# PALMA B

**Technical Information**

**10045 UK 01-2006**

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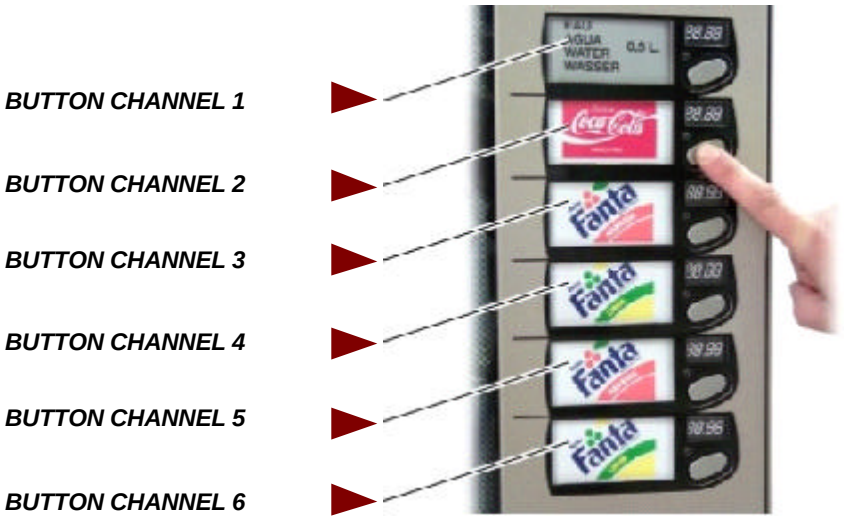
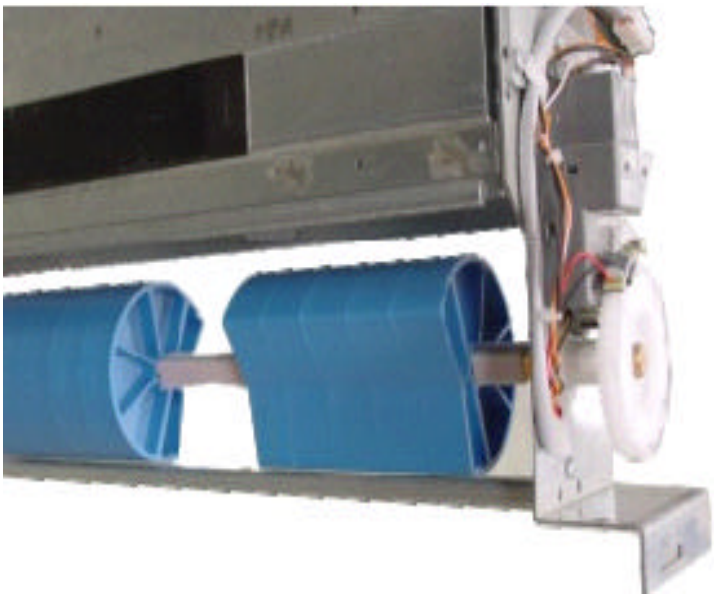
# INDEX

# Features and models of the B series

- The PALMA B range is equipped with 4, 5, 6, 9 and 12 independent selections.




- Apart from these mechanisms, the PALMA B series machines can be fitted with channels for the sale of products in Tetra Brick, yoghurts, etc.



- New design in product extractors, which create a surprising modularity thus permitting many different configurations for each product to be extracted.

- Different extraction mechanisms for cans/bottles.

- Different extraction mechanisms for cans/bottles.

- **Unit modules (A1/A2/A4/B23/B4/C4)** These are loose channels which, depending on the product, can be loaded in single, double, triple or quadruple column with different width regulations.

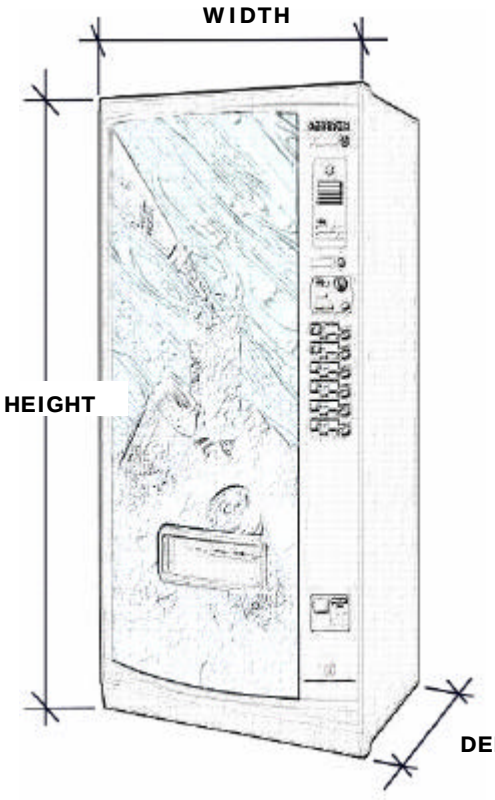
- **Rotating Module with 2 or 3 selections (A1/2, A1/3)** This is a set of channels with two or three channels, which swings out to facilitate the loading of the inner channels and which can load 33 cl cans in a single column.

- **Selection extraction module (A3/4)**. This is comprised of a set of channels with three channels that can be loaded with 33 cl cans four-deep.

- With the coin mechanism on executive protocol (not with MDB), if programmed, it can accept tokens as well as all the legal tenders, including EURO coins.

# Weight and dimensions

The size of the machine depends directly on the channels that it is equipped with as well as the number of selections.
In fact, the name of the machine is derived from the number of selections (buttons).
The table below shows the dimensions (in mm) and the weights in kilos.




| MODEL | HEIGHT | WIDTH | DEPTH | WEIGHT |
|---|---|---|---|---|
| Palma B4 | 1830 | 680 | 737 | 22 |
| Palma B5 | 1830 | 680 | 737 | 22 |
| Palma B6 | 1830 | 888 | 883 | 34 |
| Palma B6G | 1830 | 980 | 901 | 35 |
| Palma B9 | 1830 | 980 | 901 | 34 |
| Palma B12 | 1830 | 980 | 901 | 33 |

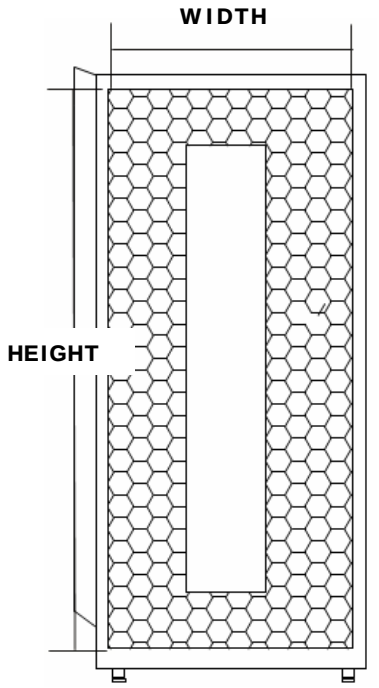
## Advertising panels

The table below shows the dimensions in (mm) of the advertising panels for each model.

| MODEL | HEIGHT | WIDTH |
|---|---|---|
| Palma B4 | 1590 | 510 |
| Palma B5 | 1590 | 510 |
| Palma B6 | 1590 | 650 |
| Palma B6G | 1590 | 775 |
| Palma B9 | 1590 | 775 |
| Palma B12 | 1590 | 775 |

### Side sticker

The table below shows the dimensions in (mm) of a possible side sticker that the Palma series may include.




| MODEL | HEIGHT | WIDTH |
|---|---|---|
| Palma B4 | 1700 | 415 |
| Palma B5 | 1700 | 415 |
| Palma B6 | 1700 | 650 |
| Palma B6G | 1700 | 650 |
| Palma B9 | 1700 | 650 |
| Palma B12 | 1700 | 650 |

## Conditions of use and regulations

**THE MANUFACTURER OF THIS MACHINE, AVOIDS ANY KIND OF RESPONSABILITY ABOUT MALFUNTIONS OR INJURES PRODUCED BY NOT FOLLOWING THE CONDITIONS AND NORMS DESCRIBED BELOW**

### Electricity mains supply

The voltage of the electrical system must correspond to the voltage indicated on the machine characteristics plate and must not exceed 6% or fall below 10% the rated voltage at any time.

The power consumed is also indicated on the plate.


**THE MACHINE HAS ELEMENTS WITH DANGEROUS VOLTAGES. DO NOT HANDLE ANY COMPONENT MARKED WITH THE HIGH VOLTAGE SYMBOL. ONLY THE TECHNICAL SERVICE IS AUTHORISED TO DO SO.**
**THE MAINS LEAD CAN ONLY BE REPLACED BY AUTHORISED TECHNICAL PERSONNEL FROM AZKOYEN.**

## Cooling

All the machines of the **PALMA "B"** line have a programmable thermometer, which controls the temperature of the product inside the machine.

The minimum temperature it can reach is 3ºC.

The refrigeration group is based on coolant gas R-134a, **WITHOUT CFC.**

## Temperature and Relative humidity

The correct temperature environment is 5ºC to 32º C with a relative humidity of 35 to 65%.

## Maximum incline

They can operate correctly with a maximum difference in level of 2.5º, both front and sidewise.

Whenever the machine has to be moved it must be done with the machine in upright position.

***MAXIMUM INCLINE IN ALL AXES***
**+ / - 2.5 DEGREES**

## Sound level

The sound level of this range of machines does not reach 70 dB under any circumstances.

## Types of products to be sold

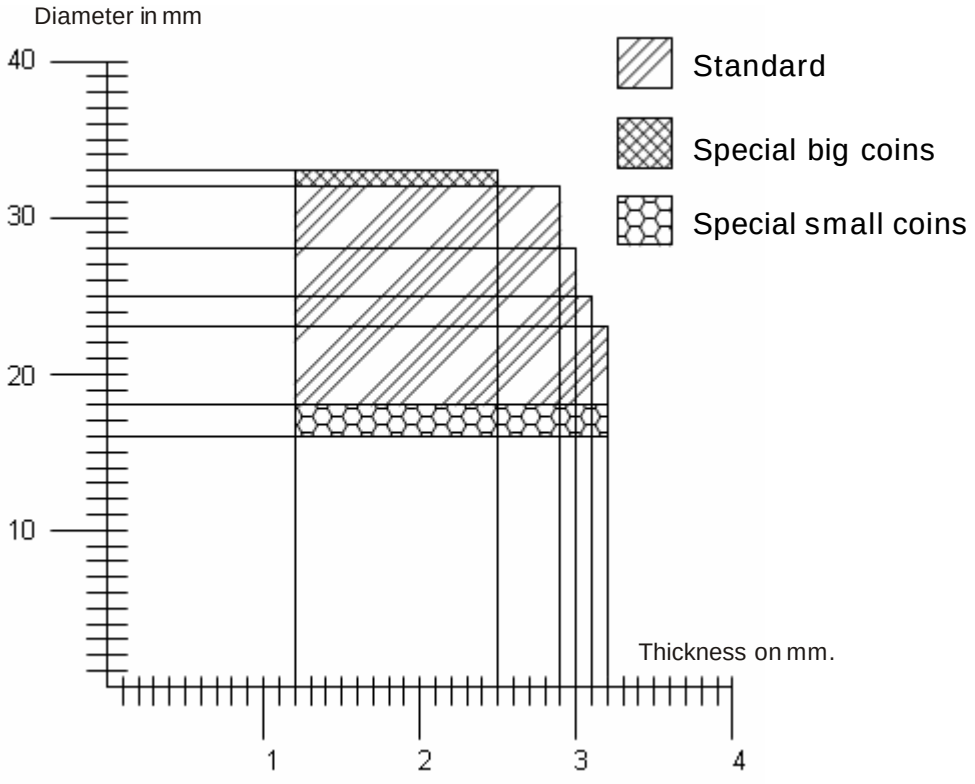
The wheel mechanisms can vend different types of products depending on the dimensions of the packaging.

The packaging of the products to be sold (in the standard wheel channel "37 spokes") should not exceed the "maximums" that are shown here.


Products to be sold must have a minimum weight of 30 grs. and maximum of 500 grs.

## Coins that it can operate with

It can operate with all the legal tenders from any country after being factory-set. Up to a total of 15 different types can be validated.
The dimensions of the admissible coins have to be included within the margins specified in the following table:




## EC declaration of conformity

Azkoyen Industrial certifies that its product, Palma Bottle Rack satisfies the following directives:

EN 60335

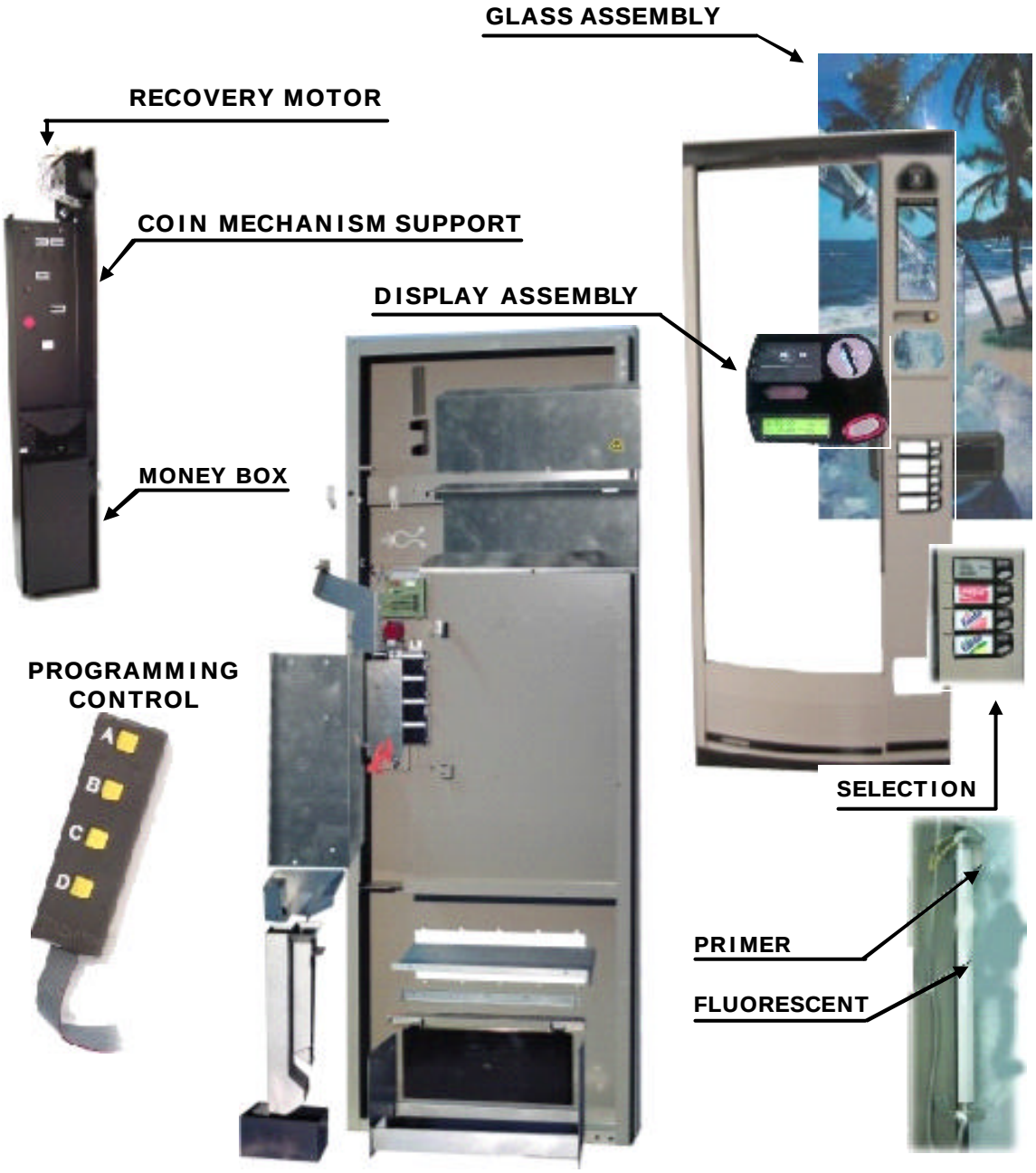
EC directive on machines DSM 8/392/EEC and all its amendments.

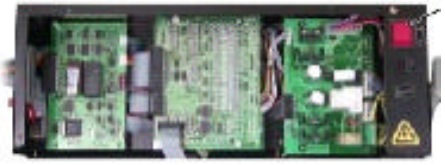
EC Directive on low voltage DBT 73723/EEC and all its amendments.

EC Directive on electromagnetic compatibility EMC 89/339/EEC and all its amendments.

# Description of the main components

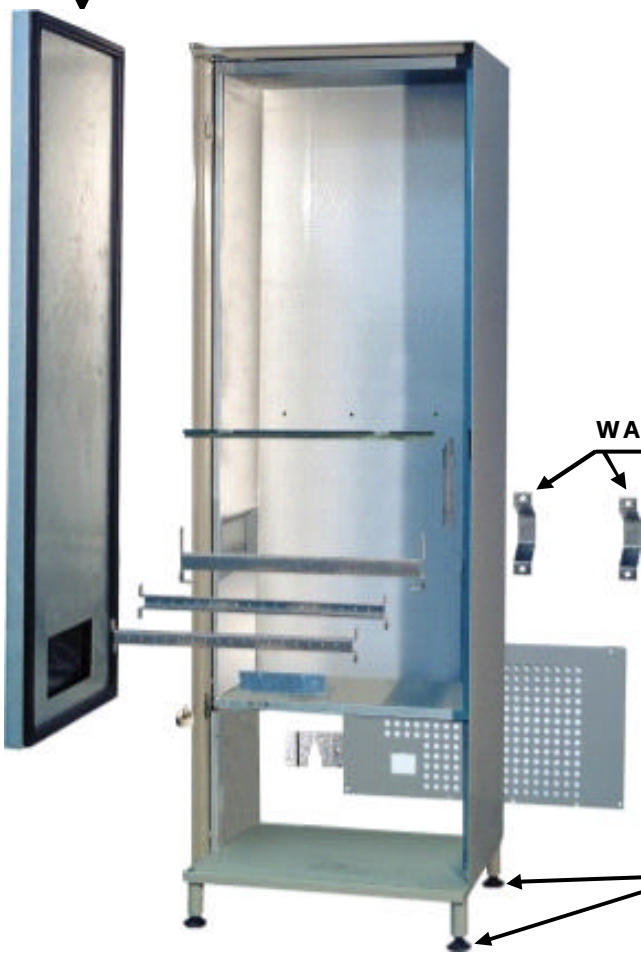
## Door assembly

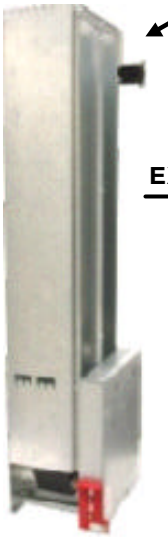


ELECTRONIC BOARDS

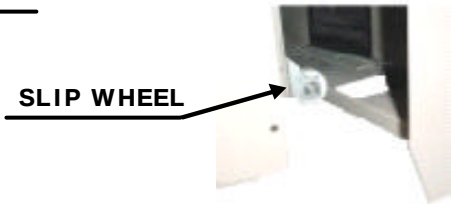
## Cabinet Assembly



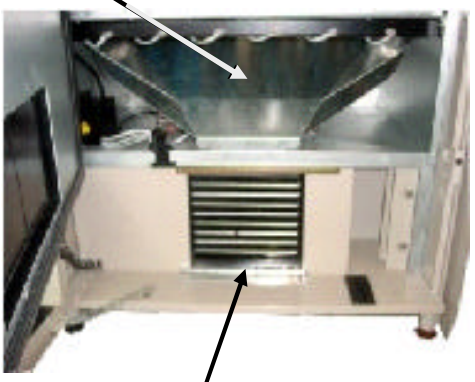









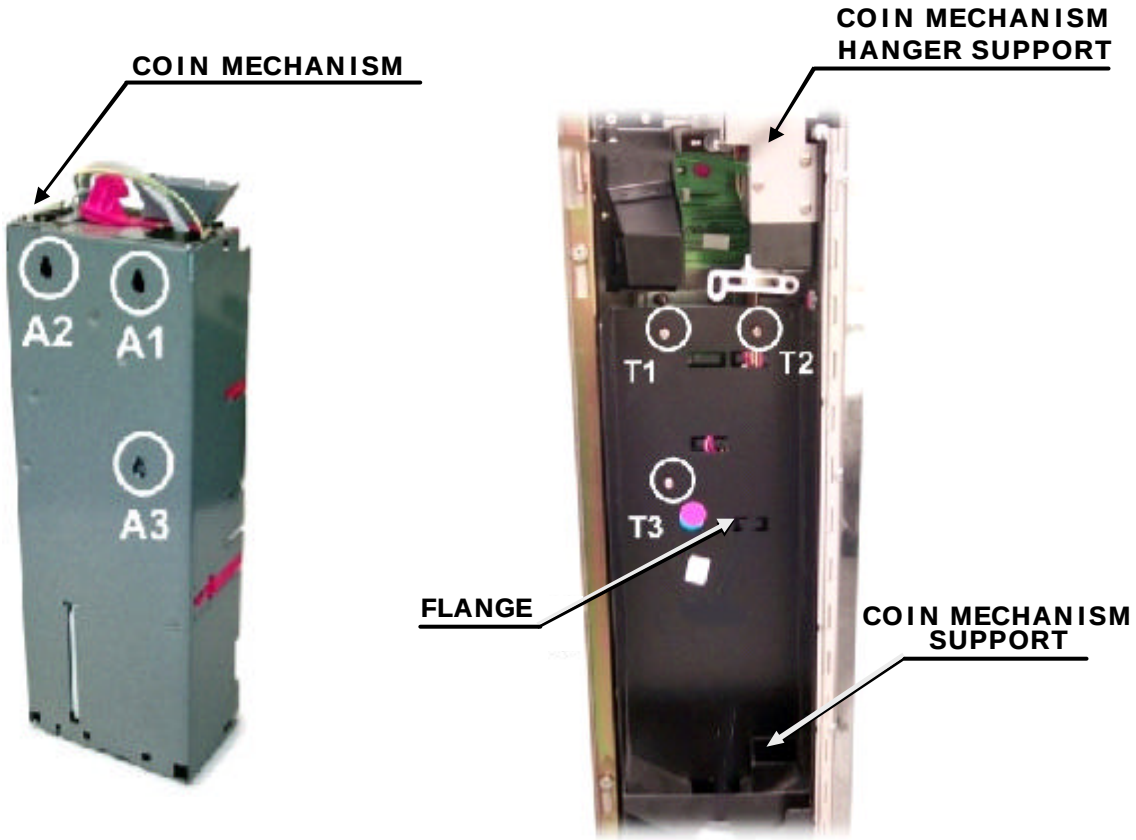
# Installation and adjustment of the machine

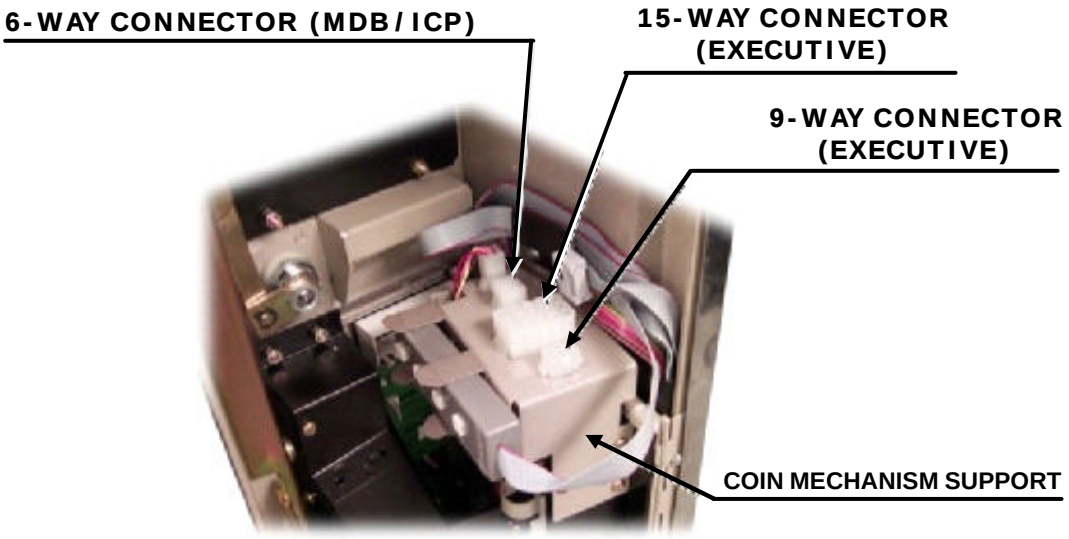
## Electrical installation

To install an **MDB/ICP** or **EXECUTIVE type** coin mechanism the steps given below must be followed:

- Switch the machine off.

- There are three screws (T1, T2 and T3) in the coin mechanism support which the three rear housings of the coin mechanism casing (A1, A2 and A3) coincide with. Here we must fit the coin mechanism.



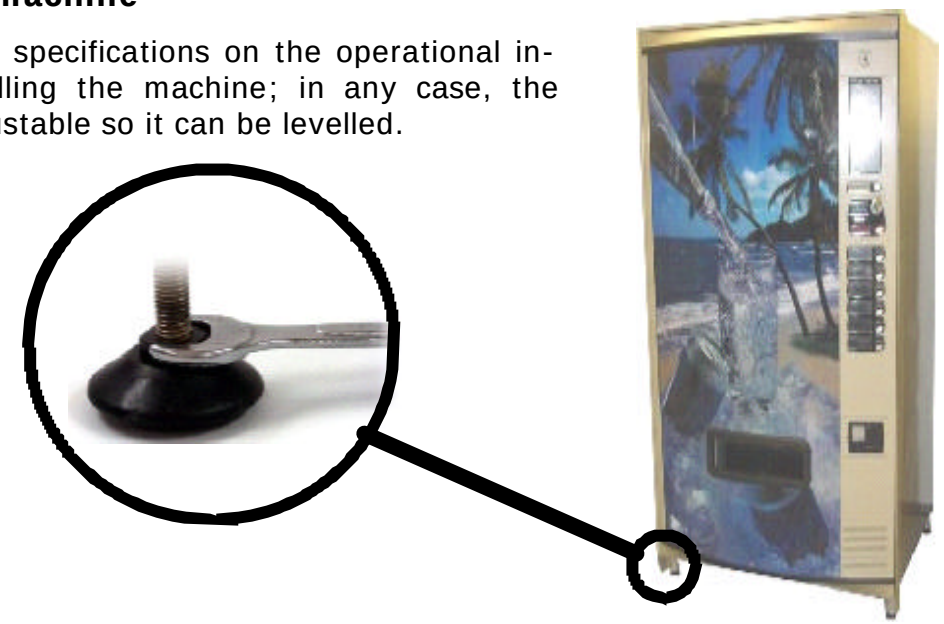



Make sure that the electrical installation, plug and automatic switch are the right specifications for the electrical consumption of the machine .

**The machine plug has earth connection. The socket must be connected to a good earth. AZKOYEN declines all responsibility in those cases where the above conditions are not satisfied.**

## Levelling the machine

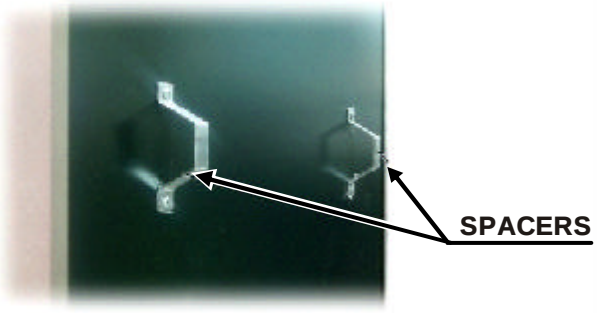
Bear in mind the specifications on the operational incline when installing the machine; in any case, the four legs are adjustable so it can be levelled.

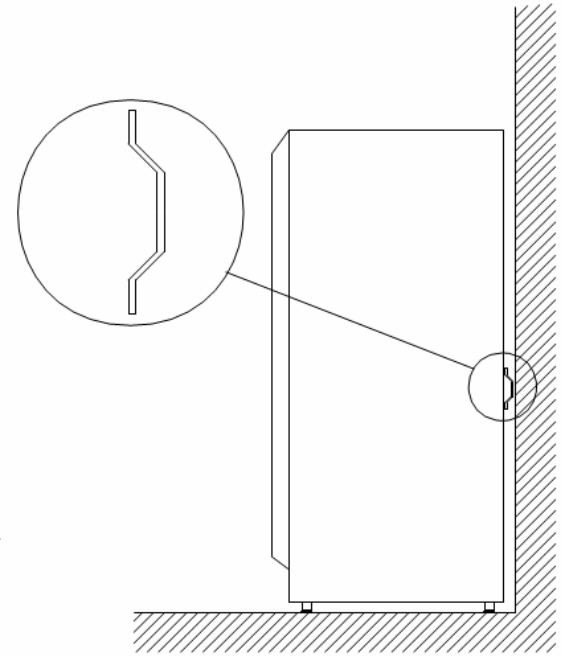


## Necessary ventilation

The liquefying of the refrigerating gas is carried out by a forced air flow circulation.

it is been taken by the bottom part of the cabinet and it is expelled by the back part it is recommended that the air inlet doesn't come from a hot source and it is necessary for the spacers to be fitted when the machine is placed against a wall. They will provide the necessary space for optimal ventilation.

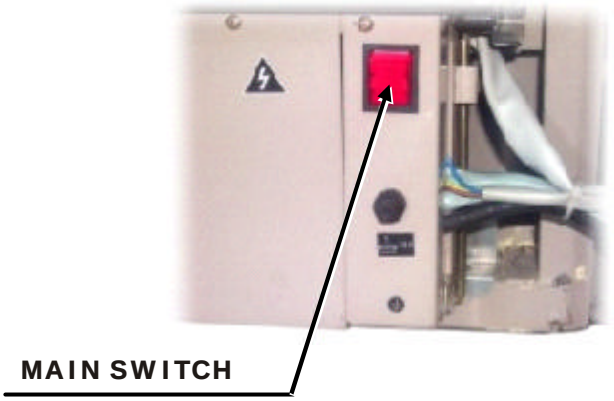


## Beginning

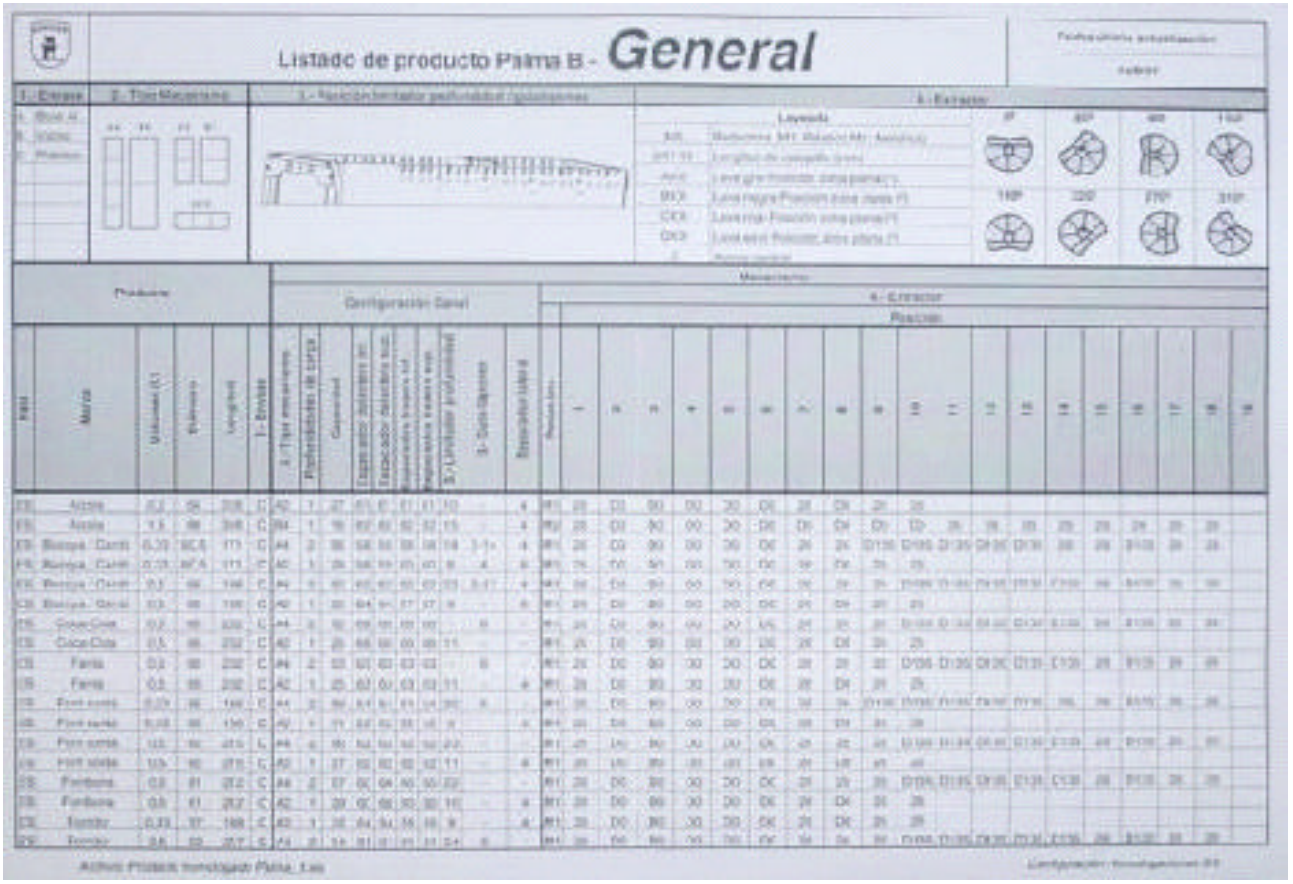
Once the machine is connected to the mains, turn on the switch in the middle of the door.

The refrigeration group will start automatically after a few seconds




## Adaptations of the extraction system

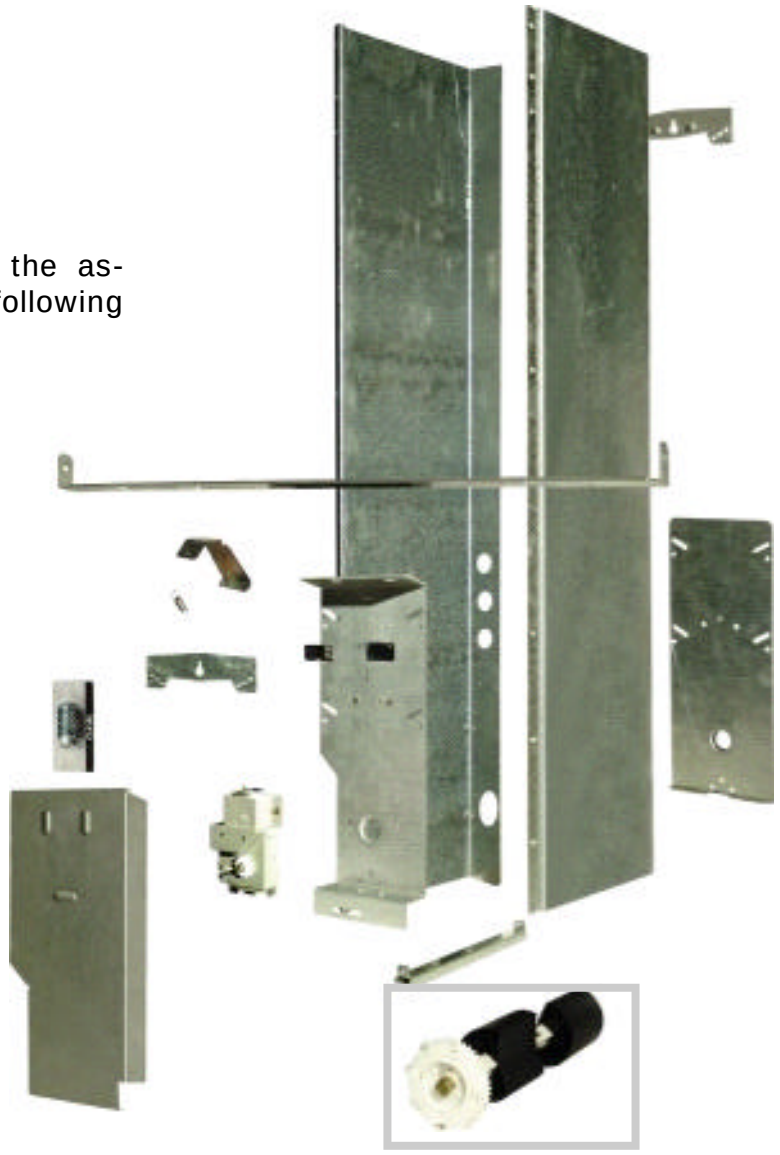
Azkoyen Industrial shall provide all its customers with information related to the actions necessary to sell any approved product in its Palma B machines.
This information will be published as shown by the enclosed graph through the Azkoyen distribution channels and its web page.

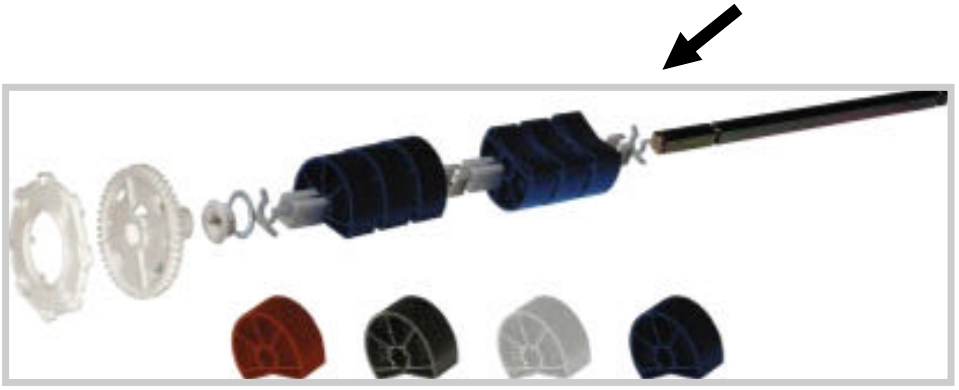



By means of the following explanations and photographs we will attempt to explain how this information must be interpreted and as a result, act upon the relative machine elements in each case.
As in the following example , we will take a random row from the table.

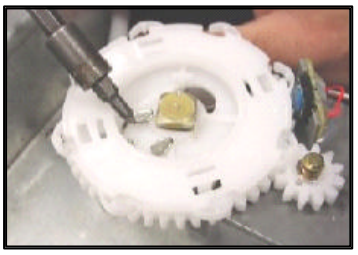
Withdraw the extractor channel from the machine and dismantle it (only if this is necessary) and then we will assemble it as indicated in the tables related to the product we wish to sell.

The dismantling process prior to the assembly is described on the following page.

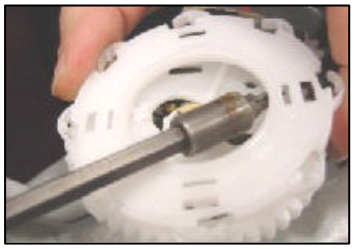


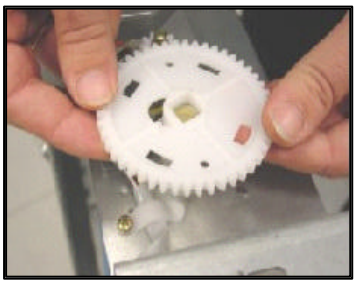


## Extract the shaft from the channel

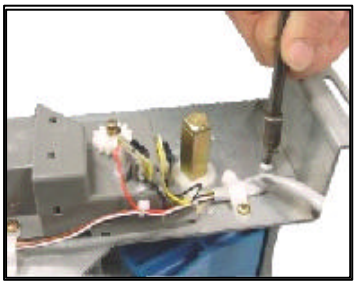


To extract the shaft with its cams and be able to reconstruct it with the elements shown in the tables, we first proceed to take out the clip and lever the wheel with an object similar to that shown in the photographs.

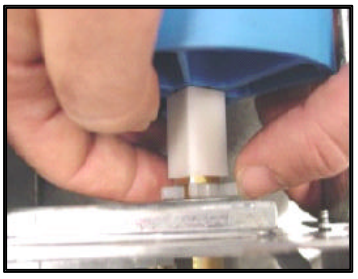




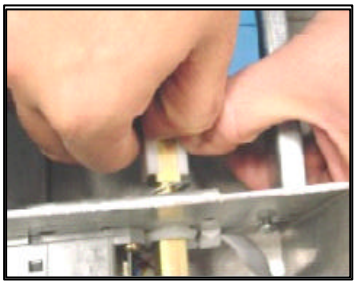
After withdrawing the upper part of the wheel we also withdraw the inside with both hands.

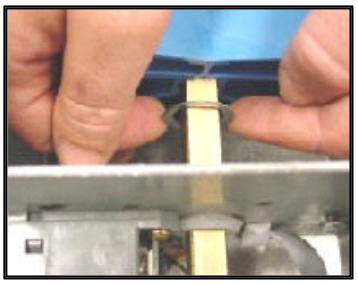


When the wheel has been totally removed we can access the setscrew of the system, which we must loosened with the Phillips screwdriver.

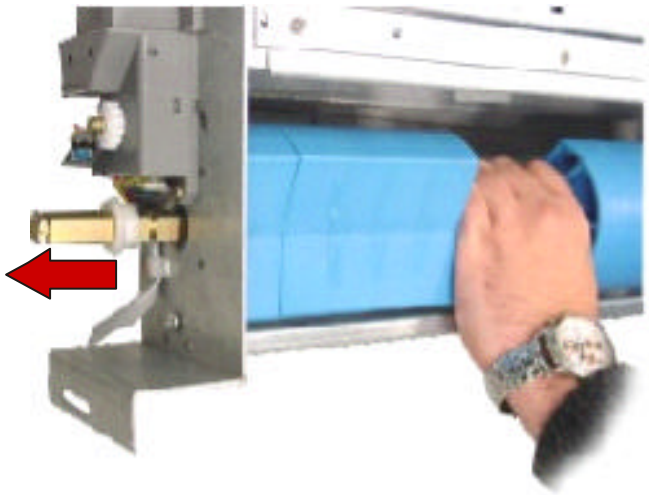


We then force the plastic clip, which secures the washer and the bushing, with our hand. Thus both can be moved and taken out.





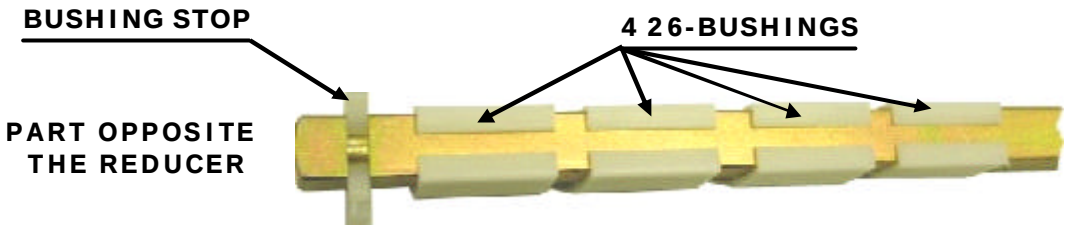
Now we are able to completely withdraw the shaft with the cams and reassemble it as indicated in the specifications (next page) to sell the product in question.



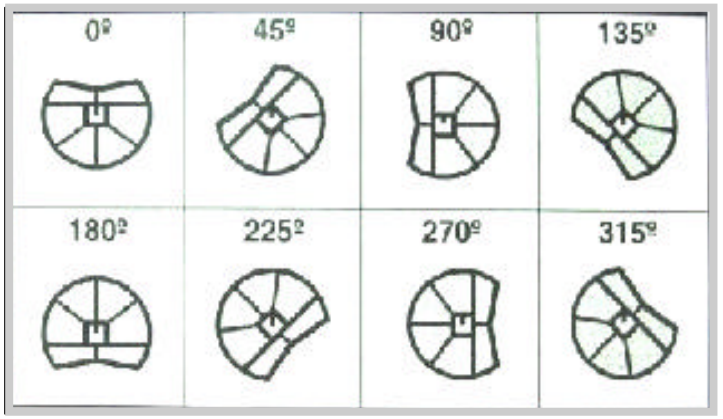
Let us take any product as for example the last one in the table shown on the following page, to explain how to form an extraction channel.

## Configure the extractor shaft

Having dismantled the shaft, we make it starting with the last data from our product row, (in our case number 26 four times) which refers to the length of the bushing to be fitted; this can be 13 or 26.

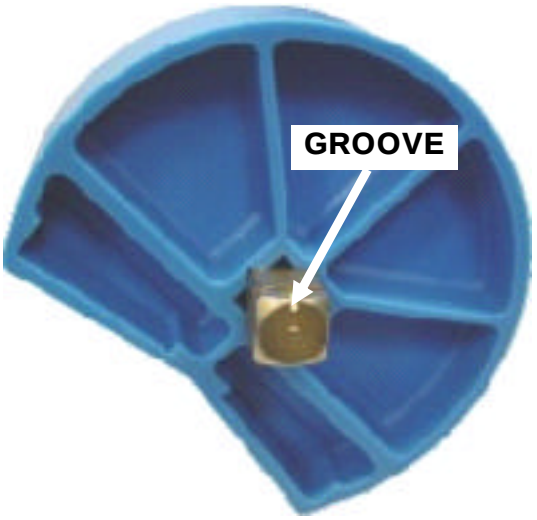



If we continue reading the table we see data D135 repeated 5 times, which refers to the blue cam “D” and to the angle with respect to the notch made on the shaft, which these cams must be fitted with.

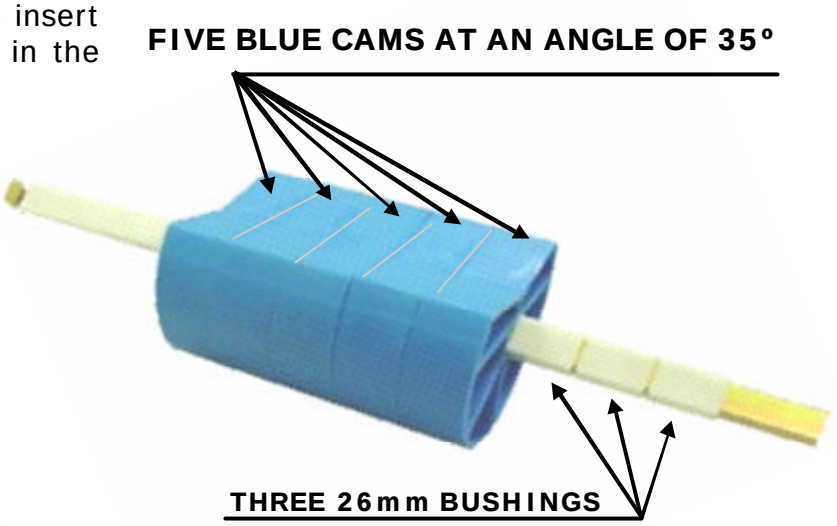



As we can see position 135 of the graph coincides with the position of the photo.

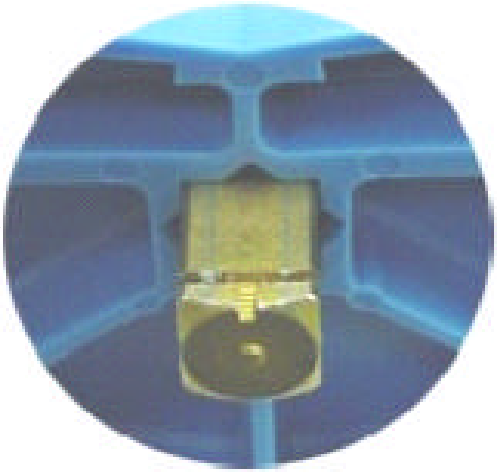
We will insert 5 cams in that position, one after another.



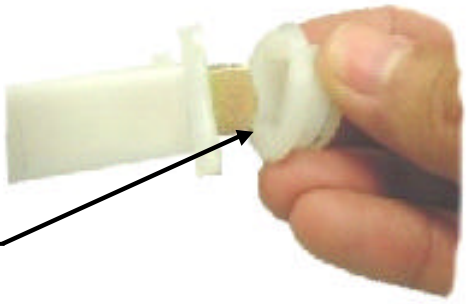
After the five cams we have to insert three 26 bushings as indicated in the table.



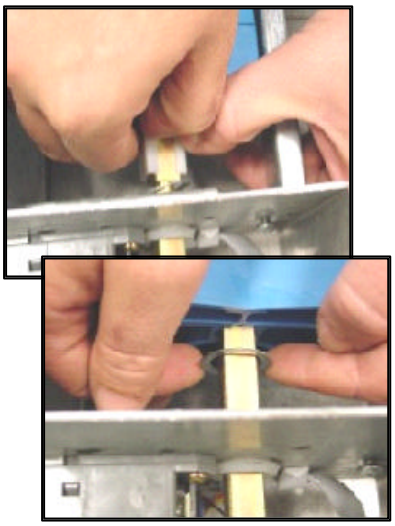

Again we will insert another 5 cams but this time with 0-degree angle with respect to the notch, as shown in the figure.



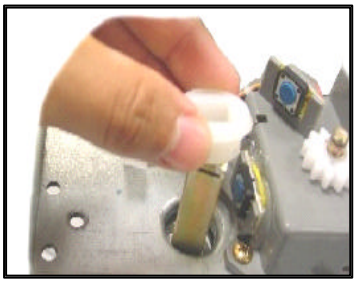
As we interpret in the table, a final 26-mm bushing appears which must not be fitted until the shaft is in place.



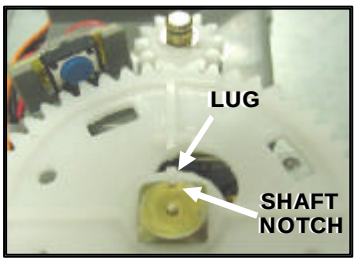

We insert the whole assembly into the upper opening of the channel and we widen it slightly, putting the bushing into the lower opening.



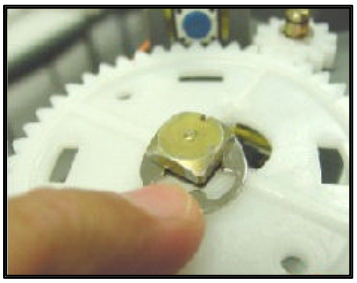
Then we fit the clip, making sure that the washer is between the clip and the sheet metal partition.



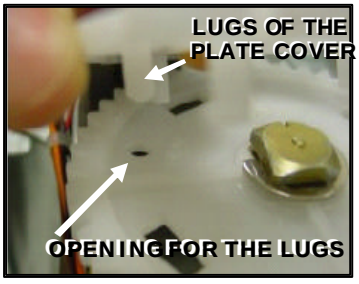
We also fit the bushing and the bearing as shown in the photographs.




We place the large plate of the reducer so that the guide lug coincides with the shaft notch.

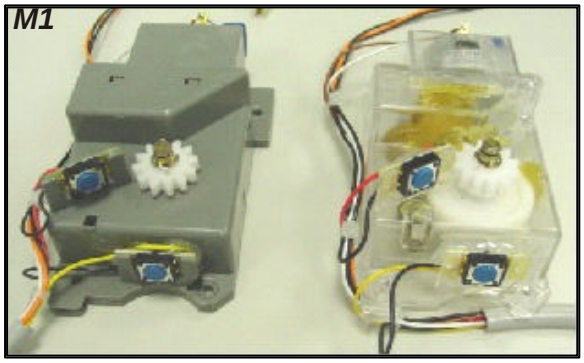


We secure the assembly with the metal clip.




We place the cover of the reducer plate on top so that the two lugs are inserted in the two openings of the plate.

Thus the shaft is completed. Then, we will assemble the reducer and the accessories of the channel.



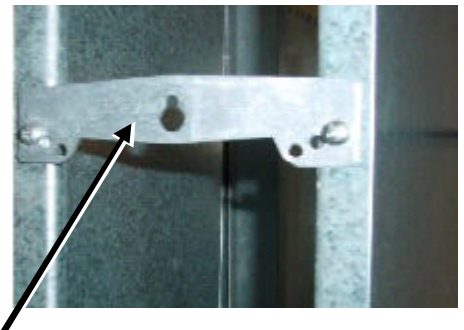

Now we would just have to verify that the reducer is the correct one, bearing in mind that there are two types:

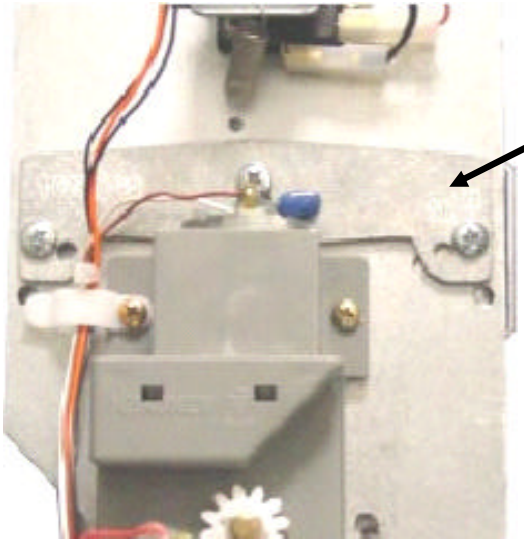
One with a grey casing and internal plastic pinions (M1).

Another whose casing is transparent and metal pinions (M2).

## Adjust the channel

We proceed to configure the channel, starting by adjusting the spacers (there are four per channel).





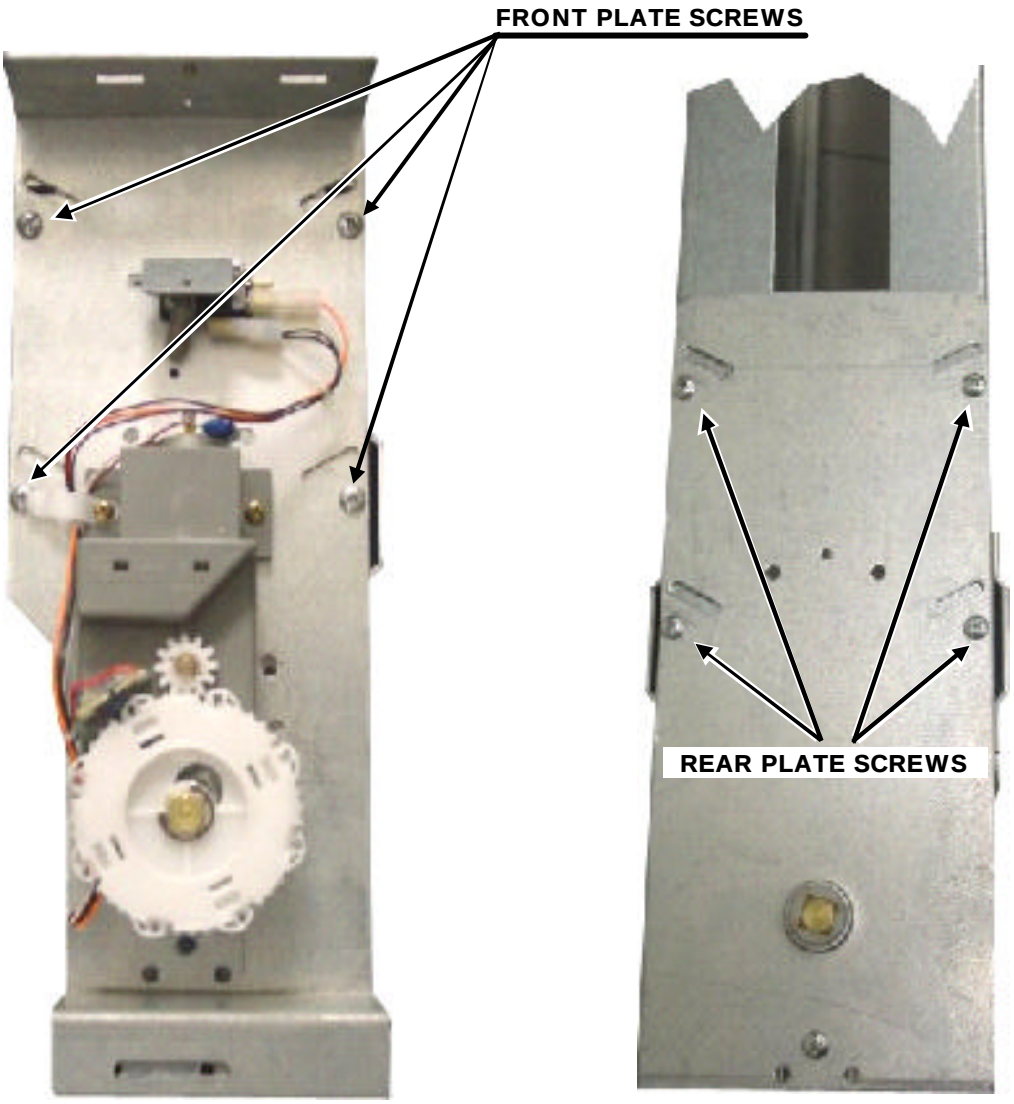

Upper rear, Lower rear, Upper front, Lower front.

In the example, the four spacers must be secured in position 61.

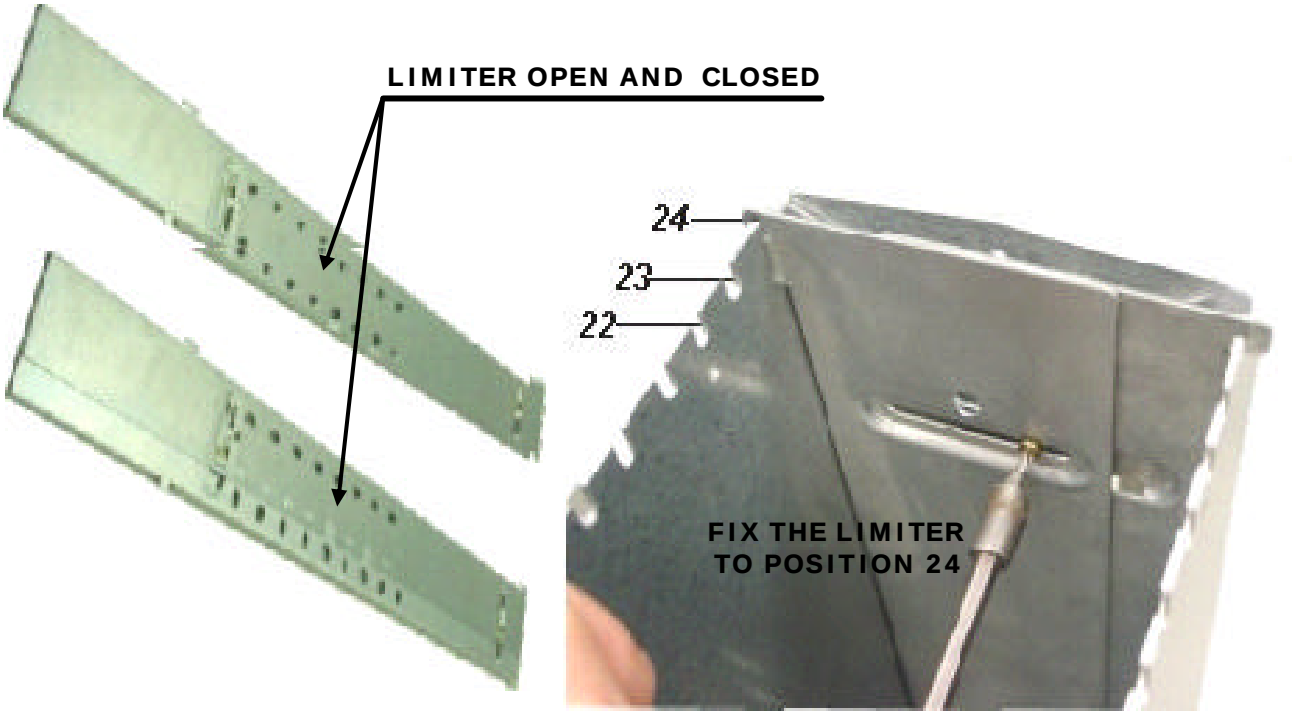
## PARTICULAR CASE OF ADAPTING CHANNEL FOR 66 mm DIAMETER CANS

In this case only 2 66-spacers are used, which will be fitted into the upper front and rear parts.

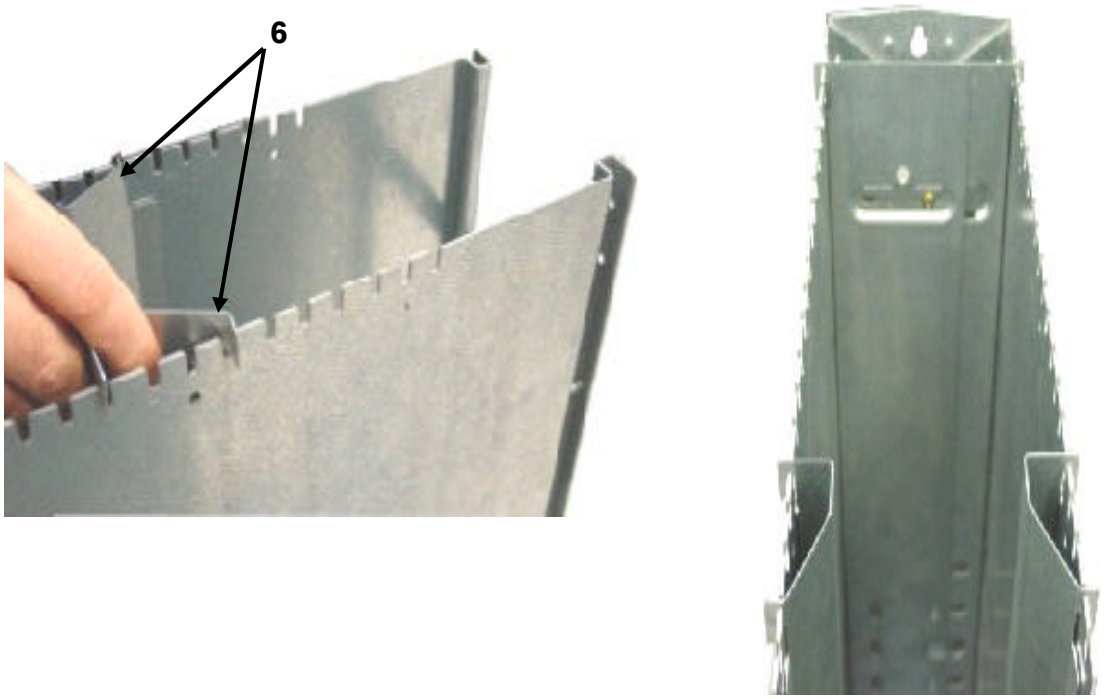
The width of the lower part is achieved by screwing the front and rear plate in 4 fixed positions.

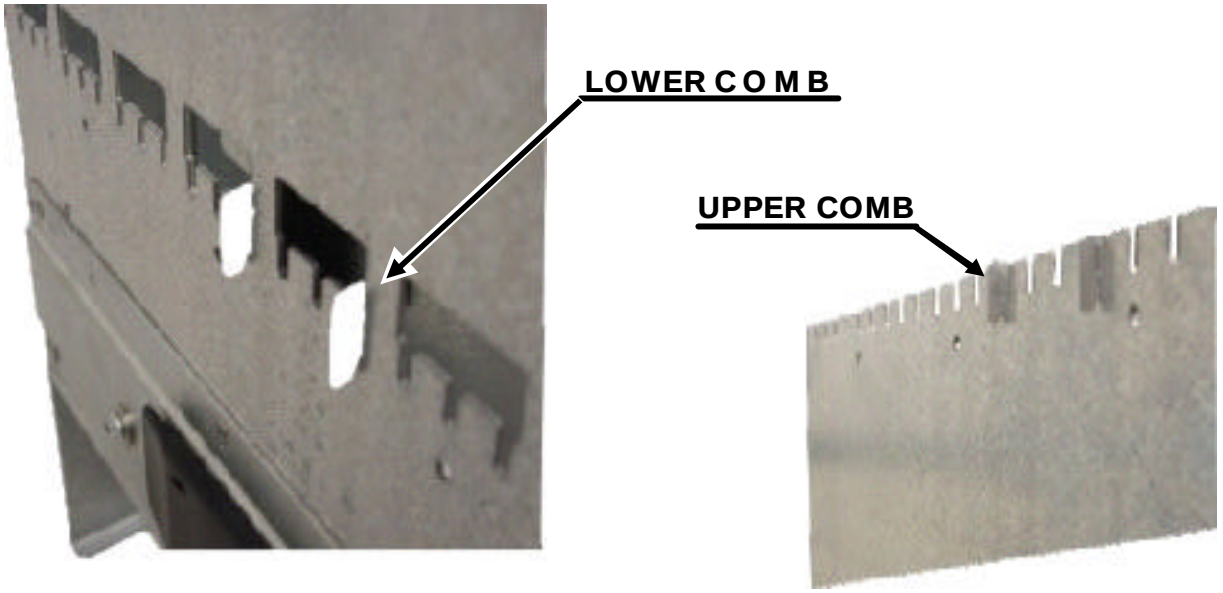


We continue adjusting the depth limiter, the table telling us what has to be done in position 24.

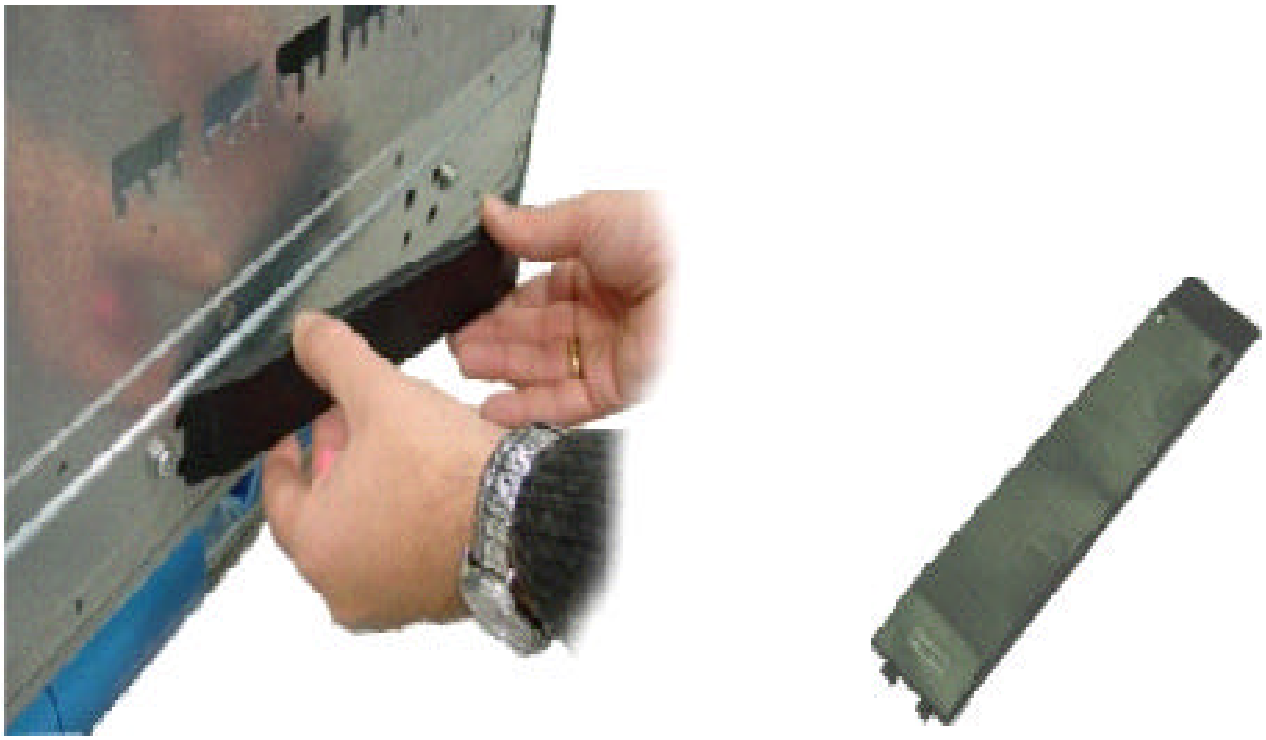



We place the plug-guide in the position indicated; in our case, position 6, so that they are anchored both in the upper comb and in the lower one.






To finish mounting the channel the side separator, if appropriate, is fitted, only if indicated in the relative table bearing in mind that there are two types; 4 and 8 mm.



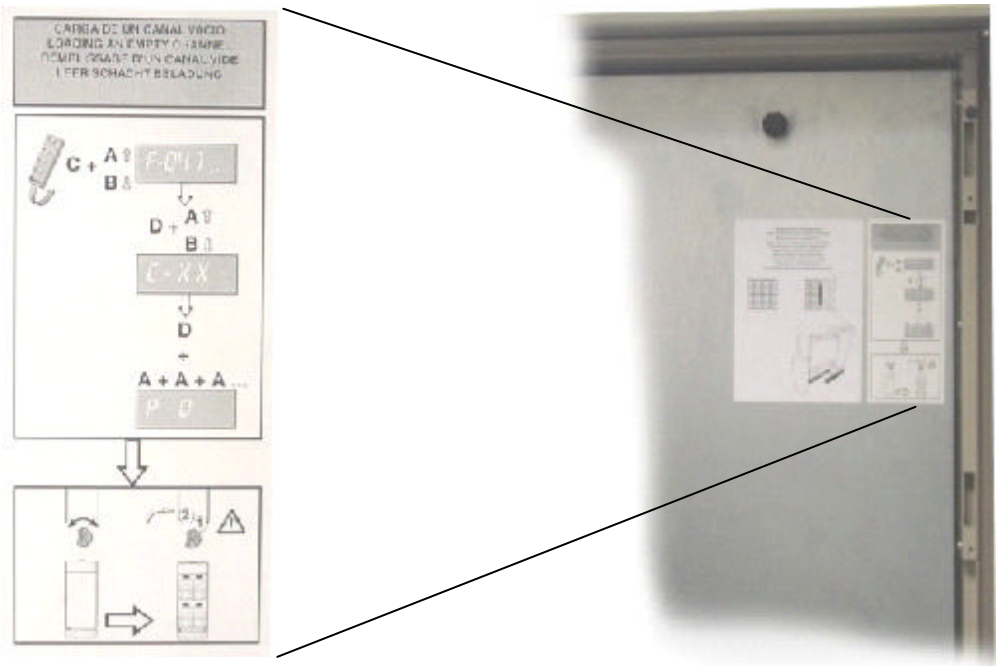
## Initial product loading

Enter the machine programming (see programming chapter) and execute function F-041.

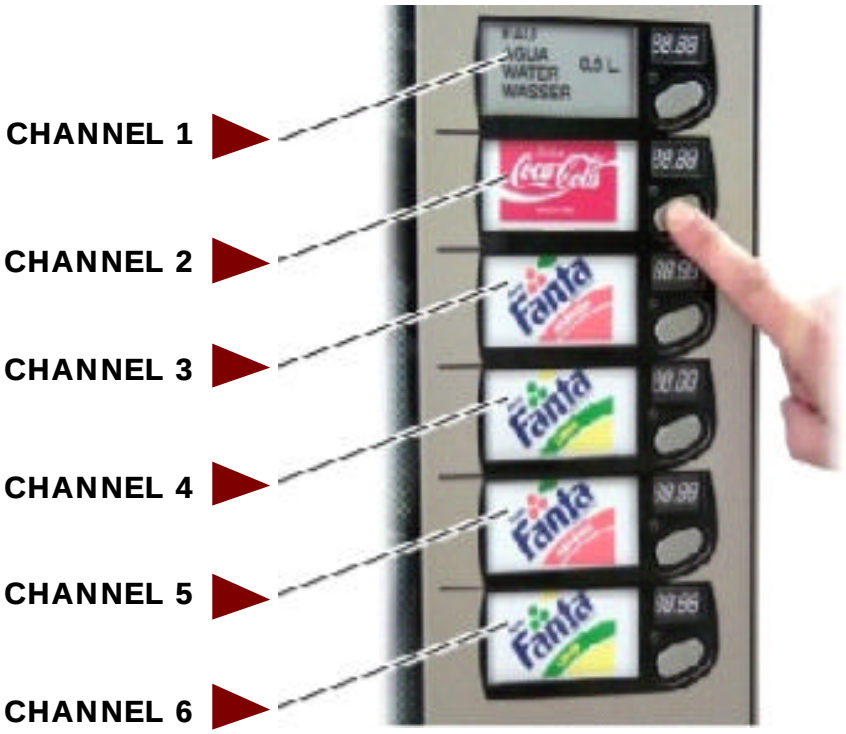
This will place the motors in extraction position.


Once the extractors are in place, load the channels.

Bearing in mind that the first container must be loaded as we indicate in the graph, always to the right of the channel, viewed from the front (see the door sticker).



Carry out several extractions from each one by pressing the selection of each channel (the sum of each sale can be inserted to extract the product or the machine can be placed on FREE SALE, using function F-220).




The machines are configured as standard with certain sale products. If you wish to change these products and sell other different ones, the type of channel may have to be programmed again.

To do this use function F-210. This function also places the motors in extraction position.

## Loading coin return device

Proceed to load the coin changer device as indicated in the relative manual.

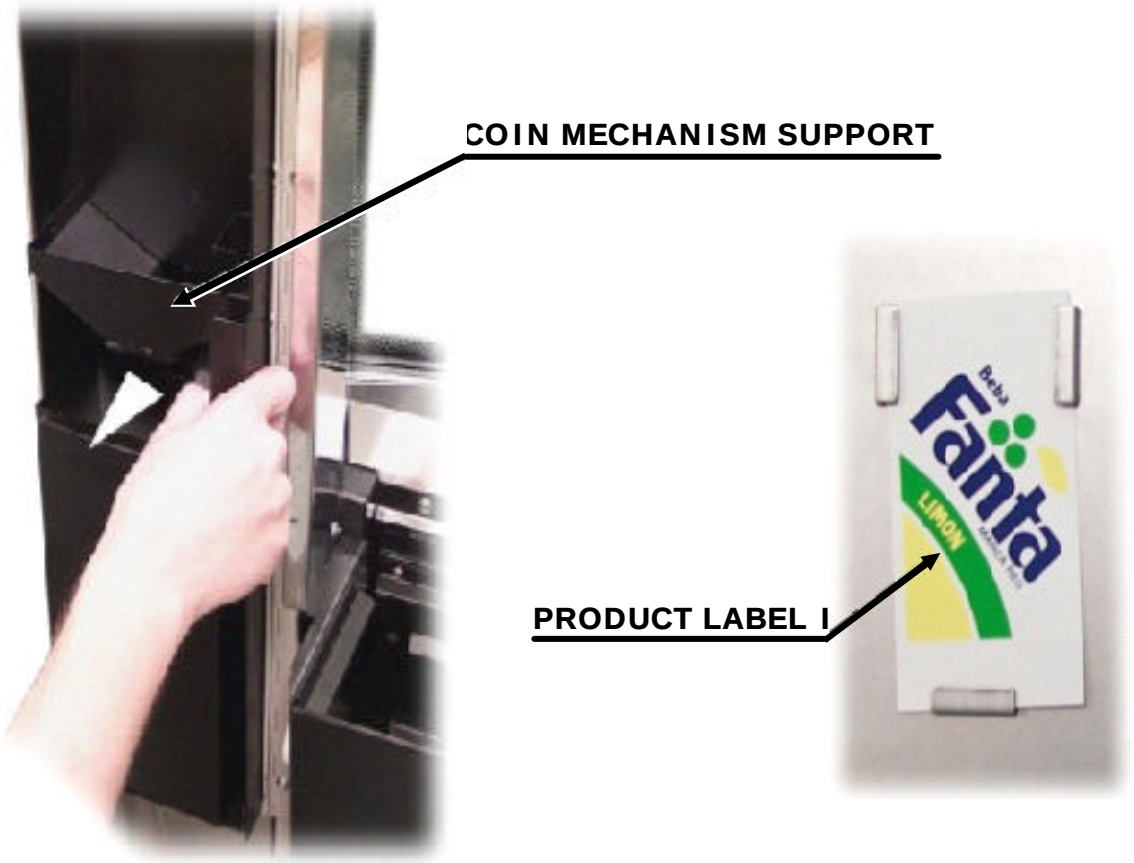
## Programming the sales prices

The machine does not operate unless the sales prices have been programmed. To do this, follow the instructions given in the programming chapter. If the prices are programmed to ZERO the machine will always be in free sale mode.

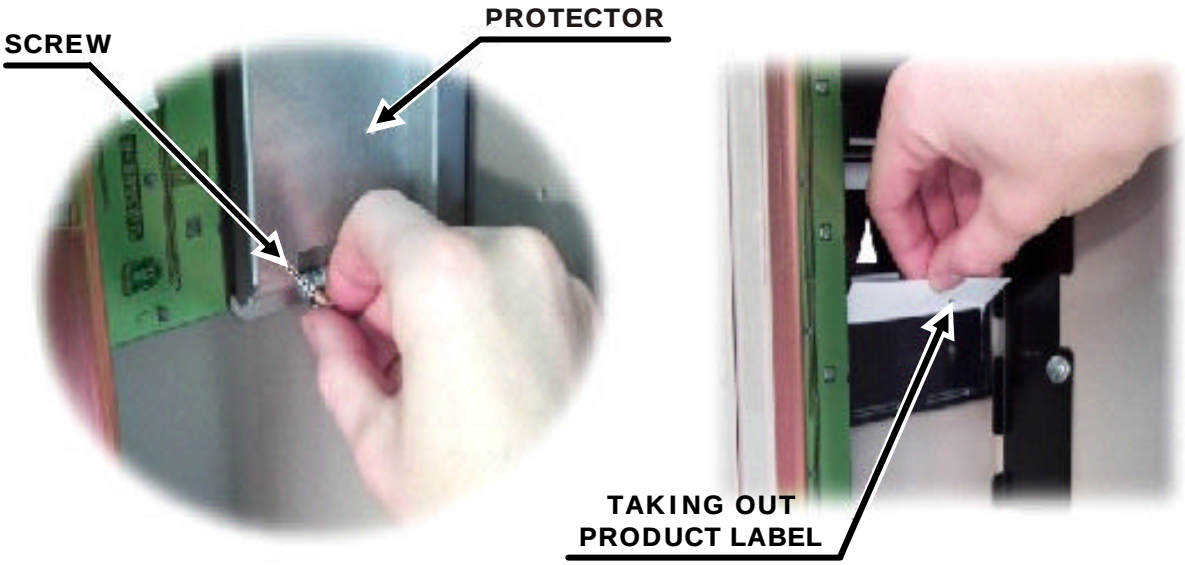
## Change of price labels

The type of product and price are identified with a label for each one, and they are mounted on a plastic support housed in the door, next to the relative direct selection button.

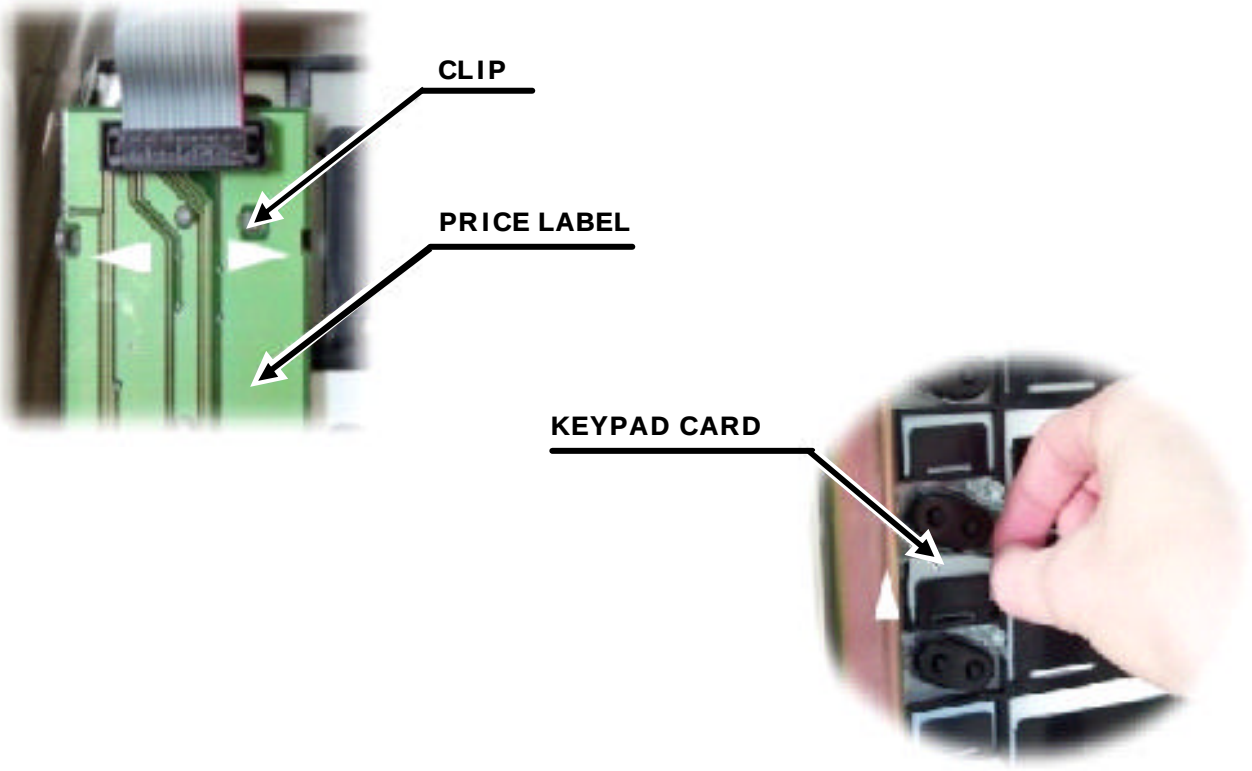
To facilitate identification of the product that must be placed in each channel, the mechanism has some moulds where the label corresponding to the product to be loaded in this channel can be placed.



The product label is changed by previously withdrawing the coin mechanism support. Then we remove the screw of the metal protector and after we remove the product label by pulling it upwards.




To extract the price label the keypad card must be dismantled by releasing it from the eight plastic clips that secure it and then taking out the label by pulling it upwards.



## Checking operation

Close the door and carry out a service for each selection.

Insert all the different coins the machine is going to operate with and check that the change coins go to the right tubes and the rest to the money box.

Verify that the product demanded comes out properly and make sure the machine returns the right change.
After finishing this, display the accounts in function 171 and erase them.

Also empty the return devices and erase these accounts to start the calculation from zero. (See development of a service).

**If the coin mechanism that the machine contains is type MDB, we must also erase the accounts of the return devices in function 174.**

### PHASE 1 - COIN INSERTION


If the exact amount icon is on, this means that the coin mechanism only accepts change coins.

### PHASE 2 - ANALYSIS OF THE COIN: ACCEPTANCE OR REJECTION

The return coins go to the relative tube unless this is full or faulty.
In this case they will be diverted to the cash box.

The rejected coins are sent directly to the refund tray.
Each coin is analysed in function of the sensorisation of the coin validator. If it is accepted, the credit on the display is increased by this amount.

Coins not to be returned are sent directly to the cash box.

## PHASE 3 - PRODUCT SELECTION OR COIN RECOVERY

If the selection takes too long, 15 minutes later the credit disappears.

In the state prior to the selection the credit inserted can be recovered.

If the coin mechanism is executive and it is programmed with compulsory sale, the recovery is not permitted.

## PHASE 4 - MAKING A VEND

The machine compares if the credit inserted is the same, greater or less than the price of the selection requested.

**LESS** **EQUAL** **GREATER**

**RETURN TO PHASE 3**

Is there any problem that prevents the product from being extracted?

YES

Can the return be made correctly?

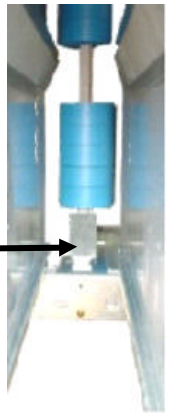
With executive coin mechanism

NO

NO

**RETURN TO PHASE 3**

The relative micro detects product sold out



Product sold out micro

**PHASE 5 PRODUCT EXTRACTION**

With MDB/ICP coin mechanism

**RETURN TO PHASE 3**

Has it made the extraction satisfactorily

NO

The motor has not finished the extraction

YES

Collection and return

The buzzer goes off and the "PRODUCT SOLD OUT" sign flashes at the same time

**RETURN TO PHASE 3**

## Materials and paints

### Door

The sheet metal satisfies Standard: EN 10-142 FeP02 G Z275 Ma.

It is manufactured in steel plate F-111, 1.2 mm thick, galvanised and painted.

The structure is injected with poly-urethane, to improve insulation and afford it greater consistency.

Polycarbonate plastics, very resistant under adverse conditions, are used.

The product collection access door is made of ABS plastic, which is highly resistant to im-pact.

### Glass

The glass is made with a high resistance plastic material, and the picture is standard in its internal side.

Door guides give its curved aspect.

### Cabinet

The sheet metal satisfies Standard: EN 10-142 Fe P02 G 7275 Ma.

It is manufactured in 0.8 mm F- 11 galvanised and painted steel plate.

The structure is injected with polyurethane to improve insulation and afford it great consistency.

## Paint

The painting process consists in several phases:

| | |
|---|---|
| Phase 1 | Washing and degreasing with deionised water and specific degreasing detergents. |
| Phase 2 | Phosphating (addition of phosphates) to prevent rusting and act as primer base. |
| Phase 3 | Priming with coat of zinc to protect against saline vapours. |
| Phase 4 | Hot air drying. |
| Phase 5 | Application of brown polyester powdered paint with fine texture and unleaded (which is environmentally friendly). The reference of the paint used is:<br><br>On JX057 L door<br>OnJx058 L cabinet |
| Phase 6 | Polymerisation of the paint in an oven at 190 ºC. |

## Saline vapour

The resistance of the paint to saline environments surpasses 480 hours as indicated by Standard DIN 50021/DIN 53167. This is the same standard surpassed by the paint of VOLKSWAGEN car bodies.

# Cleaning and maintenance

## Outside cleaning

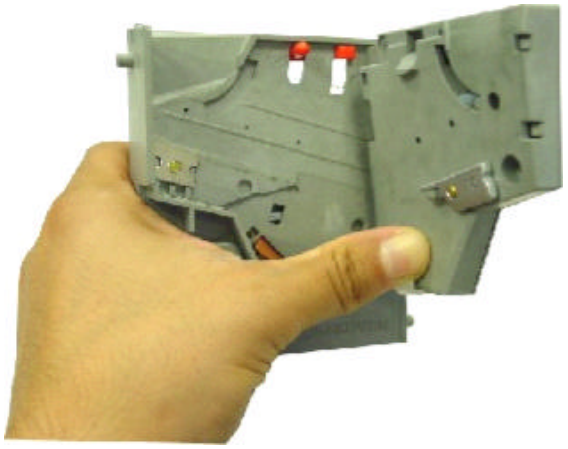
Do not use a spray! Use warm water (between 20C and 40º C) and any of the following products: washing-up liquid, neutral hair shampoos, glass cleaner without alcohol.

Rinse with vinegar solution (acetic acid) with 2% concentration and dry with soft cloth or duster.

In the case of persistent stains (grease, drinks, etc.) use a water solution with sanitary alcohol (96º Ethanol) with 1% concentration.

## Cleaning coin mechanism

Consult the user's manual of the coin mechanism installed.
If your coin mechanism is from AZKOYEN, its maintenance is based mainly on maintaining its selector in good conditions. To do this, proceed as explained below.



It is advisable to use ETHYL ALCOHOL 96º applying it with a brush.

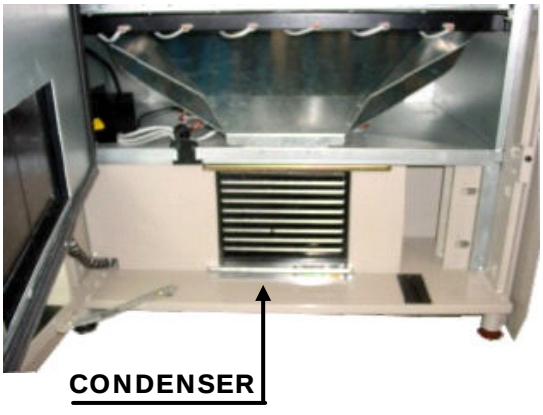
This brush must never have metal bristles.

Benzene carbohydrates must not be used as they would produce a rapid degradation of the plastic and irreparable damage both to the coin mechanism and to the selector module.

Also each time the return module is cleaned, the correct vision of the optic systems, housed in the return tubes, must be verified through function F18.

## Cleaning refrigeration group condenser

Dust and dirt deposit in the condenser as a result of the cooling air that goes through it, driven by the fan.




If the condenser is obstructed, the efficiency of the cooling group decreases as the liquefying of the coolant gas is less.

The condenser must be cleaned from time to time with a vacuum cleaner, a non-metal brush or with compressed air (air, nitrogen, CO2, etc.). As well as the rear air outlet grating.

# Faults, possible causes and solutions

## Faults, possible causes and solutions

Faults are divided into two groups:

Faults "detected" by the self-checking system incorporated into the machine program.
Faults "not detected" by the self-checking system.

### Faults detected by self-check

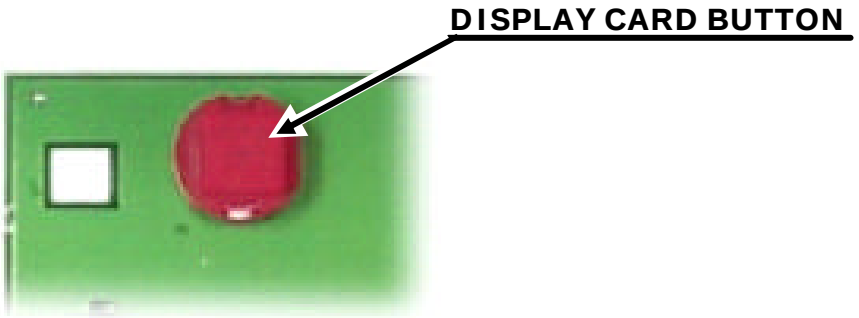
This section will indicate the message that is shown on the display, the possible cause of this fault, and the defective element by order of probability.
The possible "cause" is determined by the checks that the Control Board runs on the various peripheral elements according to the program included in the Eprom memory.
These faults can be classified into two groups:

**TOTAL: The machine is completely out of order, and the display shows "OUT OF ORDER"**

**PARTIAL: The machine continues to operate with a damaged element, and no message is shown on the display.**

**IN ORDER TO DETERMINE THE KINDS OF BOTH THE "TOTAL" AS WELL AS "PARTIAL" FAULTS, "PROGRAMMING" MUST BE ACCESSED.**


In order to reset the machine once the fault has been solved, just enter and exit programming by using key C on the programming keypad or by using the red button located on the back side of the display card.



# Total failure: (Machine out-of-order)

| | |
|---|---|
| MESSAGE | F00 EXTRACTOR MOTOR XX Err. |
| DEFINITION | EXTRACTOR ASSEMBLY BREAKDOWN |
| CAUSE | An extractor motor is operating continuously on its own. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The control board is counting the impulses that reach the micro switch of the motor, and if three or more arrive within a certain period of time, it is automatically placed out of order. | Shelf PCB I/O Card has a short-circuited transistor or circuit.<br>Shelf board short-circuited. |

| | |
|---|---|
| MESSAGE | F01 RETURN Err. |
| DEFINITION | COIN RETURN FAULT |
| CAUSE | The coin return motor is operating continuously on its own. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The control board is counting the impulses that reach the limit micro switch of the motor, and if three or more arrive within a certain period of time, it is automatically placed out of order. | I/O board has a short-circuited Q19 transistor or U10 circuit. |

| | |
|---|---|
| MESSAGE | F02 EEPROM Err. |
| DEFINITION | EEPROM MEMORY FAILURE |
| CAUSE | The EEPROM memory does not record correctly. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| After writing, the EEPROM should show an OK message, if the process was completed successfully. If not, it shows an error. If the EEPROM version is different than the EPROM version, there could be a change of structures. Each time that a block is read, if the size is different from the one included in a field of the EPROM, it will result in an error. | Control Board with the EEPROM memory damaged. |

| | |
|---|---|
| MESSAGE | F03 CONFIG. Err. |
| DEFINITION | CONFIGURATION "DATA ALTERED" |
| CAUSE | The Ram memory programming does not coincide with the EEPROM memory programming. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The checksum of the configuration in the RAM memory is checked and compared with the checksum of the EEPROM memory. If this difers, it attempts to copy the configuration of the EEPROM memory over the RAM memory. If this fails, it will result in an error. | Control Board with the RAM or EEPROM memory is damaged or has altered data. |

| | |
|---|---|
| MESSAGE | F03 NO PRICES |
| DEFINITION | SELECTION CONFIGURATION "DATA ALTERED" |
| CAUSE | The Ram memory does not coincide with the EEPROM memory. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The checksum of the configuration in the RAM memory is checked and compared with the checksum of the EEPROM memory. If this fails, it attempts to copy the configuration of the EEPROM memory over the RAM memory. If this fails, it will result in an error. | Control Card with the RAM or EEPROM memory is damaged or has altered data. |

| | |
|---|---|
| MESSAGE | F04 COIN RETURN MOTOR ERROR |
| DEFINITION | COIN RETURN MOTOR ERROR |
| CAUSE | The coin return motor does not rotate correctly. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The limit micro switch of the coin return module sends a signal to the Control Board every time that the motor completes a 360º -turn. If it takes more than 7 seconds to send the signal or if the signal lasts more than 2 seconds, it automatically causes an error. | **If the motor rotates:**<br>Limit micro switch is damaged. Cam damaged.<br>Limit micro switch cable broken. **If the motor does not rotate:** Motor damaged.<br>Motor cable damaged.<br>Coin return interface cable damaged. I/O Board damaged. |

| | |
|---|---|
| MESSAGE | F05 BUTTON ERROR |
| DEFINITION | COIN RETURN OR PROGRAMMING BUTTON FAILURE |
| CAUSE | The coin return or the programming button has remained activated for more than 15 seconds. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The Control Board controls the time that these buttons are pressed.<br><br>When they stop being pressed, they reset automatically. | The coin return or programming button has seized and remains permanently pressed.<br><br>I/O Board damaged.<br><br>Control Board damaged. |

| | |
|---|---|
| MESSAGE | F09 LOW MAINS POWER Error |
| DEFINITION | THE MAINS POWER SUPPLY IS BELOW THE OPERATING MINIMUM. |
| CAUSE | The mains power supply voltage detected is below the minimum necessary for correct operation. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| It is verified that for 10 seconds the secondary power supply voltage (24 ACV) of the transformer is below the service voltaje.<br>If the power supply remains correct for 60 seconds, it automatically resets. | Drop in the mains voltage.<br><br>I/O Board has a damaged detection circuit<br><br>Transformer is damaged or overloaded. |

| | |
|---|---|
| MESSAGE | F10 TEMPERATURE Error |
| DEFINITION | TEMPERATURE PROBE ERROR |
| CAUSE | The temperature probe is not communicating with the Control Card. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The Control Board communicates with the Temperature Probe every 5 seconds, but if it cannot communicate for 2 hours, it causes an error. | The Control Board communicates with the Temperature Probe every 5 seconds, but if it cannot communicate for 2 hours, it causes an error |

| | |
|---|---|
| MESSAGE | A01 PAYOUT UNIT Error |
| DEFINITION | PAYOUTUNIT FAILURE |
| CAUSE | There is no communication with the payout unit. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The Control Board communicates permanently with the payout unit, and if it does not communicate with it for 15 minutes, it causes an error. | Payout unit damaged.<br><br>Payout unit connection cables damaged.<br><br>Control Board damaged. |

| | |
|---|---|
| MESSAGE | A02 CHANNEL XX Error |
| DEFINITION | EXTRACTOR MOTOR OUT OF SERVICE |
| CAUSE | An extractor motor is out of service. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| The Control Board has detected that the motors exist, but when it activates any of them, in less than 7 seconds it must receive an impulse that lasts less than 2 seconds coming from the limit micro switch. If any of these conditions are not met, an error is produced. | Extractor motor damaged. Limit micro switch damaged. Motor wiring broken.<br><br>I/O Board damaged.<br><br>Control Board damaged. |

| | |
|---|---|
| MESSAGE | A03 KEYPAD Error |
| DEFINITION | KEYPAD FAILURE |
| CAUSE | A button on the selection keypad is permanently pressed. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| If the Control Board detects a selection key pressed for more than 15 seconds, it will produce a failure. When it stops being pressed, it automatically resets. | A button on the keypad is pressed.<br><br>I/O Board damaged.<br><br>Control Board damaged. |

| | |
|---|---|
| MESSAGE | A04 ACCOUNTING Error |
| DEFINITION | ERRONEOUS ACCOUNTING |
| CAUSE | Accounting data has been lost or damaged. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| It verifies the accounting checksum and if it is not valid, it erases the accounting and causes a failure. | Control Board damaged |

| | |
|---|---|
| MESSAGE | A06 CLOCK Error |
| DEFINITION | CLOCK FAILURE |
| CAUSE | The real time clock has stopped or is damaged.. |

| DETECTION | FAULTY ELEMENT |
|---|---|
| If it verifies that after 15 seconds the clock is stopped or is going slower, it causes a failure.<br>It attempts to reset every 5 seconds. | Ram memory of the Control Board damaged. |

## Event log

As an aid to technical services, a function is available, which is called the "EVENT LOG."

This function records the last 50 events that occurred in the machine so that a technician can check the operation of the machine.

**DISPLAY BOARD BUTTON**

These events are described by using an event code and the time and date that the event occurred.

When the number of events exceeds 50, the oldest events are erased successively and replaced by the new ones.

In order to enter this function, proceed as follows:

- Access function "010" by pressing button C or the red programming button.
- Keep button A pressed until the display reads "EVENT LOG."
- By pressing key A repeatedly, it will show the events that have occurred.
- In order to exit service programming, press key C two times or the red programming button.

## Table of event codes

| CODE | DESCRIPTION |
|---|---|
| 0x02: xx (position motor) | A screw motor has started operating by itself. |
| 0x03: xx (position motor) | A motor is not working or it is not detected as working. |
| 0x0E:0 | The coin return motor starts up by itself. |
| 0x1D:1 | The machine has remained off for a period of time that exceeds the programmed time. |
| 0x0E:1 | The coin return motor does not work or its movement is not detected. |
| 0x3A:0 | The clock has stopped or is damaged. |
| 0x3B:0 | Temperature probe failure. |
| 0x11:0 | There is no communication with the payout unit. |
| 0x12:0 | The programming or coin return button is activated |
| 0x13:0 | A selection button is activated. |
| 0x17:0 | Configuration programming failure. |
| 0x17:1 | Selection programming failure. |
| 0x20:1 | The machine has been turned off for a period of time of less than 5 seconds. |
| 0x20:0 | The machine has turned on. |
| 0x21:0 | The machine has been turned off for a period of time that exceeds 5 seconds. |
| 0x23:1 | VTM communication has occurred with the CC, CT, and PP frames. |
| 0X23:0 | VTM communication has occurred with the other frames. |
| 0x30:0 | The EEPROM configuration has been updated. |
| 0x31:0 | The selection configuration of the EEPROM has been up-dated. |
| 0x33:0 | The general accounting data has been erased.. |
| 0x33:1 | The general accounting data has been erased. (MDB Payout Unit). |
| 0x33:2 | Accounting error. |
| 0x36:0 | Erroneous programming |
| 0x37:0 | EEPROM error. |
| 0X38:0 | Low mains power supply. |
| 0x39:0 | The RAM and EEPROM memories have been erased com-pletely (except for the event log). |

## Test function

The objective of this function is to verify the operation of all elements that make up the machine.

In order to access this function, start with the machine in service and press the red programming key for four seconds until the message, "OPERATIONAL TEST," appears.

As from this moment, the various machine elements start being tested. In order to change the TEST from one element to anther, press the Return Key.

**DISPLAY CARD BUTTON**

In order to enter this function, proceed as follows:

- Communication with the Executive Payout Unit.
- Communication with the MDP Payout Unit.
- LED's of the Display Board.
- Coin Return Motor.
- Refrigeration Group.
- Display Test.
- Temperature Sensor .
- Lighting.
- Programming keypad (all of the keys have to be pressed).
- Selection Keyboard (all of the keys have to be pressed).
- Out-of-product microswitches.
- Extractor motors.

## Faults not detected by self-check

| SYMPTOMS | FAULTY ELEMENT |
|---|---|
| One or various buttons do not work | The button or buttons of the Programming Keypad.<br>Wiring loom of the Programming Keypad.<br>Interface wiring loom of the Programming Keypad.<br>I/O Card. Control Card. |
| When a selection is pressed, the LED | The price of the selection is deprogrammed at the price of 9999.<br>The impulses of the selection are deprogrammed with the programming at 9. |
| One or various buttons of the direct selection keyboard do not work. | Selection button board<br>Wiring loom of the selection buttons card<br>I/O Board<br>Control Board |
| The machine does not turn on and the LED diode of the Control Card is blinking. | Control Board |
| The 6.3A fuse burns out when the coin return is pressed. | Coin return motor short-circuited<br>Diode short-circuited<br>Diode installed backwards |
| The machine does not turn on. | The 6.3 Amp. fuse is burned out. The 78H05 (T2) circuit is damaged |
| The machine does not turn on and the on switch button does not light up. | There is no power at the plug where the machine is connected.<br>The 10A F1 fuse is burned out.<br>The mains power cord is loose at the connector on the Power Board.<br>The mains power cord has a broken wire. |
| When the machine is plugged in and not turned on, the electric energy supply disconnects, either because a magneto-thermal triggers or because a fuse in the installation burns out. | Short-circuit |
| The fluorescent tube does not turn on | Fluorescent tube<br>Ballast<br>Starter<br>Lighting cable<br>Power Supply Board<br>I/O Board<br>Check lighting functions 533 and 534<br>Control Card |

| SYMPTOMS | DEFECTIVE ELEMENT |
|---|---|
| Power does not reach the Refrigeration Group. | Group power supply cable<br>Power Board<br>I/O Board<br>Control Board |
| The fan does not work. | Fan motor damaged<br>Damaged fan cable |
| The compressor does not work, but the rest of the machine does. | Compressor damaged<br>Damaged thermal contact<br>Start-up relay damaged<br>Start-up condenser damaged |
| The compressor starts and stops after a few seconds (thermal switching). | Compressor damaged<br>Thermal contact damaged<br>Condenser very dirty<br>Condenser fan does not work |
| The compressor works, but it does not get cold. | Temperature function 468 programmed very high.<br>Excessive dirt on the group<br>The condenser fan does not work.<br>The refrigeration group has little refrigerant. Ice can be seen forming on the first spirals but not on the rest.<br>Humidity in the cold circuit. A ball of ice can be seen forming around the capillary tube right at the inlet to the evaporator.<br>The capillary tube has broken inside the return tube. It can be determined by the formation of ice on the return tube and not on the evaporator |
| A block of ice forms on the evaporator. | The tank fan does not work |

Brands of the Azkoyen Group

AZKOYEN

AZKOYEN MEDIOS DE PAGO S.A.

AZKOYEN HOSTELERÍA

Teidde