PROGRAMMING

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1. Description of the control panel - Keyboard
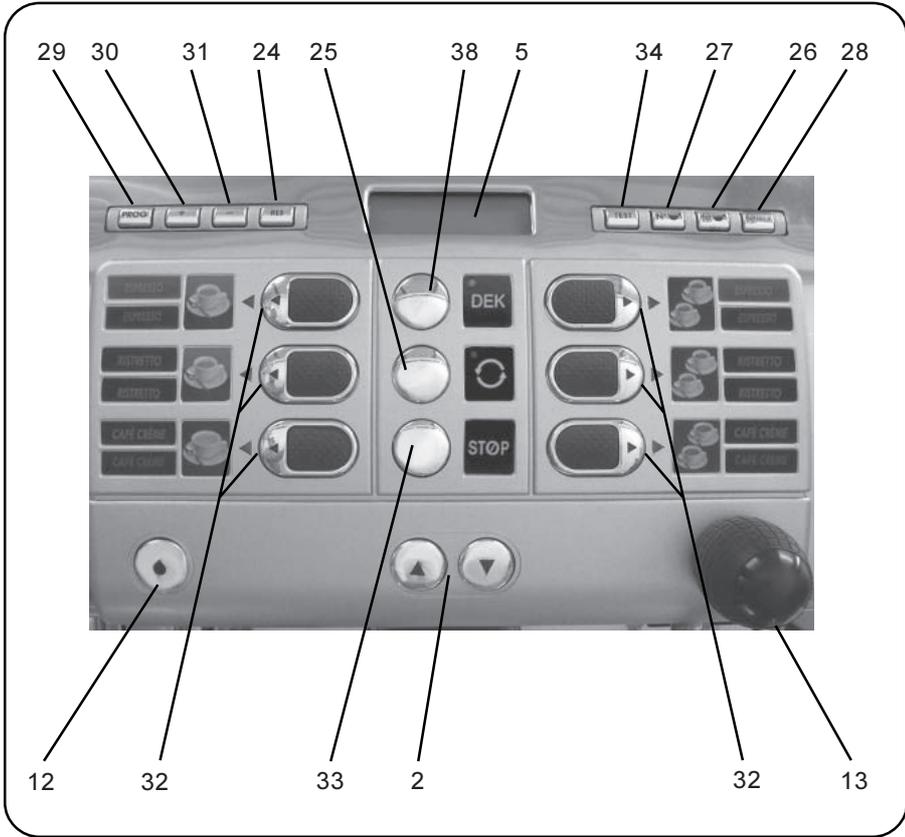
DESCRIPTION OF THE COMPONENTS

2   Dispenser height adjuster buttons *
5   Alphanumerical display
12   Hot water dispenser button
13   Steam dispenser knob
24   "RES" key (to quit programming mode/ confirm data)
25   Special key
26   Coffee circuit flushing key / short washing
27   "N°" key (displays the number of cycles)
28   Milk circuit wash key
29   "PRG" key (to access programming mode/ menu)
30   "+" key (to modify parameters/clock)
31   "-" key (to modify parameters/clock)
32   Beverage selector key
33   "STOP" button (stops products from being dispensed)
34   "TEST" key
35   Hot water "STOP" key
36   Cup warmer button
37   Water heater power indicator led
38   Special key

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

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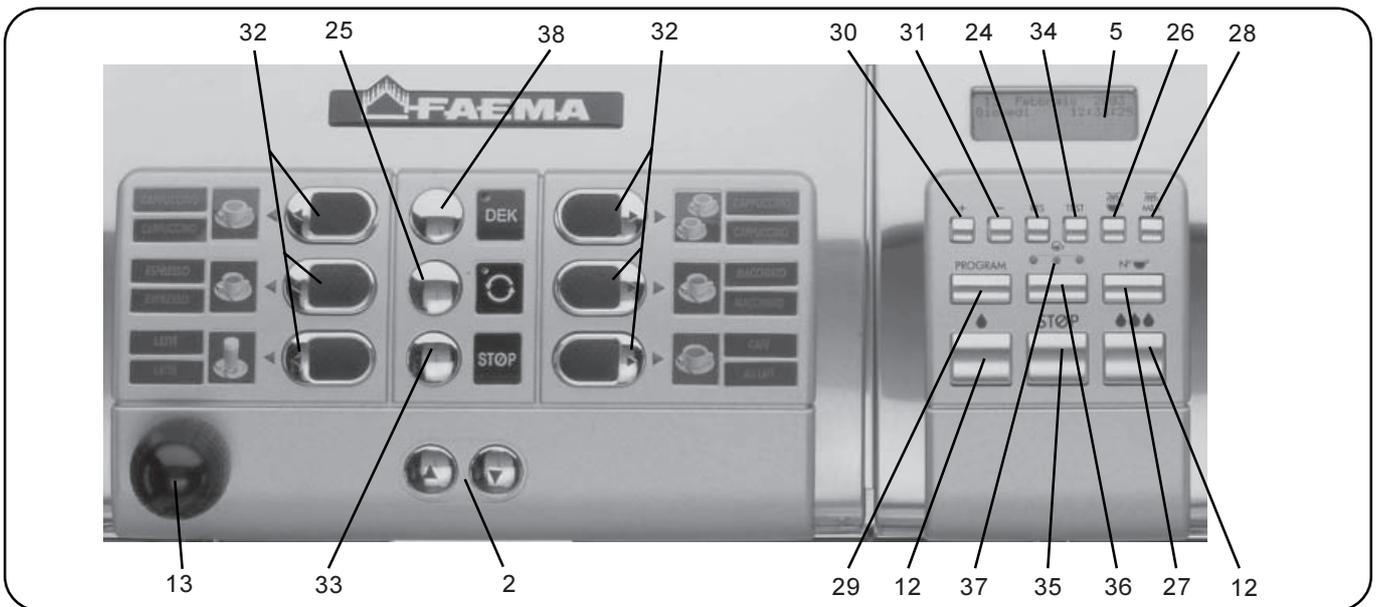
X3 - Data flow chart - Technician programming

To access programming mode, press

[TEST] [STOP] [—]

within 5 seconds

To ACCESS menu press

[PROGRAM]

To EXIT menu press

[RES]

| KEY MENU | +/− |

Press

[SELECTION KEY]

Type

+/−

Grinder reg.

+/−

Water dose

+/−

Infusion

+/−

Cappuccino flow

+/−

Milk dose

+/−

Emulsion

+/−

Emulsion stop

+/−

Coffee start/Milk start

+/−

Milk

+/−

Compresion

+/−

Drying

+/−

Withdrawals

+/−

Blend

| CONFIGURATION | +/− |

Press

[PROGRAM]

Special keys

+/−

SER. BOILER PRESS.

+/−

COFFEE TEMP.

+/−

N° grounds

+/−

Piston diameter

+/−

Piston IN

+/−

Customer Prog

+/−

Milk II

+/−

T-stop steam.

+/−

Paym. system

+/−

Sound

+/−

WASHING OPTIONS

+/−

AUTOMATIC CALL

+/−

DATA IN/OUT

+/−

MAINTENANCE

+/−

SOFTNER GENERATOR

+/−

Archive Reset

+/−

INFO

| TESTING | +/− |

Press

[PROGRAM]

Manual Commands

+/−

Star set-up

+/−

Grinder set-up

| WASH 1 ARCHIVE | +/− |

Press

[PROGRAM]

Required

+/−

Performed

| MALFUNCT. ARCHIVE | +/− |

2. How to access programming mode

X3 Compact

To access programming mode, press the "TEST" (**34**), "STOP" (**33**) and "-" (**31**) keys in rapid succession (within 5 seconds). NOTE: each key must be pressed individually, not together with the others.

```
  * TECHNICAL  PROG.
■ KEY MENU
  CONFIGURATION        ▯
  TESTING              +
```

X3 Prestige

To access the programming function, press the "TEST" (**34**) key, the "STOP" key (of the group to the be programmed) and "-" (**31**) keys in rapid succession (within 5 seconds).

```
  * TECHNICAL  PROG.
■ KEY MENU
  CONFIGURATION        ▯
  TESTING              +
```

N.B. Press each key separately, not together.

Important: When the STOP HOT WATER key is pressed, the services unit programming function is activated.
When the STOP key of group 1 is pressed, the group 1 programming function is activated.
When the STOP key of group 2 is pressed, the group 2 programming function is activated.

The TEST menu is not displayed during the programming of the services unit.
The functions relative to the TEST menu of the services unit are displayed both in the TEST frame of group 1 and of group 2.

3. Key menu - General indications

Press one of the beverage dispensing keys (**32**) to access the key menu (the relative led will remain on, not flashing). The following message will appear on the display:

```
    * KEY MENU
■ type 1 coffee
  grinder reg.     23 ▯
  water dose       90 +
```

After the dispensing keys (**32**) have been pressed, press one of the pre-selection keys (**25**) (its red led will come on) to modify the parameters of the second option of the dispensing key.
NOTE: dispensing will take place with the second blend.

To modify the parameters, move the cursor ■ with the "+" (**30**) and "-" (**31**) keys to the line containing the item to be changed. Now press the "PRG" key (**29**). The following message will appear on the display:

```
    * KEY MENU
→ type 1 coffee      ⬍
  grinder reg.   23  ⬍
  water dose     90
```

Modify the value using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm.
NOTE: the cursor will become ■ again.
Repeat the previously illustrated operations to modify the other parameters.

"Copy/Paste" function (only for machines with cappuccino maker)

The copy/paste function is performed by the dispenser height adjustment keys (**2**). It can be used when you want to copy the parameters for a selection key, a price (if it is in the bookkeeping and price programming menu) or a telephone number if you're in the telephone programming menu.

The "dispenser up" key performs the "copy" function, while the "dispenser down" key "pastes" the parameters for the selection or the 'telephone number that was copied.

Example of "Copy/paste" in the key menu:

• Press the selection key whose parameters you want to copy

• Press the "dispenser up" key (**2**) ▲ to copy the data

• Press the selection key where the copied data will go

• Press the "dispenser down" key (**2**) ▼ to paste the copied data.

Note: All parameters of the selected key are copied/pasted, including beverage type.

3.1 Key menu - Coffee selection

Press one of the coffee dispensing keys (**32**) (the relative led will remain on, not flashing). The following message will appear on the display:

```
        * KEY MENU
■ type 1 coffee
   grinder reg.      23  ▮
   water dose        90  +
```

The following coffee selection parameters can be modified:
- type (key personalizing, e.g.: 1 coffee, 2 coffee, 1 cappuccino, 2 cappuccino, dosed water - *only for compact and multi-group (gr.1 sx) machines* -, null, stop);
- Grinder setting (*) (ground coffee granulometry, from 1 to 60 with increments of 1);
- water dose (volumetric dosage pulses, from 0 to 999, with increments of 1);
- infusion (infusion time, from 0 to 60, with increments of 0.1 seconds);
- pressing (pressing time, from 0 to 2, with increments of 0.1 seconds);
- drying (pod drying time, from 0 to 5, with increments of 0.1 seconds);
- withdrawals (number of ground coffee extractions, from 1 to 3);
- blend (Dx, Sx, Sx + Dx hopper), please consult "blend" paragraph

To modify the parameters, move the cursor ■ with the "+" (**30**) and "-" (**31**) keys to the line containing the item to be changed. Now press the "PRG" key (**29**). The following message will appear on the display:

```
        * KEY MENU
→ type 1 coffee       ↕
   grinder reg.    23  ▾
   water dose      90
```

Modify the value using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm.

Press the "RES" key (**24**) again to switch to another menu.

(*) TWhen a specific "grinding adjustment" value is entered in the technical programming, the possible setting range in the client programming will be restricted to the set value + 2.

Example: value set in the technical programming: **12**

Possible grinder settings in the client programming:
10 – 11 – 12 – 13 – 14

3.2 Key menu - Cappuccino - Milk selection

Press one of the cappuccino-milk dispensing keys (**32**) (the relative led will remain on, not flashing). The following message will appear on the display:

```
        * KEY MENU
■ type 1 cappuccino
   grinder reg.      23  ▮
   water dose        90  +
```

The following cappuccino-milk selection parameters can be modified:
- type (key personalizing, e.g.: 1 coffee, 2 coffee, 1 cappuccino, 2 cappuccino, dosed water - *only for compact and multi-group (gr.1 sx) machines* -, null, stop);
- Grinder setting (*) (ground coffee granulometry, from 1 to 60 with increments of 1);
- water dose (volumetric dosage pulses, from 0 to 999, with increments of 1);
- milk dose (milk dispensing time, from 2 to 60, with increments of 0.1 seconds);
- emulsion (foamed milk dispensing time, from 0 to 60, with increments of 1 second);
- emulsion stop YES/NO (with the "emulsion stop" function set (YES): foamed milk dispensing time, from 0 to 58, with increments of 1 second. The maximum setting time is always 2 seconds less respect "milk dose");
- Start coffee/start milk** (milk dispensing start delayed after coffee dispensing and vice versa);
- start milk (0 = first milk, then coffee; 1 = first coffee, then milk)
- milk I (choice between two types of milk, if function is activated)
- pressing (pressing time, from 0 to 2, with increments of 0.1 seconds);
- drying (pod drying time, from 0 to 5, with increments of 0.1 seconds);
- withdrawals (number of ground coffee extractions, from 1 to 3);
- blend (Dx, Sx, Sx + Dx hopper), please consult "blend" paragraph

To modify the parameters, move the cursor ■ with the "+" (**30**) and "-" (**31**) keys to the line containing the item to be changed. Now press the "PRG" key (**29**). The following message will appear on the display:

```
        * KEY MENU
→ milk dose     12.3  ↕
   grinder reg.   23  ▾
   water dose     90
```

Modify the value using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm.

NOTE: set the "water dose" parameter to "000" to dispense milk (without coffee).

Press the "RES" key (**24**) again to switch to another menu.

(*) When a specific "grinding adjustment" value is entered in the technical programming, the possible setting range in the client programming will be restricted to the set value + 2.

Example: value set in the technical programming: **12**

Possible grinder settings in the client programming:
10 – 11 – 12 – 13 – 14

(**) Start coffee/Start milk function

You can use the "+" (**30**) and "-" (**31**) keys to change the "**Start milk**" setting (milk dispensing start delayed after coffee dispensing and vice versa) from "**00.0**" to "**99.9**" with "**1.0**" second increments.
If over "**99.0**" is set, the "Start milk" setting will become the "**Start coffee**" setting (coffee dispensing start delayed after the milk dispensing), then the setting returns to "Start milk" in a cycle.
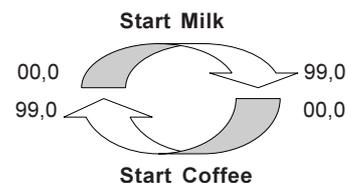
The default settings for cappuccino selections are: Start coffee 00.0.

By setting:

"**Start milk 00.0**" - milk dispensing takes place when the selection key is pressed. After a few seconds, coffee is dispensed;
"**Start milk 99.0**" or at a high setting that exceeds the coffee dispensing time - milk dispensing starts after coffee is dispensed.
"**Start milk 05.0**" - coffee dispensing starts, and 5 seconds after the selection key is pressed, milk is dispensed.
Note: If the time setting exceeds the coffee dispensing time, milk dispensing begins immediately after coffee is dispensed.

"**Start coffee 00.0**" - Coffee dispensing starts after milk is dispensed.
"**Start coffee 99.0**" or any setting other than 0 - coffee dispensing will start 99.0 seconds (or after the set time) after milk is dispensed.

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Grinding Variation

When the machine is in Stand-by mode and the "PRG" (**29**) key is pressed, the selection button LEDs start blinking and the following message appears on the display:

```
* CUSTOMER  PARAMETERS
■ SERVICE TIME
   ITALIANO              ▮
   ENGLISH               ▾
                         +
```

When a selection key (**32**) (or Selection II + selection key) is pressed, the related LED remains lit and no longer blinks.

The blend appears, alternating with the type of beverage, and the set grinding value. For example, the following message will appear on the display:

```
GRINDING GR1 VAR.
Blend left - 1 coffee
grinder reg.    0
   RESET TO EXIT
```

Change the value using the "+" (**30**) and "-" (**31**) keys:
The variation field of the grinding phase is limited to ± 2 of the set value in the technical programming menu (reference value = 0). Press the RES key (**24**) to confirm the data.

This operation (besides those of the selected key) corrects the parameters of ALL similar selections (blend – type) and requires a few seconds.

Correction of the related keys does not occur if the variation exceeds the admissible ± 2 range.

Note: The coffee grinding variation can be made in the client mode, even if the "**Client Progr.**" entry in the technical programming flow is set to "**NO**".

Blend

This parameter lets you set which hopper the coffee beans are extracted from for grinding: right hopper *DX*, left hopper *SX*, left and right hopper *Sx + Dx* (blend function).

Setting *Sx + Dx* (blend function), the machine will extract one dose from the left hopper and one from the right hopper. Therefore, if the number of doses was set at "1" or "3", it will be automatically modified in "2".

3.3   Key menu - Hot water selection (only for Compact machines)

Press the hot water dispensing key (**12**). The following message will appear on the display:

```
* KEY MENU
■ type dosed
   dispens. time   05.0 ▮
                        +
```

The following hot water selection parameters can be modified:
- type (key personalizing, e.g.: 1 coffee, 2 coffee, 1 cappuccino, 2 cappuccino, water, null, stop);
- hot water dispensing time, from 0 to 5, with increments of 0.1 seconds.

To modify the parameters, move the cursor ■ with the "+" (**30**) and "-" (**31**) keys to the line containing the item to be changed. Now press the "PRG" key (**29**). The following message will appear on the display:

```
* KEY MENU
→ type dosed            ↕
   dispens. time   05.0 ▾
```

Modify the value using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm.
Press the "RES" key (**24**) again to switch to another menu.

3.4   Key menu - Hot water selection (only for Prestige machines)

To program the hot water keys of the Prestige machine, access the services unit programming function.
Press one of hot water dispensing keys (**12**), the following message will be displayed:

```
* KEY MENU
■ type dosed
   dispens. time   05.0 ▮
                        +
```

The hot water parameters that may be changed are:
- type (dosed, stop water, continuous, disable).
- water dispensing time, from 0 to 5, with increments of 0.1 seconds, only if the key is set for dosed dispensing.

To modify the parameters, move the cursor ■ with the "+" (**30**) and "-" (**31**) keys to the line containing the item to be changed. Now press the "PRG" key (**29**). The following message will appear on the display:

```
* KEY MENU
→ type dosed            ↕
   dispens. time   05.0 ▾
```

Modify the value using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm.
Press the "RES" key (**24**) again to switch to another menu.

3.5 Control Board TEST

After accessing programming, access the keys menu by pressing one of the drink dispensing keys (**32**), (the associated led remains lit). The following will be displayed:

```
* KEY MENU
■ type 1 coffee
  grinder reg.    23
  water dose      90  +
```

When the TEST key (**34**) is pressed, the machine dispenses and the following parameters will be displayed:

terog/tG: time of coffee dispensing
tmac: time of coffee grinding

N.B. only for coffee and cappuccino selection

```
        Mps  Rpi    Rcr Rcm   Smf

IN: 00.10.0                        GR1
terog: 000s      tmac: 000s
DV: 000                      EP: 000
Tc: 100°C            RES→ESC
```

- When the TEST key (**34**) is pressed once after dispensing, the parameters are reset and new dispensing starts.

- When the TEST (**34**) key is pressed twice or during dispensing, the following table is displayed.

```
Tc: |   111 |                        |
100 |  °C  |  ————————————————— |
tG: |       |                        |
000 |  088  ————————————————————  s
```

- Press "RES" (**24**) to return to the KEYS MENU,

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3.6 WATER TEST

After entering the utility unit programming menu, access the key menu. When you press the hot water dispensing key (**12**), the following will appear on the screen:

```
* KEY MENU
■ type dosed
   dispens. time    05.0 ▼
                         +
```
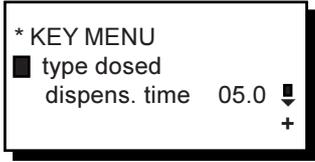
Pressing the TEST (**34**) key, the water is dispensed, and these parameters will appear on the screen:

P: utility boiler pressure

```
        Pr      SI
IN:   0.0                        H2O

P  :  1.3  bar

                         RES→ESC
```
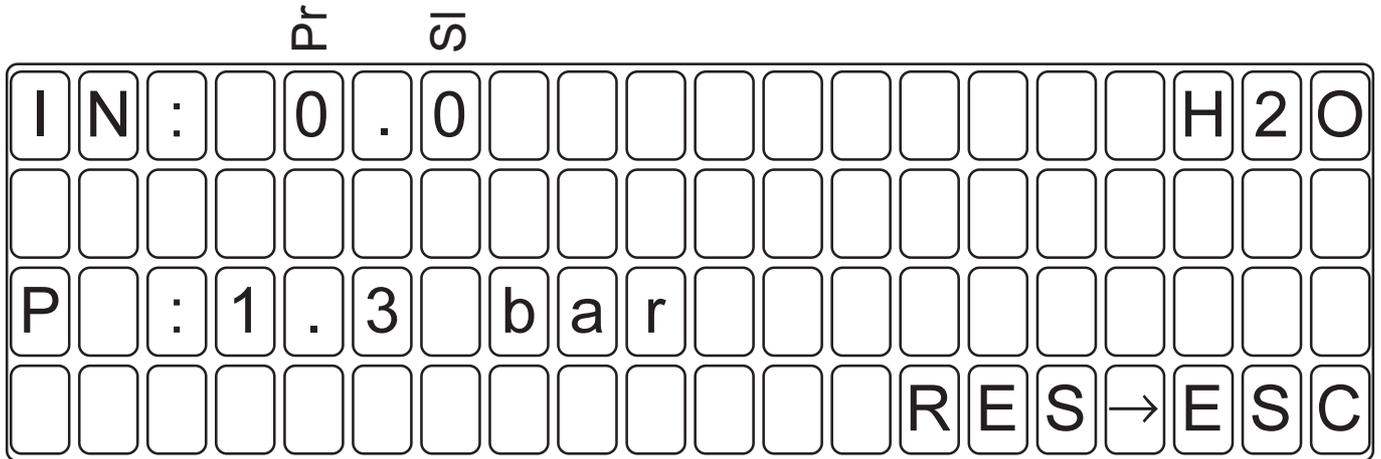
- Pressing the TEST (**34**) key again, the water is dispensed again.

- Pressing "RES" (**24**), you return to the KEY MENU.

4. Configuration menu

Move the cursor to the "configuration" line with the "+" (**30**) and "-" (**31**) keys to access the configuration menu.

```
* TECHNICAL  PROG.    -
  KEY MENU            ▲
■ CONFIGURATION       ▼
  TESTING             +
```

Press the "PRG" key (**29**) key to access the configuration menu. The following message appears on the display:

```
* CONFIGURATION
■ SPECIAL KEYS
  SER. BOILER PRESS.  ▼
  COFFEE TEMP.        +
```

NOTE: on multi-group machines, the "Configuration Menu - Utilities Group" does not include the first flow entries. Please refer to related paragraph for more information.

4.1 Configuration menu - Special keys

Press one of the pre-selection keys (**25**) or (**38**). The following message will appear on the display:

```
* SPECIAL KEYS
■ type II choice
                      ▼
                      +
```

Press the "PRG" key (**29**) to access the function where the special keys can be personalized. The following message appears on the display:

```
* SPECIAL KEYS
→ type II choice      ▲▼
                      -
                      ▼
```

Modify the indication with the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm the selection.

The key can be personalized with one of the following functions:
- II choice (second function, dispensing of a second beverage
- cycle repeated;
- decaffeinated coffee (only with optional batcher unit);
- Milk II (for more details, please consult the paragraph "Configuration menu - Milk II".);
- disable (disables key);
- stop.

Press the "RES" key (**24**) again to switch to another menu.

4.2 Configuration menu - Service boiler Pressure

To change the service boiler pressure menu, use the "+" (**30**) and "-" (**31**) keys to position the cursor on the "ser. boiler press." line.

```
* CONFIGURATION       -
  SPECIAL KEYS        ▲
■ SER. BOILER PRESS.  ▼
  COFFEE TEMP.        +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* SER. BOILER PRESSURE
■ ser. boiler press.1.4
  press. unit    bar  ▼
                      +
```

Move the cursor to the line containing the value to be changed using the "+" (**30**) and "-" (**31**) keys and then press the "PRG" key (**29**).

Change the value with the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm the selection.

Settings that can be changed are:
- Service boiler pressure
- Unit pressure (**bar** or **Psi**);

When the **bar** unit of measurement is selected, the available range is 1.3/1.4.
When the **psi** unit of measurement is selected, the available range is 19/20.
In the machines without a pressure sensor, **OFF** is displayed.

Press the "RES" key (**24**) again to switch to another menu.

NOTE: In the multi-group machines, the "service boiler pressure" entry is displayed in the "Configuration Menu - Utilities" screen.

4.3 Configuration menu - Coffee Temperature

To vary the coffee temperature menu, move the cursor to the "coffee temp." line using the "+" (**30**) and "-" (**31**) keys.

```
* CONFIGURATION       -
  SPECIAL KEYS        ▲
  SER. BOILER PRESS.  ▼
■ COFFEE TEMP.        +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* COFFEE TEMPERATURE
■ higher temp.    110
  lower temp.     095  ▼
  interval        003  +
```

Move the cursor to the line containing the value to be changed using the "+" (**30**) and "-" (**31**) keys and then press the "PRG" key (**29**).

Change the value with the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm the selection.

The following values can be entered:
- higher temp. (temperature that ensures a good quality coffee when first dispensed after a certain interval of time);
- lower temp. (coffee boiler operating temperature);
- interval (minimum time, in minutes, that must elapse between two coffee dispensing operations without raising the temperature of the boiler to the higher level).
- unit temperature (can be set to °C degrees Celsius or °F degrees Fahrenheit)

Press the "RES" key (**24**) again to switch to another menu.

4.4 Configuration menu - N° grounds

To change the maximum number of grounds, move the cursor to the "n° grounds" line using the "+" (**30**) and "-" (**31**) keys.

```
 *CONFIGURATION  -
■ n° grounds      020 ▲
  piston diamet.  002 ▼
  piston IN        NO +
```

Modify the indication using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm the selection.

Press the "RES" key (**24**) again to switch to another menu.

If the value "**000**" is set, the message "Coffee grounds drawer full" will not be displayed. This value must be set for machines with an external coffee grounds container.

Press the "PRG" key (**29**). The following message will appear on the display:

```
 *CONFIGURATION
→ n° grounds      020 +
  piston diamet.  002 -
  piston IN        NO
```

If any other value is set (i.e., 30), the message "grounds drawer full" will be displayed 10 servings (of coffee-based beverages) prior to the "grounds drawer" setting, meaning after 20 servings (grounds) are expelled. Once the 30th serving is reached, coffee beverage dispensing will be blocked.
Note: the number of extractions associated with each selection are counted as grounds. Furthermore, each RESET cycle and group washing cycle performed by the machine corresponds to 2 grounds.

4.5 Configuration menu - Piston diameter

To configure the diameter of the piston, move the cursor to the "piston diamet." line using the "+" (**30**) and "-" (**31**) keys.

```
 *CONFIGURATION  -
  n° grounds      020 ▲
■ piston diamet.  002 ▼
  piston IN        NO +
```

Press the "PRG" key (**29**). The following message will appear on the display:

"001" = ø 35mm
"002" = ø 44mm
"003" = ø 50mm

```
 *CONFIGURATION
  n° grounds      020 +
→ piston diamet.  002 -
  piston IN        NO
```

Modify the indication using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm the selection.

Press the "RES" key (**24**) again to switch to another menu.

4.6 Configuration menu - Piston IN

To configure the piston descent in order to keep it at the right temperature during the machine's standby phase, place the cursor on the "piston IN" line, using the "+" (**30**) and "-" (**31**) buttons.

```
 *CONFIGURATION  -
  n° grounds      020 ▲
  piston diamet.  002 ▼
■ piston IN        NO +
```

Press the "PRG" key (**29**). The following message will appear:

```
 *CONFIGURATION
  n° grounds      020 +
  piston diamet.  002 -
→ piston IN        NO
```

Change the **NO/YES** reading using the "+ (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.
Note: The piston descends a few minutes after the last dispensing cycle. The amount of time that passes before the piston descends is set in menu 4.3 "Coffee temperature" at the "interval" entry.

4.7 Configuration menu - Customer programming

When the customer programming menu is enabled, the user can modify several parameters for dispensing keys (for example, grinding size, water dose, milk dose, emulsion, etc.).
To configure Customer Programming, position the cursor on the "customer prog." line, using the "+" (**30**) and "-" (**31**) keys.

```
 *CONFIGURATION  -
■ customer prog. NO ▲
  II milk         NO ▼
  T stop steam  80°C +
```

Press the "PRG" key (**29**). The following message will appear on the display:

Change the **NO/YES** reading using the "+ (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

```
 *CONFIGURATION
→ customer prog. NO +
  II milk         NO -
  T stop steam  80°C
```

4.8   Configuration menu - Milk II (deactiveted)

To configure the second type of milk, position the cursor on the line "Milk II" using the "+" (**30**) and "-" (**31**) keys.

```
  * CONFIGURATION  -
  customer prog.    NO ▲
■ II milk           NO ▼
  T stop steam    80°C +
```

With the Milk 2 function set (YES).
Associating a special key with the "Milk 2" function, the second type of milk can be dispensed solely with the combination: *special key + dispensing key*.
NOTE: if just the dispensing key is pressed, you will get a beverage with "Milk 1" (first type of milk), even if the key in question was programmed to dispense "Milk 2".

Press the "PRG" key (**29**). The following message will appear on the display:

Change the **NO/YES** reading using the "+ (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

```
   * CONFIGURATION
   customer prog.    NO ▲
 → II milk           NO ▼
   T stop steam    80°C
```

Changing the "Milk 2" setting from **YES** to **NO**, all dispensing keys associated with the second type of milk will be automatically set with "Milk 1".

4.9   Configuration menu - Automatic stop steam temperature (Autosteam)
(when provided)

To set the STOP STEAM temperature, use the "+" (**30**) and "-" (**31**) keys to position the cursor on the "STOP STEAM T." line.

```
  * CONFIGURATION  -
  customer prog.    NO ▲
  II milk           NO ▼
■ T stop steam    80°C +
```

Modify the indication using the "+" (**30**) and "-" (**31**) keys, then press the "RES" key (**24**) to confirm the selection.

Options are:

Setting "0":
   • manual steam stop

Setting any number between "40°÷85°C" (104÷185°F):
   • automatic steam stop

Setting "OFF":
   • steam stop disabled

Press the "PRG" key (**29**). The following message will appear on the display:

```
   * CONFIGURATION
   customer prog.    NO ▲
   II milk           NO +
 → T stop vap.     80°C ▼
```

Note: for user instructions, please consult the attached Autosteam Series 3 manual.

4.10   Configuration menu - Payment system (if connected)

To configure a payment system, place the cursor on the "paym. system" line, using the "+" (**30**) and "-" (**31**) keys.

```
  * CONFIGURATION  -
■ paym.system     OFF ▲
  Buzzer          YES ▼
  WASHING OPTIONS     +
```

Possible payment system settings are:

- "**PSCV**": system with card, token, cashier system.

- "**COMP**": system connected to a computer or cashier system.

- "**EXEC**": system with card, token, change.

- "**OFF**": disabled

You can configure the payment system only after inserting the "TECHNICAL" or "BOOKKEEPING" card in the reader, or after you set dipswitch 4 on the display card to ON.
At this point, when you press the PRG (**29**) key, the following message will appear on the display:

```
   * CONFIGURATION
 → paym.system     OFF
   Buzzer          YES ▼
   WASHING OPTIONS     +
```

Change the setting (**PSCV, COMP, EXEC, OFF**) using the "+" (**30**) and "-" (**31**) keys, then press the RES (**24**) key to confirm the data.

Note: For more information about the payment systems, please consult the "BOOKKEEPING" and "COMPUTER INTERFACE" manuals.

4.11   Configuration menu - Buzzer

The machine buzzer can be enabled so that a beep is heard when the keys are pressed. To configure this function, position the cursor on the "buzzer" line, using the "+" (**30**) and "-" (**31**) keys.

```
  * CONFIGURATION  -
  paym.system     OFF ▲
■ Buzzer          YES ▼
  WASHING OPTIONS     +
```

Press the "PRG" key (**29**). The following message will appear on the display:

Change the **NO/YES** reading using the "+ (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

```
   * CONFIGURATION
   paym.system     OFF
 → Buzzer          YES ▼
   WASHING OPTIONS     +
```

4.12   Configuration menu - Washing options

To view the washing option menu, position the cursor on the "washing option" line, using the "+" (**30**) and "-" (**31**) keys.

```
* CONFIGURATION    -
  paym.system    OFF ▲
  Buzzer         YES ▼
■ WASHING OPTIONS    +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* WASHING OPTIONS
■ autom. washing   30
  N° group wash.  001 ▼
  WASH 1              +
```

Washing options - Automatic washing

To configure the automatic wash function, position the cursor on the "autom. washing" line using the "+" (**30**) and "-" (**31**) keys.

```
* WASHING OPTIONS -
■ autom. washing   30 ▲
  N° group wash.  001 ▼
  WASH 1              +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* WASHING OPTIONS
→ autom. washing   30 ▲+
  N° group wash.  001 ▼-
  WASH 1
```

Change the (**OFF/10÷99**) reading using the "+" (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

Depending on the selected setting (**OFF/10÷99**), the automatic wash is changed.

Setting "autom. washing OFF":

- timed automatic wash cycle is disabled;
- when the button (**28**) is pressed, the milk circuit washing cycle is performed.

Setting "autom. washing 10...99":

- the timed automatic wash cycle is activated and the set time interval starts;
- when the button (**28**) is pressed, the milk circuit washing cycle is performed.

The cycle starts automatically. The time interval is set between 10 and 99 minutes. The timer starts at the end of each milk dispensing phase. When the time runs out, the automatic wash cycle begins.

30" before the timer stops, the LEDs on the keys of the cappuccino maker unit start blinking. The messages shown opposite are displayed in alternation.

```
      16 June 2004
  ************************
  AUTOMATIC WASHING
  ************************
```

During this standby phase:
If the coffee dispensing key is pressed, the counter will start again 30" from the end of the dispensing cycle (per use);
If a milk/cappuccino key is pressed, the counter will start again from the set time (10' + 99');
If the key (**28**) is pressed, the automatic washing cycle will be immediately performed.

```
      16 June 2004
  ************************
          28
  ************************
```

Washing options - Group washing number

To configure the group washing number, position the cursor on the "N° group wash." line using the "+" (**30**) and "-" (**31**) keys.

```
* WASHING OPTIONS -
  autom. washing   30 ▲
■ N° group wash.  001 ▼
  WASH 1              +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* WASHING OPTIONS
  autom. washing   30 ▲
→ N° group wash.  001 ▼
  WASH 1
```

Change the (**001, 002, 003**) reading using the "+" (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

The "Nr. Group Wash" function lets you set the number of washing cycles (from 1 to 3, both equal) that the machine must perform when requested. Repeating the wash cycle is useful when you have to remove stubborn grease and limescale deposits detected during coffee dispensing.

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Washing options - Wash 1, 2, 3

To configure washing options, use the "+" (**30**) and "-" (**31**) keys to position the cursor on the 'WASH 1' line.

```
* WASHING OPTIONS -
  autom. washing   30  ▲
  N° group wash.   001 ▼
■ WASH 1              +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* WASH 1
■ time           15:30
  type            long ▼
  coffee stop     YES +
```

Position the cursor on the line to be changed using the "+" (**30**) and "-" (**31**) keys, then press the "PRG" (**29**) key.

Change the value using the "+" (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

Press the "RES" key (**24**) again to switch to another menu.

Repeat the same steps for "WASH 2" and "WASH 3".

The following washing parameters can be modified:
- **hour**: when the wash cycle must be performed.
  "WASH 1" cannot be disabled. It is requested daily at the programmed hour and within 24 hours..
  WASH 2 and 3 can be disabled and set to OFF.
- **type**: indicates type of wash cycle that will be performed. Long wash (milk circuit and coffee circuit), short wash (coffee circuit + automatic wash cycle).
  "WASH 1" only performs the long cycle.
- **coffee stop**: when the function (YES) is set, if the wash cycle does not take place within 60' (30' if short washing) from the moment that the "EXECUTE WASHING GROUP" message appears, the machine is blocked and all selections for coffee are disabled.
- **milk stop**: when the function (YES) is set, if the wash cycle does not take place within 60' (30' if short washing) from the moment that the "EXECUTE WASHING MILK CIRCUIT" message appears, the machine is blocked and all selections for milk are disabled.

NOTE: if the "block coffee" and "block milk" entries are set to NO for the 'WASH 1' cycle, the machine will never be blocked.
Wash cycles that are not carried out are recorded in the WASH 1 LOG, as "failed".

4.13 Configuration Menu – Automatic Dial
(only for machines with remote control interface)

To view the automatic dial menu, position the cursor on the "automatic call" line, using the "+" (**30**) and "-" (**31**) keys, then press the PRG (**29**) key.

```
* CONFIGURATION  -
■ AUTOMATIC CALL   ▲
  DATA IN/OUT      ▼
  MAINTENANCE      +
```

To perform automatic dialing, position the cursor on the "autom. call" line, using the "+" (**30**) and "-" (**31**) buttons.

```
* AUTOMATIC CALL -
■ prog. tel        ▲
  autom Call .  NO ▼
                   +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* PROG. NUMBERS
■ user 1
  user 2           ▼
  user 3           +
```

Position the cursor on the line to be changed using the "+" (**30**) and "-" (**31**) keys, then press the "PRG" (**29**) key. The following message will appear:

```
* PROG. NUMBERS
■ n1 OFF
  n2 OFF           ▼
  n3 OFF           +
```

Pressing the PRG (**29**) button again provides a detailed view, and the following will be displayed:

```
* PROG. NUMBERS
→ n1 OFF           +
  n2 OFF           -
  n3 OFF           ▼
```

Insert the desired numbers using the "+" (**30**) and "-" (**31**) buttons. Press the PRG button to pass to the next number. When the telephone number has been completed, press RES to confirm.

Position the cursor on the line to be changed, using the "+" (**30**) and "-" (**31**) buttons, then press the PRG (**29**) button if you wish to insert additional telephone numbers. Press the RES button if you want to pass on to another name, twice to return to the automatic dial menu.

Note: Telephone numbers can be the same for different people. In this case, you can use the "copy/paste" function (see Chapter 3 "Key menu - general information").

To change the Automatic Call, position the cursor on the "autom. call" line, using the "+" (**30**) and "-" (**31**) buttons.

```
* AUTOMATIC CALL -
  prog. tel        ▲
■ autom Call .  NO ▼
                   +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* AUTOMATIC CALL
  prog. tel        ▲
→ autom Call .  NO ▼
```

Change the indication (**NO/YES**) using the "+" (**30**) and "-" (**31**) keys and then press the "RES" (**24**) key to confirm.

By setting YES in the "Auto. Dial" entry for errors/anomalies/machine messages, the AUTOMATIC DIAL process is activated. When problems arise, it places a call to the phone numbers set in the telephone programming menu to advise them of the anomaly.

Press the "RES" key (**24**) again to switch to another menu.

Note: For more information, please consult the "Remote Control" manual.

4.14 Configuration menu - Data IN/OUT
(only for machines with key reader and PSCV card)

To transfer machine data to the card and vice versa (uploading/downloading data), position the cursor on the "data in/out" line, using the "+" (**30**) and "-" (**31**) keys.

```
* CONFIGURATION    -
  AUTOMATIC CALL   ▲
■ DATA IN/OUT      ▼
  MAINTENANCE      +
```

If the PRG (**29**) key is pressed without first inserting the card, the CARD NOT INSERTED messages appears.

If the card is inserted and the PRG (**29**) key is pressed, the following message appears on the display:

```
  * DATA IN/OUT      -
■ Key        Technician ▲
  data direction    IN ▼
  Tx/Rx             +
```

Position the cursor on the line to be modified, using the "+" (**30**) and "-" (**31**) keys:

- "**key**": indicates the type of card inserted. Data transfer is possible only with the TECHNICAL card. For all other types of card, the message "INVALID KEY" appears.

- "**data direction**" : establishes the direction of data transfer.
- IN, from card to machine
- OUT, from machine to card.

Press the PRG (**29**) key, change the indication (IN/OUT) using the "+" (**30**) and "-" (**31**) keys, then press the RES (**24**) key to confirm the data.

- **Tx/Rx**: pressing the PRG (**29**) key starts the data transfer process, during which time the message "IN PROGRESS" appears, and, during transfer from the card to machine, the PLEASE WAIT message also appears.
  After about 1', the outcome of the transfer appears:
  "OK !": transfer successful
  "KO !": transfer failed

Note: Transfer to/from the card includes all machine data except telephone numbers and "payment system" and "automatic call" parameters.

Press the "RES" key (**24**) again to switch to another menu.

4.15 Configuration Menu – Maintenance

To view the maintenance menu, position the cursor on the "maintenance" line, using the "+" (**30**) and "-" (**31**) buttons.

```
* CONFIGURATION    -
  AUTOMATIC CALL   ▲
  DATA IN/OUT      ▼
■ MAINTENANCE      +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
  * MAINTENANCE
■ N° cycles    40000
  Days         00185 ▼
  Reset          NO  +
```

Settings displayed refer to the number of cycles and the days remaining until the next maintenance phase.
When one of the two numbers reaches zero, the message "MAINTENANCE NEEDED" accompanied by a warning signal appears, and an error message is inserted in the "BREAKDOWN LOG".

To reset factory setting, position the cursor on the "reset" line using the "+" (**30**) and "-" (**31**) buttons and then press the "PRG" key (**29**). Data for "N. Cycles" and "Nr. Days" flash and permit a preview of the chosen configuration.

At this point three choices are available:

• "**YES**": this will reset the number of days and coffee countdown

	N. Cycles	n°days
X3 Compact	40000	185
X3 Prestige	60000	185

• "**OFF**": this deactivates all the controls related to the programmed maintenance, cycles and day counters are reset.

• "**NO**" the day and cycles counters will not be reset.

Modify selection (**YES, OFF, NO**) through selection "+"(**30**) and "-"(**31**) then select "RES" to confirm.
To eliminate the warning message on the display and warning signal, press the RESET button, keeping it pressed for 8 seconds (in this case, the factory setting are NOT restored). If the machine is shut down using the main ON/OFF switch without resetting the maintenance settings, the message accompanied by warning signal reappears when the machine is switched on again.

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4.16   Configuration menu - Softner regeneration

To configure the softner regeneration function, position the cursor on the line "softner reg." Using the "+" (**30**) and "-" (**31**) keys.

```
*CONFIGURATION    -
■ SOFTNER REG.    ▲
  archive reset   NO ▼
  INFO            +
```

Press the "PRG" key (**29**). The following message will appear:

```
* SOFTNER REG.
■ softner  lt   02.0 l ▲
  hardness     07.0 F  +
                       -
                       ▼
```

Position the cursor on the line to be changed using the "+" (**30**) and "-" (**31**) keys, then press the "PRG" (**29**) key.

Change the value using the "+" (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

The following values can be set:
- capacity (liters of resin)
- hardness (expressed in French degrees)

If the hardness parameter indicates a value of "000", the function is disabled.

A warning message appears on the display, advising when resins should be renewed, but the user is responsible for their replacement. After having performed the softner regeneration, press key (**24**) "**RES**" and keep pressed for approximately 8 seconds until the message on the display is eliminated.

Note: Failure to renew the resins does not trigger an error message in the breakdown log, and the machine continues to work normally.

4.17   Configuration menu - Archive Reset

To configure Historical Failures and wash 1 archive, position the cursor on the "archive reset." line, using the "+ (**30**) and "-" (**31**) keys

```
*CONFIGURATION    -
 SOFTNER REG.     ▲
■ archive reset  NO▼
  INFO            +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
*CONFIGURATION
 SOFTNER REG.     ▲
→ archive reset  NO +
  INFO              -
                    ▼
```

Change the **NO/YES** reading using the "+ (**30**) and "-" (**31**) keys, then press "RES" (**24**) to confirm.

4.18 Configuration Menu - Info

The INFO menu includes machine data and settings. To see the settings, use the "+" (**30**) and "-" (**31**) keys to position the cursor on the "INFO" line.

```
*CONFIGURATION    -
 SOFTNER REG.     ▲
 archive reset   NO
■ INFO
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* INFO
■ SERIAL N°
  VERSION         ▼
  SETUP           +
```

Info - Serial number

To view the machine's serial number, position the cursor on the "SERIAL N." line, using the "+" (**30**) and "-" (**31**) buttons.

```
* INFO
■ SERIAL N°
  VERSION         ▼
  SETUP           +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
* SERIAL NUMBER
■ serial n°    523336
                       ▼
                       +
```

Press the "RES" key (**24**) again to switch to another menu.

Info - Version

To display the Memory Versions position the cursor on the "VERSION" line using the "+ (**30**) and "-" (**31**) keys and press the "PRG" (**29**) key.

```
* INFO            -
  SERIAL N°       ▲
■ VERSION         ▼
  SETUP           +
```

Memory versions that can be viewed are:
- Display
- Group 1 / 2
- Service
- telec. interface
- computer interface

```
* VERSION
■ DISPLAY 004.04.C0
  GROUP1  005.04.C0 ▼
  GROUP2            +
```

Press the "RES" key (**24**) again to switch to another menu.

NOTE: If the memory version is not displayed, this means the card in question is not communicating with the display card.

Info - Setup

To view the machine configuration, use the "+" (**30**) and "-" (**31**) keys to position the cursor on the "SETUP" line.

```
* INFO              -
   SERIAL N°        ▲
   VERSION          ▼
■ SETUP             +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
DATI STANDARD
--→   C
--→   Coffee
--→   Menù 1
```

Note: Please refer to the DIP Configuration paragraph to learn how to insert standard data.

Press the "RES" key (**24**) again to switch to another menu.

Info - Dip settings

To view the display card DIP configuration, use the "+" (30) and "-" (31) keys to position the cursor on the "DIP SETTING" line.

```
* INFO              -
■ DIP SETTING       ▲
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
DIP SETTINGS
 ■   ■              ON
           ■   ■    OFF
 1   2   3   4
```

Press the "RES" key (**24**) again to switch to another menu.

4.19 Configuration menu - Services Group (only for Prestige machines)

To configure the utilities unit (stop hot water (**35**) key), use the "+" (**30**) and "-" (**31**) keys to position the cursor on the "configuration." line.

```
* TECHNICAL PROG. H2O -
  KEY MENU           ▲
■ CONFIGURATION      ▼
  WASH 1 ARCHIVE     +
```

Press the "PRG" key (**29**). The following message will appear on the display:

```
*CONFIGURATION H2O -
■ SER. BOILER PRESS. ▲
  customer prog.  NO ▼
  ll milk         NO +
```

Use the "+" (30) and "-" (31) keys to position the cursor on the line to be changed, then press the PRG (29) key.

Use the "+" (30) and "-" (31) keys to change the setting, then press the "RES" (24) key to confirm the data.

The utilities unit configuration menu does not include:
- Special keys
- Coffee temperature
- N. grounds
- Piston diameter
- Piston IN

Press the "RES" key (24) again to switch to another menu.

5   Test menu

To access the test menu, move the cursor to the "test" line using the "+" (**30**) and "-" (**31**) keys.

```
* TECHNICAL PROG.   -
  KEY MENU          ▲
  CONFIGURATION
■ TESTING
```

Press the "PRG" key (**29**) to access the test menu. The following message will appear on the display:

```
* TEST
■ GRINDER SET-UP
  STAR SET-UP       ▼
  MANUAL COMMANDS   +
```

5.1   Test menu - Manual Control Panel

Move the cursor to the "manual" line with the "+" (**30**) and "-" (**31**) keys to access the manuals control panel.

```
* TEST
■ MANUAL COMMANDS
  STAR SET-UP       ▼
  GRINDER SET-UP    +
```

Press the "PRG" key (**29**) key, the following message appears on the display:

```
IN: 0 0 . 1 0 . 0 1 . 1 1 . 0 .00
DV:0 0 0  PS:+ 0 0  PM:0 1 2
Tc:100°C  Tv:027°C  EP:0 0 0
P :1.4     ±→PRG→  EI:RES
```

For detailed information see the Chapter "**Manual Control Panel**".

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5.2   Test menu - Star set-up

To calibrate the star, move the cursor to the "star set-up" line using the "+" (**30**) and "-" (**31**) keys.

```
    * TEST
 MANUAL COMMANDS
 ■ STAR SET-UP        ▼
   GRINDER SET-UP     +
```

Start the star turning motor with the "+" (**30**) and "-" (**31**) keys. Use key "+" (**30**) to turn the star clockwise and key "-" (**31**) to turn it anti-clockwise, consequently varying the value on the display. A movement occurs whenever one of the two keys is pressed.

NOTE: wait until the value on the display becomes stable before operating the star turning motor again.

Press the "PRG" key (**29**). The following message will appear on the display:

```
  * STAR SET-UP
 ■ star set-up    +00
```

Use the above mentioned keys to adjust the star zero until the left-hand sleeve (feeder 1 sleeve) is on a level with the piston (in the center).

Read the value indicated on the display:
- if the value is zero, press the "RES" key (**24**) to confirm;
- If the value set is different than zero, loosen the star potentiometer (see the figure on the following page) and turn it in order to read "±00" on the display (values between -01 and 01 are acceptable). At this point, tighten the potentiometer again and press the "RES" (**24**) button to confirm the data.

Press the "PRG" key (**29**) again. The following message will appear on the display:

```
  * STAR SET-UP
 → star set-up    +00   ↕
                        ↓
```

Press the "RES" key (**24**) again to switch to another menu.

5.3   Test menu - Grinder set-up

To calibrate the grinders, move the cursor to the "grinder set-up" line using the "+" (**30**) and "-" (**31**) keys.

```
    * TEST
 MANUAL COMMANDS   ▔
   STAR SET-UP      ▮
 ■ GRINDER SET-UP
```

The grinder regulating motor is started by means of the "+" (**30**) and "-" (**31**) keys. Use the "-" key (**31**) to grind more finely or the "+" key (**30**) to grind more coarsely, consequently varying the value on the display. A movement occurs whenever one of the two keys is pressed.

NOTE: wait until the value on the display becomes stable before operating the grinder regulating motor again.

Press the "PRG" key (**29**). The following message will appear on the display:

```
  * GRINDER SET-UP
 ■ grinder set-up  ***
```

Use the above mentioned keys to adjust the grinder zero, until the grinders can be heard to rub together.

Read the value indicated on the display:
- if the value is zero, press the "RES" key (**24**) to confirm;
- if the value set is different than zero, loosen the grinder potentiometer (see figure) and turn it in order to read "000" on the display (values between 000 and 002 are acceptable).

Press the "PRG" key (**29**) again. The grinder-batcher motor will start and the following message will appear on the display:

```
  * GRINDER SET-UP
 → grinder set-up 020   ↕
                        ↓
```

Press the "RES" key (**24**) again to switch to another menu.

STAR IN CENTRAL POSITION
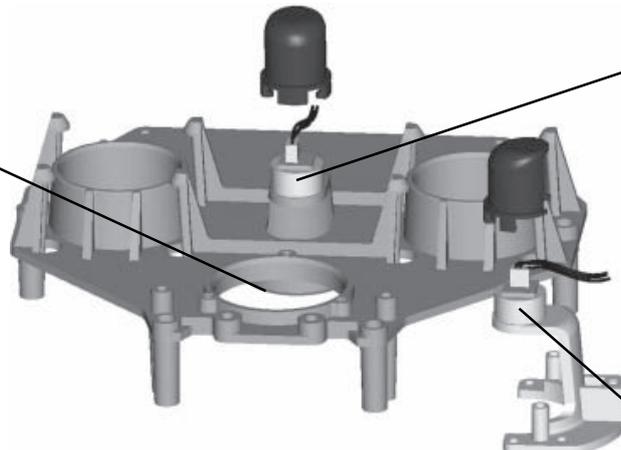
STAR POTENTIOMETER

GRINDER POTENTIOMETER

6. Wash 1 Archive

To access the wash 1 archive menu, position the cursor on the "WASH 1 ARCHIVE" line, using the "+" (**30**) and "-" (**31**) buttons.

```
 * TECHNICAL  PROG.    -
 ■ WASH 1 ARCHIVE      ▲
   MALFUNCT. ARCHIVE   ▯
                       ▼
                       +
```

Press the "PRG" key (**29**) key, the following message appears on the display:

```
 WASH 1 ARCHIVE        -
 ■ Required      00005 ▲
   Performed     00005 ▯
                       ▼
                       +
```

The parameters for the WASH 1 log that can appear on the display are:
- **Requests**: number of wash cycles that have been requested by the machine.
- **Executed**: number of wash cycles that were performed within the timeout time of 60'.

NOTE: If the wash cycles requested occur during the timeout, under the entry "Executed" you will also see a list of the last 10 "failed" wash cycles, with progressive number and date.
The first line refers to the most recent date

```
 WASH 1 ARCHIVE        -
 ■ Required      00005 ▲
   Performed     00004 ▯
   01    15 JUN 2004   +
```

Use the "+" (**30**) and "-" (**31**) keys to scroll through the failed wash cycles, then press the RES (**24**) key to pass to another menu.

7. Malfunctions Archive

To access the malfunctions archive menu, position the cursor on the "malfunct. archive" line, using the "+" (**30**) and "-" (**31**) buttons.

```
 * TECHNICAL  PROG.    -
   WASH 1 ARCHIVE      ▲
 ■ MALFUNCT. ARCHIVE   ▯
                       ▼
                       +
```

Press the "PRG" key (**29**) key, the following message appears on the display:

```
   MALFUNCT. ARCHIVE   -
   01  M093   00352:53 ▲
 ■ 02  1001   00478:55 ▯
   03  M098   00844:10 +
```

The figures after the "failure code" indicate the time elapsed from the last recorded failure in hours and minutes.

Further pressure on the "PRG" (**29**) key gives access to a detailed display and the following messages are displayed:
- day and time of the breakdown
- condition of the machine at the time of the breakdown

```
 *LIST OF FAILURES-
 Monday     12/04/04 ▲
 1001       16:11:21 ▯
 Coffee        - 02  +
```

For detailed information see the chapter entitled **"Diagnostic/ Anomaly-Malfunction Messages"**.

Scroll down the list of faults using the "+" (**30**) and "-" (**31**) keys, Then press the "RES" (**24**) key to go to another menu.

SET-UPS - ADJUSTMENTS

TABLE OF CONTENTS

1. Piston end of stroke

Piston end of top stroke (A)
The piston end of top stroke is a microswitch.
In the event of a fault, unscrew the nut, remove the defective microswitch and replace it.
Wire up between normally open (N.O.) and common contact (C).

Fasten the microswitch in position (top and bottom) using the nuts provided.
Via the programmed access, go to the "Manual Commands" window and select the Piston Motor (PM).
Position the piston manually so that the switch contact is closed and go to the limit of its aperture.
Lower the piston until the click of the switch aperture is heard.
Manually lower the piston (- key). When the piston automatically reaches the bottom of the cylinder, continue to rotate it manually until it locks in position.
At this point, the display must give a reading within the range of 319 to 321 CCP pulses. If not, shift the height of the switch and repeat the operation.
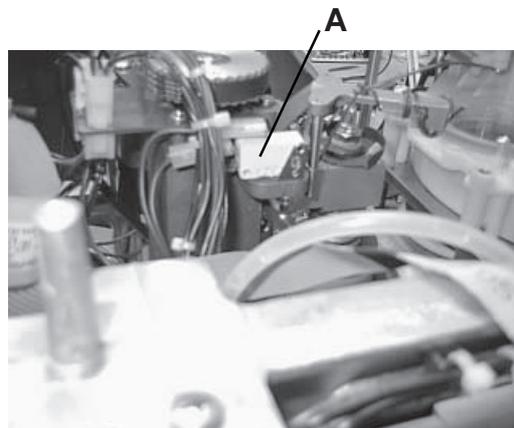
2) Top piston stroke stop (photoswitch B).
The top pistone stroke stop is a photoswitch.
If it malfunctions, disconnect the connector (**C**) , remove the defective photoswitch from its base by unscrewing the screw (**D**), and replace it.

Through the programming screen, go to the Manual Controls screen and select the MP (motor piston) (see manual controls screens).
Manually position the piston to close the photoswitch contact (Mps = 1) and bring it to the point where the photoswitch contact opens. In particular, the piston must descend until the contact opens (Mps = 0).
At this point, manually turn it clockwise and very slowly until Mps = 1 appears on the display.
From this moment, by manually activating the descending piston (key "-"), the Ecp impulse count begins.
Once the piston arrives at the end of the cylinder automatically (motor driven), keep manually turning counter-clockwise until the rotation is completely blocked.
Calibration occurs by adding or removing the "**1**" adjustment spacer: if the number of Ecp impulses for the stroke is **greater than 321**, you must **add** another " " adjustment spacer. If it is **less than 317**, you must **cut** the existing "**1**" adjustment spacer.
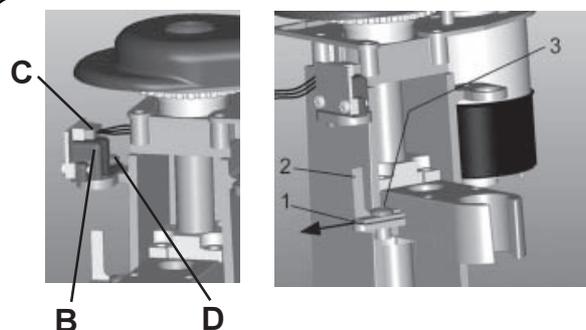
In short:
From 314 to 316: no spacer
From 317 to 321: one spacer
From 322 to 324: two spacers

To remove the "**1**" spacer, loosen the screw "**3**" and remove it in the direction of the arrow, then tighten the screw "**3**" again.

To insert a second spacer "**1**", loosen the screw "**3**", slightly raise the rod "**2**" and insert the spacer (in the direction of the arrow), then tighten the screw "**3**".

⚠️ **Press the (-) key once until the lower limit is reached, otherwise the count will be reset every time it is pressed. Take care to always rotate manually in the same direction. The count will increase whether it is rotated clockwise or anticlockwise, but the measurement value would be incorrect.**

Piston end of bottom stroke (B)
The piston end of bottom stroke is a reed.
It does not need special adjustment.

FAEMA
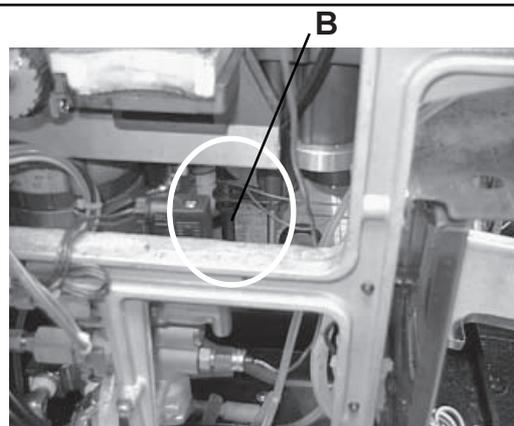
2. Coffee conveyor end of stroke

Left coffee conveyor limit stop (C)
The left (right) coffee conveyor limit stop is a reed.
It does not need special adjustment.
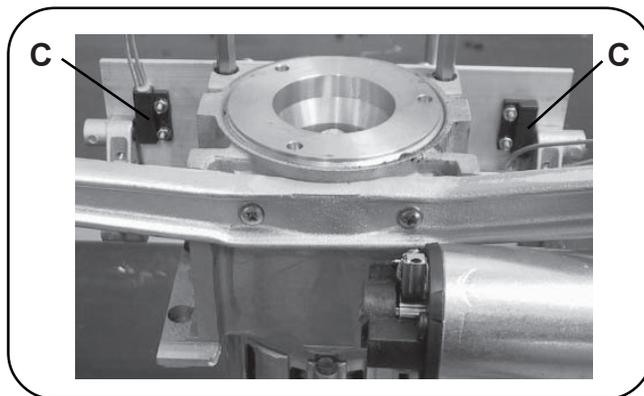
3. Boiler water level probe

The boiler water level probe must be pushed right to the bottom.
It is stopped by the fork of the faston.

Fully tighten the lock nut after adjusting.

4. Machine Adjustments

For a correct adjustment of the drinks, first of all, select the coffee beans doser bush independently of the customer requests and the type of coffee used.
The size of the beans must be considered when selecting the bush.
Larger beans would generally mean greater formation of empty spaces.

The coffee must be checked to determine whether it is dry or oily, since this characteristic could influence the volume of ground coffee in terms of grams.
This characteristic is especially important in selections of 1 or 2 withdrawals.
It is therefore necessary to check that the quantity of coffee ground is within the preparation chamber to ensure that it does not remain in the conveyor.

Adjust the grinding degree so that the drink is prepared in good time.
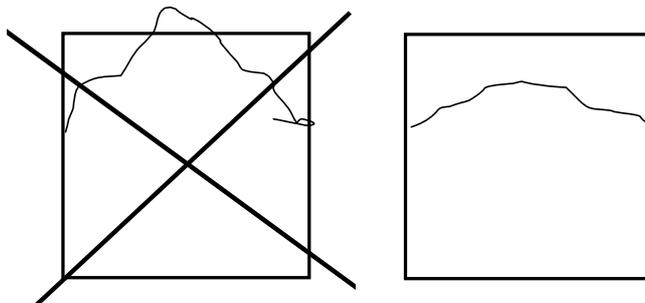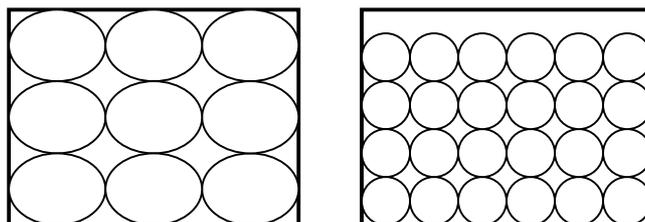
5. Safety Thermostat Reset

MACHINE WITH SAFETY THERMOSTAT
Reset when the thermostat cuts in.

LOCATION OF THE SAFETY THERMOSTAT
Behind the dispensing group, beside the boiler.
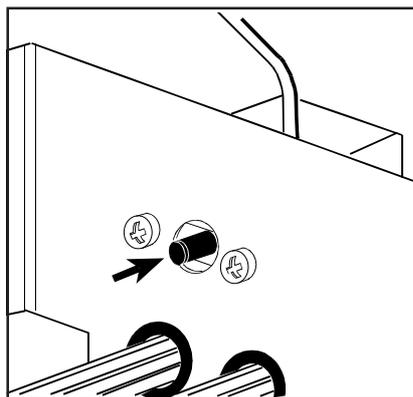
6. Compression Adjustment

1 The parameter "*compression*" is used for the compression and formation of the coffee tablet inside the preparation chamber.
This parameter has the same function as the manual pressing used in traditional machines..

In the still position, the <u>elastic rests on</u> the <u>piston support arm.</u>
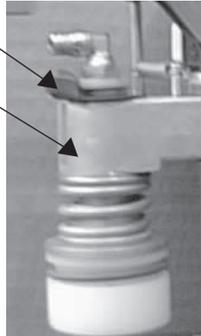
2 During the compression phase (set time), the elastic ring must be 2.5/3 mm from the piston support arm.

2,5 / 3 mm

3 Because of the lack of pump pressure, during the dispensing phase the elastic ring will wet to the mechanical limit stop.
The distance between the elastic ring and the piston support arm is about 4 mm.
This leads to the maximum load of the spring.

circa 4 mm
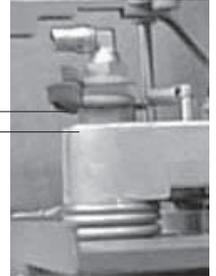
4 When dispensing is completed, and during the drying time, there is no pump pressure and the spring is released on the coffee panel. It is necessary to ensure that the elastic ring does not touch the piston support arm, but remains at a distance of at least 0.3/0.5 mm.
This distance guarantees the compression of the coffee tablet.

min. 0,3 mm
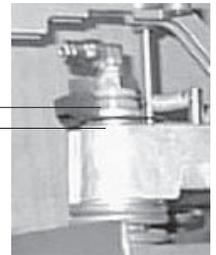
7. Group temperature adjustment (where is present)

The X3 Prestige machines have a temperature regulator (**T**) at the bottom of the coffee group that lets you adjust the temperature.

The temperature regulator (**T**) is connected to a PTC resistance (**P**) and a sensor (**S**), which continuously detects the group temperature. When you turn the selector knob (**1**) you can set the desired temperature.

Note: the temperature is increased by turning the selector knob (**1**) clockwise.
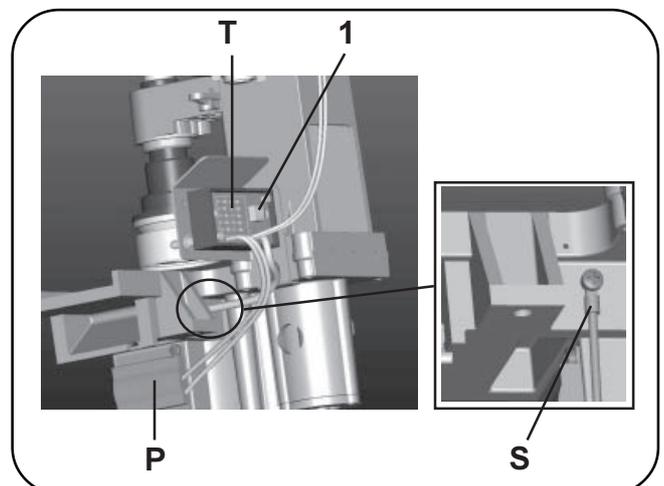
8. Throttle valve adjustment (when provided)

Milk intake tube positioning

**1)**

2) Insert the tube

**2)** Position the cover
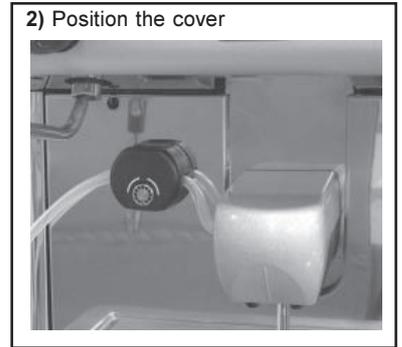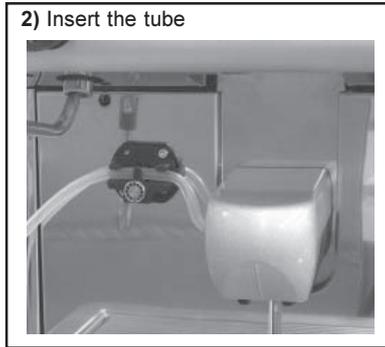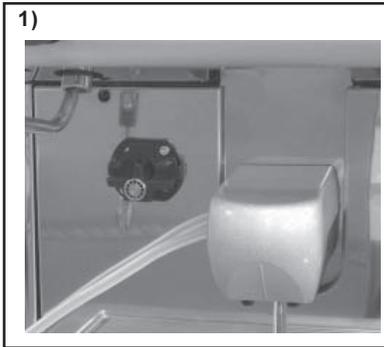
Milk intake tube throttle valve adjustment

1) Press the adjustment pin

2) Keep the pin pressed and turn it one notch at a time*

*
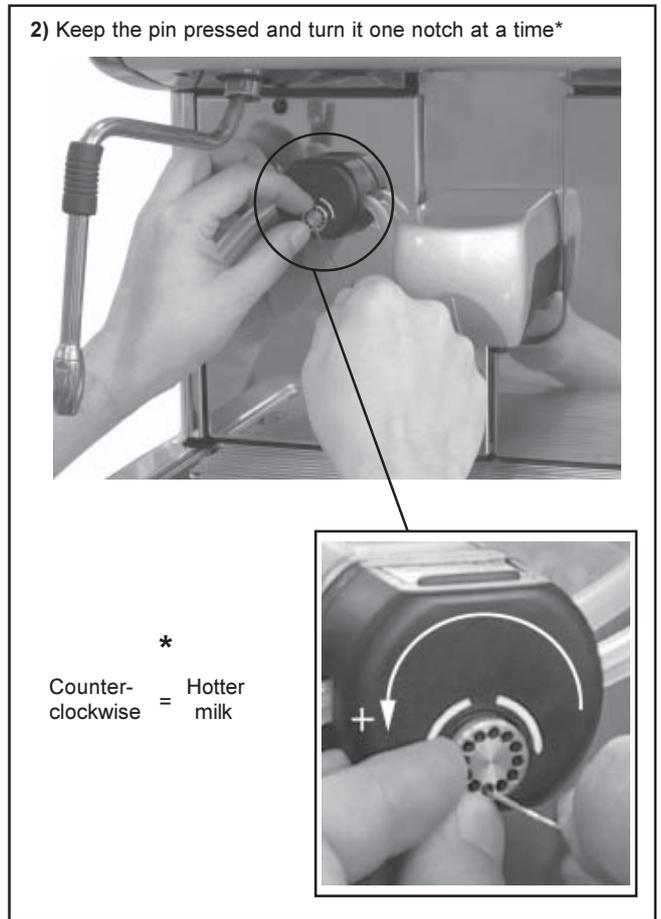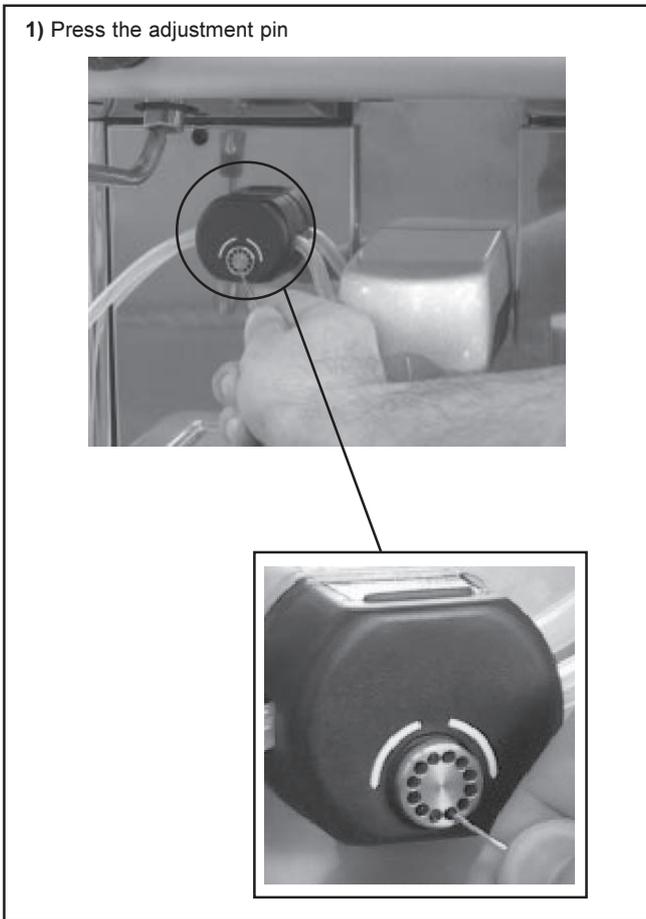
Counter-
clockwise = Hotter
milk

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MANUAL CONTROL PANEL

TABLE OF CONTENTS

1. Manual Control Panel

Move the cursor to the "manual" line with the "+" (**30**) and "-" (**31**) keys to access the manuals control panel.

```
         * TEST
■  manual mov.
   star set-up          ⬇
   grinder set-up        +
```

Press the "PRG" key (**29**) key, the following message appears on the display:

```
IN: 0 0 . 1 0 . 0 1 . 1 1 . 0 .00
DV:0 0 0  PS:+ 0 0  PM:0 1 2
Tc:100°C  Tv:027°C  EP:0 0 0
P :1.4     ±→PRG→  EI:RES
```
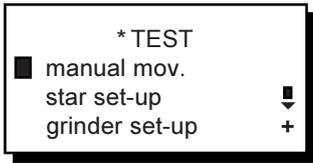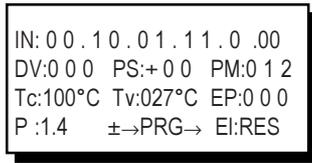
2. Panel M1

		Mps	Rpi		Rcr	Rcm		Rc	Ed		Pr	SL		Smf	
I	N	:	0	0	.	1	0	.	0	1	.	1	1	.	0	.	0	0

```
I N : 0 0 . 1 0 . 0 1 . 1 1 . 0 . 0 0
D V : 0 0 0    P S : 0 0 0    P M : 0 1 2
Tc : 1 0 0 ℃    Tv : 0 2 7 ℃    E P : 0 0 0
P : 1 . 4      ± → P R G → x x x : R E S
```

- Press "+" (**30**) or "-" (**31**) to display the various components;
- Press "PRG" (**29**) to select the component to move and to switch to the next panel M2;
- Press "RES" (**24**) to quit manual mode.

NOTE: in multi-group machines, the first line on the display shows this configuration

Mps Rpi   Rcr Rcm   Rc Ed   Pr SL   Smf   vl1 vl2

```
0 0 . 1 0 . 0 1 . 1 1 . 0 . 0 0  G R 1
```

3. Panel M2

Mps Rpi   Rcr Rcm   Rc Ed   Pr SL   Smf

```
I N : 0 0 . 1 0 . 0 1 . 1 1 . 0 . 0 0
D V : 0 0 0    P S : 0 0 0    P M : 0 1 2
Tc : 1 0 0 ℃    Tv : 0 2 7 ℃    E P : 0 0 0
P : 1 . 4          ± → x x x : 0 0
```

- Press "+" (**30**) or "-" (**31**) to activate the components, if they have a direction, use "+" (**30**) and "-" (**31**) to alternate the activations (+Lh/-Rh or +Up/-Down, +Widen/-Narrow the grinders) and to switch to the next panel M3.
- Press "RES" (**24**) to return to panel M1.

4. Panel M3

Mps Rpi Rcr Rcm Rc Ed Pr SL Smf

```
IN: 00.10.01.11.0.00
DV: 000   PS: 000   PM: 012
Tc: 100℃   Tv: 027℃   EP: 000
P: 000   ±→RES→xxx: 00
```

- Press "+" (**30**) or "-" (**31**) to activate the components as in panel M2.
- Press "RES" (**24**) to return to panel M1.

5. Legend

1. **IN** the status of the inputs is indicated below, using a "1" or "0" as described:

Mps	Micro/Photoswitch Upper Piston,	1=closed (top)
Rpi	Bottom Piston Reed,	1=closed (bottom)
Rcr	Conveyor on hold Reed,	1=closed (left)
Rcm	Conveyor in grinding phase Reed,	1=closed (rigth)
Rc	Ground Tray Reed,	1=closed (in postion)
Ed	Decaffeinated coffee Encoder,	1=closed (in discharge position)
Pr	Pressure switch,	1=closed (low pressure)
SL	Level Probe,	1=level low
Smf	Microphone Board,	1=noise level above limits (grinding)
vl1	Empty Milk 1	1=No milk in container 1
vl2	Empty Milk 2	1=No milk in container 2

2. **DV** Volumetric Dosing device, gives the incremental count reset on access to panel M1

3. **PS** Star Potentiometer, gives the data item in a form similar to that of the calibrated format (0=centered on the left-hand sleeve)

4. **PM** Grinder Potentiometer, gives the data item in a form similar to that of the calibrated format (0=grinders in contact)

5. **Tc** Coffee Boiler Temperature, in explicit form °C (or °F)

6. **EP** Piston Encoder, gives the encoder count in relative mode; whenever the "+" (**30**) or "-" (**31**), key is pressed after the relative piston reset, the count is reset and increased during the stroke, remaining after the pressed key is released and updated if varied again in the hold status.

7. **P** (only for machines with a pressure sensor) Boiler pressure, displayed in "bar" or "psi".

8. **Tv** (only for machines with a AUTOSTEAM steam dispensing system)
Indicates the probe temperature reading (example: **Tv:053°**)
If the T STOP STEAM entry in the configuration menu is set to OFF, the **Tv** entry does not appear in the manual control panel.

9.. **xxx** defines the component that can be accessed for the movement. The symbols used for activation are Z1 and Z2, and the table of symbols used is the following:

a) Binary components (Solenoid valves) 1 = On, 0 = Off: Z1 =1/0, with "1", press "+" (**30**) or "-" (**31**), = on.

El	Cappuccino maker washing solenoid valve
Eac	Hot water solenoid valve
Ear	Air solenoid valve
Em	Milk solenoid valve + Pressure balance solenoid valve
Ep	Unit rod cleaning solenoid valve
Evc	Service boiler filling solenoid valve
G	Coffee dispensing solenoid valve
Mpm	Pump/Grinder motor (with surge activation on start-up)
Eb1/2	Milk stop solenoid valve (only with Milk 2 enabled)
Md	Decaffeinated coffee motor, always moves in one direction
Ets	Steam solenoid valve (Autosteam)

b) Complex components (Motors with rotation direction), where Z1 and Z2 are:
00 = standstill, 01 = pressing "-" (**31**), 10 = pressing "+" (**30**).

Mc	Conveyor motor, "-" move to the Right, "+" to the Left.
Mm	Grinder motor, "-" grinders neared, "+" furthered.
Mp	Piston motor, "-"piston down, "+" up.
Ms	Star motor, "-" move to the Right, "+" to the Left.
MC	Turbosteam compressor motor

Note: the parts that do not exist on the machine are not displayed.

Ets and *MC* are displayed only when you enter the programming menu with the STOP key of the unit equipped with a AUTOSTEAM steam dispensing system.

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CHECK CONTROL MESSAGES

TABLE OF CONTENTS

1. DIP Configuration

MASTER-DISPLAY CARD

ON

| 1 * | 2 | 3 | 4 |

DIP 1   **OFF** (*ON = Standard data)
DIP 2   **OFF**
DIP 3   **OFF**
DIP 4   **OFF**

SERVICES BOARD

ON

| 1 | 2 | 3 | 4 |

DIP 1   **OFF**
DIP 2   **OFF**
DIP 3   **OFF**
DIP 4   **OFF**

UNIT BOARD

ON

| 1 | 2 * | 3 | 4 |

DIP 1   **OFF**
DIP 2   **OFF** (*ON = Group n° 2, Prestige)
DIP 3   **ON**
DIP 4   **OFF**

ON

| 1 | 2 |
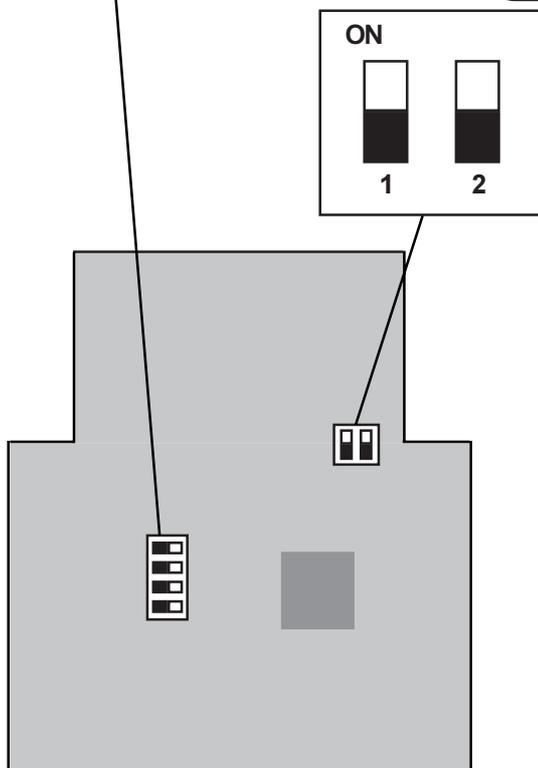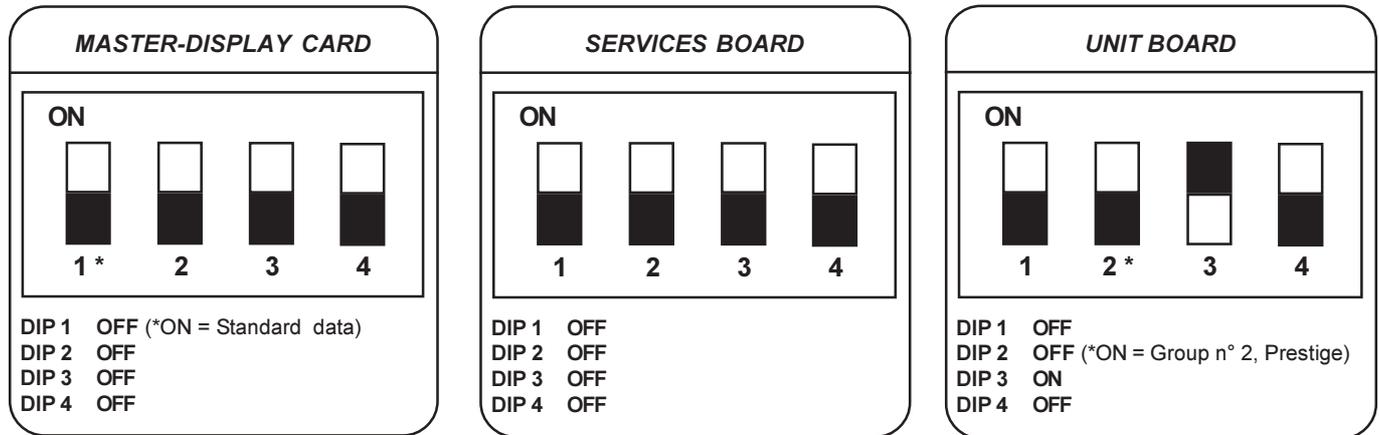
- Dip switch configuration -

Entering Standard Data

Before performing this operation, switch off the machine and position **dipswitch 1** on display screen = **ON**, then switch on the machine.

If the procedure described above is not performed (dip1=ON), this message will appear on the display:

```
*******************
NEW SOFTWARE VERSION
LOAD
STANDARD DATA
*******************
```

When inputting the Standard Data, you are prompted to input data regarding model and type of machine:

- **MODEL:** [C = Compact], [CS],
  [S1A = Prestige 1], [S2A = Prestige 2].

- **TYPE:** [coffee], [coffee - P], [cappuccino], [cappuccino - P],
  [cappuccino - 2P], [coffee - TS], [cappuccino - TS].
  P = pressure sensor
  TS = Autosteam

- **MENU:** different types of drinks (not active).

Using the "+" key (**30**) and the "-" key (**31**), select the parameters, **then press the "PRG" key (29) to confirm the details.**

After this operation, switch off the machine and reset the **dipswitch 1** display screen to **OFF**.
Then:
- Switch on the machine again
- Reset date and time, and reset the desired language, if needed.
- Reset maintenance parameters (see "Configuration menu - Maintenance")
- Zero the error log.

2. Check-control messages

The check-control messages are divided into two groups:

1. Messages in explicit mode: **LACK OF COFFEE**, **LACK OF MILK**, **LACK OF COMMUNIC. SERVICE BOARD**, **LACK OF COMMUNIC. GROUP BOARD**, **REPUSH BUTTON**, **MACHINE COLD.**

They appear on the display as follows

```
┌─────────────────────────────┐
│      16 June 2004            │
│   *******************        │
│   LACK OF COFFEE GR1 L       │
│   *******************        │
└─────────────────────────────┘
```
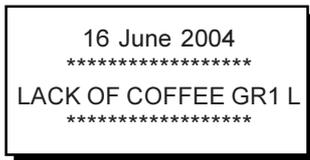
They are cancelled on each new cycle and then appear again if the cause that generated them returns.

Messages for customer

The machine displays any interruptions in communication with services and group cards; the following messages will appear, respectively, on the display:

"NO COMMUNICATION WITH SERVICES CARD"

"NO COMMUNICATION WITH GROUP CARD"

These messages tell the user what type of error has occurred. Their appearance on the display might not interrupt normal functioning because the message can appear for various types of interferences or disturbances, and not only because the power supply to the cards has been interrupted.
At any rate, please contact technical assistance.

2. Messages in code: these appear in the top right-hand corner with the following syntax:

                    Eaxxx
where:
-   **E** indicates an error,
-   **a** gives the code of the unit that detected the error, **M** (Master), **S** (Services), **1** (Unit 1), **2** (Unit 2);
-   **xxx** rappresents the error code of the unit.
When there are several errors, their representation is timed, passing in succession on the display.

To cancel them, press 2nd SELECTION then RES, this latter until all errors disappear.

Errors are divided into two classes: the first is always displayed. The second serves for more detailed diagnostic purposes which can be activated by way of a dip switch (N 1) set to ON on the Slave card (Unit and/or Utilities) or through the dip switch (1 and 2) set to ON on the Master card.

3. Defects - Malfunctions: Description of the Alarms - Unit Board

MALFUNCTIONS CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
E1-001 E2-001	**Piston motor overload** Piston motor cannot continue in its course.	• Movement obstructed. • Upper limit stop disconnected. • Piston cannot enter hole and remains blocked due to incorrect positioning. • Piston blocked at upper limit stop due to abnormal condition.	note **B** • Check connections of the upper limit stop switch using a tester and substitute it when broken. • Check the conveyor is correctly aligned so as to let the piston go through in freely. • Check the piston motor belt is not too much in tension.
E1-002 E2-002	**Piston motor disconnected**	• Wiring harness disconnected. • Motor fault. • No power supply to piston motor. • Transmission belt missing or broken.	note **B** • Check wires are correctly plugged in and there is electrical continuity. • The motor is broken Substitute the motor. • Check there is electrical power to the piston using a tester (it must be 24V CC). • Change the belt and adjust its tension.
E1-003 E2-003	**Encoder signal down** No encoder count detected during last activation of piston motor.	• Encoder disconnected. • Encoder faulty. • Wiring harness disconnected.	note **B** • Check all wires are correctly plugged in and there is electrical continuity. • Substitute the encoder. • The Unit Board is not commanding the encoder. Replace the board.
E1-004 E2-004	**Limit stops signal down.** No variation detected at upper piston limit stop input during last activation of piston motor.	• Upper limit stop faulty. • Limit stop not reached during last phase of the upward stroke due to excessive resistance.	note **B** • Substitute the upper limit stop switch. • Check the control signal reach the Unit board. • The piston cannot move smoothly upward along its stoke. Clean the Archimedean screw (worm screw) • Do not lubrificate the screw and the lower piston. • Re-adjust the lead nut.

3. Defects - Malfunctions: Description of the Alarms - Unit Board

MALFUNCTIONS CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
E1-005 E2-005	**Coffee pod discard for excessive extra dose**	• The bush used is too big. • Excessive coffee drawing.	note **B** • Re-program the number of drawings according to the type of bush used. For machine with piston diameter Ø44 mm: no more than 1 drawing when using the red bush, no more than 2 drawings using the green, the black or the white one (see "Unit capacity" table). • Check the grinding regulation. • Check the encoder board works. Replace the board. • Check the star is correctly aligned. If not, enter in the programming mode and adjust the star positioning. • Adjust the upper piston stroke varying the impulses.
E1-009 E2-009	**Lower piston reed breakdown** Lower limit stops not detected	• Limit stop breakdown • Limit stops not reached during last descent phase due to excessive resistance. • Reed magnet broken • The spring is broken or wear.	note **B** • Check the lower limit stop switch is correctly working. If not, replace it or the magnet. • Check the control signal reaches the Unit Board and the latter is no broken. • Replace the spring.
E1-011 E2-011	**Radial motor overload** Radial motor obstructed and cannot continue its course.	• Coffee grinds obstructing movement. • The belt is too much in tension. .	note **B** • Clean up the star and the plane on which it slips. • This problem has been solved by adopting the Unit protection Kit. • Adjust the belt tension or replace it.
E1-012 E2-012	**Radial motor disconnected**	• Wiring harness disconnected. • No power supply to radial motor. • Motor broken.	note **B** • Check all wires are correctly plugged in and check electrical continuity using a tester. • Check the control signal comes from the Unit board. • Check the motor is powered (24V DC). • Replace the motor when broken.
E1-013 E2-013	**Potentiometer signal down** Potentiometer signal variation not detected and values out of normal range during last activation of radial motor.	• Potentiometer disconnected. • Potentiometer wiring harness disconnected. • Potentiometer faulty.	note **B** • Check potentiometer electrical connections. • Replace the potentiometer when broken.
E1-014 E2-014	**Star positioning failed: did not reach desired position**	• Defective potentiometer	note **B** • Replace the potentiometer.
E1-021 E2-021	**Conveyor motor overload** Mechanical obstruction during activation of conveyor motor.	• Movement obstructed. • Obstruction caused by upper (or lower) piston • Rest and grinding reeds disconnected (motor continues to move at the limit stop until time out)	note **B** • Check there is not any material (coffee grounds or coffee powder) obstructing the conveyor movement. • Check pistons are perfectly aligned with the conveyor. • Check the belt.
E1-022 E2-022	**Conveyor motor disconnected**	• Wiring harness disconnected. • No power supply to conveyor motor. • Transmission belt missing or broken. • Motor faulty.	note **B** • Check electrical connections and the power to the motor (24V DC). • Check belt tension or replace it when wear. • Replace the motor when broken.
E1-023 E2-023	**Conveyor position reed inputs do not match** Reed inputs simultaneously closed.	• Rest reed in short circuit. • Grinding reed in short circuit.	note **B** • Check reeds good functioning using a tester or replace them.
E1-031 E2-031	**Grinding motor overload** Grinding motor obstructed in its course.	• Movement obstructed. • Too much coffee in grinder. • Grinder out of calibration (at contact).	note **B** • Check no physical impediments are present. • Calibrate the grinders.
E1-032 E2-032	**Grinder motor disconnected**	• Wiring harness disconnected. • Belt broken. • Motor faulty. • No power supply to grinder motor.	note **B** • Check electrical connections. • Replace the belt or fasten it to provide the correct tension. • Check the motor is correctly powered (24V DC) or replace it when broken.

3. Defects - Malfunctions: Description of the Alarms - Unit Board

MALFUNCTIONS CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
E1-033 E2-033	**Potentiometer signal down** Potentiometer signal variation not detected or values out of normal range during last activation of grinder motor.	• Potentiometer disconnected. • Potentiometer wiring harness short circuit. • Potentiometer faulty. • Wiring harness disconnected.	note **B** • Check all wires are correctly plugged in and there is electrical continuity using a tester. • Replace the potentiometer if broken.
E1-034 E2-034	**Grinder positioning failed: did not reach desired position**	• Defective potentiometer	note **B** • Replace the potentiometer.
E1-041 E2-041	**Decaffeinated motor blocked**		
E1-042 E2-042	**Decaffeinated motor disconnected**		
E1-043 E2-043	**Decaffeinated reed faulty**		
E1-051 E2-051	**Boiler temperature out of range**	• Thermocuple disconnected • Group card out of calibration • Group card failure	note **A/C** • Check the thermocouple is correctly plugged in and it is transmitting the signal to the board (use a tester to verify the electrical continuity). • Replace the thermocouple. • Replace the Unit board when it malfunctions.
E1-052 E2-052	**Boiler resistance timeout**	• Thermostat tripped • Resistance failure • Wiring interrupted • TRIAC card failure • TRIAC card connections incorrect	note **C** • Let the machine cooling and then reposition the thermostat pin in the working position. • Check the resistance (boiler heating element) is correctly powered (200÷240V AC). • Check the TRIACS electrical connections and that they are working properly. Substitute the broken TRIAC.
E1-056 E2-056	**Microphone signal out of range**	• Microphone card failure • Group card failure	note **D** • Check the control signal reaches the Unit board. If yes, change the Unit board. If not, change the Microphone board.
E1-066 E2-066	**Irregular dose coffee cycle**	• No water • Flowmeter failure • Water circuit blocked • Wiring interrupted/grounded	note **D** • Check water is supplied from the main line. • Check there are no fitting obstructions or leakage. • Check flowmeter electrical connections. • Clean and replace the lower piston filter, if needed. • Replace the broken flowmeter. • Check the check valve positioned on the valves group is correctly working. • Check the Unit board is receiving and reads the flowmeter signal. • Replace the broken board.
E1-067 E2-067	**Group wash: Irregular dispensing EV dispensing**	• No water • Flowmeter failure • Water circuit blocked • Wiring interrupted/grounded	note **D** • See code 066. • Check the G solenoid valve is working. • Replace the valve when broken.
E1-068 E2-068	**Group washing: Irregular dispensing EV rod wash**	• No water • Flowmeter failure • Water circuit blocked • Wiring interrupted/grounded	note **D** • See code 066. • Check the Ep solenoid valve is working. • Replace the valve when broken.
E1-148 E2-148	**Communication with ADC failed**	• Power supply failure	note **C** • Check and change voltage and transformer output. • Replace group card.

3. Defects - Malfunctions: Description of the Alarms - Services Board

MALFUNCTIONS CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
ES-001	Service boiler: Refill timeout	• No water • Refill EV failure • Probe grounded • Wiring interrupted • Services card failure	note **B** • Check water is supplied from the mains. • Check there are no fitting obstructions or leakage. • Check Evc solenoid valve and the level probe electrical connections. • Replace the Evc or the level probe. • Check the level probe is sending a signal to the Service board and the latter is reading the signal. • Replace the board when damaged.
ES-051	Pressure sensor signal out of range	• Sensor failure • Services card failure	note **A/C** • Check electrical connections. • Replace sensor. • Replace service board.
ES-052	Timeout Resistance Services	• Thermostat tripped • Resistance failure • Wiring interrupted • TRIAC card failure • TRIAC card connections incorrect	note **C** • Let the machine cooling and then reposition the thermostat pin in the working position. • Check the resistance (boiler heating element) is correctly powered (200-240V AC). • Check the TRIACS electrical connections and that they are working properly. Substitute the broken TRIAC
ES-053	Steam thermocouple signal out of range	• Thermocuple disconnected • Utilities card setting wrong • Malfunctioning utilities card • Wrong configuration during standard data insertion	note **A/C** • Enter in the programming mode and insert the correct standard data.. • Check connections. • Replace steam probe. • Replace service board.
ES-054	Pressure sensor indicator	• Wrong configuration during standard data insertion	• Enter in the programming mode and insert the correct standard data.
ES-148	Communication with ADC failed	• Power supply failure	note **C** • Check and change voltage and transformer output. • Replace group card.

3. Defects - Malfunctions: Description of events highlighted by Master card

MALFUNCTIONS CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
EM-096	Maintenance needed	• Machine maintenance deadline expired.	• The machine is displaying a message to advice the user that maintenance is needed. Carry out maintenance operations.
EM-097	No automatic dial	• See "Remote Control" manual. This code message refers to the Tele-control system. The message is displayed when the machine has a problem and using the modem tries to call the controlling PC. The message is displayed when the machine has failed for the fourth time in calling out the controlling PC. After the first call, the machine will try to call again for three times respectively after 5, 15 and 30 minutes. That means that after 50 min. since the first call the message will be displayed.	• Verify the connection is OK and try again to connect the machine with the controlling PC. If the connection failures again, contact the Technical Dept.
EM-098	Historical malfunctions and wash 1 reset	• Breakdown log initialization.	note **D**
EM-190	Restore data for Utility card reset		note **D**
EM-191	Restore data for Left group card reset		note **D**
EM-192	Restore data for Right group (only multigroup) card reset		note **D**

- Note **A**: auto-resetting errors

- Note **B**: errors that can corrected by the operator (repeat selection)

- Note **C**: errors that can be corrected through the OFF/ON procedure, performed by the operator

- Note **D**: errors that are only saved in the log.

In all cases, the error log remains unchanged, saving all error messages that have occurred.

NOTES:

- COLD MACHINE
  The pressure sensor is activated for the first time after the machine is switched on. A check of the state of the pressure sensor is not made during normal operations.

- NO COFFEE (LeftX/Right)
  The piston has reached the bottom of the cylinder and has not revealed the presence of any coffee.

ADDITIONAL RECOVERY PROCEDURE (Class B Errors/Group 1)

Class B errors concern the functioning of parts such as the piston, star, conveyor and grinders.
The operator must intervene to attempt to solve the problem without having to call the technician.

During the dispensing phase, any Class B error makes the "REPEAT SELECTION" appear on the display.
When the operator presses the same dispensing button, the machine performs a RESET cycle which, if successful, will allow the machine to carry out the cycle as requested.
If the RESET cycle does not solve the problem, the error code will appear on the display.

MALFUNCTIONS CODE	PRINCIPAL CAUSES	OTHER POSSIBLE CAUSES	VERIFICATIONS
Display off	- Neon lights on TRIAC card of	No power supply to machine	Check power supply to machine
Display off	- Power supply card led off, neon lights on TRIAC card on	F6 fuse on power supply card out	Check power supply card
Display off	- 2 neon lights on TRIAC card lit and 2 off	F4-F5 fuses out - no L1 phase	Check voltage on RG connector
Display on Outputs not functioning	24V on Y1-Y2 faston SM card	TR transformer - out	

Unit capacity

Stroke 100					
Piston Diameter (mm)	Bush	Max capacity (g)	1 Dose	2 Doses	3 Doses
35	White Black Green Red	11	✔ ✔ ✔ ✔	- - - -	- - - -
44	White Black Green Red	16	✔ ✔ ✔ ✔	✔ ✔ ✔ -	- - - -
50	White Black Green Red	21	✔ ✔ ✔ ✔	✔ ✔ ✔ ✔	✔ ✔ - -

3. Defects - Malfunctions: Breakdown Code Table

BREAKDOWN CODE TABLE

MALFUNCTION MESSAGES		DESCRIPTION
- Stand by	- xx	Breakdown with machine in standby
- Group was	- xx	Breakdown during group wash cycle
- Coffee	- xx	Breakdown during coffee cycle
- Cappuccino	- xx	Breakdown during cappuccino cycle
- Capp. Dec	- xx	Breakdown during cappuccino doc. cycle
- Reset	- xx	Breakdown during reset cycle
- Milk		Breakdown during milk cycle
- Water		Breakdown during water cycle
- coffee Dec.		Breakdown during coffee doc. cycle
- Machine off		Error occurred when machine was switched off

CODE (- xx)	PHASE
- 01	Piston in down movement
- 02	Piston in up movement
- 03	Reset: reposition to top position
- 04	Piston moving down to just above conveyor
- 05	Piston moving down for conveyor cleaning
- 06	Down movement for piston heating
- 11	Left coffee bean receptacle movement
- 12	Right coffee bean receptacle movement
- 13	Left grinding collet movement
- 14	Right grinding collet movement
- 15	Reset cycle left grinding collet movement
- 16	Reset cycle right grinding collet movement
- 21	Conveyor movement during grinding
- 22	Conveyor movement at rest