



DC-401 Activation

Extended Scenario

Version 2.8

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EXTENDED ACTIVATION SCENARIO

You can activate DC-401 with the help of DC Box Installation wizard — the tool designed to ease the initial configuration of DC-401.

PREREQUISITES

Before you start the activation process, make sure that you have the following equipment:

- Laptop with Wi-Fi and Ethernet port
- Chrome browser
- Wireless router or unmanaged switch (in case a direct connection between DC-401 and laptop cannot be established)
- Location mapped out for DC-401 placement (where DC-401 is to be mounted)
- Cabling (the Ethernet cable should run from the main internet router to the location of DC-401 and DC-401 to POSClear access to the cash register)
- Clear access to the cash register
- Configured POS for back-office communication

To activate DC-401 with the wizard, you must perform the following activities:

1. [Place DC-401 and connect it to power and the Internet.](#)
2. [Launch the activation process.](#)
3. [Activate DC-401 using DHCP.](#)
4. [Specify POS settings.](#)
5. [Perform verification.](#)
6. [Review possible errors.](#)
7. [Complete activation.](#)
8. [Work with modules.](#)
9. [Monitor data synchronization between the POS and BOS.](#)

Step 1. Place DC-401 and Connect it to Power and the Internet

You need to place DC-401 in the location where it will be used and connect it to power and the Internet.

For building the network infrastructure based on DC-401, refer to the diagrams below:

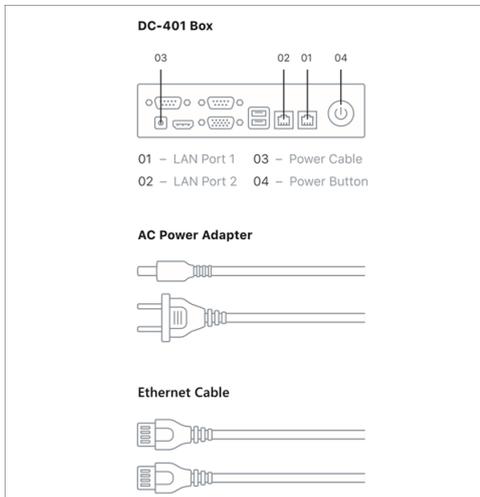


Diagram 1. DC-401 Ports and Cables

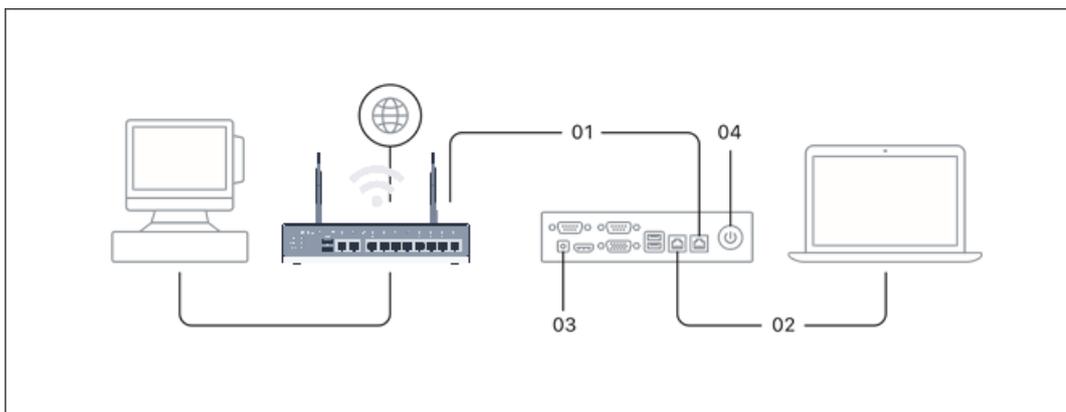


Diagram 2. DC-401 Connection Scheme

DC-401 can be activated over two connection types:

- **Wired connection:** You can connect a laptop to DC-401 and activate DC-401 from the laptop.
- **Wireless connection:** You can activate DC-401 from any Wi-Fi enabled device in the network, including Android and iOS smartphones.

Activation over a Wired Connection

To activate DC-401 over a wired connection:

1. Plug the network cable to the LAN Port 1 on DC-401 (01).
2. Connect your laptop to the LAN Port 2 on DC-401 using the Ethernet cable (02).
3. Connect DC-401 to the power using the power cable (03).
4. Press the power button to start DC-401 (04).
5. Set your laptop to use the DHCP network configuration.
6. The laptop should receive the network configuration from DC-401: *10.10.2.0/24*.

If the network configuration is not received, check your Ethernet connection and verify that you are connected to the correct port (port with the 'LAN' label is used for the Internet connection and the Ethernet port with the 'USB' label is used to connect to the LAN/laptop).

Activation over a Wireless Connection

To activate DC-401 over a wireless connection:

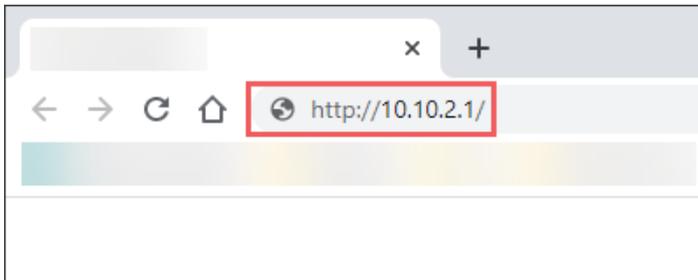
1. Connect DC-401 to the power using the power cable (03).
2. Connect your router to the WAN port on DC-401 using the Ethernet cable.
3. Press the power button to start DC-401 (04). The WAN lights must blink.
4. On the Wi-Fi enabled device that you are using for activation, find the DC-401 network and connect to this network. You can do it in the following ways:
 - Automatically: On DC-401, find a sticker with a QR code and scan the QR code with the Wi-Fi enabled device.
 - Manually: On the Wi-Fi enabled device, open the list of Wi-Fi networks, select the DC-401 network and enter the password to connect to the network. As a password, you must specify the WAN MAC address of DC-401. The WAN MAC address can be found on the sticker of DC-401, for example: *A12B34C56D78*.

Once you connect to the network, you can proceed to the next step and launch the activation process.

Step 2. Launch the Activation Process

To launch the activation process using the DC Box Installation Wizard:

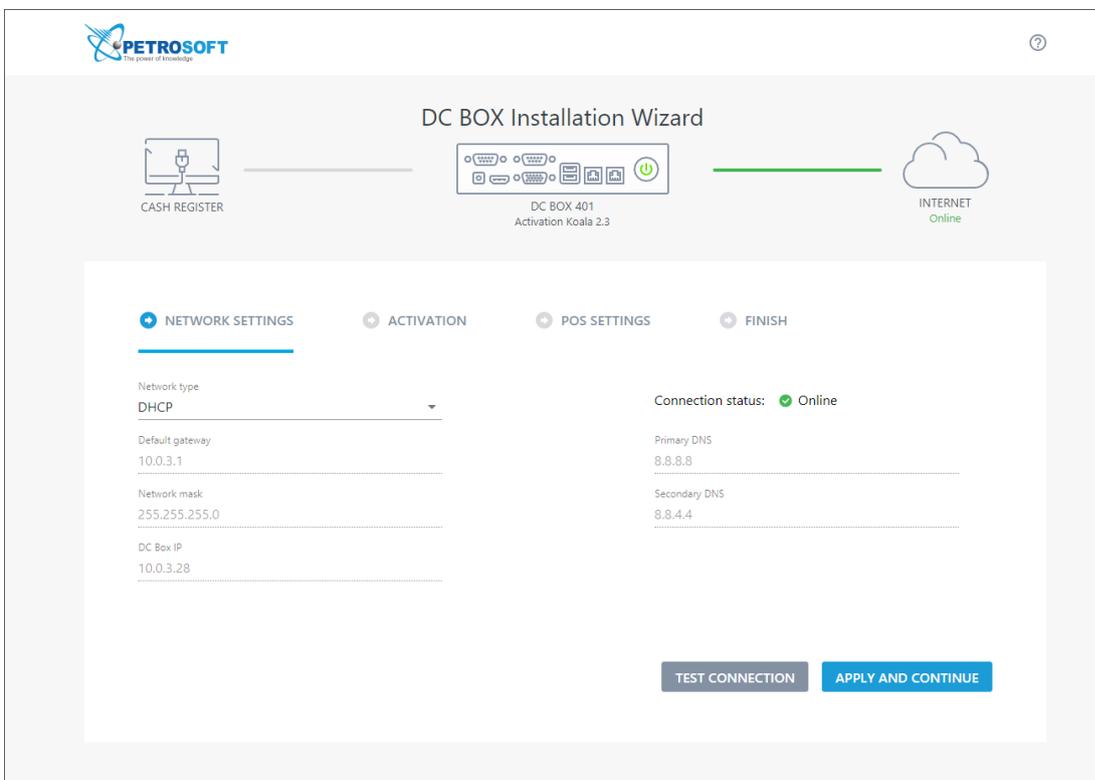
1. On the laptop or Wi-Fi enabled device, open a web browser.
2. In the address bar, enter the DC401 IP address as it is displayed in the image below.



3. Log in to the portal using the following credentials:

- User name: *admin*
- Password: *SwHH3g*

Result: A page with the network settings is displayed.



Step 3. Activate DC-401

You can activate DC-401 using any of the following ways:

- Activate DC-401 to your CStoreOffice® station
- Enable ATG for DC-401 using TCP/IP or RS-232
- Activate DC-401 with SmartPOS

Activate DC-401 to Your CStoreOffice® Station

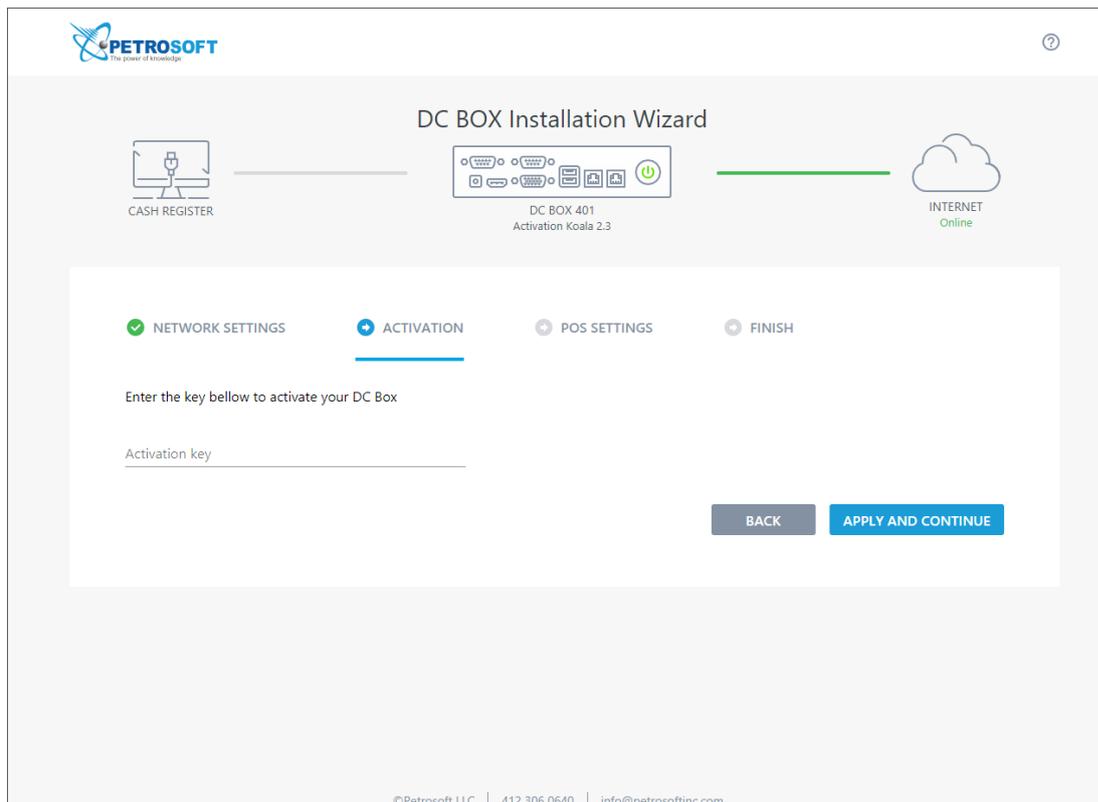
To activate DC-401 to your CStoreOffice® station:

1. When the indicator in the **Connection status** field turns green and the *Online* status is displayed, click the **Apply and Continue** button.
If you have any special configuration or the *Offline* status is displayed, you need to verify the following:
Are you using DHCP?
 - Yes: Check the cable and a connection to the main router.
 - No: In the **Network type** list, select **Static** and specify the network addressing settings manually.
2. Click the **Test connection** button. Once the indicator in the **Connection** status field turns green, you can move forward.
If any updates are available, the DC Box Installation Wizard will display a notification and offer you to install updates.
3. When the page has completely loaded, you will be requested to enter your activation key. In the **Activation key** field, enter the activation key, for example: *1234-abcd-56789*, and click **Apply and Continue**.

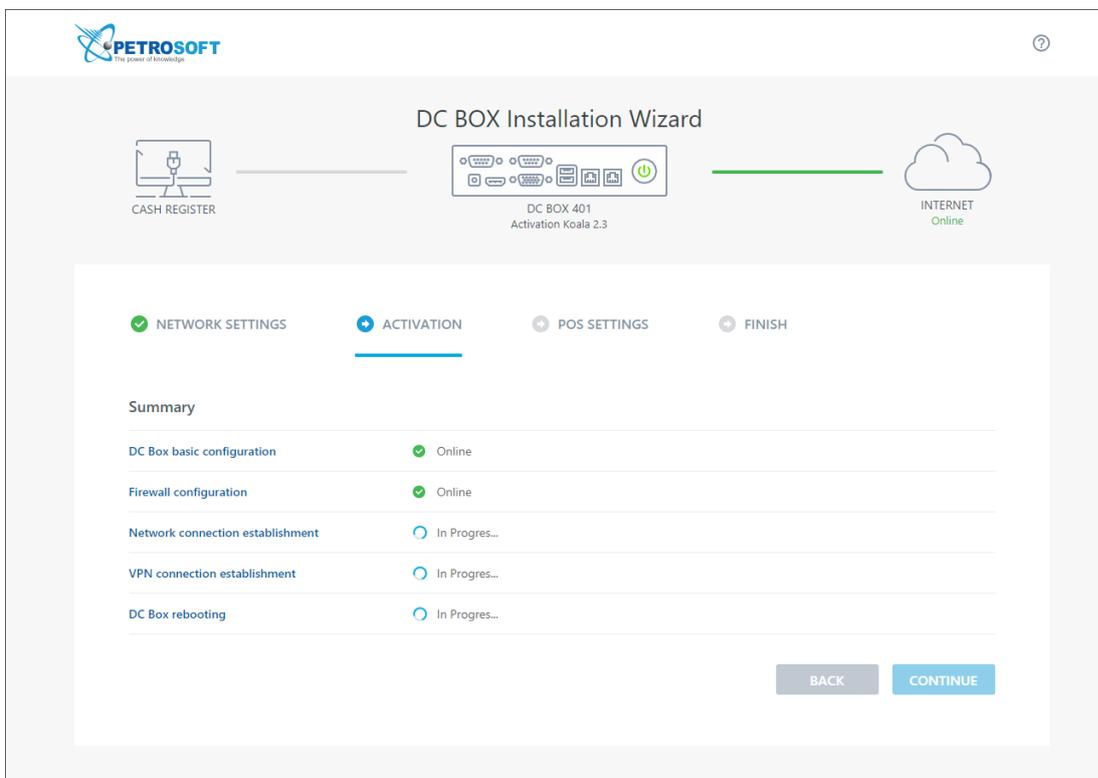


The activation key must be entered with dashes between the digit groups.

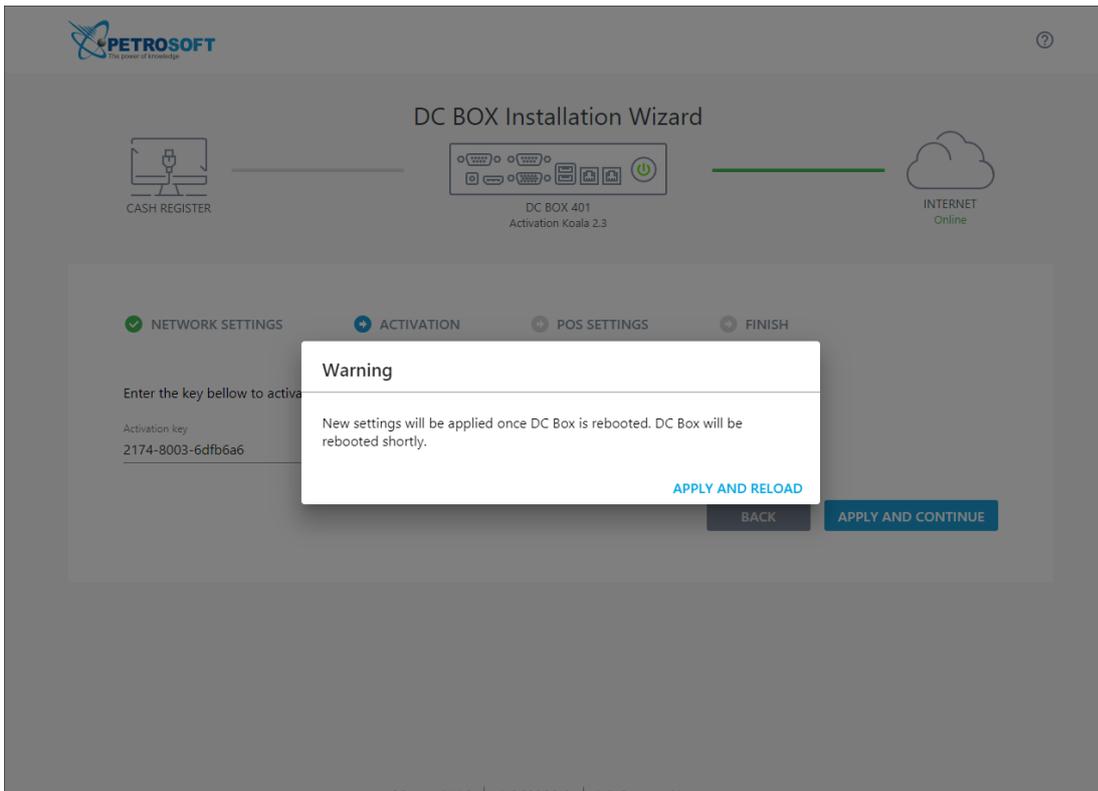
For more information on how to get the activation key, For details, see [Getting the Activation Key for DC-401](#).



Result: The status page is displayed that tells you what step you are on.

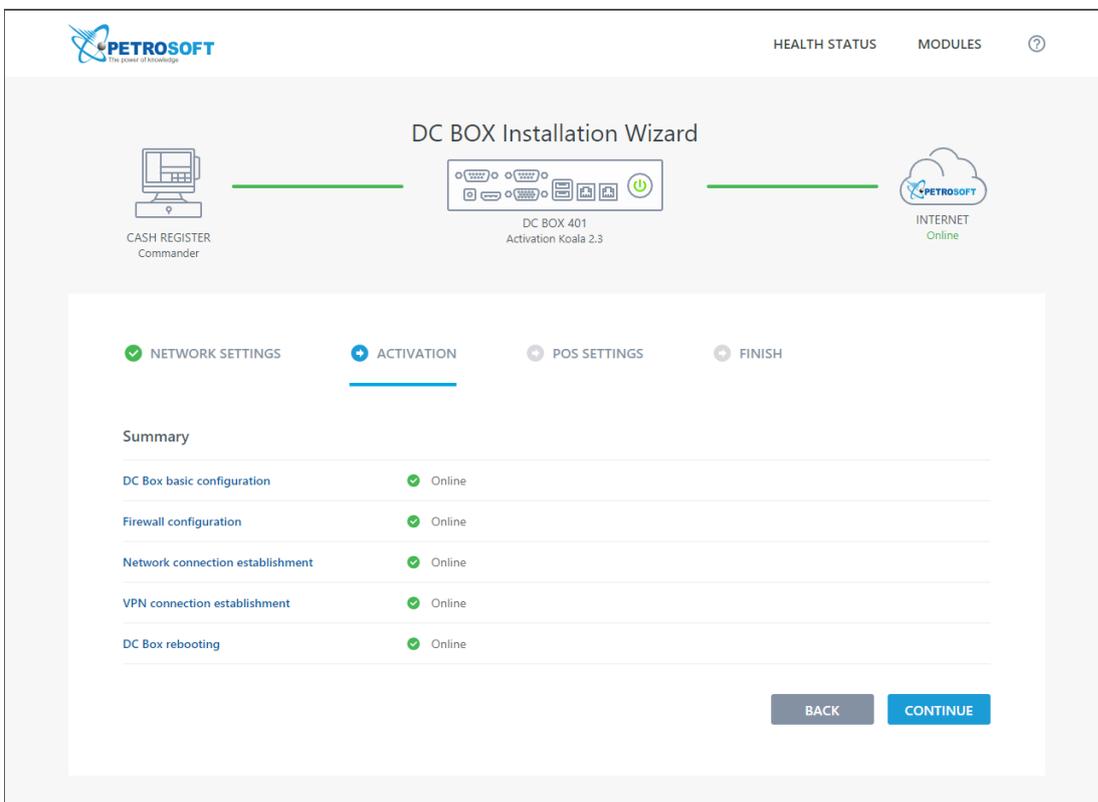


- Once the first two statuses are completed, you will be prompted to apply the new settings and reboot DC-401. Click **Apply and Reload**.



Result: DC-401 is rebooted.

- After reboot, the activation process continues, and you can see the *Online* status for each of the steps. Click **Continue**.



If you run into any other status than *Online*, please give us a call at 412-306-0640 Ext 3 option 1.

Enable ATG for DC-401 using TCP/IP or RS-232

The DC-401 box can interface with the following ATG systems to facilitate live CStoreOffice® fuel reading polling:

- Gilbarco Veeder Root TLS-300, TLS-350, and TLS400+.
- Incon Tank Sentinel TS-750 and TS-1001.



Must be set to Veeder Root mode and restarted.

In addition, DC-401 can connect using one of the options below:

- The Tank Monitor System has a TCP/IP card that currently part of a network reachable by DC box.
- The Tank Monitor System has an available RS-232 serial communications port not in use.

To enable ATG for DC-401 using TCP/IP or RS-232:

1. [Enable ATG in CStoreOffice® for initial use.](#)
2. [Connect to DC-401.](#)
3. [Configure ATG using the DC-401 Installation Wizard.](#)

Enabling ATG in CStoreOffice® for Initial Use

For enabling CStoreOffice® to begin polling for readings, follow the instructions listed in the [Configuring ATG in CStoreOffice®](#) section.



Be sure to leave all the settings default when using any DC Box to interface with the Tank Monitoring System.

Connecting to DC-401

You can connect to DC-401 using either of the following Tank Monitoring System's cards:

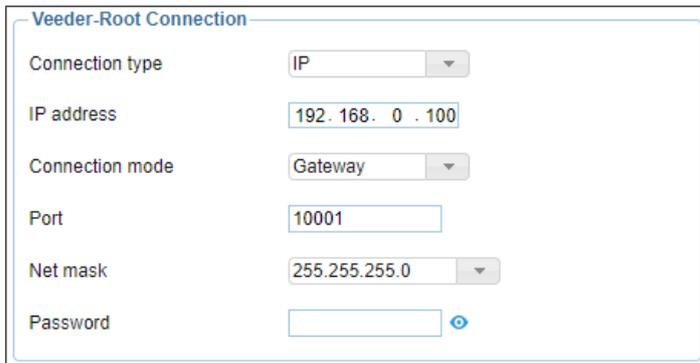
- [TCP/IP card](#)
- [RS-232 serial communications card](#)

Connecting to DC-401 using a Tank Monitoring System's TCP/IP Card

To connect to DC-401 using a Tank Monitoring System's TCP/IP card:

1. Go to the **Veeder Root Connection** settings of the cash register:
 - a. From the CStoreOffice® main page, go to **Data Entry > Dashboard**.

- b. In the **Station Options** section, click **Cash Register**.
 - c. In the **Cash Register Options** page, select the **Advanced** option.
 - d. In the **Direct Connect Options** section, go to the **Veeder-Root Connection** subsection.
2. In the **Veeder-Root Connection** subsection:
 - a. In the **Connection type** list, select **IP**.
 - b. Configure other **Veeder Root Connection** settings as shown in the image below. Use the [Veeder Root Connection](#) section as a reference.




The Veeder Root settings shown are ONLY an example. Ask your GVR or Franklin Fueling tech, to help obtain the information of your system.

3. To send the configuration down to DC-401, at the top of the **Cash Register Options** page, click **Save**.

Connecting to DC-401 using a Tank Monitoring System's RS-232 Card

To connect to DC-401 using a Tank Monitoring System's RS-232 serial communications card port:

1. Connect the DC-401 serial COM port (DB9M null modem) to the open RS-232 card on the Tank Monitoring System.
2. Go to the **Veeder Root Connection** settings of the cash register:
 - a. From the CStoreOffice® main page, go to **Data Entry > Dashboard**.
 - b. In the **Station Options** section, click **Cash Register**.
 - c. In the **Cash Register Options** page, select the **Advanced** option.
 - d. In the **Direct Connect Options** section, go to the **Veeder-Root Connection** subsection.
3. In the **Veeder-Root Connection** subsection:
 - a. In the **Connection type** list, select **Serial**.
 - b. In the **Baud Rate** and **Parity** lists, select the settings from your Tank Monitoring Systems communications printout.

Veeder-Root Connection

Connection type:

Baud Rate:

Parity:



Please note that CStoreOffice® and DC Box do not support every RS-232 configuration. It is possible that your serial card settings may need adjusted to one of the combinations listed in the table below first.

Baud Rates Supported	Parities Supported
<ul style="list-style-type: none"> • 1200 • 2400 • 4800 • 9600 	<ul style="list-style-type: none"> • (8-N-1): 8 Data bits, No Parity, and 1 Stop bit • (7-O-2): 7 Data bits, Odd Parity, and 2 Stop bits • (7-O-1): 7 Data bits, Odd Parity, and 1 Stop bits

3. To send the configuration down to DC-401, at the top of the **Cash Register Options** page, click **Save**.

Configuring ATG using the DC-401 Installation Wizard

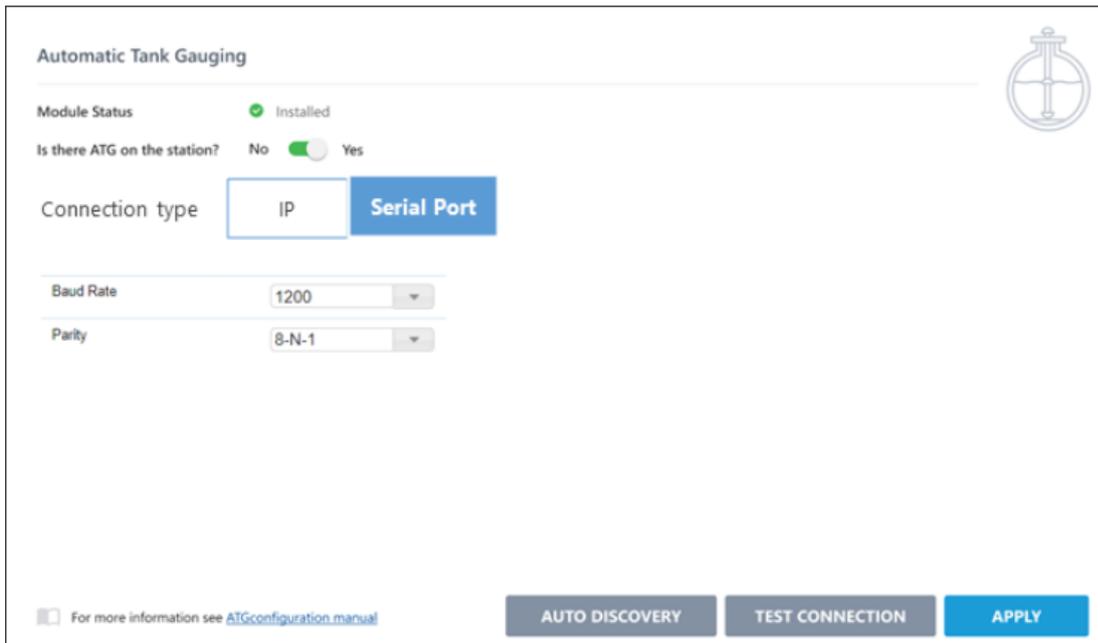
To configure ATG using the DC-401 Installation Wizard:

1. Open the DC Box Installation Wizard. Use the [Recommended Activation Scenario](#) or [Extended Activation Scenario](#) section as a reference.
2. In the **DC Box Installation Wizard**, go to the **Automatic Tank Gauging** Section.
3. In the Automatic Tank Gauging Section, configure the following settings:
 - **Module Status**: This field displays the status of the ATG module. If the module is installed on the DC Box, the status value equals to Installed.
 - **Is there ATG on the station?**: In case the station has ATG, this option value equals to **Yes**.
 - **Connection type**: IP or Serial.



The options presented in the DC Box are identical to those offered in the CStoreOffice® Cash Register Options page. Please refer to the previous [Connecting to DC-401](#) section for more information on determining which of these you may be able to use.

4. To test the connection with defined settings, click the **Test Connection** button.
5. To apply the settings to DC Box and send the configuration up to CStoreOffice® Cloud, click the **Apply** button.



 The **Auto Discovery** feature is not implemented at this time.

Activate DC-401 with SmartPOS CR

You may use the example described below to start using Loss Prevention Analytics module in case your station is connected to the SmartPOS cash register.

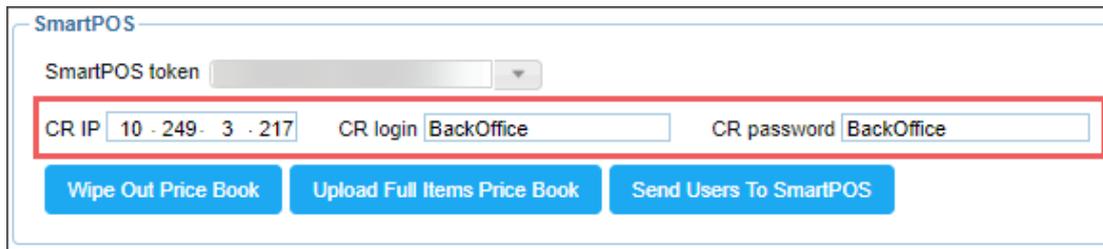
To activate DC Box for the station with the SmartPOS cash register:

1. Make sure the cash register settings are configured properly in CStoreOffice®.
 - a. Go to the general settings of the cash register.
For details, see [Setting Up Locations](#) and [General Settings](#).
 - b. At the top of the cash register form, make sure the following CR settings are selected:
 - **CR brand:** SmartPOS
 - **Additional data transfer:** DC 401



- c. In the **SmartPOS** section, make sure the following settings are configured:
 - **CR IP:** An actual IP address of the cash register should be entered here. It will be used for DC Box connection.

- **CR Login:** BackOffice
- **CR Password:** BackOffice



2. Open the **DC Box Installation Wizard**.

For details, see [Recommended Activation Scenario](#), [Extended Activation Scenario](#).

3. In the **DC Box Installation Wizard**, go to the **POS Settings** section.

4. In the **POS Settings** section > **POS Connection Settings** form:

a. Make sure the following settings are configured:

- **POS Type:** SmartPOS is selected.
- **POS IP:** The IP address of the cash register is entered. To check yourself, see the CR IP value in the cash register settings of the CStoreOffice® form.
- **Login:** BackOffice
- **Password:** BackOffice



DC Box should receive and populate the above cash register settings automatically from CStoreOffice®.

b. Click the **Test Connection** button.

Result: DC Box validates the **POS IP** field value.

c. Click the **Apply and Continue** button.

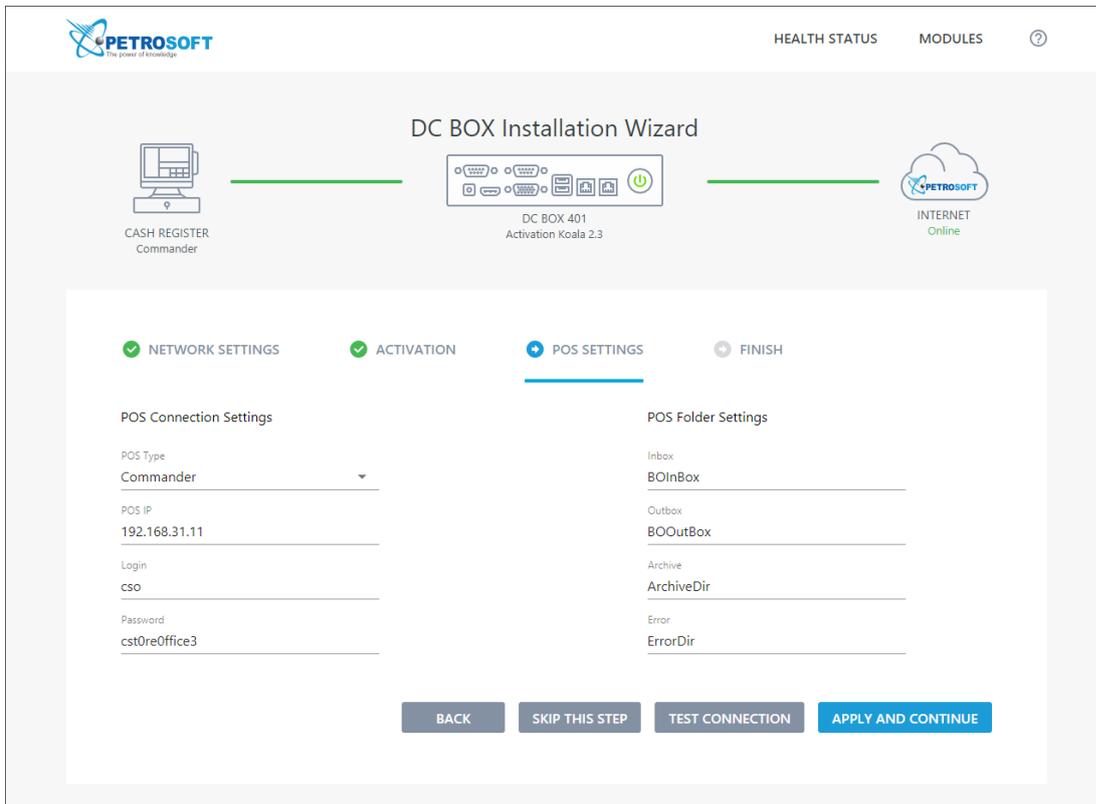
Result: DC Box sends validated CR settings or POS Config to CStoreOffice®.

CStoreOffice® receives POS Config and applies it.

Step 4. Specify POS Settings

Once you get to the POS settings page, the fields on this page should be auto-populated with information obtained from CStoreOffice®. If not, configure them manually using the steps below.

1. In the **POS Type** field, select your POS.



2. Configure the following POS parameters:

- **POS IP**
- **Login**
- **Password**
- **POS Folder Settings**



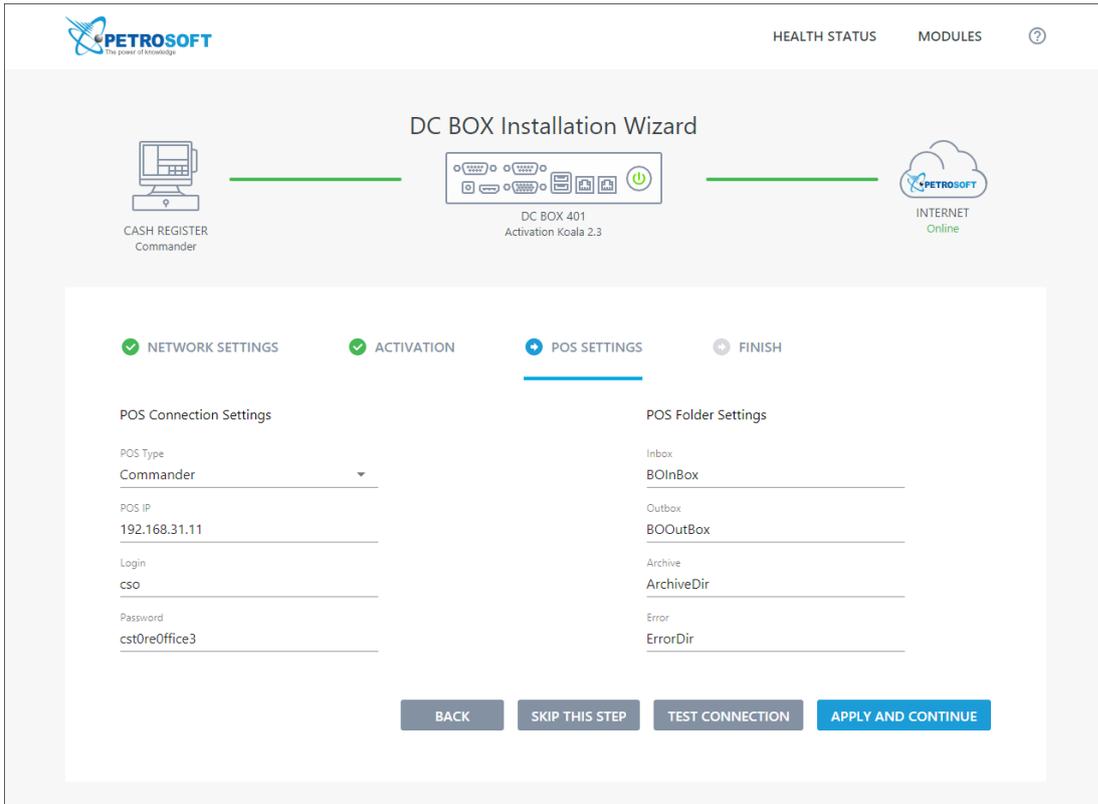
Required POS parameters may vary depending on the POS type.

3. Tap **Test Connection** to check connection to the POS with the provided parameters.

Result: In case the connection is successful, the confirmation mark is displayed in the POS Settings list.

If the connection is failed, the failure message is displayed at the POS Settings step. To fix the errors, go to the [Perform Verification](#) section.

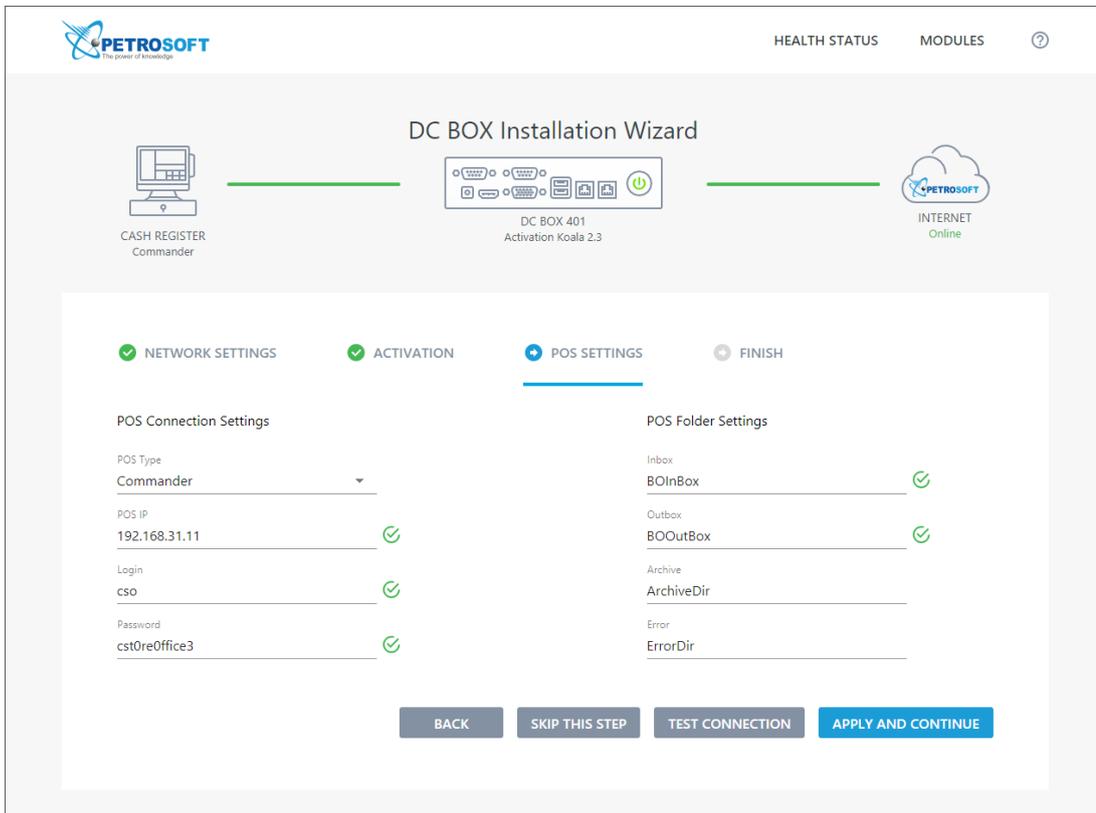
4. Tap **Apply and Continue** to save the POS settings.



Step 5. Perform Verification

Once it is verified that DC-401 can access the share, you will see green check box icons next to **POS IP**, **Login**, **Password**, **Inbox** and **Export** fields. Otherwise, you will see an error page.

If you do not want to configure POS settings, click **Skip This Step**.



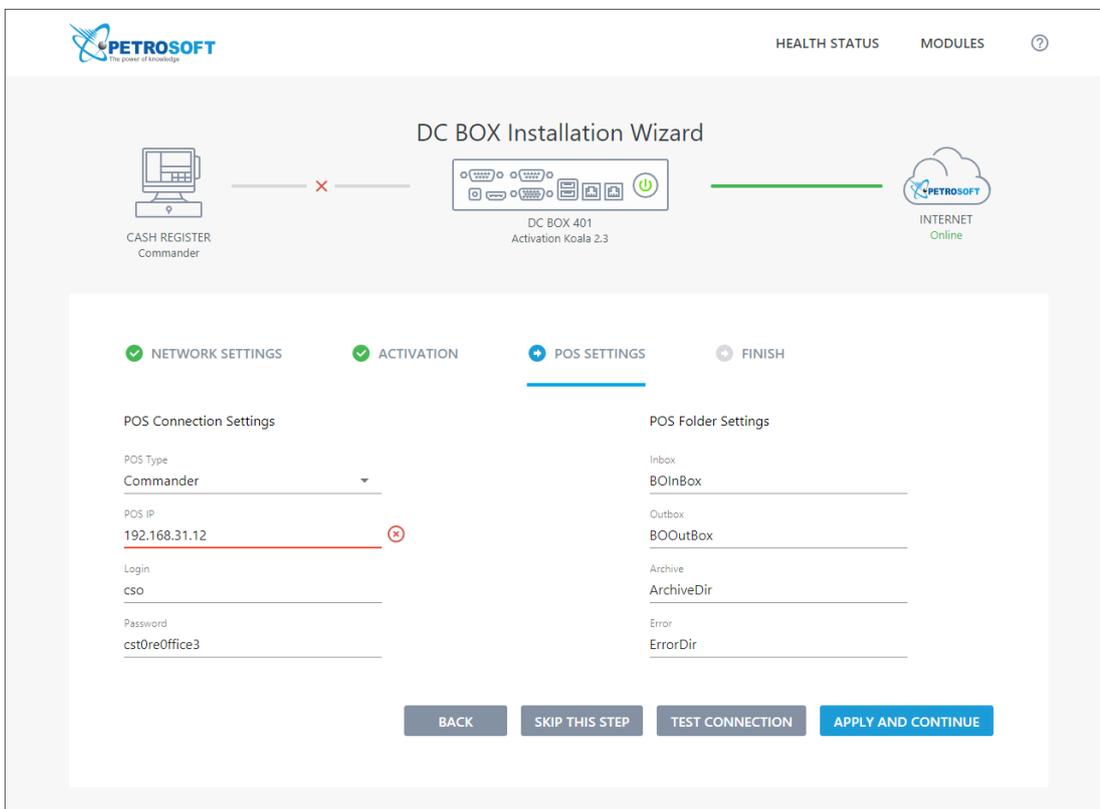
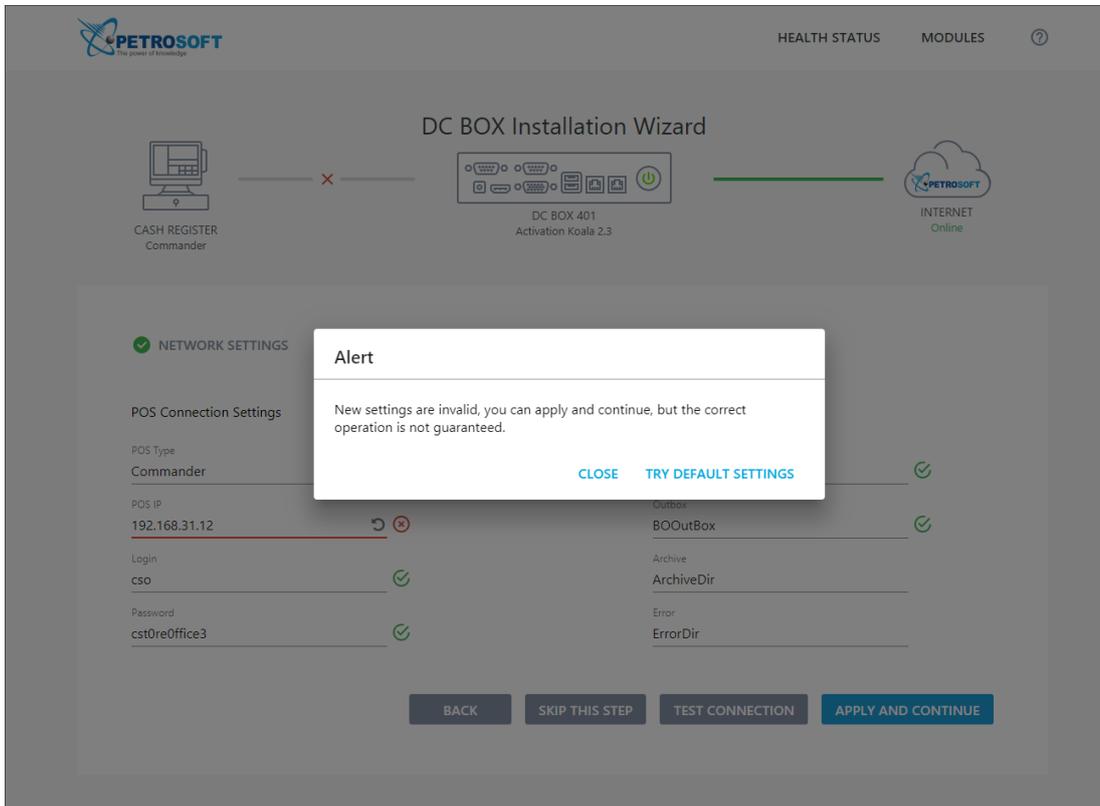
The screenshot displays the 'DC BOX Installation Wizard' interface. At the top, there are navigation links for 'HEALTH STATUS' and 'MODULES'. The main header shows 'DC BOX Installation Wizard' with a progress bar indicating the current step: 'POS SETTINGS'. Below the header, there are three main sections: 'CASH REGISTER Commander', 'DC BOX 401 Activation Koala 2.3', and 'INTERNET Online'. The 'POS SETTINGS' section is active and contains two columns of settings:

POS Connection Settings	POS Folder Settings
POS Type Commander	Inbox BOInBox ✓
POS IP 192.168.31.11 ✓	Outbox BOOutBox ✓
Login cso ✓	Archive ArchiveDir
Password cst0reOffice3 ✓	Error ErrorDir

At the bottom of the wizard, there are four buttons: 'BACK', 'SKIP THIS STEP', 'TEST CONNECTION', and 'APPLY AND CONTINUE'.

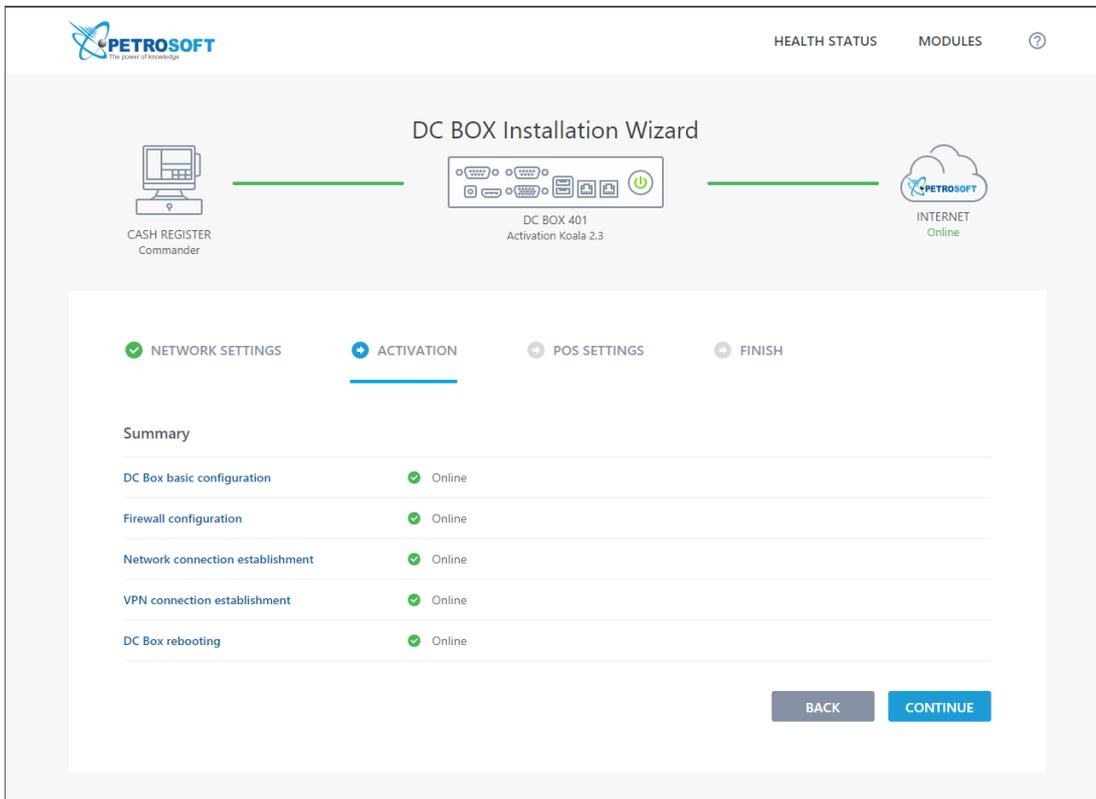
Step 6. Review Possible Errors

Click the **Close** button. The system will provide you with the location of the error.



Step 7. Complete Activation

If you are off site and configuring DC-401, you may receive this error due to the inability for the DC Box to verify the connection. If these settings are correct but you are not on site, you can click **Apply and Continue**.



You have now completed the installation process.

If you need to make any further adjustments after this wizard, you can navigate to 10.10.2.1/status.

OR

You can get the IP address from DC-401 directly.

```

DC401SYSTEM
#####
#           Welcome to DirectConnect Super System           #
#           All connections are monitored and recorded       #
#           Disconnect IMMEDIATELY if you are not an authorized user! #
#####

IP address for emp2s0 : 10.108.8.72
IP address for emp3s0 : 10.10.2.1
IP address for tun0  : 10.249.17.228

Connect your laptop to the SIM port, open browser
and follow link http://10.10.2.1/status
for DCBOX status review
-----
Activation info
Account: 103-CM
Station ID: 20758
Station name: NEW ACTIVATION TEST
-----
Connection status to Cstoreoffice:
Connected
Connection status to OpenVPN:
VPN Connected
-----
DCBox has been started: Fri Apr 19 09:56:16 2019

Memory Info:
  MemTotal:    1866276 kB
  MemFree:     1445696 kB

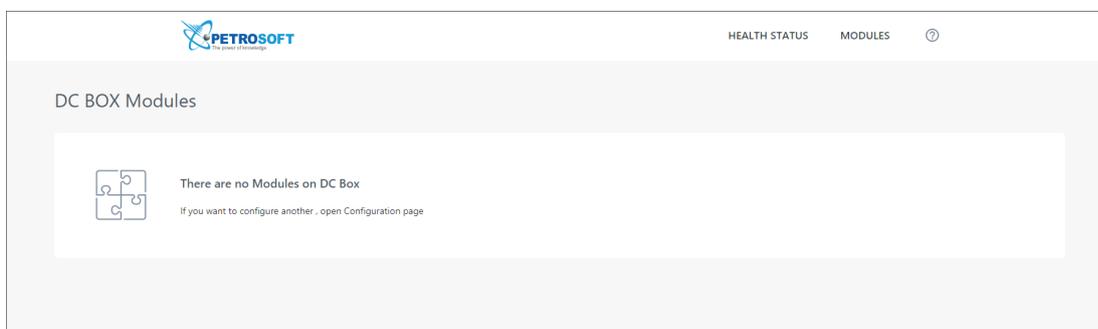
DC activation script Version: 2.3-10497
█
^X: Menu
    
```


 Having problems connecting your DC-401 to your cash register? No problem! Schedule an appointment with a Petrosoft Engineer through the Customer Portal (click [here](#)). We will remotely walk you through the installation of your hardware and get you back on the right track.

Step 8. Work with Modules

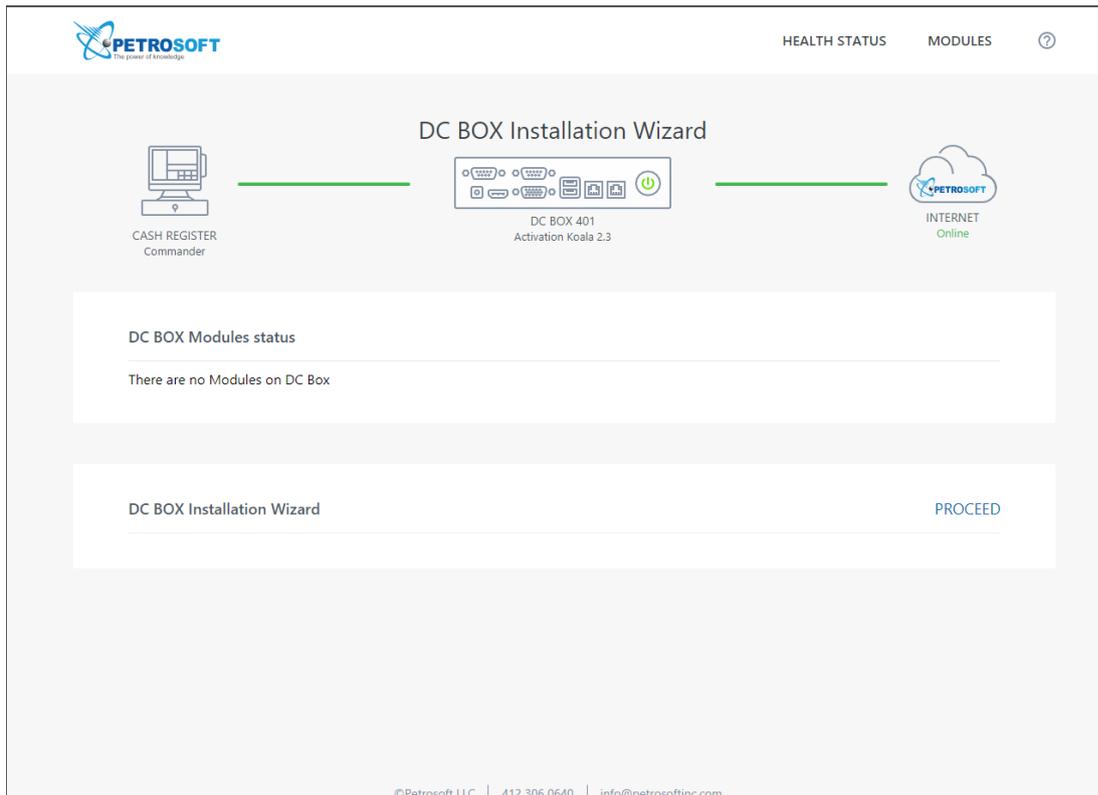
If you have external modules such as QwickServe, ATG and other set up, after the DC-401 activation process is complete, you can review the list of installed modules and check their health status.

- To view the list of modules, at the top right corner of the page, click the **Modules** link. If there are no modules available, the activation wizard will report about it.



- To check the module's health status, at the top right corner of the page, click the **Health Status**

link.



Step 9. Monitor Data Synchronization Status Between the POS and BOS

After you activate the DC Box, you can monitor how data is transferred between the DC Box, POS and back-office system. To do this, you can leverage the POS/BOS Push Synchronization module.



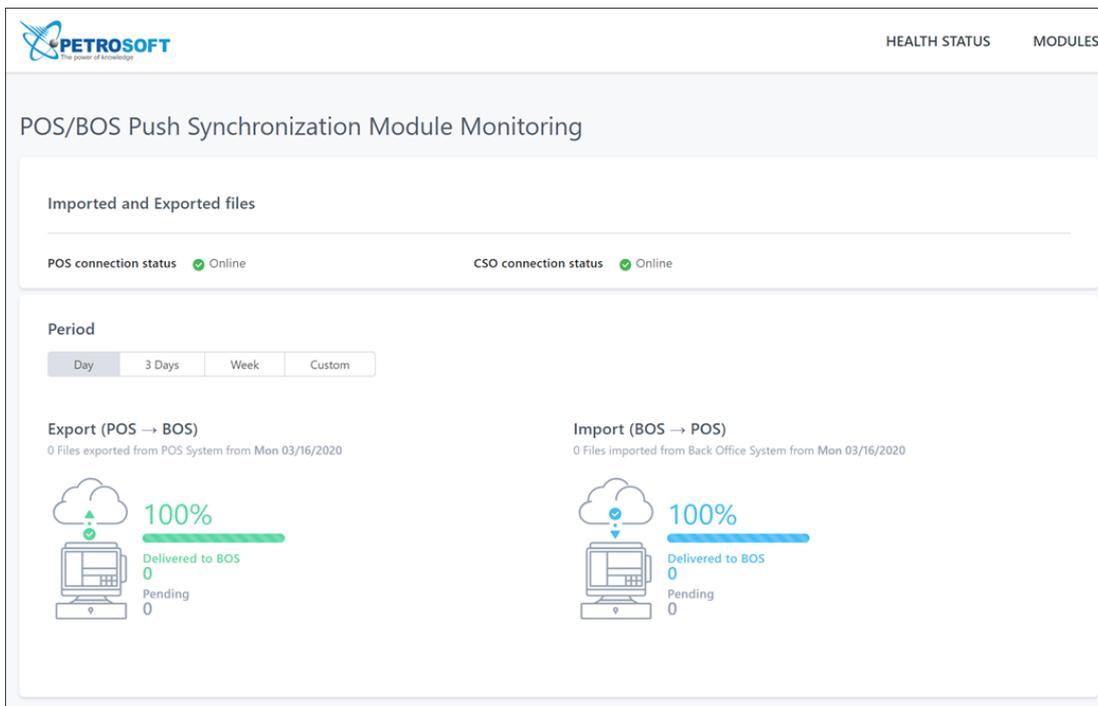
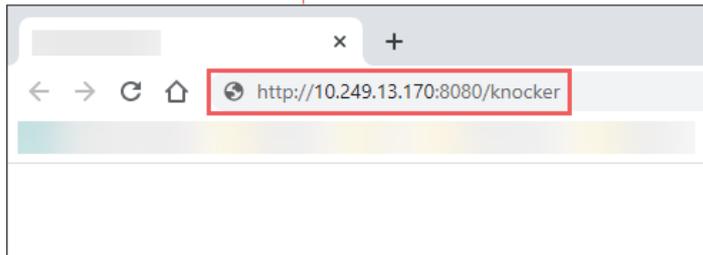
At present, the POS/BOS Push Synchronization module can be used only for NCR cash registers.

To access the POS/BOS Push Synchronization module:

1. From the CStoreOffice® home page, go to **Data Entry > Dashboard > Station Options > Cash Register**.
2. In the **Direct Connect Options** section, check the **IP** field and note the IP address for the DC Box.

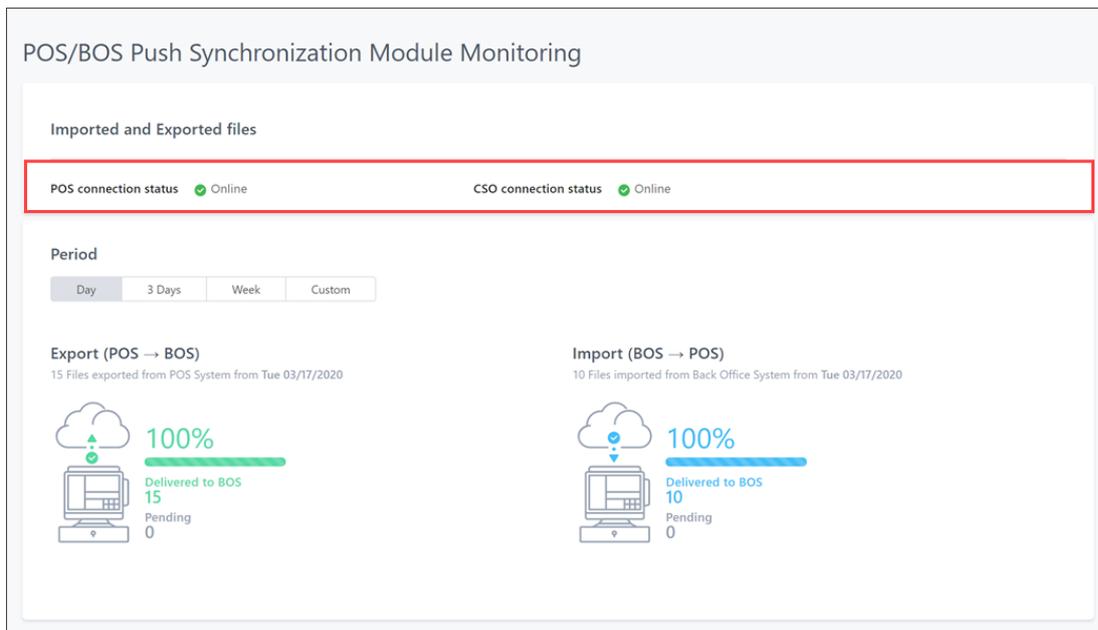
3. On a laptop or Wi-Fi enabled device, open a web browser and in the address bar, enter the knocker address as it is displayed in the image below, where:
 - o 10.249.13.170 is the IP address you retrieved from the DC Box settings in CStoreOffice®.
 - o 8080 is the port for connecting to the DC Box.

http://10.249.13.170:8080/knocker, where:
 - 10.249.13.170 - is the IP address retrieved from the DC Box settings.
 - 8080 is the port for connecting to the DC Box.

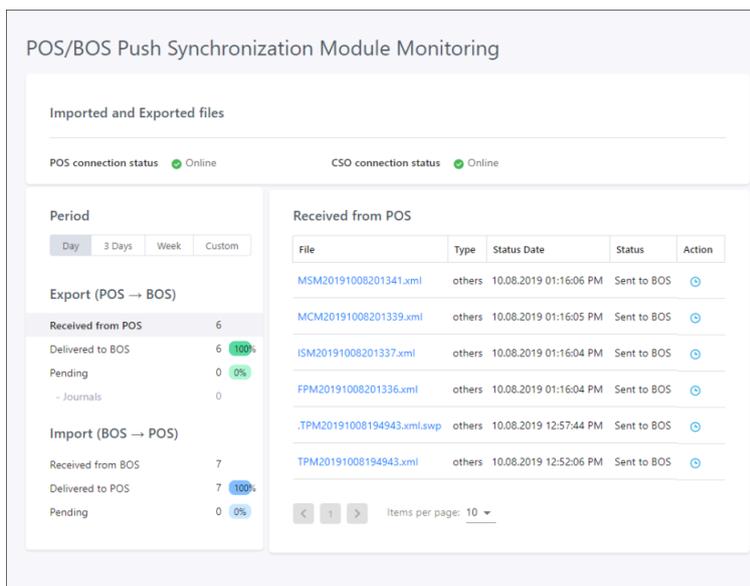


The main dashboard of the module displays the general statistics on the number of files transferred between the POS and back-office system. You can see how many files have been successfully delivered and how many files are still pending.

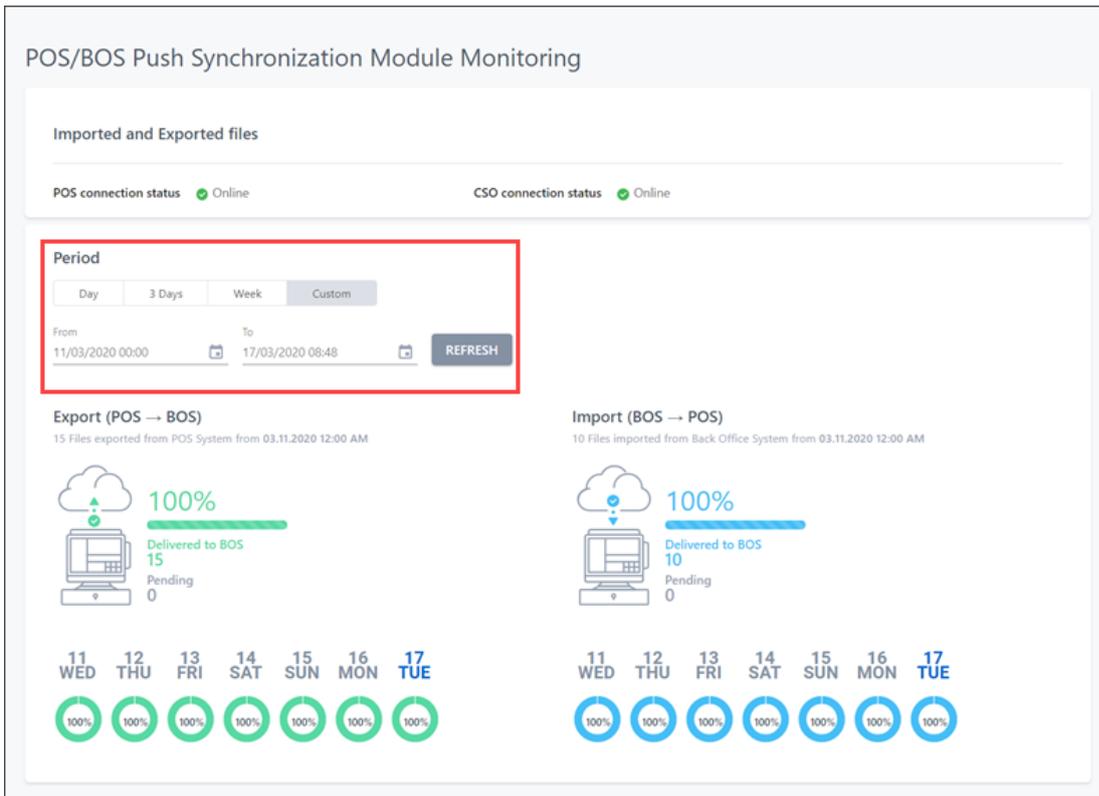
- To make sure the connection status is OK, check the **POS connection status** and **CSO connection status** fields.



- To get detailed information about the files status, click the total quantity of files in the dashboard.



- To get information about a specific time period, under **Period**, click the necessary tab: **Day**, **3 Days**, **Week** or **Custom**.



For more details on the POS/BOS Push Synchronization module, see [Monitoring POS and BOS Connections](#).