

ABS

Coffee Machines

01-2002

DREAM

***Handbook
for Installation, Use
and Maintenance***

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INTRODUCTION

ABS Coffee Machines thank you for your choice. We are pleased to count you with our customers and we feel confident that you will be satisfied with the use of the **DREAM**. By following the instructions of this handbook very carefully you will not find any difficulty in carrying out any operation on the machine and besides the machine will remain in perfect working order for a long time.

The **DREAM** has been designed and manufactured according to the highest quality standards and results in conformity with EC communitary directions number 73/23/CEE - 89/336/CEE - 92/31/CEE and 93/68/CEE, including the latest modifications, and with the national legislation on inter-pretation. The following (parts/articles of) standards have been applied:

CEI EN 60335-2-63	CEI EN 6100-4-11	CEI EN 60335-1 1° ED
CEI EN 61000-4-2	CEI EN 6100-4-4	CEI EN 61000-4-5

This manual includes all the necessary information and instructions on the proper use and maintenance of the machine, as well as more complex technical instructions which are to be carried out by qualified personnel. We recommend keeping this handbook near the machine for reference. For additional information and/or technical explanations please call your authorized dealer or contact the technical service of ABS Coffee Machines on the following numbers:

Tel.: (39)-341-982016

Fax: (39)-341-981478

Please mention in your correspondance always the identity code of the machine, stated on the data plate on the machine rear side, and the softwarecode of the Eprom memory installed on the electronic board.

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SAFETY PRECAUTIONS

For your own safety and the safety of the machine, when using the machine, always take the following precautions:

- Carefully read all the instructions of this handbook and keep it within reach for reference.
- Use the machine only for the purposes it has been manufactured, as stated in this handbook for use and maintenance
- Install the machine properly by following step by step the instructions for installation (see Chapter 1 - Installation of the machine).
- Switch the machine off and take the plug out of the socket before cleaning or mending the machine. Do not unplug the machine by pulling the cable, this may cause serious accidents.
- Mend or replace immediately all cables and/or electric wires which are ravelled or otherwise damaged. Don't use cables which have any visible damage such as cracks or abrasions along its length or near the plug.
- Do not use the machine in water, in very humid or dusty locations, in the presence of magnetic fields or near electric machines which generate disturbances. This might cause bad functioning of the electronic control of the machine. Do not use damp products to prevent the mixing components from clogging.
- Do not try to open or force protective plates or panels inside the machine. Call your authorized dealer for technical assistance.
- Do not touch the body of the boiler and avoid contact with the mixing components, the coffee grinder and the electronic boards when the plug is in the socket: this will avoid possible accidents.
- Before moving the machine: empty the mains connection water tank, the draintanks and the drip tray, remove the product canisters and empty the coffee beans container to prevent any water or product leakage from damaging the electric and mechanic parts of the machine.
- Any mending or technical intervention has to be carried out by qualified personnel. ABS Coffee Machines refuses any responsibility for personal damages and/or damages to the machine or other objects, which are, directly or indirectly, due to improper use of the machine, wrong or bad installation, inapt electrical supply, inapt water supply, wrong or poor maintenance, unauthorized tampering or use of non-original parts. In case of failure of the machine ABS Coffee Machines is obliged neither to pay compensation for any economical damages in consequence of its being out of order nor to extend the warranty period.

1. INSTALLATION OF THE MACHINE

1.1 Unpacking of the machine

Open the package by cutting it vertically along its sides and remove the carton protection sheets. Lift up the front door and take the keys from the drip tray. Open the front door.

1.2 Disposal of the machine

The machine is suitable for indoor usage, not directly in contact with atmospheric agents, at a temperature between 10°C e 30°C with max. 60% relative humidity. Higher temperatures and higher humidity values might cause malfunctions of the machine, due to the susceptibility of instant products to high temperatures and humidity. In such conditions the parts which are directly in contact with the products have to be cleaned at least once a day.

Remove the four screws which fix the machine on the pallet. Take the adjustable feet from the waste container and screw them under the base of the machine into the appropriate holes. Install the machine on its final position, paying attention to leaving a space of at least 10 centimeters between the rear part of the machine and the wall to assure a proper air circulation. Level the machine by adjusting the feet until it is perfectly horizontal.

1.3 Connection to the water mains

Before connecting the machine to the water mains verify the quality of the drinking-water and check the pressure of the water supply: this pressure should be between 0.7 and 3 bar.

To connect the machine to the water mains execute the following:

Install an emergency tap between the machine and the water mains. This device will make operations of maintenance easier. Connect a high resistance plastic or copper pipe to the tap and insert a pressure reducing valve for security. The inlet pipe has to be homologated for food use and resistant to pressures up to 20 bar. Connect the inlet pipe to the

3/4" male bushing on the rear panel of the machine. Verify the absence of impurities in the drinking-water and check the hardness of the water. Water with a high degree of hardness (20° FF or more) might cause a fast deterioration of the machine. The water-hardness can be reduced by using common filters and softeners. At request a water filter can be mounted in the base unit of the machine. This filter reduces the formation of limestone, extends the life of the components which are in direct contact with the water and therefore reduces the number of technical interventions.

1.4 Connection to the power supply

Check the proper earthing of the electric system to which the machine will be connected and ensure that the system is made according to the national and international safety regulations. We recommend testing the electric values during the highest and lowest charge of the system, before installing the machine permanently, to avoid irregular functioning of the electric and electronic components.

Ensure that the power supply corresponds to the indications on the data plate on the machine rear side and connect the machine to a current-tap at 230V (115V), 50Hz (60Hz), with a maximum charge of 15A. Should the electric system supply different voltages a transformer of 1.5 KWA will have to be installed, to avoid serious damages to the machine. Switching the machine on, it will first carry out a diagnostical check-up of the spouts carriage to verify its proper functioning. At the end of this check-up a message referring to the state of the machine will appear.

1.5 Loading of the boiler

The loading of the boiler is necessary to avoid overheating of the boiler-element and to prevent the mixing components from clogging.

To load the boiler correctly execute the following:

Check the presence of the drip tray in its proper place under the dispense spouts. Open the water tap if the machine is connected to the water mains. If

the machine is installed during wintertime, make sure there is no ice in the tubes as this might obstruct the water inlet.

Open the front door using the proper key. The machine will automatically switch off. On the upper left hand side of the machine is located a white plastic button. Pull this button out to switch on the machine. At the inside of the door is located a cup dispenser. On this dispenser you will find two keys which are used for servicing. Key T11 activates the rinsing-cycle of the mixing components. Press this key until water comes out of the dispense spouts.

1.6 Insertion of connector

Switch the machine off and open the front door of the machine by using the proper key. On the rear panel of the machine you will find an electronic board. Remove the product canisters and the cover of the electronic board by unscrewing the four screws. To avoid a wrong loading of the boiler, during manufacturing connector J9 (Lyo version = J10) hasn't been inserted in the electronic board. Only after having made sure that the boiler is full of water, insert connector J9/J10 in position J9/J10 down on left on the electronic board.

1.7 Cleaning and disinfection

Prepare in a vessel a disinfective solution by following the instructions on the package. Switch the machine on and open the front door. The machine will automatically switch off. Pull the door security switch on the upper left hand side of the machine towards you to activate the service keys on the cup dispenser inside the front door. Take away the product canisters and the powder funnels from the machine and leave them to soak for about 60 minutes in the disinfective solution. Add some drops of the solution in the mixing components and carry out the rinsing-cycle of these components by pressing Key 10. When the disinfection is finished, rinse all the objects involved abundantly in order to take away every residual of the solution and carefully dry them before reinstalling them in the

machine.

1.8 Loading of the products

Remove the powder canisters from the machine by lifting them and pulling them towards you. Open the lids and fill each canister with the indicated product. Do not fill the canisters with greater quantities than the ones suggested (see Chapter 6. Technical Data) and make sure there are no clots of powder which may obstruct the product exit. Close the lids and replace each canister in its proper place inside the machine.

1.9 Loading of the cup dispenser

Open the front door by using the proper key. The cup dispenser is inside the door. Let the cup dispenser down by pulling the cover towards you. On the bottom of the front side of the cup dispenser, under the down let cover, there is a button which makes the grey aluminium column rotate. Set the open side of the column in front of you by pressing this button. Fill this central column with the cups. Move the two side cup chutes towards the outside and fill them with cups. Keep attention not to let the cups go over the entrance of the grey column. Close the cover.

The capacity of the dispenser is of 300 cups standard size.

When the dispenser is empty the message NOT ENABLED CUP will appear on display.

1.10 Loading of the spoons

The spoons dispenser is on the right side inside the front door and can be filled with spoons of different sizes.

The capacity of the dispenser is of about 300 spoons.

Take away the two weights from the dispenser. Insert the spoons from the top keeping attention that they enter straight in order to prevent them from getting stuck. Put the two weights on the

pallets again.

1.11 Additional instructions

The machine is equipped with a sophisticated electronic system which enables the interactive programming of most of the different functions according to the preferences of the user. During manufacturing the machine has been programmed according to standard data. It is therefore necessary to test each beverage (see paragraph 3.6) to verify if the programmed settings correspond to the desired quality of the beverage. To change the settings of the beverages follow the instructions described in paragraph 3.3.

If you wish to change the temperature of the beverages follow the instructions described in paragraph 3.4.

DREAM Espresso: if you wish to change the coffee grinding press the blocking lever (1) of the grinder and turn the ring (2) clockwise for a finer setting and anti-clockwise for a coarser setting. Screw/unscrew the screw of the coffee dosing mechanism (A) to increase/decrease the coffee quantity. The coffee puck has to be solid and dry.

Machines with coin mechanism: to change the price of the beverage follow the instructions described in paragraph 3.17; to disable the coin mechanism choose FREE BEVERAGES YES in menu 9. Machine Configuration (see paragraph 3.9).

2. OPERATIONS

Switch the machine on by inserting the plug into the socket. The machine will first carry out a diagnostical check-up of the spouts carriage to verify its proper functioning. At the end of this check-up the message READY will appear.

- Press the selection key of the desired beverage.
- The price of the selected beverage appears on the display.
- Insert coins until the price of the beverage is reached.

- Press the SUGAR selection to set the desired quantity of sugar.
- Press again the selection key of the desired beverage.
- Wait until the machine has finished the dispensing of the beverage.
- At the end of the cyclus a sound advices that the delivery is ended. Remove the cup from the drip tray cover. The machine is ready for another selection when on display the message READY appears.

3. PROGRAMMING

The programme of the machine **DREAM** is located in the EPROM memory, installed on the electronic board inside the front door of the machine. The EPROM memory can be recognized by a white sticker which shows the inserted software version. Whenever a more recent version is available, the programme of the machine can be updated at any moment by simply replacing the EPROM memory.

The programming of the machine is organized according to the tree-logic, which provides a series of menus, each of which in turn provides a sub-menu consisting of a group of functions. The various menus and their order of appearance are listed in the following table.

1. Total Counters	11. Technician
2. Partial Counters	12. Message Editing
3. Beverages Calibration	13. Product Reload
4. Temperature Calibration	14. Product Quantity
5. Rinsing	15. -----
6. Beverages Trial	16. Coin Values
7. Code	17. Beverages Prices
8. Test	18. Corrections
9. Machine Configuration	19. Data Unloading (not active)
10. Reset	20. Clock (not active)

Using the selection keys

The **DREAM** can be programmed by using the selection keys on the front panel of the machine. After having entered the programming mode, the various functions can be set by using selection keys **1 - 2 - 3** and **5** in the following way:

N° Key	2nd Function	Description of the function in the programming mode
1	+	This selection key is used to skim through the main menu in ascending order: 1 – Total Counters. 2 – Partial Counters etc. In the sub-menu this key is used to increase the indicated quantity or value.
2	out	This selection key is used to exit the submenu and return directly to the main menu. <u>Attention</u> : by pressing the OUT – key modifications of the settings are not memorized. To memorize the settings press the OK-key.
3	–	This selection key is used to skim through the main menu in descending order: 2 – Partial Counters; 1 – Total Counters etc. In the sub-menu this key is used to decrease the indicated quantity or value.
5	ok	This selection key is used to enter the desired menu. After having selected a menu on display, by pressing the OK-key the various functions of the submenu will appear. To move on from one function to the next press OK. To memorize modifications of the settings press OK until on display the next menu appears.

Using the internal keys

On the cup dispenser located at the inside of the front door you will find two keys. Under normal working conditions, that is to say when on display the message READY is shown, these keys are used

- Key T11: to activate the rinsing-cycle of the mixing components and (with a longer pressure) to activate the rotation of the coffee group (DREAM Espresso).
- Key T12: to test all beverages and (with a pressure of 5/6” until on the display an asterisk appears) to activate the programming mode.

How to enter the programming mode

- Open the front door by using the appropriate key; the machine will automatically switch off. A protruding white plastic key is located on the upper left hand side of the machine. Pull this key out to switch on the machine and press contemporarily internal key T12 for a few seconds.

- A short sound is heard. Release the internal key T12. The first menu of the programme will now appear.
- To SKIM through the menu press key 1 (+) or 3 (-).
- To ENTER the desired function, after having selected it on display, press key 5 (OK).
- To INCREASE or DECREASE any value press key 1 (+) or 3 (-).
- To EXIT a submenu press key 2 (OUT).

Attention: some menus do not allow to leave the function by pressing key 2 (OUT). In this case it is necessary to go until the end of the program to menu PREVIOUS MENU. Then press key 5 (OK).

To exit a submenu memorizing the settings press key 5 (OK) until the next menu appears on display.

- To quickly RESET any value press key T12.

Fig. 1 - External Keys

espresso	1 +	coffee + milk	6
coffee	2 OUT	chocolate	7
white espresso	3 -	tea	8
cappuccino	4	no cup	9
cappuccino + chocolate	5 OK	sugar selection	10

Fig. 2 - Internal Keys

keys to enter the programm ◇

Key T12	Key T11
over	under

3.1 Total Counters

This function displays all the total calculations which have taken place since the machine has been in operation. These values cannot be changed.

Total Counters	Display 1st line	Display 2nd line	Function Description
	Delivery	N°	Display of the total count for all beverages
	Receipts	N°	Display of the total receipts
	Credit	N°	Display of the total credits
	Beverages	N°	Display of the total number of beverage trials done on the machine
	Key 1../ 10	N°	Display of the total deliveries of each beverage associated with the specified key

3.2 Partial Counters

This function displays the partial calculations which have taken place since the last RESET. These values can be reset whenever necessary. To reset the values skim through the numbers until at the end the message RESET NO appears. Press key 1 (+) or 3 (-) to select RESET YES and press key 5 (OK) to confirm.

Partial Counters	Display 1st line	Display 2nd line	Function Description
	Delivery	N°	Display of the total count for all beverages
	Receipts	N°	Display of the total receipts
	Credit	N°	Display of the total credits
	Key 1../ 10	N°	Display of the total deliveries of each beverage associated with the specified key
	Reset	YES / NO	Resets, if required, the partial count for all beverages

3.3 Beverages Calibration

The function Beverages Calibration is used to set up the quantities of each product (coffee, milk etc.), the water quantity and the time delay between the distribution of the water and the distribution of the soluble. During manufacturing the machine has been programmed according to standard data. You will find an example in the following table. Variation

in the quantities can be necessary because not all products are alike. Different markets do not always carry the same products and thus not all products are readily available. Variation in the product quantities is also a means by which one can prepare each beverage to satisfy the particular taste of his customers. We recommend testing each beverage after having changed the settings, to verify the quality of the beverage.

DREAM ESPRESSO

Beverages Calibration	Version 4E V0		Version 4E V1		Version 4E V2	
	Espresso		Espresso		Espresso	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	H2O Add	000	H2O Add	000	H2O Add	000
	Coffee		Coffee		Coffee	
	H2O Coffee	045	H2O Coffee	045	H2O Coffee	045
	H2O Add	000	H2O Add	000	H2O Add	000
	Coffee + Milk		Coffee + Milk		Coffee + Milk	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	H2O Milk	020	H2O Milk	020	H2O Milk	020
	Powdered Milk	015	Powdered Milk	015	Powdered Milk	015
	Delay Milk	000	Delay Milk	000	Delay Milk	000
	Cappuccino		Cappuccino		Cappuccino	
	H2O Coffee	045	H2O Coffee	045	H2O Coffee	045
	H2O Milk	035	H2O Milk	035	H2O Milk	035
	Powdered Milk	025	Powdered Milk	025	Powdered Milk	025
	Capp-Choc		Capp-Choc		Capp-Choc	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	H2O Milk	010	H2O Milk	010	H2O Milk	010
	Powdered Milk	015	Powdered Milk	015	Powdered Milk	015
	H2O Chocolate	025	H2O Chocolate	025	H2O Chocolate	025
	Powder Chocolate	015	Powder Chocolate	015	Powder Chocolate	015
	Capp-Choc 1		Capp-Choc 1		Capp-Choc 1	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	H2O Milk	040	H2O Milk	040	H2O Milk	040
	Powdered Milk	025	Powdered Milk	025	Powdered Milk	025
	H2O Chocolate	000	H2O Chocolate	000	H2O Chocolate	000
	Powder Chocolate	000	Powder Chocolate	000	Powder Chocolate	000
	Chocolate		Chocolate		Chocolate	
	H2O Chocolate	050	H2O Chocolate	050	H2O Chocolate	050
	Powder Chocolate	040	Powder Chocolate	040	Powder Chocolate	040

Beverages Calibration	Version 4E V0		Version 4E V1		Version 4E V2	
	Delay Chocolate	000	Delay Chocolate	000	Delay Chocolate	000
	H2O Milk	000	H2O Milk	000	H2O Milk	000
	Powdered Milk	000	Powdered Milk	000	Powdered Milk	000
	Tea		Decaffeinated Coffee		Tea	
	H2O Tea	050	H2O Decaf. Coffee	050	H2O Tea	050
	Powdered Tea	040	Powd. Decaf. Coff.	017	Powdered Tea	040
	Delay Tea	000	Delay Decaf. Coff.	000	Delay Tea	000
	Sugar		H2O L Dec. Coff.	070	H2O Milk	000
	Delay Sugar	010	H2O M Dec. Coff.	060	Powdered Milk	000
	Little Qt. Powder	010	M. Powd. Dec. Coff	017	Tea	
	Med. Qt. Powder	015	H2O S. Dec. Coff.	045	H2O Tea	050
	Big Qt. Powder	020	S. Powd. Dec. Coff.	015	Powdered Tea	040
	Previous Menu		Sugar		Delay Tea	000
			Delay Sugar	010	H2O Milk	000
			Little Qt. Powder	010	Powdered Milk	000
			Med. Qt. Powder	015	Sugar	
			Big Qt. Powder	020	Delay Sugar	010
			Previous Menu		Little Qt. Powder	010
					Med. Qt. Powder	015
					Big Qt. Powder	020
					Previous Menu	

DREAM LYO

Beverages Calibration	Version 4L V0		Version 4L V1		Version 4L V2	
	Coffee		Coffee		Coffee	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	Powdered Coffee	015	Powdered Coffee	015	Powdered Coffee	015
	Delay Coffee	000	Delay Coffee	000	Delay Coffee	000
	Long Coffee		Long Coffee		Long Coffee	
	H2O Coffee	045	H2O Coffee	045	H2O Coffee	045
	Powder Coffee	015	Powder Coffee	015	Powder Coffee	015
	Coffee + Milk		Coffee + Milk		Coffee + Milk	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	Powdered Coffee	015	Powdered Coffee	015	Powdered Coffee	015
	H2O Milk	035	H2O Milk	035	H2O Milk	035
	Powdered Milk	015	Powdered Milk	015	Powdered Milk	015

Beverages Calibration	Version 4L V0		Version 4L V1		Version 4L V2	
	Delay Milk	000	Delay Milk	000	Delay Milk	000
	Cappuccino		Cappuccino		Cappuccino	
	H2O Coffee	045	H2O Coffee	045	H2O Coffee	045
	Powdered Coffee	017	Powdered Coffee	017	Powdered Coffee	017
	Delay Coffee	000	Delay Coffee	000	Delay Coffee	000
	H2O Milk	035	H2O Milk	035	H2O Milk	035
	Powdered Milk	020	Powdered Milk	020	Powdered Milk	020
	Capp-Choc.		Capp-Choc.		Capp-Choc.	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	Powdered Coffee	015	Powdered Coffee	015	Powdered Coffee	015
	H2O Milk	015	H2O Milk	015	H2O Milk	015
	Powdered Milk	010	Powdered Milk	010	Powdered Milk	010
	H2O Chocolate	025	H2O Chocolate	025	H2O Chocolate	025
	Powder. Chocolate	015	Powder. Chocolate	015	Powder. Chocolate	015
	Capp-Choc. 1		Capp-Choc. 1		Capp-Choc. 1	
	H2O Coffee	035	H2O Coffee	035	H2O Coffee	035
	Powdered Coffee	015	Powdered Coffee	015	Powdered Coffee	015
	H2O Milk	040	H2O Milk	040	H2O Milk	040
	Powdered Milk	025	Powdered Milk	025	Powdered Milk	025
	H2O Chocolate	000	H2O Chocolate	000	H2O Chocolate	000
	Powder Chocolate	000	Powder Chocolate	000	Powder Chocolate	000
	Chocolate		Tea		Chocolate	
	H2O Chocolate	050	H2O Tea	050	H2O Chocolate	050
	Powder Chocolate	040	Powdered Tea	040	Powder Chocolate	040
	Delay Chocolate	000	Delay Tea	000	Delay Chocolate	000
	H2O Milk	000	H2O Milk	000	H2O Milk	000
	Powdered Milk	000	Powdered Milk	000	Powder Milk	000
	Tea		Cold Soluble 1	000	Delay Milk	000
	H2O Tea	050	H2O Cold 1	070	Tea	
	Powdered Tea	040	Powdered Cold 1	060	H2O Tea	050
	Delay Tea	000	Delay Cold Solub.	017	Powdered Tea	040
	H2O Milk	000	Cold Soluble 2		Delay Tea	000
	Powder Milk	000	H2O Cold 2	045	H2O Milk	000
	Sugar		Powdered Cold 2	015	Powdered Milk	000
	Delay Sugar	000	Delay Cold Solub.	000	Delay Milk	000
	Little Qt. Powder	010	Sugar		Tea 1	
	Med.Qt. Powder	015	Delay Sugar	000	H2O Tea	050
	Big Qt. Powder	020	Little Qt. Powder	010	Powder Tea	040
	Previous Menu		Med.Qt. Powder	015	H2O Milk	000

Beverages Calibration	Version 4L V0		Version 4L V1		Version 4L V2	
			Big Qt. Powder	020	Powder Milk	000
			Previous Menu		Sugar	
					Delay Sugar	000
					Little Qt. Powder	010
					Med.Qt. Powder	015
					Big Qt. Powder	020
					Previous Menu	

One or more parameters make up the beverage. These are divided in three groups: water, powder and the delay between the distribution of the water and the distribution of the powder. The parameter for the water (H2O) indicates the time, in tenths of seconds, during which the solenoid valve and the corresponding mixer distribute the water. For the coffee beverages the H2O parameter is indicated in counting numbers. The parameters for the powdered products indicate the time, in tenths of seconds, during which the powder canister distributes the powder. The time delay between the distribution of the water and the distribution of the powder is used to avoid clogging of the mixing components. Usually it is sufficient to programme a few tenths of a second, for example 005. Each beverage can be disabled by setting the parameters at 000.

The EPROM memory contains various versions of the programme, each with specific functions for every ABS machine. The versions used for the **DREAM ESPRESSO** are **4E V0**, **4E V1** and **4E V2**. Versions for the **DREAM LYO** are **4L V0**, **4L V1** e **4L V2**. The machine version can be set in menu 9. Machine Configuration (see paragraph 3.9).

To enter menu 3. Beverages Calibration press key 5 (OK) after having selected this menu on display. To skim through the list of beverages press key 1 (+) or 3 (-). To display the parameters of a beverage press key 5 (OK). If you wish to change the parameters press key 1 (+) or key 3 (-). Press key 5 (OK) to confirm. To exit menu 3. Beverages Calibration press key 5 (OK) until on display the next menu appears.

3.4 Temperature Calibration

This function is used to programme the temperature of the boiler. The electronic board serves directly the boiler element and sends the tension by impulse to the element until the programmed temperature is reached. During manufacturing the coffee temperature is set at 93 °C and the maximum temperature at 105 °C with a Min. Time Out of 3 minutes. The Min. Time Out function is used to regenerate the temperature leakage inside the coffee group and the components of mixing corps (see

paragraph 3.18 Corrections ◇ MODE by programming 1). We recommend disactivating the Min. Time Out function by setting the parameters of this function at 000 and setting both temperature scales at 94 °C in areas where the quantity of water used for espresso coffee is more than 50 cc. For the Italian, Spanish and Portuguese market we recommend using menu 18. Corrections (see paragraph 3.18).

3.5 Rinsing

The machine is able to perform an automatic rinsing-cycle of the mixing components and the coffee group (DREAM Espresso). In this function a number of deliveries can be set, after which the parts will automatically be washed. The function is disabled if the parameters are set at 000, but can be carried out manually by pressing key T11. We recommend not to use the automatic rinsing-cycle of the coffee group (i.e. set the parameters of the function Coffee N° at 000).

Rinsing	Display 1st line	Display 2nd line	Function Description
	Coffee N°	000	Programming of the number of deliveries for the rinsing-cycle of the coffee group
	Solubles N°	000	Programming of the number of deliveries for the rinsing-cycle of the mixing bodies
	H2O Rinsing	000	Programming of the quantity of water for the rinsing-cycle of the mixing bodies

3.6 Beverages Trial

This function is used to test the beverages. To test a beverage select the function BEVERAGES TRIAL at display and press then key 5 (OK) to activate the function and then press the key of the selection of the beverage you wish to test. To exit this function switch off the machine and switch it on again. The beverages tested in this menu are counted in menu 1. Total Counters under the heading PROVA.

Testing the beverages can also be carried out by pressing key T12: open the front door, press key T12 and then the selection key of the beverage you wish to test. Every test is counted in menu 1. Total Counters under the heading PROVA.

3.7 Code

This function displays the code of the machine. The code has three numbers: the first number indicates the model of the machine, the second number identifies the code which is applied to the client and the third number is a progressive identification number.

3.8 Test

This function is used to test the machine and to trace possible problems. To enter this function, after having selected it on display, press key 5 (OK). Press key 1 (+) to skim through the list of possible tests until the desired test is displayed. Press key 5 (OK) to confirm execution of the test. A description of the tests that can be executed is given here below.

Test	Display	Function Description
	1. Test Output	Display of the status of the digital outputs
	2. Test Input	Display of the status of the digital inputs
	3. Test H2O Count	Display of the functioning of counter
	4. Test Temperatures	Display of the boiler temperature
	5. Test Seriale/Clock	Display of the value of a coin
	6. Test Keyboard	Testing of the functioning of the selection panel
	7. Test Transmission	This function is not activated
	8. Test Testing	Activation of all beverages in sequential mode
	9. Test Reset	Reset of the digital outputs and inputs
	10. Test Prev. Menu	Exit the function

TEST OUTPUT

This test displays the status of the digital output, activating at the same time the corresponding electrical part in the machine. After having selected this test on display press key 5 (OK) to confirm the execution of the test. On display will appear OUT (0.) = -, which means that the corresponding electrical part is stand-by. By pressing key 5 (OK) the - changes into a + while at the same time the electrical part will start operate. To stop the part from functioning press again key 5 (OK), the + changes into a - again and the machine returns to stand-by. A technician should be called in case of malfunctioning of the part. The digital output (OUT) and the description of the corresponding electrical part are listed in the following table.

Out (0.) -/+ = Motor Coffee Group	Out (10.) -/+ = Powdermotor Chocolate
Out (1.) -/+ = Motor Coffee Grinder	Out (11.) -/+ = Pump
Out (2.) -/+ = Cups Release	Out (12.) -/+ = Coil Spoons Release
Out (3.) -/+ = Coil Coffee Release	Out (13.) -/+ = Powdermotor Tea
Out (4.) -/+ = Solenoid Water Line	Out (14.) -/+ = Pump Coffee Group
Out (5.) -/+ = Solenoid Espresso	Out (15.) -/+ = not active
Out (6.) -/+ = Whipper + Solenoid 24	Out (16.) -/+ = not active
Out (7.) -/+ = Solenoid 21 + Milk / Chocolate Whipper	Out (17.) -/+ = not active
Out (8.) -/+ = Delivery Spouts Carriage	Out (23.) -/+ = not active

Out (9.) -/+ = Powdermotor Milk	
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LYO

Out (0.) -/+ = not active	Out (10.) -/+ = Powdermotor Milk
Out (1.) -/+ = not active	Out (11.) -/+ = H2O Pump
Out (2.) -/+ = Cups Release	Out (12.) -/+ = Powdermotor Sugar
Out (3.) -/+ = Coffee Motor + Solenoid 20	Out (13.) -/+ = Powdermotor Coffee
Out (4.) -/+ = Solenoid Water Line	Out (14.) -/+ = Pump H2O
Out (5.) -/+ = Solenoid 21 + Milk / Chocolate Whipper	Out (15.) -/+ = not active
Out (6.) -/+ = Tea Whipper + Solenoid 24	Out (16.) -/+ = not active
Out (7.) -/+ = Powdermotor Tea	Out (17.) -/+ = not active
Out (8.) -/+ = Delivery Spouts Carriage	Out (23.) -/+ = not active
Out (9.) -/+ = Powdermotor Chocolate	

TEST INPUTS

This test displays the status of the digital input. After having selected this test on display press key 5 (OK) to confirm the execution of the test. On display will appear INP. (0.) = -. By pressing the micro or the contact corresponding to the digital input, the - changes into a + and vice versa. The various digital input are listed in the following table.

Inp. (0.) -/+ = 1° Volumetric Meter	Inp. (6.) -/+ = Micro Spouts Rotation
Inp. (1.) -/+ = 1° Micro Coffee Group	Inp. (7.) -/+ = 2° NTC
Inp. (2.) -/+ = 2° Micro Coffee Group	Inp. (8.) -/+ = Micro Coin Mechanism
Inp. (3.) -/+ = 1° Micro H2O Void	Inp. (9.) -/+ = Micro Grinder
Inp. (4.) -/+ = 1° Micro Cup Void	Inp. (10.) -/+ = not active
Inp. (5.) -/+ = not active	Inp. (11.) -/+ = 1° NTC

LYO

Inp. (0.) -/+ = not active	Inp. (7.) -/+ = not active
Inp. (1.) -/+ = not active	Inp. (8.) -/+ = Micro Coin Mechanism
Inp. (2.) -/+ = not active	Inp. (9.) -/+ = not active
Inp. (3.) -/+ = 1° Micro H2O Void	Inp. (10.) -/+ = not active
Inp. (4.) -/+ = 1° Micro Cup Void	Inp. (11.) -/+ = not active
Inp. (5.) -/+ = not active	Inp. (23.) -/+ = not active
Inp. (6.) -/+ = Micro Spouts Rotation	

TEST H2O COUNT (DREAM Espresso)

This test displays the H2O counter function by increasing numbers. By pressing key 5 (OK) the H2O pump will start operate while the numbers shown at display will increase at high speed. If these numbers increase at low speed check the hoses of the H2O pump, the water supply, the functioning of the H2O pump and the functioning of the coffee group solenoid valve.

TEST TEMPERATURES

This test displays the boiler temperature.

TEST COIN MECHANISM/CLOCK

This test displays the value of a coin inserted into the coin acceptor and the related channel. If the value is not correct, or nothing appears on display, it is necessary to check the programming of the coin acceptor (paragraph 3.16), the connection of the cable and the functioning of the coin acceptor.

TEST KEYBOARD

This test enables to control the proper functioning of the selection panel on the front door. To enter this function press key 5 (OK). One by one the segments of the display will now be illuminated. By pressing a selection key on display the number of that selection key is shown. If this number is not correct the machine has to be reset to its initial programmed settings (see TEST RESET).

To leave this menu press key 2 (OUT) for 10 seconds.

TEST TRANSMISSION

This function is not activated.

TEST TESTING

This test activates all the beverages in sequential mode for automatic inspection. Switch off the machine to stop the test.

TEST RESET

This test brings the input and the output back to its original settings.

3.9 Machine Configuration

This function is used to set, activate or disable the following configuration options. Choose the desired setting by pressing key 1 (+) or 3 (-) and press key 5 (OK) to confirm. To exit this function press key 5 (OK) until on display the next function appears.

VERSION

The setting of the version concerns the type of beverage being dispensed according to the preference of the user. The programm provides versions **4E V0**, **4E V1** and **4E V2** for the **DREAM ESPRESSO** and versions **4L**

V0, 4L V1 and 4L V2 for DREAM LYO. See for the parameters of the two versions paragraph 3.3.

LANGUAGE

The messages on display are inserted in the programme in various languages. By pressing key 1 (+) o 3 (-) you can decide in what language the messages will appear on display. Press key 5 (OK) to confirm.

FREE BEVERAGES

Choosing YES the beverage are for free, choosing NO activates the coin mechanism and/or validator.

PRODUCT COUNT

Not activated.

DEPURATOR

Not activated.

H2O TANK

Not activated.

SEQUENCE SOLUBLE / COFFEE

Choosing the sequence Soluble / Coffee the machine will first deliver the soluble and then the coffee when Cappuccino is chosen. The opposite will occur when for Cappuccino the sequence Coffee / Soluble is chosen.

HOLD ON CREDITS (with parallel coin acceptor)

Choosing YES enables the display to show the credit when more money than required is inserted for a beverage. Thus, the credit can be used for the next beverage. Choosing NO the credit is not given but will nevertheless be added up in menu 1. Total Counters under the heading CREDIT.

PRE-GRINDING (DREAM Espresso)

Choosing YES enables the grinding of the coffee before selection of the beverage, if NO is chosen the coffee will be ground immediately after selection.

DELIVERY SPOUTS

Choosing YES enables the advancing of the delivery spouts, if NO is chosen the carriage remains in stand-by.

SINGLE BOILER (DREAM Espresso)

If YES, the machine disposes of one single boiler that serves both the coffee group and the solubles. If NO, the boiler disposes of two boilers, one for the coffee group and one for the solubles.

DOUBLE BOILER (DREAM Lyo)

If YES, the machine disposes of two boilers.

FAST TEMPERATURE CONTROL

Choosing YES the machine will reach the programmed temperature within short time. If NO is chosen the temperature will be controlled in a more economic way.

PROTOCOL

If “0” is programmed, the machine is shaped for a parallel coin acceptor. If “1” is programmed, the machine is shaped for a serial coin acceptor with Executive System.

KEY 6 – H2O

If “0” is programmed, key 6 has the standard function. If “1” is programmed, key 6 controls the free delivery of water by pressure.

3.10 Reset

This function enables you to restore the initial programmed settings of the machine. We suggest you to use the function RESET only if absolutely necessary, to avoid problems with reprogramming once again all the settings. To restore initial configuration select this function on display and press key 5 (OK). RESET? NO will appear. Choose YES by pressing key 1 (+) and press key 5 (OK) to confirm. On display a code will appear, for example 4E V0. By pressing key 1 (+) or key 3 (-) other codes can be displayed: these are the versions to be used for the other ABS models. The versions used for the **DREAM ESPRESSO** are **4E VO**, **4E V1** and **4E V2**. Versions for the **DREAM LYO** are **4L V0**, **4L V1** e **4L V2**. Press again key 5 (OK) to restore the initial settings programmed by the manufacturer.

3.11 Technician

When 10.000 beverages have been served the message TECHNICIAN will appear on display for periodical inspection. It will be in your best interest to call a technician for an inspection of the mechanic and plastic parts, to ensure the continuous and impeccable operation of the machine. We also suggest that the boiler be inspected for calcareous deposit. To reactivate the machine press key 5 (OK) after having displayed this function, choose YES with key 1 (+) and press again key 5 (OK). On display the total number of inspections will now be shown; to exit the function press key 5 (OK).

3.12 Message Editing

This function is used to edit a message on display. The message can use two lines and a maximum of 16 characters per line. To insert a message press key 5 (OK) after having selected this function on display. The program will ask you if you want to use this function (MESSAGE YES/NO). Choose YES with key 1 (+). Using keys 1 (+) and 3 (-) you can skim through the various available characters of the first segment; to move on to the next segment press key 4, to return to the previous segment press key 2. Press key 5 (OK) to confirm the message and to exit the menu.

3.13 Product Reload

Not active.

3.14 Product Quantities

Not active.

3.15 -----

This function is used exclusively by the machine manufacturer.

3.16 Coin Values

This function is used to programme the value of each channel of the coin mechanism. Coin mechanisms of type V00 have already been programmed by the manufacturer: the value of the channels can be seen on the lateral plate. The value of the channels, plus a multiple and a decimal, have to be set also in the programme by means of this function. Press key 5 (OK) to enter the function. On display the message CHANNEL 1 will appear, followed by tree zeros. When using, for example, Italian coins, this channel can be programmed for coins worth 50 lire. By pressing key 1 (+) you can set 005 with multiple 010. The decimal is used for coins which use cents, for example the american dollar, the german mark, the dutch guilder etc. Press key 5 (OK) to move on to the next channel.

Coin Values	channel 1	channel 2	channel 3	channel 4	channel 5	channel 6
Italy	005	010	020	050	005	010
USA	005	010	025	050	100	
	token	token	multiple	decimal		
Italy	000	000	010	000		
USA	000	000	001	002		

3.17 Beverages prices

This function is used to set or change the price of every single beverage, or to display the prices for verification. To change and/or to verify the price of a beverage press key 5 (OK) after having displayed this function. The message KEY 1 will now appear, followed by the set price for the first beverage. To increase the price press key 1 (+), to decrease the price press key 3 (-). To confirm and/or to move on to the next price press key 5 (OK). To exit this menu press key 5 (OK) until the next menu appears on display. If you wish to exit the programming mode press key 2 (OUT).

3.18 Corrections

This function has been inserted in the programme for areas where small amounts (30/50 cc.) of hot strong coffee are served. Since the machine is equipped with a plastic coffee group, this function is used to ensure that the first coffee beverage is served at the correct temperature. To activate this menu execute the following:

Enter menu 18. Corrections and set the following values:

1. HEATING TIME ◇ Is used to set the time during which the boiler reaches the raised temperature, for example 20 seconds.
2. CORRECTION TEMP ◇ Is used to raise the temperatures which have been programmed in menu 4. Temperature Calibration. Press key 1 (+) to set the value, for example 15 °C.
3. CORRECTION H2O ◇ During the extra heating of the boiler water will evaporate. This function is used to regenerate the vapour, to ensure that the coffee beverage is served at the correct quantity, for example Correction H2O 10.
4. MODE ◇ can be programmed according to the following values:
 - “0” ◇ after the selection, before the delivery, if there is thermic balance, this value increases the temperature for the quantity of degrees which is set in menu 18. Corrections during the time set in the same menu. Moreover, if the selected beverage is an espresso, in order to recover the evaporated water, some water is added according to the value set in menu 18. Corrections, to ensure that the coffee beverage is served at the correct quantity.
 - “1” ◇ after some period of inactivity of the machine, the temperature increases according to a second value (“Min. Time Out”). The temperature returns to the normal value on the occasion of the subsequent delivery.
 - “2” ◇ after the selection, when the “Min. Time Out” has passed after the previous delivery, the temperature set in menu 18. Corrections increases during the time set in the same menu, before the subsequent delivery. Moreover, if the selected beverage is an

espresso, in order to recover the evaporated water, some water is added according to the value set in menu 18. Corrections, to ensure that the coffee beverage is served at the correct quantity.

3.19 Data Unloading

Not active.

3.20 Clock

Not active.

4. CLEANING AND MAINTENANCE

In order to always get the finest quality of dispensed beverage and to ensure a proper functioning of the machine, the following guidelines for cleaning and maintenance should be strictly followed. The frequency of the cleaning operations depend on the conditions of use of the machine, the water hardness, the humidity, the environmental temperature, the kind of products used etc.

4.1 Daily maintenance

Daily maintenance of the machine is necessary to prevent bacterial growth in the components which are directly in contact with the products. The machine is equipped with a programmable automatic rinsing-cycle which performs the rinsing of the mixing components and the dispense spouts automatically after a programmed number of deliveries (see paragraph 3.5). However, this rinsing-cycle has to be carried out manually at the end of each day by pressing key T11, to remove any residual of the products from the mixing components and the dispense spouts. After having carried out this manual rinsing, empty and clean the drip tray, the waste box (DREAM Espresso) and the drip tray cover. Clean the outside of the machine, the bracket of the product canisters and the bottom of the machine and reinstall every part in its proper place.

4.2 Monthly maintenance

The operations described here below have to be carried out every month to assure the hygiene of the machine. Under no circumstances is the cleaning of the machine allowed by means of water jets or such, nor should any sanitary products be used as they might cause water contamination. For a proper cleaning and disinfection of the machine and the components which are directly in contact with the products execute the directions indicated in paragraph 1.7 Cleaning and disinfection.

5. MESSAGES FOR THE USER

On display all the necessary information on the functioning of the machine is shown. The messages which may appear on display are:

READY

The machine is functioning.

WAIT

This message appears when the machine is being switched on. The machine will first heat up the boiler until the programmed temperature is reached, then carries out a diagnostical check-up to verify the proper position of the delivery spouts carriage. At the end of this check-up the message READY will appear. The message WAIT appears again when a selection key is pressed and remains on display while the selected beverage is being dispensed. The message WAIT will also appear when the machine has not been used for some time and the function MIN. TIME OUT is activated (see paragraph 3.4).

END H2O

The anti-flooding valve is activated . In this case there is no more water in the water mains cistern or in the autonomous supply tank. Should this occur then switch off the machine and empty the PVC safety hose which is inserted in the black part of the anti-flooding valve. In case there is a lot of water in the safety hose it is possible that also the anti-flooding valve itself is filled with water. To empty the valve remove it from the machine and open the lower white part a little by inserting a flat screwdriver into the 4 holes. To avoid this problem we recommend emptying the water tank before moving the machine. Remove the safety hose of the anti-flooding valve only in case of tests or checks and ensure, after having installed the machine, that the safety hose is properly inserted in the anti-flooding valve.

NO PRODUCT

The coffee beans container is empty or coffee is delivered too slowly. Refill the product canister by following the instructions described in paragraph 1.8.

TECHNICIAN

The machine has reached the maximum calculation of 10.000 selections. It is in your best interest to call a technician for inspection of the mechanic and plastic parts, to ensure the continuous and impeccable operation of the machine. We also suggest that the boiler be inspected for calcareous deposit. To reactivate the machine press key 5 (OK) after having displayed this function in the programming mode (see Chapter 3), choose YES with key 1 (+) and press again key 5 (OK) to confirm.

MEMORY ERROR

An irregularity has occurred in the programming phase. To reactivate the machine execute the following:

- Switch the machine off and turn it back on.
- Press key 1 (+). Four zeros will appear on display.
- Press key 1 (+) twice to set 0002.
- Press key 5 (OK). The message RESET NO? will appear on display. Press key 1 (+) to choose RESET YES? and press key 5 (OK) to confirm. On display a version-code will now appear, for example 3E V0. By using key 1 (+) or 3 (-) other version-codes can be displayed: these are the machine-versions that can be used according to the type of the machine. For the **DREAM** versions 4E V0 / V1 / V2 are used for espresso and version 4L V0 / V1 / V2 for solubles. Press again key 5 (OK) and wait a few seconds. When on display a function command appears the machine is no longer in MEMORY ERROR state.
- Switch the machine off and turn it back on.
- All settings have now been brought back to the original settings programmed by the manufacturer. Reprogramme the machine by carefully following the instructions described in Chapter 3.

FUSE

This message appears when the motor fuse on the electronic board has blown (see wiring diagram). Replace the fuse and make sure it has the same amperometric value as the replaced fuse. See for this amperometric value also the wiring diagram.

NOT ENABLED CUP

This message indicates that the cup tube is empty. The message can also appear when then cup void micro is jammed. In this case you should check the proper functioning of the micro.

YES

This message indicates that the function shown in the programming mode is carried out.

NO

This message indicates that the function shown in the programming mode is not carried out.

DEPURATOR

The counter has reached the maximum quantity of water set for the regeneration of the water filter. Follow the instructions on the filter.

NO PRODUCT

This message appears when the coffee beans container is empty, when the water pump has functioned too long because of a too fine grinder calibration or when the volumetric meter, the pump or the solenoid valve of the coffee group are not functioning properly. Check the content of the coffee beans container and adjust the grinder to a coarser setting (paragraph 1.12). If the message appears again call your authorized dealer for technical assistance to check the machine.

GROUP

This message appears when the coffee group is not in start position. Verify if the rotation motor of the coffee group is not obstructed, or if the cam (a brown plastic part on the lower part of the motor) is not loosened and therefore doesn't press the micro (see paragraph 3.8).

READY BEVERAGE

This message appears at the end of the delivery, with a sound.

6. TECHNICAL DATA

Characteristics:

Coffee beans grinder (Espresso Vers.)
 Coffee beans container (Espresso Vers.)
 1 Canister for powdered Coffee (Lyo Vers.)
 4 Canisters for soluble products

Water Mains Connection

Automatic Cup Dispenser

Automatic Spoons Dispenser

Internal Unloading

Payment Systems: Executive and/or Parallelo

Dimensions

Height: 1620 mm.
 Width: 500 mm.
 Depth: 500 mm.
 Weight: 65 kg.

Selections (10):

Coffee
 Long Coffee
 White Coffee
 Cappuccino
 Capp. + Choc.
 Coffe + Milk
 Chocolate
 Lemon Tea
 Sugar Selection
 Cup

Product Capacity:

Coffee beans: 2500 gr. (Espresso)
 Powdered Coffee: 1000 gr. (Lyo)
 Powdered Milk: 1000 gr.
 Chocolate: 2000 gr.
 Tea: 2000 gr.
 Sugar: 2000 gr.
 Cups: 300 pcs.
 Spoons: 300 pcs.

Electrical features:

Supply: 230V 50 Hz
 Other tensions: 115V 60Hz
 24 Vcc
 Absorbed power: 1100 W
 Max absorption: 10 A

Safety devices and controls:

Safety door switch
 Anti-flooding valve
 Micro cup void
 Thermic on group motor
 Fuses mounted on the rear panel and inside on the electronic board

Safety boiler thermostat
 Float for empty water tank
 Thermic on grinder motor
 Thermic on powder motor

Possible regulations:

Product quantity in tenths of a second (par. 3.3)
 Water quantity in tenths of a second or by counting of the meter (par. 3.3)
 Water temperature at a tenth of a degree (par. 3.4)
 Beverages prices; programming coin values (par. 3.16)
 Product count (par. 3.13 / 3.14)
 Programmable automatic rinsing of the mixers (par. 3.5)
 Manual rinsing of the mixers by using key T11.