

# Manual for vending machine

## Model 540



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Thank you for choosing the Vending-Box Company device. The aim of the following manual is to familiarize the user with operating and functions of the device.

Vending-Box Company allows to copy this manual only as whole since it forms an integral unity.

The device and the screenshots used in the manual may differ from the actual device. Accessories added to the device may look different from the ones illustrated in this manual. The latest version of the manual can be found on the Vending-Box Company webpage: <http://www.vending-box.com>.

The producer reserves the right to modifying the properties of the equipment described in the manual without giving earlier information and does not take responsibility for any errors in this document being the result of inappropriate printing.

## EXPLANATION OF SYMBOLS

In order to emphasize important information, there are two ways of presenting important information in the text. The first one refers to safety tips.

Other important information which need special attention are marked in the following way:



Safety tips are marked with a warning triangle and gray patch lined with horizontal lines above and below the text.



The tips in the text are marked with this symbol. They are lined with horizontal lines above and below the text.

The words **in bold** are entries explained in the glossary.

## GLOSSARY

### DISPENSING POINT

a group of devices within which there is one **master device** equipped with the **user's interface**, controlling work of other devices. In the managing application, the group of devices is displayed as one block. The most basic case is when the **dispensing point** is formed of only one **master device**.

### USER'S INTERFACE

a panel in the right door of the dispenser, used for communication between a person and the machine. It contains a display, group of buttons and proximity card scanner.

### MASTER DEVICE

a device which is a part of **VNET** net devices, responsible for general control.

### SUBORDINATE DEVICE

a device which is an extra equipment for the **master device**, controlled by it and completely dependent on it, with no possibility of functioning independently.

### MANAGING APPLICATION

program which enables to manage a group of dispensing points, installed and started on Vending-Box or Client's servers.

### ROTATING FEEDER

central part of the device whose role is to store products. The feeder which is also called 'a drum' consists of a set of cells.

## PRODUCT CELL

limited room for keeping products in the feeder.

## PROXIMITY CARD

an individual user's card for automatic identification.

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**GENERAL INFORMATION**

**1 Important information on safety.**

Please refer to the following tips. Non-compliance with the instructions may be dangerous or illegal.

The machine is constructed in such a way that the feeder cannot rotate after the door is open, except for the situation of the user’s purposeful operation as well as when the sliding flaps are open. In case of damage of the elements of the door, especially of the sensor of door opening, sliding flaps or any covers, the machine must be immediately disconnected from the power supply.

The device may be repaired only by the qualified Vending-Box service or authorized service. Repair by a non-qualified service or non-authorized service can result in the machine damage and loss of guarantee.

This device is not waterproof. It must be protected from moisture.

The battery cannot be exposed to very low or very high temperatures (below -15°C / 5°F or above 40°C / 104°F). Extreme temperatures may affect the volume and durability of the battery. The battery should also be protected from liquids and metal objects. This kind of contact may partly or entirely damage the battery. The battery is to be used only for its intended purpose. You must not destroy or damage the battery or throw it to fire – it may be dangerous and cause a fire. Used or damaged battery should be put in a special container. You must not open the battery. Installation of a battery of an inappropriate type may cause fire or explosion.



The device is a class A product, it may cause disturbance in radio waves, which will need undertaking action by the user.

**2 Use of the device**

D540 dispenser is a combination of an automatic dispensing cabinet and managing software.

The system solves the problems of managing and dispensing of many types of products for industrial and other purposes in production places.

The use of the system of dispensing management with the use of D540 dispenser facilitates analysis and control of all the distributed items, ensures safety and availability of products 24 hours a day, 7 days a week without additional cost of storing and manual distribution.

**3 In case of failure**

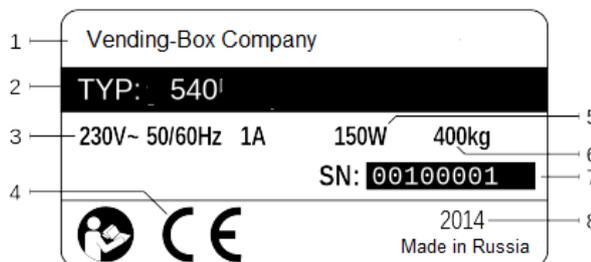
In most cases any technical problems are fixed on the way of minor repairing operations. However, before contacting the producer, careful reading of the following manual is recommended. If any serious failure occurs, contact an authorized service.

**4 Identification of the device**

Each machine is identified by a unique serial number, which can be found on the rating plate fixed to the back of the device, at the bottom part. The rating plate includes data, which allow the user to define basic parameters of the device, such as electric parameters or the dispenser’s weight.

The rating plate includes information on :

1. data of the producer
2. name of the device
3. information on power supply
4. CE marking
5. maximum power consumption
6. weight
7. unique serial number
8. year of production



**5 Parameters**

Dimensions	Height	1915 mm
	Width	805 mm
	Depth	790 mm
Weight	400 kg	
Permissible weight	275 kg*	
Range of work temperature	5-40 / -15-40 °C**	
Relative humidity	do 80%	
Power	Voltage	230 VAC
	Frequency	50Hz
	Maximum current	1A
	Power consumption	25 W / 150 W***
Communication interfaces	Ethernet	
	Wi-Fi	
	GSM	
	VNET	
Accepted proximity cards	125kHz	Unique
		Hitag
		Q5
		HID
	13,56 MHz	MIFARE® Classic
		MIFARE® Plus
		MIFARE® Ultralight
		MIFARE® Ultralight C
		MIFARE® DESFire
		MIFARE® DESFire EV1.
*maximum load of a single loading shelf 0,5kg		
**version with extended range of working temperatures		
***average power consumption/maximum momentary power consumption		

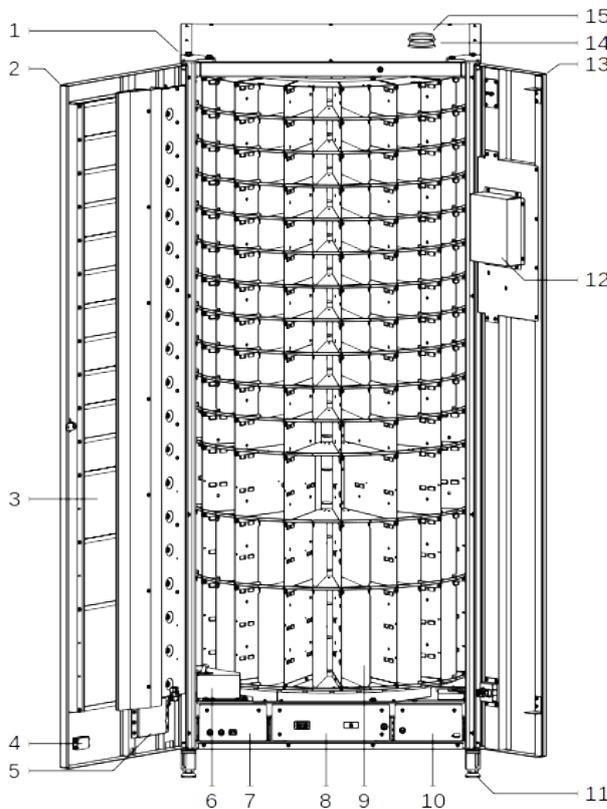
## 6 The machine construction

During the D540 dispenser was being designed, our aim was to design a device which would be easy to operate and maintain. Because the device is an industrial facility, whose functionality must be immediately restored in case it works inappropriately, it has a module construction. The main components like power supply unit, drive, left or right door can be easily replaced with a spare component.

### General view

The dispenser has monolithic, cubic construction. In the front part, there is a double-leaf, asymmetrical door. The left door leaf is opened with a key supplied with the device. In this door, there is a range of sliding flaps which ensure controlled availability to the feeder cells from outside and which includes all the electromechanics of the flaps and steering electronics. The right door is opened after loosening two safety screws, which are inside of the machine by the door's left edge at both the top and bottom of the door. In the right door, there is a controller of the user's panel and the panel.

Below: the display of the general view of the device.



1. upper hinge of the door,
2. left door,
3. sliding flap,
4. tappet for the door sensor,
5. left door controller,
6. drum brake,
7. power supply unit,
8. front panel,
9. rotating feeder,
10. main driver,
11. adjustable foot,
12. cover of the controller of the user's panel
13. right door,
14. Wi-Fi antenna,
15. GSM antenna.



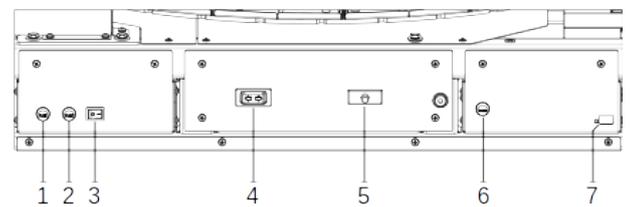
On the upper cover of the machine, there are two antennas for radio communication. In order to make the radio interfaces work properly, you must not place metal elements nearby, particularly the antennas must not be covered with any elements.

In the lower part of the device, there is a module of the power supply unit, main driver, drum brake and drive module installed inside the device in its back part.

The central element is the rotating feeder whose role is to store the distributed items. The construction of the feeder enables its easy configuration in order to adjust the size of the item storing cells.

### 6.1 Inner front panel

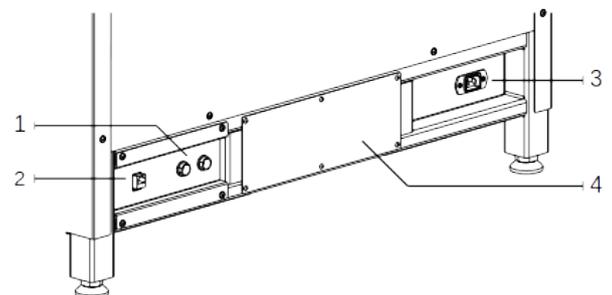
All switches and use sockets are inside the device on the front panel, at the bottom of the machine. Their exact location is showed below:



1. Fuse socket F1
2. Fuse socket F2
3. Main switch
4. Switch for semi-automatic feeder rotation
5. Sensor of the right door opening
6. Fuse socket F3
7. VNET gate address adjuster

### 6.2 Back of the device

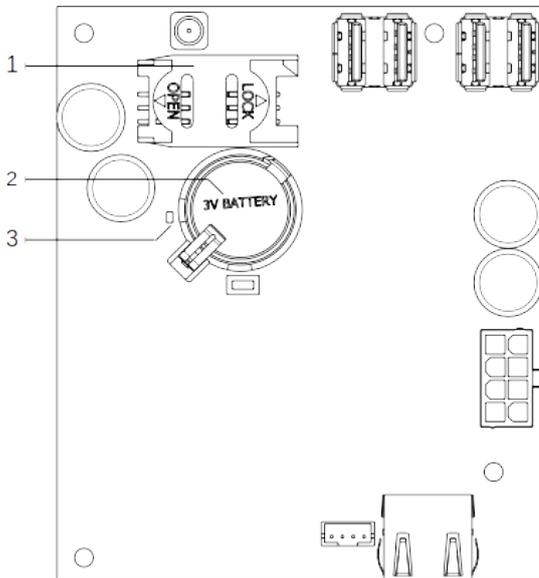
At the back of the machine, there is a range of connection sockets whose role is to supply power to the device, connecting it to the ETHERNET and connecting subordinate devices with the use of VNET bus. Here is also the rating plate thank to which the device and its parameters can be identified. The exact location of these elements is showed below:



1. VNET bus connectors
2. ETHERNET connector,
3. Power supply socket,
4. Rating plate panel

 The connection of the power supply through the socket at the back of the dispenser is an emergency stop switch because of lack of access to the min switch when the dispenser door is closed. Remember to ensure an access to the power supply cable so that it can be disconnected any time

**6.3 User's panel controller**



The controller is responsible for the user's panel functioning. It is located on the inner side of the right door. It is protected by a cover, which can be removed with the use of a cross-head screwdriver.

1. SIM card socket with a lock
2. 3V battery
3. Power supply diode

**6.4 Touch Panel**

The basic interface used for communication with the device is the user's panel located in the right door of the dispenser. The view of the panel is showed below:

1. Function touch button,
2. User's panel display,
3. The scan field of proximity card reader

For identification of the user, there is a proximity card reader located below the user, there is a proximity card reader located below the display behind a glass panel. Depending on the reader, the range of the scan field is from a couple to several centimeters. All information for the user are displayed on the 7" screen. On both sides of the screen and below it, there are fifteen touch buttons. Functions of the buttons depend on the information displayed on the screen. The touch buttons react to human fingers' touch. It is possible to touch the buttons in thin gloves but it may make the quality of the operation worse. You must not use a stylus or other pointing elements, which might not be recognized by the touch buttons, and in particular situations they may scratch the surface or even break the glass surface of the user's panel.

**7 Transport**

Original package secures the device against abrasion or minor hits. However, in order to avoid damages, particular safety measures should be taken during transportation. The device is adjusted to transportation directly by a forklift.

The device may be lifted on each side. However, remember that the fork of the forklift is placed under the whole machine and extends out of its contour.

During transportation and storing, no other objects may be placed on or in the device.

In transportation of the device, because of possible vibrations and inertia of the rotating feeder, the brake should be unlocked so the drum could rotate freely. Otherwise the brake lock mechanism may get damaged.

It is recommended to be careful when placing the machine on the floor. It should be done gently in order to avoid excessive shock.

Even when placing the device in the final destination, a forklift or pallet truck matching the device weight and dimensions should be used. You must not move the machine.

 Because the center of gravity is located high, it is necessary to fix the device for transportation with securing belts. Before lifting the machine, make sure if its weight is within the range of the used lift. Information on the weight of the device is to be found on the rating plate.

In case of longer storage of the machine, it is recommended to periodically (every second month) connect the device to the outer power supply for 48 hours in order to charge the battery installed in the machine.

**8 Environment protection**

 All the parts should be utilized according to the standards of environment protection.

The proper utilization enables preserving valuable natural resources and avoiding negative influence on health and environment, which may be endangered by inappropriate waste proceedings.



The device together with its package should undergo recycling.

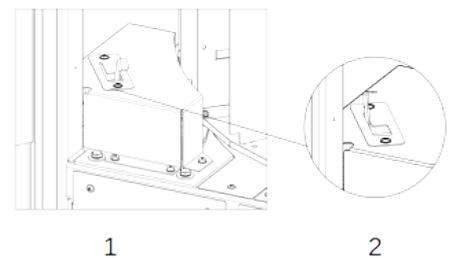
Illegal utilization is the subject to penalties.

**European Union countries**

Devices marked with this symbol should not be utilized together with municipal waste. More information may be obtained from the producer.

**Non-European Union countries**

The owner of the device should contact local authorities in order to obtain information on the appropriate utilization.



**INSTALLATION OF THE DEVICE**

## 9 Location of the machine

The machine is not intended to be used outdoor. It must be located in a dry indoor place and it must not be moisturized by any water or other liquid drops. If the machine is equipped with radio communication systems, all metal objects must be placed in the distance of at least 1 metre from the machine.

## 10 First start-up

Before the first start-up, it is obligatory to get familiar with this manual. If the information included in it is not precise enough, please contact the producer's service.



All procedures described in this chapter should be done with the machine disconnected from the power supply.

Before starting up the device, you must check technical condition of the machine, if it has not been damaged mechanically in transport. In case you find any damage, it must be assessed if it affects safety and if it might limit the functioning of the device. If so, any starting-up procedures should be stopped.



If you are not able to define the device condition or you have no qualification to assess if the damage might cause any danger to the user, contact an authorized

First thing to be done after placing the machine in its final destination is to level it with the help of four levelling feet, which are supplied with the device. While placing the machine vertically, use an appropriate lift. Do not lift the device with the use of the levelling feet.

Next step is regulation of the left and right door hinges, which could be moved in transport. To do it, you should use upper hinges fixed with tree screws each, two from the top and one accessible from the inside of the machine. To get access to the inner screws, you must open the device.

Hinge screws should be only loosened and after regulating the hinge, they should be screwed so that the hinge could not be moved during opening the door. After regulation, the space between the doors should not be bigger than 3 mm, equal along the door edges. The outer edges of the doors should fit the contour of the shell of the machine. After the right door is blocked, you must check if the sensor of the left door opening switches after it is closed. You should hear a clear click of the sensor pins. If after closing the door, the switch is not on, you must move the tappet of the door sensor located on the left door so that the sensor is clearly switched on after the door is closed.



The door opening sensor is one of the elements responsible for safe work of the machine. In case it is not switched on after closing the left door, feeder rotation will not be possible.

The last thing which should be done before starting up the device is verification of the free feeder rotation. To do it, you must unlock the drum by pulling the brake rod away from the feeder and pushing it away from you so that the rod gets blocked in the gap of the brake shell. In the picture you can see the view of the brake in the position blocking the rotation of the feeder (1) and in the position of the blocking mechanism pulled in (2).

After unlocking the drum, the feeder may be rotated manually. Give the drum a full turn checking if the movement is free and no alarming noises come out of the machine which could mean that the drive mechanism might be damaged. If you notice inappropriate work of the feeder, stop the device starting-up.



If you are not able to define clearly the state of the feeder's work, contact an authorized service.

If the condition of the machine is verified, the device is leveled, door suspension is regulated and the feeder rotates freely, the machine is ready to be started. More information on this subject can be found in the chapter: Starting the device.

## 11 Starting the device

If the device has been transported or has not worked for a longer time, follow the procedure described in the chapter: First Start-up.

In order to start the device, first you must plug it in the power supply. Connecting the machine with the power supply of 230VAC should be done when the main switch is in the 0 position.

The connected device must be laced behind the ground-fault circuit and the power socket must enable connection with PE conductor.

After connecting the machine with the power supply and switching on the machine with the main switch (position 1), the device will be started.



Switching on the power supply, with the opening door sensor turned on causes automatic rotation of the drum in order to set its position.



Remember not to leave protruding elements in the feeder and to move aside from the feeder after switching the machine on.

After a short while, the display shows start-up screen with description of the model of the machine and a variety of status icons informing about the state of starting-up.

### 11.1 ETHERNET

The first one to be started is the ETHERNET interface. This showed icon informs about the connection with the net. If the connection is successful, the icon color will change from gray to blue.



Extra information on ETHERNET connection configuration is to be found in the chapter: Configuration of net interfaces.

### 11.2 WLAN

The second step is starting the WLAN interface. This icon informs about the state of connection with the net. If the connection is successful, the icon color will change from gray to blue. If the WLAN interface is switched off, this stage is omitted. The wireless net interface is not supplied with the standard equipment. Extra information on WLAN connection configuration is to be found in the chapter: Configuration of net interfaces.



### 11.3 Packet data GPRS connection

The last net interface started is the GSM modem for connection of packet data. This icon informs about the state of connection with the GSM net. The status information shows the signal strength, 0-4 bars and the state of packet data connection. If the connection is successful, the edging will change the color from gray to blue. If the GSM interface is switched off, this stage is omitted.



Extra information on GSM connection configuration is

to be found in the chapter: Configuration of net interfaces.

### 11.4 Time set correctness

Next step is verification of the time set in the Real Time Clock (RTC). In case of discharging or damaging the battery, the device will download the current time from the configured time server using the connection with the internet. While downloading the information on the current time from the internet, the device informs about it generating three short sound signals.



If downloading the current time from the server is necessary, it is essential to set the connection with the internet with the use of ETHERNET, WLAN or GSM.

If the verification of RTC time is successful, the icon will change the color from gray to blue.

### 11.5 VPN connection

Next step is connection with the VPN (Virtual Private Network). The showed icon informs about the state of connection with the net. If the connection is successful, the icon color will change from gray to blue. If the VPN connection is switched off, this stage is omitted.



### 11.6 Device data reading

Finally, reading and verification of data recorder in the non-volatile memory of the device. If the operation is successful, the showed icon will change from gray to blue.



### 11.7 Starting the dispensing application

After correct introduction of all the active steps of the starting screen, dispensing application is started. The default screen after starting is the screen of waiting for the user's logging in with the use of the proximity card. After starting the application, the device is ready to normal work such as dispensing, loading or configuration described in chapter: Configuration of the device.

## 12 Switching off the device

To switch off the device, you must turn the main power supply switch to the 0 position. In the emergency situation, the machine may be switched off by unplugging it from the power supply socket, at the back of the machine.

After disconnecting from the power supply, the controller of the user's panel is powered from the battery and produces a sound signal for about a minute, informing about power disconnection. If the power is supplied back within this time, the machine will immediately restore its work.

Switching on the power supply with the opening door sensor switched on causes automatic rotation of the drum in order to set its position. Remember not to leave protruding elements in the feeder and to move aside from the feeder after switching the machine on.

If the power is not supplied back, the machine will stop producing the sound signal and will get switched off. If the power is supplied when the machine does not produce the sound signal any longer, all the starting-up procedure described in the previous chapter will occur.

Emergency power supply is realized with the use of

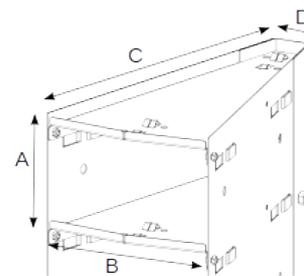
installed battery. The battery used is able to ensure maintaining the operation of the controller four times per day at the minimum, after power disconnection, for all the cycle of the battery durability.

## CONFIGURATION OF THE DEVICE

### 13 Configuration of the feeder

Product cells may differ in size. The user has a possibility to individually adjust the size of shelf to the product even when the machine is already in use. In the feeder of the D540 dispenser you can set 6 different sizes of product cells.

Selecting a cell type, you must set it for the whole level in the feeder. It is not possible to set two or more different sizes of product cells on one level. Changing the width of a cell, you must properly set also the element defining the opening width of the sliding flap.



The chart below shows all available types together with dimensions and number of cells for each type setting in the whole feeder.

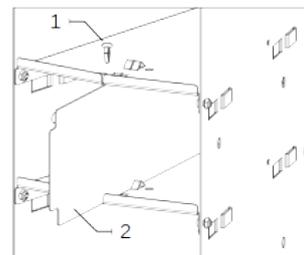
Number of cells	A	B	C	D
540	80mm	75mm	275mm	15mm
270	80mm	150mm	275mm	30mm
270	170mm	75mm	275mm	15mm
180	260mm	75mm	275mm	15mm
135	170mm	150mm	275mm	30mm
90	260mm	150mm	275mm	30mm

It is possible to change the height of product cells during the use of the device. However, this kind of reconfiguration can be done only by an authorized service or a qualified technician.

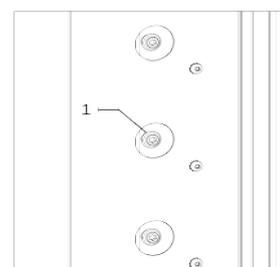
For each level of the feeder we can match a product which will be dispensed from it. Such matching forms a scheme of loading for a certain level. Thank to matching a product to a level and forming such a scheme of loading, we can load this space with products directly to the feeder through an open left door-leaf.

#### 13.1 Change of the width of the product cell

In order to make the product cell wider, on the selected level you must remove a blocking dowel (1) of certain partition (2) and pull it out completely. To install additional partition, you must do this in the reverse order.



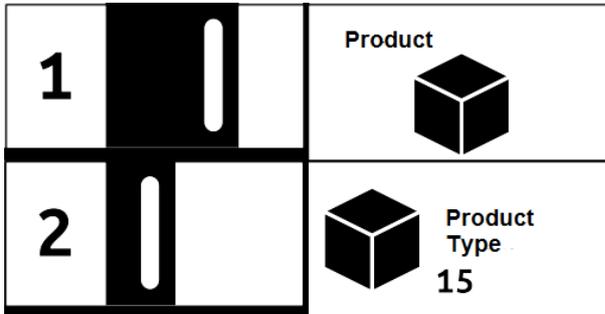
If a new partition is installed, set it so as the blocking dowel prevented it from falling out. A bigger notch in the front part of the partition makes it possible to pull out the dowel in the cell below.



**13.2 Regulation of the width of opening sliding flaps**

The width of opening of the sliding flaps depends on the element of the lock limiting full opening (1). If full opening of the flap and 15 cells on the level re needed, the cap covering the lock must be removed. To set the width of opening the flap to the 1/2 width, the blocking element must be screwed and covered with a plastic cap.

**13.3 Configuration of the feeder in the user's panel/assigning the product**



In the menu of configuration of the feeder, it is possible to set a scheme of loading and size of the product cell for each level of the feeder.

In the picture below you can see two levels of the device marked 1 and 2. On the level 1, the width of loading window is set to 1/2, there are 30 cells on the level. In this case a product for loading scheme has not been selected so this level can be loaded through flaps. There is no possibility of product loading directly to the drum.

For the level 2, the full width, 15 cells for the level and a certain product matched have been set. Next to the product icon, its category, defined type and name are displayed, and we can see the number of items of the certain product matching this level, here it is 15.

In order to change the width of the product cell, you must select the proper configuration, pressing the button on the chosen level on the left side of the panel. To match or cancel a product for a certain level, you must press the button on the right side of the panel.

In order to make the dispenser work properly, the width of cells must be set according to physical configuration of the feeder, and products must be matched with certain levels according to the needs.

 To install or replace the SIM card, flat key 10mm and cross-head screwdriver are needed.

 Before replacing the SIM card, the machine must be switched off. The device produces short, regular sounds informing that data is recorded. After recording the data, you must wait 30 seconds.

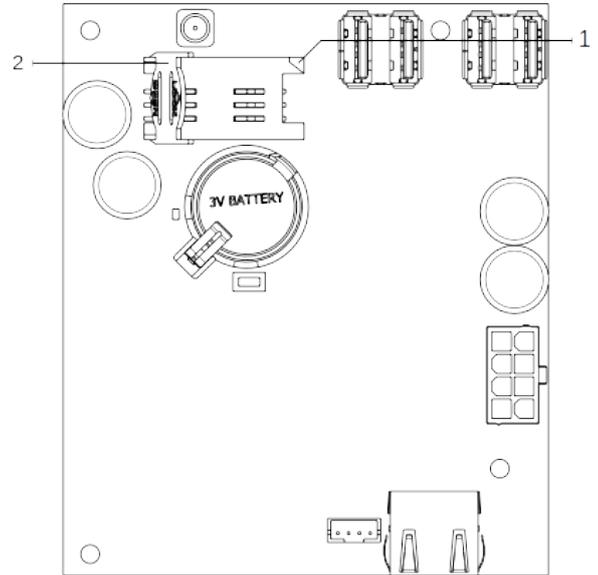
During removing the cover, you must be careful not to damage the controller.

**14 Replacement of the SIM card**

The SIM card socket is located on the controller plate of the user's panel. To replace the SIM card, screws fixing the cover of the controller of the user's panel must be unscrewed.

Insert the SIM card to the tray. Unlock the tray moving

it slightly towards OPEN and then move outside of the socket. Insert the SIM card so that the cut off corner of the card fitted the cut off corner of the socket. Close the tray with the installed SIM card and lock , moving it towards LOCK.



1. Cut off corner,
2. SIM card tray

After installation of the SIM card, fix carefully the cover of the user's panel controller.

To ensure the proper work of the SIM card, configure the settings of the net interfaces. There is a detailed description of it in the chapter: 3.3 GSM interface.

**15 Configuration of net interfaces**

Configuration of the parameters of net interfaces is possible to be done in the menu of advanced settings, accessible only for a user like serviceman. The device may be equipped with maximum three net interfaces: ETHERNET, WLAN and GSM and the equipment for connection with the ETHERNET and GSM is standard one with every device. After introducing changes in the menu of the advanced settings, the machine should be updated.

**15.1 ETHERNET interface**

In order to configure Ethernet interface, match the right values with the parametres below:

NAME	Description
ETH	Defines if the interface is on. Admissible value YES or NO.
ETH_ADDR	IP address of the device in X.X.X.X or DHCP in case of the dynamically assigned address.
ETH_MASK	Net mask in X.X.X.X. Ignored parameter in case of switching on the client's DHCP.
ETH_GATE	IP address of the gate in the net in X.X.X.X. The parametre is ignored in case switching on the client's DHCP.

All the predefined text values should be typed in capital

letters.

### 15.2 WLAN interface

In order to configure WLAN interface match the right values with the parametres below:

NAME	Description
WLAN	Description
WLAN_ADDR	Defines if the interface is on. Admissible value YES or NO.
WLAN_MASK	IP address of the device in X.X.X.X or DHCP in case of the dynamically assigned address.
WLAN_GW	Net mask in X.X.X.X. Ignored parameter in case of switching on the client's DHCP.
WLAN_SID	IP address of the gate in the net in X.X.X.X. The parametre is ignored in case switching on the client's DHCP.
WLAN_PASS	Name of the wireless net, which the device is to be connected with.

All the predefined text values should be typed in capital letters.

### 15.3 Interfejs GSM

In order to configure GSM interface, match the right values with the parametres below:

NAZWA	Description
GSM	Defines if the interface is on. Admissible value YES or NO.
GSM_A_CCN	Access number.
GSM_A_PN	Name of the access point.
GSM_PIN	PIN number of the SIM card.
GSM_SMS	Defines if during connecting, the text messages are to be deleted from the SIM card. Admissible value YES or NO.

All the predefined text values should be typed in capital letters.



Configuration of the connection of packet data depends on the operator and the tariff plan. If you do not know the settings needed for connection through GSM, contact an operator of the net which the used SIM card

In case of wrong PIN code, the SIM card may be blocked. Before you start transmission of packet data, make sure the given PIN code is right.

**LOADING AND DOWNLOADING PRODUCTS**

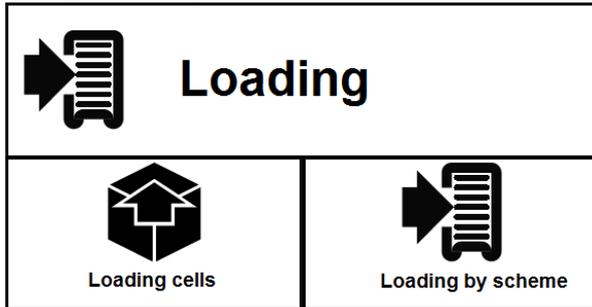
**1 Loading**

The feeder may be loaded with products in two different ways. The first one is loading the feeder through flaps, the second one is loading with a scheme, and in this case a product is matched with a certain level of the feeder.



In order to have access to the loading function, in the user's account you must set his type to either **LOADER** or **SERVICEMAN**.

Available ways of loading the feeder are in the menu of loading showed below:

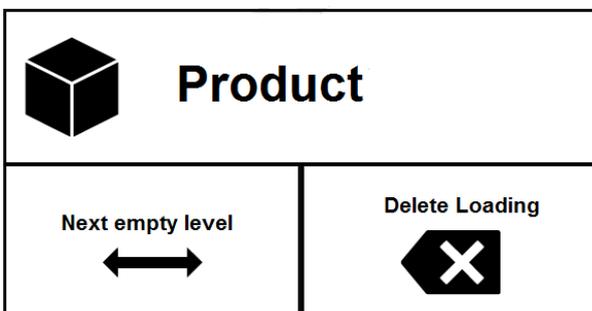


**1.1 Loading through flaps**

In the mode of loading through flaps, it is not necessary to open the machine. Products are loaded through sliding flaps unlocked automatically for empty product cells. To start loading through the flaps, choose this mode in the menu of loading.

Before starting to load, make sure that the door of the machine and the sliding flaps are closed, otherwise there will appear appropriate information on the screen.

On the screen there will appear the menu showed in the further part of this chapter. At the top you can see information about the product which is currently being loaded. To change the loaded product, press the button, either the left or the right one which is at the height of the data about the product, and select the one which is to be loaded. The device automatically unlocks these sliding flaps, for which the product cells are empty. The LED diode, which is on the left, informs about the state of the flap lock. The red color means the flap is locked, and the green color means the flap is unlocked and ready for loading, the orange color means the flap is



unlocked, open but treated as loaded.

The user may open unlocked flaps and load the cells with a chosen product. If all empty cells are loaded or there are no more empty cells of the needed dimensions, the user may turn the feeder selecting the button **NEXT FREE COLUMN** in the menu. The device will prepare the first available column in which there is at least one

empty cell.

If the function **DELETEOPENINGS** is used, but you do not want to delete all the openings, leave such flaps open in the moment of pressing **DELETE OPENINGS**.

If the user opens the flap, but does not have a product which could be put in the empty cell, it is possible to delete the information about the flap opening and product loading. In this case, select the button **DELETE OPENINGS**, the closed flaps, which were opened before, will be treated as unloaded and the orange diode will become green.

The user can change the loading product any time. In case of loading a few kinds of products, the sequence of loading described above should be carried out for each product separately.

**1.2 Loading according to the loading scheme**

Loading according to the loading scheme means loading the drum with products matched with certain levels through the open door. To do it, open the machine in order to have a direct access to the feeder.

To have an access to the whole loading space in the feeder, you must turn it manually or in the semi-automatic mode. The manual turning of the feeder is possible after unlocking the drum brake as it is described in the chapter: **First start-up**. Semi-automatic turning of the drum is carried out with the use of the switch left-right which is inside the device in its lower part. To activate this function, pull the moveable element of the door sensor.

Products should be loaded according to the loading scheme, whose setting is described in the chapter: **Configuration of the feeder in the user's panel/matching the product**. Products are to be loaded from the position 1 upwards. If a certain level is not fully loaded, leave empty space in the last partitions of the level. It is not necessary to load all the levels available

If, for any reason, we do not add products on a certain level, do not replace them so that the empty space is at the end of the loading space of the level.

in the loading scheme.

After product loading to the feeder is finished, enter the current number of products on every completed level. To do it, use the screen accessible after selecting the option **ENTER THE LOADED NUMBER** in the menu



of loading. On this screen there will appear all levels with the set loading scheme as it is shown below:

For every level, there is information about the matched product, the current number of the products and the volume of all the level. To find out about the number of the products after loading, use the buttons on the left and right side, here: decrease and increase the number by 1. Instead of the icon +, there may appear the button: **F (Full)** setting the current number of products to the maximum for the certain level.



If the number of products on a certain level has not been changed, do not interfere in the current number of products

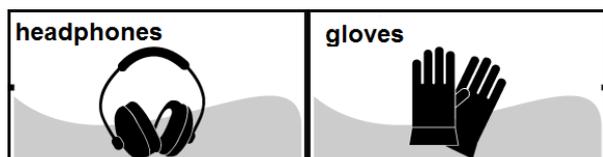
After entering the data is finished, exit from the main

menu and save the changes. Data about loading will be saved after the exit from the main menu.

### Product downloading

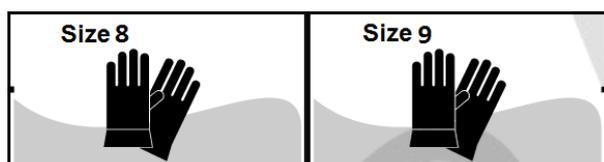
The basic function of the device is product dispensing. This function is available for each type of user, i.e. DOWNLOADER, LOADER, SERVICEMAN. However, the menu of product downloading is a default menu after the user's logging in only for the DOWNLOADER. In other cases it is the service menu with additional functions.

After moving to the menu of product downloading, the user can see the catalogue of products, which are available for him according to the profile of his authorizations. The user selects the product he wants to download selecting first the category which the product belongs to. Below there is a description of an example of choosing dotted gloves, size 9. In this case, the user presses the button which is on the right side of the gloves icon.



Next, the user selects the type of product on the screen of categories, here this is the button of the type DOTTED, on the left side.

Finally the user selects the product, which is the SIZE 9 here on the screen of products for this type.



After selecting the product, it is displayed on the dispensing screen, where there is also information on the state of the machine and commands for the user. The dispenser prepares the feeder so that the nearest chosen product is available through the flaps. Next, the flap behind which there is the loaded cell is unlocked. The user is informed about this by a short sound signal and the colour of the LED diode of the selected flap changes from red to green. Now the user can open the cell by moving the flap, download the chosen product and close the flap. The operation of dispensing is recorded in the device memory and sent to the system.

In order to download next product, repeat the described operation.

Besides the view of products in the catalogue, the user may see the list of products downloaded in the recent time. In this way the stage of selecting a product is shortened. To move to this list, press the middle button on the user's panel, on the screen of categories. To move back to the screen of categories, press the same button on the screen of downloading history list.

During the product downloading, check if all the elements which were in the product cell were taken. Leaving elements which would stick out of the cell space might cause blocking the feeder rotation.

**MAINTENANCE**

**1 Cleaning and conservation**

The device contains a battery ensuring its proper switching off in case of disconnecting from the outer power supply. If the device is not used for a longer time, it is recommended to regularly connect it with the outer power supply (every second month) for 48 hours in order to charge the battery.

The device does not need any special conservation, but it should be placed in a clean, dry area. Keeping the device clean (e.g. dusting) should be done with the use of a damp piece of cloth with a non-aggressive detergent. Avoid 'soaking' the machine, especially its electronic elements. Regularly check if the drum rotation is fluent. The rotation should be even without any jamming. Also the movement of flaps should be checked and rails should be smeared occasionally to decrease friction. The performance quality of the mechanism blocking the feeder rotation should be controlled.

**2 Periodic inspection**

The device needs warranty periodic inspection every 12 months in order to control all the mechanisms not available to the user, such as drive, transmission, electromechanical elements. Information on the warranty periodic inspection can be obtained at the authorized service.

**3 List of spare parts**

The producer guarantees full availability of all spare parts for the dispenser, however during normal use of the device, only two types of parts might be needed. One type is parts which get worn out during the use of the machine, and the second type is parts needed during re-configuration of the feeder and door with the sliding flaps.

**3.1 Parts being the subject to replacement**

Due to the used technical solutions, the machine contains few elements which are subject to replacement. Here is the list of such parts:

1. Default power supply battery
2. RTC (Real Time Clock) battery
3. Toothed belt of the drive transmission
4. Pin locking the mechanism of brake

**4 Replacement of consumable elements**

**4.1 Replacement of the battery**

In case of losing the power supply, the machine is maintained by the default power supply battery, which is fixed behind the main device controller. It allows to record the machine data onto the micro SD card.



To replace the battery you need a flat key 10mm and a cross-head screwdriver.



Before changing the battery: Switch off the machine.



Re-start the device. This option is available in

the main interface menu. It is available only for SERVICEMAN.



While moving the module, be careful not to damage the controller.

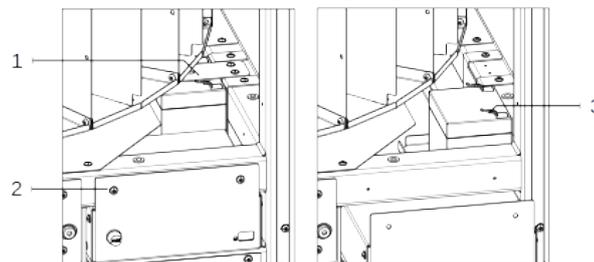
On the front panel, turn out the screws fixing the module of the main controller and move it gently forwards to enable moving the battery.

Next, remove the yellow pressure plate by turning out two fixing screws.



Be careful not to short connectors of the battery with the yellow pressure plate and the drum.

Now the battery may be moved and the cables disconnected. There are three cables connected with the battery: red (+), black (-) and temperature sensor.



1. Pressure plate
2. Screws fixing the module of the main controller
3. Battery connector

New battery should be firstly connected with the machine according to the marking: red (+), black (-). Place the battery on the base and tighten the yellow pressure of the battery so that the temperature sensor is in the opening of the pressure.

After finishing the battery replacement, gently insert the module of the main controller, turn in the fixing screws and put in the fuse to the socket F3.

**4.2 Replacement of the RCT (Real Time Clock) batteries**



To install or replace the SIM card, you need a flat key 10mm and a head-cross screwdriver.

The battery socket is located on the controller plate on the user's panel. In order to replace the battery, turn out the screws fixing the controller cover on the user's panel.



Before replacing the SIM card you must switch off the machine. The device produces short regular sound signals which inform about the process of data recording. After recording the data, wait for 30 sec.

While removing the batteries, unlock the batteries first. The new battery must be put in the socket so that the battery gets locked.

After installation of the battery, fix carefully the controller cover on the user's panel.

## **5 The parts required during the reconfiguration of the machine.**

In order to change the configuration of the dispenser, it may be necessary to install additional elements, which were not installed at the production stage. Here is the list of elements which may be supplied as additional equipment:

1. Sliding flap (low, medium, high)
2. Aluminum flap rail
3. Limiter of flap opening
4. Middle shelf of the drum
5. Cell partition (low, medium, high)
6. Pin securing a partition
7. Set of screws to fix the drum shelf.

## GUARANTEE

### 1 Guarantee card

Each device is supplied with a guarantee card with its serial number and guarantee period.

### 2 Guarantee conditions

1. The guarantee card is valid only with the proof of purchase. The card must be properly filled in, including the name and model of the machine, its serial number and the date of purchase.
2. The guarantee entitles to free of charge repairs of the purchased machines in the time of 24 months.
3. When reporting a faulty product, the authorized by the guarantee person should submit a written description of the device fault with information about the environment of the device location and the manner the fault appeared. The written description should be enclosed with the returned product.
4. The necessity of repairing the product by service, confirmed by the guarantor, requires the written agreement to proceed this operation. The guarantor is not responsible for the damages caused in submitting the product.
5. In cases not dependent on the retailer, the period of carrying out the repair may be prolonged to 30 days, from the date of delivery of the product to the Vending-Box service.
6. The cost of delivery of the damaged device to the seat of the service is on the applicant's side. If the damage is recognized as the subject of the warranty service, the cost of delivery will be returned by the guarantor, but the cost must not exceed the amount agreed by Vending-Box before delivering the product.
7. The guarantor reserves the right to impose the cost of service and transport on the applicant if the faults turn out to be not included in the guarantee or if the product turns out to be operational.
8. If the guarantee repair of the faulty device is carried out by the applicant, the applicant is obliged to return mentioned, faulty parts in the time of 7 days from the date of receiving the new parts from Vending-Box service.
9. In case of lack of possibility of repairing the product within the time mentioned in points 3&4, the guarantor is obliged to replace the faulty device with a new one free of faults.
10. Excluded from this guarantee are:
11. Consumable device parts, consumable materials (fuses, feeder flaps, feeder partitions)
12. Actions described in the manual, which the applicant is obliged to carry out on their own and on their own expense.
13. Mechanical, chemical or thermal damages, corrosion or damages caused by external factors, not dependent on the guarantor.
14. Damages being the result of acting not in accordance with the manual, especially inappropriate exploitation, conservation, operation and maintenance.
15. The damages being the result of a faulty electric system (on the user's side) or of soaking or flooding electrical components.
16. Faults caused by repairs, modifications and construction changes carried out on one's own or by unauthorized subject.
17. Products, whose Guarantee Card or serial numbers, are changed, blurred, removed or erased.
18. The guarantor may refuse the guarantee service in case of recognizing incompleteness of the product or unauthorized repairs or construction changes, use of the product for purposes different from the original or purposeful damage.
19. Guarantee authorization does not cover the user's rights to demanding profits lost due to the device defect. The guarantor is not responsible for the damages resulting from the defect product work.
20. This guarantee does not limit, suspend or exclude the rights of the purchaser towards the retailer about the warranty included in the Civil Code.