turbosteam
- 11 Portafiltro
- 12 Tecla suministro agua caliente
- 13 Selector turbosteam
- 15 Bandeja
- 16 Display gráfico
- 20 Botón giratorio suministro vapor
- 22 Botón calienta-tazas eléctrico (*)
- 23 Calientatazas (*)
- 24 Tecla ◀ (salir de la programación / invalidación datos introducidos)
- 26 Tecla de lavado circuito café
- 27 Tecla "i" (visualización número ciclos)
- 29 Tecla ▶ (entrar en programación / menú)
- 30 Tecla ▲ (modificar parámetros / reloj)
- 31 Tecla ▼ (modificar parámetros / reloj)
- 34 Tecla "PARAMETROS USUARIO"
- OK Botón activación / desactivación resistencia caldera - confirmación datos introducidos

Los componentes - * - se aplican sólo en algunas configuraciones de productos.

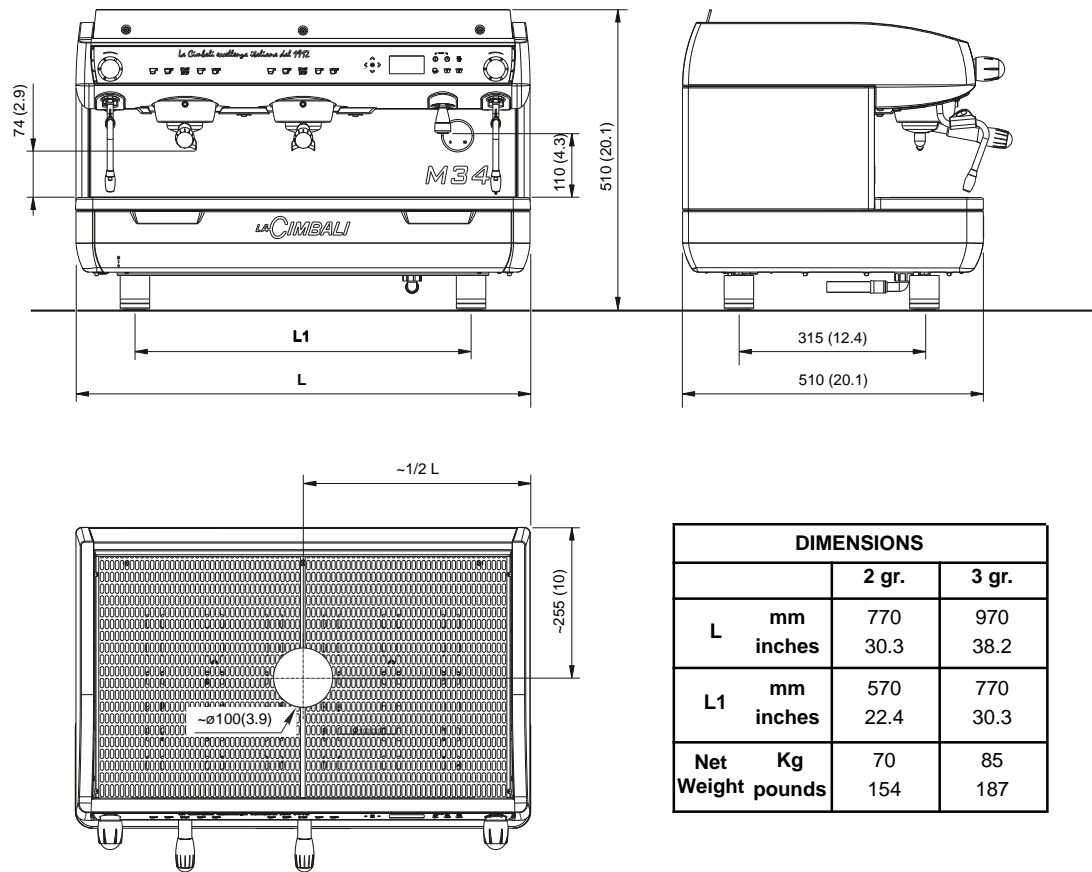
PT LEGENDA

- 1 Interruptor geral
- 2 Teclado de selecção
- 6 Manómetro da bomba
- 8 Distribuidor de água quente
- 9 Tubo do vapor
- 9a Tubo do vapor turbosteam
- 11 Porta-filtro
- 12 Botão de distribuição de água quente
- 13 Selector turbosteam
- 15 Tabuleiro
- 16 Display gráfico
- 20 Manípulo de distribuição
- 22 Botão esquentar-chavenas eléctrico (*)
- 23 Grelha para esquentar chávenas (*)
- 24 Tecla ◀ (sair da programação / invalidação dos dados introduzidos)
- 26 Tecla de lavagem de circuito café
- 27 Tecla "i" (visualização do número de ciclos)
- 29 Tecla ▶ (entrar na programação / menu)
- 30 Tecla ▲ (modificar parâmetros / relógio)
- 31 Tecla ▼ (modificar parâmetros / relógio)
- 34 Tecla "PARAMETROS CLIENTE"
- OK Botão activação / desactivação resistência caldeira - confirmação dos dados introduzidos

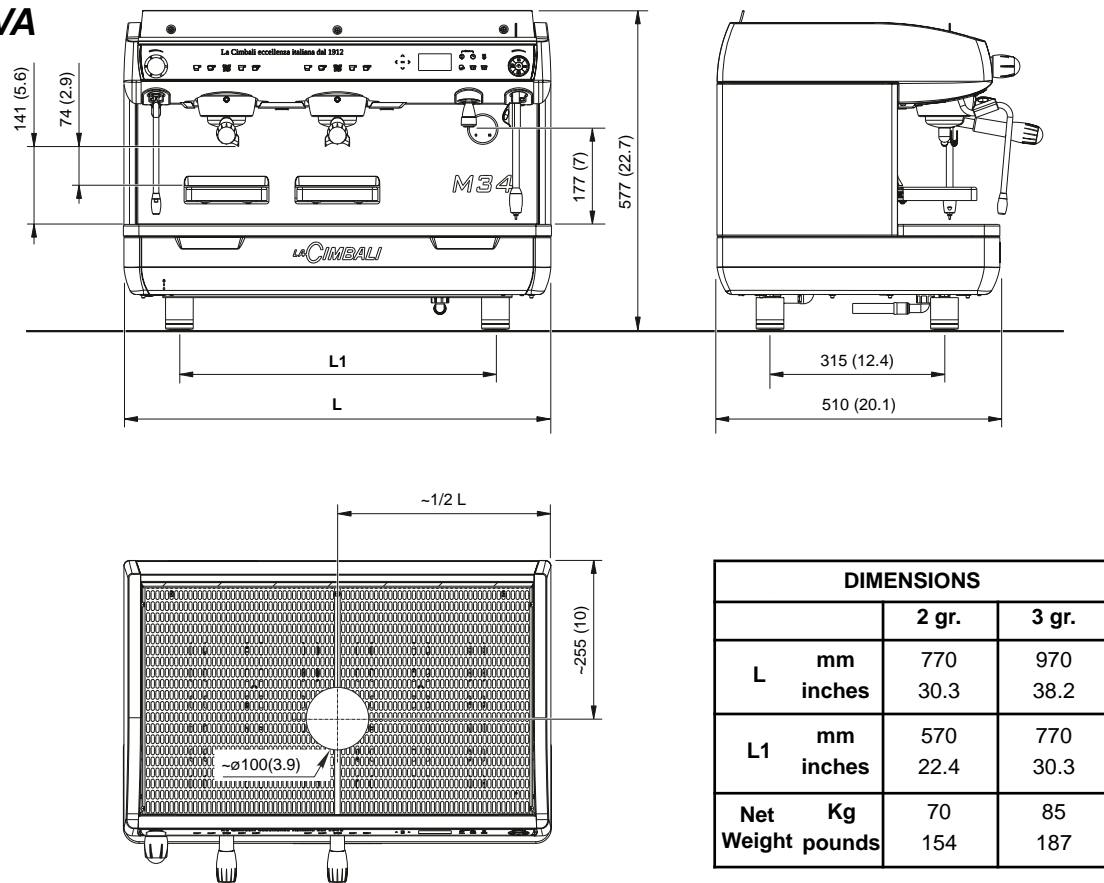
Os componentes - * - são aplicados só em algumas configurações de produtos.

	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
			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	10	15
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

M34



M34 VA



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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.

Description display symbols

WATER LEVEL



This symbol indicates the boiler water level. During the loading phase, the bottom part of the icon blinks. When the optimum level is reached, the symbol looks like this:

RESISTANCE



This symbol (dark inside) indicates that the resistance is activated and functioning.

When the boiler pressure reaches the set value, the icon looks like this (light inside).

When the machine is in operation, the two icons



alternate on the display, indicating the presence of the electric heating.



This indicates that the heating resistance has been disabled.



Note: the customer cannot switch on or switch off the electric heating.

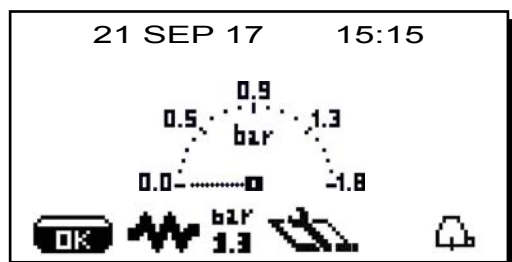
When the on/off function is programmed, the electric heating takes place automatically.

SEVICE BOILER PRESSURE



This symbol indicates the boiler pressure value.

If the ◀ key is pressed for about 3", the pressure gauge will be displayed analogically. This will be shown on the display:



Press and hold down the ◀ key for about 3 seconds to return to the regular display mode.



This symbol indicates that the machine is pre-heating or the boiler pressure has dropped below 0.5 bar.

For the duration of this phase, the display alternates this symbol with the one indicating the boiler pressure.

The machine has reached the set work pressure and temperature when the icon disappears from the display.

CUP-WARMER



These symbols indicate the power currently selected by the cup warmer.

no symbol = OFF

= maximum power symbol

STEAM SELECTOR



This symbol indicates the position of the steam selector lever (1 ÷ 4).

WIFI

WIFI connection symbols:



- network present but not connected;



- connected to the network.

USB



This symbol appears on the display when a USB pen drive is connected.

SD



This icon indicates the presence of an SD micro chip in the CPU board of the machine.

TECHNICAL PROGRAMMING MENU



This symbol indicates that the technical programming menu can be accessed.

CONTROL OF THE FLOW (ONLY IF IN USE)

The appearance of this animated icon means that adjustments need to be made to the grinder/dispenser to tighten or loosen the grinding, to return coffee dispensing to the default parameters.

The icons that are shown are:



means that the grinding needs to be loosened. (flow of coffee is lower than the reference).

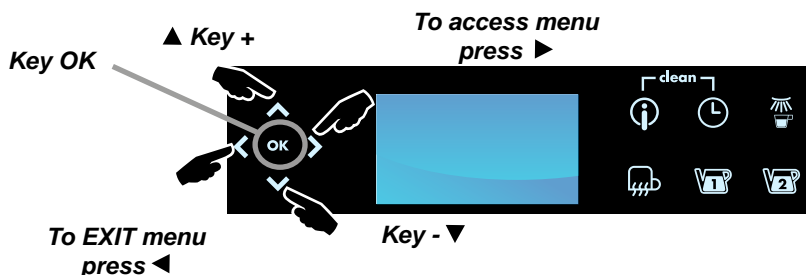


means that the grinding needs to be tightened. (flow of coffee is greater than the reference).

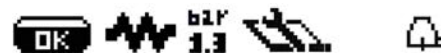
Note. The number next to the icon (1 or 2) indicates which grinder/dispenser needs adjusting. The icon appears on the display instead of the level symbol.

PROGRAMMING - ENGINEER MODE

1. Data flow chart - Technician programming



***TECHNICAL PROG.**
KEY MENU
SELF.LEARNING
CONFIGURATION
TESTING



KEY MENU

Press



Type



1 coffee

Water dose

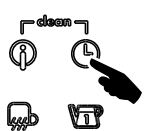
Water dose

Grinder Sel.

Dispens.Time

TURBOSTEAM

Press



T Stop Steam

Emesion Level

SERVICE TIME



DATE AND TIME

ON time

OFF time

Day off

Energy Saving

Night. On

Night Off

WASH

Refill

ITALIANO

ENGLISH

FRANCAIS

DEUTSCH

NEDERLANDS

ESPAÑOL

PORTUGÜES

漢語

РУССКИЙ

SELF.LEARNING

Press



Boiler pressure



Low Power

Level sensib

MESAUREMENT UNITS

Drying

Time control

Buzzer

Customer prog.

Program. block.

Paym system

WASHING OPTIONS

SOFTNER. REG.

Change W. Filter

MAINTENANCE

DATI IN/OUT

Standard data

COFFEE BOILER

Wifi

BLUETOOTH

BDS

GRINDER CONTROL

USB log

Archive reset

TESTING

Press



MANUAL COMMANDS



DATA MENU

Press



COUNTERS



KEY MENU

N° caffee..

N° water

N° steam

N° steam + air

N° tot. caffee

WASH ARCHIVE

REQUIRED

PERFORMED

ARCHIVE REFILL

MALFUNCT. ARCHIVE

Averages Archive

INFO

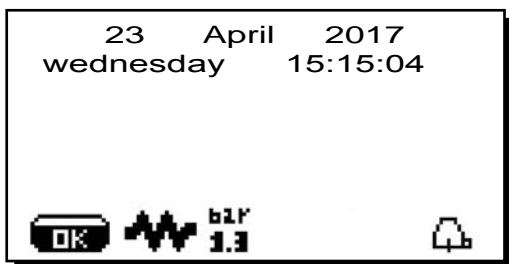
SERIEL N°

VERSION SW

SETUP

DIP SETTINGS

2. Technical Programming Access

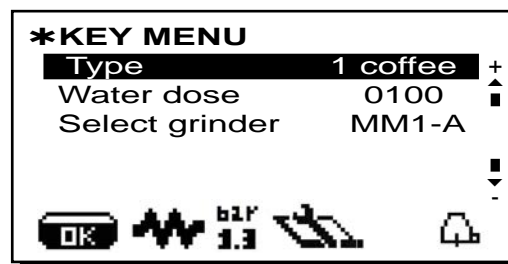


To enter programming, press the ◀ key and then OK for 3 seconds. The following message will appear on the display:

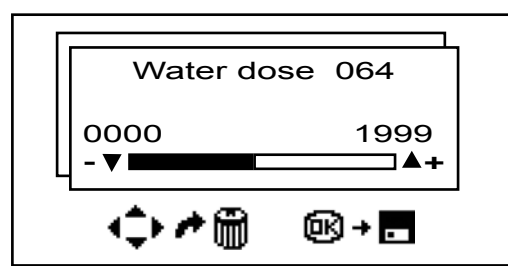


Display available menus: using the ▲ and ▼ keys, then press ►. **ACCESSING the menus:** position the cursor on the desired line using the ▲ and ▼ keys, then press ► (press a selection key in the case of the "KEY SELECTION" menu)

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

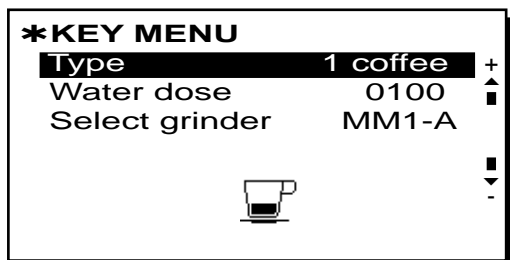
The technical staff can activate or deactivate the resistance (if the boiler resistance is disabled, automatic level control is inhibited).

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.

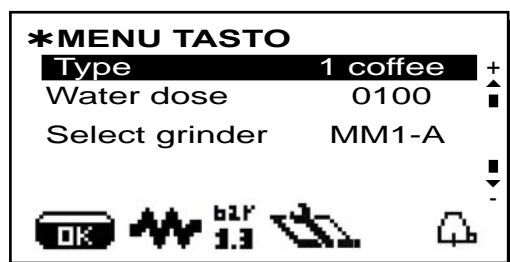


4.1 KEY Menu - Test Frame (Key "i")

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

								T	E	S	T						
						6	,	3	3		m	l	/	s		*	
	D	V		0	0	9	0			t	G		0	0	4	.	0
P		1	.	3	b	a	r					S	L		O	K	
R	C	1		O	F	F						E	v	c			O
R	C	2		O	F	F						T	V		0	6	5
															°	C	

English

Key menu - Hot water selection

								T	E	S	T						
			t	E	a	c				0	0	2	.	4	s		
P		1	.	3	b	a	r					S	L		O	K	
R	C	1		O	F	F						E	v	c			O
R	C	2		O	F	F						T	V		0	6	5
															°	C	

Key menu - Turbosteam selection

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

Key menu - Grinding Control Selection

English

								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					S	L		O	K			
R	C	1		O	F	F						E	v	c			O	F	F
R	C	2		O	F	F						T	V		0	6	5	°	C

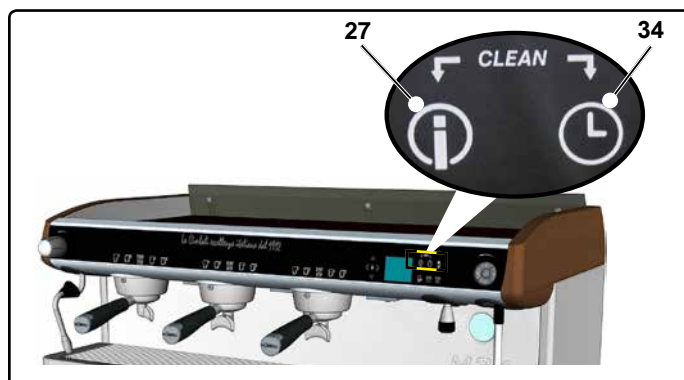
Legend

ml/s	Coffee dispensing flow (millilitres/seconds)
*	When * it appears, dispensing is taken into consideration by the grinding control function.
RC1÷RC2	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
SL	Water level in boiler
TV	Steam temperature (Seil System Turbosteam not present, this parameter is not displayed)

4.2 CLEAN function

To avoid pressing the dispensing keys accidentally during cleaning, block the selection keypad by holding down the **27** and **34** keys together for a few seconds; during blocking, the group keys remain off and the keys **27** and **34** flash.

On completion of the cleaning operations, reactivate the selection keypad by holding down the **27** and **34** keys again for a few seconds.



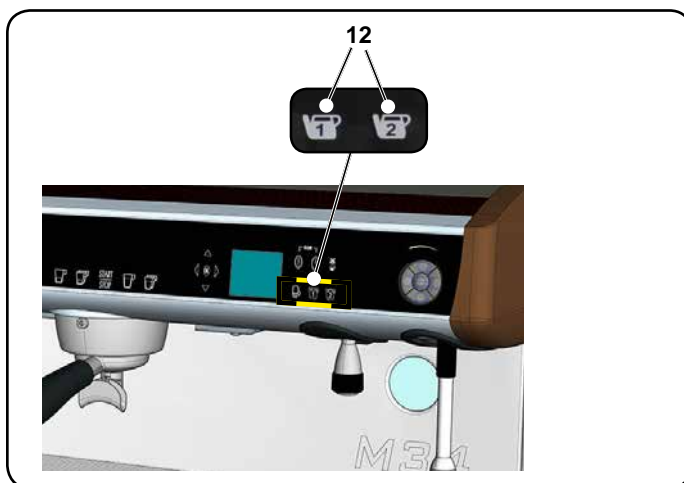
4.3 Key menu - Hot water selection

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)..



4.4 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

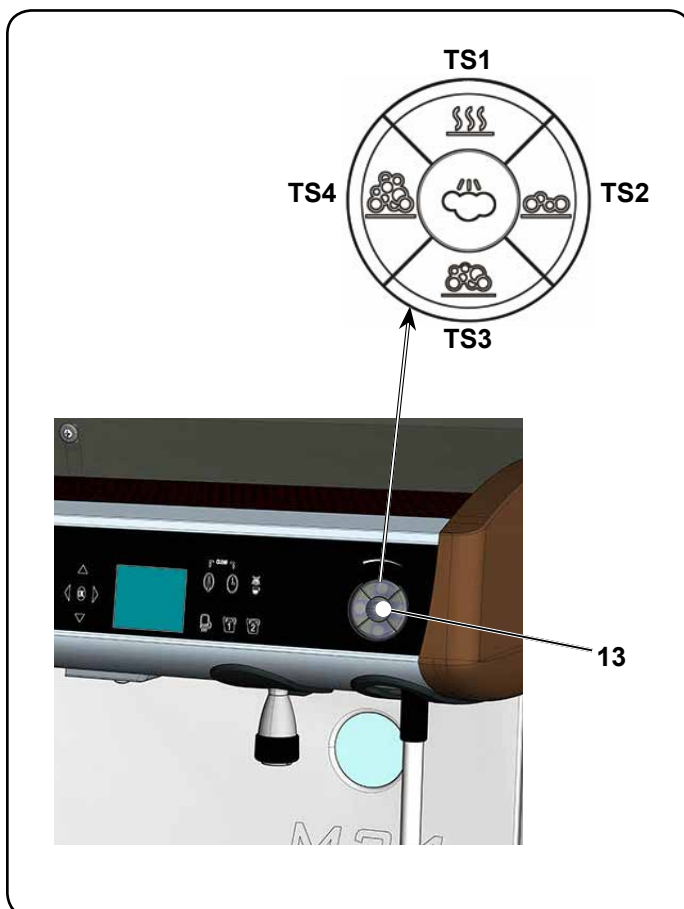
Any number between "40°C ÷ 85°C" (104°F ÷ 185°F)

- automatic steam stop

"OFF" setting:

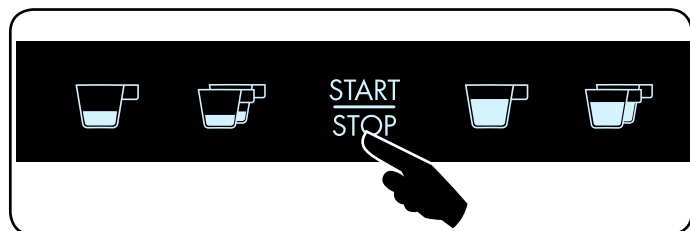
- steam stop disabled

- **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).

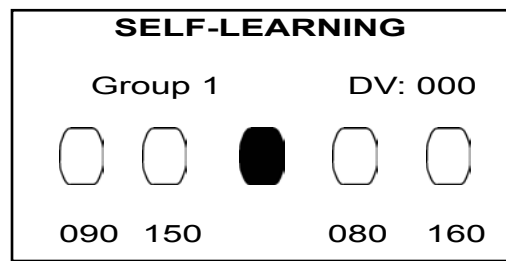


5. Programming measures using the "SELF-LEARNING" function

The water doses for coffee and the hot water doses can also be set using the "SELF-SETTING" function:



Hold the STOP button down for more than 8 seconds, until you hear the buzzer; the selection keys flash simultaneously for the entire duration of programming. The panel will appear under which the buttons are displayed with the relative quantities of water for the coffee.



Coffee measures

- 1 - Fill the filter-holder with the required dosage of ground coffee and insert it in the dispenser unit.
- 2 - Put the cup or container under the filter-holder spouts and press the button to be programmed. Keep it pressed until the desired level is reached in the cup or container.

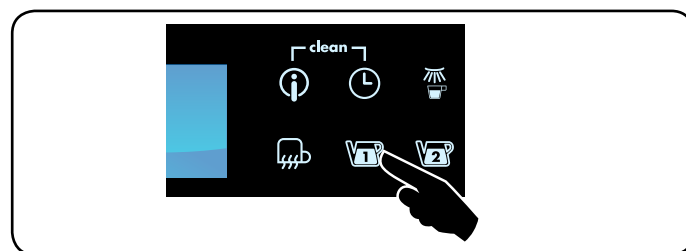


During this phase, the setting for the volumetric dosage pulses (top right of display) is increased. When the key is released, the setting reached is memorized and appears under the programmed key.

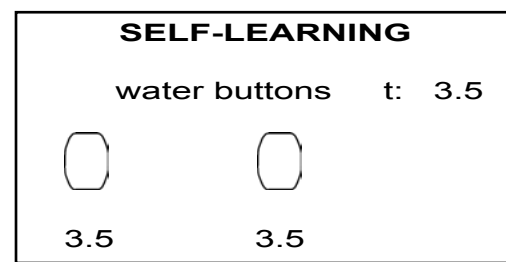
- 3 - Starting from step 1, continue programing, as desired, on all the coffee buttons.

Hot water measures

- 1 - Press the button to be programed and keep it pressed until the desired level is reached in the cup.



During this phase the time in seconds (top right of display) is increased; when the key is released, the setting reached is memorized and appears below the programmed key.



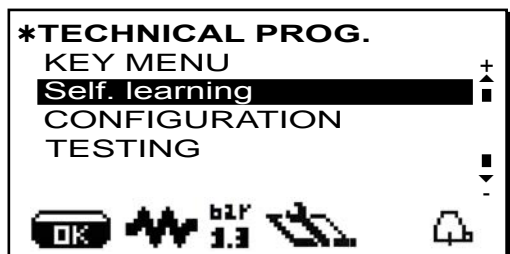
- 2 - Starting from step 1, continue programing, as desired, on all the water buttons.

When finished, press the STOP button. The buzzer will turn off, thus confirming that the programing has been completed.

5.1 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 procedure all the groups will have the same settings for the dispensing doses.

6. Configuration menu



Bolier 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.

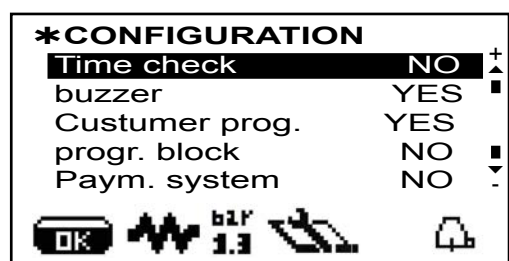
Set a value of 3 if the water used is not very conductive (very soft).

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".



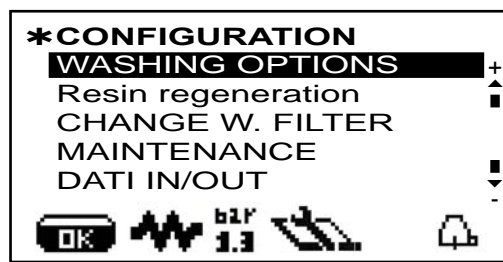
Time check - view dispensing time on the display: YES/NO

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

Customer programming - Customer programming: YES/NO. By activating the (YES) function it is possible to provide the user with some extra functions: modification of the cup warmer level, turning the coffee boiler on/off, and activation of energy-saving mode.

Programming lock - Programming lock: YES/NO. By activating the (YES) function, all the keys that are part of the programming keypad, including the cup warmer key, are locked. Only the key sequence for technical access, the arrow key ◀ to perform resin regen. and removal of the message "Carry out maintenance" and the "Clean" function is permitted.

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



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

6. Configuration menu

RESIN Regen. - includes the parameters for softner regeneration: litres of softner (between 0.1l and 25l), hardness (between 0 and 45°F). The decreasing resin efficiency level is also indicated. Once the softner regeneration has been performed, return to the main screen, press ◀ for about 8 seconds to cancel the message.

Filter Replacement - On reaching the litre level set on the display a message is displayed which prompts replacement of the filter. For both functions, an efficiency percentage is displayed (Softener/Filter), descending from 100% to 0%. Once the filter has been replaced, return to the main screen, press ◀ for about 8 seconds to cancel the message.

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

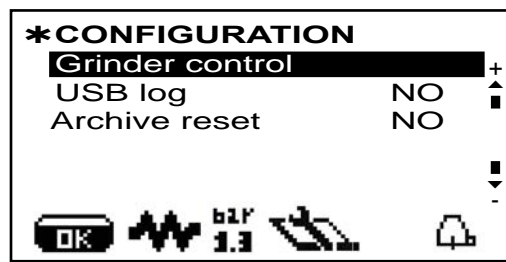
YES, the number of cycles (40,000) and days (185) are reset

OFF, all controls related to scheduled maintenance and the "No. cycles" and "No. days" on the maintenance panel are deactivated.

Once the maintenance is performed, in order to eliminate the message it must be reset to technical mode.

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



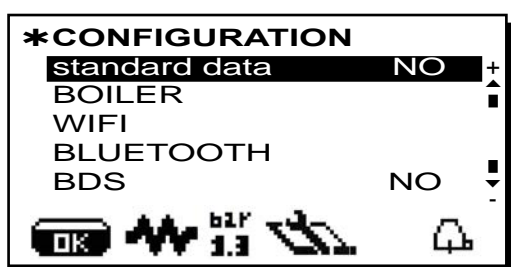
Grinder Control - The parameters that can be set are:

- **Enabled** - MM1 - MM2

- **Regulation threshold** - see the section "Steps for Bluetooth Coffee Machine-Grinder/Dispenser Communication" in the pages that follow.

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

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



Standard data - loads standard data: YES/NO.

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.

Service Time

Wash Groups

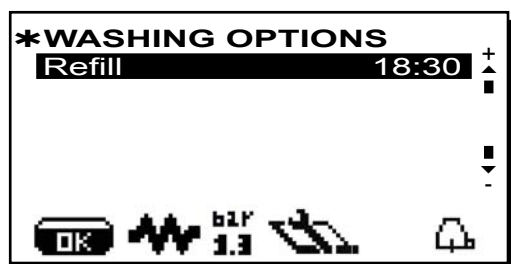
These are the washes where the time can be programmed, each of which contains two modifiable settings, including:



- **time**: the time that washing must take place. The WASHES can be deactivated by setting to OFF.
 - **block**: 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 will be stored in the "WASH 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.

With "**block**" enabled, if the water change is not done within an hour, the machine prevents beverages from being dispensed. With request scheduled the user can only change the time the request appears.

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.

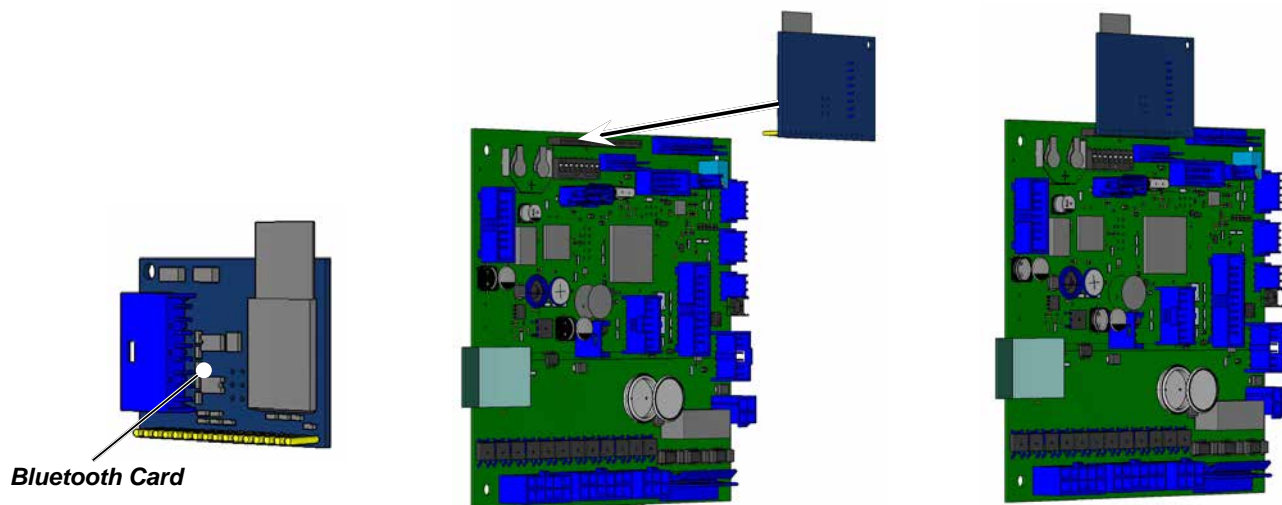
- **Key** - enter the password to access a protected Wi-Fi network (WPA or WEP)

- **URL** - enter listener.gruppocimbali.com.

- **Port** - enter 10000.

- **RESET** - To restore the parameters to the standard settings.

- **MAC** - Represents the Mac address of the WiFi module present in the machine. It is a parameter that is only displayed, cannot be changed.




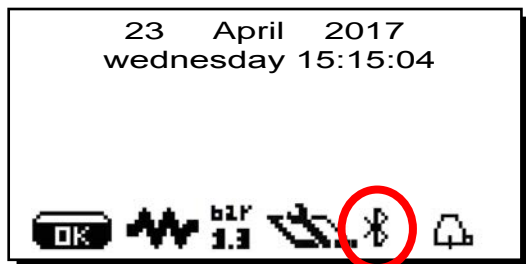
Bluetooth Menu - The parameters that can be set are:

- **MM1-MM2** - 1 to 2 grinders can be connected.
- **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.

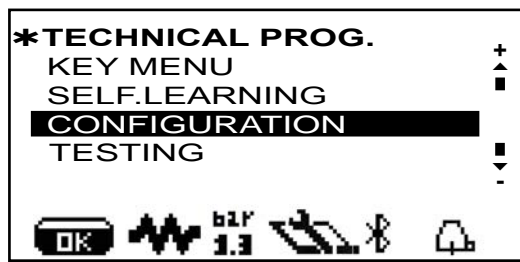
Procedure for Bluetooth connection with the machine-grinder unit


- 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.

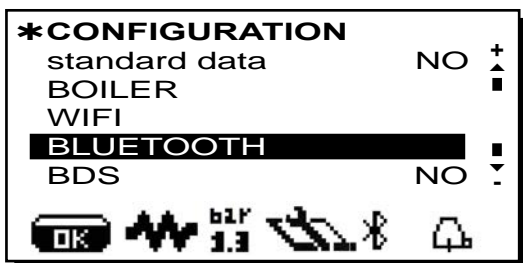



To enter TECHNICAL programming, press the  key and then **OK** for 3 seconds. The message in Point 2 will appear on the display.

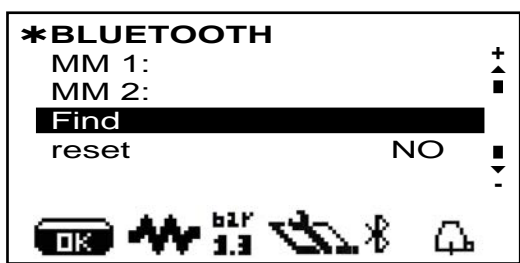
- 2 With the  and  keys, place the cursor on: "CONFIGURATION" in the machine Technical Prog. menu and press the  key:



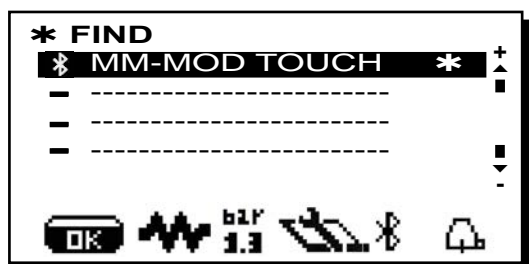
- 3 Position the cursor on the "BLUETOOTH" entry and press the  key:





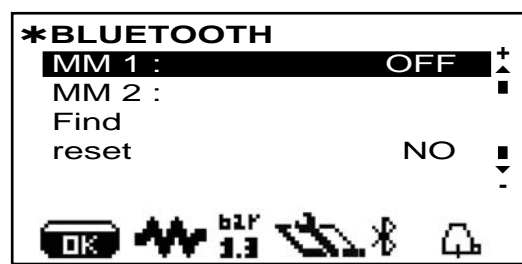
- 4 Position the cursor on the "Find" entry and press the  key:





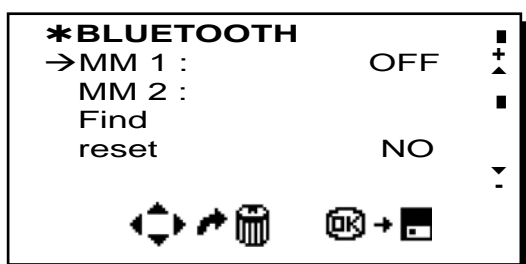
- 5 The machine will find all Bluetooth devices within 10 m. After confirmation of the device selected, an asterisk ***** will appear next to the grinder/dispenser line indicating that the Bluetooth connection has been made with the machine:

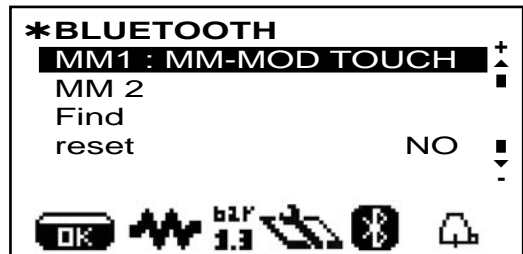



- 6 Return to the Bluetooth parameters by pressing the  key; place the cursor on the "MM 1" item and press the  key:




- 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.

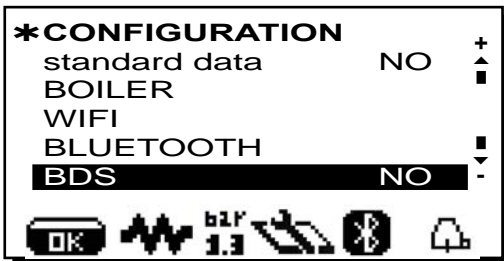
From version SW 047.00.H0 or later, the connection is made automatically and the symbol  appears at once on the device. It is no longer necessary to press a dispensing key if the configuration is correct. In the event of communication problems, the "COMMUNICATION FAILURE" message will appear on the display 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 software versions. When a double coffee dispensing key is pressed, the  symbol on the machine's display becomes  while the  symbol on the grinder/dispenser display becomes  indicating successful wireless communication.

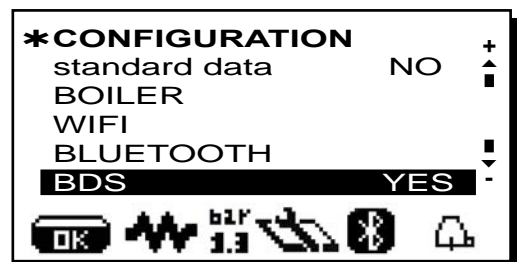
When the machine or grinder/dispenser are turned off, at the next power-on the  symbol appears on the display of the machine and the  symbol on the display of the grinder/dispenser.

BDS activation and sensor configuration

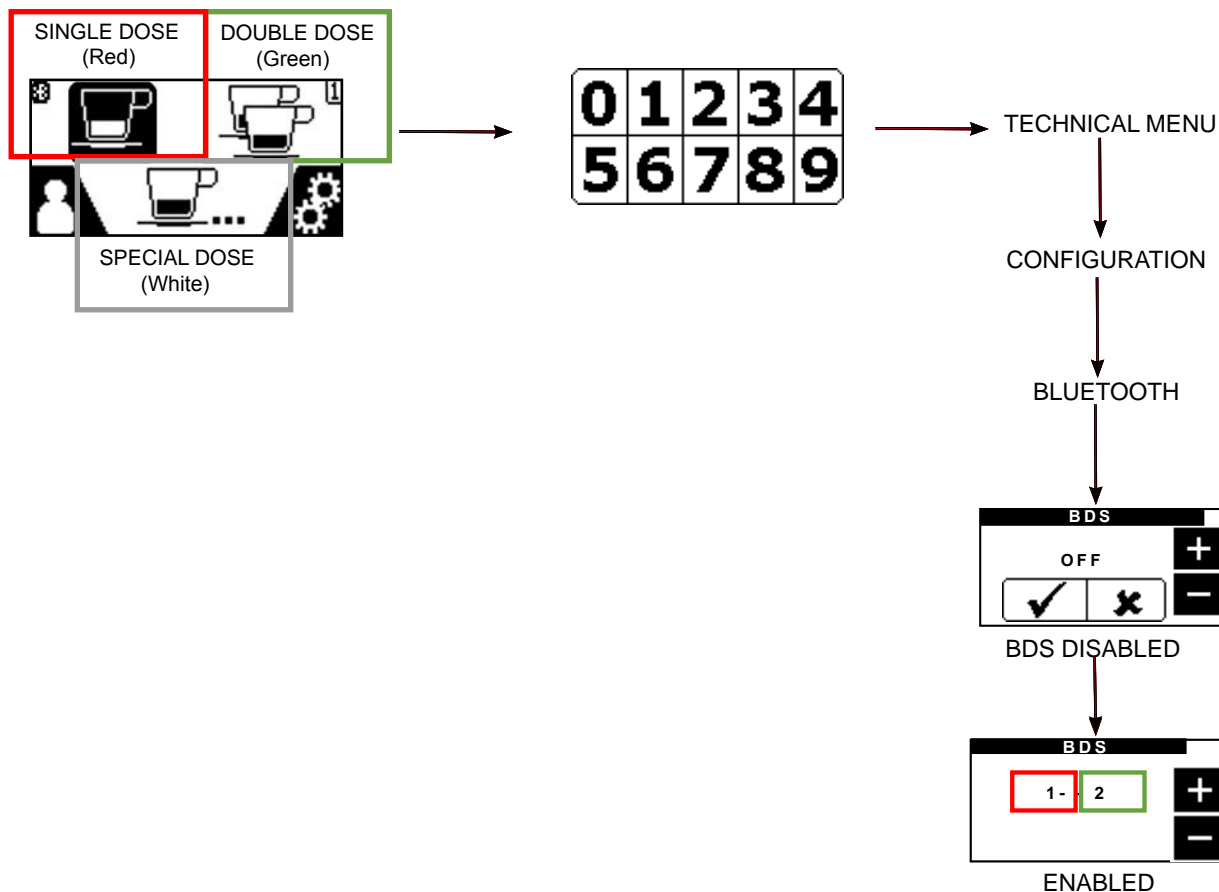
- 1 Return to the "CONFIGURATION" parameters by pressing the ◀ key; using the ▲ and ▼ keys, move the cursor to "BDS" and press ▶ :



- 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.

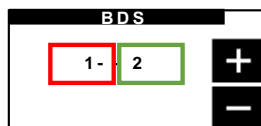
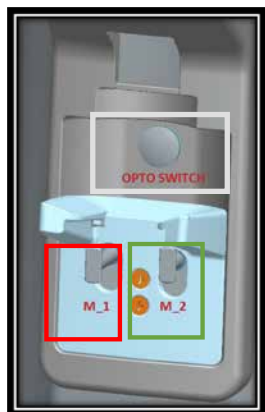


CONFIGURATION MAGNUM BLUETOOTH GRINDER/DISPENSER SENSORS

0: sensor disabled

1: single dose (Red)

2: double dose (Green)



SINGLE DOSE
(Red)



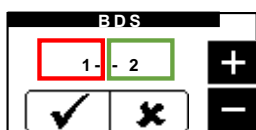
DOUBLE DOSE
(Green)



SPECIAL DOSE
(White)

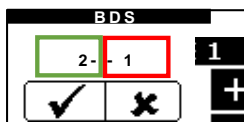


English



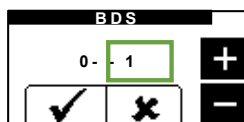
Single dose – Left sensor (Red)

Double dose – Right sensor (Green)



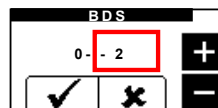
Double dose – Left sensor (Green)

Single dose – Right sensor (Red)



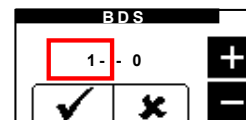
Left sensor disabled

Double dose – Right sensor (Green)

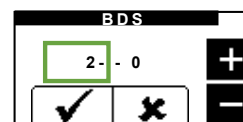


Single dose – Left sensor (Red)

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

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

The filter holder-key and machine association logic is the following:

1-A or 2-A = activation of the first actuator
(filter-holder with single delivery spout)

1-B or 2-B = activation of the second actuator (filter-holder with double
delivery spout)

1-C or 2-C = activation of the third actuator with filter-holder with dedicated filter

With the number **1** the first grinder/dispenser **MM1** is identified


With the number **2** the second grinder/dispenser **MM2** is identified

With the letters **A-B and C** the filter-holders are identified

GRINDER/DISPENSER 1

***KEY MENU**


type	1 coffee	+
Water dose	0100	+
Select grinder	MM1-A	-



GRINDER/DISPENSER 2


***KEY MENU**

type	2 coffee	+
Water dose	0200	+
Select grinder	MM2-B	-



***KEY MENU**


type	1 coffee	+
Water dose	0100	+
Select grinder	MM1-A	-



← MEDIUM →

***KEY MENU**


type	1 coffee	+
Water dose	0100	+
Select grinder	MM1-A	-



← SHORT →


***KEY MENU**

type	2 coffee	+
Water dose	0200	+
Select grinder	MM2-B	-



***KEY MENU**


type	1 coffee	+
Water dose	0100	+
Select grinder	MM1-A	-



← LONG →

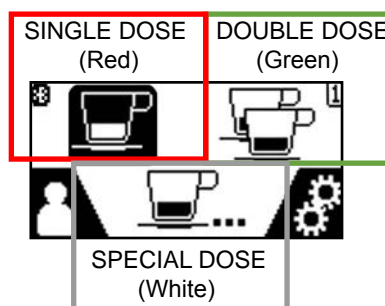
***KEY MENU**

type	2 coffee	+
Water dose	0200	+
Select grinder	MM2-B	-



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



BDS system enabled.

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



Dose grinding and dispensing activated (LED on)



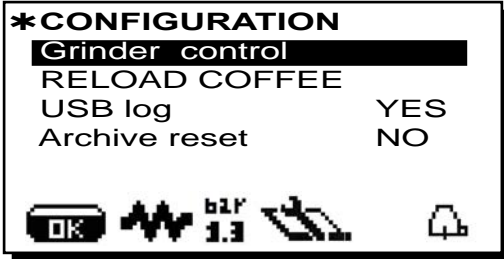
Dispensing will remain active for 2 minutes. During this time, the grinder/dispenser used will be blocked and therefore unable to grind a second dose of coffee.

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



Grinder control parameters configuration

- 1 Position the cursor on the "GRINDER CONTROL" entry in the machine configuration menu and press the ► key.



Grinder Control-1

Grinder Control-2

The parameters that can be set are:

- Enabled:



: not in use

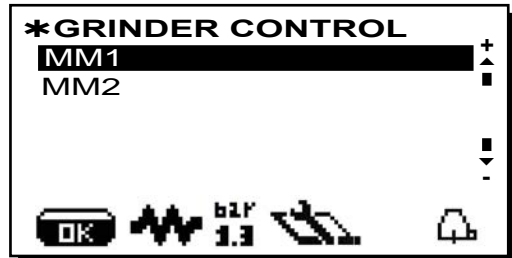


: manual grinder control (for grinder/dispensers with no bluetooth connection option).



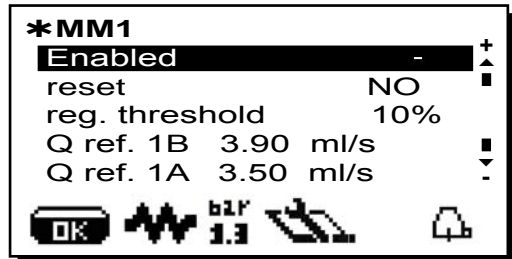
: automatic grinder control (bluetooth connection with grinder/dispenser).

2



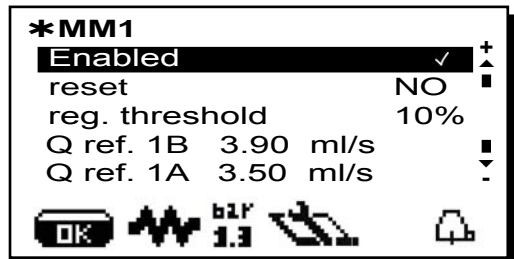
Position the cursor on the item "MM1" of the machine and press the ► key.

3



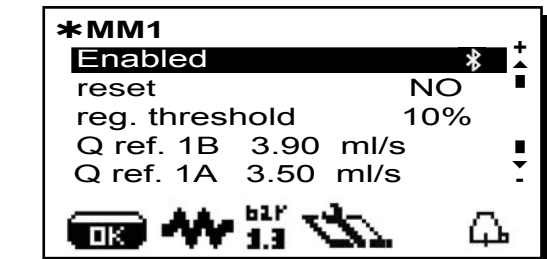
- : not in use

4



✓ : manual grinder control (for grinder/dispensers with no bluetooth connection option).

5



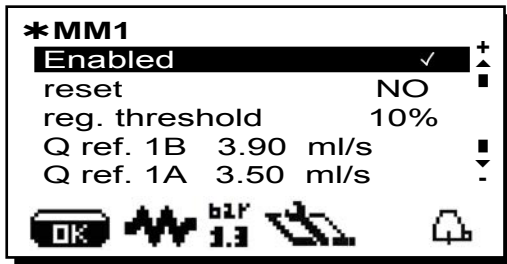
Bluetooth symbol : automatic grinder control (bluetooth connection with grinder/dispenser).

The parameters can be modified manually using the keys ▼ ▲.

After completing operations confirm the values by pressing the key OK or exit and leave the previous data using the key ◀.

Grinder control parameters configuration

✓ : manual grinder control (for grinder/dispensers with no bluetooth connection option).



1. disable grinder control, if in use.
2. set and calibrate the machine and grinder/dispenser as desired.
3. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third key).
4. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
5. go to the grinder control panel and perform reset.
6. set the flow values for each of the beverages.
7. enable grinder control.

Note: Set the Q.ref of double coffees first for proper functioning of grinder control.

The appearance of this animated icon means that adjustments need to be made to the grinder/dispenser to tighten or loosen the grinding, to return coffee dispensing to the default parameters.

The icons that are shown are:



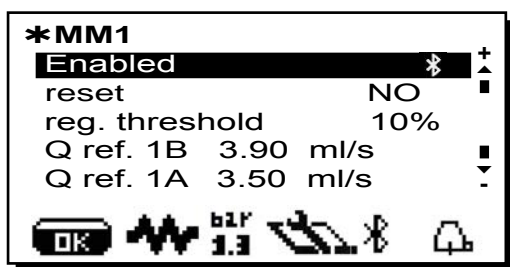
means that the grinding needs to be loosened.
(flow of coffee is lower than the reference).



means that the grinding needs to be tightened.
(flow of coffee is greater than the reference).

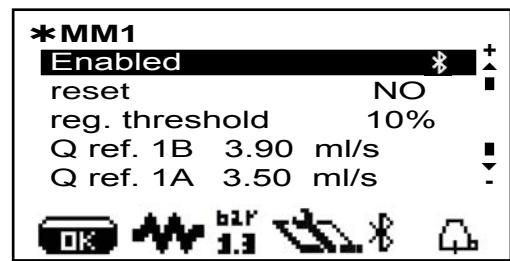
Note. The number next to the icon (1 or 2) indicates which grinder/dispenser needs adjusting.
The icon appears on the display instead of the level symbol.

 : Method 1: manual setting of Qref.



1. disable grinder control, if in use.
2. connect the machine to the grinder/dispenser via bluetooth and enable dialogue in the manner already in use.
3. set and calibrate the machine and grinder/dispenser as desired.
4. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third magnum key on demand).
5. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
6. go to the grinder control panel and perform reset.
7. set the flow values for each of the beverages.
8. enable grinder control.

 : Method 2: setting of Qref in fully self-learning mode.



1. Disable grinder control, if in use.
2. Connect the machine to the grinder/dispenser via bluetooth and enable dialogue in the manner already in use.
3. Programme and calibrate the machine and grinder/dispenser as desired, dispensing the beverages until a satisfactory cup result is achieved.
4. Go to the grinder control panel and perform reset.
5. Enable grinder control.
6. Exit programming.
7. Dispense double coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
8. Dispense single coffees (5 or more) until the message Qref OK appears on the services display (with audible signal).
9. Dispense any special blend coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
10. Enter programming and check that the Qref values set are present.

Repeat the entire procedure for the second grinder/dispenser if present.

The machine is ready to work with the grinder control on. In the event of problems, dispensing can be performed in the test square with the grinder control in use to see if the symbol * is present beside the flow. Remember that dispensing is deemed valid only if it lasts more than 10 seconds.

Other symbols are used in the test square:

> if the flow is too high compared to the reference, above the upper limit

< if the flow is too low compared to the reference, below the lower limit

* flow within the acceptable range


- dispensing too brief (at least 8 s but less than 10 s)

(3) number of remaining coffees to be dispensed and deducted from the count

Grinder control parameters configuration

INFO : grinder control.

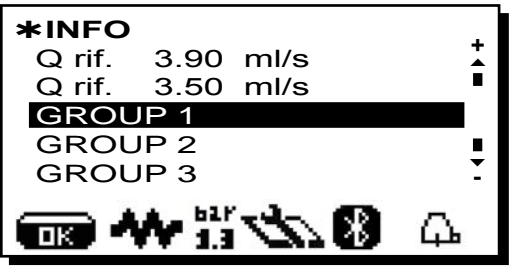
1



***MM1**
Q rif. 1C 3.90 ml/s
INFO

Position the cursor on the item "INFO" of the machine and press the ► key.

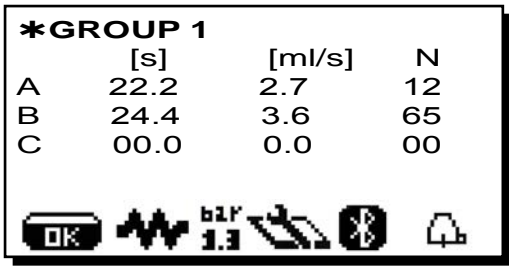
2



***INFO**
Q rif. 3.90 ml/s
Q rif. 3.50 ml/s
GROUP 1
GROUP 2
GROUP 3

Pressing the ► key at the line "GROUP 1", the display will show.

3



***GROUP 1**

	[s]	[ml/s]	N
A	22.2	2.7	12
B	24.4	3.6	65
C	00.0	0.0	00

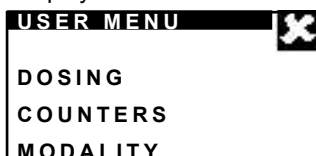
Example of information on the flows of each single dispensing sent to the Plat-One platform via WIFI.
(A/B) GR 1 single coffee and one double,
(C) the filter holder is not used for special coffees.

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

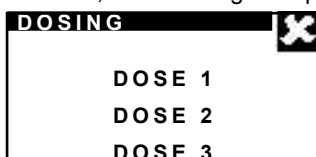
- 1) press the  icon from the main screen:



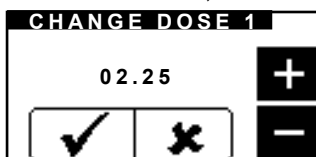
- 2) The following is displayed:





- 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).

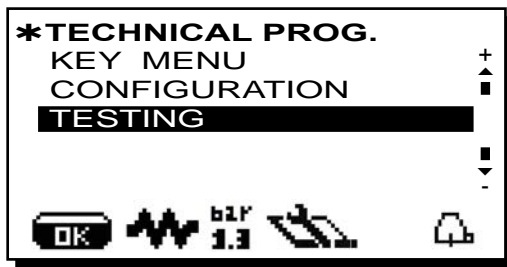
* Grinding in continuous mode, if equal to zero (*DOSE 3* = 0), can only be modified by the technician.

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	0
P		1	.	3	b	a	r					S	L		O	K				
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	:						

- 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

English

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					S	L		O	K				
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	:		O	N			

- 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					S	L		O	K				
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	:		O	F	F		

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
SL	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+G3	Dispense-coffee solenoid valve

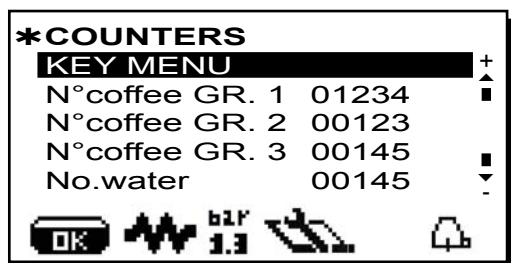
*The components - * - are only applied with certain product configurations.*

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:



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).

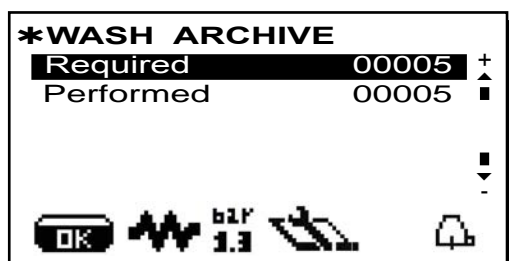
The line “No. coffee” appears as many times as the number of groups of the machine.

The counters can be reset by positioning the cursor over the specific

8.1 DATA menu: Wash Archive



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



For Wash, 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.

***WASH ARCHIVE**
 Required 00005
 Performed 00004
 01 23 April 2017

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. 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: Refill History



When you press the ► key at the line "Refill History", the display shows:



The Refill parameters that can be displayed are:

- **Required:** indicates the number of Refills that were requested by the machine.
- **Performed:** indicates the number of Refills that were performed within the 60' timeout period.

***REFILL HISTORY**
 Required 00005
 Performed 00004
 01 23 April 2017

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

The first line refers to the most recent data.

Scroll down the list of any missed Refills 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.

***MALFUNCTION DETAIL**
Monday 23/04/17
098 11:22:25
GR1: STANDBY
GR2: STANDBY
GR3: STANDBY

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.

***AVERAGES DETAIL**
23/04/17 10:00

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 ml/s.

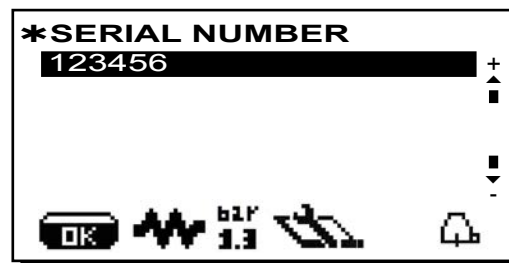
8.5 DATA menu: INFO



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.

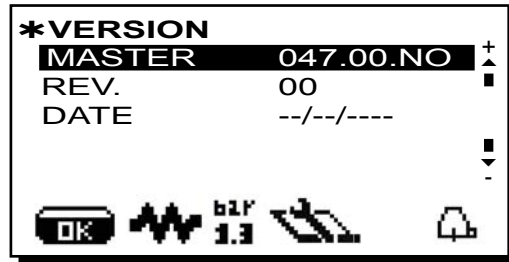
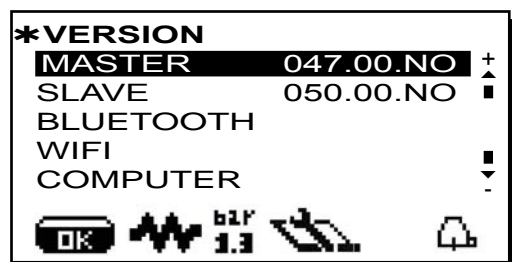


Version

The submenus under "Version" show the memory versions:

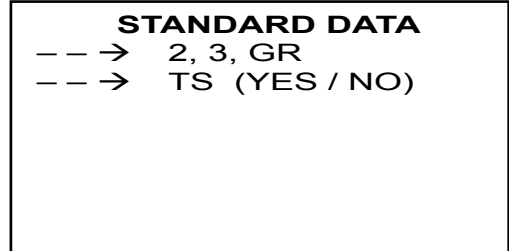
- Master;
- Slave;
- Bluetooth;
- WI-FI;
- Computer;
- Barcode.

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":

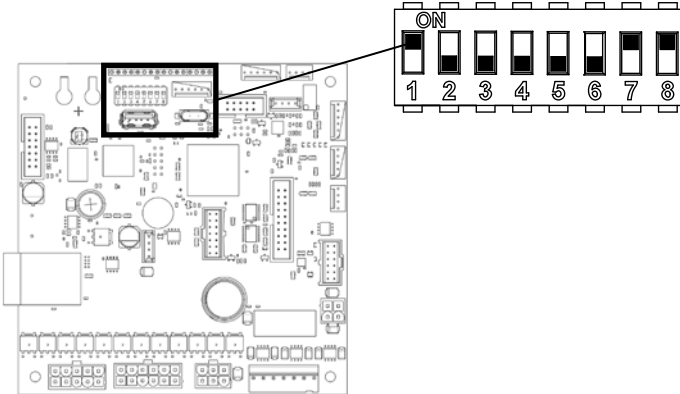


Entering Standard Data

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, groups;
- **TURBOSTEAM** YES/NO;



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

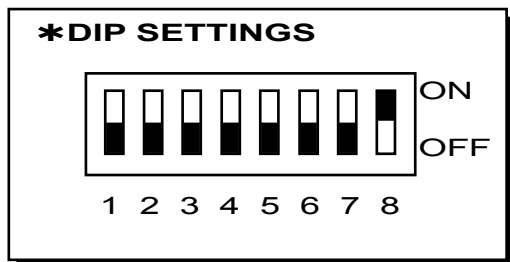
At the end of the operation, turn the machine off and reset CPU board **DIP switch 1** to **OFF**.

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 = OFF
- DIP 7 = OFF
- DIP 8 = ON



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

Update from USB pen drive

1

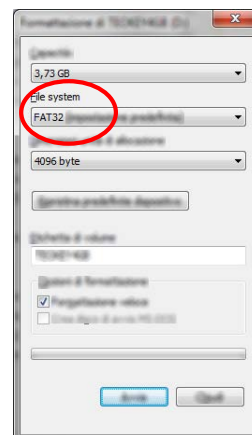
PRELIMINARY OPERATIONS

Format a USB Pen Drive using the **FAT32** format. If using Windows, use the predefined formatting settings as shown in the image.

Copy the update files (CPU  ).




NOTE: do not turn off the machine or remove the USB Pen Drive until the update has been completed. If using a USB Pen Drive operating LED, this is shown by the LED flashing.

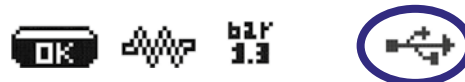


2

PRELIMINARY OPERATION: Recognizing of USB support



With the machine running, insert the USB Pen Drive containing the update files into the USB port. The  icon will appear on the display to indicate that the storage device has been recognised.

29 October 2017
wednesday 15:18:12



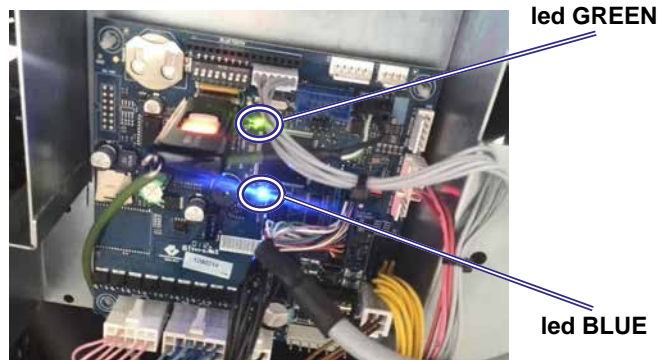
3

STARTING THE SOFTWARE UPDATE

Turn the machine off leaving the USB Pen Drive inserted. With the subsequent restart, the copying of the 2 update files begins from the USB Pen Drive to the CPU board memory.  

NOTE: during copying of the files, the display of the machine remains on but with no indication, for a variable period of time (from 10 seconds to 1 minute). Therefore, it is necessary to consult the status of the LEDs, which should be as indicated below:

- GREEN CPU board LED: on steady
- BLUE CPU board LED: flashing
- Pen Drive operating LED: flashing (running)



4

When the files have been copied from the USB support to the memory of the CPU board, the display comes on and the following message appears:

```
BOOT      3.5
UPDATING.. 015%
```

The actual updating phase begins. For the entire duration of this phase, the buzzer sounds intermittently (200 ms ON).

LED status during the update:

- GREEN CPU board LED: flashing;
- BLUE CPU board LED: flashing, with varying frequency depending on the frequency of communication between the master CPU and slave CPU;
- Pen Drive operating LED: flashing (running).



NOTE: on machines with **BOOT VERSION PREVIOUS TO 3.5**, the status of the LEDs during the update is as follows:

- GREEN CPU board LED: flashing
- BLUE CPU board LED: off
- Pen Drive operating LED: on steady (not running).

5

The update of the CPU board lasts few minutes and ends when the buzzer emits prolonged intermittent signals (2sec ON / 10sec OFF).

Status of the LED when update is completed:

- *GREEN CPU board LED: flashing*
- *BLUE CPU board LED: flashing*
- *Pen Drive operating LED: on steady (not running)*

The following message will appear on the display:



```

BOOT      3.5
UPDATING  SUCCESS
  
```

6



NOTE: for machines with **BOOT 3.3 or later**, the request for the input of the standard information occurs without the positioning of the DIP 1 to ON.

Switch off the machine and remove the USB support.

Position the DIP 1 to ON on the CPU board.

Restart the machine and enter the standard information requested.

7

Turn the machine off and reposition DIP 1 to OFF on the CPU board.

With the restart, it will be necessary to update the machine information and reactivate the resistance.



```

1      January    2001
Monday                                12:00:16

STANDARD DATA
  
```



9. Check-control messages

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
020	USB power-supply malfunction	<ul style="list-style-type: none"> • USB-port current-consumption too high 	<ul style="list-style-type: none"> • Check the status of the USB port and its connections in order to identify possible causes of excessive consumption (e.g. short-circuit). • Once the cause of the malfunction is fixed the USB port should restore itself automatically and return to normal operation. • If the problem persists, replace the CPU board.
(x)21*	Group boiler pressure sensor x out of range (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	<ul style="list-style-type: none"> • Sensor failure • Card failure 	<ul style="list-style-type: none"> • Check cabling • Replace the sensor • Replace the card
023	AC 24V power supply malfunction	<ul style="list-style-type: none"> • The glass fuse on the CPU board is likely broken. 	<ul style="list-style-type: none"> • Replace the fuse.
024	Clock malfunction	<ul style="list-style-type: none"> • Contacts oxidised. • Dead battery. • Clock blocked. 	<ul style="list-style-type: none"> • Clean the contacts on the battery. • Measure the voltage of the battery (3 V DC) and, if necessary, replace it. • If the battery is OK try, with the machine turned off, to remove it from the board and wait 2-3 minutes. Then reinsert the battery and check that the clock is working properly.
025*	No power: group, EV, milk pump	<ul style="list-style-type: none"> • Voltage drop in the power supply 	<ul style="list-style-type: none"> • Check if CPU card has power. • Check power supply unit (protection) • Check cabling
029 *	LCD display not connected (applies only to machines other than Emblem R and M100)	<ul style="list-style-type: none"> • Break in cabling. • Display fault. 	<ul style="list-style-type: none"> • Check cabling
030	Slave micro processor malfunction		<ul style="list-style-type: none"> • If the problem persists, replace the Newton board.
041*	Milk pump motor overcurrent	<ul style="list-style-type: none"> • Consequence of applied force • Rotor blocked • Pump motor faulty 	<ul style="list-style-type: none"> • Check wiring. • Check whether the circuit or pump is clogged. • Replace the pump.
051	Temperature sensor signal out of range	<ul style="list-style-type: none"> • Sensor failure • Card failure 	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Thermocouple disconnected • Sensor failure 	<ul style="list-style-type: none"> • Check cabling • Replace the sensor
052	Boiler heating timeout - 45 minutes	<ul style="list-style-type: none"> • The safety thermocouple has been triggered • The resistance is interrupted (cabling defect) • The Triac card is malfunctioning 	<ul style="list-style-type: none"> • 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

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
(x)52*	Group x boiler heating timeout - 20 minutes (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	<ul style="list-style-type: none"> • The group x boiler safety thermostat has been triggered • The resistance is interrupted (cabling defect). • Triac board fault 	<ul style="list-style-type: none"> • 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 • Replace Triac board
053*	Steam thermocouple out of range	<ul style="list-style-type: none"> • Thermocuple disconnected • Wrong configuration during standard data insertion. 	<ul style="list-style-type: none"> • Enter in the programming mode and insert the correct standard data.. • Check connections. • Replace the steam temperature probe.
058	Boiler overpressure alarm	<ul style="list-style-type: none"> • Resistanc always powered. • Temperature sensor out of range. 	<ul style="list-style-type: none"> • Check cabling • Replace the sensor
059	Boiler: Refill timeout - 15 minutes	<ul style="list-style-type: none"> • No water • Refill EV failure • Wiring interrupted • Card failure. 	<ul style="list-style-type: none"> • Check water is supplied from the main line. • Replace the refill EV. • Check cabling. • Replace the card.
060	Boiler-level signal errors.	<ul style="list-style-type: none"> • Electrical fault. • Leakage to earth. 	<ul style="list-style-type: none"> • Check wiring. • Check, by activating the components individually on the manual control panel, that the level signal does not show any anomalies (%).
062	Coffees dispensed for MM1 with flow under the limit (3 consecutive coffees dispensed)	<ul style="list-style-type: none"> • coffee filter blocked • coffee type changed • qref calibration wrong • grind too fine, excessive dose ground 	<ul style="list-style-type: none"> • wash the group • clean/replace the coffee filter • use a coarser grind • calibrate the machine correctly on the basis of the coffee/recipe
063	Coffees dispensed referred to MM1 with flow over the limit (3 consecutive coffees dispensed)	<ul style="list-style-type: none"> • coffee type changed • qref calibration wrong • grinding too coarse • grinder/dispenser blocked, insufficient dose of ground coffee 	<ul style="list-style-type: none"> • check that there are no external elements in the grinders • check that the measure grinder is working (pick-up current and fuses) • use a finer grind • calibrate the machine correctly on the basis of the coffee/recipe
064	Coffees dispensed referred to MM2 with flow under the limit (3 consecutive coffees dispensed)	<ul style="list-style-type: none"> • coffee filter blocked • coffee type changed • qref calibration wrong • grind too fine, excessive dose ground 	<ul style="list-style-type: none"> • wash the group • clean/replace the coffee filter • use a coarser grind • calibrate the machine correctly on the basis of the coffee/recipe
065	Coffees dispensed referred to MM2 with flow over the limit (3 consecutive coffees dispensed)	<ul style="list-style-type: none"> • coffee type changed • qref calibration wrong • grinding too coarse • grinder/dispenser blocked, insufficient dose of ground coffee 	<ul style="list-style-type: none"> • check that there are no external elements in the grinders • check that the measure grinder is working (pick-up current and fuses) • use a finer grind • calibrate the machine correctly on the basis of the coffee/recipe

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
(x)66	Error in the group that is dispensing. (x = 1, 2, 3, 4) Note: Group 1 is to the far left.		<ul style="list-style-type: none"> • 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		Event only archived and not displayed on the display during normal machine operation.
082	Temporary communication problem with the keyboards/ TFT display.		<ul style="list-style-type: none"> • Check the insulation. • Check the wiring and connections.
083	Services key communication error	<ul style="list-style-type: none"> • Incorrect keyboard configuration (if applicable). • Wiring interrupted • Card failure. 	<ul style="list-style-type: none"> • Check that the dip switches are correctly configured on the key board (if applicable). • Check cabling • Replace key board
(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 or light/turbo-steam board.	<ul style="list-style-type: none"> • Incorrect keyboard configuration (if applicable). • Wiring interrupted • Card failure. 	<ul style="list-style-type: none"> • Check that the dip switches are correctly configured on the key board (if applicable). • Check cabling • Replace key board
(x)85*	Bluetooth communication error (x = 1, 2) MM1 > 185; MM2 > 285	<ul style="list-style-type: none"> • Incorrect association with measure grinder. • Measure grinder turned off. 	<ul style="list-style-type: none"> • Turn on the grinder. • Repeat device association.
089	NVM RAM data integrity error	<ul style="list-style-type: none"> • Incorrect association with measure grinder. • Measure grinder turned off. 	Turn the machine off and on again. If the error persists, replace the CPU board. Check the condition of the clock battery.
091*	No tank during milk washing cycle	Data integrity error in non-volatile RAM memory of the CPU board.	<ul style="list-style-type: none"> • Check the correct operation of the tank presence sensor on the manual control panel. • Check the wiring.
092	Request water softener resin regeneration	<ul style="list-style-type: none"> • Removal of tank during the wash. • Tank presence sensor faulty. 	<ul style="list-style-type: none"> • Softener maintenance.
093	Request replacement water filter		<ul style="list-style-type: none"> • Replace the water-softner filter
096	Maintenance needed		<ul style="list-style-type: none"> • The machine has displayed the message to warn the user that maintenance must be performed. Carry out maintenance operations.

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
097*	Reset standard password	<ul style="list-style-type: none"> • Action desired by the user by entering the special code (applicable only for machines with TFT display). 	
098	Historical malfunctions and wash 1 reset	<ul style="list-style-type: none"> • Initialisation malfunction history (and washing history for machines without TFT display) 	<ul style="list-style-type: none"> • Event only archived and not displayed on the display during normal machine operation.
099	Default data input		
282	Keypad reset operation carried out by CPU board due to repeated communication problems.		<ul style="list-style-type: none"> • Check the insulation. • Check the wiring and connections.

Faults - * - appear only in some produit configurations.

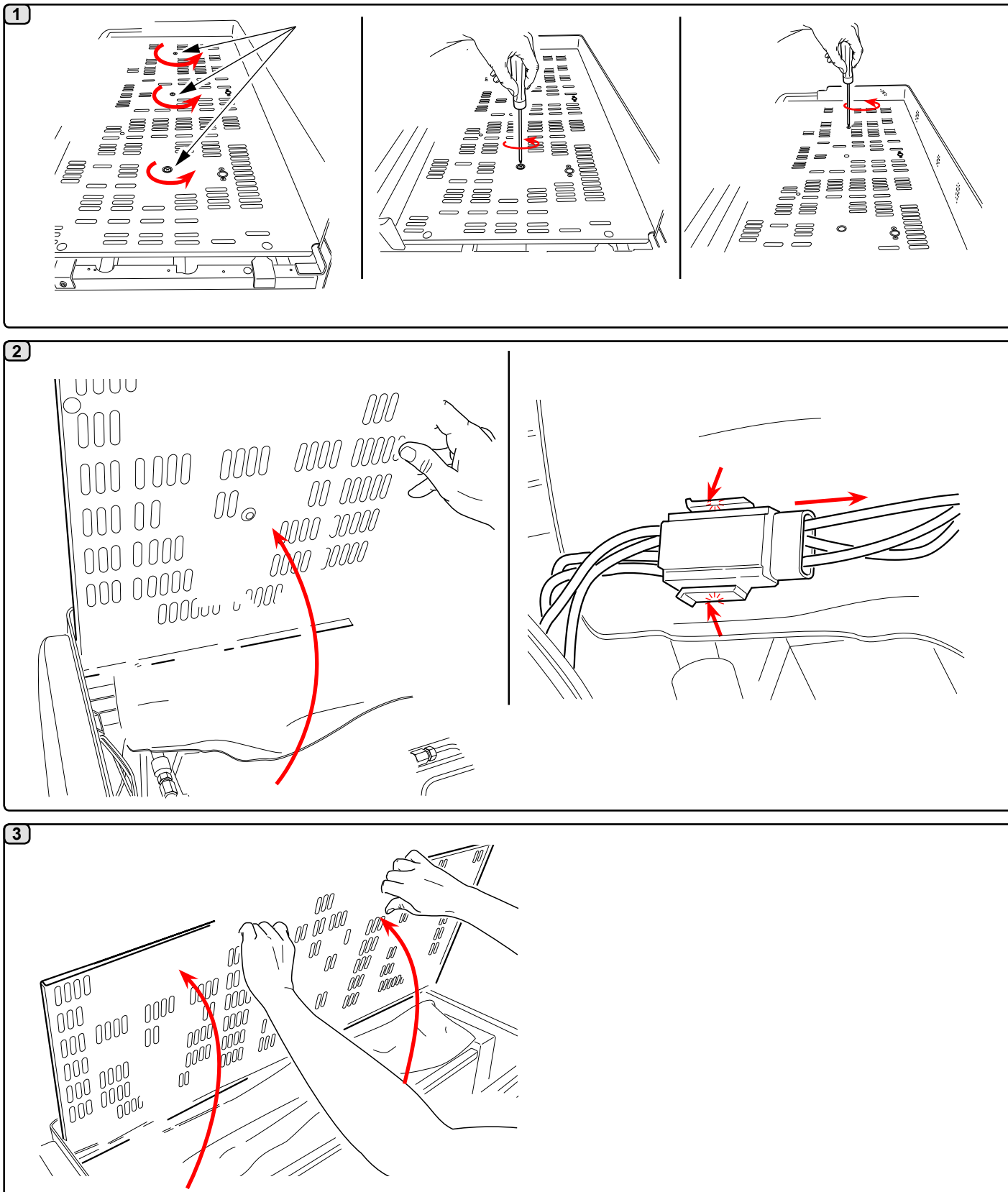
DISASSEMBLY AND SETTING



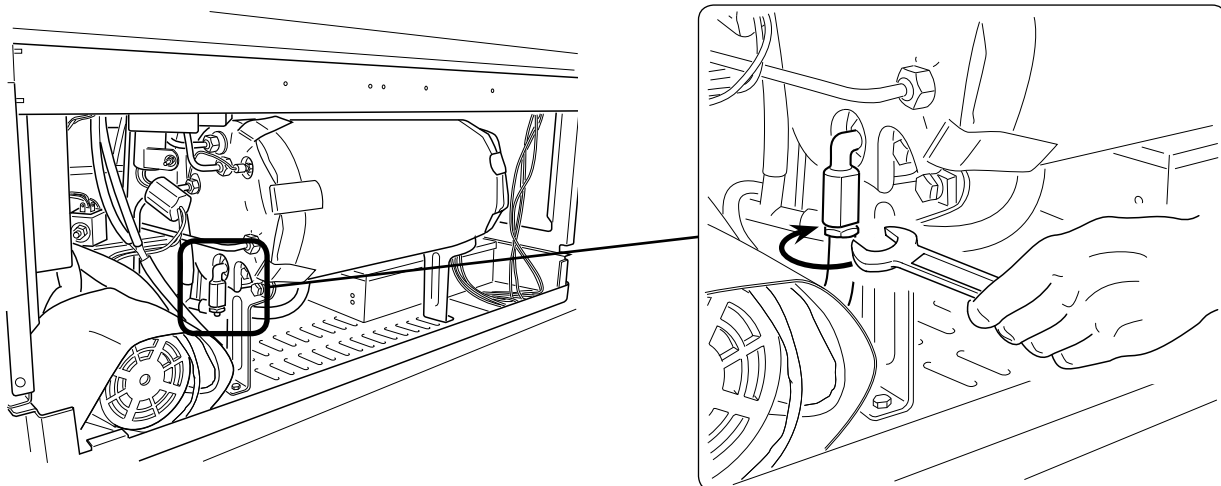
**ALL OPERATIONS MUST BE PERFORMED WITH THE MACHINE OFF AND COLD.
TO ALWAYS USE THE NECESSARY SAFETY EQUIPMENT (SHOES/GLOVES).**

10. Cup Warmer

English



11. Draining the boiler water



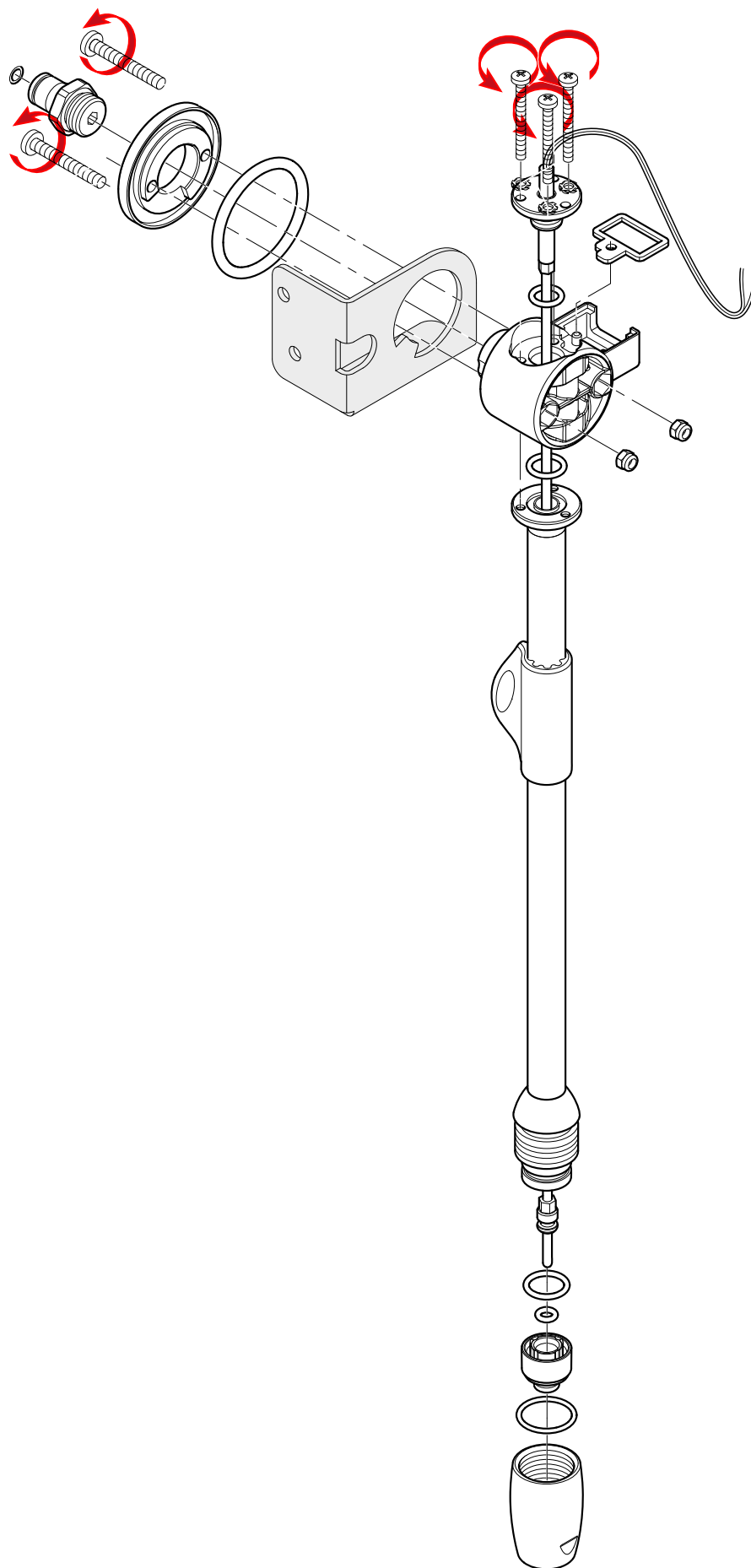
Slip a tube on the drain fitting and turn the nut in the direction indicated in the future.

12. Removing the boiler heating element

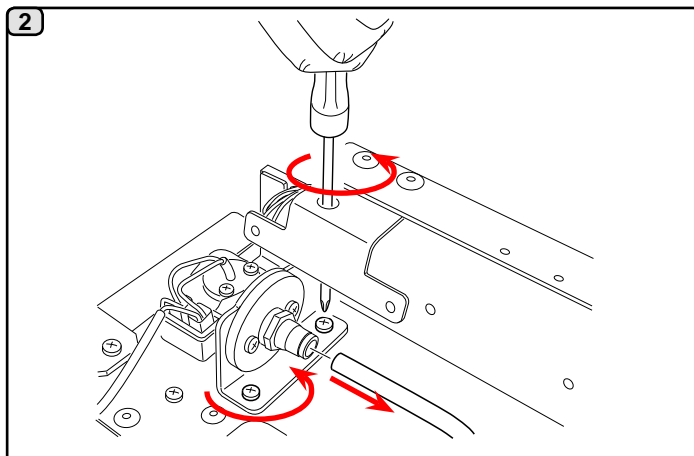
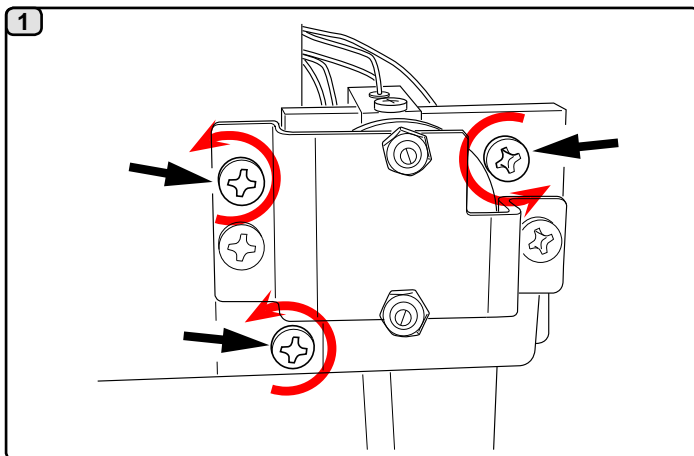
Remove the resistance only after emptying the boiler.



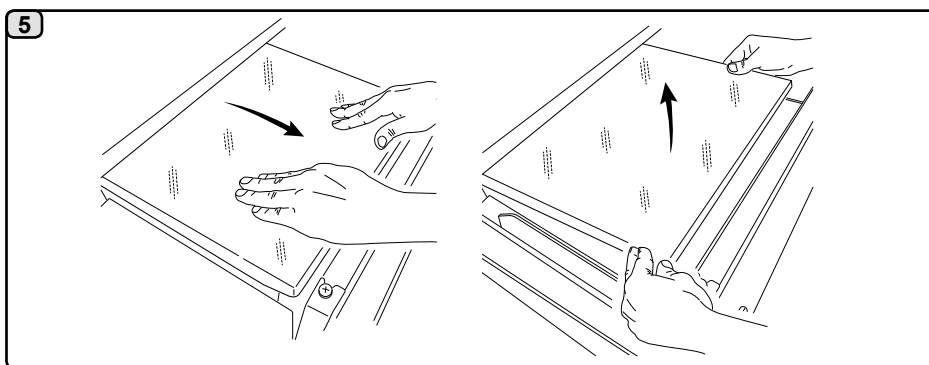
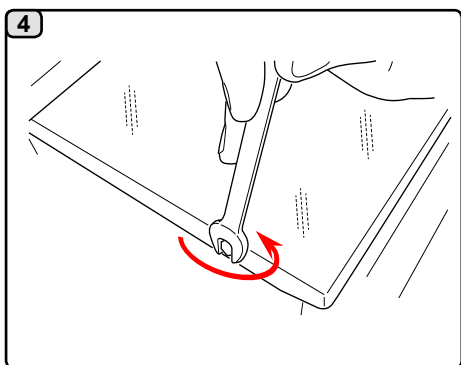
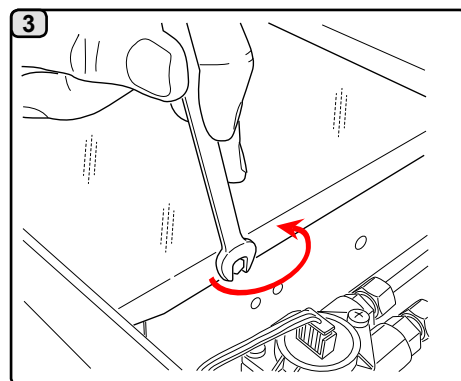
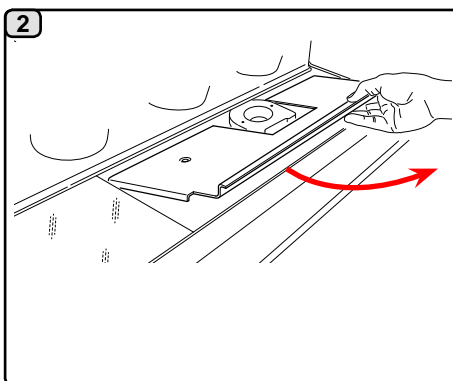
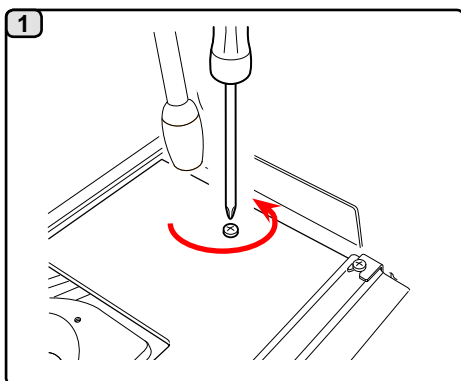
13. Turbosteam control and lance



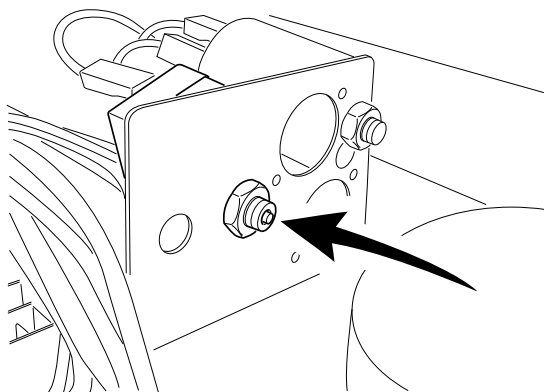
13. Turbosteam control and lance



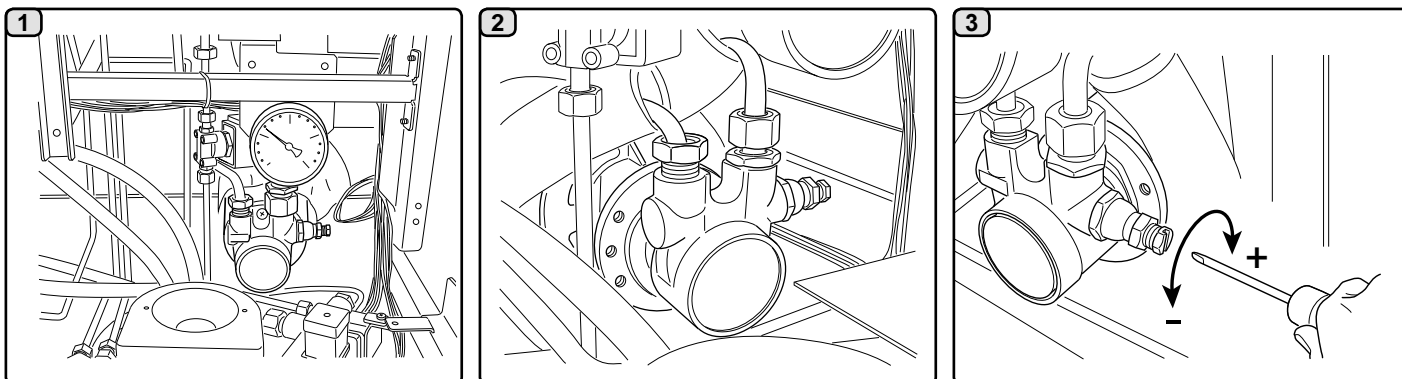
14. Junction Box



15. Safety thermostat

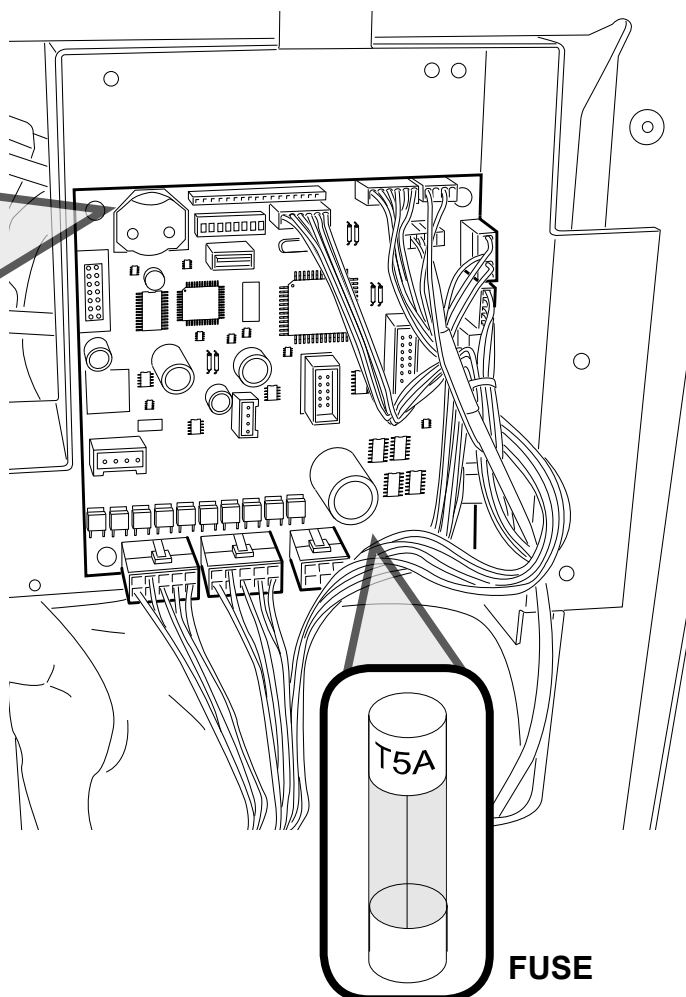
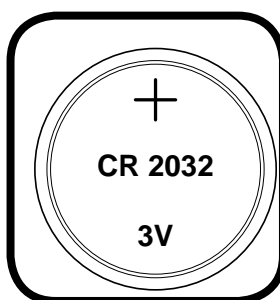


16. Peristaltic pump



17. Battery - Fuse

BATTERY



FUSE

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.

IT 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.

EN 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.

FR 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.

DE REGELUNG DER HEISSWASSTERTEMPERATUR

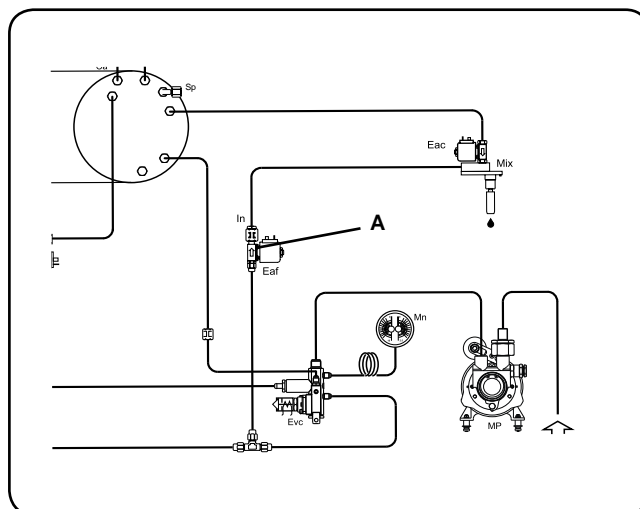
Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

ES REGULACIÓN DE LA TEMPERATURA DEL AGUA CALIENTE

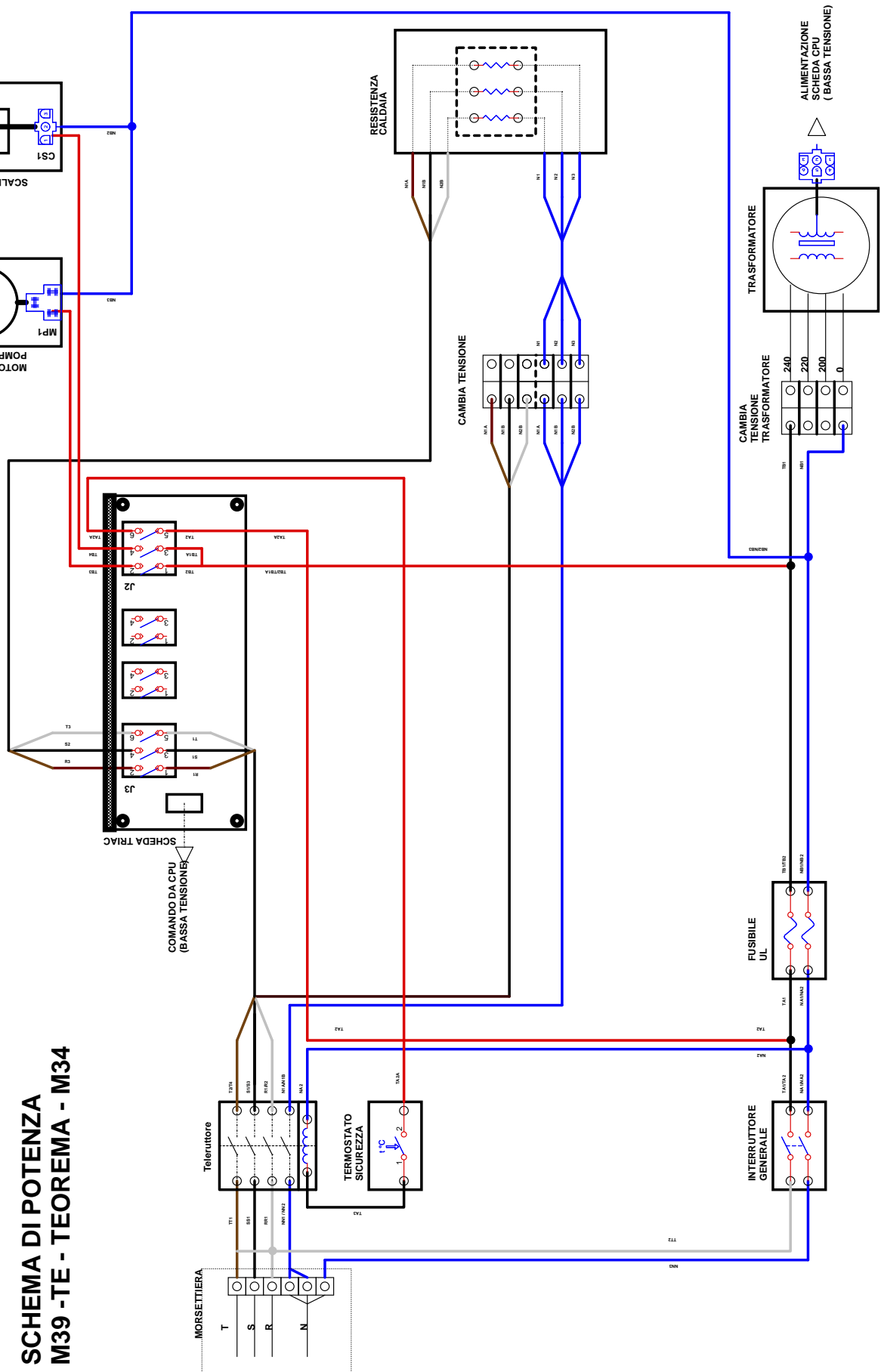
Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

PT 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.

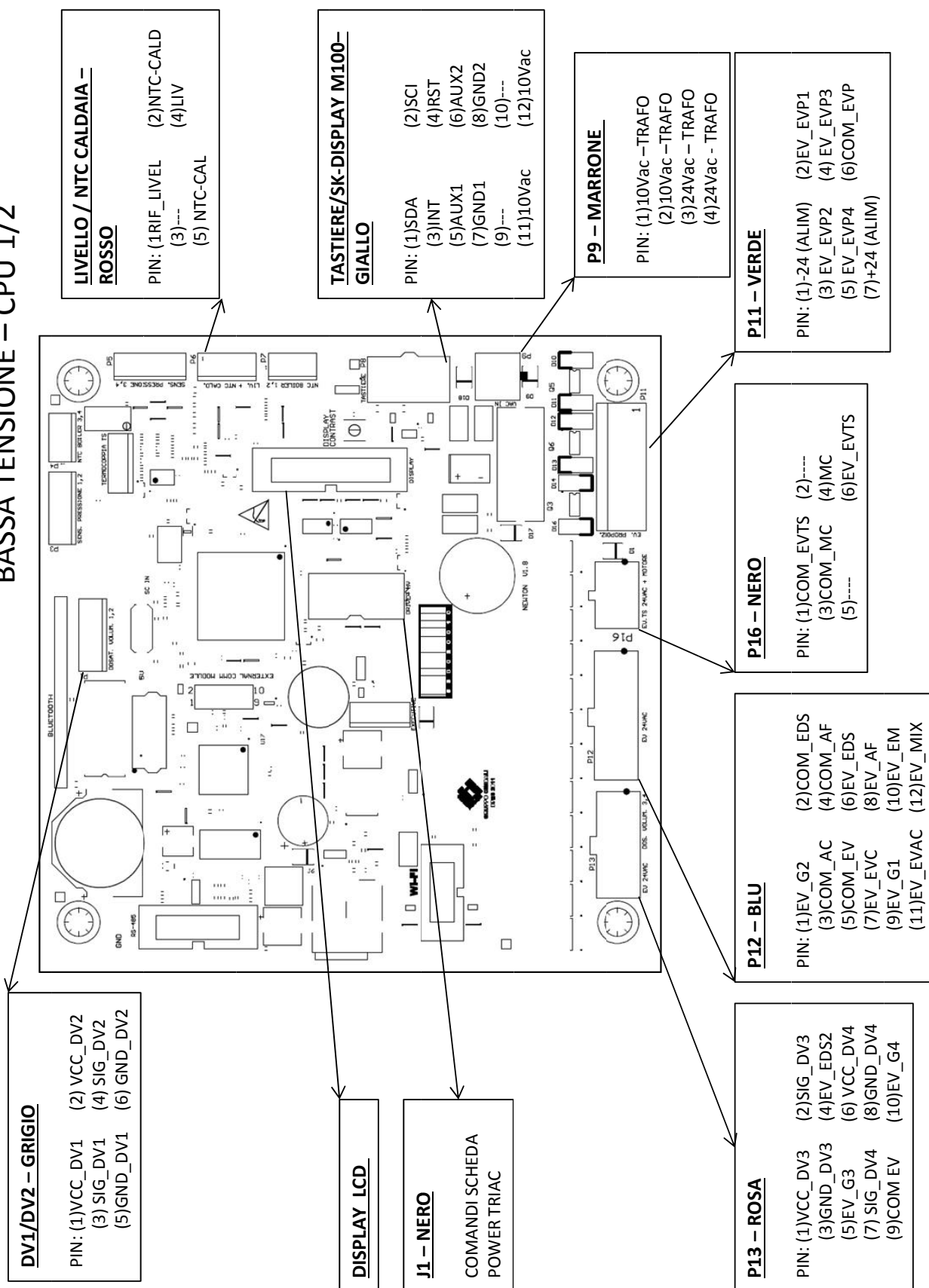


**SCHEMA DI POTENZA
M39 - TE - TEOREMA - M34**

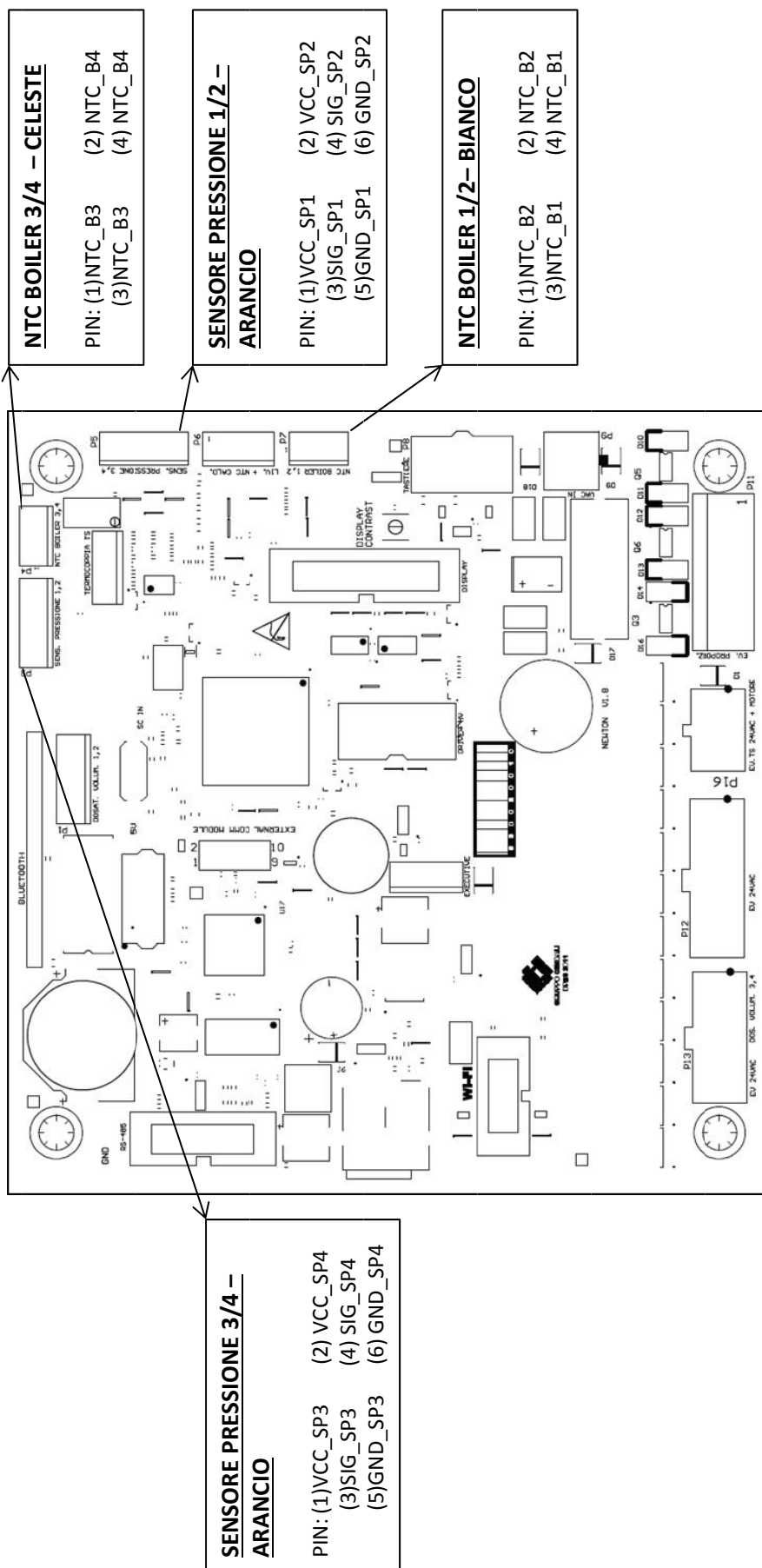


**Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

BASSA TENSIONE – CPU 1/2

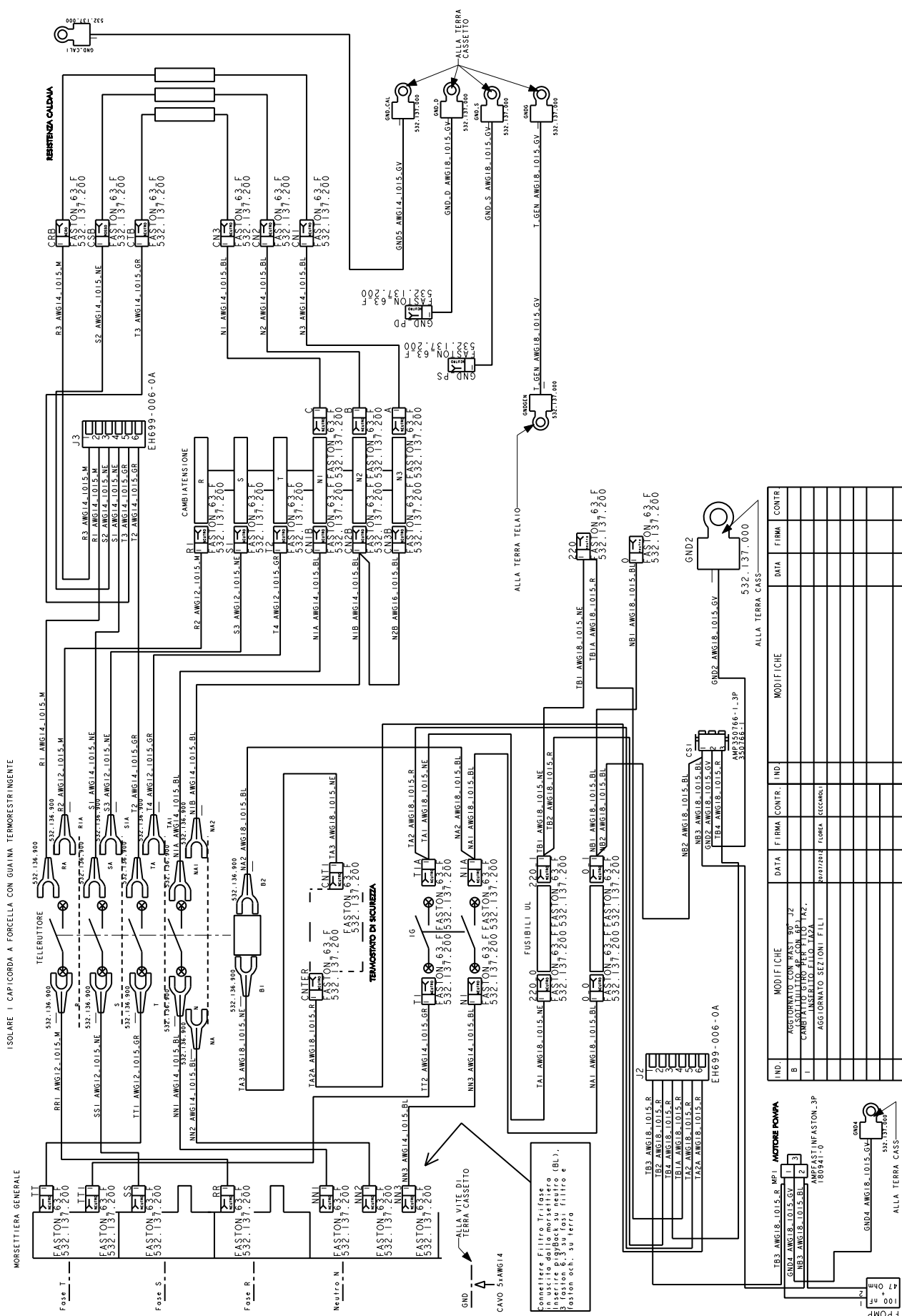


BASSA TENSIONE – CPU 2/2

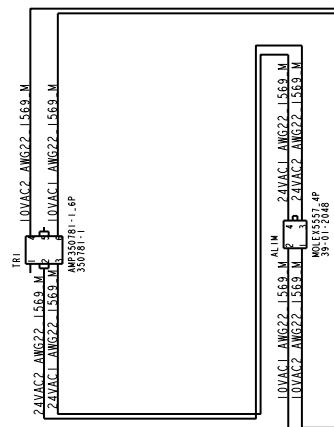


Schema elettrico - Wiring diagram - Schéma électrique -
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico

English



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



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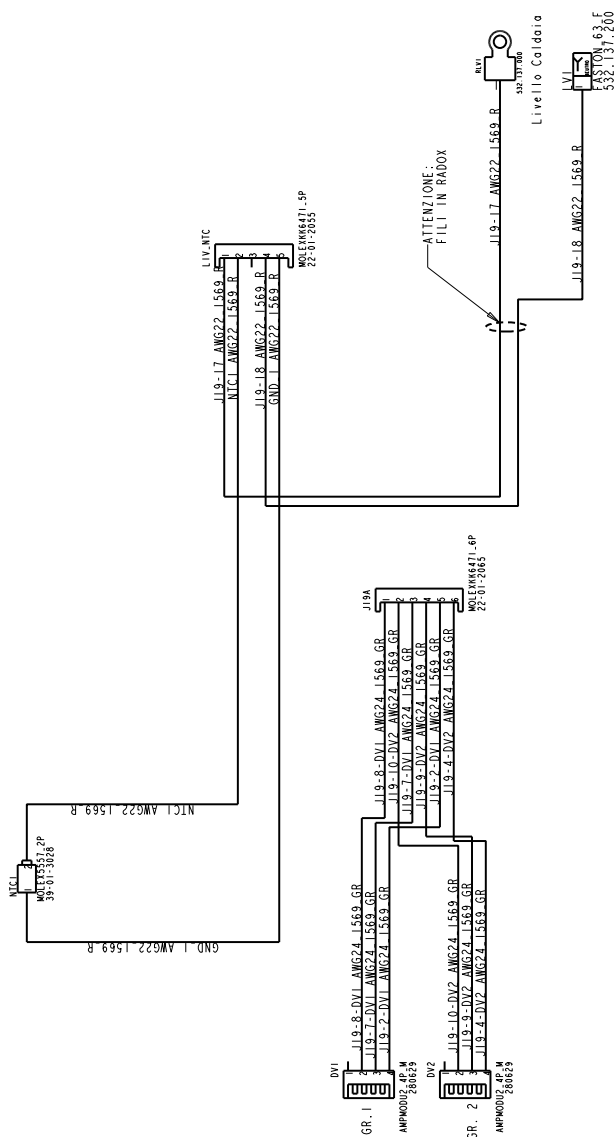
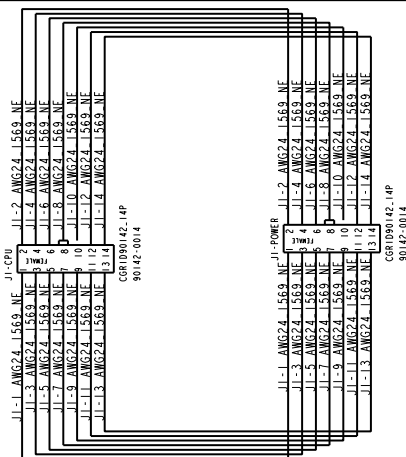
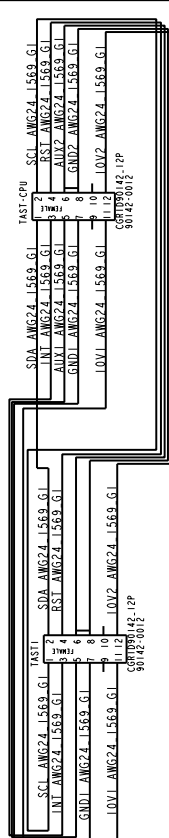
MATERIALE	TOLLERANZE GENERALI ISO 8015	TRATTAMENTO
PER NOTE E PRESCRIZIONI MANCANTI, VEDI C. 1	VERNICIARE CON PRODOTTO CSD.	PARTICOLARE VERNICIATO O TRATTATO CSD.
DE NOMINAZIONE		
M34-M39 RESTYLING BASIC BT WIRING DIAGRAM		

DATA	DISEGNATO	CONTROLLATO
07/10/2011	FLOREA	CECCAROLI
D.D.S. N°		535785042
		A

[illegible]

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



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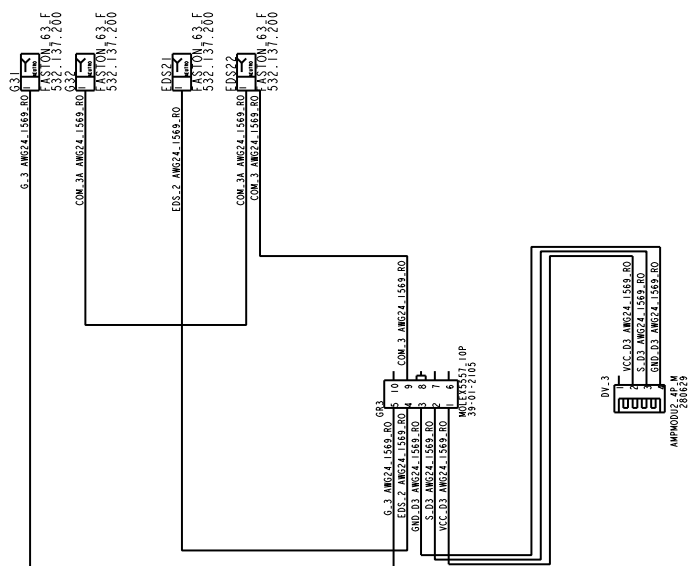
Conforme alle direttive: 2002/95/CE (DIRETTIVA RoHS)

MATERIALE	TOLLERANZE GENERALI ISO 8015	TRATTAMENTO
PER NOTE & PRESCRIZIONI MANCANTI, VEDI CAP. 14	VERNICIARE CON PRODOTTO CSD.	PARTICOLARE VERNICIATO O TRATTATO CSD.
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<p align="center">M34-M39 RESTYLING BASIC BT WIRING DIAGRAM</p> <p align="center">-----</p> <p align="center">DE RINNOVAZIONE</p>		
DATA	DISEGNATO	CONTROLLATO
07/10/2011	FLOREA	CECCAROLI
	DIS. N°	535785042
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KI X
 Termocoppia Stop Vapore
 CONNETTERE A CN7
 CPU BOARD
 ZONE C8

English



WIRE LIST						
Nome Filo	Da Connettore	A Connettore	Pin n°	Pin n°	Tipo di Filo	Colore
COM. 3	GR3	9	EDS22	1	AWG24 - 1569 RO	pink
COM. 3A	EDS22	1	G32	1	AWG24 - 1569 RO	pink
EDS. 2	GR3	4	EDS21	1	AWG24 - 1569 RO	pink
G3	GR3	5	G31	1	AWG24 - 1569 RO	pink
GND. D3	GR3	1	DV. 3	2	AWG24 - 1569 RO	pink
S. D3	DV. 3	3	GR3	2	AWG24 - 1569 RO	pink
VCC. D3	GR3	3	DV. 3	4	AWG24 - 1569 RO	pink

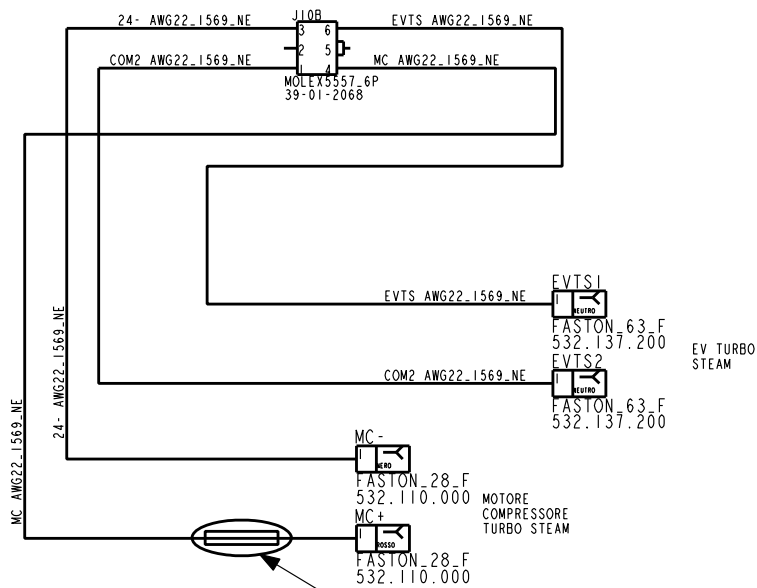
COMPONENTS LIST		
ID	COMPONENT	QTY n.
1	AMP002_4P_M	1
2	FAS001_63_F	4
3	MOLEX5557_10P	1

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

English

WIRE LIST						
Nome Filo	Da Connettore	Pin n°	A Connettore	Pin n°	Tipo di Filo	Colore
24-	J10B	3	MC-	1	AWG22-1569_NE	black
COM2	J10B	1	EVTS2	1	AWG22-1569_NE	black
EVTS	J10B	6	EVTS1	1	AWG22-1569_NE	black
MC	J10B	4	MC+	1	AWG22-1569_NE	black

COMPONENTS LIST		
ID	COMPONENT	QTY n°
1	FASTON_28_F	2
2	FASTON_63_F	2
3	MOLEX5557_6P	1



ATTENZIONE:
FUSE : T 1,6A
FUSEHOLDER: OMEGA V1071

English



**Legenda schema idraulico - Hydraulic diagram legend - Legende du schema hydraulique
- Legende zu wasserkreis - Leyenda esquema hidraulico - Legenda esquema hidráulico**

IT LEGENDA

Ca	=	Caldaia
DV	=	Dosatore volumetrico
Ea	=	Elettrovalvola antirisucchio
Eac	=	Elettrovalvola acqua calda
Eaf	=	Elettrovalvola acqua fredda
Ets	=	Elettrovalvola turbosteam
Evc	=	Elettrovalvola carico caldaia
Eds	=	Elettrovalvola EDS
Fi	=	Filtro pompa
G	=	Elettrovalvola caffè
Gc	=	Gruppo caffè
In	=	Iniettore
MC	=	Motore compressore
Mix	=	Miscelatore acqua
Mn	=	Manometro
MP	=	Pompa volumetrica/ Motore pompa
Reg mix	=	Regolatore miscelazione acqua
SL	=	Sonda livello caldaia
Sp	=	Sensore di pressione
ts	=	Selettore turbosteam
Va	=	Valvola antirisucchio
Vs	=	Valvola di sicurezza caldaia

EN 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 solenoidvalve
Eds	=	EDS solenoid valve
Fi	=	Pump filter
G	=	Coffee solenoid valve
Gc	=	Coffee preparation group
In	=	Injector
MC	=	Compressor motor
Mix	=	Water mixer
Mn	=	Pressure gauge
MP	=	Volumetric pump/ Motor pump
Reg mix	=	Water-mixing regulator
SL	=	Boiler level probe
Sp	=	Pressure sensor
ts	=	Turbosteam selector
Va	=	Anti-suction valve
Vs	=	Boiler safety valve

FR LÉGENDE

Ca	=	Chaudière
DV	=	Doseur volumétrique
Ea	=	Electrovanne fausse pression
Eac	=	Electrovanne eau chaude
Eaf	=	Electrovanne eau froide
Ets	=	Electrovanne turbosteam
Evc	=	Electrovanne de remplissage chaudière
Eds	=	Electrovanne EDS
Fi	=	Filtre pompe
G	=	Electrovanne du café
Gc	=	Groupe café
In	=	Injecteur
MC	=	Moteur compresseur
Mix	=	Mélangeur eau
Mn	=	Manomètre
MP	=	Pompe volumétrique/ Moteur pompe
Reg mix	=	Régulateur mélange eau
SL	=	Sonde de niveau de la chaudière
Sp	=	Détecteur de pression
ts	=	Sélecteur turbosteam
Va	=	Clapet fausse pression
Vs	=	Soupape de sécurité chaudière

DE LEGENDE

Ca	=	Kessel
DV	=	Mengenähler
Ea	=	Rücksaugschutz Magnetventil
Eac	=	Heißwasser-Magnetventil
Eaf	=	Magnetventil Kaltwasser
Ets	=	Magnetventil turbosteam
Evc	=	Wasserzugabe-Magnetventil
Eds	=	EDS-Magnetventil
Fi	=	Filter Pumpe
G	=	Kaffee-Magnetventil
Gc	=	Kaffeegruppe
In	=	Düse
MC	=	Motor Kompressor
Mix	=	Wassermischer
Mn	=	Manometer
MP	=	Volumetrische Pumpe/ Pumpenmotor
Reg mix	=	Wassermischregler
SL	=	Sonde-Kesselwasserniveau
Sp	=	Druckfühler
ts	=	Wahlschalter Turbosteam
Va	=	Rücksaugschutzventil
Vs	=	Heizkessel-Sicherheitsventil

ES LEYENDA

Ca	=	Caldeira
DV	=	Dosificador volumétrico
Ea	=	Electroválvula antisucción
Eac	=	Electroválvula agua caliente
Eaf	=	Electroválvula agua fría
Ets	=	Electroválvula turbosteam
Evc	=	Electroválvula carga caldera
Eds	=	Electroválvula EDS
Fi	=	Filtro bomba
G	=	Electroválvula café
Gc	=	Grupo café
In	=	Inyector
MC	=	Motor compresor
Mix	=	Economizador
Mn	=	Manómetro
MP	=	Bomba volumétrica/ Motor bomba
Reg mix	=	Regulador mezcla del agua
SL	=	Sonda nivel
Sp	=	Válvula antisucción
ts	=	Selector turbosteam
Va	=	Válvula antisucción
Vs	=	Valvula de seguridad caldera

PT LEGENDA

Ca	=	Caldeira
DV	=	Doseador volumétrico
Ea	=	Electroválvula antisucción
Eac	=	Electroválvula água quente
Eaf	=	Electroválvula água fria
Ets	=	Electroválvula turbosteam
Evc	=	Electroválvula carregamento caldeira
Eds	=	Electroválvula EDS
Fi	=	Filtro bomba
G	=	Electroválvula café
Gc	=	Grupo café
In	=	Injetor
MC	=	Motor compressor
Mix	=	Misturador
Mn	=	Manômetro
MP	=	Bomba volumétrica/ Motor da bomba
Reg mix	=	Regulador da mistura da água
SL	=	Sonda nível
Sp	=	Válvula andisucção
ts	=	Selector turbosteam
Va	=	Válvula andisucção
Vs	=	Válvula segurança de mola

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