

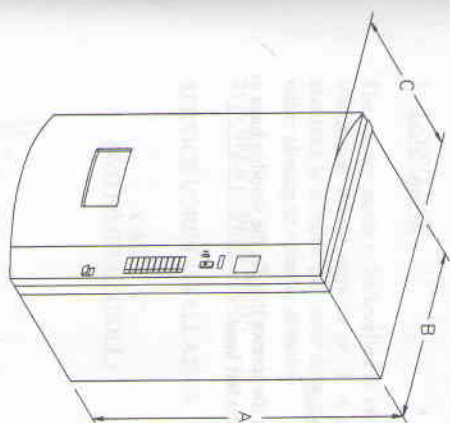
WARNING FOR A GOOD OPERATION OF

VENDER

- DO NOT PLACE THE VENDING MACHINE IN THE DIRECT SUNLIGHT.
- DO NOT CLEAN VENDER WITH WATER SPOUTS. WASHING MUST ALWAYS BE DONE WITH THE MACHINE DISCONNECTED FROM POWER.
- IF AMBIENT TEMPERATURE IS ABOVE 32°C OR UNDER 0°C, ELECTRICAL PARTS MIGHT MALFUNCTION. ASK FOR SPECIAL KITS.
- DO NOT LEAVE THE VENDING MACHINE IN BAD WEATHER CONDITIONS.
- DO NOT PLACE VENDER CLOSE TO PIPE COUPLING OR WATERING SYSTEM.
- IN CASE OF FAILURE OR MALFUNCTIONING, CONTACT OUR AFTER-SALES SERVICE. THE LIST OF CONTACT OFFICES IS AVAILABLE.
- DO NOT REMOVE ANY PROTECTION COVERS.
- ALLOWING AIR TO CIRCULATE FROM THE FRONT TO THE BACK OF THE VENDING MACHINE IS VERY IMPORTANT FOR THE COOLING UNIT.
- DO NOT TRY TO MODIFY THE ELECTRONIC BOARD SETTING.
- DO NOT TRY TO OPERATE THE VENDER WHEN THE DOOR IS OPEN.
- REFER TO THE "CARE AND CLEANING" CHAPTER FOR A GOOD MAINTENANCE.

EACH MACHINE IS PROVIDED WITH AN "INSTALLATION SURVEY" FORM (specimen on page 4) WHICH IS REQUESTED TO BE FILLED-IN. PLEASE SPEND FEW MINUTES TO DO IT. IT WILL BE A GREAT HELP FOR US TO IMPROVE THE VENDOR'S SERVICEABILITY AND CUSTOMER'S SATISFACTION.

TRANSPORT AND POSITIONING



Door type:
ML: MARKET LANDSCAPE DOOR
LS: LANDSCAPE DOOR
DD: "D" DOOR
CD: CURVED DOOR
RD: ROBO DOOR

For moving the machine we suggest to use a transpalette/vending machine hand lift. The wooden base (A) allows the machine to be picked up on 4 sides (fig. 1)

DO NOT TRANSPORT THE MACHINES HORIZONTALLY.

Model	A mm	B mm	C mm	Gross weight	Net weight
336	1680	850	790	340	335
337	1680	850	790	340	335
407	1830	850	790	340	335
408	1830	850	790	340	335
409	1830	850	790	340	335
450	1830	850	790	350	345
472	1830	750	950	300	295
476	1830	750	920	300	295
477	1830	750	950	300	295
480	1830	750	950	300	295
510	1830	1010	790	340	335
511	1830	1010	760	340	335
513	1830	1010	790	340	335
519	1830	1010	790	340	335
541	1830	850	920	340	335
542	1830	850	950	340	335
543	1830	850	955	340	335
544	1830	850	955	340	335
545	1830	850	920	340	335
546	1830	850	955	340	335
549	1830	850	950	340	335
550	1830	850	955	340	335
600	1830	1010	920	375	370
601	1830	1010	920	375	370
609	1830	1010	790	375	370
678	1830	1010	950	375	370
681	1830	1010	920	375	370
682	1830	1010	950	375	370

After having transported the machine near the installation area, remove all packing material, pull out the service cord through the opening in the rodent grill and move it to the final position.

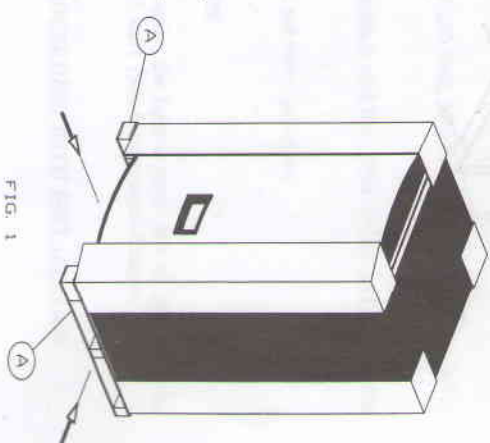
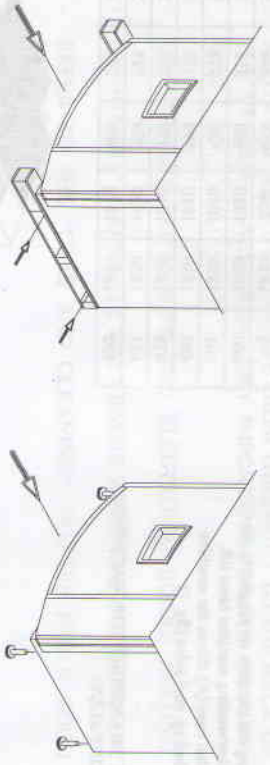


FIG. 1

HOW TO REMOVE THE WOODEN BASE

- 1) With a trans pallet lift up the vendor from the floor (front hold)
- 2) With a 10 adjustable spanner (a ratchet spanner) unfasten the screws that fix the wooden base to the vendor. 2 screws for the right Base and 2 screws for the left base
- 3) Mount the 4 levelling screws to the base of the machine.
- 4) Lean the vendor on the floor



ENGLISH

INSTALLATION

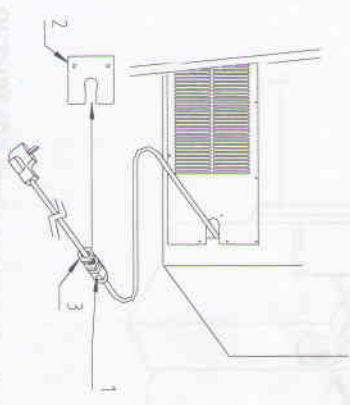
1) LEVELLING:

The vendor needs to be levelled to assure proper working, it is provided with 4 levelling screws on which you should work to get it. A practical method to control if levelling is done with enough accuracy is to open the outer door in different positions and check that it is not moving alone in either closing or opening direction.

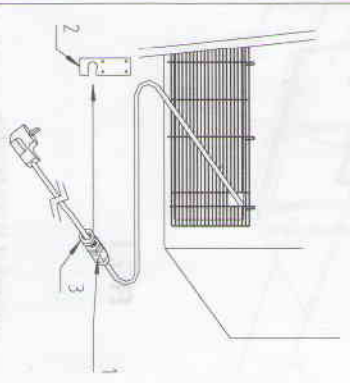
2) POWER CONNECTION:

SERVICE CORD INSTALLATION

CASE "A"
(WITH METAL GRILL)



CASE "B"
(WITH PLASTIC GRILL)



Once the faulted (1) is inserted into the plate (2), fasten the nut (3).

This machine must be connected to a power supply of 230 Volt, 50 Hertz. Any voltage under 207 v or over 253 v can cause a bad performance.

Make sure that the socket is supplied with ground contact and that, after connection, the vendor results properly grounded.

Make sure the neutral wire is the one blue coloured, if not invert polarities.

DO NOT ABSOLUTELY USE EXTENSION CORDS.

The machine can now be connected to the power supply, the lighted panel and all leds showing empty columns will switch on and the cooling unit will start. (See Description - Chapter 2).

REMOVE POWER FROM VENDOR BEFORE PROCEEDING WITH INSTALLATION

ENGLISH

2) COIN MECHANISM INSTALLATION (fig. 1):

Hook the coin mechanism on the 3 screws (E) placed on the coinage door (F). Check that the coin mechanism has the coin entrance in line with the exit of the coin entrance funnel (G) and that the distance between the two parts is not more than 10 mm. The mentioned distance is simply adjustable by loosening the 3 fastening screws (H) on the door and thereafter moving it upwards or downwards. After doing this operation remember to tighten the screws again.

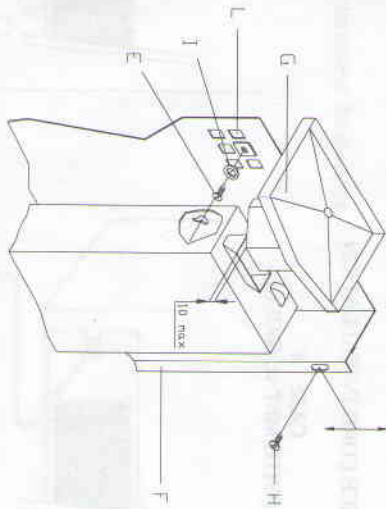


FIG. 1

It is possible to change the coinage position in the two directions of the horizontal plane to adapt products of some manufacturers that do not follow exactly the international standards. To move in left-right direction change the (L) position of plastic snap-in nuts just removing the supporting screws before repositioning them.

It is also possible to move the coin mechanism to front or to back by installing spacers (washers I) between the coinage door and the back of the coinage bracket.

Once the setting is done remove the rejector and tighten the 3 supporting screws (E) (These operations are not necessary if you use a coin mechanism suggested by Vendo Italy S.p.A.)

Actuate the coin return button (M) and check that the mechanism works properly. It is most important that the rejector opens as much as possible. If this does not happen you will have to adjust the height of the coin return motor.

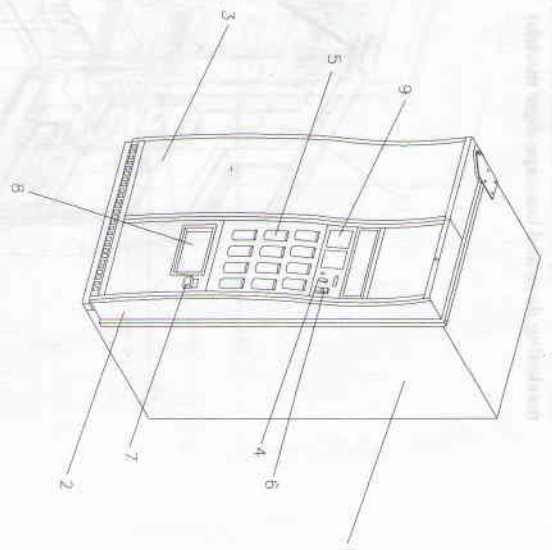
Connect the coin mechanism to the MDB connector which is insert on a bracket close to the coinage.

WARNING: Coinages with Executive protocol have two connectors, a power supply connector which comes directly from the transformer box, and a communication connector from the main board.

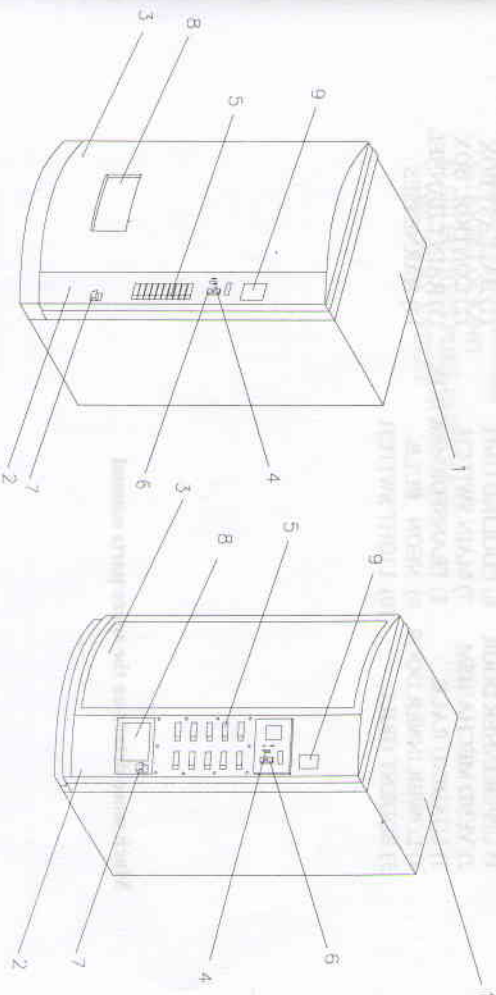
DESCRIPTION

OUTSIDE (MD door)

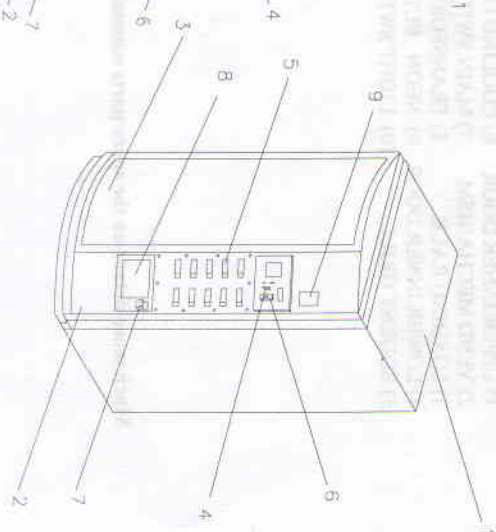
- 1) CABINET
- 2) DOOR
- 3) LIGHTED SIGN FACE
- 4) COIN INSERT SLOT
- 5) SELECTION BUTTONS
- 6) DOOR LOCK
- 7) COINS RETURN
- 8) DELIVERY EYELET
- 9) P.O.S. WINDOW



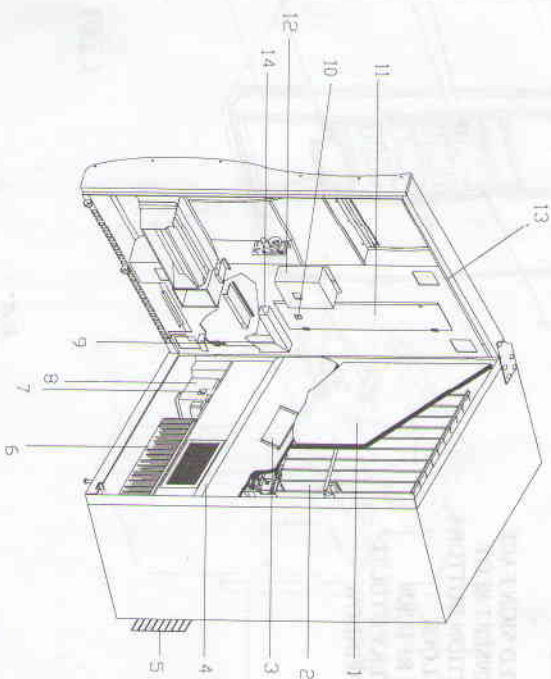
OUTSIDE (DD door)



OUTSIDE (LS door)



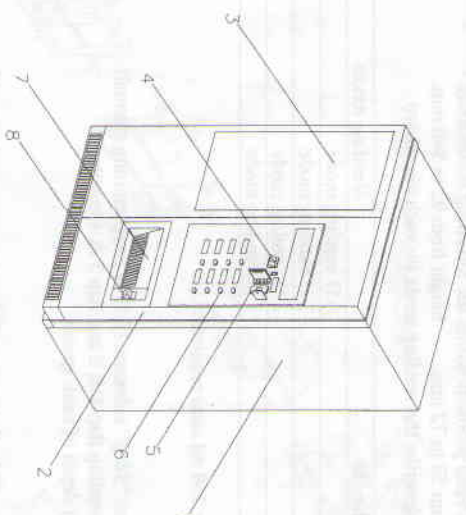
INSIDE
(due to similarity of construction you can refer to same drawing for both marketing door and lanscape door models)



- | | | |
|---------------------|--------------------|------------------|
| 1) UPPER INNER DOOR | 6) COOLING UNIT | 11) BALLAST BOX |
| 2) VEND MECHANISM | 7) MAIN SWITCH | 12) CONTROL BOX |
| 3) LOADING RACK | 8) TRANSFORMER BOX | 13) RAIN CHANNEL |
| 4) LOWER INNER DOOR | 9) NEON BULB | 14) HARNESSES |
| 5) RODENT GRILL | 10) LIGHT SWITCH | |

Much more details on the spare parts manual

OUTSIDE VIEW (RD door)



- | | |
|---------------------------|----------------|
| 1) CABINET | 8) COIN RETURN |
| 2) DOOR | |
| 3) NEON PANEL GLASS | |
| 4) SLIDE COINS INSERT | |
| 5) DOOR LOCKING | |
| 6) SELECTIONS PUSH BUTTON | |
| 7) DELIVERY EYELET | |

COLUMN SET-UP

This machine can vend products within the following dimensions:
Diameter from 53 to 72 mm, height from 92 to 340 mm.
The follow table describe the vending mode for each dimension :

Product height	Vending mode
53*-120 mm	4 D vending mode
120 - 180 mm	3 D vending mode
180 - 245 mm	2 D vending mode
245 - 340 mm	1 D vending mode

* Special kit for 250 ml cans required.

Set 1D mode:

- Program 1D on "Sdep" submenu (follow programming manual)
- Connect the vending flap 1 & 2 and flap 3 & 4 together
- Set the correct depth of back spacer

Set 2D mode:

- Program 2D on "Sdep" submenu (follow programming manual)
- Connect the vending flap 1 & 2 and flap 3 & 4 together
- Set the correct depth of back spacer.

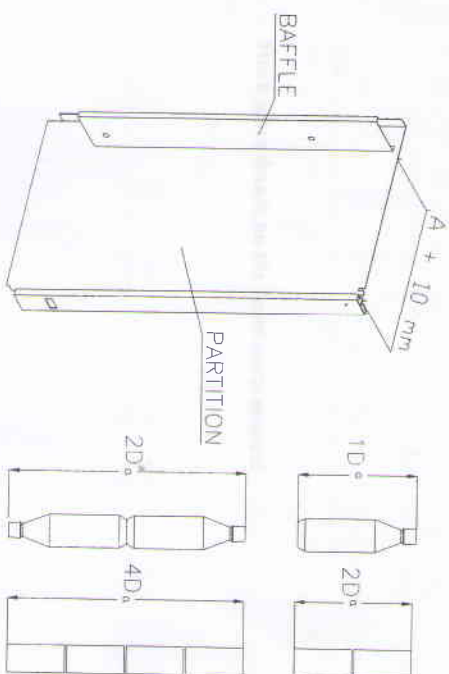
Set 3D mode:

- Program 3D on "Sdep" submenu (follow programming manual)
- Connect the vending flap 1 & 2 and flap 3 & 4 should work independently.
- Set the correct depth of back spacer.

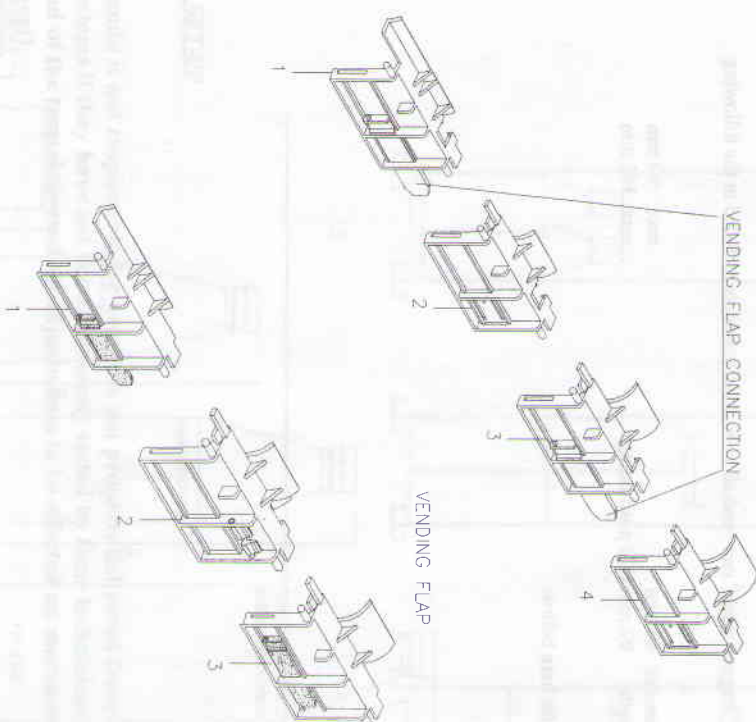
Set 4D mode:

- Program 4D on "Sdep" submenu (follow programming manual)
- Leave the vending flap disconnected, all vending flap should work independently
- Set the correct depth of back spacer

Setting of back spacer depth:



Vending flap connection:
The flaps arrangement at the bottom of each vend mechanism is as shown in the following drawing. The connections 1 & 2, 3 & 4, accordingly to vend products, is done pushing the plastic locker of flaps 1 and 3 into the slots of flaps 2 and 4.



Final check:

Load the column until it is full.

Make selections and check the proper reload and delivery of the products.

If you have some problem probably you have to add some partition spacer or other special kit (for example for 25 L cans).

In this case contact Vendo to know your nearest authorised technician.

You can also send your product to Vendo, we will make the necessary tests to find your correct set-up.

Most common products have already been tested in the factory. Ask the set-up number of the product you want to vend and refer to this number in any order of vending machines. We will build the machine accordingly to your specification.

“STAGGER STACK” MECHANISM

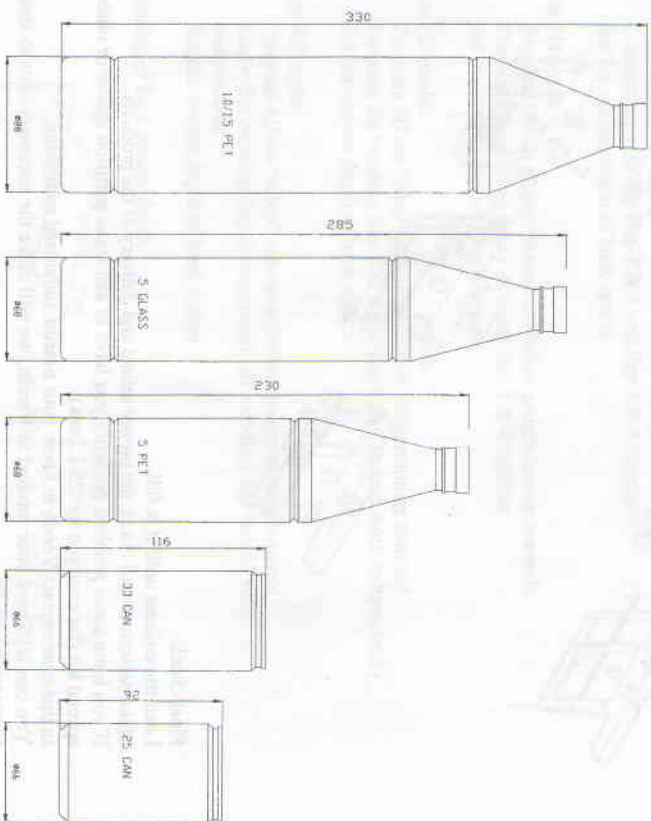
1) POSSIBLE USES:

The column “Stagger-stack” can vend all cylindrical products included in the following measures:

minimum diameter 66 mm
minimum length 92 mm (3D positioning)

max. 90 mm
max. 345 mm

Some examples here below:

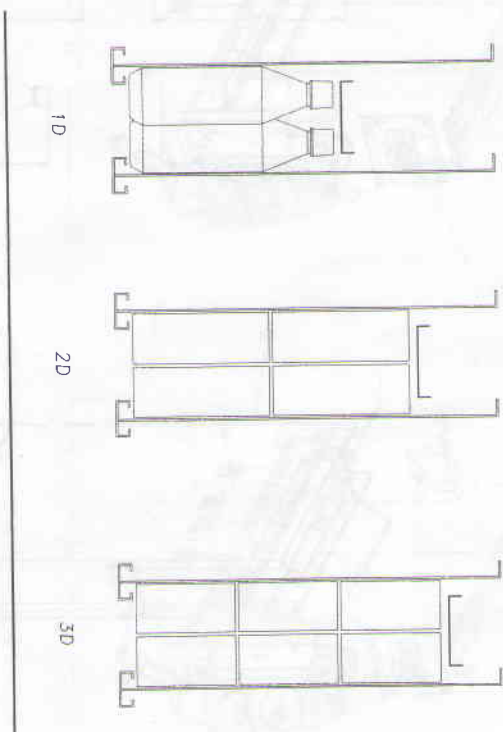


Vendo reserves the right to approve the vend of all products which are not perfectly cylindrical only after testing them.

Moreover Vendo is not responsible for uses and applications of the vender which are not explained in this manual.

2) CHARGMENT:

This Mechanism can vend packages stacked in following ways:



3) SET-UP

Vendo is not responsible for products not properly delivered from their vend systems if they have not been previously tested by their technicians, and at the end of the tests delivered all adjustments to be effected on mechanism (set-up sheet).

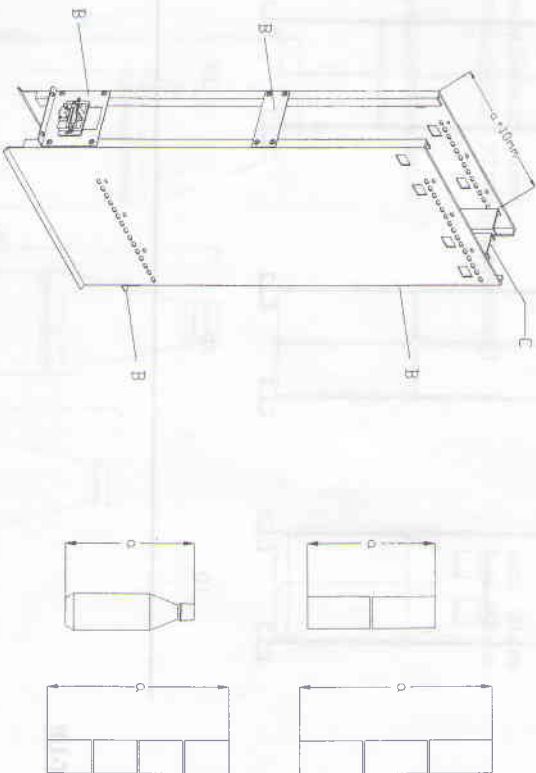
We suggest you should not change the set-up of a column if you do not have a set-up sheet issued by Vendo.

Instructions for conversion of one column or more:

- 1 Set the bucket of the column to be converted on load position (horizontal bucket)
- 2 Remove power from vender (by actuating the main switch)
- 3 Open both inner doors and disconnect column to be converted
- 4 Remove fixing screw of the column placed below vend motor(on mechanism support) ; lift the column and extract it
- 5 It is now possible to separate the motor from the column itself by removing 4 screws; this procedure is necessary only to modify the width of the column

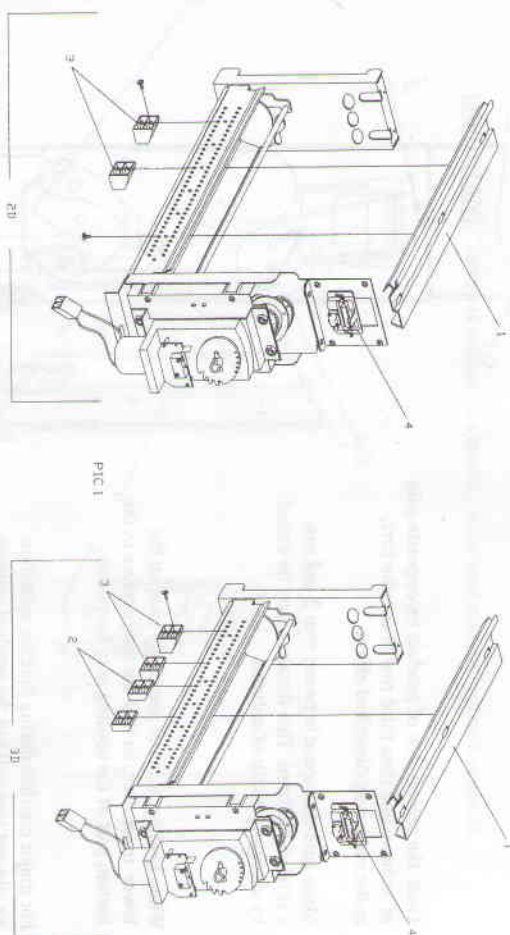
6 Look the set-up sheet to have the right code of the 4 plate (B) to make a correct width of the column.

7 Positioning the baffle (C) with 4 screws, so to obtain a distance a +10mm, as draw.



8 For 2D and 3D columns, place the black plastic cam which is behind the motor in order to make the correct number of vends per revolution. For 2D vend a vending cam can have 2 free slots. For 3D vend a vending cam can have 3 free slots.

9 Use spacers (2) and (3) of different lenght in order to get a 2D or 3D vend (Pic.1). To install or remove spacers refer to the set-up sheets.



10 Adjust the height of sold-out lever (4) until the machine shows empty column when there still are two rows of products in the column (or refer to set-up sheet).

11 For some set-up (Pic.1) is necessary to install, bucket plastic conveyor (1), or spacers (to be installed inside the column). The code and the quantity are always mentioned on set-up sheets.

12 Re-install the column on the machine and connect it to the mechanism harness.

13 Give power to vending machine.

FIRST CHARGMENT:

Place the first product on the shelf (R) so that it is against the front plate of mechanism and, if the column is a 2D or more, add other products directly behind it. At this time there must not be any product in the bucket (1).

Load the second row of product on opposite side of column and then third row above the first, in the same way described above.

Make sure that space between row 2 and row 3 is of about 3mm. This distance may be varied by changing width of column.

When loading, it is not necessary to open the lower inner door, so that the temperature in the bottom part of the cooling area keeps low.

For major comfort during loading operation we suggest you pull out the product support.

Continue to load column until at least 10-12 rows of product have been loaded.

Give power to vender. Having the coinage already been installed (see chapter coinage installation) and some products loaded, the display must show an advertising message (not the writing "sold-out"), and sold out red lamps, placed near each selection push button, must be off.

Assuming that the amount of each selling price is already set on the electronic board or coinage, close both the inner and the outer door, insert proper amount of money and make a selection.

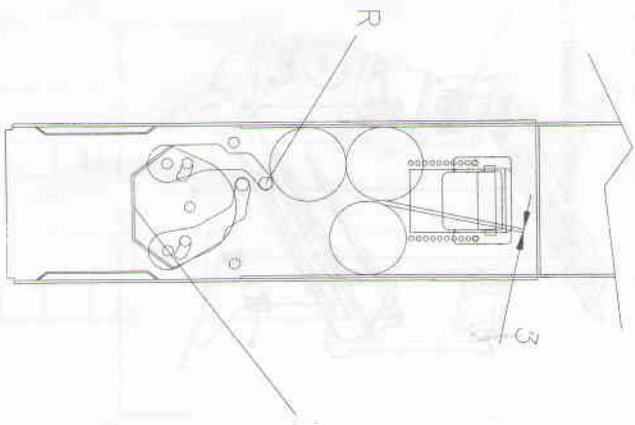
Repeat same procedure for each selection.

During this first series of selections the following must happen:

Each single mechanism takes care of placing the product in its correct position (for 2D and 3D columns make more than one selection before the column delivers the product).

From now on, to any selection made should correspond the delivery of one product. The each vend column so that the bucket conveyor rotates at least twice for each vend mechanism.

Open doors and complete loading operation.



TETRA-PAK COLUMN

IMPORTANT: Tetra-pak column is a module set to vend cans and tetrapak products.

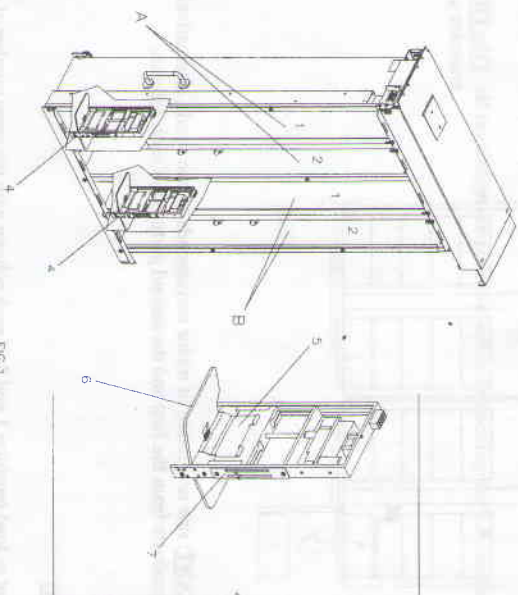


FIG. 3

OPERATION

Tetra-pak column (fig. 1) is made of two columns (A and B) (two selections are possible) divided into two partitions (1 and 2). Each column is run by a motor assy. (4) and this motor assy. alternatively starts the two dividing doors (5) and the two vending flaps (6).

VEND SEQUENCE

Product selection.

Start motor.

Motor assy (4) open the dividing doors (5), by holding products inside the column, apart from the last one (A) (figure 2).

The motor stops when the cam close the vending flap (6).

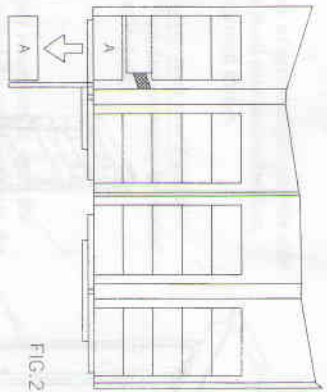


FIG. 2

IMPORTANT: one revolution of motor corresponds to two vends, alternatively releasing products from the first and the second partition of each column.

LOADING

Is important to load partition 1 and 2 of each column with the same number of products (fig. 3), because, alternating the vend between the first and second partition, the sold-out is actuated when one partition is completely empty.

When loading is completed, close the front gate and make sure they are properly hooked.

We suggest you load products with "straw", always with the straw upwards.

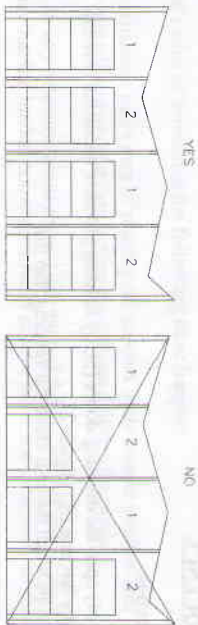


Fig. 3

SETTING

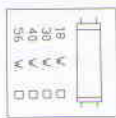
We recommend you change the setting of a column only if you have a Set-up sheet issued by Vendo and corresponding to the product you want to vend.
For product with a different height must be regulation the correct height of the dividing doors (5) by the pin (7) on motor assy (4).

IMPORTANT: all regulation are possible without removing the T.P. module on the vending machine.

INFORMATION - WARNING SIGNALS

Vendo vending machines have a series of messages to make the user aware of the dangers existing when handling the machine.
Here below are some examples:

1) Power of lamps. The indication is for each single lamp.



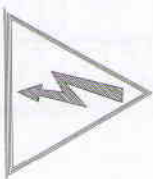
2) Warning: the vendor must be properly grounded.

WARNING
This vendor must be properly grounded.
ACHTUNG
Dieses Gerät muß ordnungsgemäß geerdet werden.
ATTENTION
Le distributeur doit être connecté à la terre.
ATENCIÓN
La máquina debe estar correctamente conectada a tierra.
ATTENZIONE
Il distributore deve essere collegato a terra.

3) Type of refrigerant used.

CFC FREE R134A

4) Warning: Parts behind the cover are under high voltage



5) Fuse indicator.

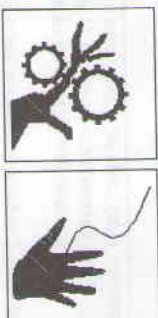
F10A/250V

6) Vending machine name plate:

COST. PARTI SULLA		Vendo®	
VENDITA ITALIANA S.p.A.		CONTRATTAZIONE E ASSEMBLAMENTO	
MODEL	SERIAL N°	ALIMENTAZIONE	NE
		NOMINALE POWER	W
		REFRIGERANT	kg
		MAX. PRESSURE	bar
		CLASSE	II
CE		CFC FREE	
Made in Italy			

Production date: month/year

7) WARNING: be extremely cautious when handling vend mechanism.



8) Final inspection certificate.

WHEN ORDERING REPLACEMENT PARTS GIVE THE FOLLOWING INFORMATION			
MODEL _____			
SERIAL NO. _____			
FINAL INSPECTION CHECK			
INSULATION TESTED	<input type="checkbox"/>	WIPROT TESTED	<input type="checkbox"/>
COOLING UNIT TESTED AND TESTED	<input type="checkbox"/>	MAIN BOARD SET-UP	<input type="checkbox"/>
VEND MECHANISM TESTED	<input type="checkbox"/>	LIGHTS WIRING	<input type="checkbox"/>
SAFETY CUT-OUT SWITCH TESTED	<input type="checkbox"/>	ALL DOORS CHECKED FOR PROPER CLOSING	<input type="checkbox"/>
MACHINE CLEAN	<input type="checkbox"/>	FINAL ACCEPTANCE	<input type="checkbox"/>

- ☐ When changing a blown fuse use the same type, amperage and voltage indicated.
- ☐ When refilling cooling unit use the same refrigerant and quantity indicated.
- ☐ When replacing a lamp use one of same wattage.
- ☐ Before removing a part with label 4 disconnect power.
- ☐ When ordering spare parts provide the model and serial numbers.
- ☐ Your machine has passed a factory electrical insulation test (report is inside the machine). Any time you remove a part marked with label 4 or replace an electrical component you must repeat the test.

CARE AND CLEANING

For the vendor to work in good conditions it is very important that it is clean and cared for. Please follow the suggestions below:

REMOVE POWER FROM THE VENDOR BEFORE CLEANING AND HANDLING ELECTRICAL AND MECHANICAL PARTS.

Painted areas	<ul style="list-style-type: none"> - Wash vendor with soap and water. The exterior may be waxed with any good automobile wax. - Paint splashes, grease, and glazing compound may be removed by rubbing with solvents.
Scratch removal	<ul style="list-style-type: none"> - Hairline scratches and minor abrasion can be removed (or minimised) by using any good quality automobile polish.
Lexan signs	<ul style="list-style-type: none"> - When cleaning the lexan sign faces the following cleaning procedure is recommended: - wash sign with a mild soap or detergent and lukewarm water - using a soft cloth or sponge, gently wash the sign. Do not scrub. - rinse well with clean lukewarm water - dry thoroughly with a chamois or cellulose sponge to prevent water spotting <p><i>Caution: Almost all organic solvents, petroleum, spirits or alcohol are not compatible cleaning materials for lexan signs. Usage of any of these materials could permanently damage sign.</i></p>
Refrigeration area	<ul style="list-style-type: none"> - The condenser and evaporator must be kept clean for efficient operation. You must be sure that all vanes and tubing are clean and clear of obstruction to allow free air passage. Clean with a brush, a vacuum cleaner or compressed air. <p>ATTENTION: to remove the cooling unit you must wear gloves.</p>
Delivery chute	<ul style="list-style-type: none"> - keep delivery chute clear of dirt and incrustation.
Drain tube	<ul style="list-style-type: none"> - make sure the drain tube is clear of obstructions.
Crown box	<ul style="list-style-type: none"> - periodically empty the crown box (when used)

GENERAL CAUTIONS

<ul style="list-style-type: none"> - Do not use in any case: - abrasive cleaners - highly alkaline or acid cleaners - benzene - leaded gasoline - acetone - Never scrape with razor blades or other sharp instruments - Do not clean in hot sun or at elevated temperatures - Do not clean the vendor with water spout - Take care when you clean parts protected by covers or electrical components. In these cases power must be removed from vendor. - Do not use water or any other liquid detergent - When using any liquid cleaning material, remove power from the machine. 	
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TROUBLE SHOOTING GUIDE

The following table reports all the most common troubles that could happen on our vending machines. Below are listed all the possible causes together with the suggested solutions to eliminate them.

We remind you that our after-sales service is at your complete disposal for any technical assistance you may need.

<i>Trouble</i>	<i>Possible causes</i>	<i>Suggested solutions</i>
It returns all coins	no power to vendor no power to coinage the coinage is out of order or the coin return lever does not close coin acceptor is dirty machine is empty	check the power supply make sure that the connection harness is not defective and that the fuse is not blown check the coinage or replace the levers clean the coinage with a detergent. Dry thoroughly. either all columns are empty or, those which are not empty, have signalled a product jam to the board. Check operation of all full columns with the manual test, and after that reset errors (refer to programming manual).
Coin accepted, no product vended	set prices are too high error in communication coinage - board motors are blocked	reset prices (refer to programming manual) check connection cord between coinage and board and, if necessary, replace coinage or board. make sure that 24V reach the motor when a selection is made (refer to the programming manual)
The vend motor runs until two or three products are vended and after that the column is in sold out.	motor switch is defective	Substitute or clean motor switch
The display shows vend counter	door close sensor is not actuated	adjust the position of door close switch actuator
The column shows sold out even if it is full	products are bridging above sold out sensor	check the column set-up is correct check the sold out switch is working
Cooling unit does not work	no power to vendor failure on communication between power board and VM C	check power supply. Check the connections of the service cord and fuses. check communication harness integrity

The compressor does not work, the condenser fan runs, the compressor is cold	the overload protector and/or the relay do not work the relays board is defective	check overload protector or compressor starting relay. check windings of compressor have correct electrical resistance. check that driving relay has close contact check harnesses
Compressor works but cooler's temperature is not ideal.	condenser fan does not work condenser is dirty evaporator fan does not work system is out of gas temperature setting is not correct EMS not well programmed	check circuit. Replace motor. Check if the fan is blocked, check driving relay board check if condenser fins are dirty or obstructed check circuit. Replace motor and make sure that fan is not blocked. check driving relay board check if there is any leak and re-charge only with the quantity and kind of gas declared by the manufacturer. adjust set-point (refer to programming manual) check that Energy Saving program is correct and change if necessary (refer to programming manual)
Compressor runs continuously	driving relay board defective temperature setting is wrong gas leakage	check driving relay board and harnesses control right temperature setting refill the cooling unit after leakage repair. (Check evaporator motor fan (see previous instructions)
Evaporator covered in ice	evaporator motor fan not running cold compartment sealing is not good	change gasket(s) and/or adjust inner door(s) closing. check that delivery flap is not stuck in open position

