Auxiliary Forecourt POS

Verifone®

Auxiliary Forecourt Point of Sale

Using this Feature Reference

This Feature Reference provides detailed information on how to configure communications and use the Auxiliary Forecourt Point of Sale feature on the Commander Site Controller.

The Feature Reference contains the following subsections:

- Overview - This section contains a brief description, requirements and the supported hardware configurations for the Auxiliary Forecourt POS.
- Configuring - This section contains information on how to configure Auxiliary Forecourt POS on the Site Controller.
- Using - This section describes usage of Auxiliary Forecourt POS.
- Reporting - This section contains reporting information available for the Auxiliary Forecourt POS on the Site Controller.
- Troubleshooting - This section provides basic troubleshooting steps.

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Revision History

Date	Description
04/13/2016	Initial Documentation Release
08/16/2016	Added setup note and troubleshooting tip regarding Fueling Position Pre-Paid Only flag - Not Checked. Added setup note and troubleshooting tip regarding PIC devices require null-modem cable for communications.
09/06/2016	Updated format.

Contents

Auxiliary Forecourt Point of Sale

Overview

The Auxiliary Forecourt Point of Sale function offers fuel services from the Commander Site Controller for 3rd-party alternate payment terminals.

This feature document describes Verifone's implementation of Auxiliary Forecourt POS options within the Commander Site Controller. It serves as an Overview and a Configuration, Usage and Reporting Guide for the Auxiliary Forecourt Payment Systems feature.

Supported Verifone Solutions

- Commander Site Controller/RubyCi with Topaz
- Commander Site Controller/RubyCi with Ruby2

> **NOTE** *Auxiliary Forecourt Point of Sale implementation requires Commander Site Controller with Base 40+ production software.*

Supported 3rd-Party Devices

- OPW's PetroVend
- FMI's Payment Island Cashier (PIC) - requires a crossover or null modem cable
- Wetstock

Supported Communication Protocols

- PAM protocol over RS-232 connections for PIC and Wetstock devices.
- PetroNet protocol over RS-485 connections for PetroVend devices.
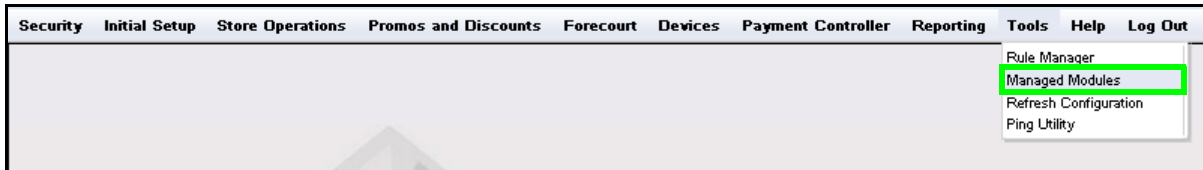
> **NOTE** *All communications to the fueling islands are transmitted over serial connections.*
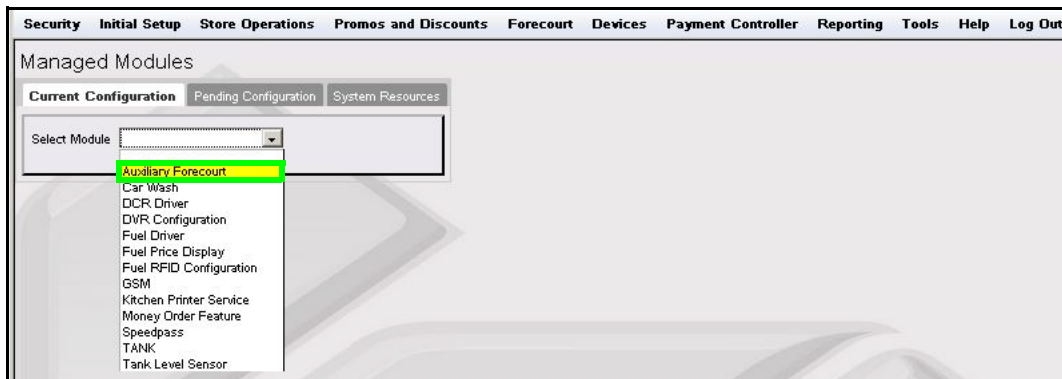
Configuring

Auxiliary Forecourt POS configuration to implement functionality is similar for all supported devices, regardless of the hardware manufacturer.

All system configuration is done through the Commander Configuration Client.

1. Select Tools >> Managed Modules.

Security	Initial Setup	Store Operations	Promos and Discounts	Forecourt	Devices	Payment Controller	Reporting	Tools	Help	Log Out

Rule Manager
Managed Modules
Refresh Configuration
Ping Utility

2. Select Auxiliary Forecourt from the Select Module drop-down menu.

Security	Initial Setup	Store Operations	Promos and Discounts	Forecourt	Devices	Payment Controller	Reporting	Tools	Help	Log Out

Managed Modules

Current Configuration | Pending Configuration | System Resources

Select Module

Auxiliary Forecourt
Car Wash
DCR Driver
DVR Configuration
Fuel Driver
Fuel Price Display
Fuel RFID Configuration
GSM
Kitchen Printer Service
Money Order Feature
Speedpass
TANK
Tank Level Sensor

The Commander Site Controller offers four channels, with each channel supporting up to four devices over four different serial ports.

The following table provides nominal serial configurations settings:

	AUXPOS & Wetstock	PetroVend
Baud Rate	4800	9600
Stop Bits	1	1
Data Bits	7	7
Parity Bits	odd	even

Some older PetroVend devices use a baud rate of 1200 bps. The servicer should obtain and confirm correct serial device configuration settings from the Auxiliary POS device installer.

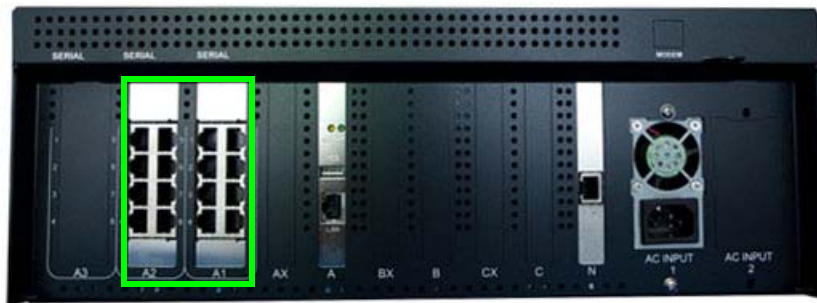3. Select the Auxiliary Forecourt Channel to configure and click **[Advanced Settings]**.
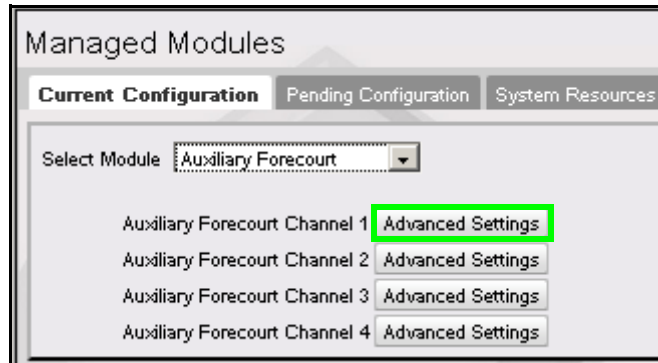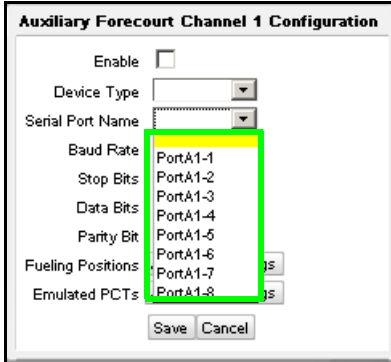

4. Click the **Enable** checkbox to activate the Auxiliary Forecourt Channel.
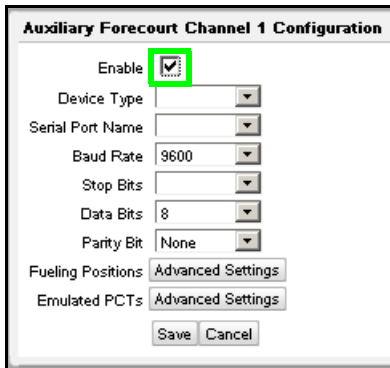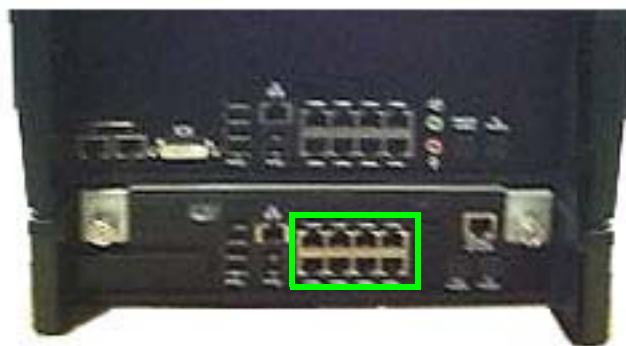

5. Select the **Device Type**:
    - AUXPOS: for devices using PAM protocol, does not include Pump Status Values. (Choose AUXPOS for FMI PIC devices.)
    - PetroVend: for proprietary PetroNet Protocol.
    - Wet Stock: for devices using PAM protocol, includes Pump Status Values.
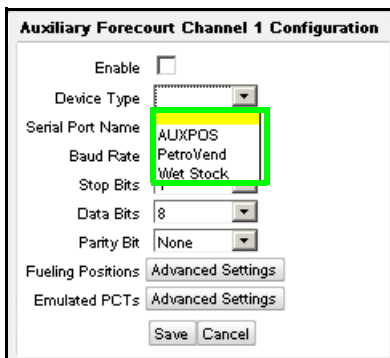
6. Select the **Serial Port Name**.
   Commander Site Controllers provides 16 available port connections, and is capable of being expanded as needed.
   RubyCi controllers have a limitation of eight available port connections (Port A1-1 through Port A1-8).

Auxiliary Forecourt Channel 1 Configuration

Enable	☐
Device Type	
Serial Port Name	
Baud Rate	PortA1-1
Stop Bits	PortA1-2
	PortA1-3
Data Bits	PortA1-4
Parity Bit	PortA1-5
	PortA1-6
Fueling Positions	PortA1-7
Emulated PCTs	PortA1-8

Save   Cancel

Commander Site Controller serial ports on rear panel

RubyCi serial ports on rear panel

7. Select the appropriate **Baud Rate**.

8. Select the number of **Stop Bits**.

9. Select the number of **Data Bits**.
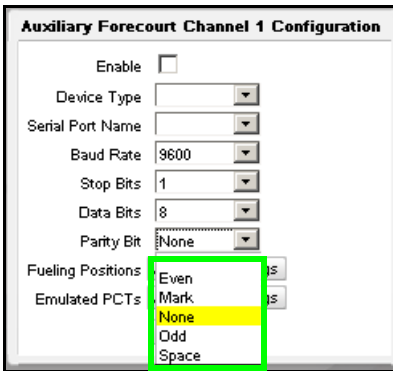
10. Select the **Parity Bit** setting.
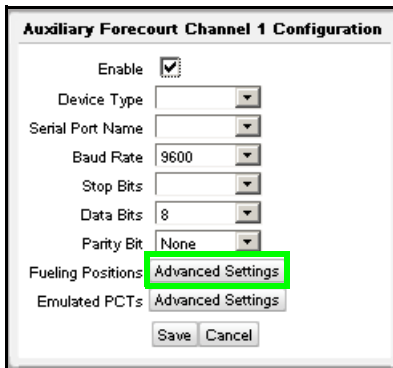
11. Click *Fueling Positions* **[Advanced Settings]**

12. Click to select the **Fueling Positions** to be included.

NOTE	*All fueling positions to be included for Auxiliary Forecourt payment access must be selected.*

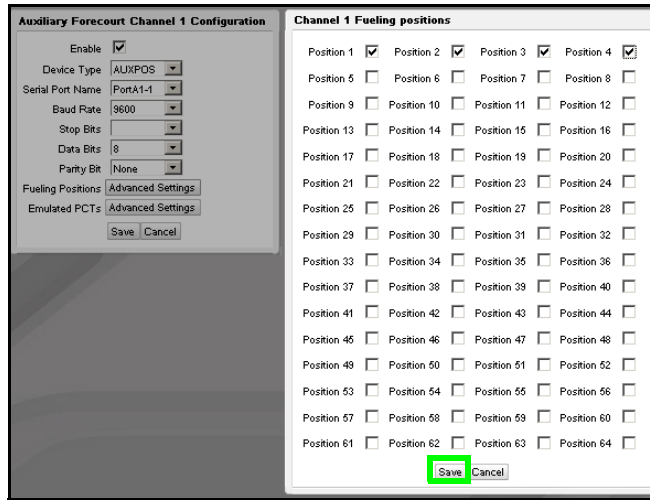| ⚠	*Review all fueling positions to be included for Auxiliary Forecourt access. Verify* Prepay Only *setting is* NOT *selected.*

13. Click **[Save]**.

Emulated PCTs only apply to PetroVend devices, and is required for successful PetroNet communications.

14. Click *Emulated PCTs* **[Advanced Settings]**.
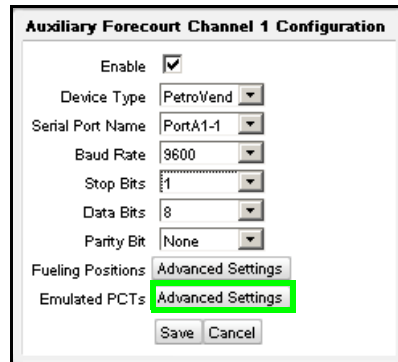
Installers must coordinate with the Forecourt POS Provider, and match PCT configurations that exist on the PetroVend Fuel Pump Interface.

15. Select the Emulated PCTs from the four available options: PCT 1 through PCT 4.

16. Click **[Save]** in the Channel PCTs selection window.

17. Click **[Save]** in the Channel Configuration window.

Using

The Auxiliary Forecourt POS function offers fuel services from the Commander Site Controller for 3rd-party alternate payment terminals.

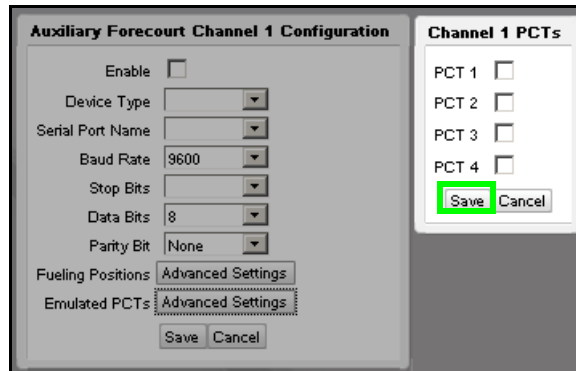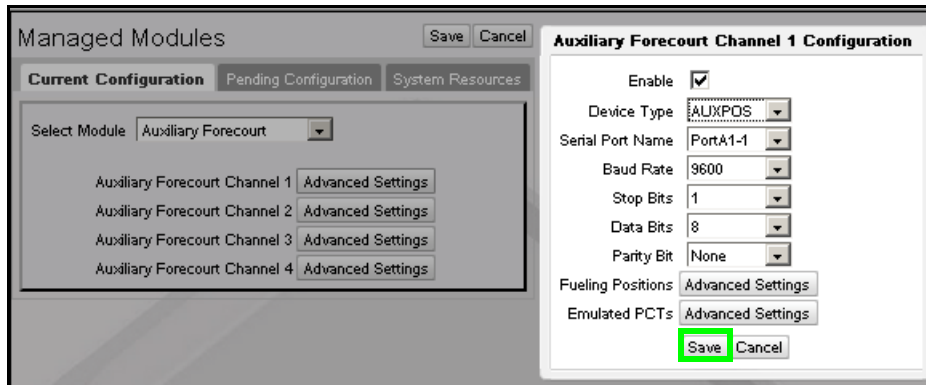A customer initiates a fuel transaction from an alternate payment terminal, which communicates the request to the Verifone POS System. The POS System responds by turning on fuel dispensing. At the end of the sale, the POS System returns the sale data to the payment terminal system, where payment processing is handled for the transaction.

The Verifone POS System is only responsible for enabling and allowing the fuel sale to take place.

The cashier experience inside the store is similar to what is seen if a customer had initiated a pre-paid fueling transaction, or a DCR initiated fueling transaction.

Data Flow Exceptions

PAM Protocol

Differences exist for the PAM protocol in terms of how the Transaction Status is handled between Auxiliary POS and Wetstock devices.

AuxPOS (PIC) Devices

Auxiliary Payment Terminals using the PAM protocol can poll fueling dispensers and request the dispenser's status. At the end of a sale, the payment device would typically try to clear the sale.

With Auxiliary Forecourt POS implementation, tracking the dispenser status and the subsequent clearing of the sale handled by the Verifone POS System.

In order to avoid a conflict where multiple devices are attempting to process the sale, the Verifone POS System withholds the actual dispenser status from 3rd-party devices, if the transaction was not initiated by those devices.

For any transaction, the reported ending status is broadcast as CLOSED to all devices that did initiate the transaction. For the initiating device, the ending status is returned as END OF TRANSACTION (EOT), allowing that device to claim the sale, clear the sale, and complete the transaction.

Wetstock Devices

Wetstock devices also poll fueling dispensers and request the dispenser's status, which is required on those devices for inventory tracking purposes.

As Wetstock devices are not attempting to process sale transactions, and these devices are not attempting to claim and clear a sale, there is no conflict with providing the actual transaction status.

PetroNet Protocol

PetroNet Components

Standard PetroNet components consists of the following:
- Terminal(s) - requires one payment terminal per island; supports multiple fuel dispensers.
- Controller - one per site, equivalent to Verifone Payment Controller.
- Fuel Pump Interface - roughly equivalent to Verifone Smart Fuel Controller (SFC), provides the PetroVend system with an interface to the fuel dispensers.

Fuel Pump Interface

The PetroVend Fuel Pump Interface:
- supports both mechanical and electronic dispensers
- supports logical groupings of pumps, by type, called Pump Control Terminal(s) (PCTs). Each PCT can include up to eight pumps.

In the Auxiliary Forecourt POS implementation, the PetroVend Fuel Pump Interface is replaced by the Verifone POS System.

> **NOTE**
> *Installers must understand how the PetroVend Fuel Pump Interface is configured, and the logical pump assignments per PCT. The Verifone POS System configuration must match the PetroVend PCT configuration.*

Controller

The PetroVend Controller regularly polls the fuel dispenser(s) for a system aware reply, but does not query for availability. The PetroVend system has no internal concept of pump reservation, and always proceeds as if the pump is always ready. The only command then sent to the pumps is to turn on the pump, and the submitted command either succeeds or fails based on the fueling position's readiness status.

Time-Outs

PetroVend caters to unattended fueling sites, and offers useful timeout features specific for those unattended sites.

Handle-Up Timeout

Both the Verifone and PetroVend systems have internal Handle-Up Timeout values.

The Verifone and PetroVend configured values are compared, and the smaller of the two time values is accepted as the Handle-Up Timeout value.

If after a pre-approval, the pump handle is not raised within the Handle-Up Timeout range, the timeout status is returned from the Verifone POS System to the PetroVend controller and the pending transaction is cancelled.

Total Transaction Timer Timeout

To prevent a fuel dispenser from running for an extended period of time at an unattended site, a Total Transaction Timer exists as a configurable value.

The timer starts when the handle is raised and fueling begins. Fueling will automatically stop when the Total Transaction Timer value is reached.

To prevent a cashier from overriding the set Total Transaction Timer value, when the Total Transaction Timer value is reached, re-approving the pump from the POS inside the store has been blocked.

The only way to reset the pump after the Total Transaction Timer value has been reached is to return the pump handle to the down position.

Reporting

Fuel sales initiated from the Auxiliary Forecourt POS are included in the overall Fuel Totals Report.

Reconciliation can be done now by comparing the AUX POS device reports with the Verifone POS System reports. For example, PIC has its own reporting capability which could be compared to Verifone POS System reports. The delta between the fuel totals on the two reports would represent fuel sold through the Verifone POS components.

Detail reports specific to Auxiliary Forecourt POS only fuel sales are planned for future enhancements.

Troubleshooting

Communications

If the Auxiliary Forecourt POS device is not communicating as expected, the following basic troubleshooting steps are provided:

1. Check the serial port LEDs on the front panel of Commander/Ruby CI.

    Confirm the red and green LEDs, corresponding to the port(s) configured for the Auxiliary POS, are flashing to indicate a good communication link.

    For PetroVend, as an RS-485 interface is used, check the red and green LEDs on the appropriate 485 board in the FCI. These LEDs should also be flashing.

    For FMI PIC devices, a null modem cable is required. A straight through serial cable along with a Verifone RJ-45/DB9(F/F) null modem adapter (PN: 13638-02) may also be used.

2. If the LEDs are not flashing:

    A. Check the cables and connections to the Auxiliary POS device to ensure all are properly attached.

    B. Verify that the Auxiliary POS device is powered on.

If the device is still not communicating correctly, reset the communication link to the Auxiliary POS device through ConfigClient. Reset the device by disabling and re-enabling the problematic Auxiliary POS channels via managed modules.

1. Navigate to Tools >> Managed Modules.

2. Select module: Auxiliary Forecourt.

3. Select the Auxiliary Forecourt channel and click [Advanced Settings].

4. Click to deselect the *Enable* checkbox.

5. Click [Save].

6. Select the Auxiliary Forecourt channel and click [Advanced Settings].

7. Click to re-select the *Enable* checkbox.

8. Click **[Save]**.

All Transactions Cancelled

If the Auxiliary Forecourt POS device is communicating, but all transactions are being cancelled during the pump selection and payment process, review the Fueling Position Settings and verify *Prepay Only* is **not** selected.

Verify *Prepay Only* is unchecked for all Fueling Positions to be included for Auxiliary Forecourt access.

Glossary of Terms

Term	Description
BPS	Bit(s) Per Second. Associated with serial communication baud rates.
EOT	End Of Transaction.
EPS	Electronic Payment Server.
FCC	Forecourt Controller.
FCI	Forecourt Controller Interface.
FMi	Flexible Manufacturing Innovations. LLC. Verifone AUXPOS solutions partner, manufacturer of Payment Island Cashier (PIC) hardware.
PCT	Pump Control Terminal.
PIC	Payment Island Cashier.
POS	Point of Sale terminal.
POS System	Includes the POS (Point of Sale) terminal(s), site controller and the electronic payment system (EPS).
SFC	Smart Fuel Controller.