Equipment manual

KiTVending.ru

2020

Rev 2.1

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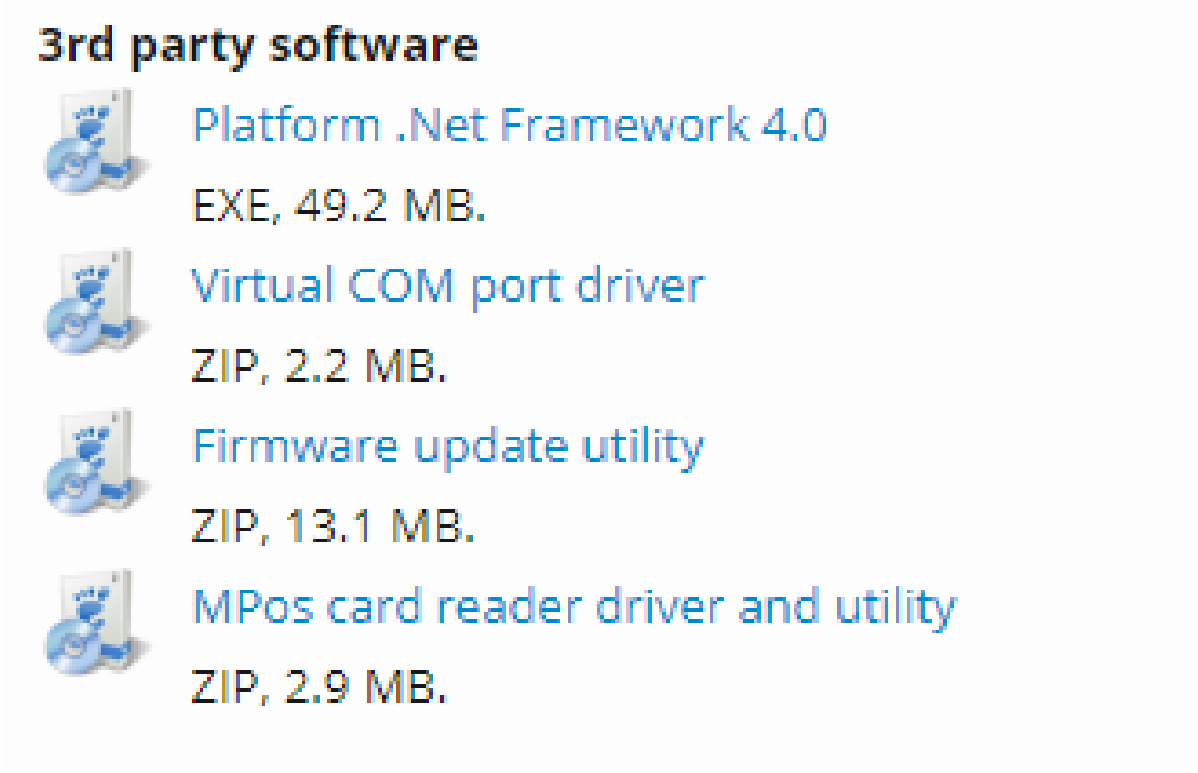
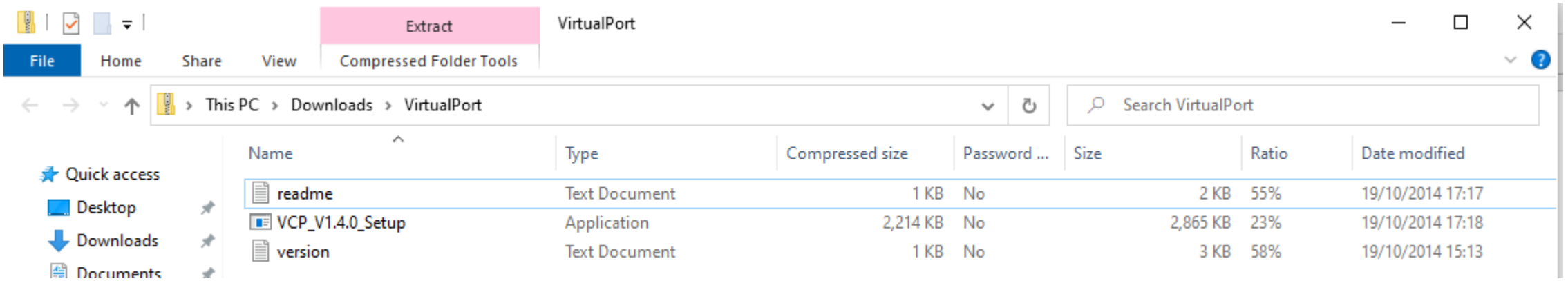
Equipment Preparation

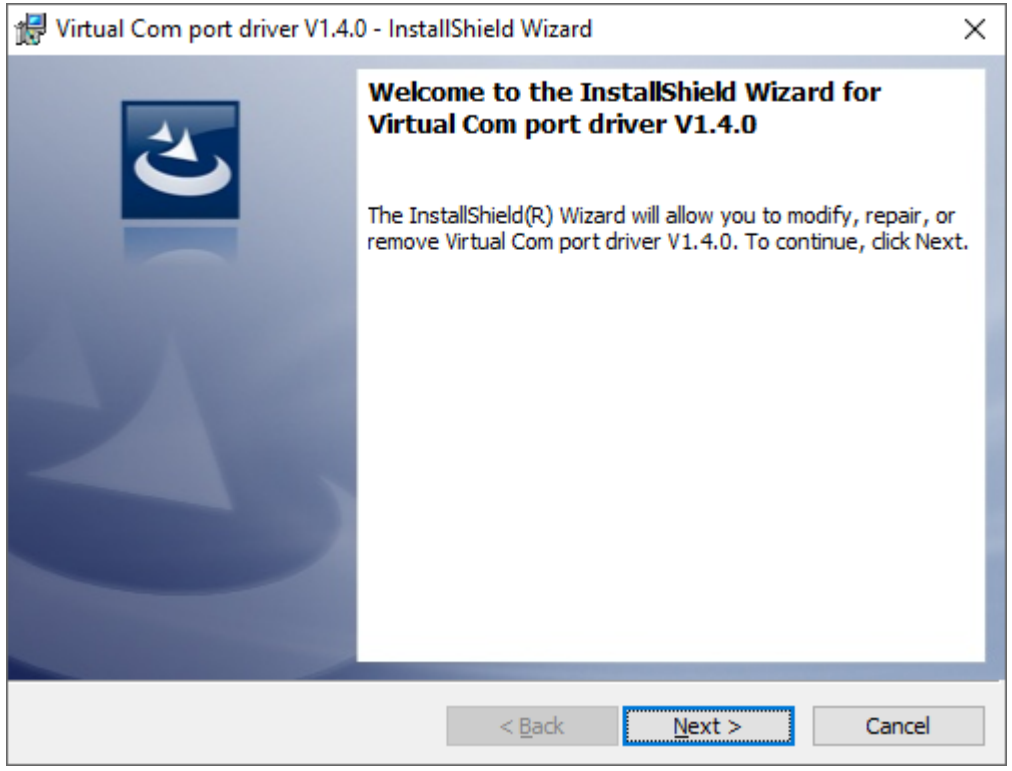
1.1 Driver Installation

For initial hardware configuration in case of using Windows XP, Windows Vista and Windows 7, you will need to find and download «Virtual COM port driver»(1) in the download center.



Open the downloaded archive and install the driver (1).





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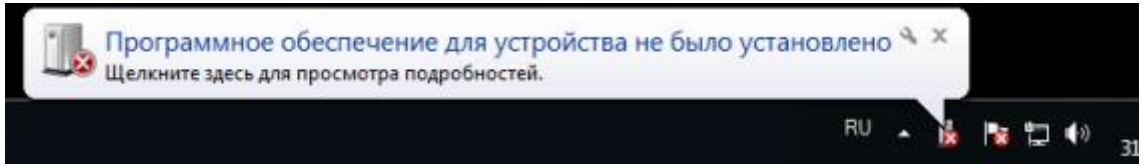
1.2 Manual driver Installation

When connecting a device for configuration / firmware update, the system may not find the installed driver automatically, and require you to specify the path to it manually. In this scenario, the following message may appear:

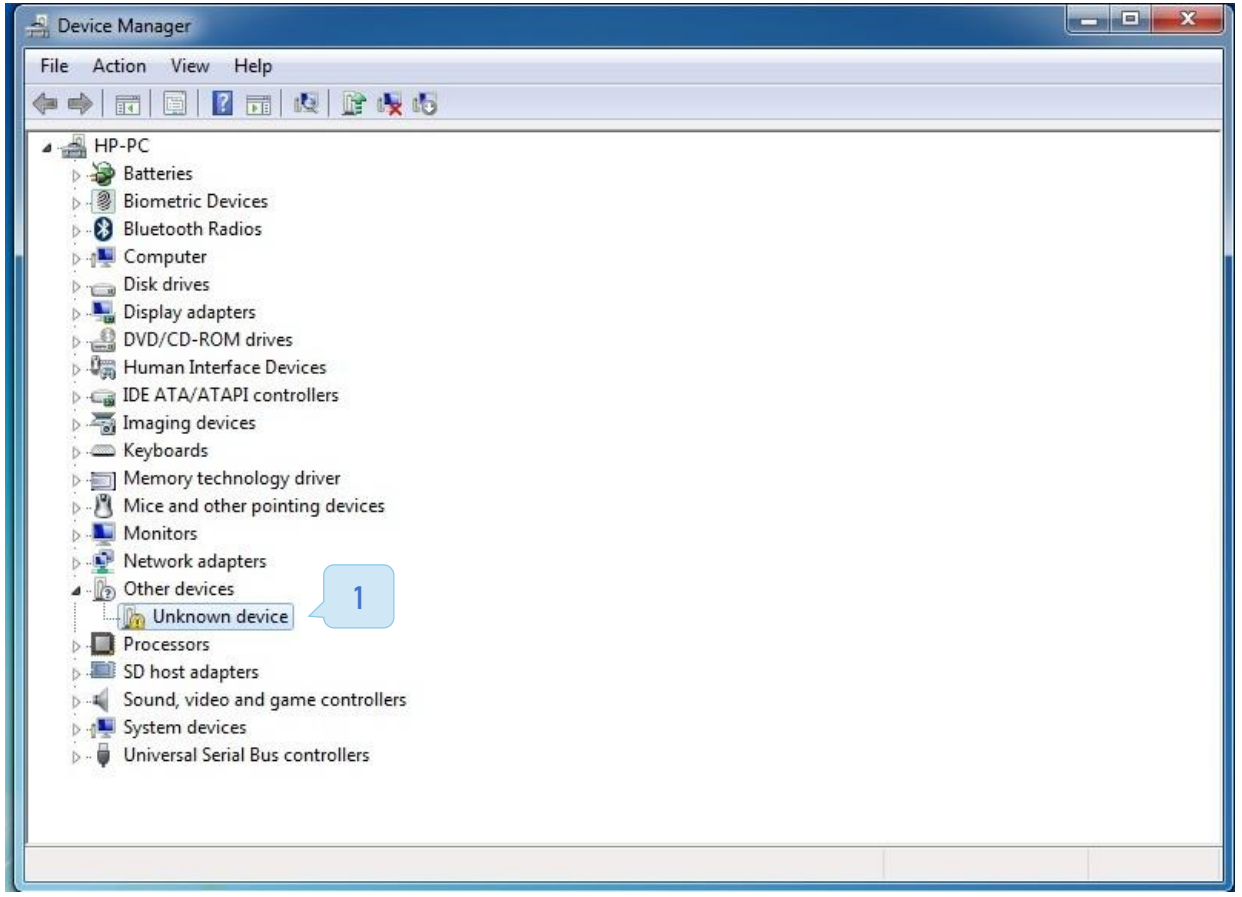


To fix this problem, follow these steps:

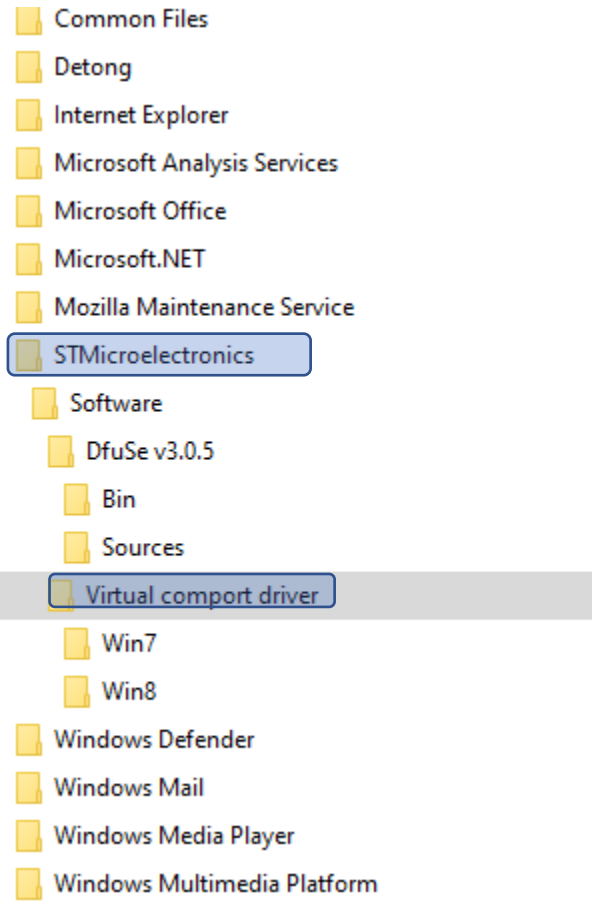
Go to Start Menu - Control Panel; (specify the category "Large icons")

Select "Device Manager" and find "Unknown device" in the list (1).

Open "Unknown device" and click "Update driver".



Driver path for working with the Configurator utility



In the driver installation wizard, select "Search for drivers on this computer."

Specify the location of the driver:

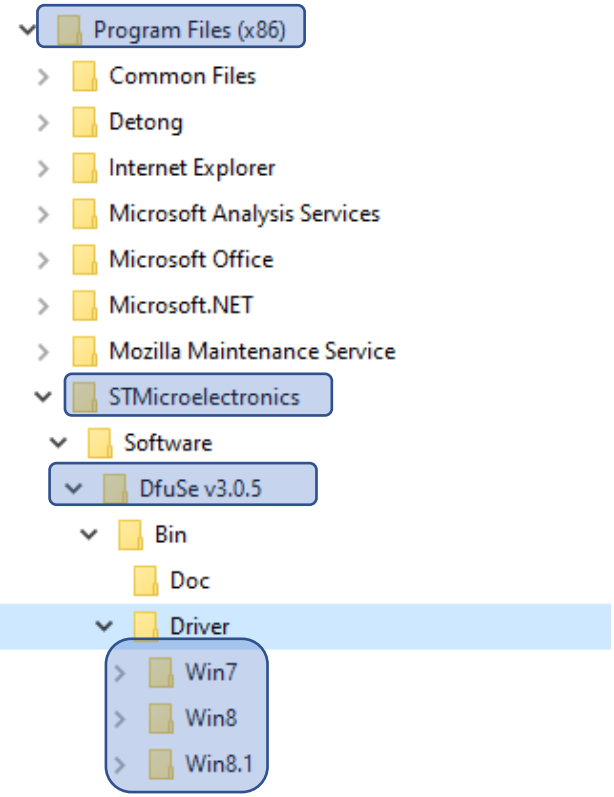
✓ For Windows 7 & Windows XP:

C:\Program Files (x86)\STMicroelectronics\Software\Virtual comport driver\Win7

✓ For Windows 8 & Windows 10:

C:\Program Files (x86)\STMicroelectronics\Software\Virtual comport driver\Win8

Driver path for DfuSe Demo manual driver installation



In the driver installation wizard, select "Search for drivers on this computer."

Specify the location of the driver:

✓ For Windows 7 & Windows XP:

C:\ProgramFiles(x86)\STMicroelectronics\Software\DfuSev3.0.5\Bin\Driver\Win7

✓ For Windows 8 & Windows 10:

C:\ProgramFiles(x86)\STMicroelectronics\Software\DfuSev3.0.5\Bin\Driver\Win8 (Win8.1)

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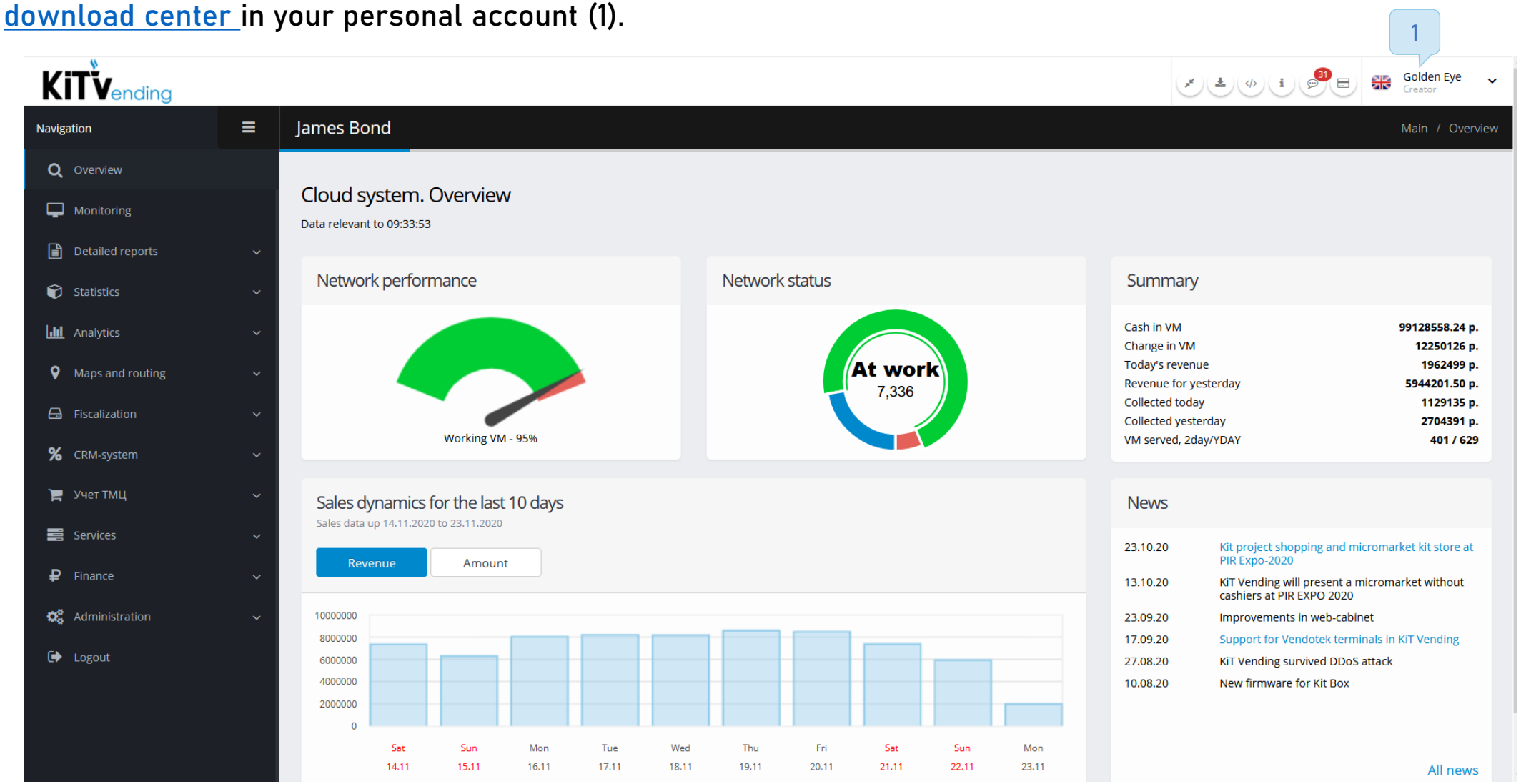
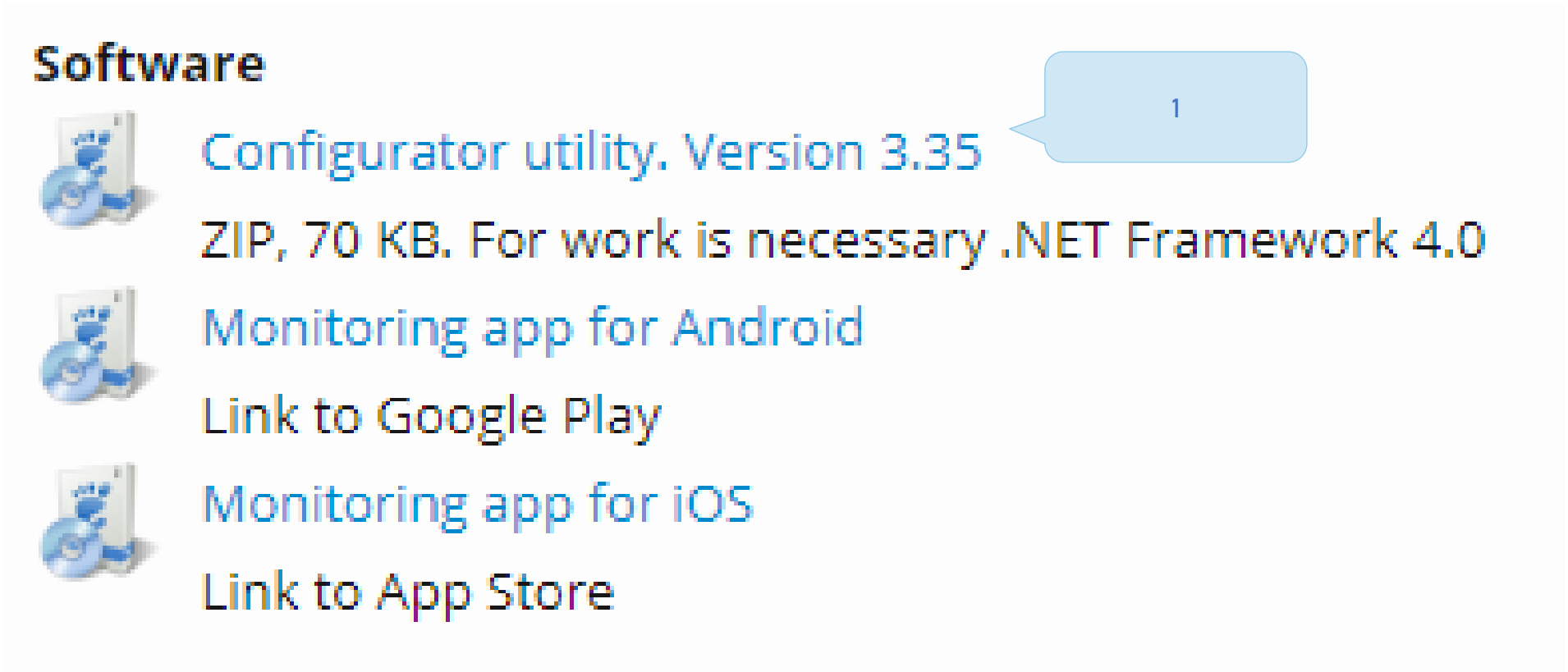
1.3 Software Installation

To configure the settings in the Kit Box device, you need to install the «configurator utility» software. For this step you need to do the following :

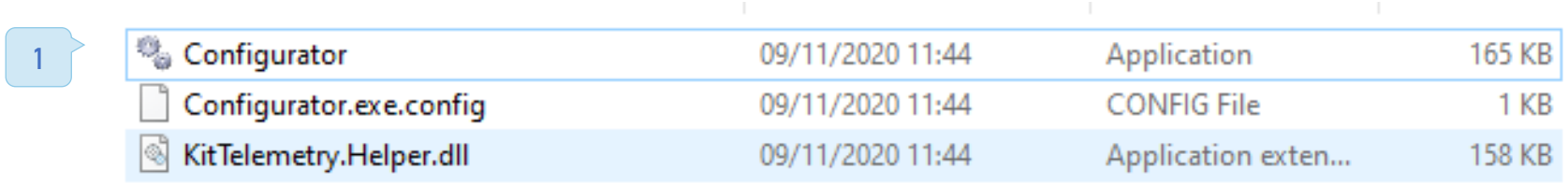
Log in to the download center in your personal account (1).



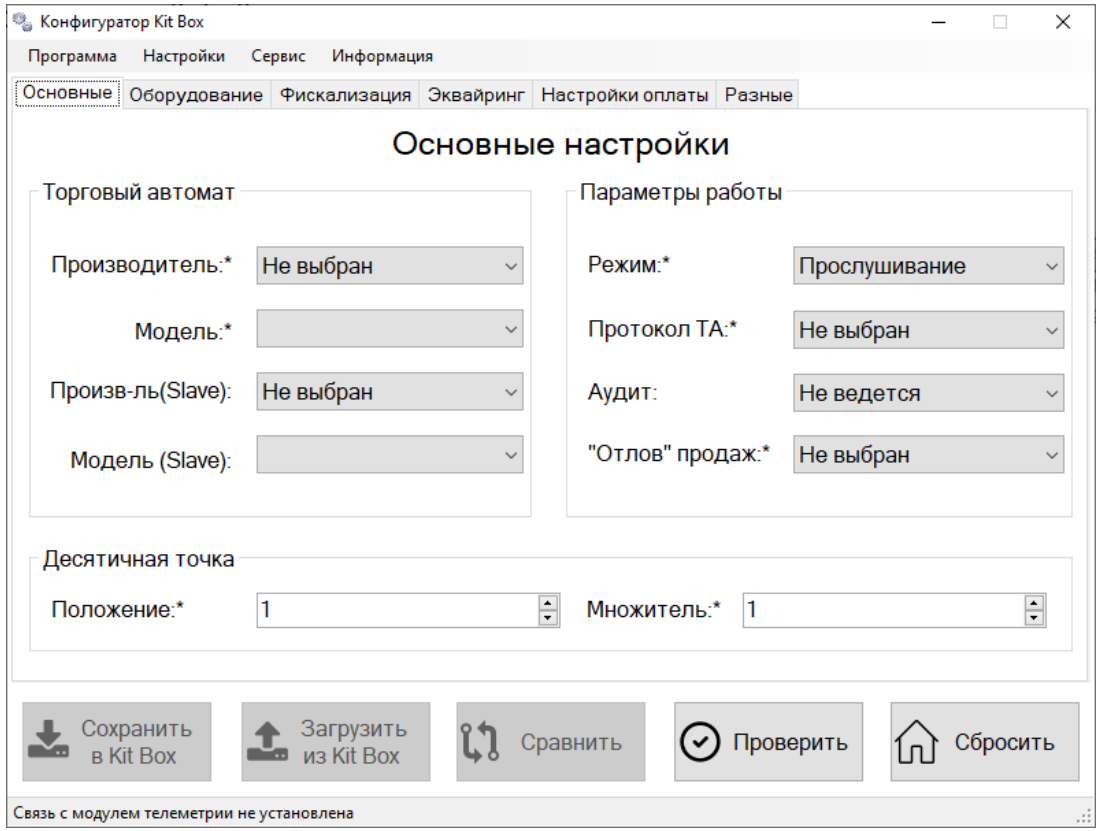
Find «Configurator utility» in the download center. This file is one of the first ones in the list (1). It must be downloaded.



This software doesn't require installation, it 's enough just to extract or unpack it from the archive. Then you need to run this file:



After booting up this file, the following window should open:



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1.4 Hardware configuration

In the new device, there are no pre-set settings, they must be set individually for your machine, for this step you need to perform the following actions:

1. Connect Kit Box to your computer.
2. Restart it with the Off / On switch.
3. When it turns on, the "Configuration" indication (1) should light up.

Kit Box Lite automatically enters configuration mode when connected to a computer.

Connection to the rear USB ports is recommended on desktop computers, or to the blue ports on laptops (USB 3.0).
The devices are connected with the following types of cable:

Cable for KIT BOX & KIT BOX MASTER

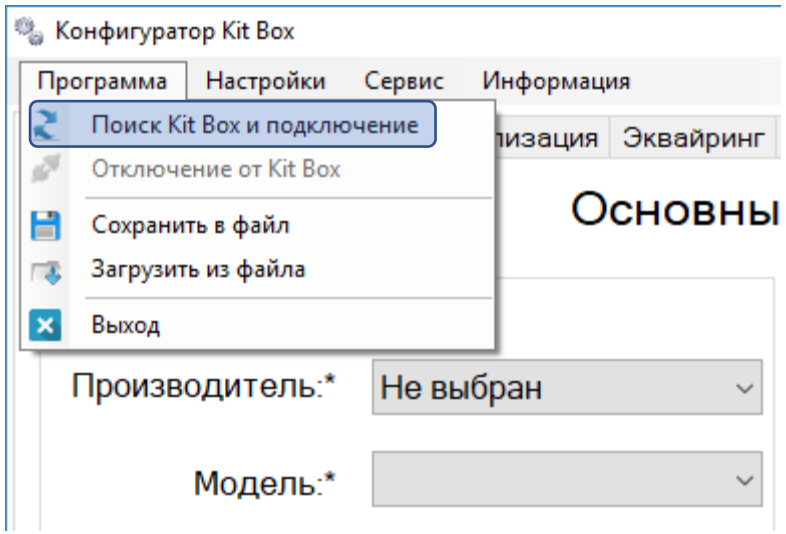
USB A USB B

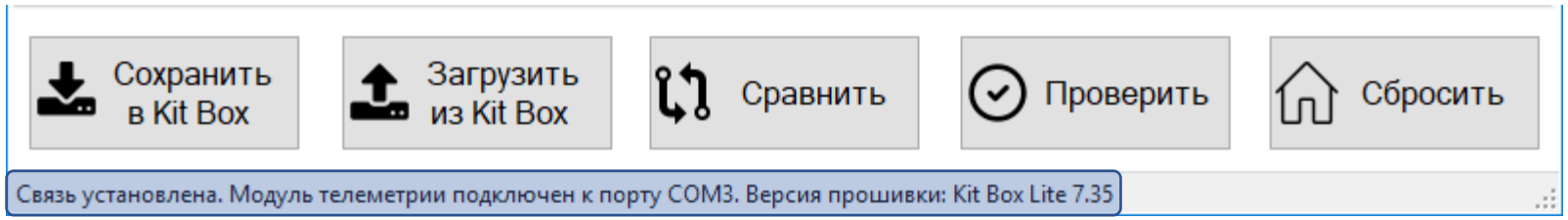
Cable for KIT BOX LITE

USB to Mini USB

- ✓ Run Configurator.exe.
- ✓ Go to the drop-down menu "Program”.
- ✓ Click "Search Kit Box and connect“.
- ✓ Check the status "Connection established“.

If all actions are performed correctly, then continue to link this modem to your personal account. If connection wasn't established, follow the previous chapters of the instruction for installing required drivers 1.-3. and check the condition of the cable.





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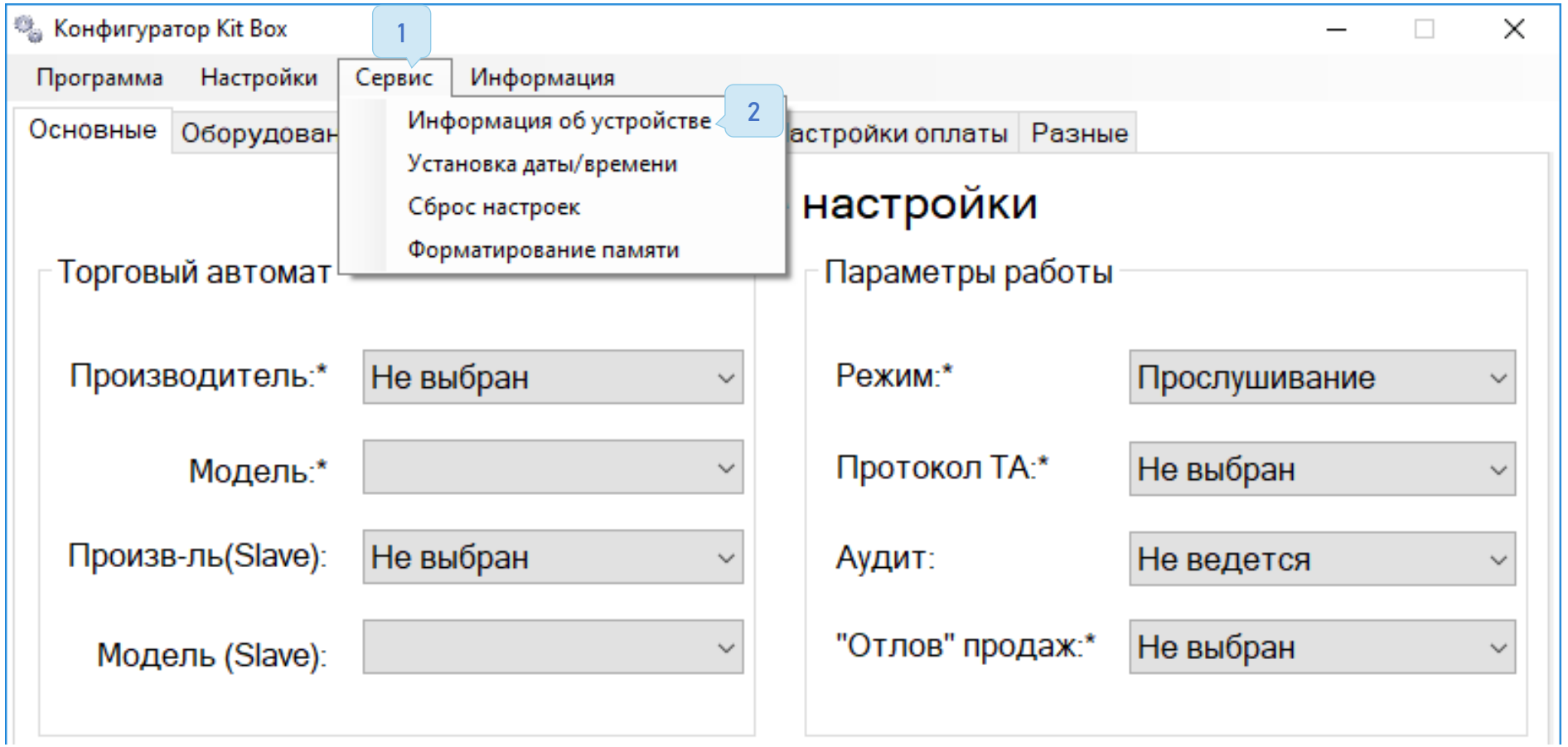
Personal cabinet settings

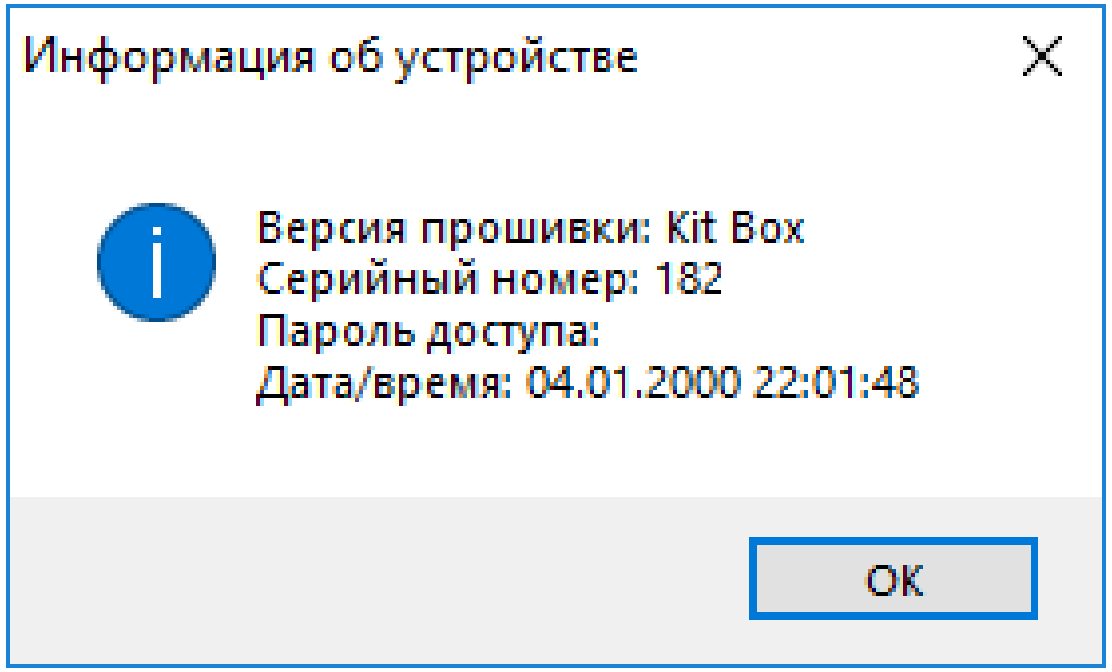
2.1 Adding a modem

For the equipment to work correctly you need to link the controller to your personal account by following these steps:

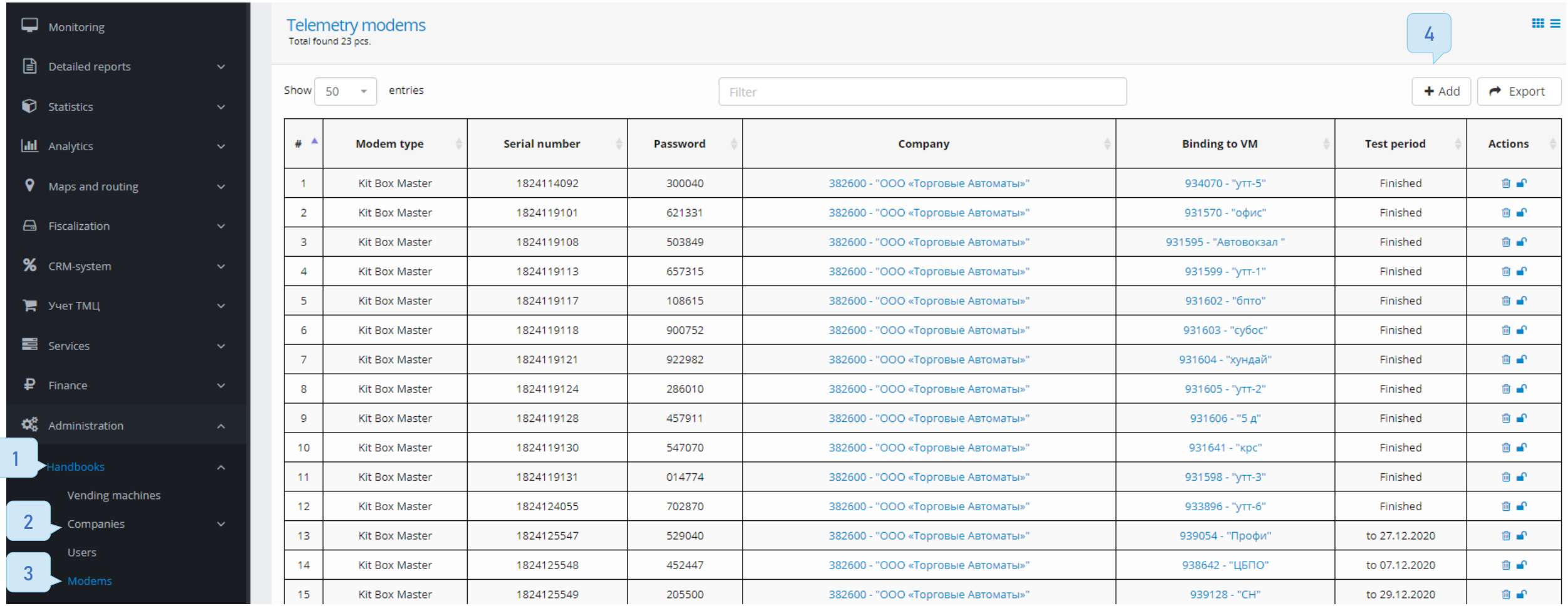
You need to find out "Serial number" and "Access password" of Kit Box. To do this, go to the " Service " menu (1) click "Device Information" (2)



Take a photo or write down the "Serial number" and «access password».

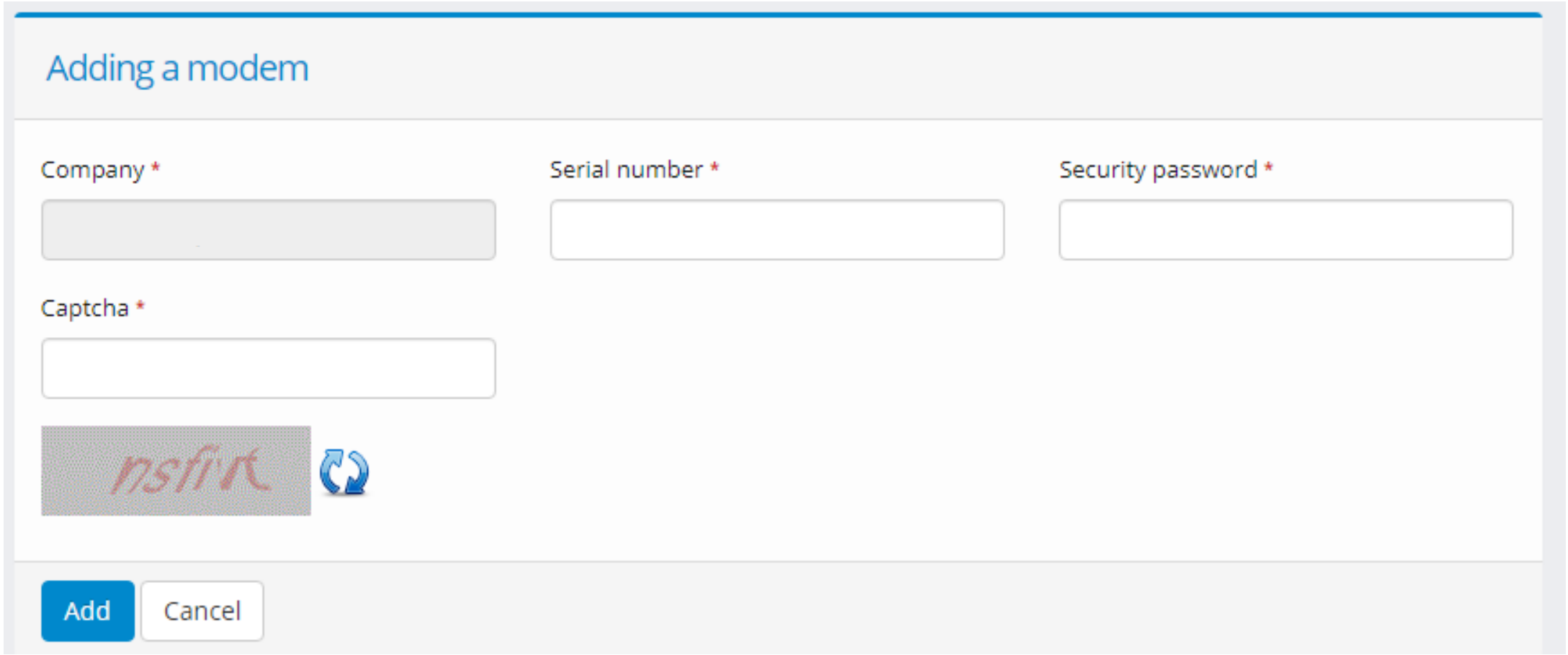


Log in to your personal account. Go to the "Administration" menu (1) " Handbooks" (2) "Modems" (3) and click "+ Add" (4).



#	Modem type	Serial number	Password	Company	Binding to VM	Test period	Actions
1	Kit Box Master	1824114092	300040	382600 - "ООО «Торговые Автоматы»"	934070 - "утт-5"	Finished	
2	Kit Box Master	1824119101	621331	382600 - "ООО «Торговые Автоматы»"	931570 - "офис"	Finished	
3	Kit Box Master	1824119108	503849	382600 - "ООО «Торговые Автоматы»"	931595 - "Автовокзал "	Finished	
4	Kit Box Master	1824119113	657315	382600 - "ООО «Торговые Автоматы»"	931599 - "утт-1"	Finished	
5	Kit Box Master	1824119117	108615	382600 - "ООО «Торговые Автоматы»"	931602 - "бпто"	Finished	
6	Kit Box Master	1824119118	900752	382600 - "ООО «Торговые Автоматы»"	931603 - "субос"	Finished	
7	Kit Box Master	1824119121	922982	382600 - "ООО «Торговые Автоматы»"	931604 - "хундай"	Finished	
8	Kit Box Master	1824119124	286010	382600 - "ООО «Торговые Автоматы»"	931605 - "утт-2"	Finished	
9	Kit Box Master	1824119128	457911	382600 - "ООО «Торговые Автоматы»"	931606 - "5 д"	Finished	
10	Kit Box Master	1824119130	547070	382600 - "ООО «Торговые Автоматы»"	931641 - "крс"	Finished	
11	Kit Box Master	1824119131	014774	382600 - "ООО «Торговые Автоматы»"	931598 - "утт-3"	Finished	
12	Kit Box Master	1824124055	702870	382600 - "ООО «Торговые Автоматы»"	933896 - "утт-6"	Finished	
13	Kit Box Master	1824125547	529040	382600 - "ООО «Торговые Автоматы»"	939054 - "Профи"	to 27.12.2020	
14	Kit Box Master	1824125548	452447	382600 - "ООО «Торговые Автоматы»"	938642 - "ЦБПО"	to 07.12.2020	
15	Kit Box Master	1824125549	205500	382600 - "ООО «Торговые Автоматы»"	939128 - "СН"	to 29.12.2020	

Fill in all the fields in the form for adding a modem using the data from the configurator and click the "Add" button.



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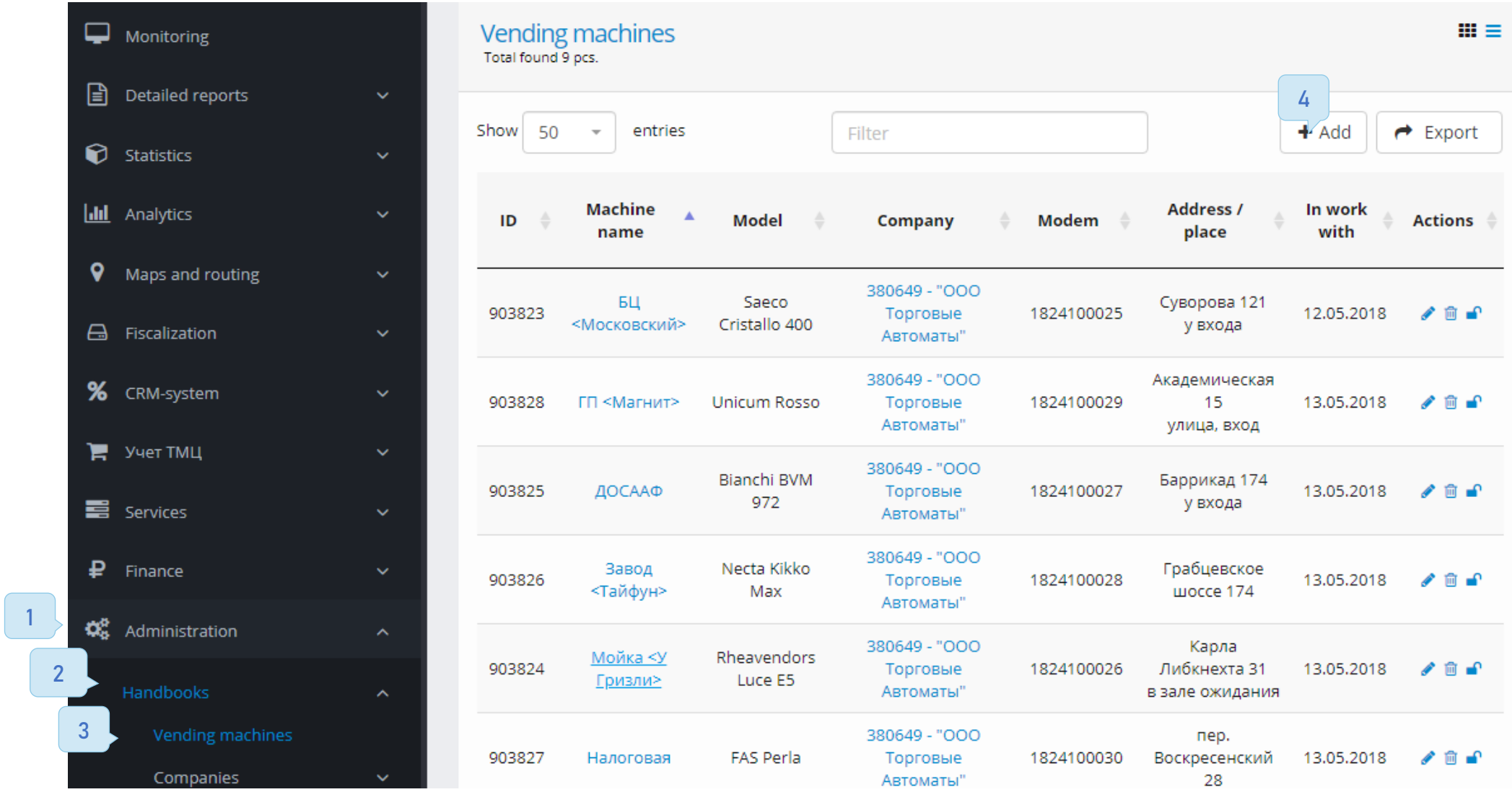
2.2 Adding a vending machine

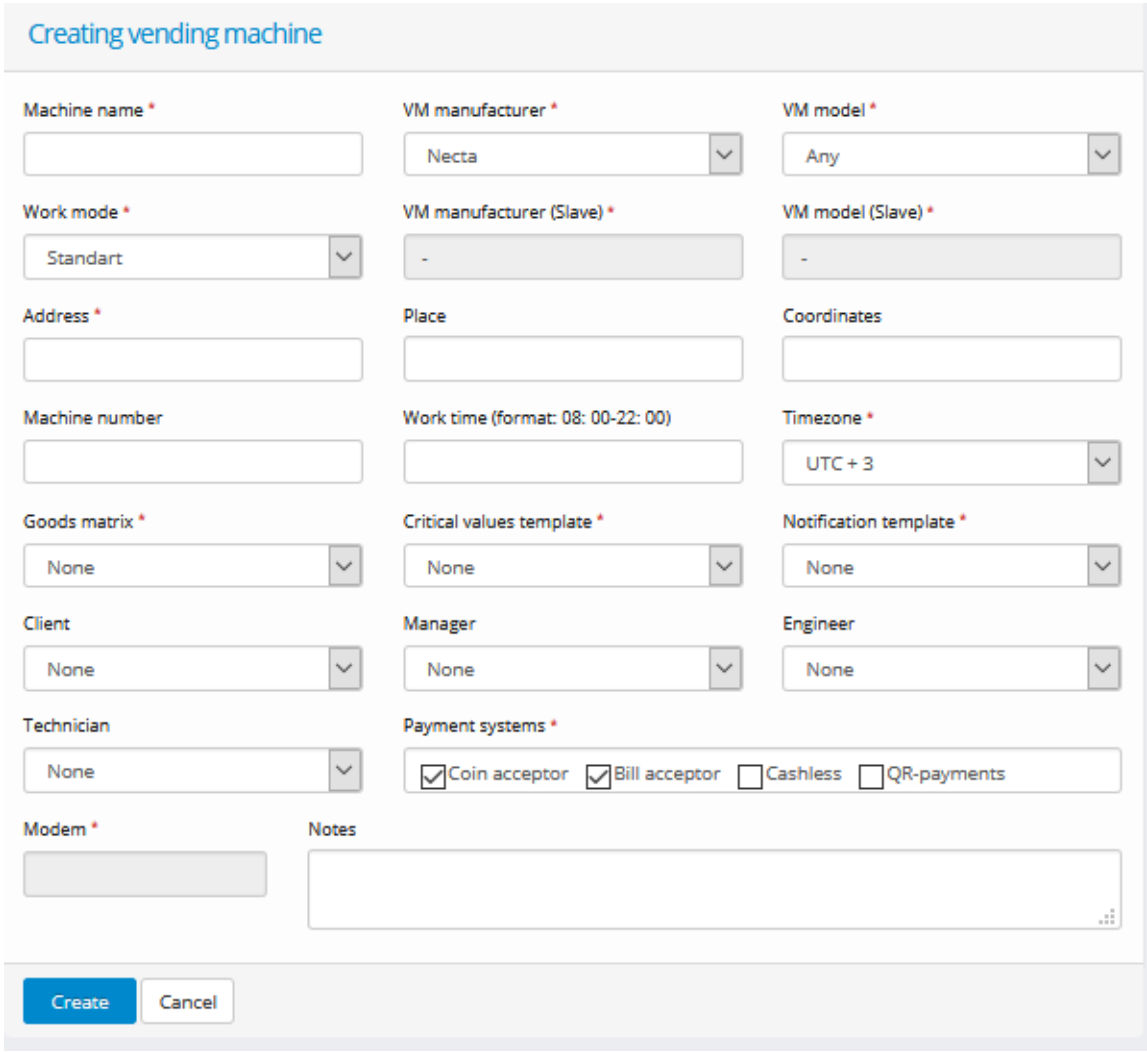
After adding the modem, you need to create a vending machine:

Go to the "Administration" menu (1) → “Handbooks" (2) → "Vending machines" (3) and click "+ Add" (4)



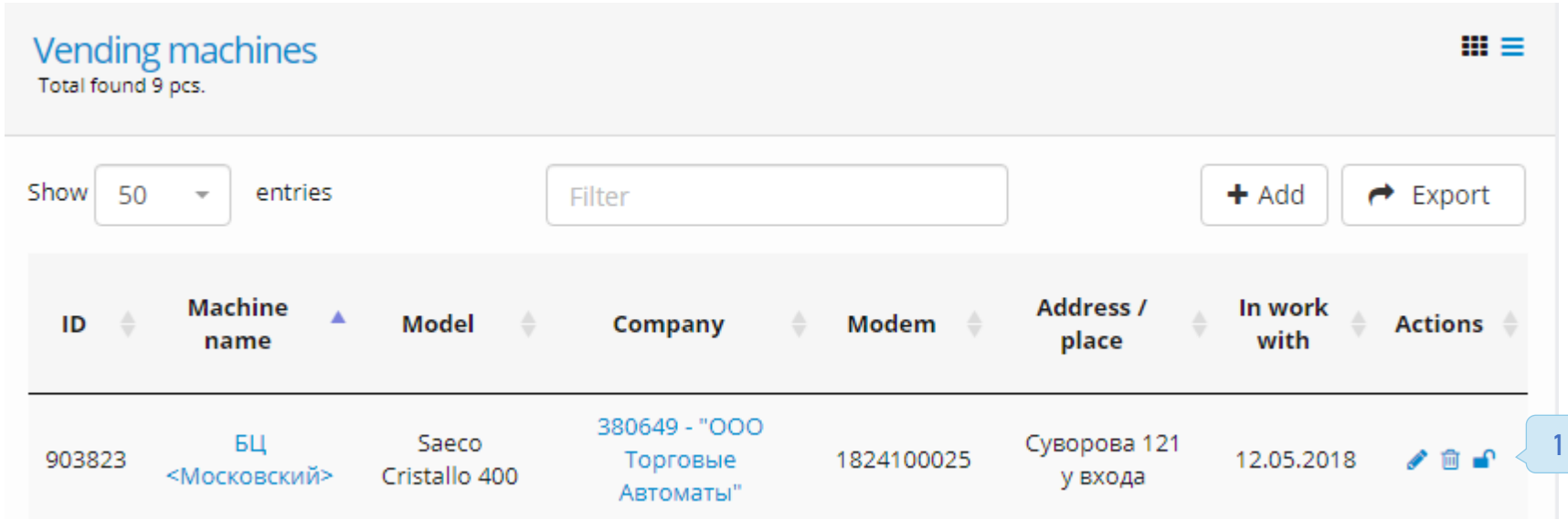
Fill in all the fields marked “*” in the form for adding a VM and click the "Create" button.

- ✓ Machine name – name is chosen by the client.
- ✓ VM manufacturer- same as in the configurator
- ✓ Work Mode - Master-Slave Indicated when operating in Executive listening mode.
- ✓ Address - The actual address of the machine installation location.
- ✓ Location - Location of installation at the address (Hall, entrance, parking).
- ✓ Coordinates - Required for the routing service.
- ✓ Machine number – unique number chosen by the client.
- ✓ Work time- Displays the status of the vending machine. Doesn’t affect the vending machine actual schedule. Do not use this if machine is working round-the-clock.
- ✓ Goods matrix - Without this parameter, the "Control" mode doesn’t work. In the "Listening" mode matrix is used to display product names correctly.
- ✓ Critical values template- required for correct alert triggering (optional).
- ✓ Notification templates - required to receive notifications (optional).
- ✓ Company – is set by default.
- ✓ Modem - Specified further in the instructions.

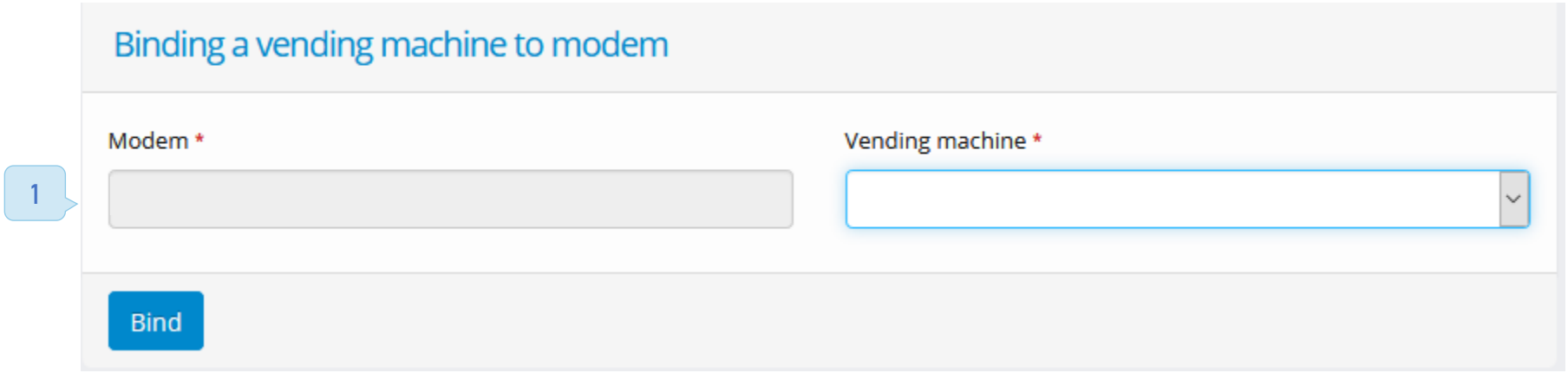


2.3 Linking the modem to the machine

To link a modem to a vending machine, go to the "Administration" → “Handbooks" → "Vending machines" menu. In the column "Actions" click on the icon with the image of the lock (1).



In the opened modem linking form, you must select the desired modem from the list and click “Bind" (2).



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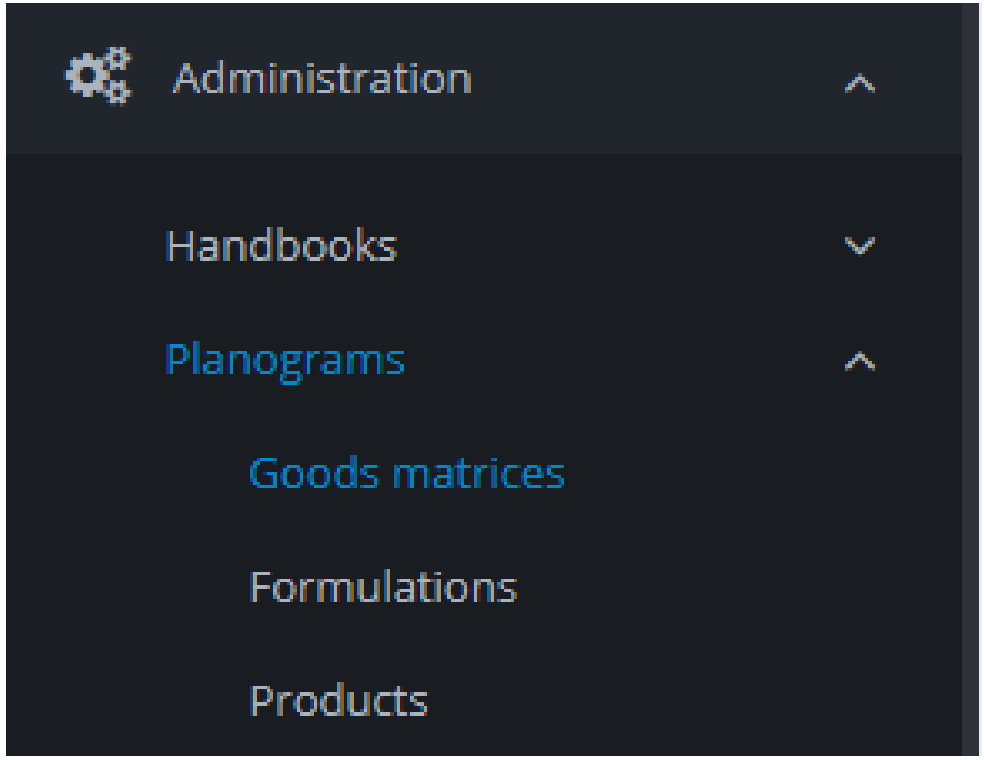
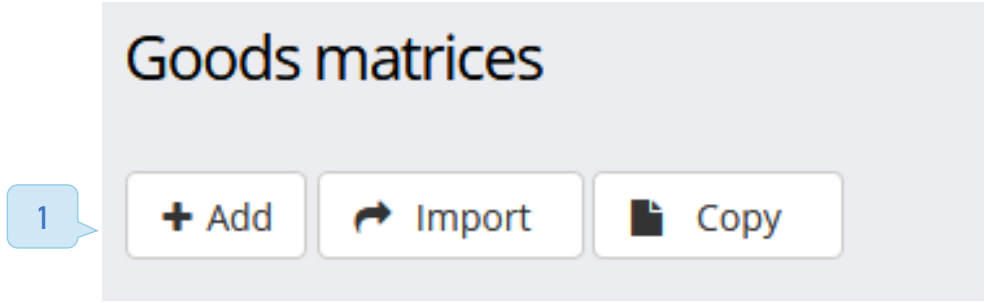
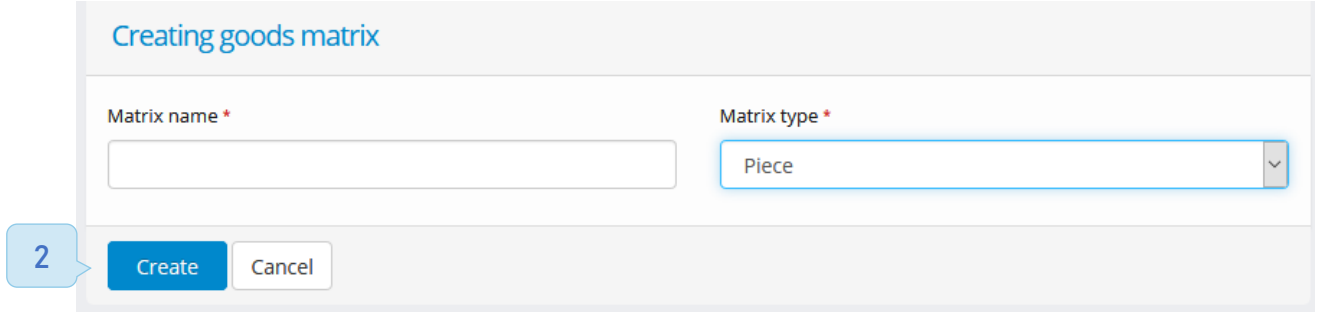
2.4 Product matrix creation

Go to the "Administration - Planograms – Goods matrices" menu, click on the "+ Add" button (1). Set a convenient "Matrix name *" and select one of the "Matrix types *", as required. Press the button "Create" (2). For identical machines, we recommend using the "Copy" tool to create copies of the matrix.

For machines operating in paired mode, you can use any of the two types of matrices. A piece matrix is used if you don't need to keep records of ingredients in a vending machine. Otherwise recipe matrix should be chosen. In this case, prepared goods(coffee, for example) are set first in the matrix.
Beforehand, they also need to be entered into the catalogue of goods, as a piece product, or prepared product.



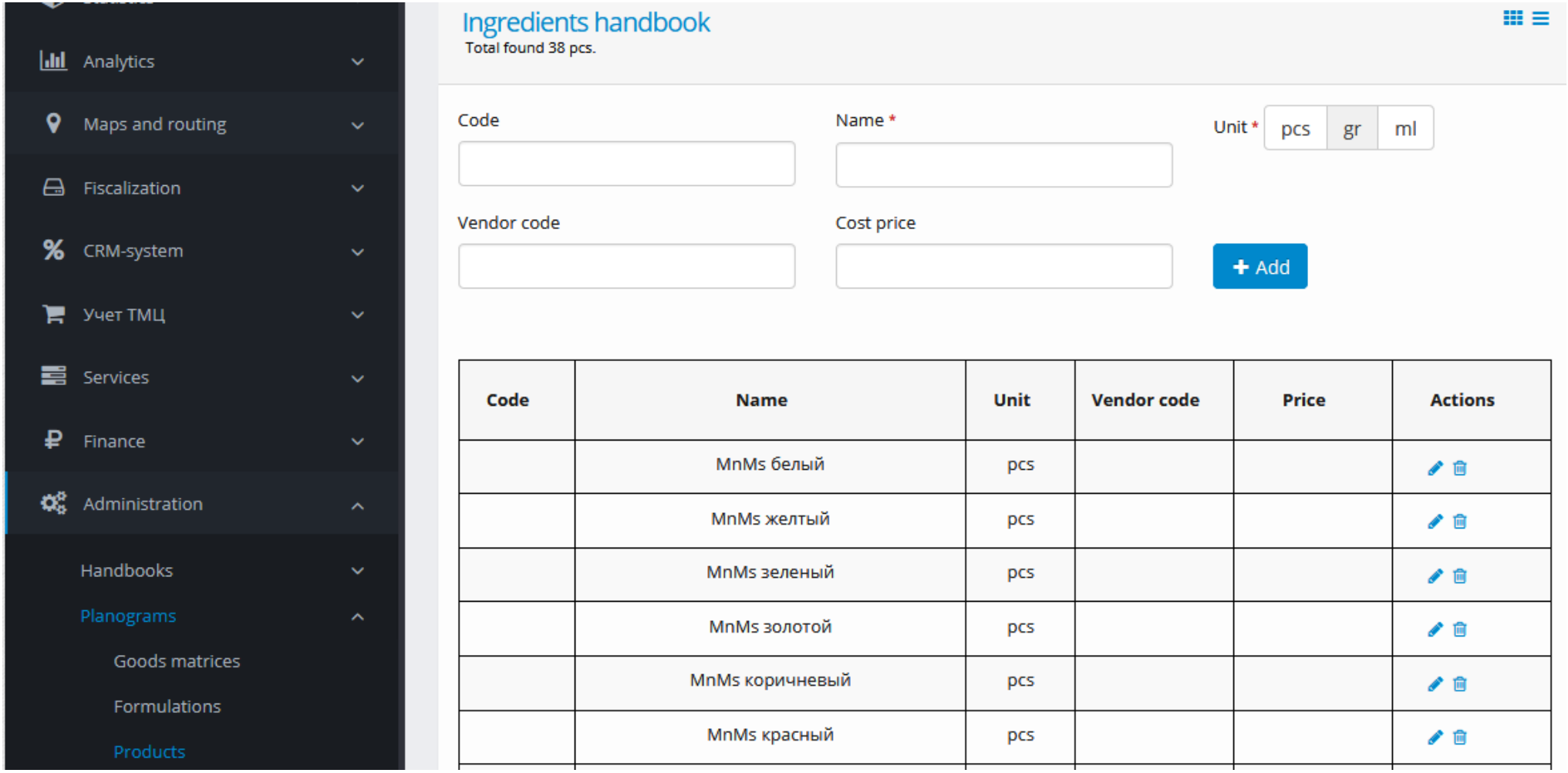




For prepared products

This type of matrix allows you to track the remains of ingredients in the vending machine, if you don't need this function, then skip to the to the "Piece" matrix section.

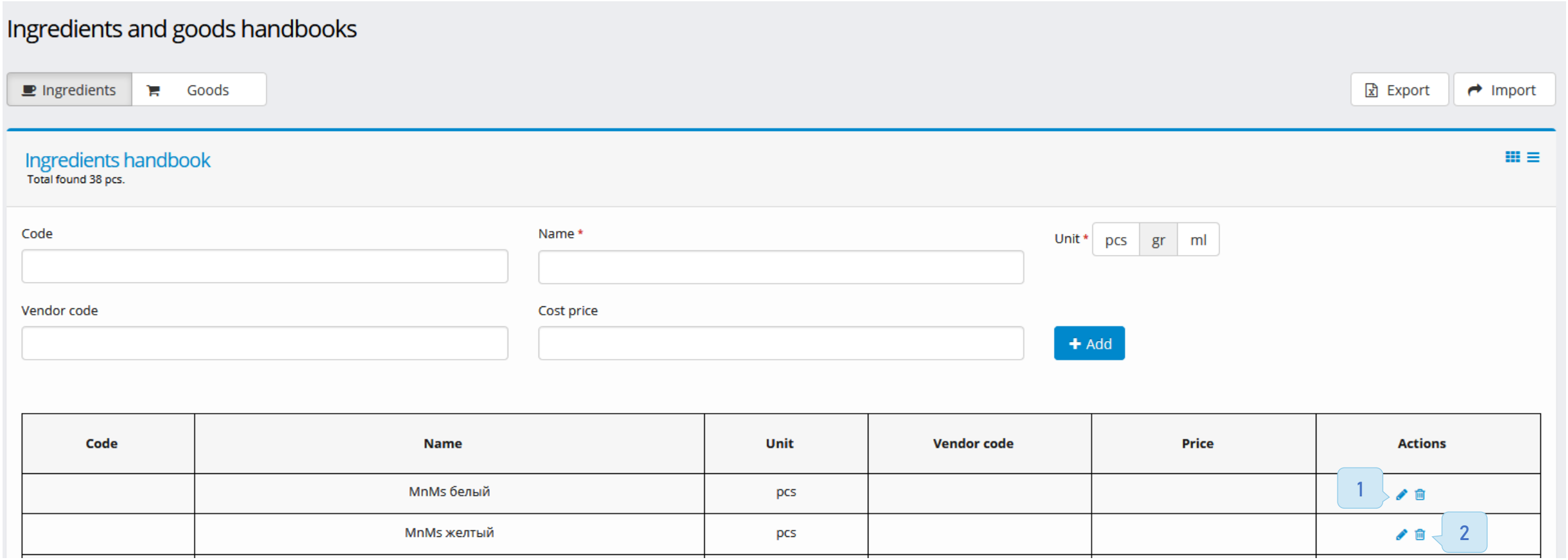
In your personal account, go to the "Administration - Planograms – "Products" menu, the "Ingredients" tab.



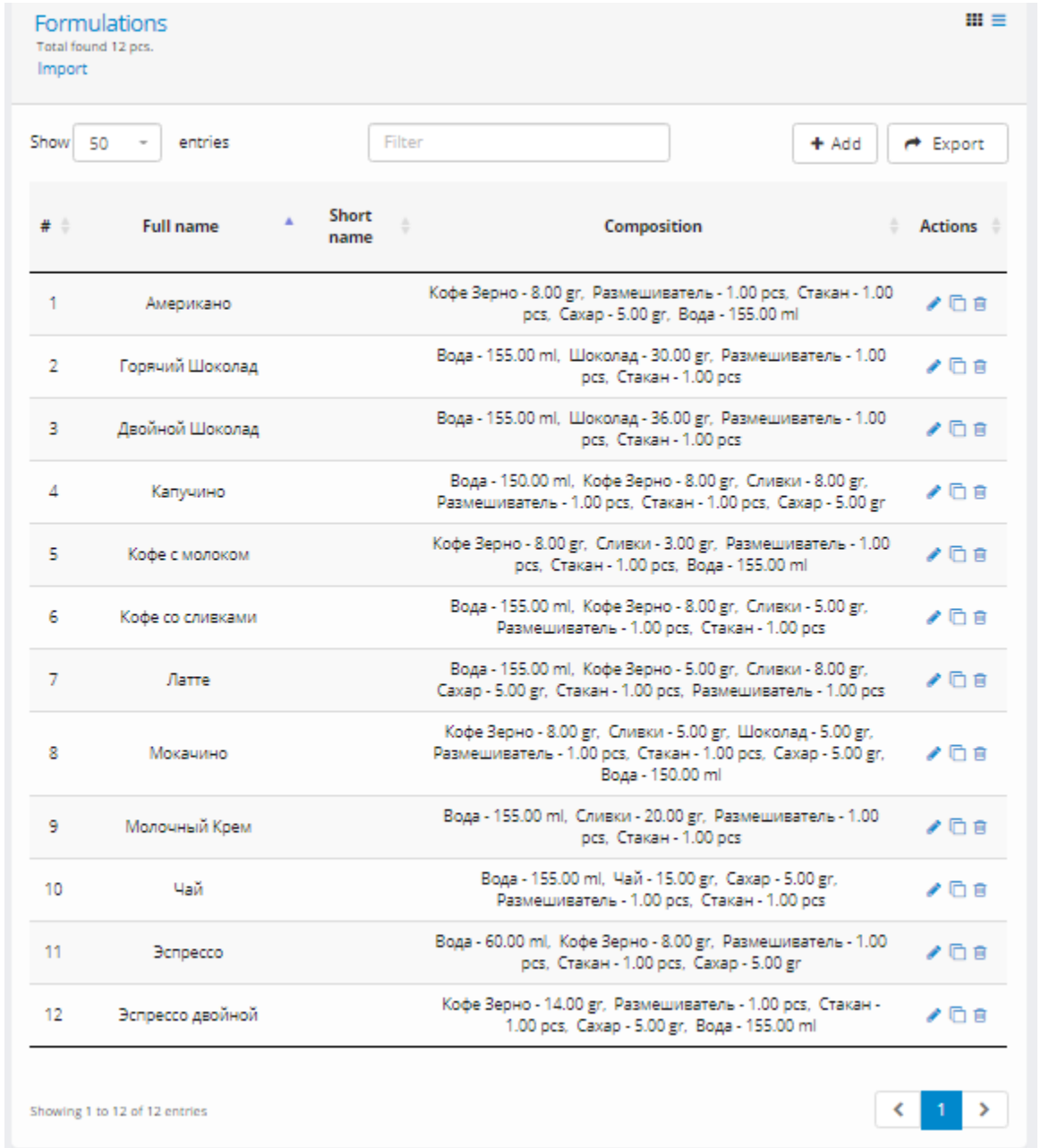
It's necessary to fill in the ingredients list. Recipes will be created from this list. To do this, specify the data:

- ✓ "Name" * - the name of the ingredient
- ✓ "PCs / g / ml" * - measurement units
- ✓ "Code" and "Article" - attributes of products in your trading base (optional).
- ✓ "Prime cost " – calculated per unit of measurement of the products (PCs / g / ml) (optional).

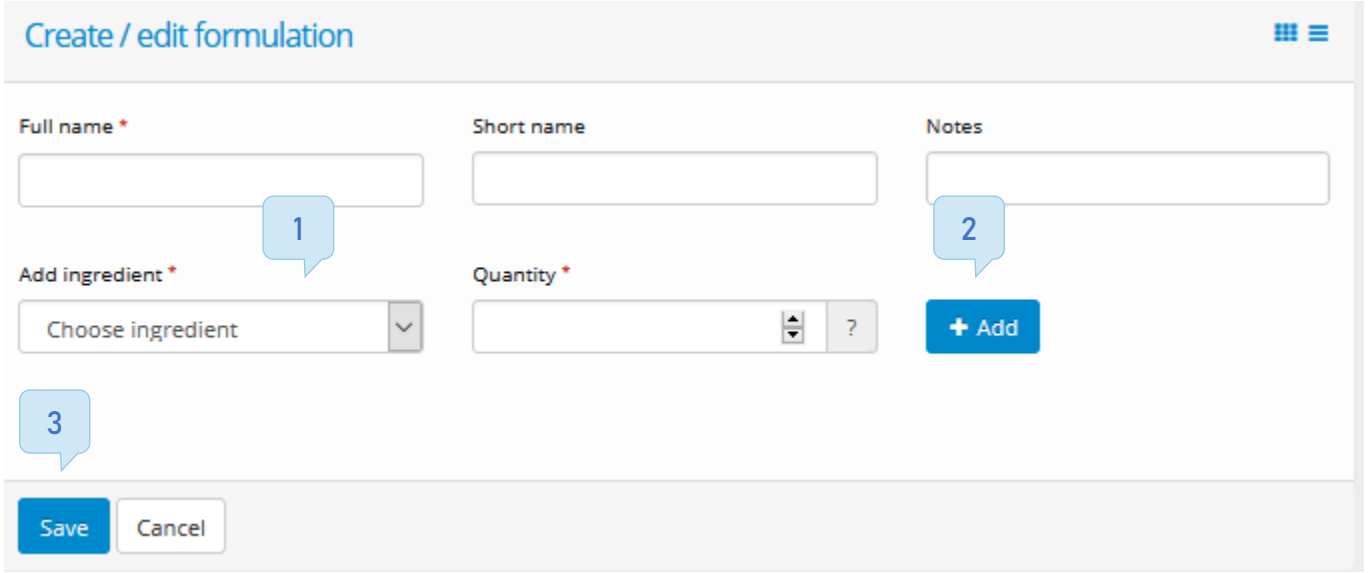
To start filling in the next product, click the "+ Add" button.
Any position in the list can be edited (1) or deleted (2).



After adding the ingredients, you need to create recipes. Go to the menu "Administration → Planograms → Formulations". To set the recipe, click on the "+ Add" button.



- ✓ In the field "Full name *" - indicate the name of the recipe.
- ✓ In the "Add ingredient *" field - click on the down arrow symbol (1) and select the required ingredient in the drop-down list.
- ✓ Indicate the “Quantity*" of the added ingredient in the recipe composition.
- ✓ Press the "+ Add" button (2).
- ✓ Repeat this process for each necessary ingredient and specify their quantity to add it to the recipe. After full recipe is formed, click the "Save" button (3).



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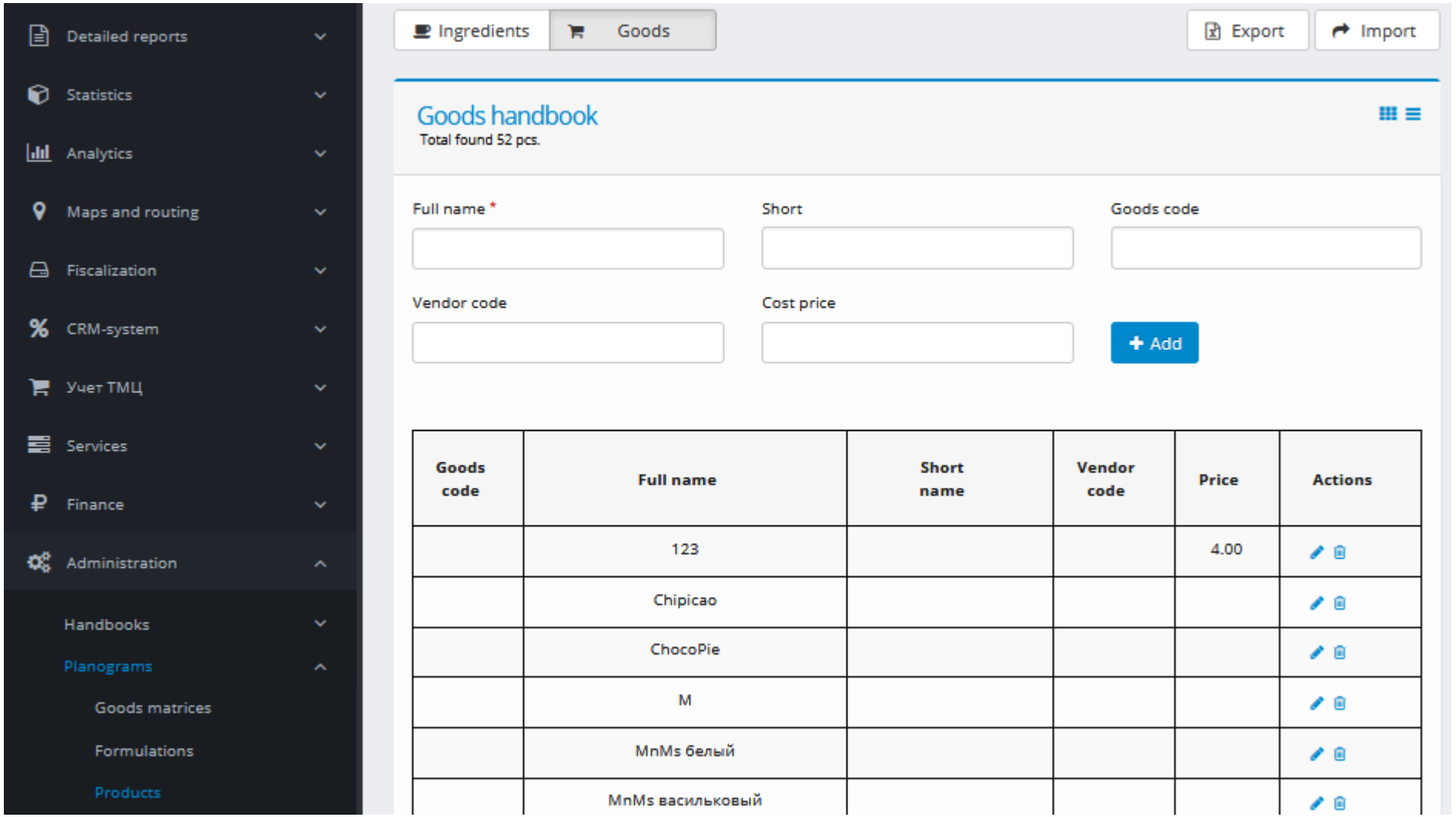
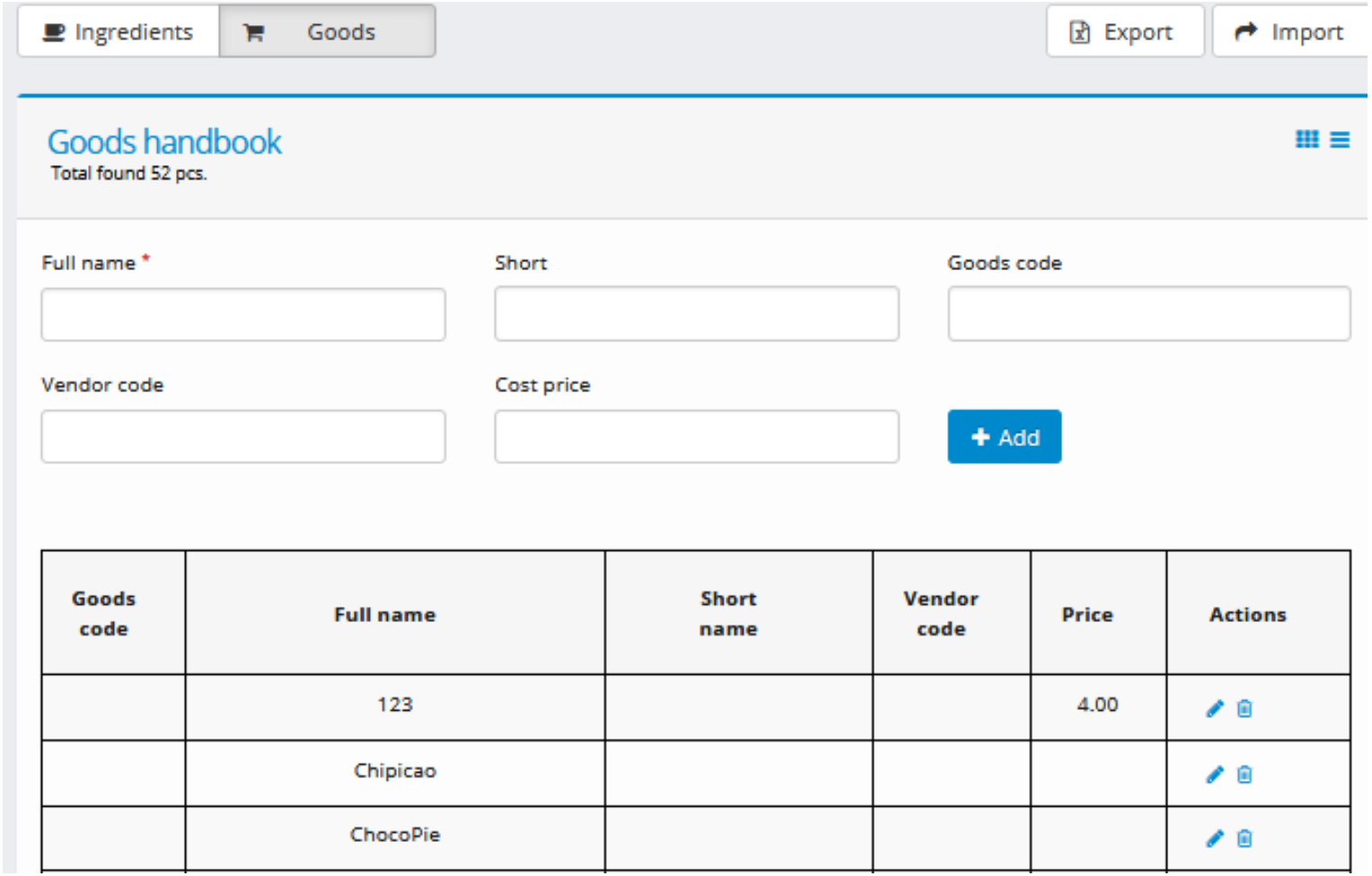
For piece products

In your personal account go to the menu «Administration - Planograms - Ingredients and products» tab «Products»

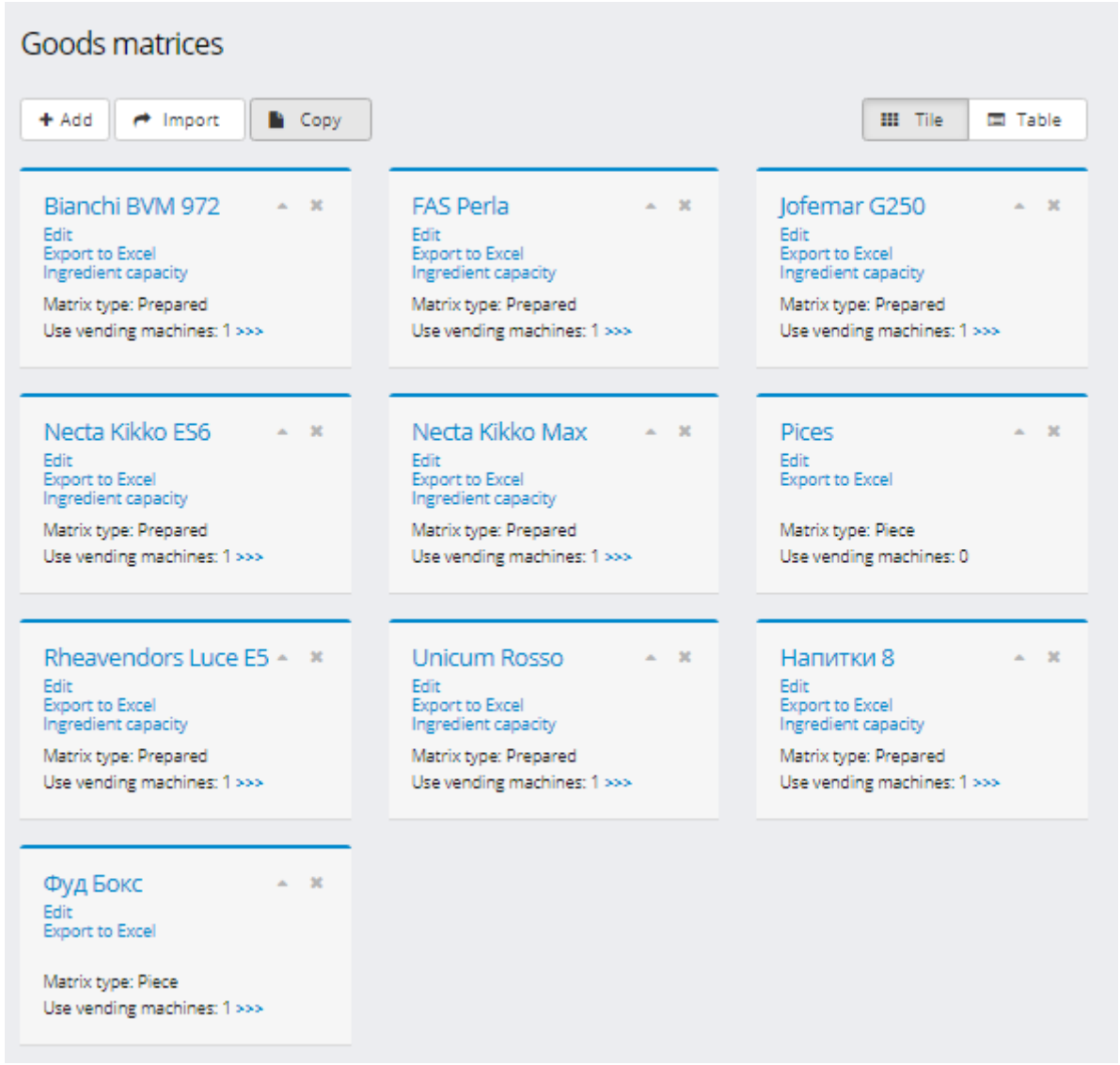


Fill in the product list. To do this, enter the data:
"Full name *" - a field to indicate the name of the goods
"Product code" and "Article" - signs of product in your trading base
“Prime cost" - per unit of product in your trading base

To start filling in the next item, click the "+ Add" button.

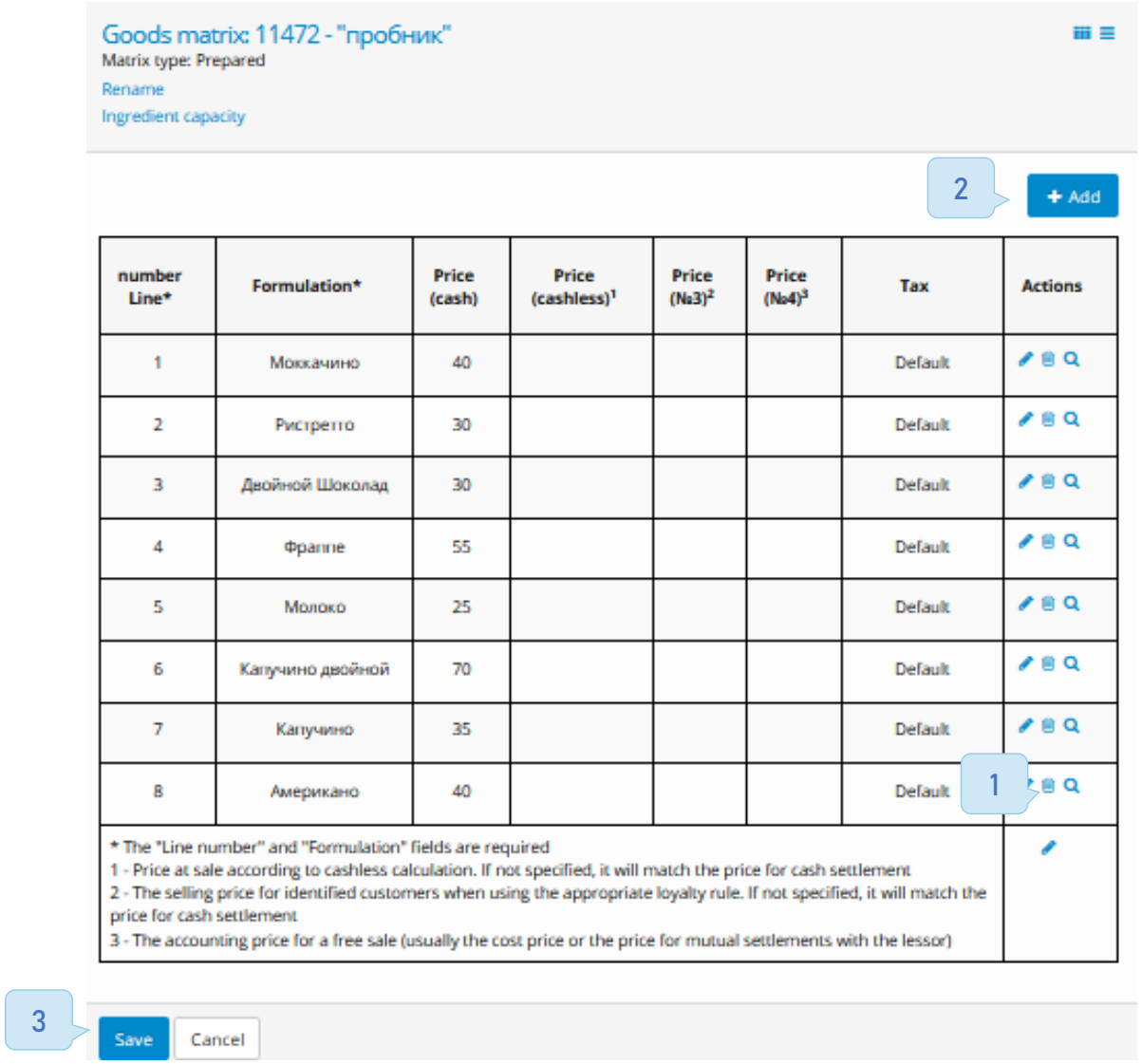


To edit the matrix, go to the menu item: "Administration → Planograms → Goods matrices. Click "Edit"



Matrix fields:

- ✓ Number line – individual number assigned to the product in the vending machine settings
- ✓ Formulation – item, chosen from the recipe / product list
- ✓ Price (cash) - the cost of product when paid in cash
- ✓ Price (cashless) - the cost of the goods for cashless payment
- ✓ VAT rate - indicated individually



After filling in the required fields, click the save icon (1). To start filling in the next item in the product matrix, press the "Add +" button (2). Repeat the process for each required product to add it to the matrix. After the matrix is formed, click on the "Save" button (3).

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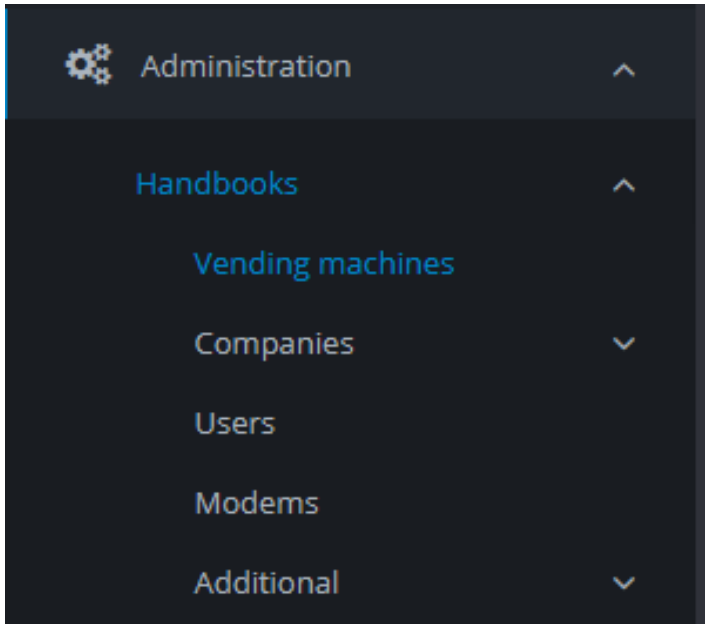
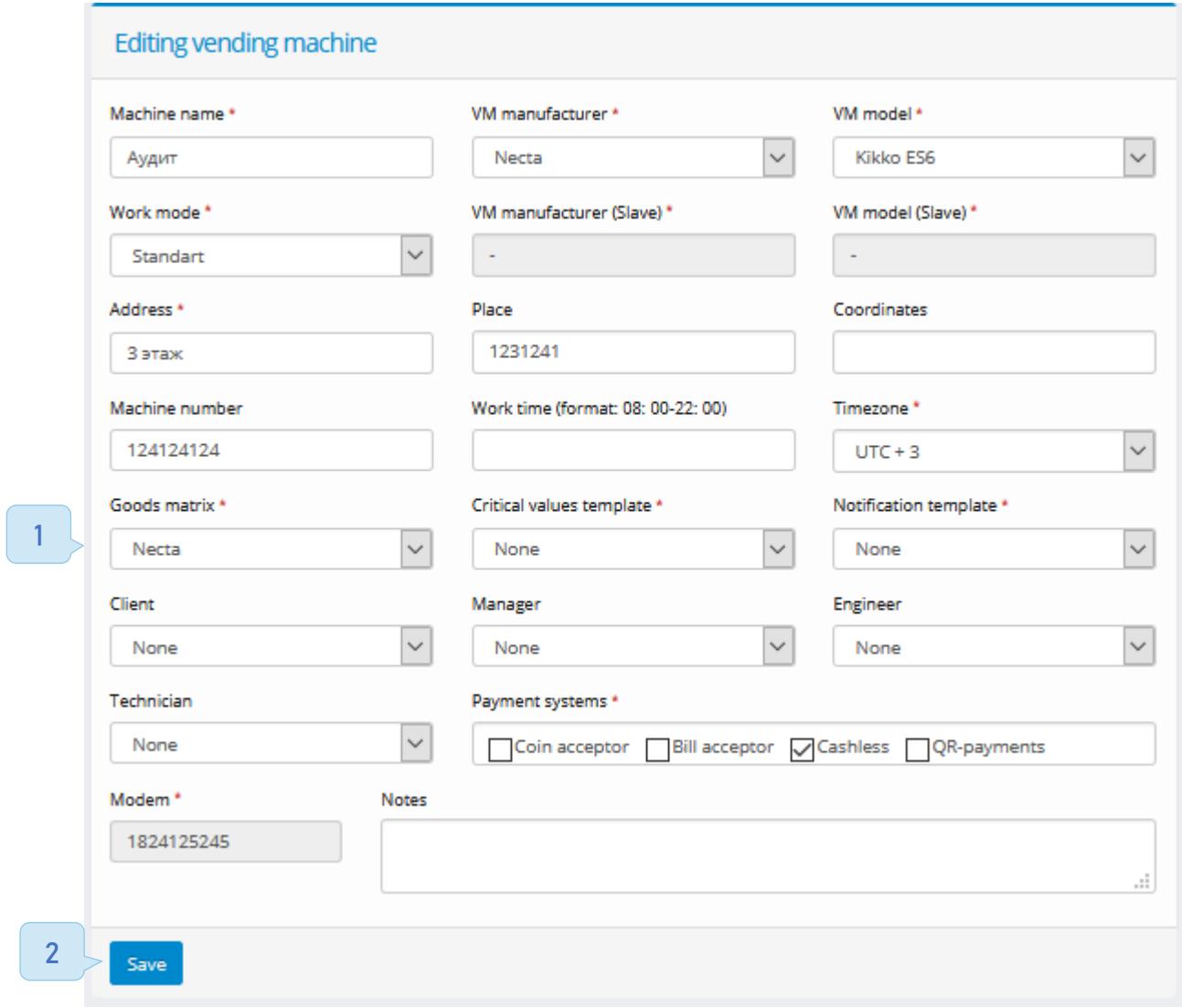
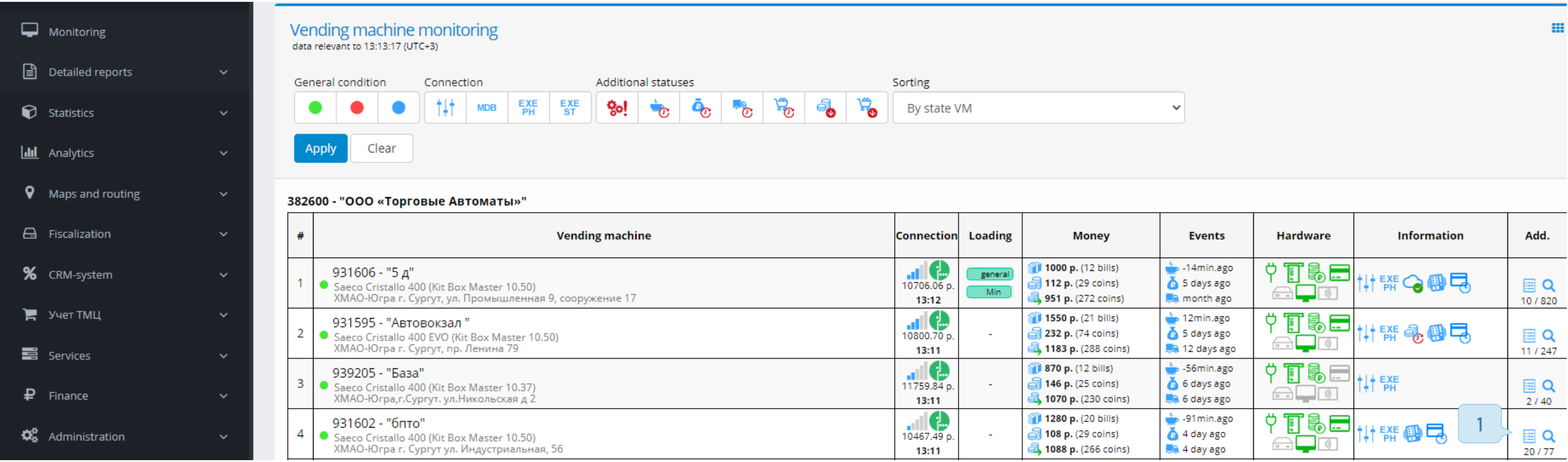
To link the matrix to the machine – perform the following actions:
You need to go to "Administration → Handbooks → Vending machines" and open the vending machine editing (3).
In the field “Goods matrix *" (1) click on the arrow and select the required matrix in the drop-down list. Click the "Save" button (2).





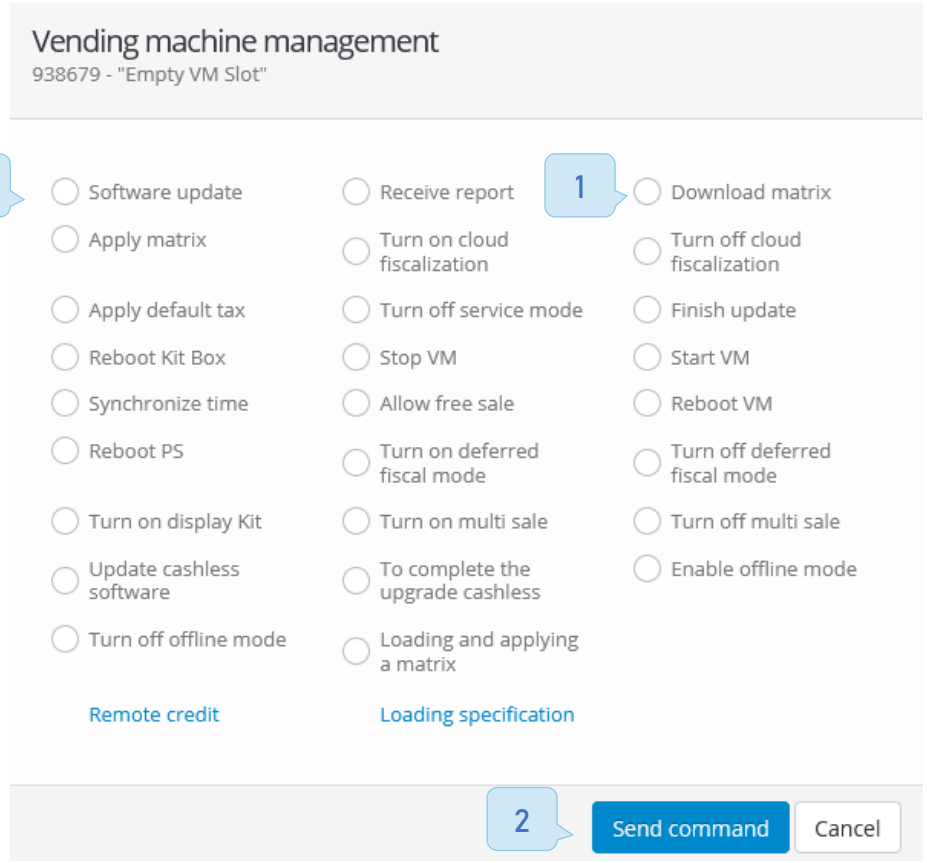
The full list of commands is available only on the web version, mobile applications have limited functionality.

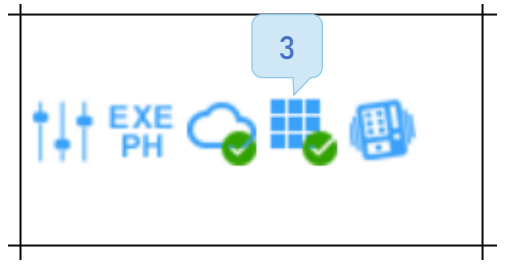
To go to the command menu, you must:
Go to the "Monitoring" tab, find the required machine in the list and click on the «send command» button (1).



The main commands for most vending machines are ones, that control the matrices. To use them:

- ✓ In the opened menu "Vending machine management" select the command "Download matrix" (1) and press the button "Send command" (2). Matrix loading time is ~ 5 minutes.
- ✓ As soon as matrix is loaded, the indication icon "Product matrix loaded" (3) will appear, now you need to select the "Apply matrix" command (4) and press the "Send command" button (2).
- ✓ The disappearance of the indicator icon "Product matrix loaded" means that the matrix has been applied.



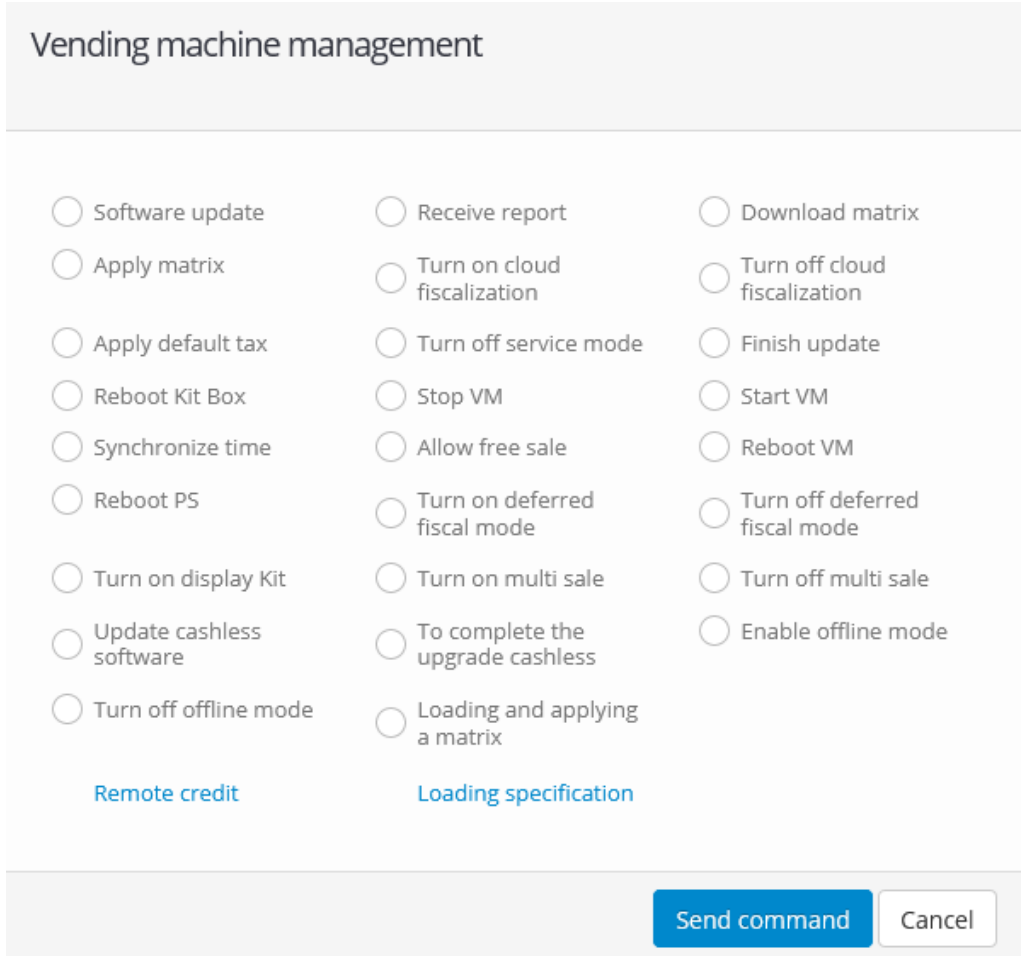


Contents

Basic commands

Attention!

(Commands are sent only if the Kit Box is connected to the server.)
(Commands are sent and executed with a communication-dependent delay.)



- Download matrix - loads the matrix selected on the machine. The matrix must be selected in the vending machine editing page before using this command.

- Apply matrix- applies the matrix loaded on the machine. This command should be sent after the «matrix is loaded» icon appears.

- Software update - starts downloading the current firmware version stored on the server. The icon will be displayed in the "Information" column during file download process. When the download is complete, the icon will change to.

- Finish update - installs the downloaded update. Should only be used if icon is present.

- Turn on cloud fiscalization - Activates cloud fiscalization, if a registered cash register is installed on the vending machine. The icon will appear, when fiscalization is active. We recommend starting fiscalization only after the vending machine is fully configured and checked.

- Turn off the cloud fiscalization - disables cloud fiscalization. We recommend to use this during vending machine setup and testing process.

- Stop VM- blocks payment systems.

- Start VM- resumes the operation of payment systems.

- Allow free sale - allows user to receive any product for free on the machine once.

- Remote credit- allows you to insert any credit in the machine free and remotely. Any client can spend it on the products . (Counts as a sale).

- Synchronize time- sets the current time in the Kit Box. You need to specify the time zone in the machine editing page inside your personal cabinet for this command to work correctly. Each machine requires its time to be set separately.

- Turn off Service mode - Used to disable the " Maintenance " mode remotely.

- Loading specification– allows you to edit the amount of ingredients or products left in the machine.

- Receive report - starts the formation of the EVA / DTS report. In cases where physical connection to the audit is absent - this generates a report based on the data from the personal cabinet.

- Apply default tax- applies a differentiated VAT rate.

- Reboot Kit Box - reboots the telemetry device.

- Reboot PS - reboots payment systems.

- Reboot VM - reboots the vending machine (only works if an additional reboot module is installed).

Contents

Basic work principles

3.1 Supported protocols

Work in the Executive Price Holding protocol can be carried out in two ways:

1. The control mode is supported only in the «Kit Box Master controller» model. Two controller buses are used for this connection. The machine board configured for Executive Price Holding protocol is connected to the bus №1. The payment systems with support for MDB protocol are connected to the bus №2. There is no need to configure payment systems manually. There is an important requirements for this connection type: the banknote receiver must have a cable that branches into two six-pin connectors (male and female), and the coin receiver must support multi-protocol or MDB.

2. The listening mode is available with the entire line of Kit Box controllers. Bus №1 is used for this connection. The cable, that is included with the Kit Box usually fits in between the machine payment systems. First insert one of three connectors in the bus №1 in the Kit Box. The other two should go to the payment systems, so that they can still receive power form the machine, and exchange information with Kit Box.

Work in the MDB protocol cab be carried out in the following ways:

1. The bus listening mode "Events in the bus“ - catches sales directly from the machine's bus. Suitable for some machines without Cashless implementation. Most often, purchases in this method all have the same name and a different price.

2. Cashless emulation mode - in this mode the controller is emulated as a cashless device and it becomes possible to connect card readers to the machine. In this mode the unique id of each product and it’s price is visible. Product matrix is used to set the name of the product to each individual id line. The prices from the matrix don’t affect the real prices on the machine.

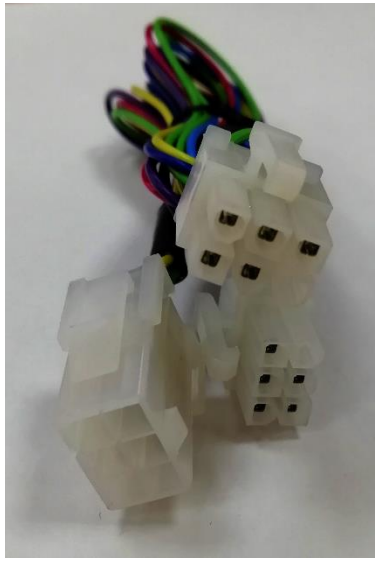
3. Cashless control mode - in this mode the controller acts as a full-fledged cashless device for the machine. Payment systems are connected to the MDB \ EXE 2 port, and will work through the Kit Box, this connection is used in rare cases.

4. " Pass-through " mode – is only used for Fuji machines at the moment.

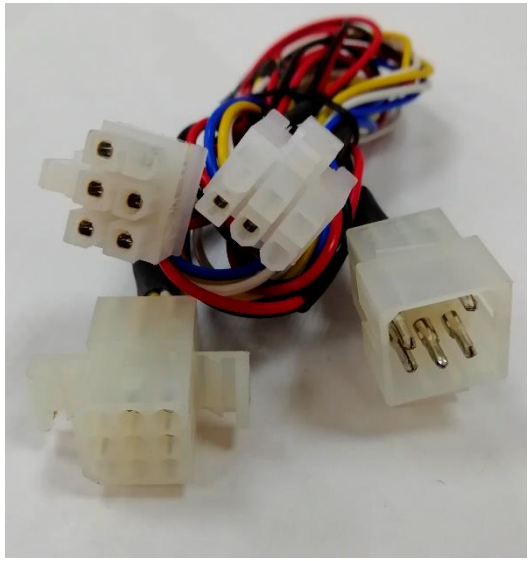
Contents

3.2 Physical connection types

The photo below shows the main types of cables supplied with our controllers.

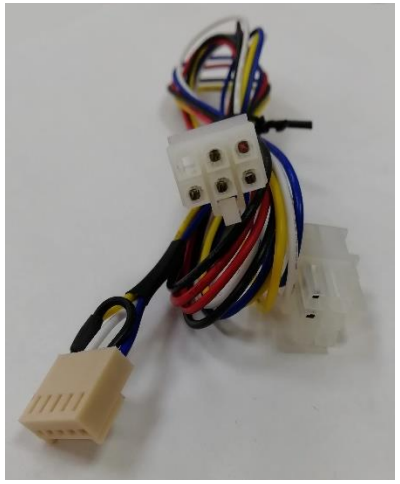


MDB



EXE

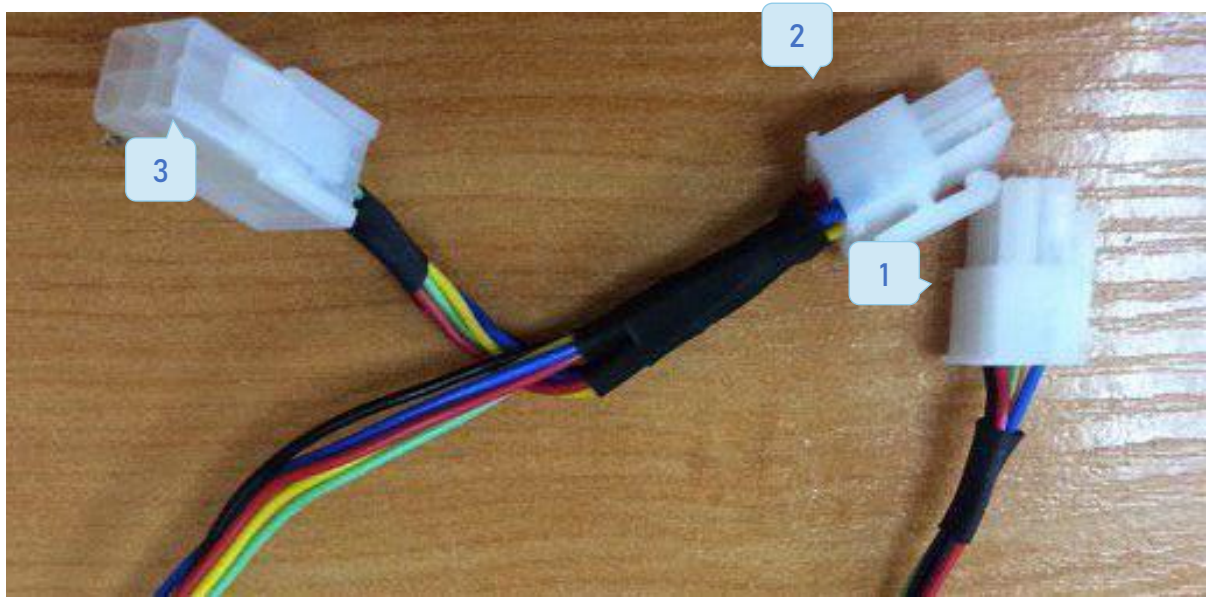
EXE - Saeco



EXE – Bianchi\Rheavendors

Connection in the "Listening" mode to the MDB bus.

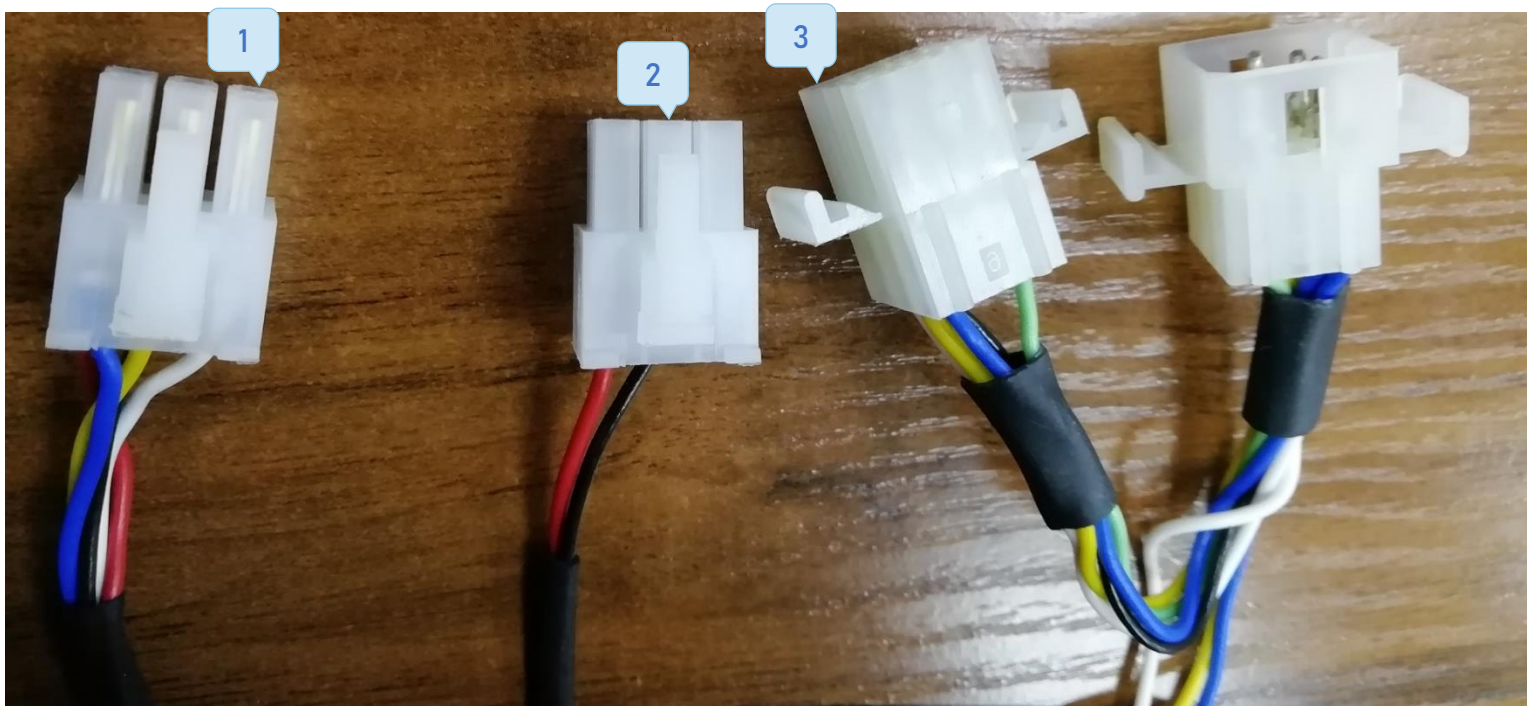
1. Set the correct settings and save them in the Kit Box, link the modem to your personal cabinet.
2. Install an active SIM card with a positive balance in the Kit Box.
3. Connect the supplied antenna to the Kit Box and install it outside of the machine housing .
4. Power down the machine.
5. Disconnect the coin and bill receivers.
6. Insert the MDB cable connector (1) into the MDB / EXE1 slot on the Kit Box.
7. Insert the MDB cable connector (2) into the bill receiver.
8. Insert the connector from the coin receiver into the cable connector (3).



Connection to the vending machine in EXE control mode

1. Configure the correct settings and save them in the Kit Box Master.
2. Insert an active SIM card with a positive balance in the Kit Box Maser.
3. Connect supplied antenna to the Kit Box Master and make sure it's located outside the vending machine housing.
4. Power down the machine.
5. Disconnect the coin and bill receivers from the machine board.
6. The cable from the bill receiver must be a branching splitter cable with two different connectors.
7. Connect the coin receiver to the branch coming from the bill receiver. Connect the remaining free connector to MDB / EXE2 on the Kit Box Master.
8. Insert MDB connector of the cable (1) into the MDB / EXE1 connector of the Kit Box Master.
9. Insert MDB cable connector (Black-red 2) in the machine board (where payment systems were previously connected).
10. Insert the EXE connector of the "male" cable (3) into the EXE "female" connector coming from the machine board.
11. "Female" EXE connector of the cable remains unused.

12. Disconnect the 15 pin connector coming from the machine board.
13. Configure the machine to the Executive Price Holding protocol
14. Set prices on VM in accordance with the matrix lines. Where the price of 1 corresponds to the first line number, 2-2, etc.
15. Set price lines in accordance with matrix lines. (In machines without such parameters - only prices are configured)

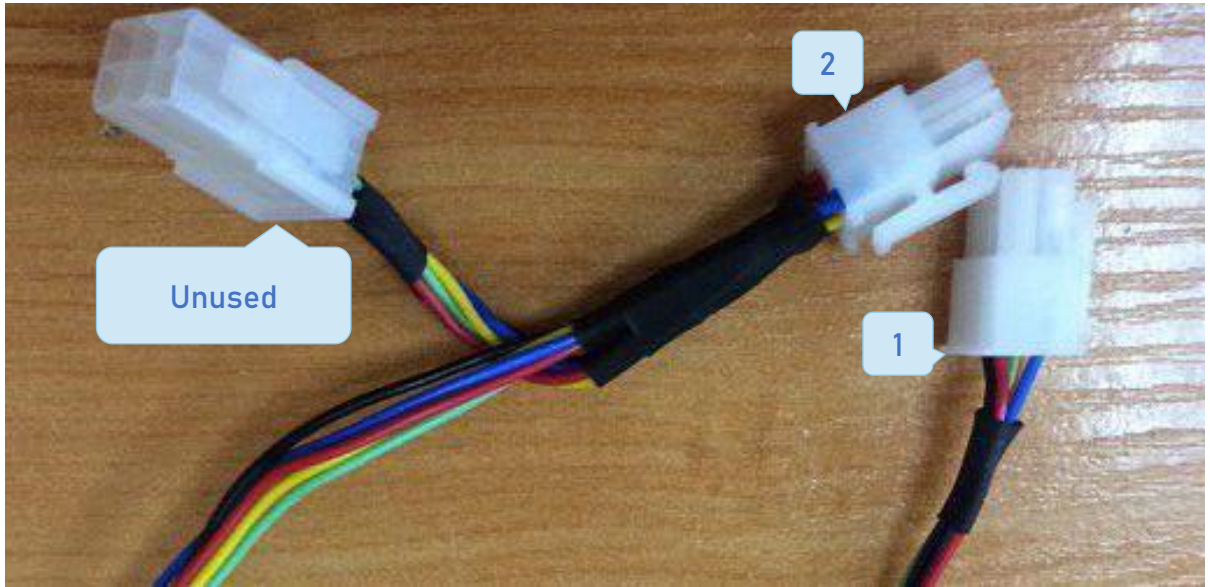


See the video-manual for this connection type here.

Connection to the vending machine in MDB control

1. Configure the settings and save them in the Kit Box Master.
2. Connect the supplied antenna to the Kit Box Master make sure it's located outside the vending machine housing.
3. Power down the machine.
4. Insert the MDB cable connector (1) into MDB / EXE1 on the Kit Box Master.
5. Find the "Female" type connector coming from the machine board and insert the MDB cable connector (2) into it.
6. Connect the coin reciever to the splitter cable coming from the bill receiver .This is the default connection in MDB.

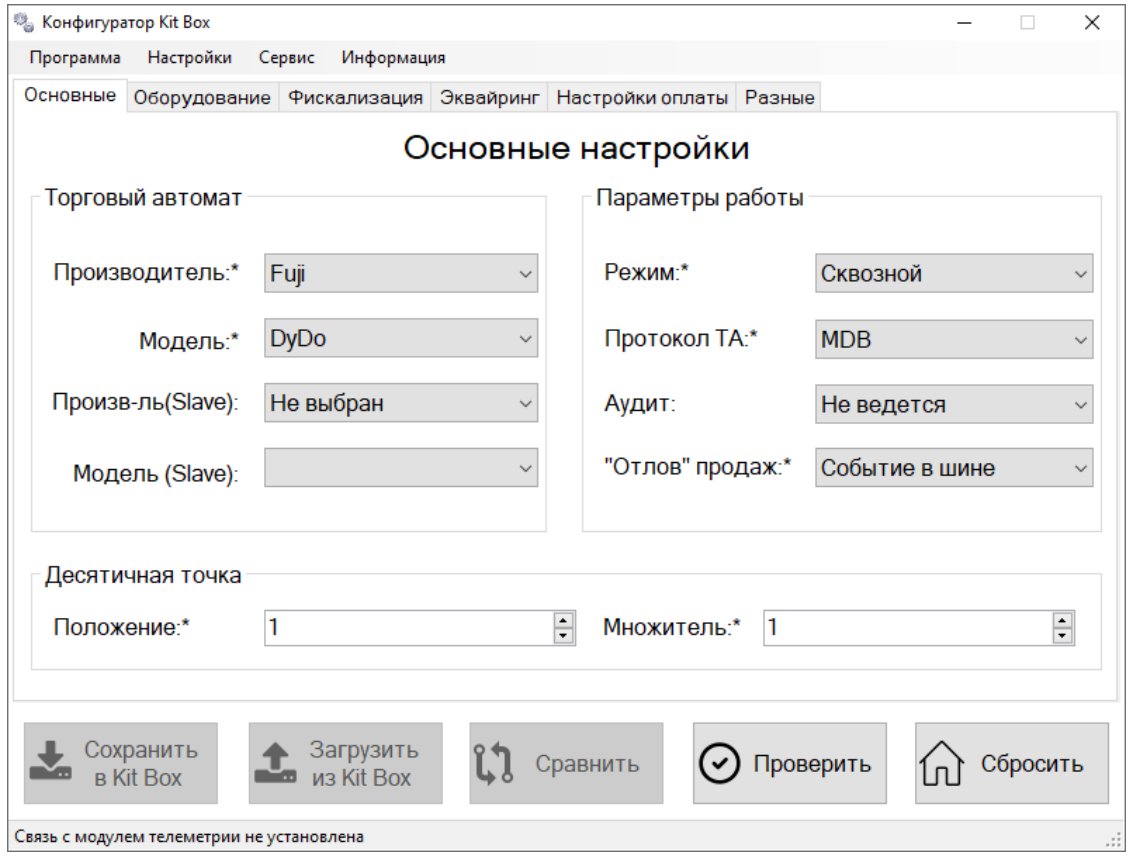
   Connect the remaining free connector of the banknote splitter cable to MDB / EXE2 on the Kit Box.

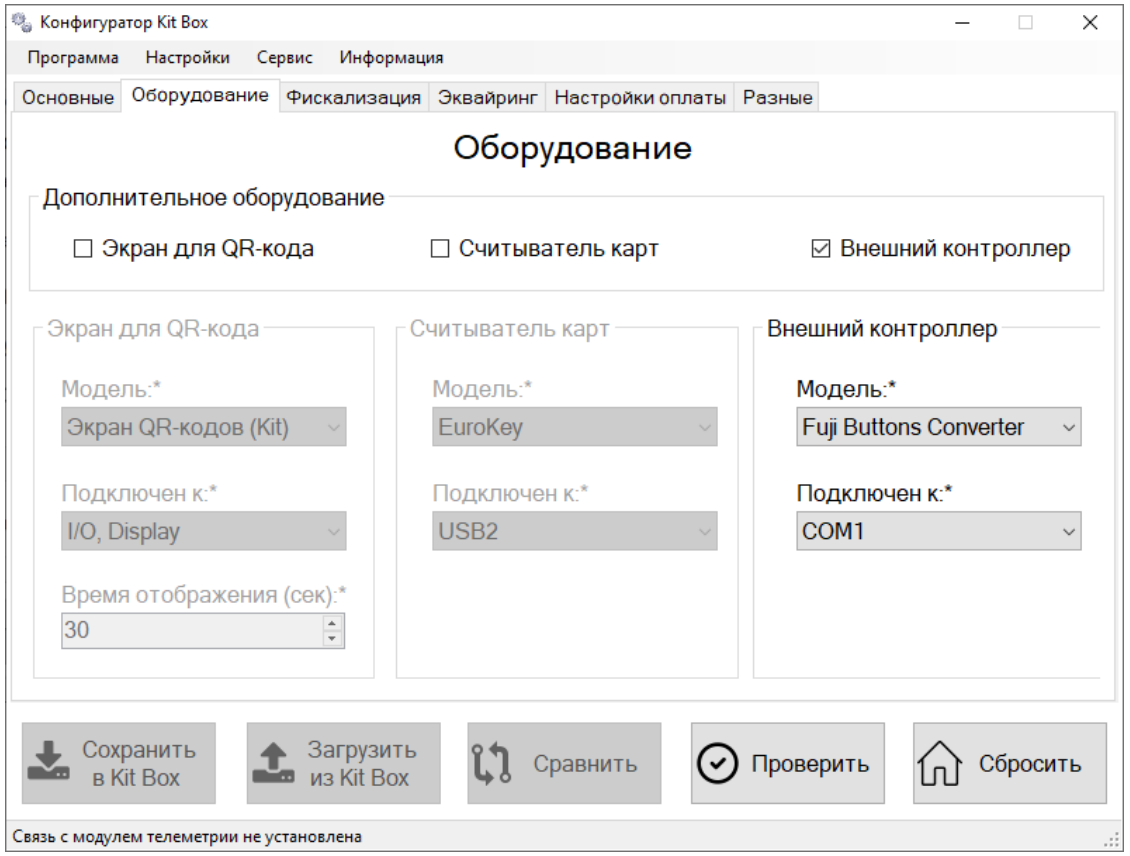


Contents

Connection to the machine in the "Pass-through" mode

For this mode -use the same type of physical connection as shown above sections describing the "Control" mode, and use the following kit box settings:





The main types of circuit boards and connectors on them are shown below.

When setting up Necta vending machines, you should pay attention to the switches (3), they are used to choose for the physical protocol, used by the machine. In Executive mode (2) they must be moved closer to the MDB (1) connector. In the MDB mode – they should be moved further away from it.
The Audit connector is located on the door of the machine and the type used is DB9 M.

When connecting the vending machine in the "Control" mode, make sure to not forget to switch the vending machine settings to Price Holding protocol.

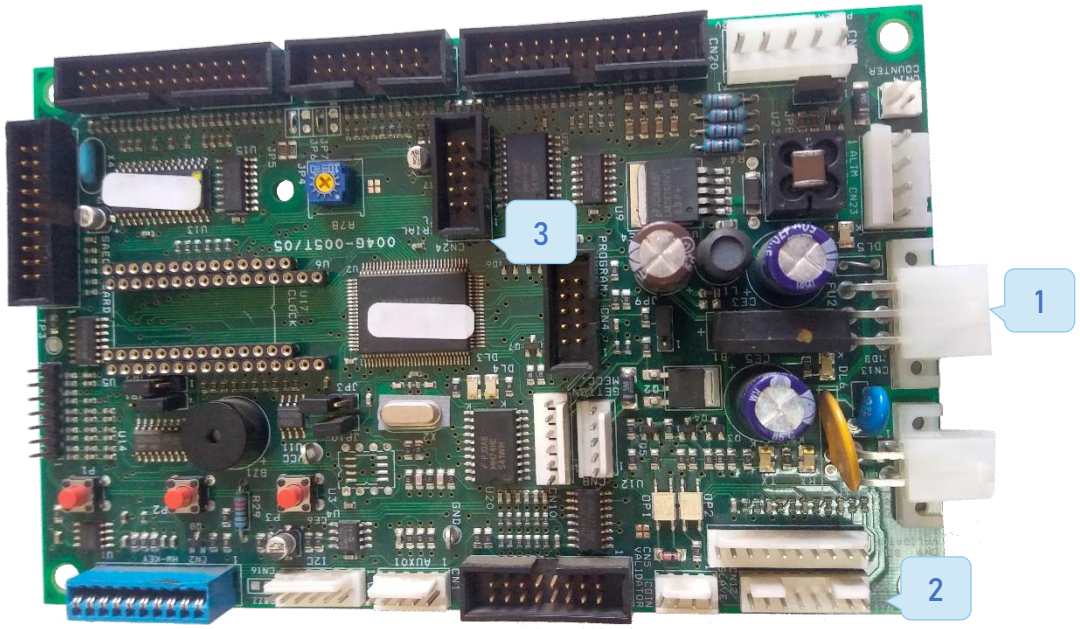
It is recommended to connect these machines in the "Control" mode using the Executive Price Holding protocol.

Video instructions:

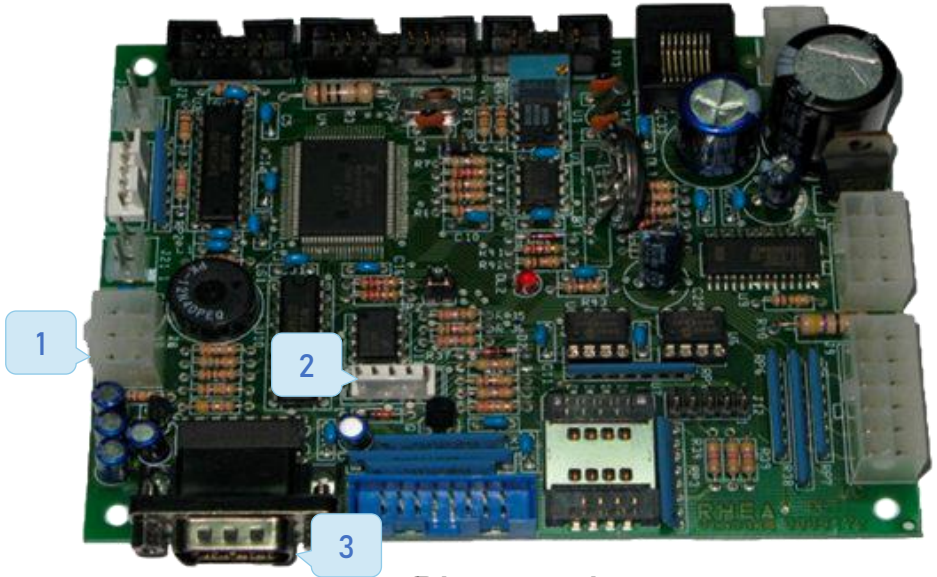
- ✓ Necta
- ✓ Bianchi
- ✓ Saeco

Connectors: MDB (1), Executive (2), Audit (3).

Bianchi



Saeco

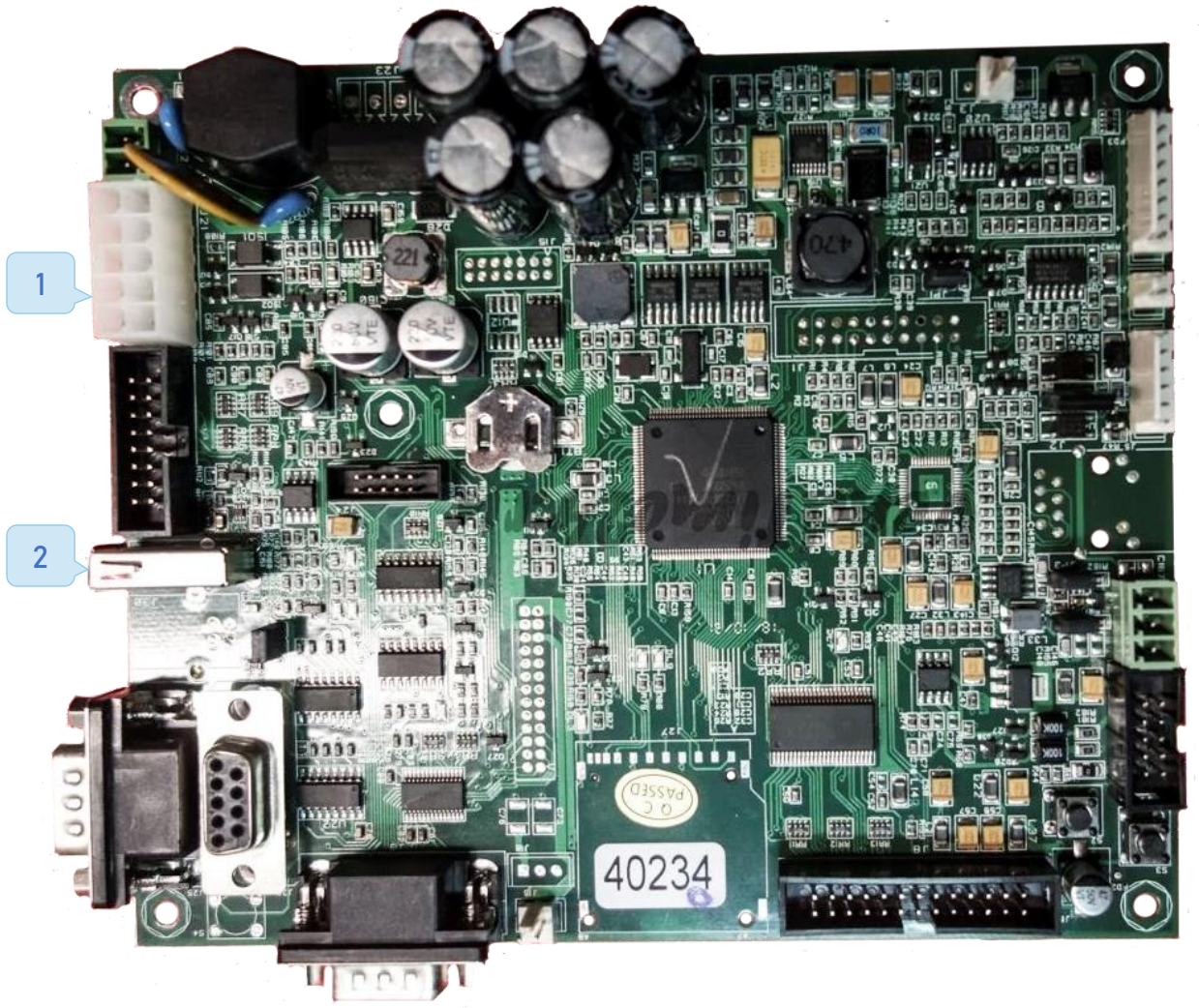


Rheavendors

When connecting the vending machine in the "Control" mode, make sure to not forget to switch the vending machine settings to Price Holding protocol.

The machines from the Unicum manufacturer have one connector for MDB and Executive protocols (1), as well as changing and updating firmware of these machines through the USB connector (2). Recommended operating mode is “Control" MDB.

These machines have the ability to work in the Executive Price Holding protocol, on certain firmware versions. To find out the details about the possibility of such connection, contact our technical support hotline.



Video instructions for this vending machine can be found here.

Contents

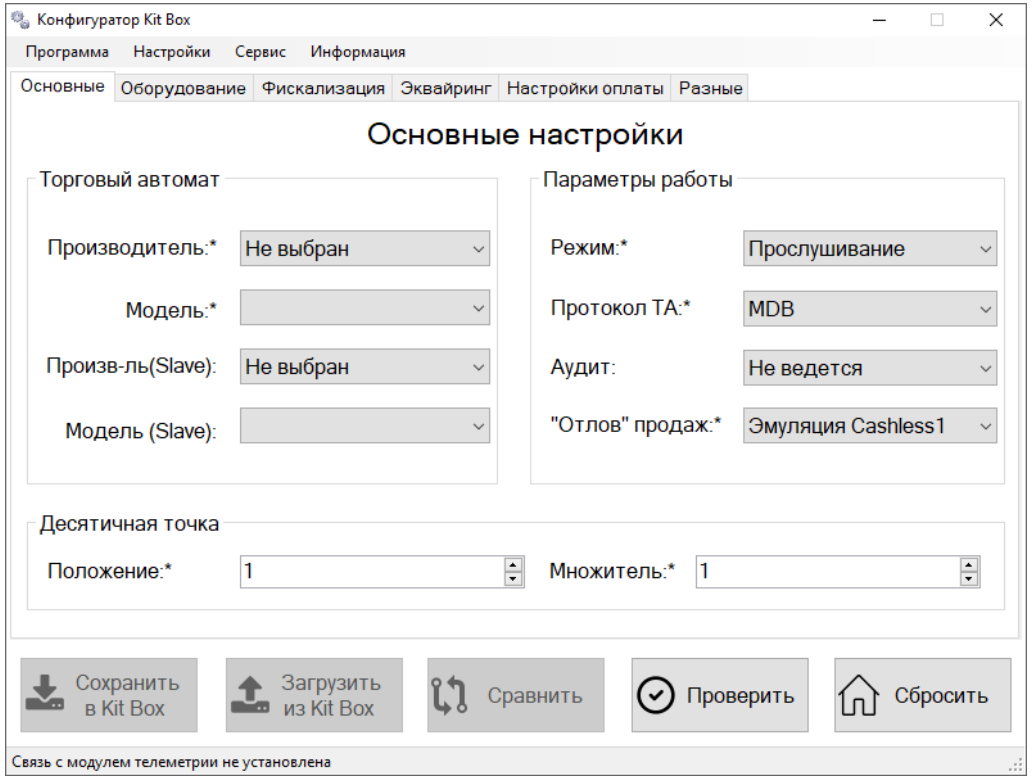
3.3 Equipment settings types

Cashless MDB emulation

This mode is supported by all Kit Box controllers.
This is the main method of connection in the "Listening" mode to vending machines with an MDB bus. This method allows you to catch sales by emulating the controller as a cashless module.

Restrictions: Remote credit, types of loyalty rules such as «discount» and similar to it.

For this method, the following parameters:



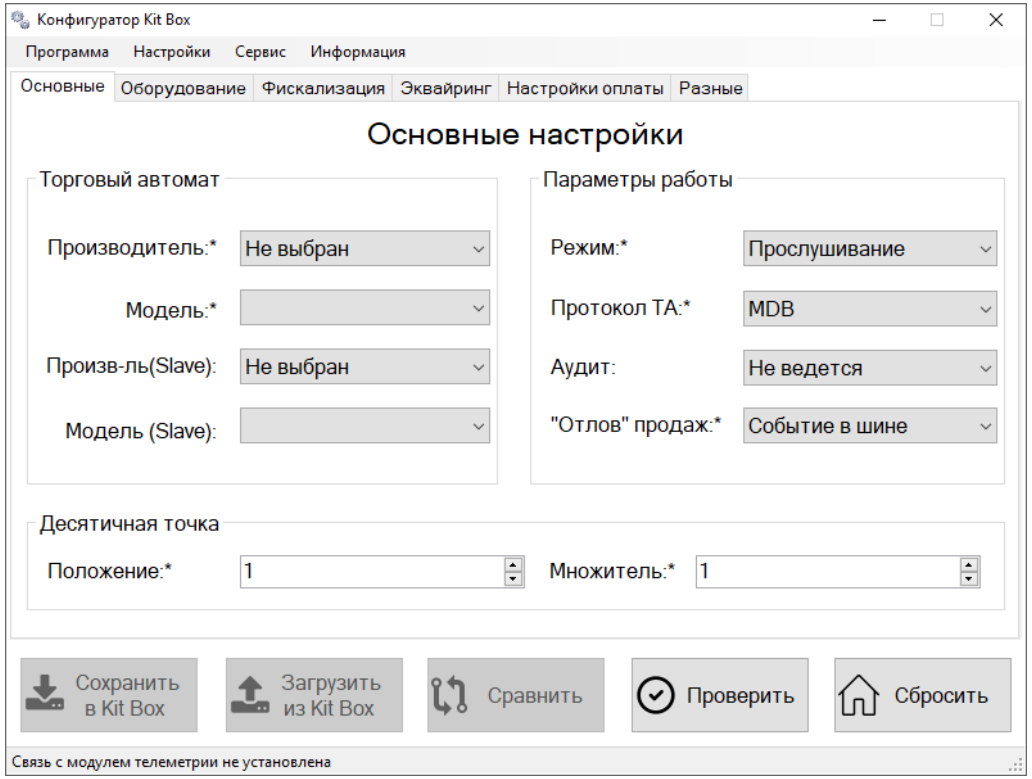
To correctly save the settings in the Kit Box, you must specify the manufacturer and model of your machine.

MDB bus Listening

This mode is supported by all Kit Box controllers.
In this mode, the Kit Box catches sales events in the MDB bus of the vending machine and transmits them to the personal cabinet, the main feature of this mode is the fiscalization of the vending machine.

Restrictions: It’s impossible to connect any devices that allow users to pay cashless. It’s impossible to use loyalty cards. It’s impossible to execute the commands “Allow free sale", "**Remote credit** "

For this method, use the following parameters:

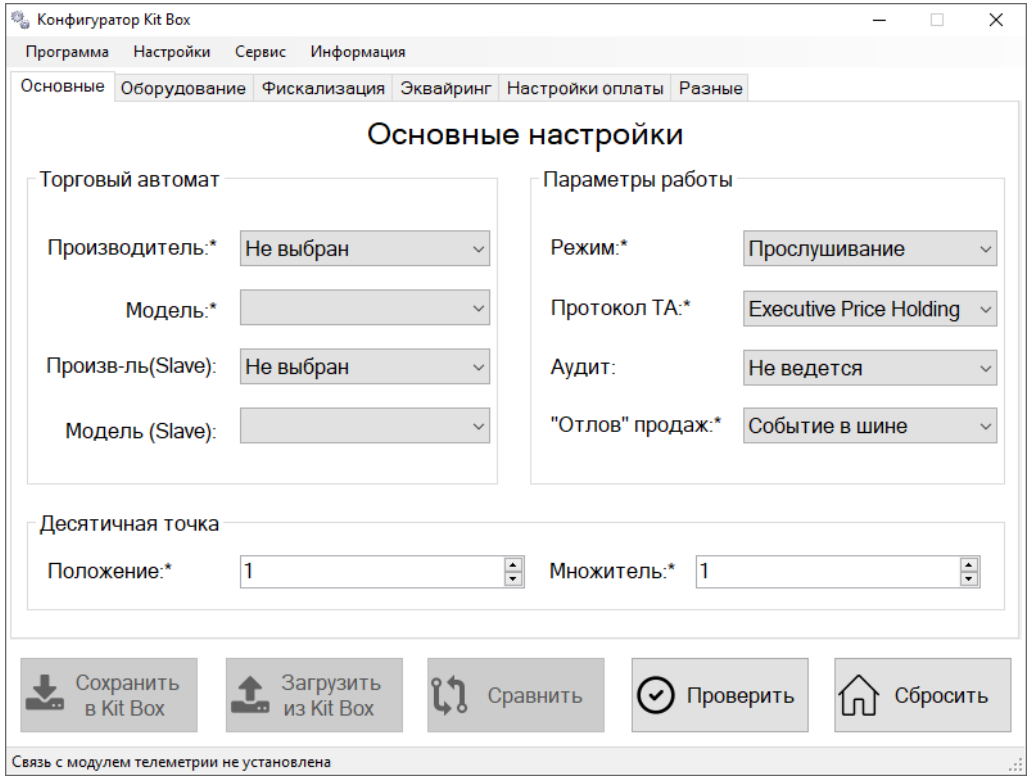


To correctly save the settings in the Kit Box, you must specify the manufacturer and model of your machine.

EXE listening

In this mode, the Kit Box catches sales events in the executive bus of the vending machine and transmits them to the personal cabinet, the main function of this mode is the fiscalization of the vending machine.

Restrictions: It's impossible to connect any devices that allow users to pay cashless. It's impossible to use loyalty cards. It's impossible to execute the commands "Allow free sale", "Remote credit "

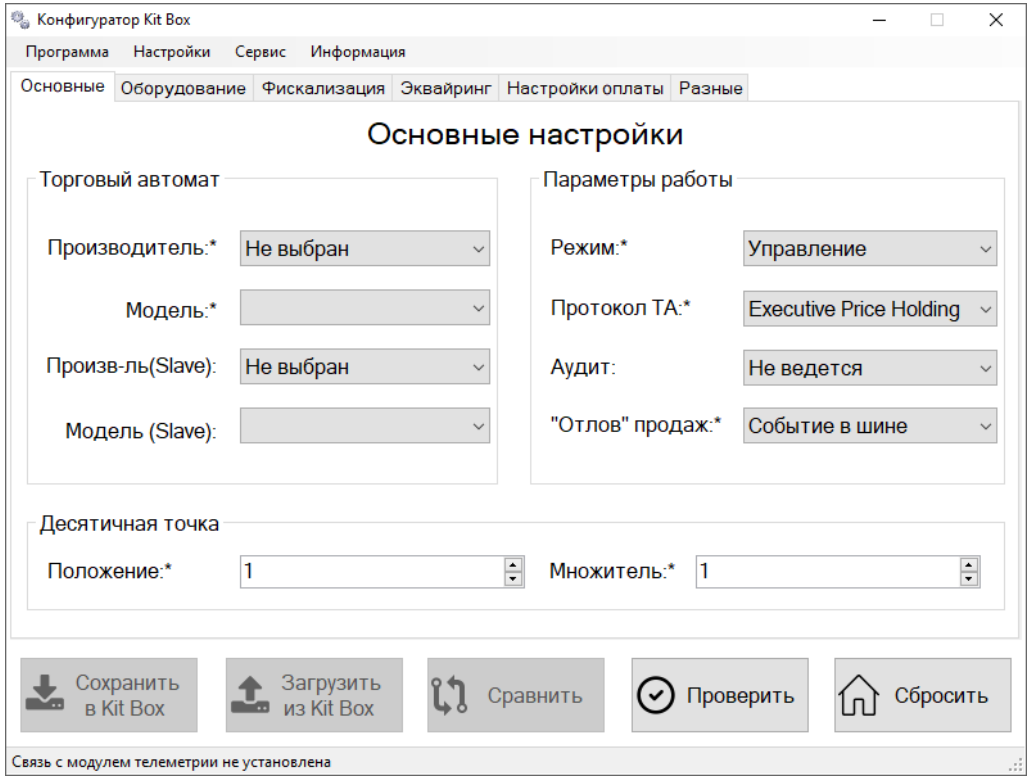


To correctly save the settings in the Kit Box, you must specify the manufacturer and model of your machine.

Executive Control

This mode is supported in Kit Box Master controller model only.

It allows you to use all the functionality of the "Control" mode. This is the most commonly used algorithm for the machines that support Executive Price Holding protocol.

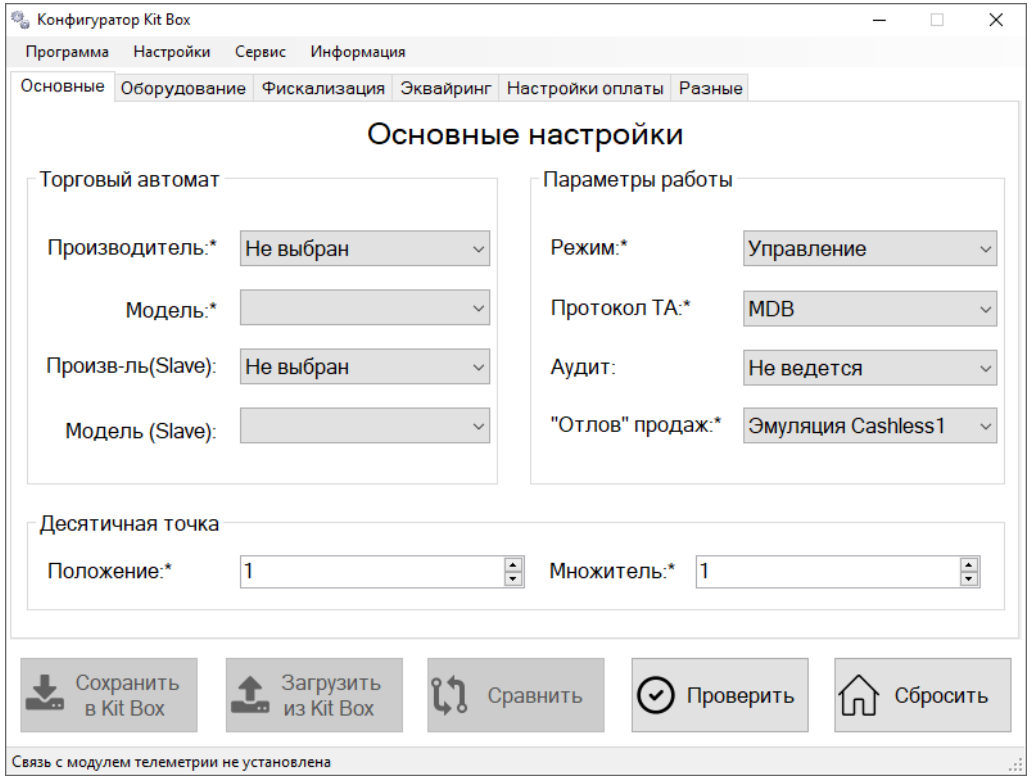


To correctly save the settings in the Kit Box, you must specify the manufacturer and model of your machine.

MDB Control

This mode is supported in Kit Box Master controller model only.
Allows you to use all the functionality of the " Control " mode, except for remote price editing.

Used in rare cases, mostly in «Unicum» and «Rheavendors Damian» vending machine models.



To correctly save the settings in the Kit Box, you must specify the manufacturer and model of your machine.

Contents

3.4 Individual machine settings

This section describes non-standard types of connection types, settings and other known specifics for some machines .

These machines include:

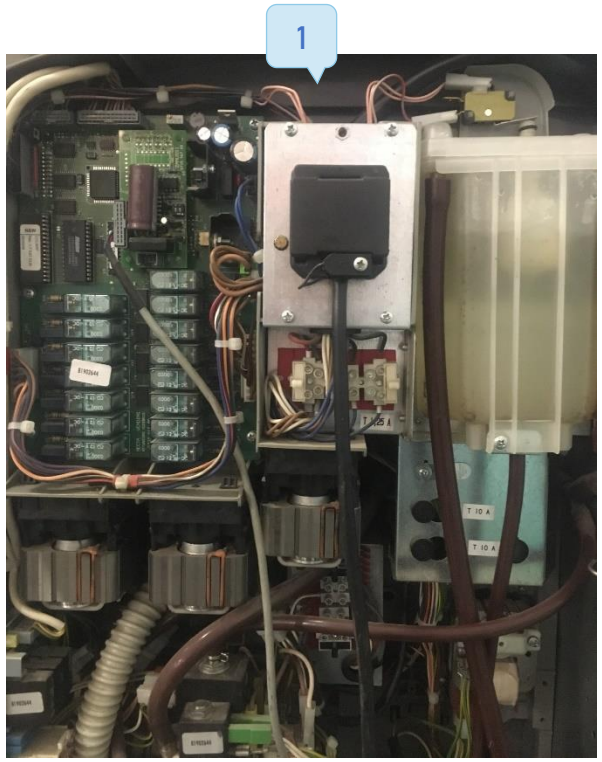
- ✓ Necta Colibri
- ✓ Venson 6111
- ✓ Delta Gazirovkin (Automatic production)
- ✓ Crane 167
- ✓ Fuji
- ✓ Spengler
- ✓ Liscom

Necta Colibri

This machine has a 24V AC power supply (1) by default, this power supply is suitable for working with payment systems in the Executive Price Holding protocol, but when working with our equipment, payment systems start working in the MDB protocol, therefore, it is necessary to replace the standard power supply with 24V from 4A DC.

Removing the old power supply is optional.

The recommended settings for the multiplier are 1, decimal point 0. Set the same values on the machine.



Contents

Venson 6111

The integration of this machine was carried out by several partner firms. For detailed information on a suitable solution, please contact our hotline. With our equipment, this machine has the ability to fiscalize and support devices that allow users to pay cashless.

Contents

Delta Gazirovkin (Automatic production)

This machine has 2 connection methods:

1-st Connection method uses a button converter, which is installed in the break of the keyboard loop and is connected to the DEX \ UCS connector on the Kit Box controller. The Main parameters used in the configurator for this machine are: "Listening", MDB, Bus events. The external controller "Delta Buttons Convertor, AUDIT.» should be chosen in the "Equipment" column.

For 2-nd connection method – KitBox is installed in the break of the MDB bus of the machine with the parameter " Cashless 2 emulation ", this method only works on the latest firmware version from the manufacturer of these machines.

Contents

Crane 167

In order to make this machine work properly, you need to go to the machine programming menu, find the "Payment cards“ parameter and set its value to "Payment cards MDB".

Fuji

To correctly determine the lines through which the sales are taking place, an adapter must be connected to the Kit Box and the vending machine. You will also need to set the following options in the configurator utility on the Hardware tab: set the option «use an external controller» to «Activated» and specify its type - Fuji Buttons Converter COM1.

To work with devices that allow users to pay cashless on this machine, it is necessary to use the Kit Box Master controller model and set the following parameters:
Mode - Through
Protocol - MDB
Catching Sales - Bus Events
Hardware tab settings - External controller - Fuji Buttons Converter COM1
Setup standard Acquiring settings

Spengler

To correctly configure this machine you will need: enter the vending machine operator's menu and go to menu "Pay functions" -> "Payment functions" -> "Vend opt." find the "Mixed payments" parameter and set its value to "Not available". In the section "Pay functions" -> "Device set." -> "Reader set." find the "Reader port" parameter and set its value to "MDB bus".

Liscom

“Gazirovkin” vending machines have the ability to be used with the cashless payment module and correctly display sales on the GAZ_PU15_3.01T_ru.cbn firmware. For this to work you will need to specify the following operating parameters in the configurator:

1. Mode - Listening
2. Protocol - MDB
3. Catching Sales - Cashless 2 Emulation

In order to work with Automatic machines "Kopirkin", you need to set the following operating parameters in the configurator :

1. Mode - Listening
2. Protocol - MDB
3. Catching Sales - Bus Events
4. Equipment - External - controller KKT PRIM COM1

When connecting the telemetry controller to the copier, you will need to:

1. Connect the cash register connector on the copier control board with the COM port of the telemetry controller with a special cable
2. Next, in the copier, in the programming menu, you need to set the use of the fiscal recorder, save the settings and restart the machine.

Contents

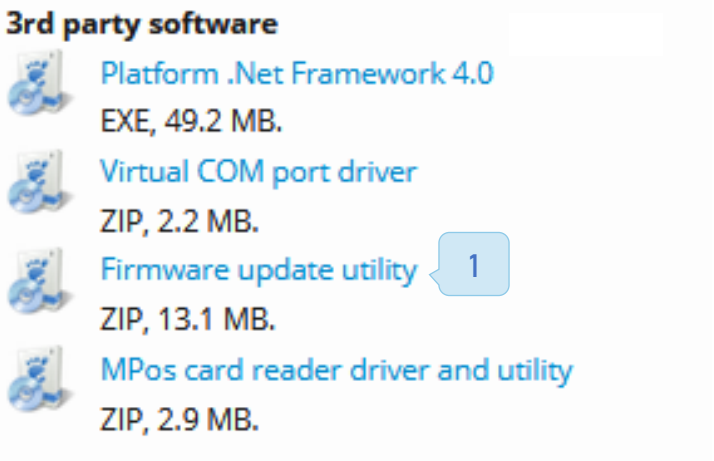
Firmware update

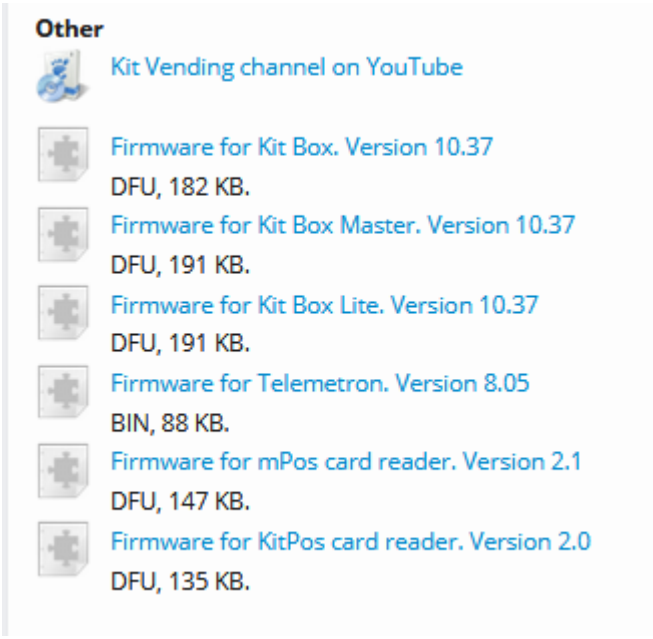
5.1 Kit Box firmware update

Go to the download center inside your personal cabinet, find and download the "Firmware update utility" (1) and firmware itself (select correct firmware name depending on the device model).

Updating is necessary if you have any difficulties with setting up or using the device. Updating is also recommended at least once every 3-4 months.

Newly purchased devices does not require updating and are updated remotely when necessary.

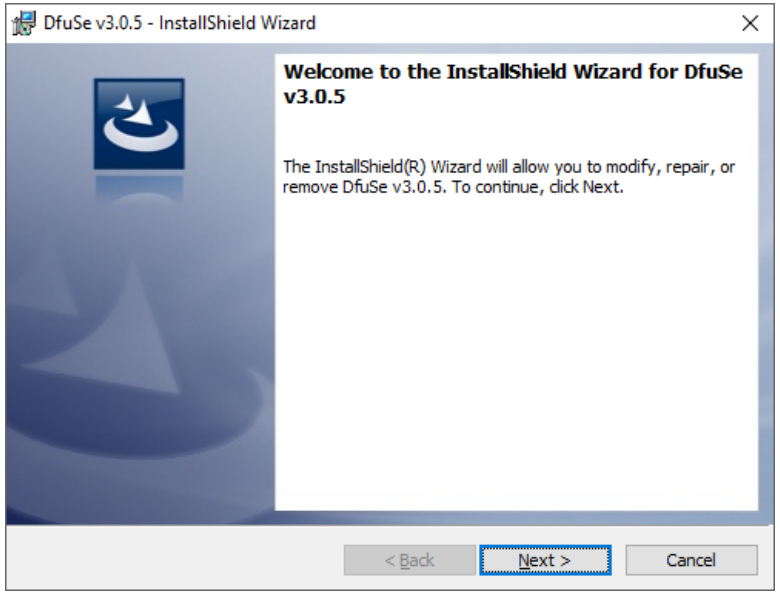


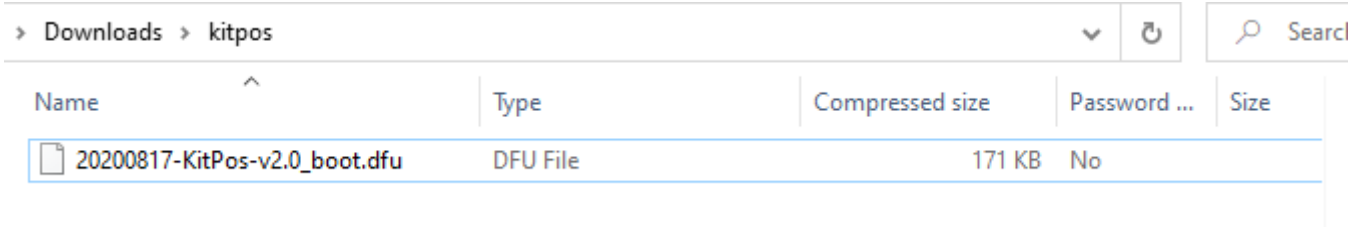


Install the utility for updating the firmware (DfuSe Demo) and unpack the firmware file to a separate folder; for convenience, we recommend unpacking it to your desktop.

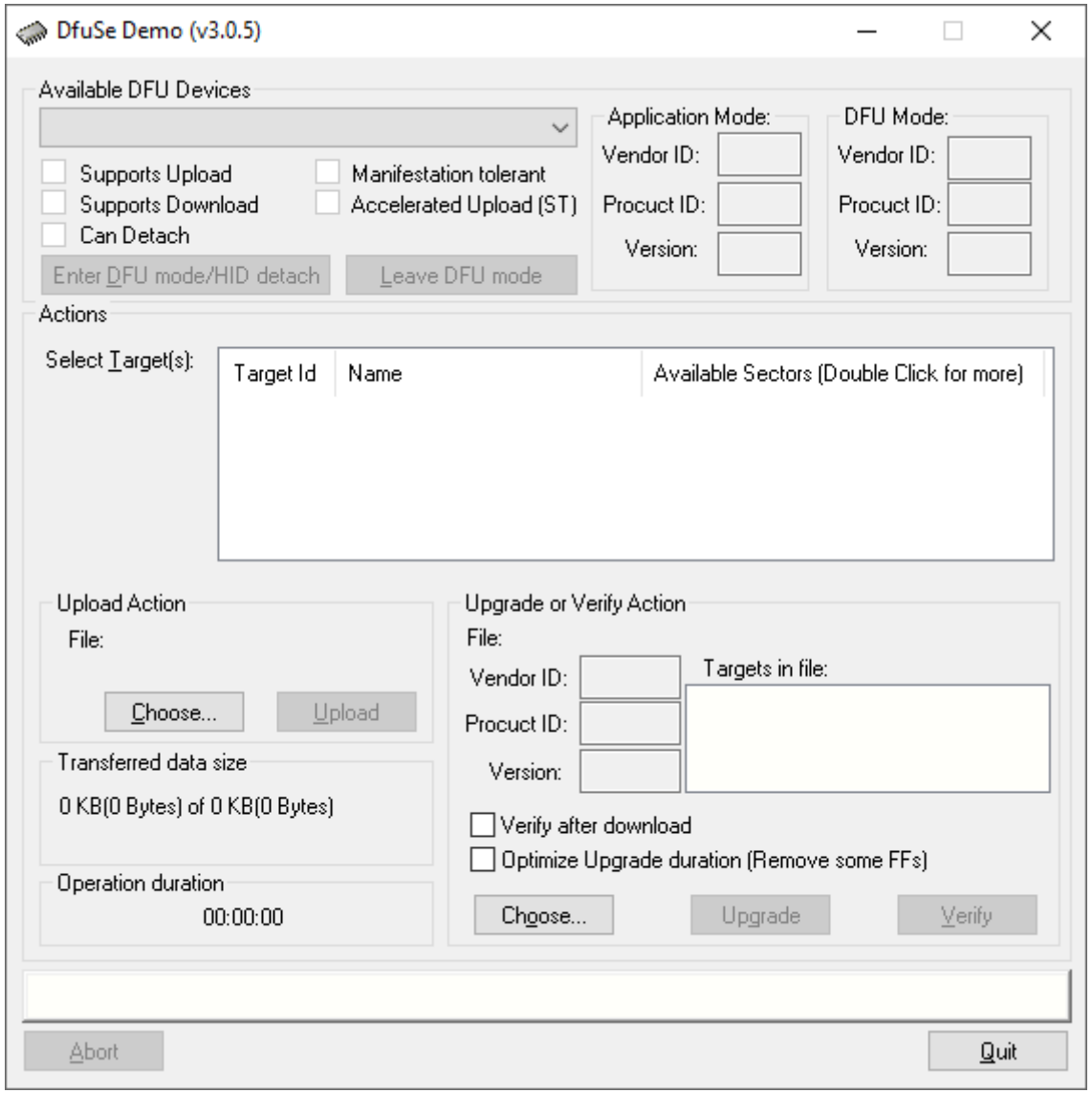
Attention!

- ✓ The firmware file has a .dfu extension. You do not need to open this file.
- ✓ After installation, the DefuSe Demo shortcut is located in the Start menu of your computer; you do not need to run the installation file again.





After correct installation and launch of the program, the following window should open:



It is recommended to connect our devices to the rear USB connectors on desktop computers or to the blue ports on laptops.
The devices are connected with the following types of cable:

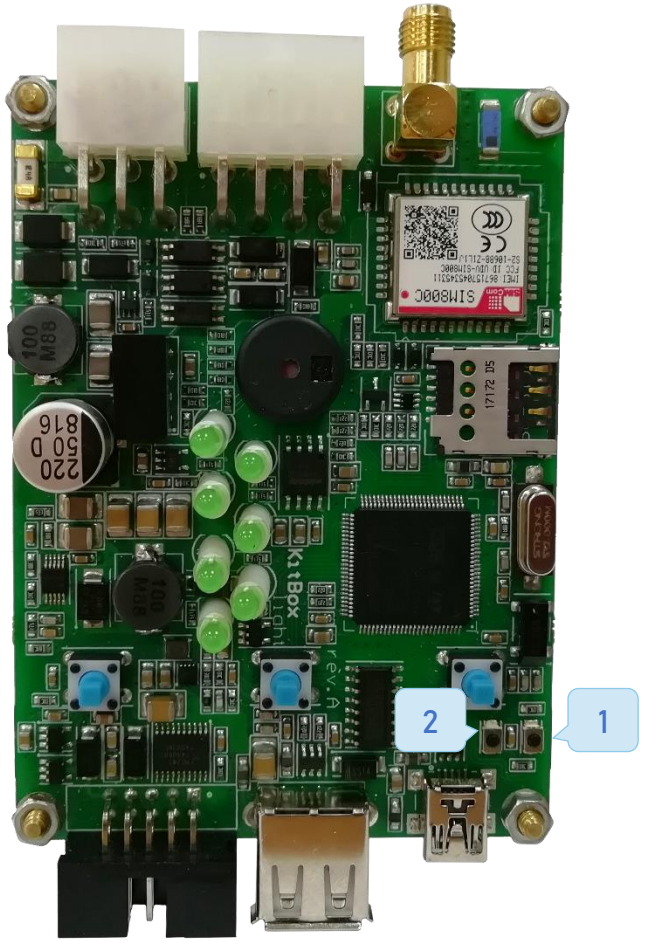
Cable for KIT BOX and KIT BOX MASTER

USB A
USB B

Cable for KIT BOX LITE

USB to Mini USB

Enter the firmware update mode. To do this, hold down the button (1) and restart the telemetry device. To restart Kit Box Lite, you need to disconnect and connect the device to your computer.



1. Button for switching the device to DFU mode (firmware update).
2. Reset button.

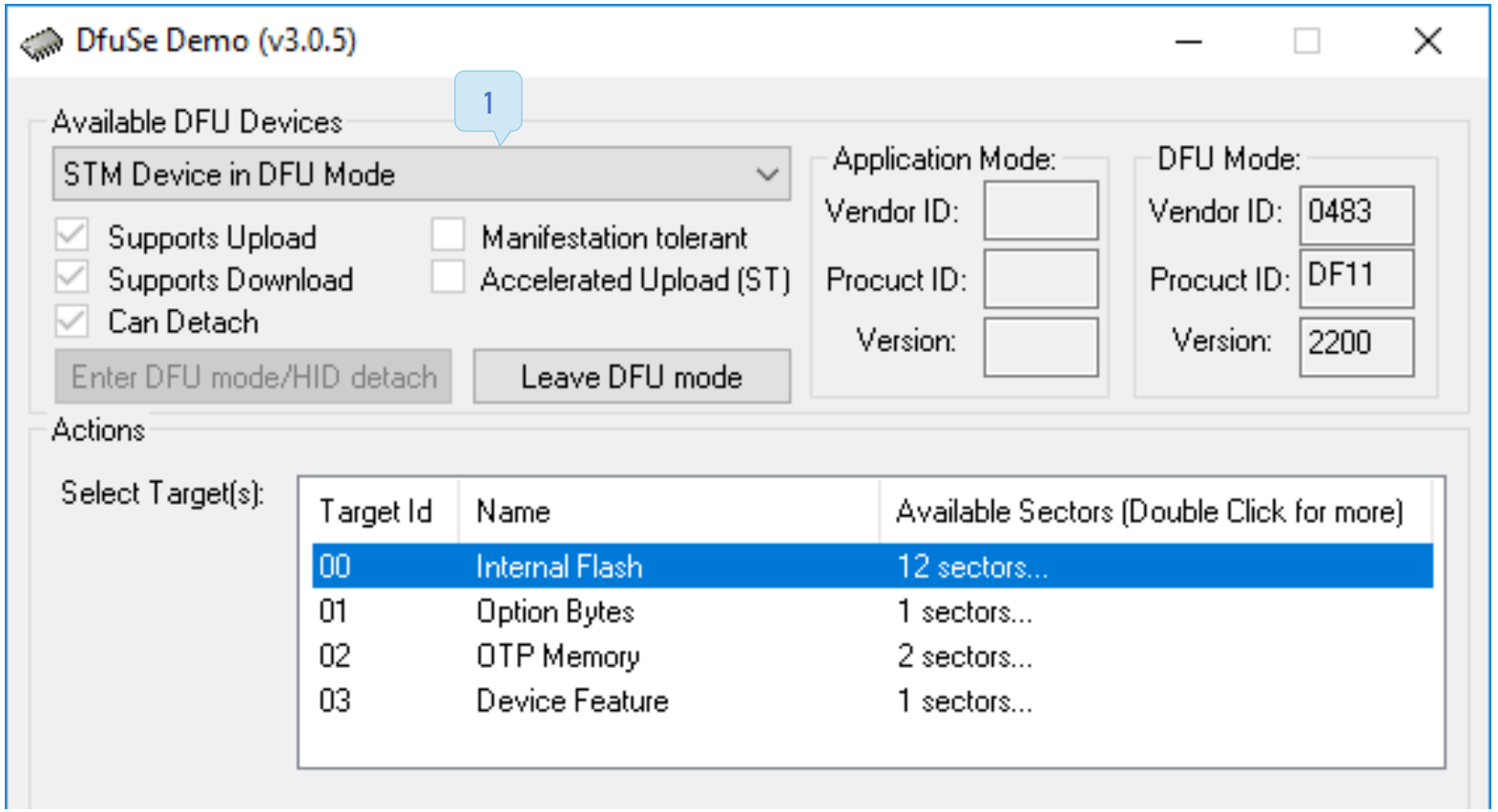
For new revisions of Kit Box Master with position of the "Off / On" lever shown below, the assignment of the hidden buttons is reversed.

1. Button for switching the device to DFU mode (firmware update).
2. Reset button, missing in the new Kit Box Lite.

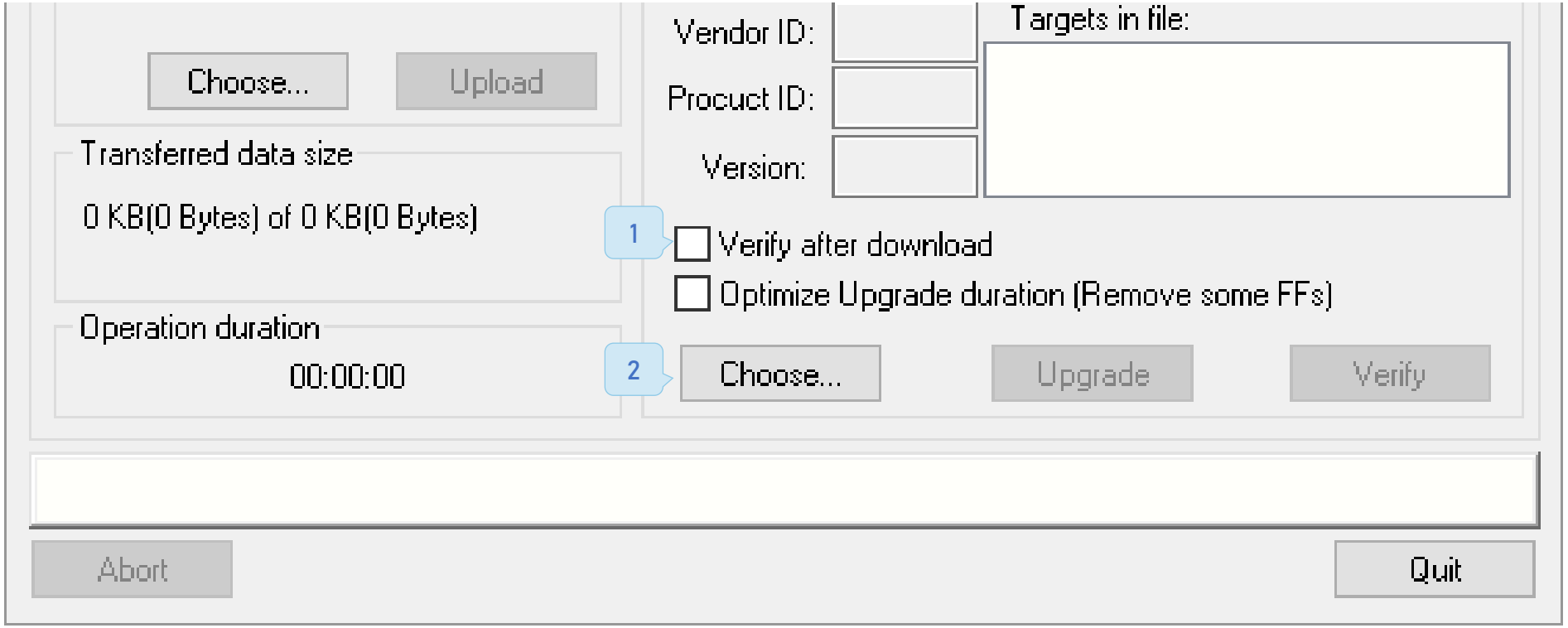
The device will be displayed in the program window (1).
No indicator on the Kit Box should be on (release the button).

Attention!

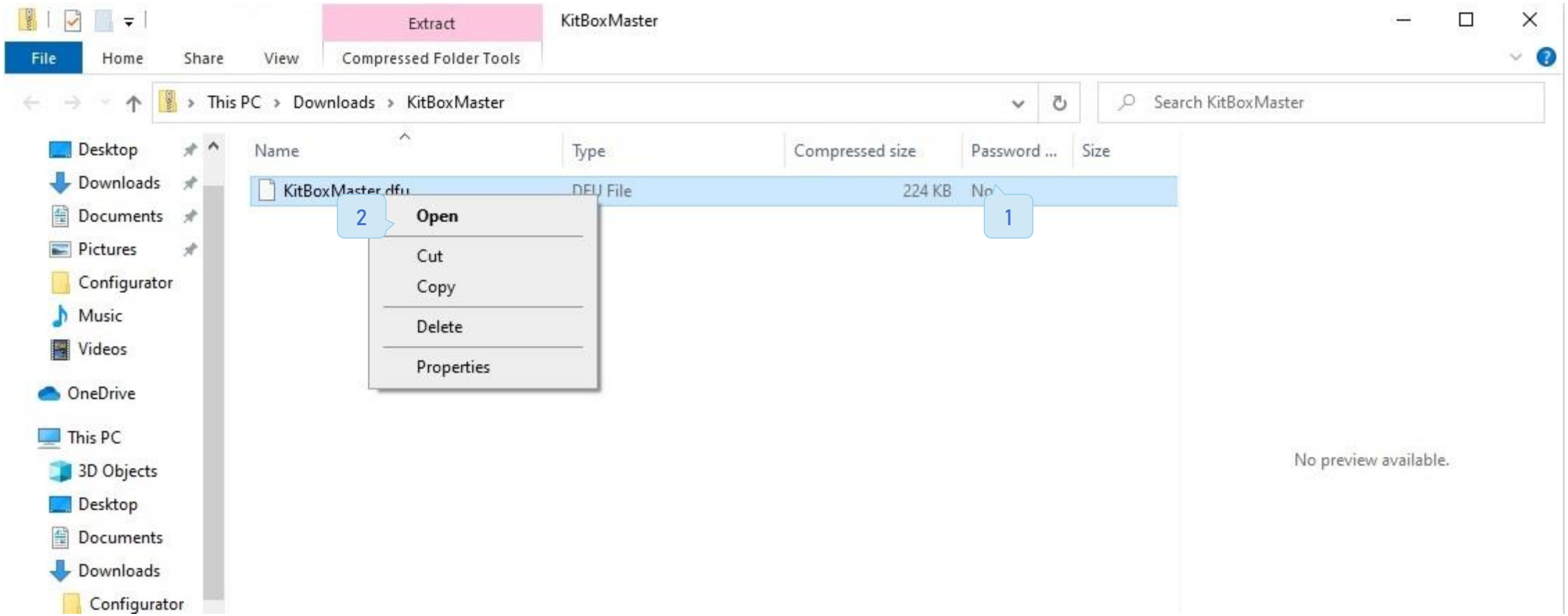
If the connection wasn't established, follow the instructions for installing the drivers and check the cable condition.



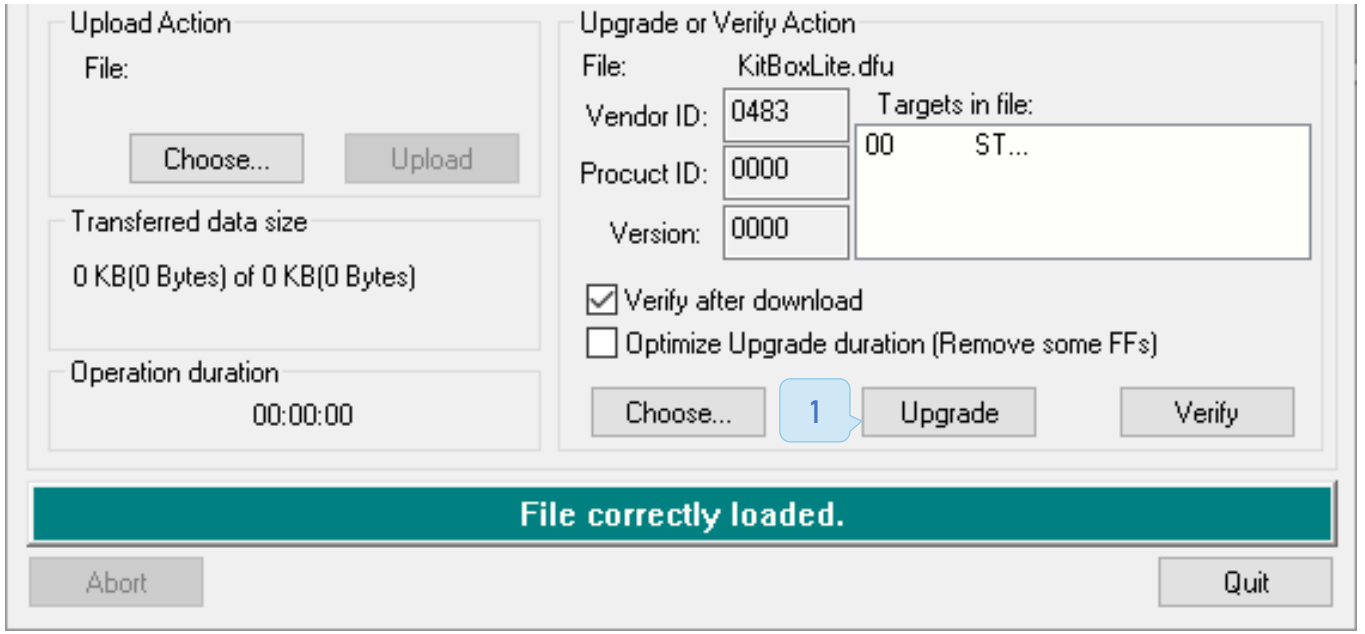
Put a check mark (1) in front of "Verify after download" and click on the "Choose ..." button (2)

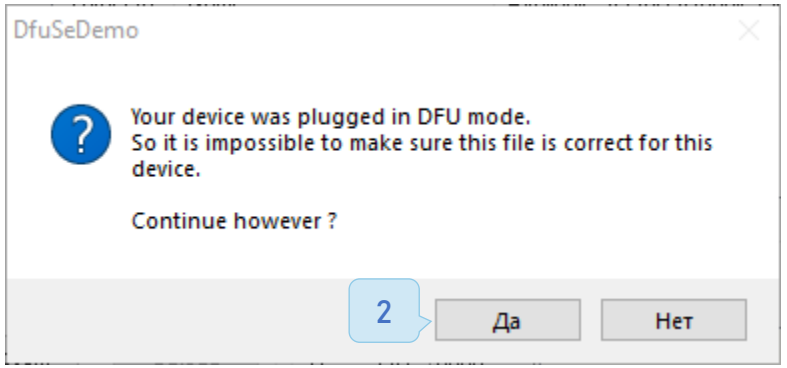


In the window that opens, specify the path to the previously unpacked firmware file (1) and click the "Open" button (2)



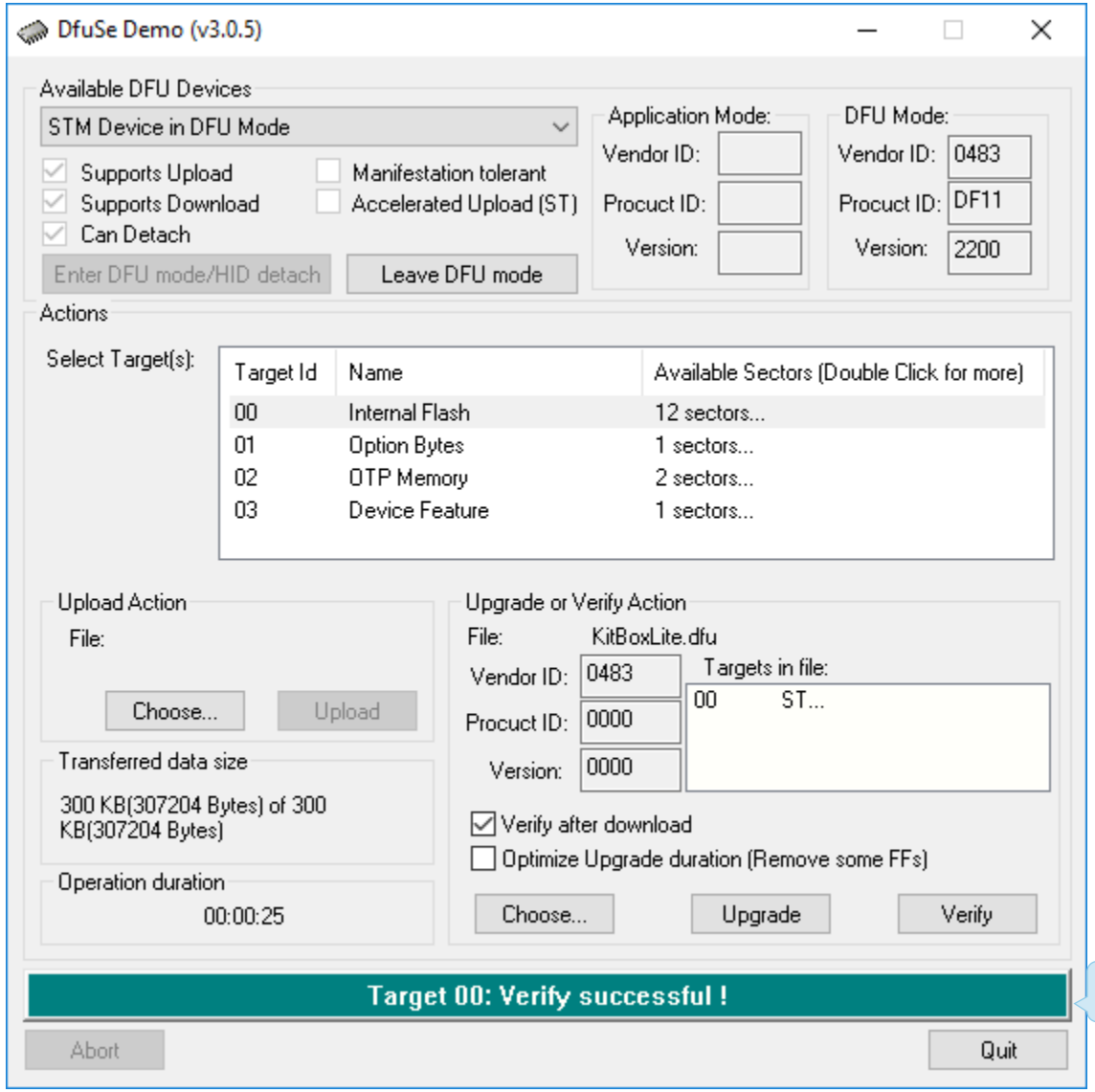
Now you need to click on the "Upgrade" button (1) and confirm the start of the firmware update in the window that opens next (2).





After process is complete, a status will appear at the bottom of the window about the successful firmware update (1). The device can now be disconnected. It is now ready to use.

If a red line appears and error occurs - you must reconnect the device and check the cable.



Contents

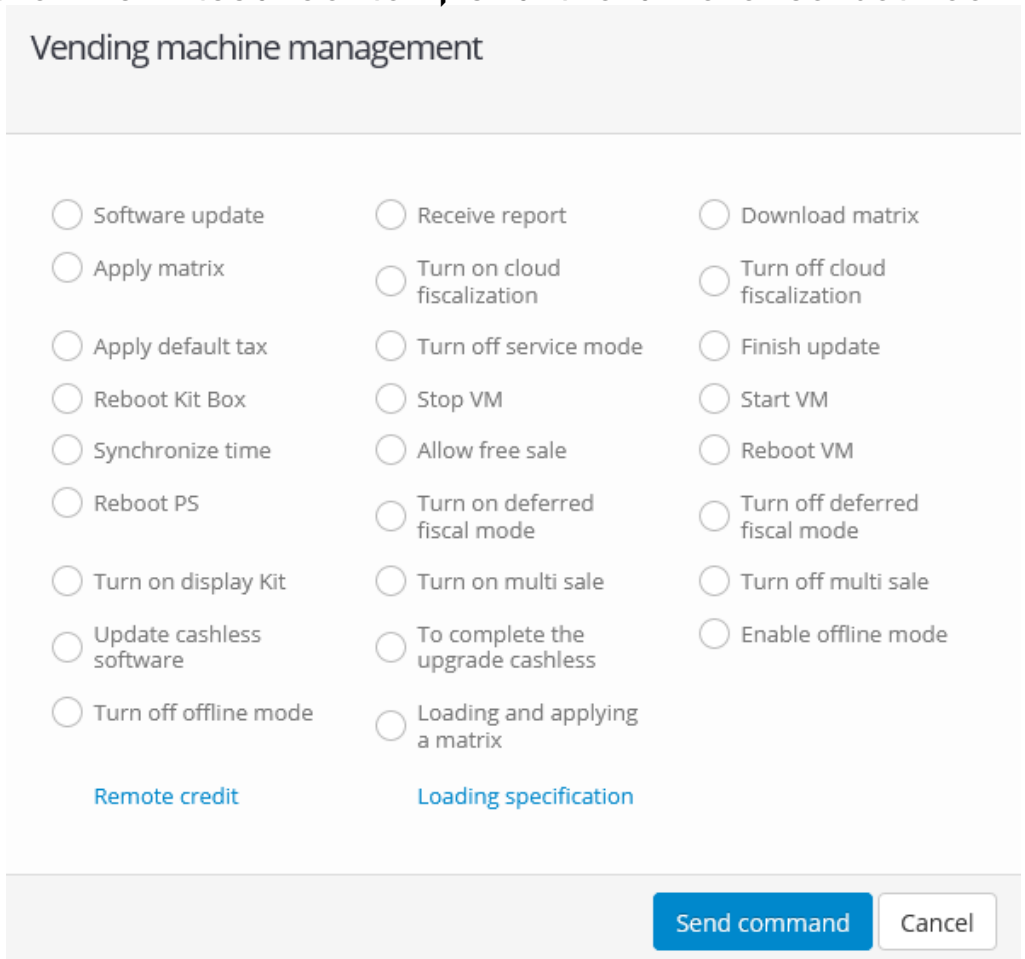
5.2 Remote firmware upgrade

Use of remote firmware update is recommended when upgrading from not too outdated version, for example from 8.130 to 9.15. If the controller has very old firmware version relative to the one posted in the "Download Center", and the difference between versions is 2 or more revisions, then a local firmware update is recommended.

From firmware version 8.130 and above, it is possible to update the Kit Box remotely.

To do this, open your personal account and follow those steps:

- ✓ Open "Monitoring" and in the column "Additional" click on the icon
- ✓ Send the command "Software update"
- ✓ An icon will appear in the "Information" column
- ✓ Wait for the icon to appear
- ✓ Open "Manage vending machine" and send the command «Finish update»



Attantion!

After updating the Kit Box firmware, you need to download and apply the matrix.

Contents

Loyalty system (CRM-system)

6.1 Settings and basic parameters

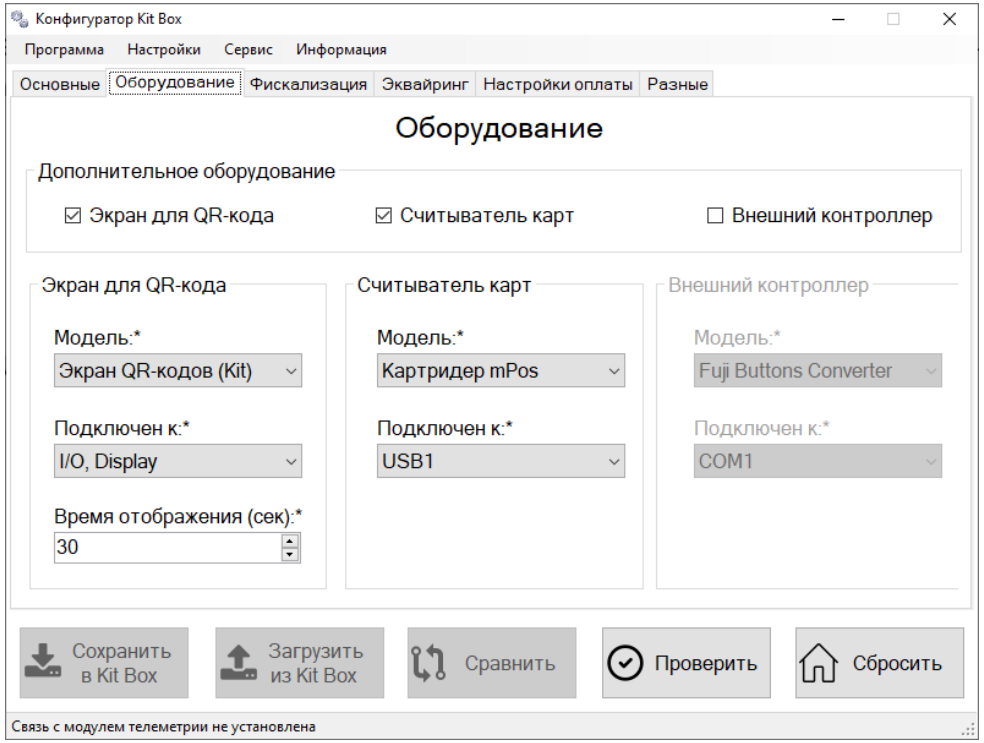
The loyalty system or CRM system is a combination of hardware and software that allows the owner of vending machine to provide their customers with individually configurable discounts on the purchases in the vending machine.

How does this work:

The customer approaches the machine, uses any RFID tag for identification (for example, a bank card, transport card, etc.).
Kit Box uses the QR code screen to inform the buyer that his identifier has been read and makes a request to the server to receive the loyalty rules assigned to this client.
After receiving a response from the server, Kit Box uses the QR code screen to display the information about the buyer and the loyalty rules available to him.
The customer buys a product, using the preferences specified for his loyalty card (for example, with a 30% discount).

CRM-system configuration

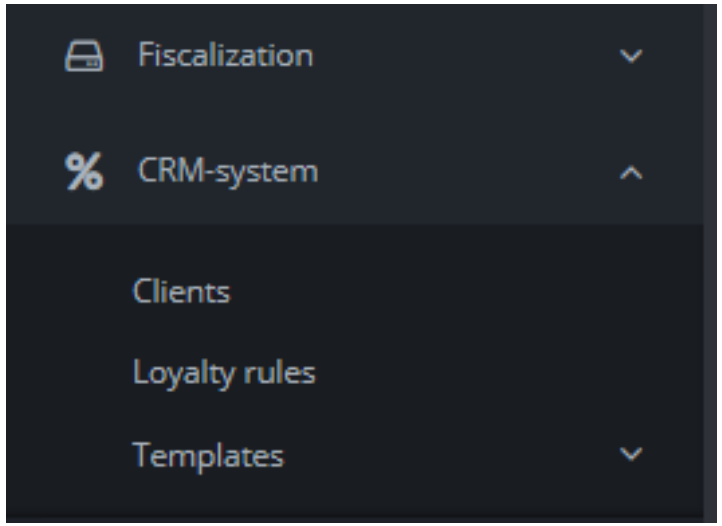
To enter correct settings use the "Configurator" utility. In the "Hardware" tab, select "Card Reader“ and select your reader model. Then select the port to which it’s connected (usually USB1), also activate the QR code display, if it’s installed. Then select the display model " QR code display (Kit) ", and specify that it is connected to" I / O Display ".



Attention!

At the moment, full CRM system is available only for the Kit Box Master telemetry controller model that uses control mode and the EXE PH protocol!

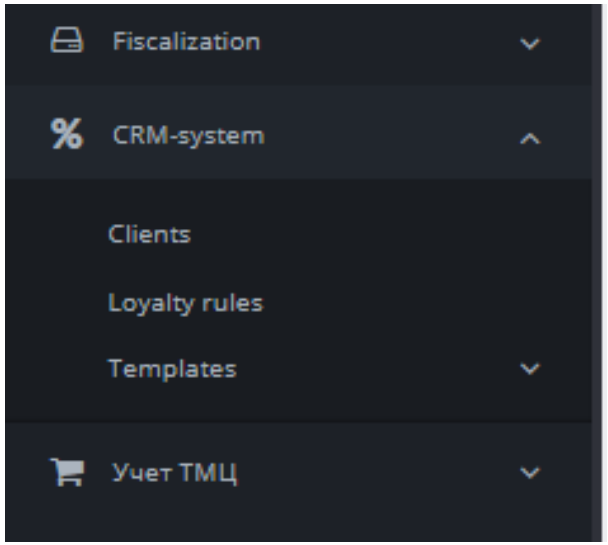
List of clients (customers). A customer can be added manually, or automatically if he makes at least one purchase on VM after identifying himself.



Client fields:

- ✓ RFID - customer identifier (tag number in the card)
- ✓ Customer name - this name will be displayed on the QR code display after customer identification
- ✓ Balance - cashback accumulated by the client (if cashback loyalty has been assigned to the client)
- ✓ Total purchases - the number of purchases made by identified client on all vending machines in the network.
- ✓ Last Purchase - date / time of the last completed purchase
- ✓ Assigned Rule - a loyalty rule that will be applied to this customer, if assigned

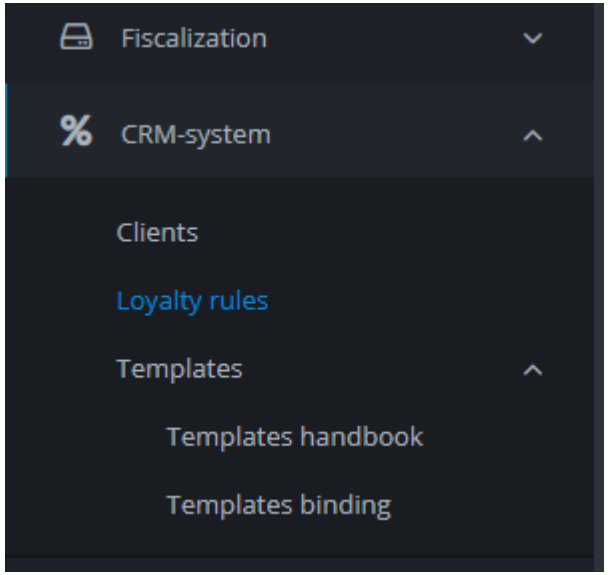
A list of loyalty rules (discount rules) available for use on vending machines is created by the owner of the machines and takes into account his pricing policy.



Loyalty rules variants:

- ✓ Percentage discount. Discount percentage is set in the personal cabinet (from 1 to 99). The client purchases the product with a specified discount percentage applied. The discount is rounded down for the buyer.
- ✓ The fixed discount. The client purchases the product for reduced price. The reduction value is specified in the personal cabinet. If this value is greater than the price of the selected product, then the price is assumed to be zero.
- ✓ Percentage cashback. Each time the client, makes a normal purchase he receives a cashback to his balance. Amount of cashback is specified in percentage of the purchase value. When a sufficient amount is accumulated – he can buy a product for free, while the value of the accumulated cashback is reduced by the price of purchased product.

CRM templates list. The CRM template allows you to set a smart algorithm for automatic application of certain loyalty rules to clients, depending on the number of purchases within a given time interval. Linking templates to VM is done in the section «Templates binding". Only one CRM template can be linked to a VM.



Template fields:

- ✓ Template name
- ✓ Calculation interval - the time interval used to calculate the customer's purchases. This value is not calendar! So choosing a “Month” interval will use the interval from today's date to the date that is 31 days past it.
- ✓ More than N amount of purchases - a loyalty rule applied to a customer who has made more than N amount of purchases during the calculation interval. N can take on the values: 100, 50, 20, 15, 10, 5, 3, 2, 1.
- ✓ Absence of purchases - a loyalty rule applied to a customer who has never made a purchase in a given time interval.

Attention!

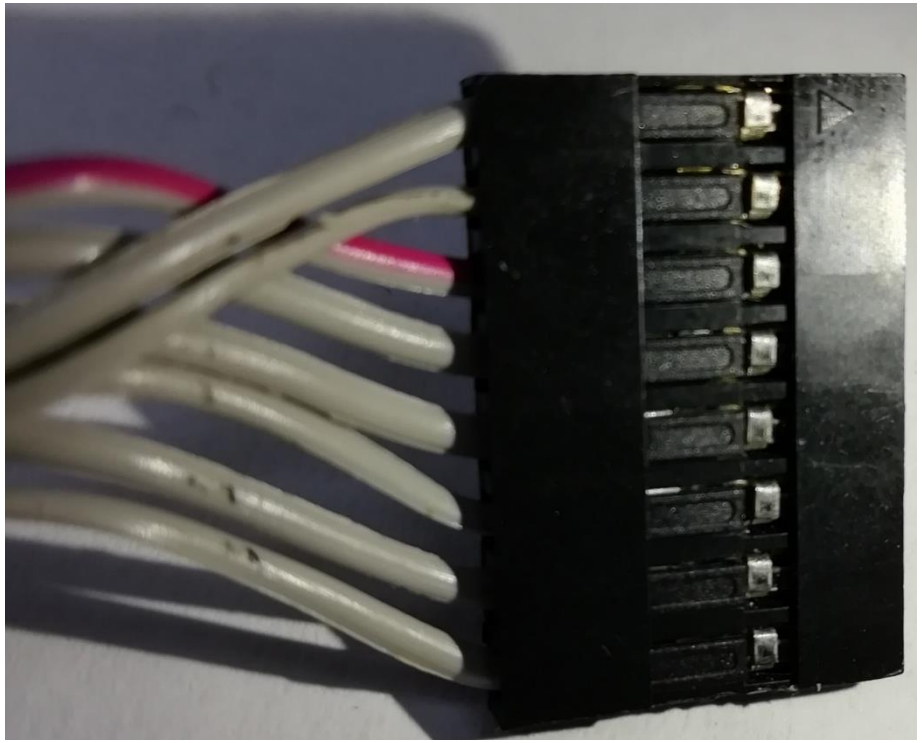
If a customer makes a purchase using any existing loyalty rule - the template wont be applied to him.

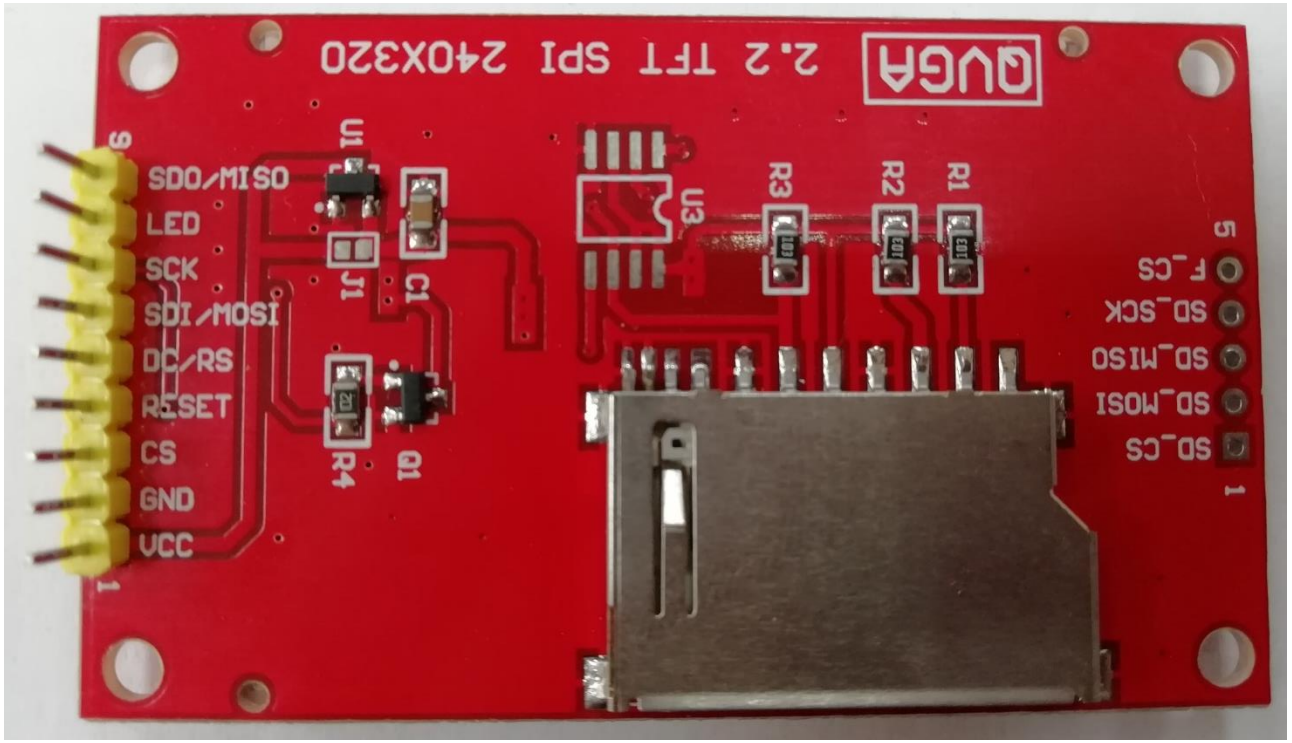
Содержание

QR code display

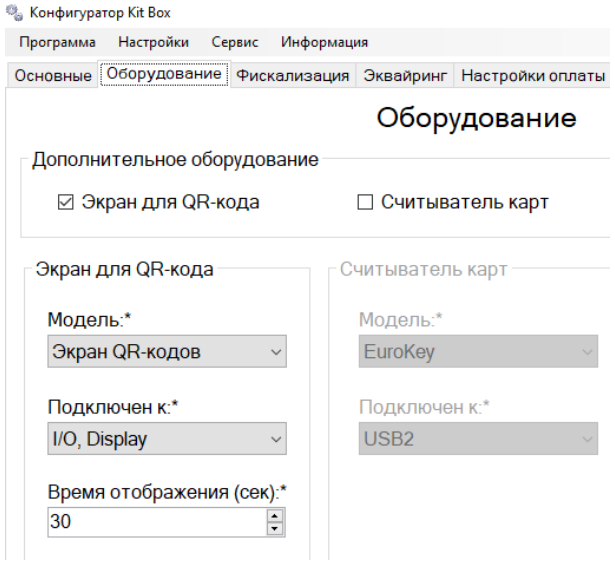
7.1 Display connection

1. Find the "key" on the plastic part (1)
2. Insert the connector in such a way, that the "key" is connected to the the VCC pin (2)
3. SDO / MISO pin should remain unused.

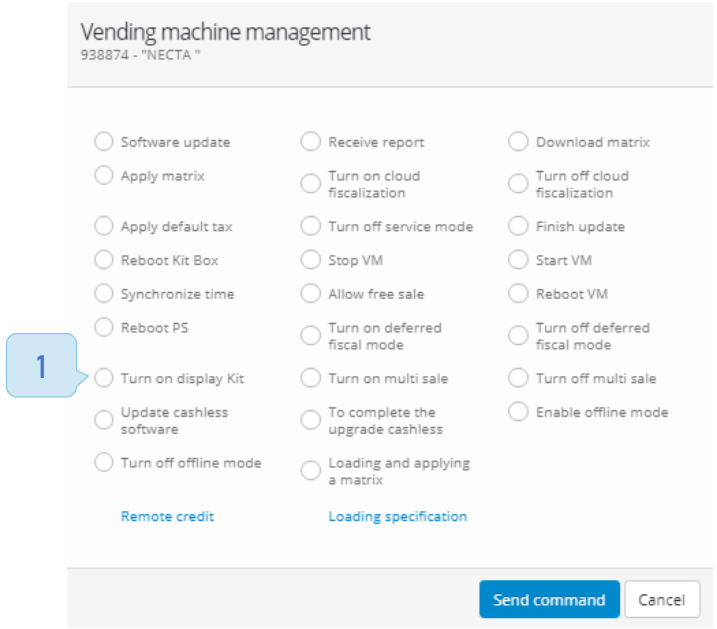




It's necessary to connect Kit Box to the computer and in use “Configurator” utility to add the settings from the image below on the “Hardware” tab. Display times are specified as needed and within the available range.



It’s also possible to remotely enable the QR codes display from your personal account (1).



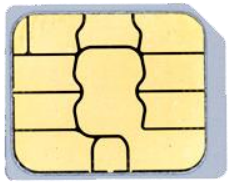
Contents

Internet connection

8.1 Connection characteristics

- ✓ Kit Box and Kit Box Master use a mini-SIM (2FF) SIM card. Kit Box Lite uses micro-SIM (3FF). They both exchange data in the 2G network range.
- ✓ The choice of provider depends on your personal preference and the level of signal coverage at the installation location.
- ✓ The main condition for the service plan of the Sim-card is at least 50MB traffic limit per month.
- ✓ With a low signal level (below 35-30% in the VM Monitoring), it is recommended to purchase and install a GSM antenna (the default Kit Box antenna has 2dbi gain). The main requirement for the antenna is SMA connector and 2G frequency range network support.

Kit Box | Kit Box Master

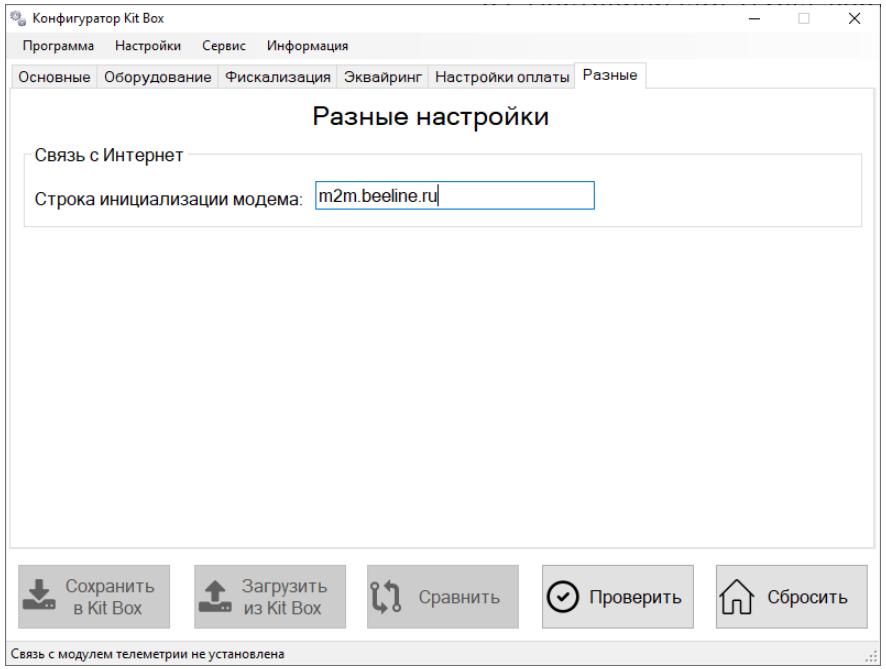


Kit Box Lite

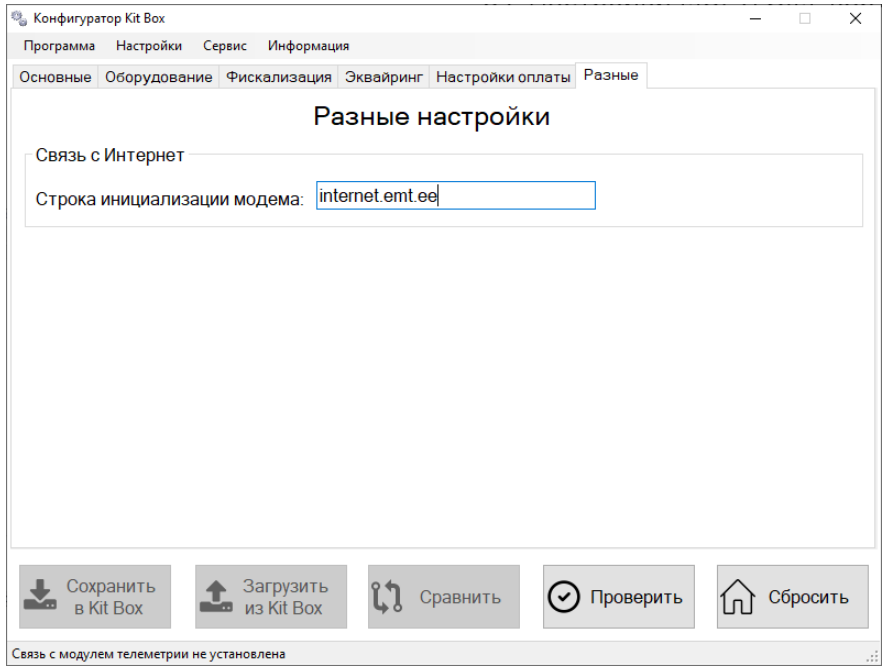
Contents

8.2 MULTI SIM settings

For Multi SIM-cards, it is necessary to register the "Modem initialization line" in the configurator, without this parameter the connection may not be stable or not work at all. To purchase these SIM cards, you need to go to the provider's website.



Sim2m



M2M Express

Contents

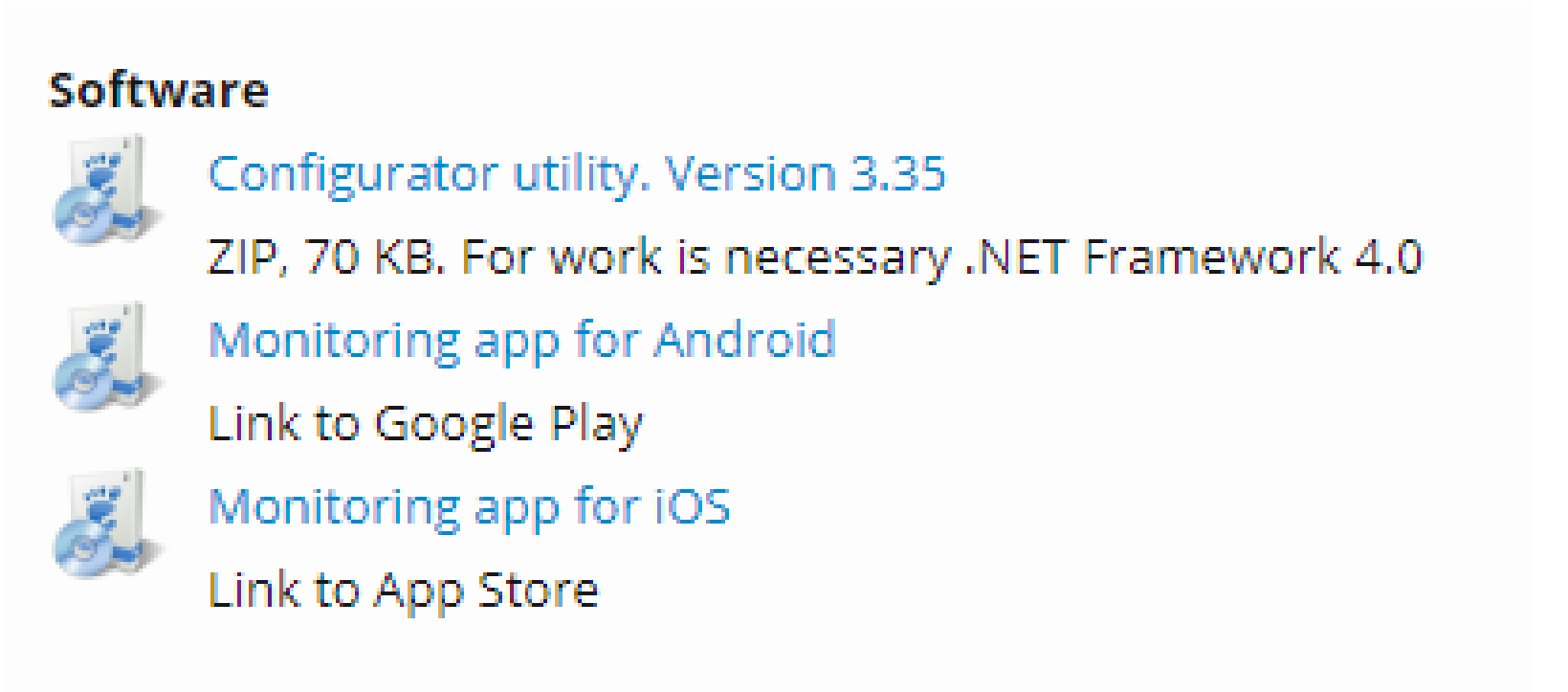
Mobile app

9.1 Creating a user

It is possible to use your personal account through the KitVending mobile application on Android and IOS platforms.

Attention! The functionality of the mobile application is limited in comparison with the full version on the website.

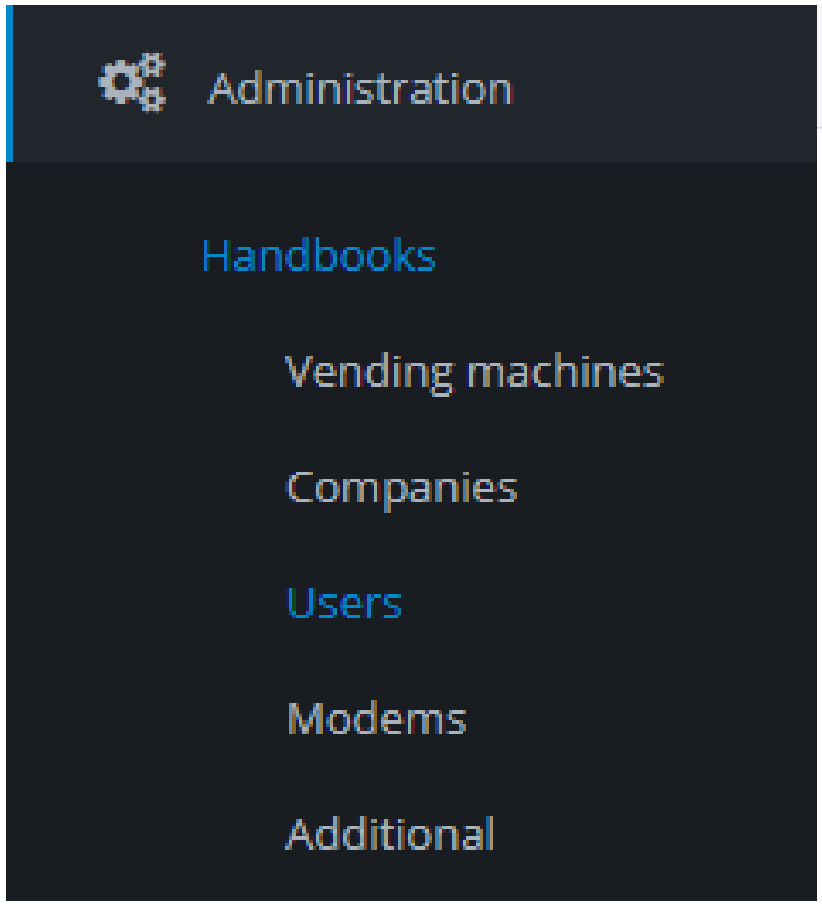
This application can be downloaded from Google Play and App Store. The download center also provides download links for it.

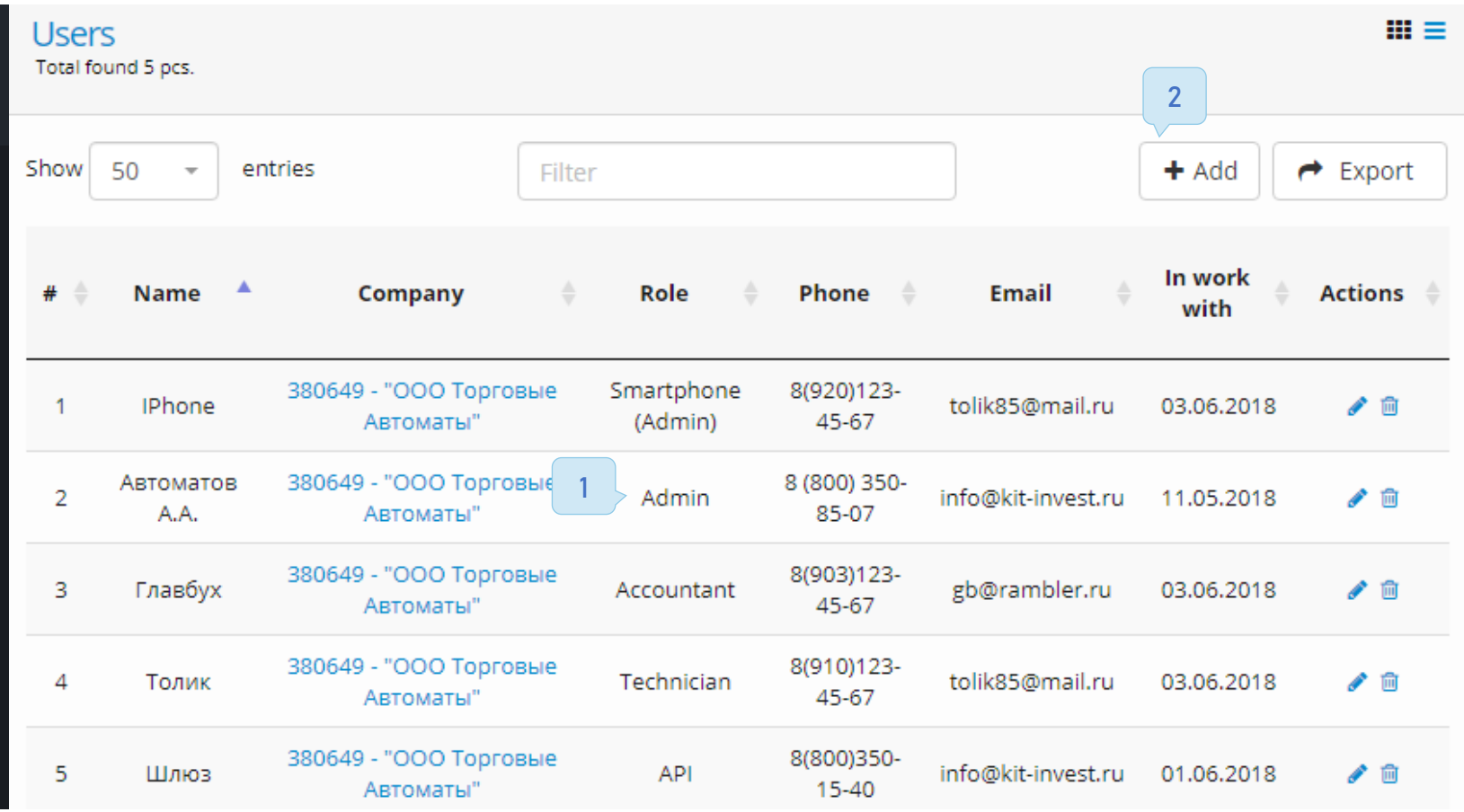


To use your personal account from a mobile device, you need to create a separate account and login parameters.

Open "Administration → Handbooks→ Users“ menu in your personal account.

There should already exist your main account with "Administrator" rights (1), which is required to log in from a computer. To create an additional account with "Smartphone" rights, click "+ Add" (2)

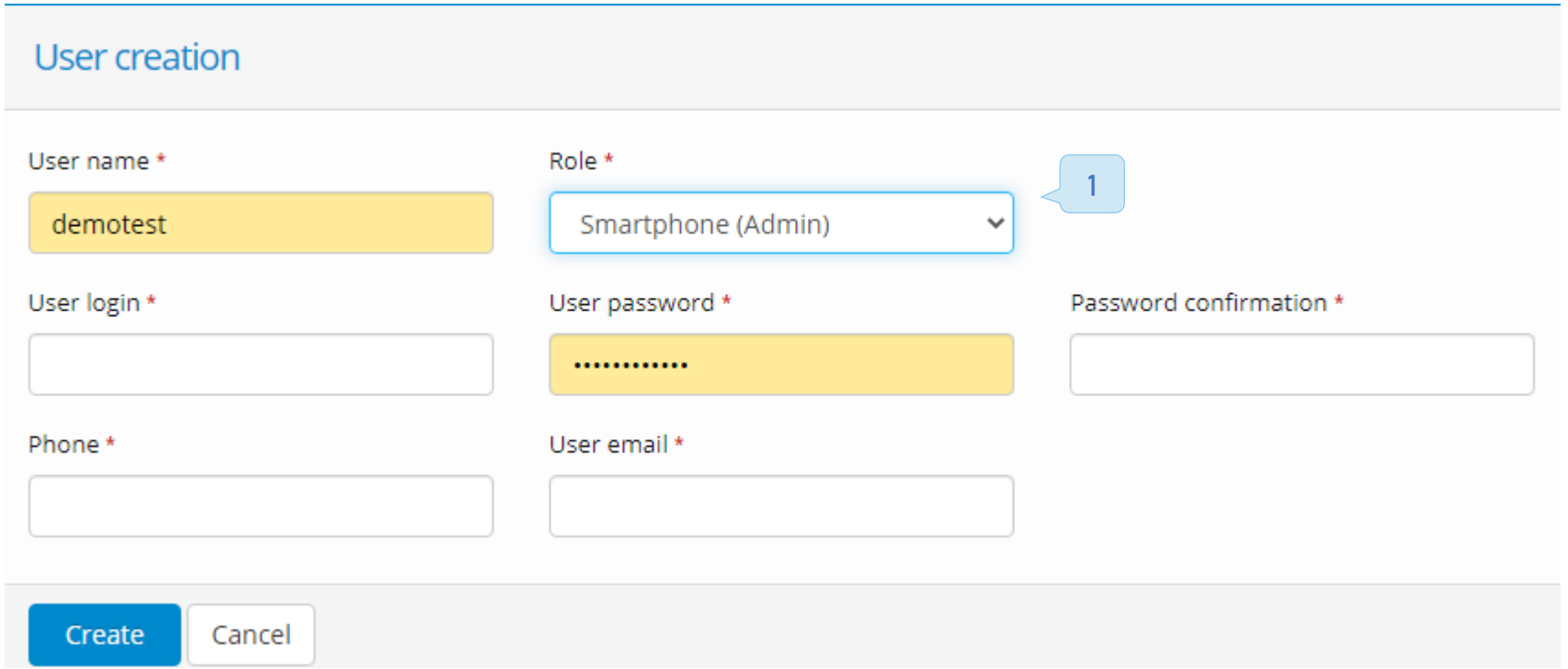




#	Name	Company	Role	Phone	Email	In work with	Actions
1	IPhone	380649 - "ООО Торговые Автоматы"	Smartphone (Admin)	8(920)123-45-67	tolik85@mail.ru	03.06.2018	
2	Автоматов А.А.	380649 - "ООО Торговые Автоматы"	Admin	8 (800) 350-85-07	info@kit-invest.ru	11.05.2018	
3	Главбух	380649 - "ООО Торговые Автоматы"	Accountant	8(903)123-45-67	gb@rambler.ru	03.06.2018	
4	Толик	380649 - "ООО Торговые Автоматы"	Technician	8(910)123-45-67	tolik85@mail.ru	03.06.2018	
5	Шлюз	380649 - "ООО Торговые Автоматы"	API	8(800)350-15-40	info@kit-invest.ru	01.06.2018	

In the window that opens, create a user by filling in all the fields.
In the field «Role *" from the drop-down list, be sure to set "Smartphone (administrator)" (1) and click the "Create" button.

Now you can log into the mobile application using the created account.
For IOS application, during the first login, you must set an unique four-digit PIN-code and remember it.



Contents

Statuses in the personal account

Three vending machine statuses exist in your personal account on the VM Monitor page:

- OK - the vending machine and telemetry are functioning correctly, everything is in fine
- Non-critical errors - the vending machine and Kit Box are functional, but there are non-critical errors / warnings present
- Not Working - Vending Machine or Kit Box cannot continue working, fatal errors are present

OK

- Connected to the online cass farm- the machine is connected to online cass farm
- The working period has ended - the working period specified in the VM setting has ended
- There have been no coins for a long time – 10 or more recent sales were made without coins. The coin acceptor may be faulty.
- There have been no bills for a long time – 10 or recent sales were made without bills. The banknote acceptor may be faulty.
- Downloading update – the telemetry controller is currently downloading the firmware update from the server.
- Update downloaded – the firmware update was downloaded successfully. Telemetry controller awaiting maintenance and restart.

- The vending machine maintenance is in progress – the “Service” button has been pressed on the telemetry controller.
- Product matrix downloaded – product matrix has been successfully downloaded from the server and is awaiting application command.
- Shake sensor is trigged – Kit Box detected shaking above the set threshold.

Non- critical errors

- There have been no sales for a long time - the time elapsed since the last sale exceeds the interval specified in the critical values template for this machine.
- There has been no maintenance for a long time - the time elapsed since the last maintenance exceeds the interval specified in the critical values template for this VM.
- There was no encashment for a long time - the time elapsed since the last encashment exceeds the interval specified in the critical values template for this VM.
- Change coins are running low - the amount of change coins in VM is less than the specified critical value for this VM.
- Products / ingredients are running low - the amount of products / ingredients is less than the specified critical value for this VM.
- Coins denomination codes are not received – during the bootup of the VM, the telemetric controller did not picked up the settings of the coin receiver.

VM has stopped cash payment systems - cash payment systems have been deactivated for more than 10 minutes.

The VM model in the personal cabinet and in the modem is different - the VM model set in the Kit Box and the personal cabinet are different.

Can't send checks to the farm - the VM settings have not been configured with the necessary parameters for cloud fiscalization: address, location, machine number.

Incorrect date / time - wrong time is set in telemetry controller.

Low battery level - the battery built into the Kit Box has low charge (it's necessary to charge the Kit Box from the machine in the "Working" mode, otherwise errors may occur).

Sale of an unknown product – Product with unknown name has been sold (product name is not specified in the product matrix on this machine).

● Not working

No connection to the server - more than one hour has passed since the last successful server request.

Payment systems are faulty - the coin receiver and bill receiver are not working.

No power - there is no power on the vending machine for more than 10 minutes.

The vending machine isn't working - the vending machine reported critical errors.

No exchange trough the bus – The Kit Box cable is not properly connected or damaged,.

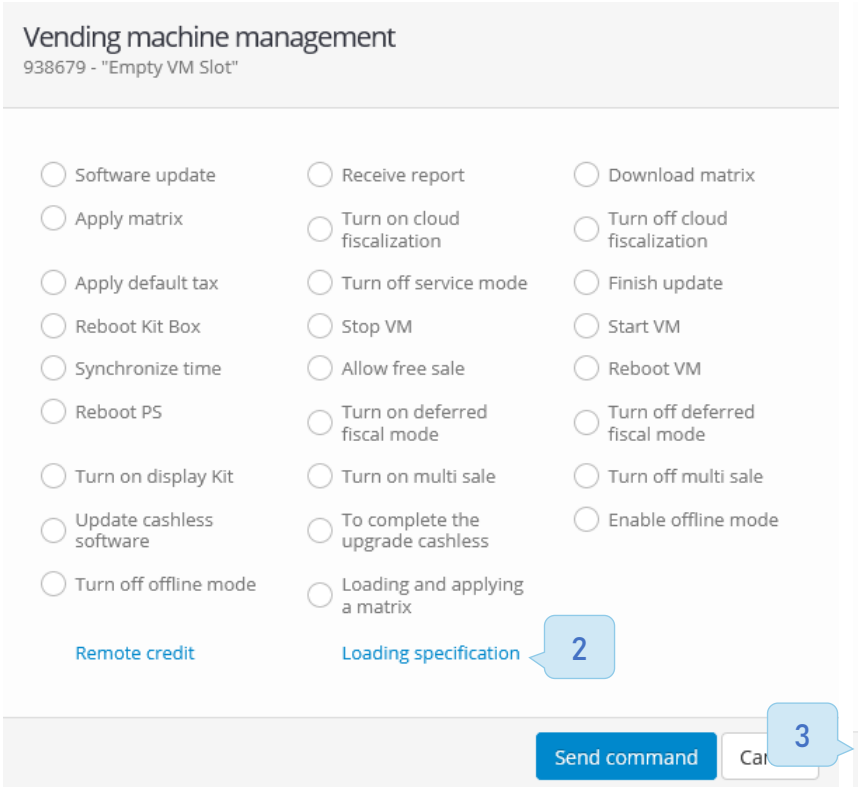
Contents

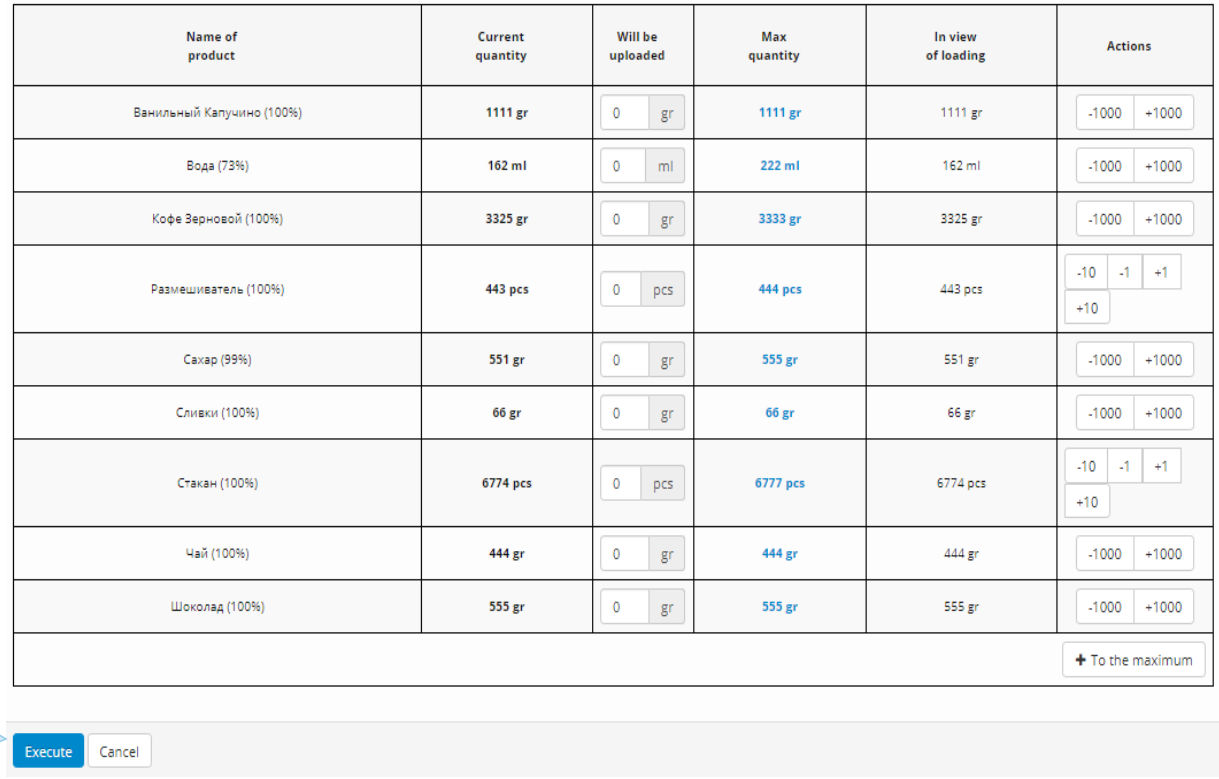
VM maintenance

After opening the vending machine door, switch the telemetric controller to the maintenance mode. To do this, press the "Service" button (1) - the " Maintenance " indicator (2) should light up, and the telemetry controller should emit short beeps once every 3 seconds. Information about the vending machine maintenance will be sent to the server. If the telemetry controller is configured to record EVA-DTS reports, at the moment of pressing the " Service " button, the EVA-DTS report will be generated (the "Audit" indicator will blink).

When refilling products / ingredients - press the "Load" button (1) on the telemetric controller once. The refill information will be sent to the server. All products will be refilled to the maximum.

For partial refill, use your personal cabinet. Enter «Monitoring» menu and – Send the command – Loading specification(2)". Specify the loaded quantity and click the execute button (3).
The maximum quantity (capacity of ingredients) is set in the product matrix.





In order to load change coins in the machine, you need to turn it on and load each coin through the coin receiver. Do not load it in the tubes directly.

Attention!

Never load or unload coins directly trough the tubes of the coin receiver to avoid errors!

On the Kit Box Master model in the "Control" mode, the other method of unloading the coin receiver is available. To activate it, do the following actions:

- ✓ Enter the " Maintenance " mode on the Kit Box .
- ✓ Press the "Service" button again and hold it for 15-20 seconds.
- ✓ To stop unloading - press "Service“ again.

If during the maintenance the cash encashment of the vending machine was done, it is necessary to click on the "Cash collection" button on the telemetric controller, and the cash box and bill acceptor counters will be reset and a report will be generated.

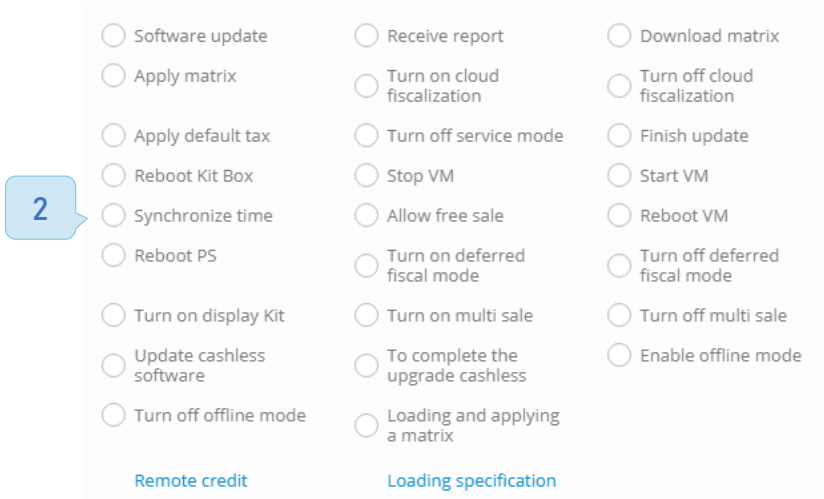
Upon completion of all work, it is necessary to transfer the telemetric controller back to the operating mode by pressing the "Service" button again.

Contents

Frequently asked questions

1. Time gets distorted inside Kit Box.

If this happens – it is necessary to replace the battery inside the Kit Box, type CR2032 (1) and synchronize the time with the server (2) by sending a command.



2. The configuration of the device gets lost or reset.

This problem sometimes occurs when kit Box is disconnected from the power for a long time and looses all its charge. If this happens - you need to reconfigure the device, but if the problem persists, you may need to disconnect the accumulator from the KitBox. We recommend that you consult with technical support about this problem.

3. The "Link" or "Server" indicator doesn't light up.

When using MULTI-Sim card, check that APN parameters are set correctly inside the Kit Box. In case of using a regular SIM card, try another operator or check it's balance.

KiTVending.ru

КИТ ИНВЕСТ

Kitonline

торговый дом
КАСБИ