Petro Vend® PV300E™ EMV Security Configuration

Part Number: M1021

Revision: 3

PV300E™

IMPORTANT: Before you use this manual, make sure you have the most recent revision. Look at the revision of this document to make sure it agrees with the most current revision found in the FMS Technical Library. Download the latest revision if necessary.

All references to other manuals and instructions in this manual can be found in the FMS Technical Library. Make sure you have the most recent revision.

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Table of Contents

Section 1 Software Installation

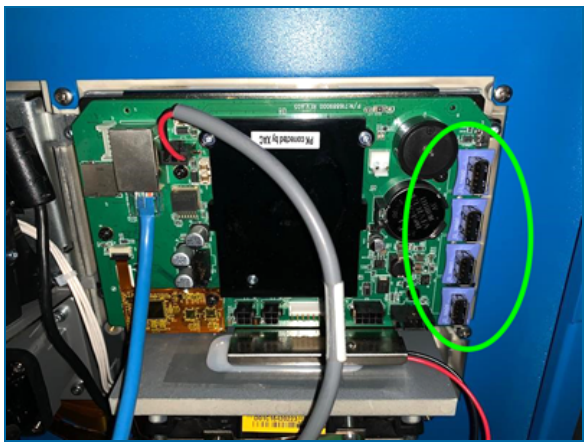
1.1 Prepare USB Drives for Installation

It is necessary to have two (2) USB drives to install or update the terminal software.

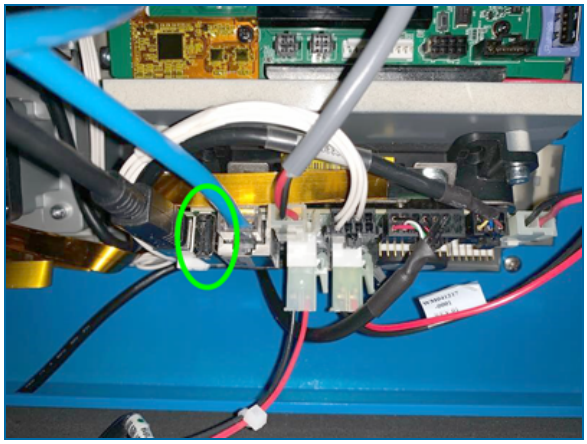
1. Unzip .../<Application>/AutoUpdate/Production/ IXPay2.Production.AutoUpdate_n.n.n.n.zip file.
2. Select the applicable type of installation, Initial or Update.
3. If there is a Startup folder on the USB-drive, remove it before you begin to copy new files.
4. Copy .\ Update **or** Initial \SVM7/Startup and all of its sub-folders to the root directory of the second USB-drive.
5. Copy .\Update **or** Initial\SPM2/Startup and all of its sub-folders to the root directory of the first USB-drive.

1.2 USB Installation

1. Move the power switch of the terminal's power supply to the OFF position to de-energize the terminal.



   a. SMV7/12 - Insert USB drive in one of the open USB ports of the SVM board. The ports are located on the right side of the SVM board



b. SPM2 - Disconnect the printer cable from the SPM board. Connect the SPM2 USB-drive in the USB port.

2. Move the power switch of the terminal's power supply to the ON position to energize the terminal. The software installation starts automatically in the background.
    a. No progress information will be shown on the screen.*
    b. Wait for a minimum of 20 minutes (it is recommended to start a timer)
3. Move the power switch of the terminal's power supply to the OFF position to de-energize the terminal.
    a. Disconnect the USB drives.
    b. Connect the printer cable back to the USB port of the SPM board..

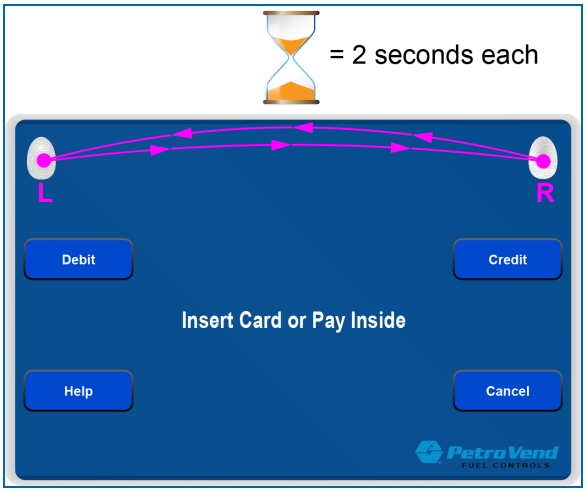
*It is possible to monitor the install progress from a PC if you have the IXPay2 utility installed.

- Start the ”IXPay2 utility” program on the PC.
- Use an RS485 Ethernet cable to connect the laptop ethernet port to the terminal's 5-Port Ethernet switch.
- Move the power switch of the terminal's power supply to the ON position to energize the terminal with the USB drives connected as above.
- The utility shows the progress of both USB drives during installation and shows when installation is complete.

Section 2 Maintenance Functions

2.1 Terminal Maintenance Screen Access

You can get access to the maintenance menu from the Operational screen.



Push the touchscreen display:

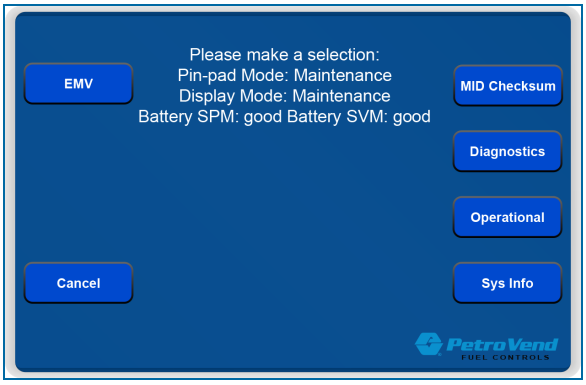
- upper left corner
- upper right corner
- upper left corner

You have two (2) seconds for each push..

The Maintenance screen will come into vew in approximately two (2) seconds if the sequence was done correctly.

2.2 Maintenance function

The Maintenance entry menu in Operational Mode is shown below.



Soft Key functions:

- **EMV** : This function calculates the checksum of the used EMK kernel and terminal capabilities.
- **MID checksum**: This function starts the checksum of a legally relevant Welmec MID code.
- **Diagnostic**: This function starts the hardware diagnostic menu.
- **Operational / Maintenance**: This function is used to set the terminal payment operational condition.
  - The **Operational** button is shown when terminal is in *Init* or *Maintenance* condition.
  - The **Maintenance** button is shown when terminal is in *Operational* or *tampered* state.
- **Sys Info**: This function starts the system Information menu.
- **Cancel**: Use this button to exit the Maintenance mode and restart the terminal if the Operational mode was changed.

2.3 Set Operation / Maintenance Mode

Use this button to set the terminal in Operational mode from Operational to Maintenance mode or, Maintenance / Init to Operational mode.

The terminal is in a **Tampered** condition if it is in a *DRD (Device Removal Detected)* or *Breached* condition.

- A DRD component can be reset with the challenge response sequence.

NOTE: The hardware must be inspected to make sure that no other circuitry has been applied before DRD a reset is made.

- Some **Breached** components must be replaced and returned to the factory. Call Technical Support at **877-OPW-TECH** (877-679-8324) for information to see if a breach can be cleared.

An **Access Code** must be entered to change the terminal's operation mode.

- Enter the 4-digit Access Code with the Pin-pad. Push OK.
- Each number entry is echoed with "*" on the display.

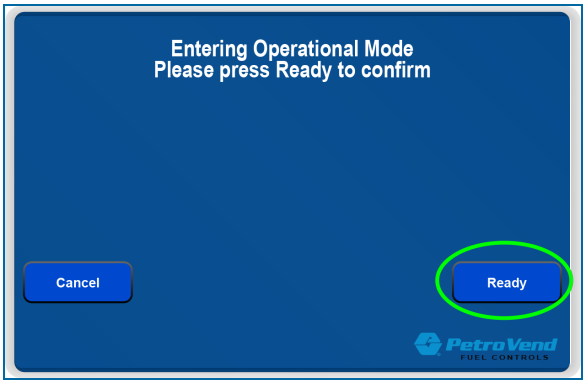
2.4 Set the Terminal in Operational Mode

An **Access Code** must be entered to change the terminal's operation mode.

- Enter the 4-digit Access Code with the Pin-pad. Push OK.
- Each number entry is echoed with "*" on the display.

Use **Cancel** to go back to the previous menu.

NOTE: Make sure the door is closed before you make a selection on the next screen.



Push **Ready** to start the *Operational* mode. The screen will show the *Maintenance* entry menu. The Pin-Pad mode and Display mode should now show operational if the change was successful.

NOTE: The transition to Operational mode is rejected if one of the two or both of the devices is incorrectly installed.

Push **Cancel** to go back to the previous menu.

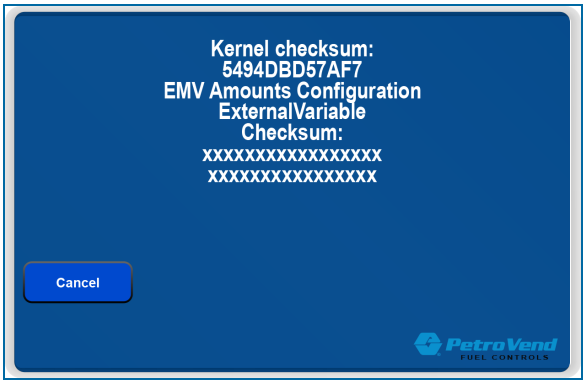
2.5 Set the Terminal in Maintenance Mode

Refer to the instructions in M1024 Maintenance Mode. To put your PV300E Terminal in Maintenance Mode you must:

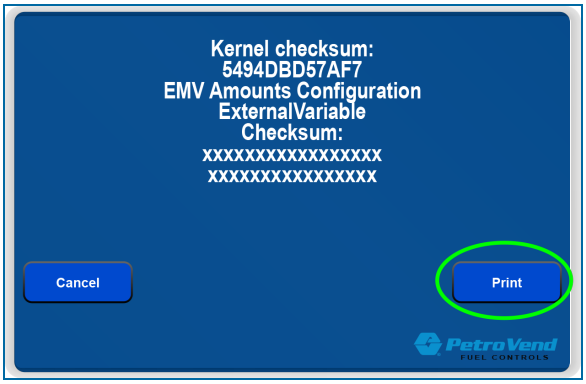
- Be an approved FMS/DFS technician or ASO.
- Have the DFS Unlock mobile app downloaded to an applicable mobile device.
- Have a username and password to enter the DFS Extranet.

You must meet the three conditions above. Speak to your FMS or DFS representative for information.

2.6 EMV Checksum



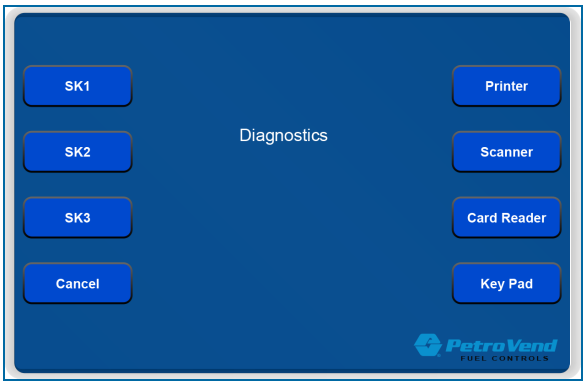
2.7 MID Checksum



Select Print to send a special print request to the printer that calculates and prints the special MID checksum receipt.

Push **Cancel** to go back to the previous menu.

2.8 Hardware Diagnostics



SK1-SK3 echoes the key on the screen.

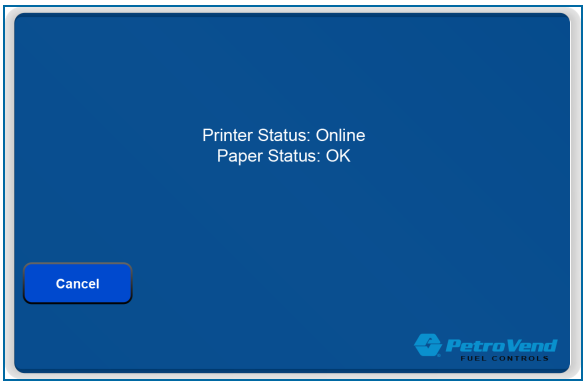
Select **Printer** to open the printer diagnostic menu.

Select **Scanner** to open the barcode scanner menu.

Select **Key Pad** to open the Key pad diagnostic menu.

Push **Cancel** to go back to the previous menu.

2.9 Printer Diagnostic



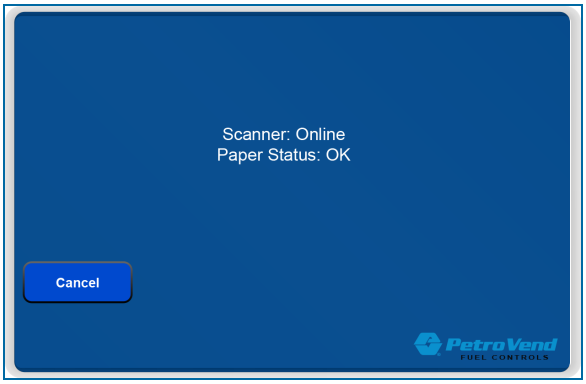
The "Printer Diagnostic" screen will show:

- **Printer Status**s: Online/Offline and Papaer JAM
- **Paper Status**: OK / Paper Low / Paper Out / Error

A system Information receipt is automatically printed. This will take approximately 30 minutes.

Push **Cancel** to go back to the previous menu.

2.10 Scanner Diagnostics



The "Scanner Diagnostics" screen will show

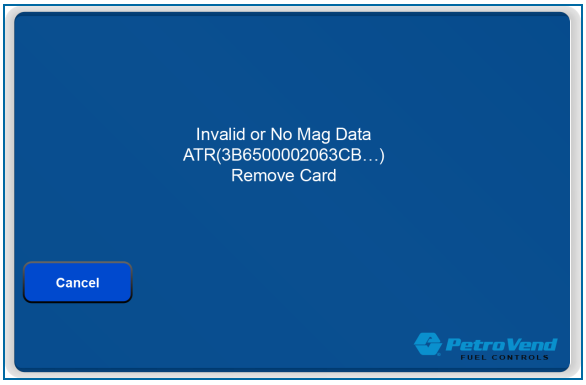
- **Scanner Status**s: Online/Offline
- **Paper Status**: OK / Paper Low / Paper Out / Error

When the Scanner is Online it is ready to scan a barcode. The barcode is shown after it is scanned.

Push **Cancel** to go back to the previous menu.

2.11 Card Reader Diagnostics

The "Card Reader Diagnostic" menu is used to test the hybrid Mag-stripe and contact chip reade. It can also test a contactless reader if one is installed.

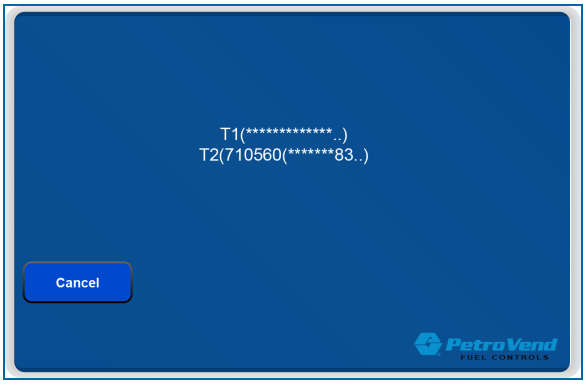


Hybrid reader test

Chip card data:

ATR (chip card power on response) are shown when a card contact was detected.

Also, masked magnetic stripe track data can be displayed from the card insertion.



Mag stripe data is read when a card is removed. Read tracks are shown as *****.

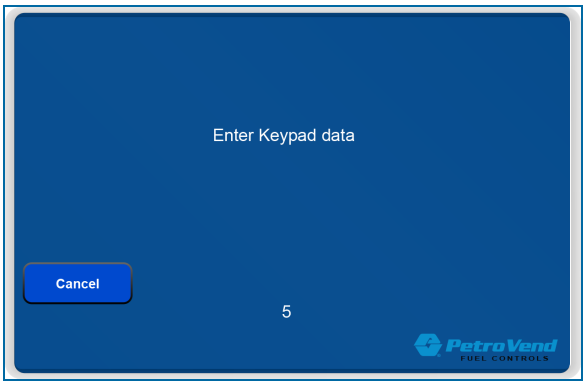
Contactless Reader Test

Read Track 2 equivalent from contactless card is shown as ****.

NOTE: A read can fail if an unknown card is tapped because the test must sense a card's Brand AID that is loaded in the Contactless Reader EMV kernel.

Push **Cancel** to go back to the previous menu.

2.12 Key Pad Diagnostics



The "Keypad Diagnostic" screen is used to do a check of the functionality of all keypad keys.

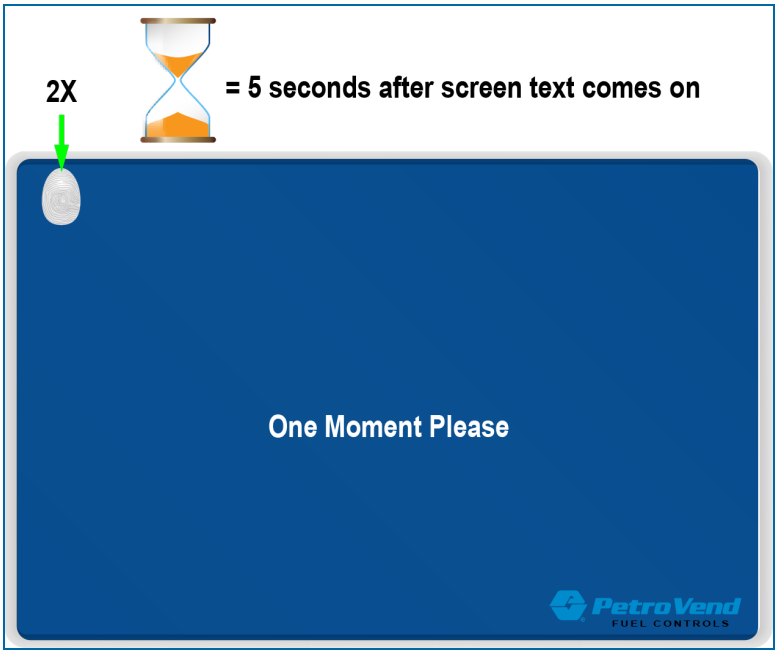
Each key push is echoed one numeric character at a time and the Enter and Cancel keys.

Section 3 Terminal Configuration

3.1 Configuration Mode

To put the terminal in Configuration Mode:

- Restart the terminal.



- When the text *"One Moment Please"* comes on the screen during terminal startup, push the upper left corner of the touchscreen two (2) times in 5 seconds or less. The Configuration screen will come into view.

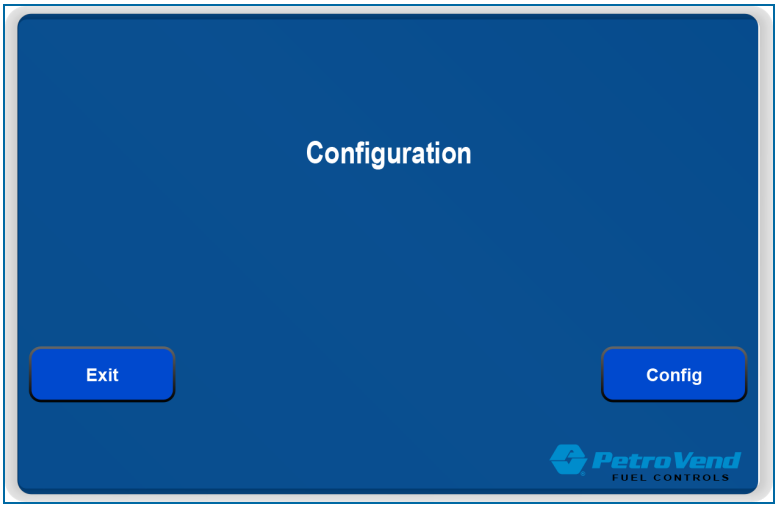
A key press after 5 seconds will be ignored by terminal. A restart is then necessary.

If the Terminal ID is zero when the terminal does an internal condition check, the terminal will automatically enter Configuration Mode. The Terminal ID tells the terminal if it has been configured.

NOTE: It is possible to set Terminal ID back to zero, to cause an automatic Configuration Mode at next restart.

3.2 General Instructions

Use the Configuration menus that follow to set up your terminal's configuration.



- Push **Config** to show the first *Configuration Parameter*.

NOTE: Configuration parameters are shown one at a time. Push the **Next** button to move forward in the list and push the **Back** button to move back in the list.

- Push **Exit** to go out of the Configuration menu. Changes that you made are kept. The terminal will restart automatically.

Make entries for Configuration Parameters on the touchscreen.

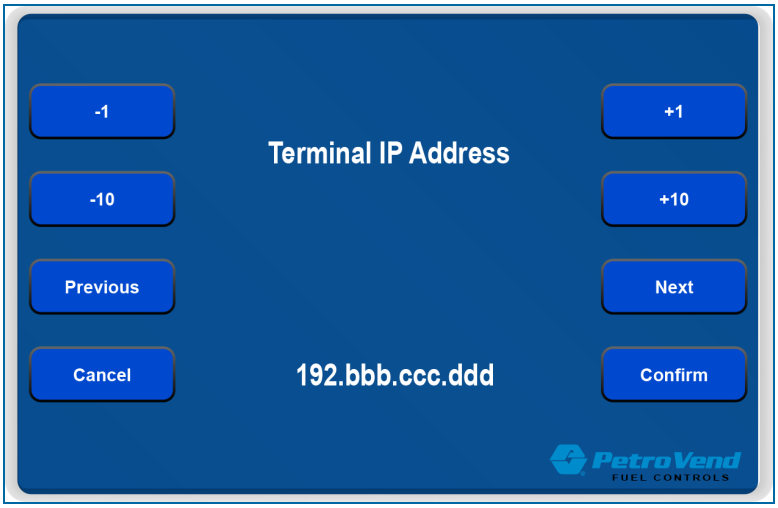
- Push **Next** to move to the next parameter.

- Push **Back** to move back to the last parameter.
- Push **Change** to enter the *Change* menu for the current parameter.

3.3 Change Numeric Parameters

Use the function keys (-1, =1, -10, +10) to enter numeric values. Each time you push a function key it adds to or subtracts from the current value of the sub-parameter.

EXAMPLE: Terminal IP Address Configuration



In this example, the four (4) sub-parameters of an IP Address (separated by periods, i.e. aaa.bbb.ccc.ddd) are configured.

- To subtract 10 from the sub-parameter value (**192**), push the **-10** key (result: **182**.bbb.ccc.ddd).
- To subtract 1 from the sub-parameter value (**182**), push the **-1** key (result: **181**.bbb.ccc.ddd).
- To add 2 to the sub-parameter value (**181**), push the **-+1** key two (2) times (result: **183**.bbb.ccc.ddd).
- To add 10 to the sub-parameter value (**183**), push the **-+10** key (result: **193**.bbb.ccc.ddd).
- Push **Next** to move to the next sub-parameter in the IP Address (i.e. aaa.**168**.ccc.ddd). Use the function keys (-1, =1, -10, +10) to enter numeric values in a similar procedure you used to adjust the first sub-parameter value.
- Push **Previous**to move back to the last parameter (i.e. **193**.bbb.ccc.ddd).
- Push **Confirm** to exit the configuration. This will save your changes to the parameter values.
- Push **Cancel** to exit the configuration. **Changes will not be saved**.

3.4 Change Enumerated (Listed) Parameters

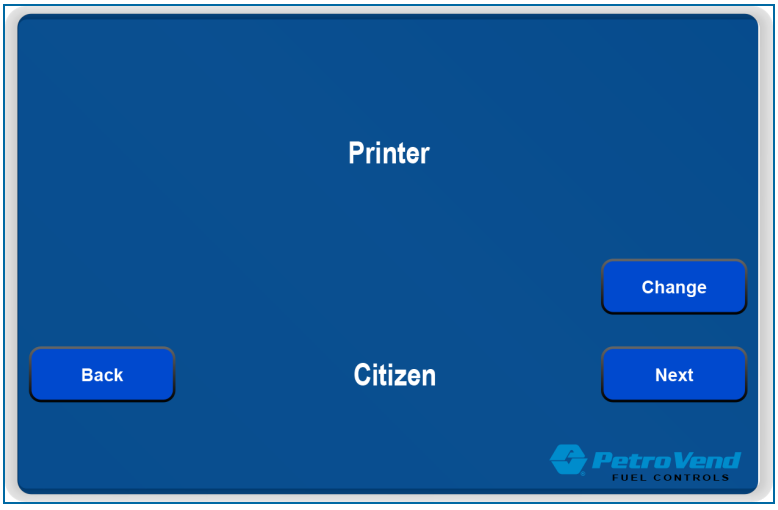
The available parameter value selections are shown on the soft keys. The procedure example that follows shows the steps to configure these parameters.

EXAMPLE: Printer Configuration

Push the **Change** key to open the parameter configuration menu.

The available options in in this example are, None (no printer), KR203 (Zebra printer) or US Citizen printer.

- Push the applicable **soft key** to change the printer type, in this example, to change to Citizen (see the image below).
- Push **Confirm** to save the new value and exit the parameter change menu



- Push **Cancel** to exit the configuration. **Changes will not be saved**.

3.5 List of Configurable Parameters

A table of available configurable terminal parameters is shown below.

NOTE: It is possible that some of the parameters will not be necessary in some site applications.

NOTE: Def identifies a parameter with a default value of "Yes" and is not configurable for the listed application.

Parameter	*Sub parameters*	*Description*	*Neste*	*Preem*	*FMS*	*YX*
Date Time	Year,Month,Day Hour,Minute,sec	Terminal data and time. Numeric entry for each sub parameter.	Yes	Yes	Yes	Yes
Terminal Number	nn (numeric)	Terminal number 0, 1-n Numeric entry.	Yes	Yes	Yes	Yes
Terminal Side	A or B	Canbus side. Enumeration.	Yes	No	No	No
Terminal IP Address	aaa.bbb.ccc.ddd	SVM7/12 IPv4 address. Numeric entry for each sub group.	Yes	Yes	Yes	Yes
Default Gateway IP	aaa.bbb.ccc.ddd	IPv4 default gateway. Numeric entry for each sub group.	Yes	Yes	Yes	Yes
Subnet mask	255.255.255.0	IPv4 subnet mask .	Yes	Yes	Yes	Yes
SPM IP Address	aaa.bbb.ccc.ddd	SPM2 IPv4 address. Numeric entry for each sub group.	Yes	Yes	Yes	Yes
iSense IP Address	aaa.bbb.ccc.ddd	IPv4 address to IX Gateway RDM Host. Also used to for Remote logger. Numeric entry for each sub group.	Yes	Yes	Yes	Yes
TMS1 IP Address	aaa.bbb.ccc.ddd	DFS DMZ channel 1 IPv4 address. Numeric entry for each sub group.	Yes	Yes	Yes	Yes
TMS2 IP Address	aaa.bbb.ccc.ddd	DFS DMZ channel 2 IPv4 address. Numeric entry for each sub group.	Yes	Yes	Yes	Yes
Remote Key Injection	Key reload SPD reload	Enumeration. TMS forced parameter download, executed at startup in operational mode. The selected options are aggregated when both are selected.	Yes	Yes	Yes	Yes
Contactless Reader	Yes or No	Enumeration	def	def	Yes	Yes

Parameter	Sub parameters	Description	Neste	Preem	FMS	YX
Barcode scanner	Yes or No	Enumeration	Yes	Yes	Yes	Yes
Bill Acceptor	Yes or No	Enumeration	Yes	No	No	No

Section 4 FSC3000 Configuration for PV300E

Use the Command-Line that follows to configure the FSC300 with a PV300E terminal.

Configure FSC

a. SET SITE, say yes to enable EMV

b. CONF FIT 1, set type to EMV, say yes to Contactless reader when prompted if available.

c. If site wants to let card holders select the auth amount, enable use ISO under fleet table.*

i. Fleet table must have an NBS record, any phone.

d. SET NETWORK, NBS

i. Select Option ZERO, enable EMV for this host.

ii. SET SITE ID to: DF6139000XXXXXX ⇩ Each site will differ

e. Set Fleet Table

i. Select NBS

ii. Use any number for primary number ex. (11111)

iii. Use option 1 – or if the site wants to use ISO table its up to them.

f. Configure ISO Table

i. Enable ISOs used at the site.

ii. Say Yes to active the ISOs the site will be using.

*Refer to the M00-051.00 FSC3000 Command Line Configuration section "Bankcard hosts: Buypass, NBS Bank, NBS Quarles and Paymentech" for information.

Revisions - M1021

Revision #	*Approval*	*Effective*	*Software Version*	*Key Changes*
0	1847	1/22/21		Initial Release
1	1901	5/11/21		Add FSC3000 Configuration.
2	2051	6/20/2022		Remove Maintenance Mode instruction, add reference to M1024.
3	GD	7/19/2023		General source file updates.

NOTE: It is possible that older software versions might not support all features

Warranty

OPW Fuel Management Systems warrants that all OPW Tank Gauge and Petro Vend Fuel Control systems supplied by OPW Fuel Management Systems to the Original Purchaser will be free from defects in material and/or workmanship under normal use and service for a period of 12 months from the date of installation or 15 months from the date of shipment from OPW. Additionally, OPW Fuel Management Systems warrants that all upgrades and replacement parts (new and remanufactured) supplied by OPW Fuel Management Systems will be free from defects in material and workmanship under normal use and serviced for a period of 90 days from the date of installation or for the remainder of the system's original warranty, whichever is greater, as set forth in the first sentence of this statement. The foregoing warranties will not extend to goods subjected to misuse, neglect, accident, or improper installation or maintenance or which have been altered or repaired by anyone other than OPW Fuel Management Systems or its authorized representative. The buyer's acceptance of delivery of the goods constitutes acceptance of the foregoing warranties and remedies, and all conditions and limitations thereof.

If a claim is made within the warranted time period that any equipment and/or remanufactured part is defective in material or workmanship under normal use and service, such equipment and/or remanufactured part shall be returned to OPW Fuel Management Systems, freight prepaid. If such equipment or remanufactured part is found by OPW Fuel Management Systems in its sole judgment to be defective in material or workmanship under normal use and service, OPW Fuel Management Systems shall, at its sole option, repair or replace such equipment and/or remanufactured part (excluding, in all instances, fuses, ink cartridges, batteries, other consumable items, etc.) OPW Fuel Management Systems shall not be held responsible for data loss or retrieval on returned products.

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TERMS

Ex-works our factory, Hodgkins, Illinois, USA
Installation not included.
All trade names are registered. Patents pending.
Subject to engineering improvement and/or other changes.