



# C-Start® EMV 6800 Upgrade Manual

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**DRB**

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## Table of Contents

<b>Introduction.....</b>	<b>4</b>
Tools Required .....	4
General Process .....	4
<b>Removing Components .....</b>	<b>5</b>
Verifone XML Credit sites .....	5
Card Reader.....	5
Modem bracket.....	5
<b>Hardware Installation.....</b>	<b>7</b>
VP6800 EMV Card Reader.....	7
Network Switch Bracket Assembly .....	10
Removing Ethernet Splitter.....	12
Split Ethernet Run .....	13
Cable Connections .....	14
Cable Routing Guide .....	15
Installing Labels.....	16
<b>MN1017 1.79.13 Thumb Drive Update Instructions .....</b>	<b>17</b>
Secondary Unit Procedures.....	17
Primary Unit Procedures.....	20
<b>Software Version Check.....</b>	<b>23</b>
<b>Changing settings to EMV/Tran-EMV .....</b>	<b>23</b>
Setting Site to EMV .....	23
Setting each Kiosk to Tran-EMV.....	23
<b>Verifying Modem Connectivity .....</b>	<b>27</b>
Perform an EMV Download in Maintenance Mode.....	30
Testing the System.....	31
<b>Troubleshooting.....</b>	<b>31</b>

## Introduction

This manual was designed to go over the installation of C-Start EMV Reader 6800, including software information done prior to installation, previous hardware removal and EMV settings done in Sierra.

## Tools Required

- 11/32" Nut Driver
- 5/16" Nut Driver
- 5/16" Open End Wrench or Small Adjustable Wrench
- #2 Philips head Screwdriver (PH2)

## General Process

- Update C-Start Software
- Remove Old Card Reader & Modem Bracket
- Install VP6800 Card Reader, PDC Modem & Network Switch
- Remove any existing Line Splitters
- Connect Cables
- Attach to existing Store Network
- Set up EMV settings in Sierra
- Test a credit card transaction

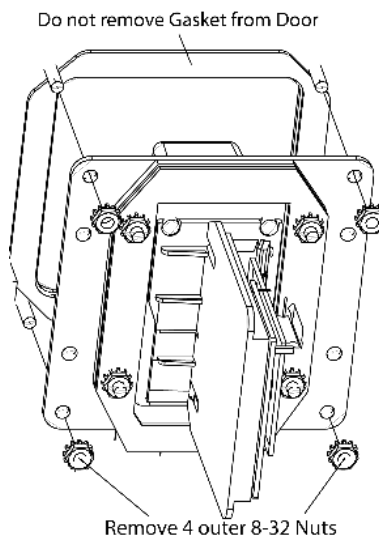
### Removing Components

#### Verifone XML Credit sites

If the site is using XML Credit, you will have to remove SA2402 (Verifone) or the SA3030 (Gilbarco) Linksys Router from the In Store network. The kiosk entry system will not have a Datacap Modem to remove.

#### Card Reader

1. Turn Power off to Unit.
2. Open door to Kiosk, locate card reader on the inside of the door, remove the cable connector connecting to the top of the card reader. Tie wrap securely to the harness above the reader slot.
3. Remove the four corner nuts from the rear of the card reader (retaining the plate) with a 11/32 Nut driver.

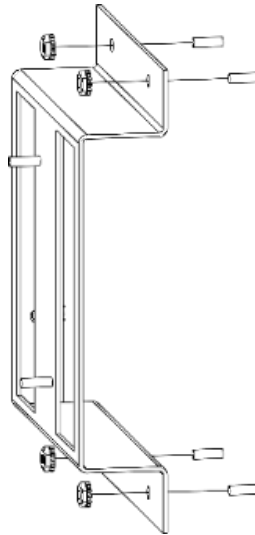


#### Modem bracket

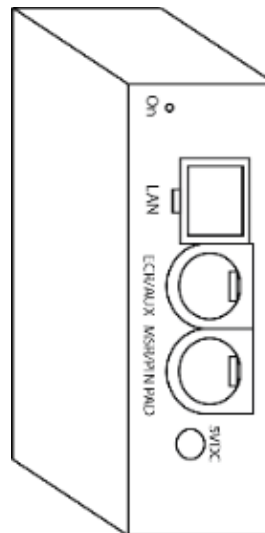
Only complete these steps if you currently have Datacap IPTran installed.

1. On top of the right interior wall, use a 5/16 nut driver to remove the 4 nuts and bracket mounting the modem. Retain the nuts.

Note: Some units may not have the bracket, or the modem may not be mounted inside the bracket. Other units will have No Modem nor bracket because the unit used the Gilbarco Link for Credit card authorization.



2. The modem should have the LAN (Ethernet) connection removed and the remaining cables left connected. If there is a label covering the MSR/Pin pad connection, you will need to remove it.

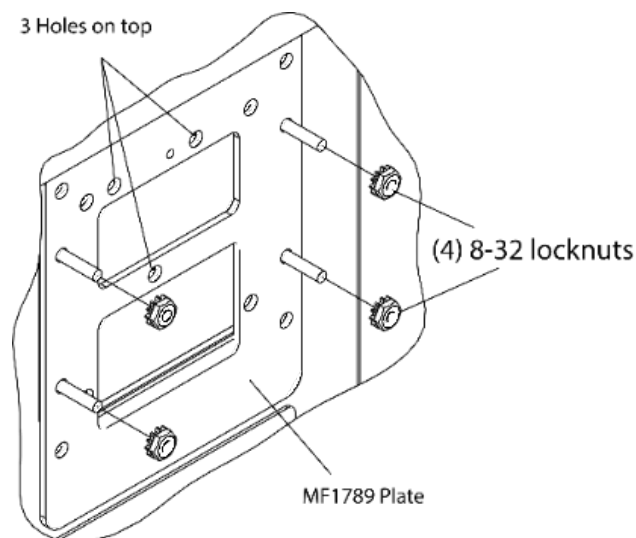


## Hardware Installation

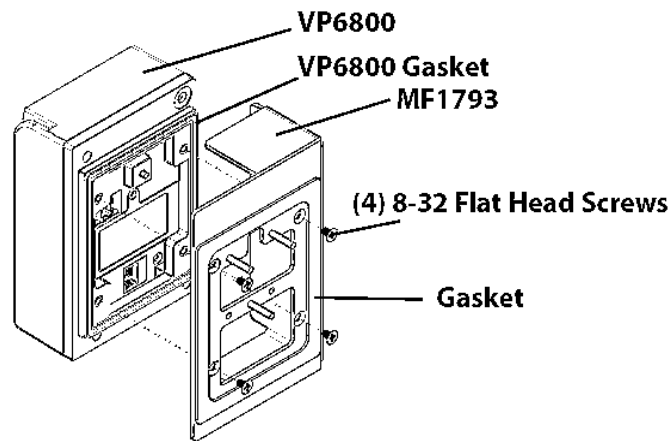
This section will go over installing the VP6800 EMV card reader onto the kiosk door. If you have any

### VP6800 EMV Card Reader

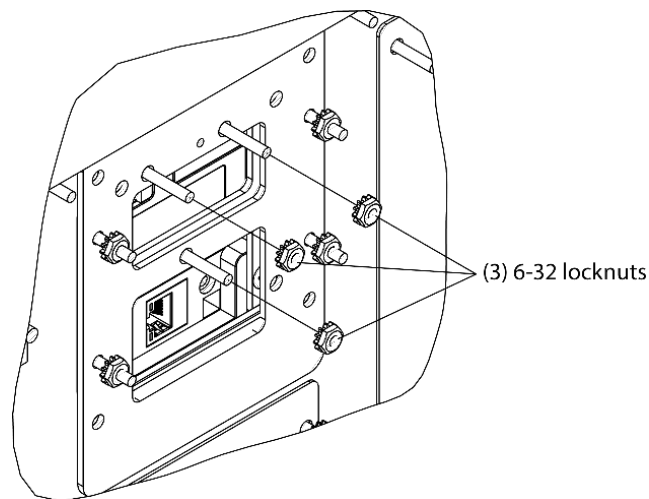
1. Locate MF1789 plate. This is the metal plate that does *not* have the 3 studs protruding from one side.
2. Place the plate onto the 4 studs on the rear door that match up with the 4 outer mounting holes. The side of the plate that says, "THIS SIDE TOWARD DOOR" should be placed facing the door. There should be more holes on the top of the plate than on the bottom of the plate.
3. Secure the plate to the door using (4) 8-32 Locknuts and an 11/32 Nut Driver.



4. Remove the reader from its box. Verify that the reader has a black gasket on the back of it. The gasket provides a rain seal between the reader and the metal plate it is mounted on. If it falls off during installation, note the gasket has a part that sits inside the channel in the plastic rear of the VP6800 reader (like desk/table T molding).
5. Locate the MF1793 bracket (side impact bracket). This will have 3 studs sticking out and a gasket mounted onto the back side with the studs.
6. Install MF1793 bracket onto rear of the VP6800 EMV reader using (4) 8-32x3/4" Flat Head Stainless Steel screws and a #2 Phillips head screwdriver. DO NOT USE the 4 pan head screws that came in the reader box. The three mounting studs that stick out should be on the TOP half of the plate facing the rear. If installed correctly, you should be able to see the RJ45 network jack as well as the white 2x6 Power/Serial Jack on the back of the VP6800.

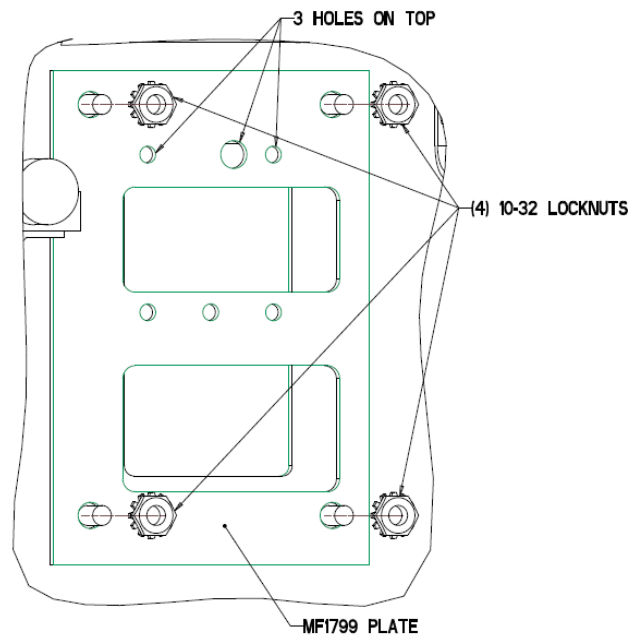


7. Insert the VP6800 reader from the front of the door so that the 3 studs of the MF1785 go through the matching holes on the top half of the MF1789. Secure studs to MF1789 using (3) 6-32 nuts and a 5/16" nut driver. Verify all (4) 8-32 Nuts and (3) 6-32 nuts are secure.

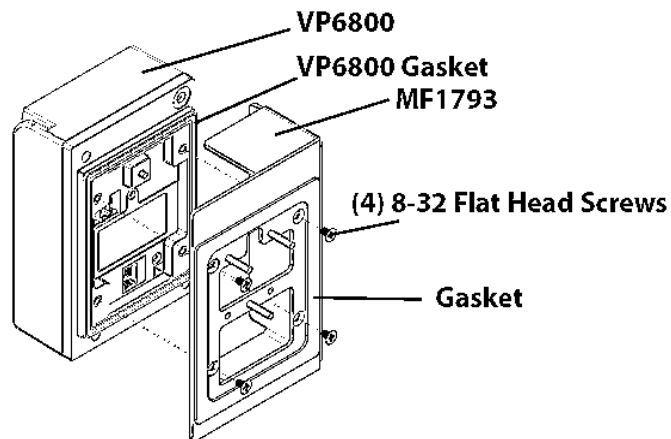


### VP6800 EMV Card Reader Mounting on Old Door MF26004

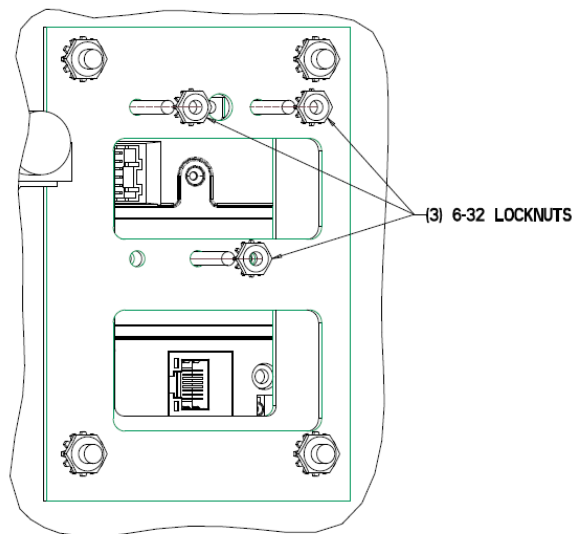
1. Locate MF1799 plate. This is the metal plate that does NOT have the 3 studs protruding from one side.
2. Place the plate onto the 4 studs on the rear door that match up with the 4 outer mounting holes. The side of the plate that has the part number marked should be faced towards you. There should be more holes on the top of the plate than on the bottom of the plate.
3. Secure the plate to the door using (4) 10-32 Locknuts and an 3/8 Nut Driver.



4. Remove the Reader from its box. Verify the Reader has a black gasket on the back of it. The gasket provides a rain seal between the reader and the metal plate it is mounted on. If it falls off during installation, note the gasket has a part that sits inside the channel in the plastic rear of the VP6800 reader (like desk/table T molding).
5. Locate the MF1793 bracket (side impact bracket). This will have 3 studs sticking out and a gasket mounted onto the back side with the studs.
6. Install MF1793 bracket onto rear of the VP6800 EMV reader using (4) 8-32x3/4" Flat Head Stainless Steel screws and a #2 Phillips head screwdriver. DO NOT USE the 4 pan head screws that came in the reader box. The three mounting studs that stick out should be on the TOP half of the plate facing the rear. If installed correctly, you should be able to see the RJ45 network jack as well as the white 2x6 Power/Serial Jack on the back of the VP6800.

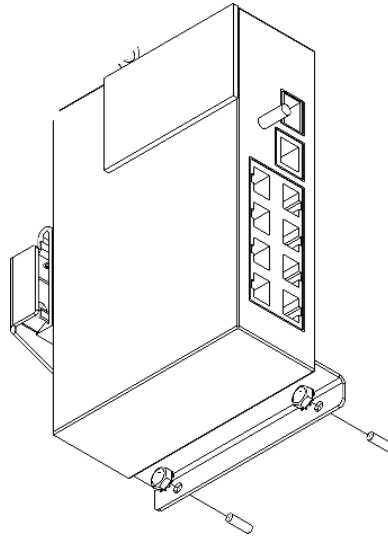


7. Insert the VP6800 reader from the front of the door so that the 3 studs of the MF1785 go through the matching holes on the top half of the MF1799. Secure studs to MF1799 using (3) 6-32 nuts and a 5/16" nut driver. Verify all (4) 10-32 Nuts and (3) 6-32 nuts are secure.

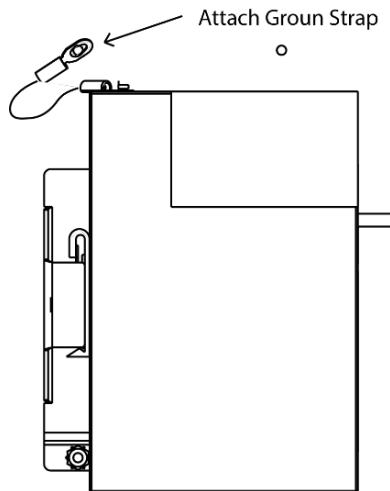


## Network Switch Bracket Assembly

1. Secure the Network Switch plate assembly onto the upper right interior wall using the bottom 2 studs. Use (2) 6-32 nuts and a 5/16 open end wrench to tighten.



2. Secure the grounding wire to the rear top stud above it using a 6-32 nut and a 5/16" nut driver onto one of the top two nuts above the switch assembly.



3. Place the modem in the pocket located on the right of the Switch, the connectors should be facing forward.
4. Plug the Modem power supply into a spare outlet on the power panel.
5. Plug the 48V power supply for the switch into the top of the Switch then into a spare outlet on the power panel.
6. Plug 5V power supply SA2708 from the kit into the green connector of CA2459.

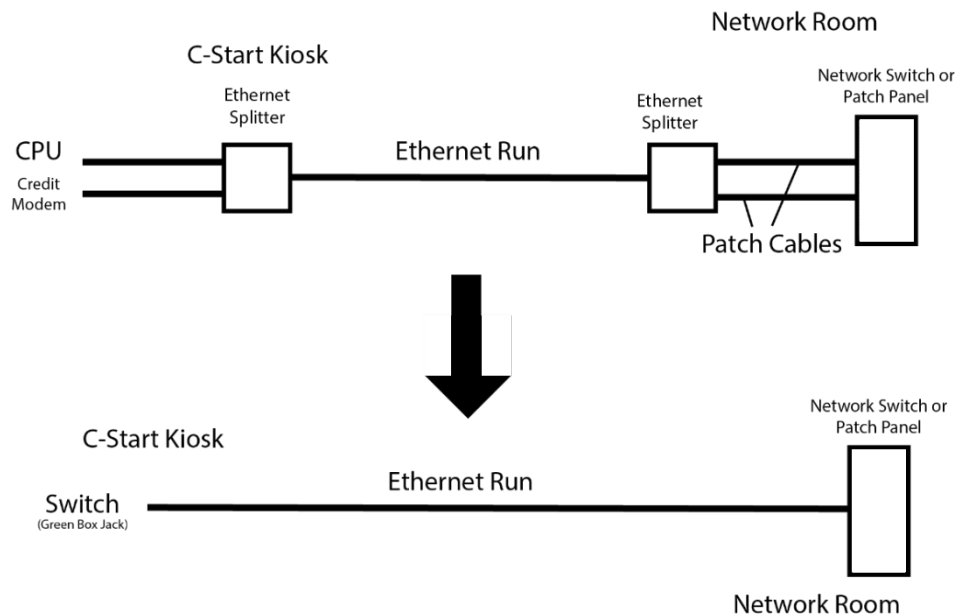
## Removing Ethernet Splitter

1. If there is currently an Ethernet Splitter installed that turns one Ethernet line into two, you **MUST** remove the splitter from both sides of the line. Remove the splitter from inside the C-start cabinet and the C-store/Network room. If a splitter is installed, it may look like the image shown below or similar.
2. If there are 2 separate Ethernet runs, you will simply need to hook one up to the Routers Green Box Jack.



Ethernet splitter

3. Plug the single Ethernet Cable back into the Router in the C-store and the Single Ethernet cable into the Green Boxed Jack on the Switch installed into the C-start.





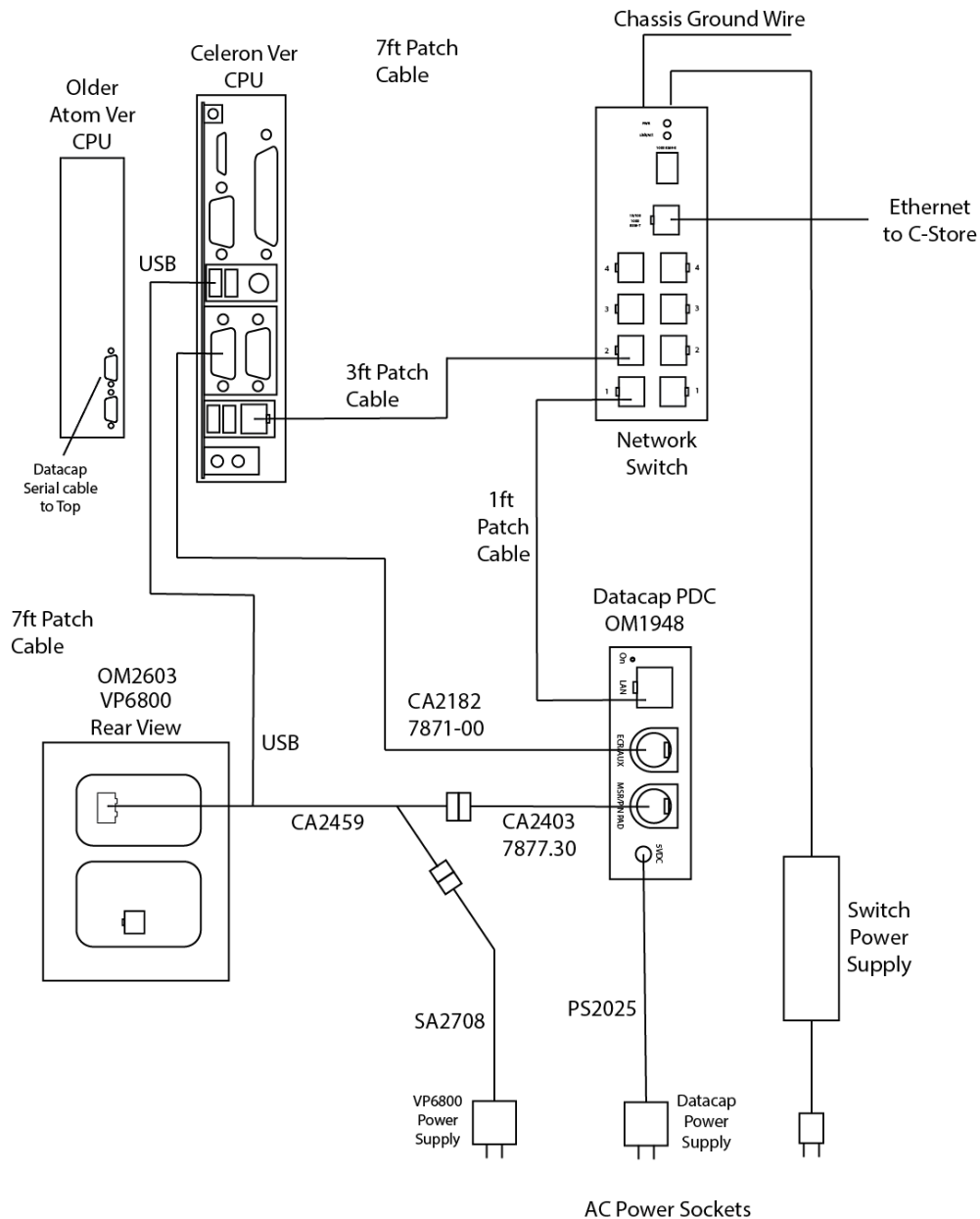
### Split Ethernet Run

In some locations, you may find that there are two Ethernet cable runs to the Kiosk. One of these cables goes to the DRB/Unitec Linksys router and the other to the C-store network (bypassing the Linksys). In this case, be sure to use the line that goes to the Linksys router and not the line that bypasses the Router.

## Cable Connections

Follow the Diagram below to connect the remaining cables. If there are two Ethernet cables going back to the C-Store, you should only connect one into the Switch. Follow the Cable Routing guide on the following page. (Note: If your kit was shipped with two 7 foot patch cables, you may substitute that cable for a 3 foot patch cable.)

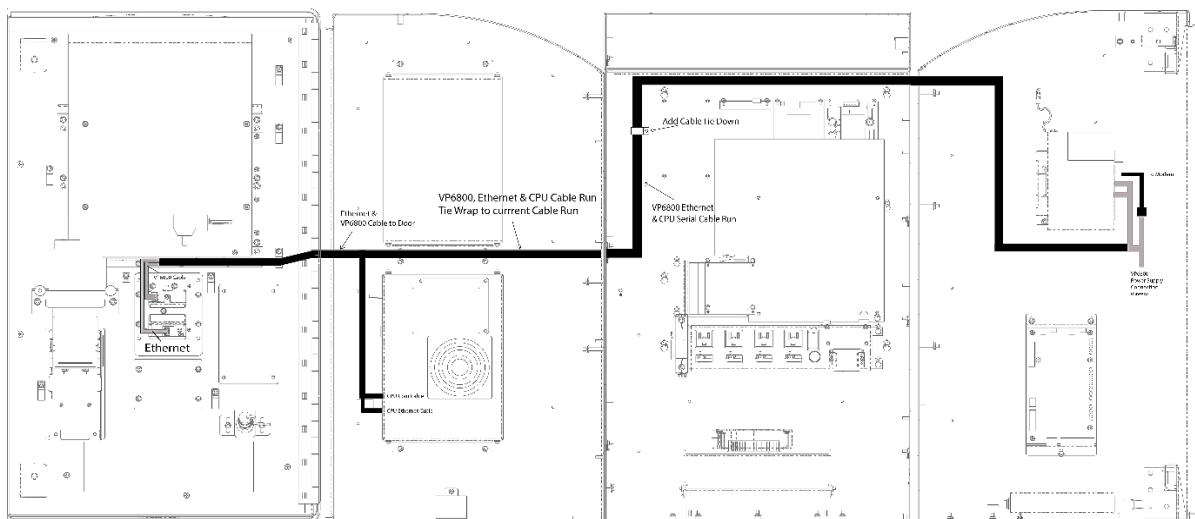
VP6800 EMV Connection Diagram  
Cstart or Sentinel



## Cable Routing Guide

Follow the diagram and steps below for the best routing of cables.

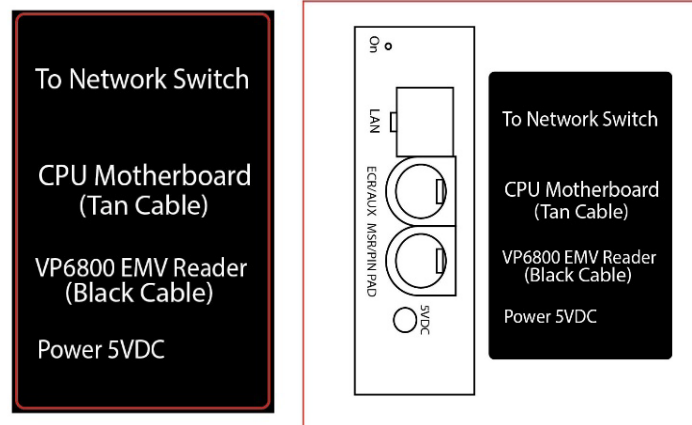
1. Use the tie wraps included in your kit to tie the new cables to the existing cable runs.
2. Make sure the cable that runs along the door hinge is able to move freely. The cable should be tie wrapped on both sides of hinge so that opening and closing door does not flex or pinch the connectors going to the VP6800 EMV reader.



## Installing Labels

Labels may have been included in your kit. To properly install them:

1. Place the smaller black label on the side of the Datacap Modem. Make sure the text for “To Network Switch” aligns with the RJ45 Network Jack.
2. Place the larger label on the right wall of the cabinet. The label should be visible near the Modem.



## MN1017 1.79.13 Thumb Drive Update Instructions

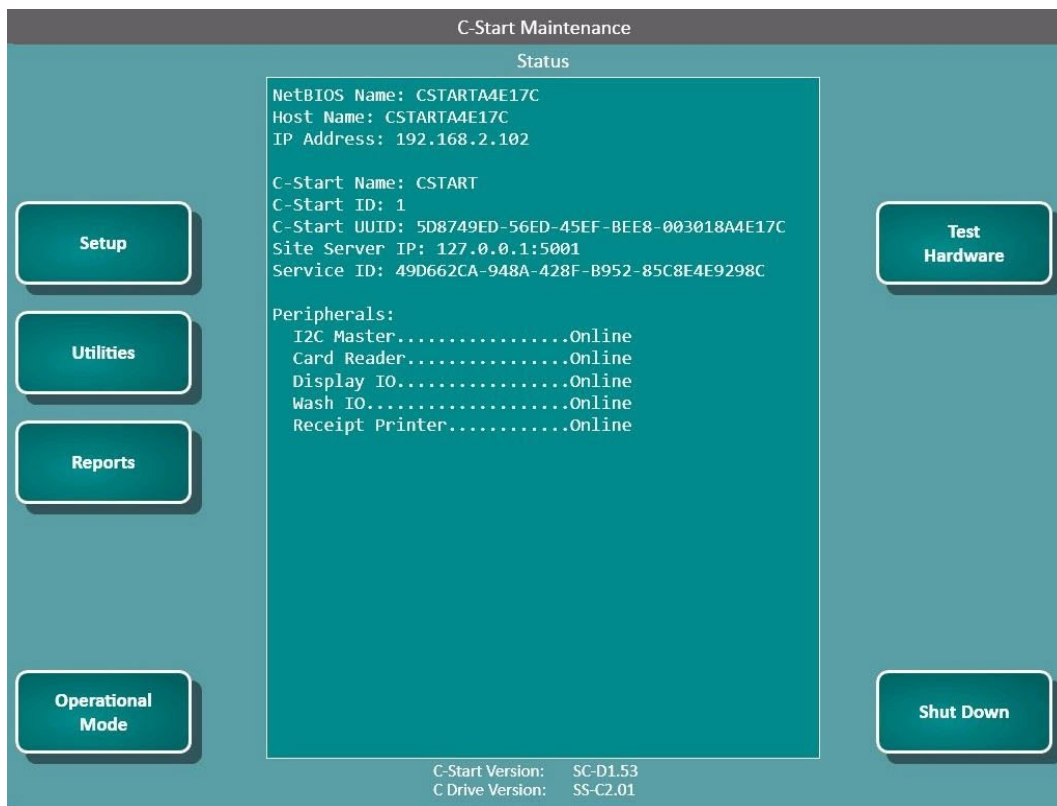
**NOTE:** This update requires minimum hardware versions: Atom processor, 2GB RAM, and a Solid State Drive, and a minimum software version of Sierra 1.63. If you do not have these items installed, contact Customer Service at 443-561-1200.

If you have a site with primary and secondary units, you must first perform the following steps on the secondary units. If you have no secondary unit, skip to the [Primary Unit Procedures](#) to update the primary unit.

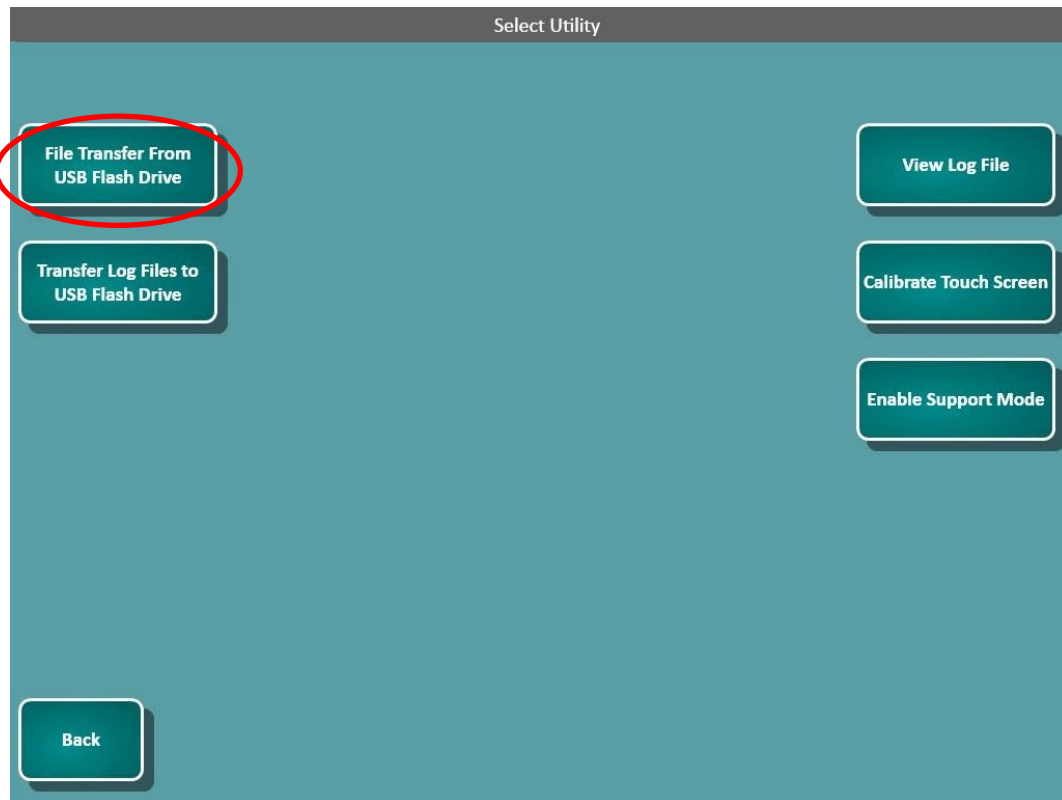
### Secondary Unit Procedures

Perform the following software update on all secondary units:

1. Open the Maintenance screen by entering the code 4401 and log into unit.

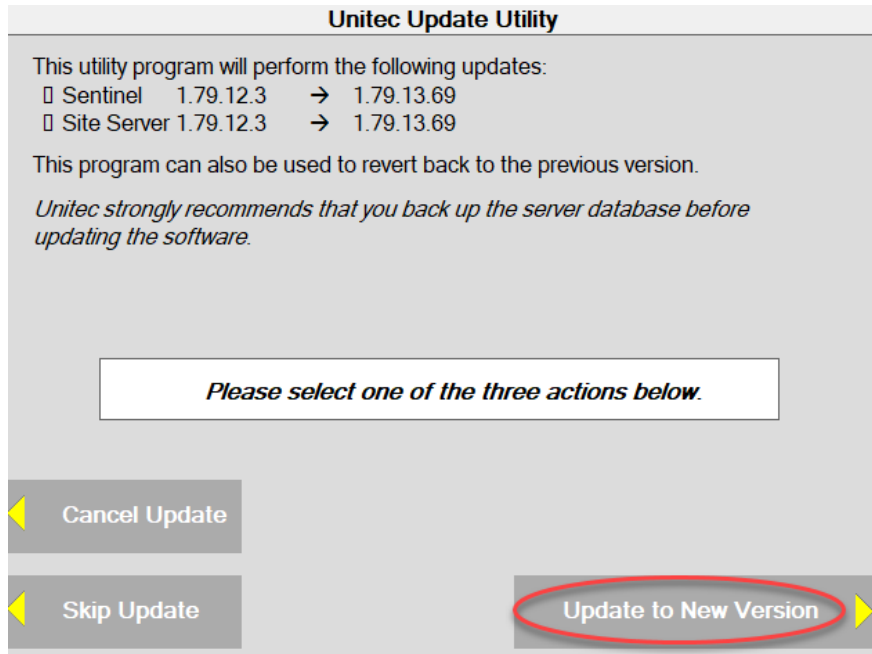


2. Insert the software update thumb drive into the USB slot on the Main Processor Assembly.
3. Select *Utilities* from the Maintenance menu.



**File Transfer Screen**

4. Press *File Transfer From USB Flash Drive*.
5. Press *Begin* to start the transfer. The file transfer will take approximately 2 minutes. When the screen says the “transfer is complete”, remove the USB thumb drive.
6. Press *Back*. Press *Back* again to return to the Maintenance menu.
7. Press *Shutdown*, then press *Restart*. The unit will restart and launch the Update Utility.
8. Follow the on-screen prompts.



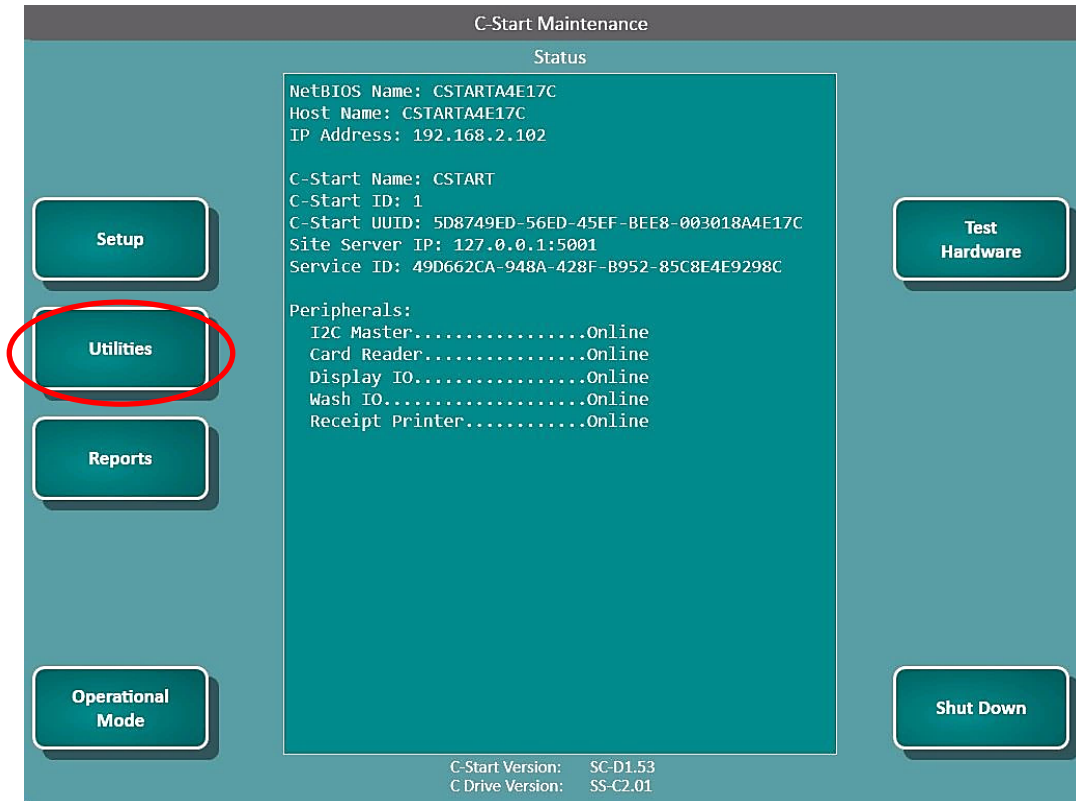
**Sample Software Update Utility Screen**

9. Press *Update to New Version* to upgrade to the newest version.
  - a. If the kiosk is running Windows 7, a pop-up screen will appear. Select *Yes* on this screen. The new version's installation progress will be noted in the Progress Bar. When the update is complete, press *Exit* to start the unit.
  - b. If the kiosk is running Windows 10, the kiosk will reboot. After rebooting, an updater pop-up screen appears. Select *Yes* on this screen. The new version's installation progress will be noted in the Progress Bar. When the update is complete, press *Exit* to start the unit.
10. Remove the thumb drive. Repeat the update process on all secondary units, using the same thumb drive.

## Primary Unit Procedures

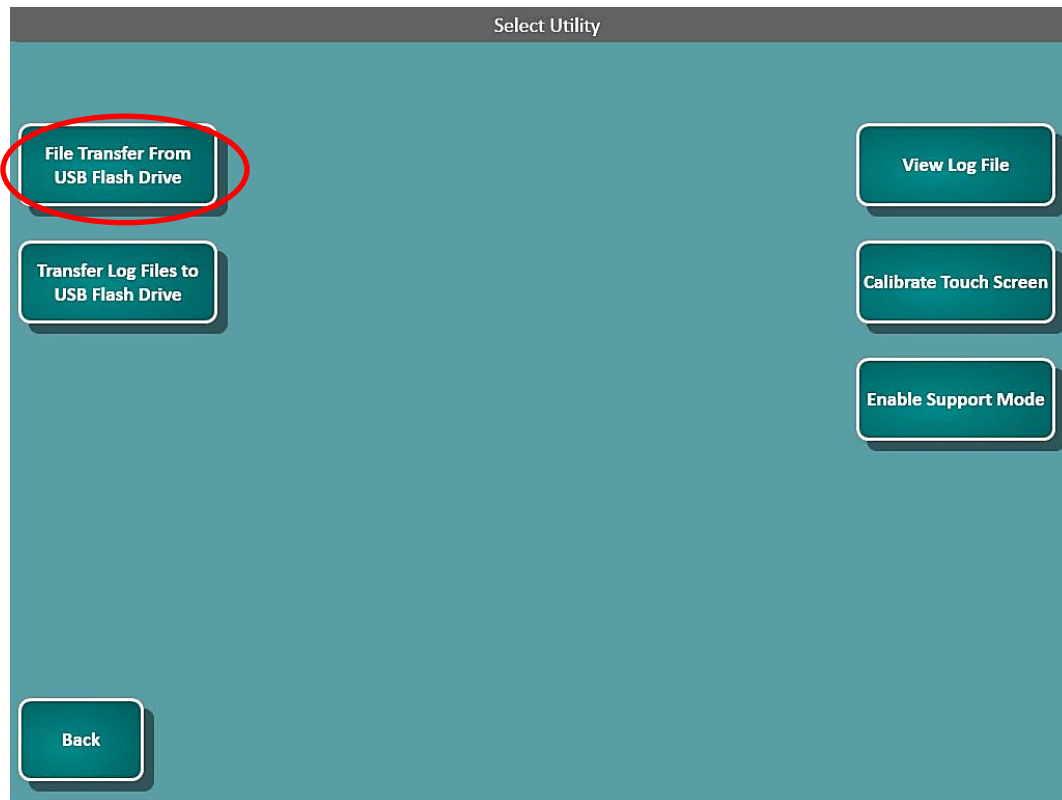
Once the secondary units are updated (or if you have no secondary units), perform the following steps on the Primary unit.

1. Bring up the Maintenance screen by entering the code "4401". Log into the unit.



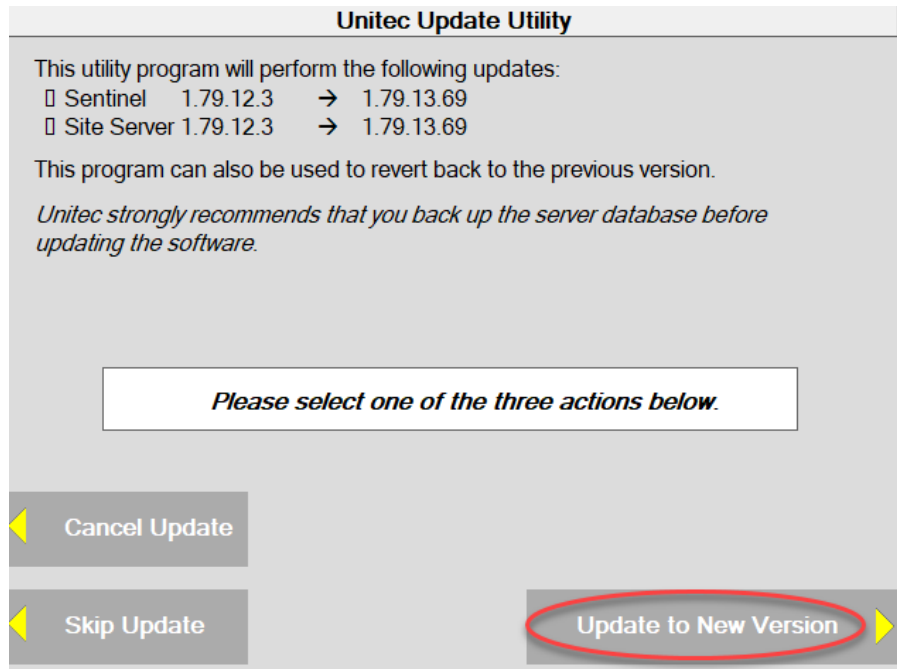
**Main Maintenance Screen**

2. Insert the same thumb drive into the USB slot on the Main Processor Assembly.
3. Press *Utilities* from the Maintenance menu.



**File Transfer Screen**

4. Press *File Transfer From USB Flash Drive*.
5. Press *Begin* to start the transfer. The file transfer will take approximately 2 minutes. When the screen says the “transfer is complete”, remove the USB thumb drive.
6. Press *Back*. Press *Back* again to return to the Maintenance menu.
7. Press *Shutdown*, then press *Restart*. The unit will restart and launch the Update Utility.
8. Follow the on screen prompts.



**Software Update Utility Screen**

9. Press *Update to New Version* to upgrade to the newest version.
  - a. If the kiosk is running Windows 7, a pop-up screen appears. Select *Yes* on this screen. The new version's installation progress will be noted in the Progress Bar. When the update is complete, press *Exit* to start the unit.
  - b. If the kiosk is running Windows 10, the kiosk will reboot. After rebooting, an updater pop-up screen appears. Select *Yes* on this screen. The new version's installation progress will be noted in the Progress Bar. When the update is complete, press *Exit* to start the unit.
10. Remove the thumb drive.
11. The kiosk will reboot again then restart in normal operational mode.

**It is not unusual for software updates to take up to 10-15 minutes to install. The unit will reboot several times during the update process. You may also see a blank screen with a blinking cursor during the update – this is normal! If the update takes more than 30 minutes to complete, contact Customer Service at 443-561-1200.**

**NOTE:** Depending on which version of Sierra was previously in use before the software upgrade, the user may be prompted to update their password after the upgrade has finished.

## Software Version Check

Verify that the current software is 179.13 or higher. If it is not, you will need to update it from the Software Updater Section.

Login to Maintenance mode then access the Web Set up for Sierra Server. To do this, you need a keyboard & Mouse/Trackball connected to the Kiosk or you need to have a local Web connection to the Sierra Server web page.

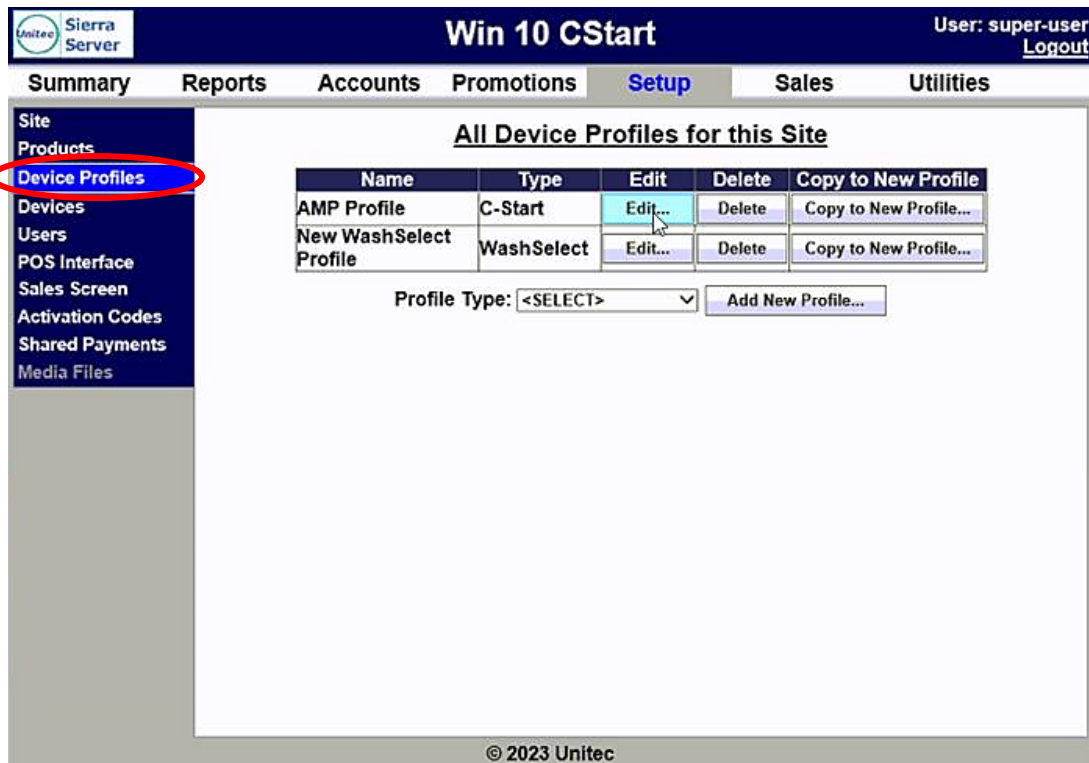
## Changing settings to EMV/Tran-EMV

### Setting Site to EMV

1. Select Setup-> Site [Edit]
2. Select *Edit Credit/Gift Configuration*
3. Set Type to EMV
4. Hit *Save*

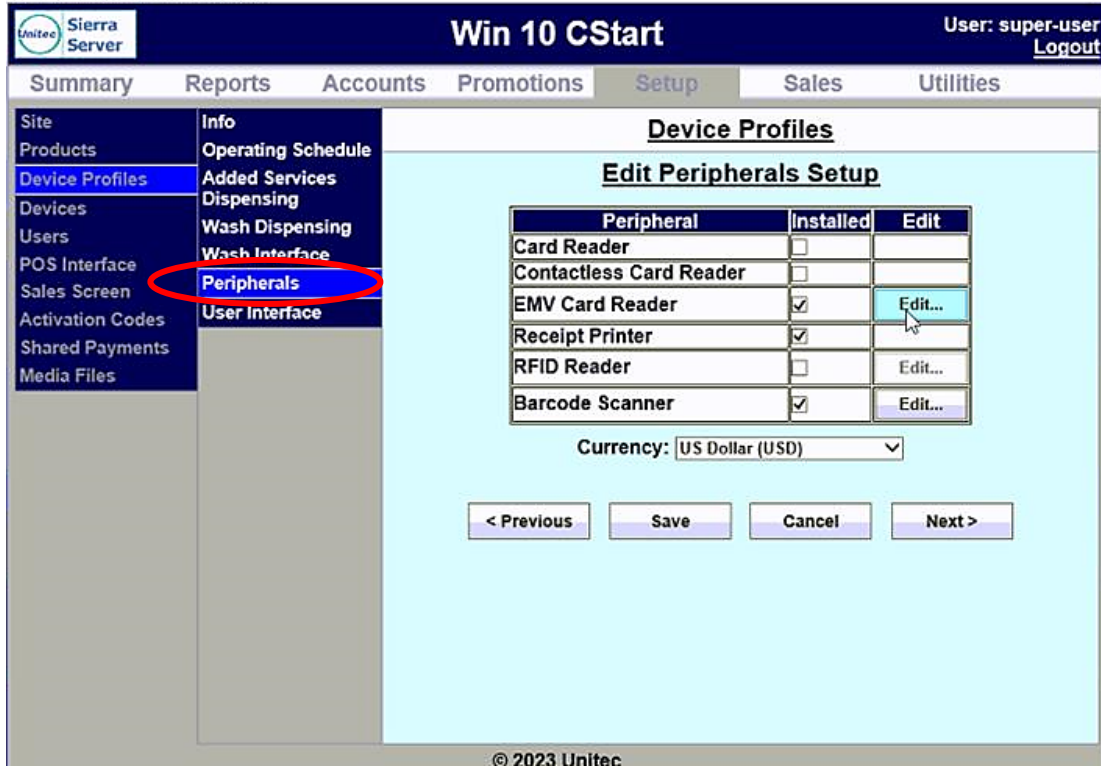
### Setting each Kiosk to Tran-EMV

5. Select *Devices Profiles* from the left menu, then click *Edit* on the Kiosk you are changing.



Device Profiles Screen

6. Select *Peripherals*, then check the box in the “Installed” column next to “EMV Card Reader”. Then click *Edit*.



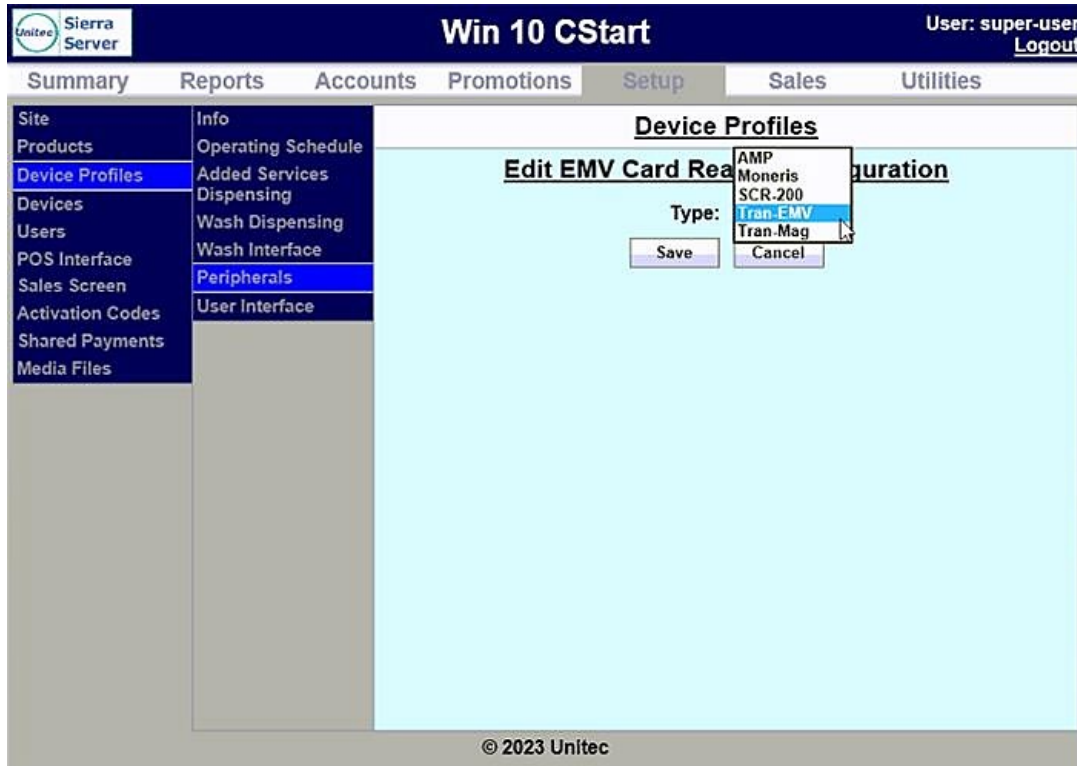
The screenshot shows the 'Win 10 CStart' application interface. The top navigation bar includes 'Summary', 'Reports', 'Accounts', 'Promotions', 'Setup', 'Sales', and 'Utilities'. The 'Setup' tab is active. On the left, a sidebar lists various setup categories, with 'Peripherals' highlighted. The main content area is titled 'Device Profiles' and 'Edit Peripherals Setup'. It contains a table with the following data:

Peripheral	Installed	Edit
Card Reader	<input type="checkbox"/>	
Contactless Card Reader	<input type="checkbox"/>	
EMV Card Reader	<input checked="" type="checkbox"/>	Edit...
Receipt Printer	<input checked="" type="checkbox"/>	
RFID Reader	<input type="checkbox"/>	Edit...
Barcode Scanner	<input checked="" type="checkbox"/>	Edit...

Below the table, there is a 'Currency' dropdown menu set to 'US Dollar (USD)'. At the bottom, there are four buttons: '< Previous', 'Save', 'Cancel', and 'Next >'. The copyright notice '© 2023 Unitec' is visible at the bottom of the window.

**Edit Peripherals Setup Screen**

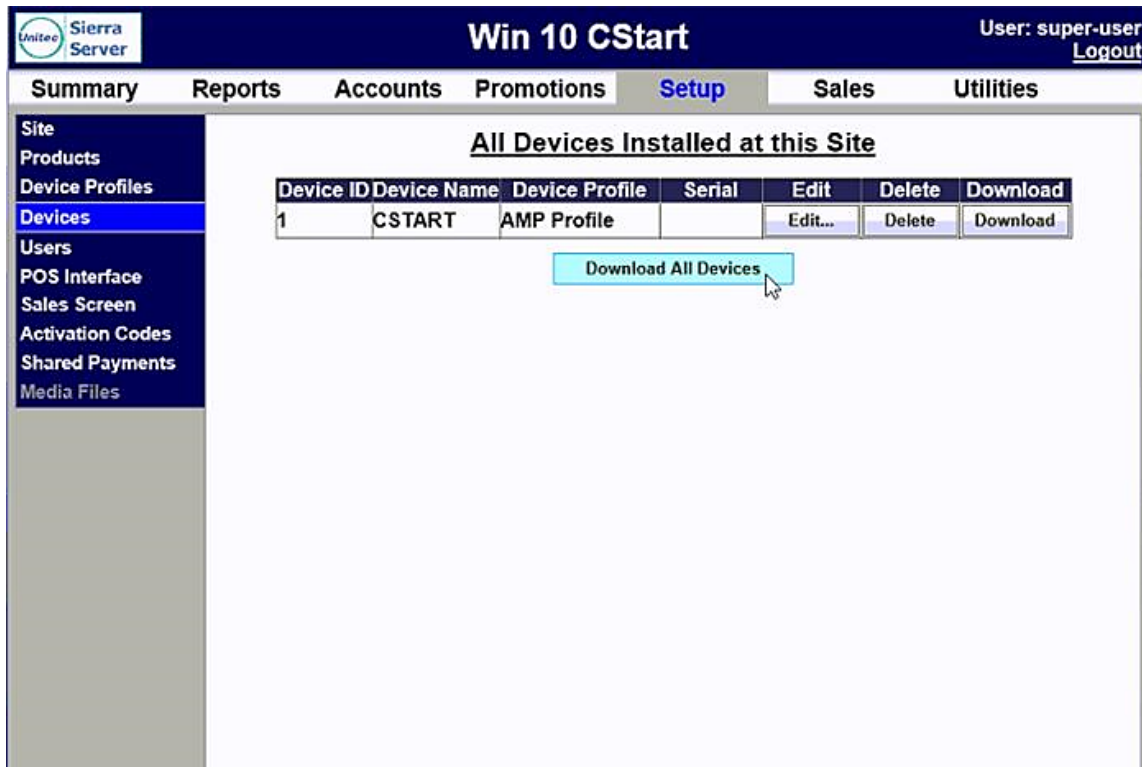
7. Set type to “Tran-EMV” from the drop-down menu, click *Save*.



**Edit Card Reader Configuration Screen**

8. Click “Save” on Edit Peripherals Setup

9. Select *Devices* from the left menu. Click *Download* next to the device you are changing. If Dual bay and you have installed the PDC into the secondary, click *Download All Devices*.



**Download Devices Screen**

10. Once the Cstart has restarted and it is back to the Greeting screen, this step is complete.
11. You should now do a shutdown/Restart.

## Verifying Modem Connectivity

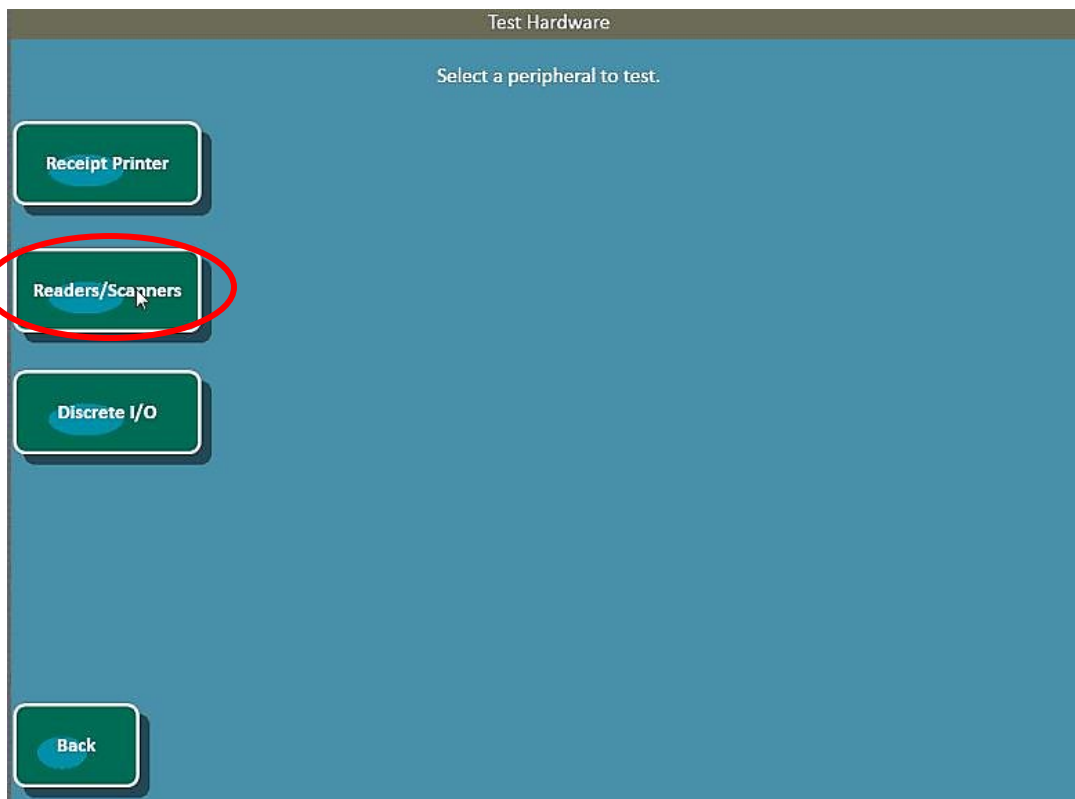
Before verifying the modem connectivity, please ensure the following is complete:

- a. The Merchant account has already been set up with Priority wash.
- b. The Tran Device ID for the unit and site information has been given to DRB In-Bay Merchant Services.

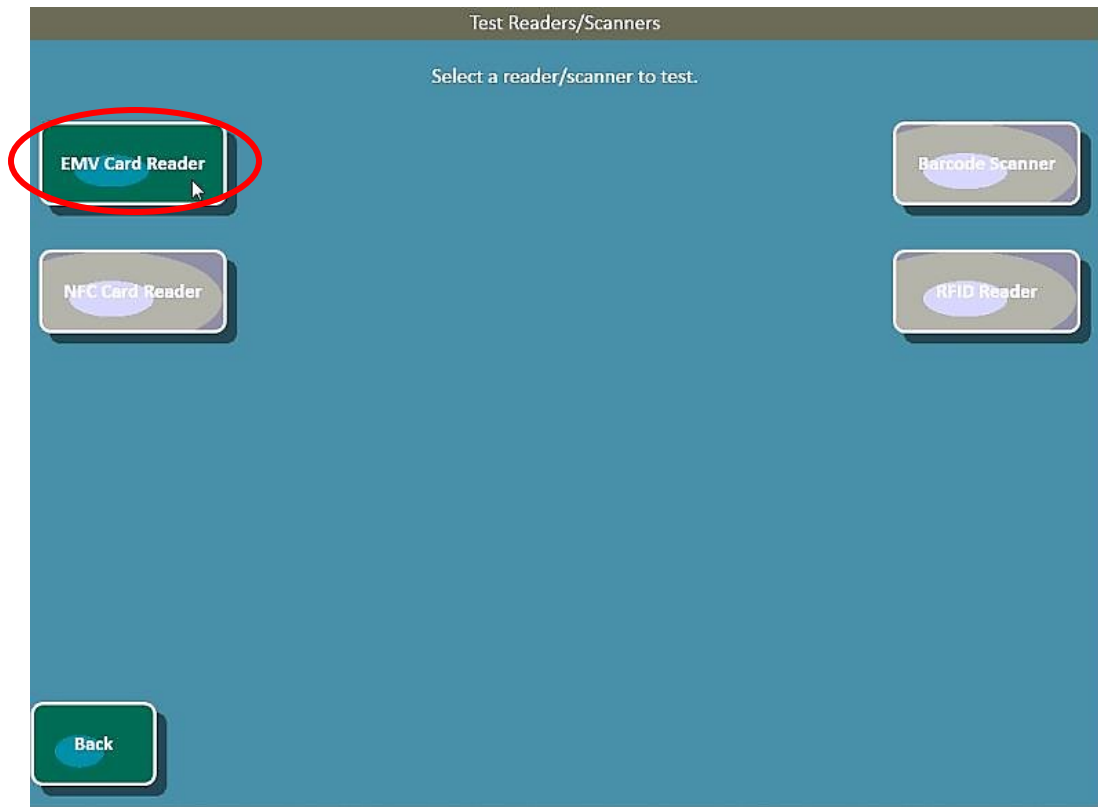
If any of the above has not been done, the following tests will fail. The PDC is updated on a power cycle with Merchant information. Once it has been set up, only one or two power cycles will be needed to update the modem to communicate and work properly.

### Procedure:

1. On the Kiosk, Enter Maintenance mode.
2. Select *Test hardware* then select *Readers/Scanners*.



3. Select *EMV Card Reader*.



4. Version should show on the top left as "IPE EMV CLIENT RENTAL VER: 4.xx SL"

Tran EMV Card Reader Test

**Peripheral Info**

Name: EMV Card Reader

**IDTRAN WITH DATATRAN EMULATION**

**IPE EMV CLIENT RENTAL VER: 4.28 SL**

MEMORY CARD INSTALLED:

DEVICE ID: PT7367371098

HARDWARE REV: 3

BD: 2000000000

WINCE VERSION: 7.0

LOAD SIGNATURE: HDGHDHBAJIECIEMV

**Peripheral Status**

Online: Yes

IP ADDRESS: 192.168.2.101

SUBNET MASK: 255.255.255.0

DEFAULT GATEWAY: 192.168.2.1

DNS1: 10.98.2.14

DNS2: 8.8.4.4

MAC ADDRESS: 00CF78018E21

3/8/2023 07:11:37

Message: Status received

Card Prefix:  Last 4 digit:

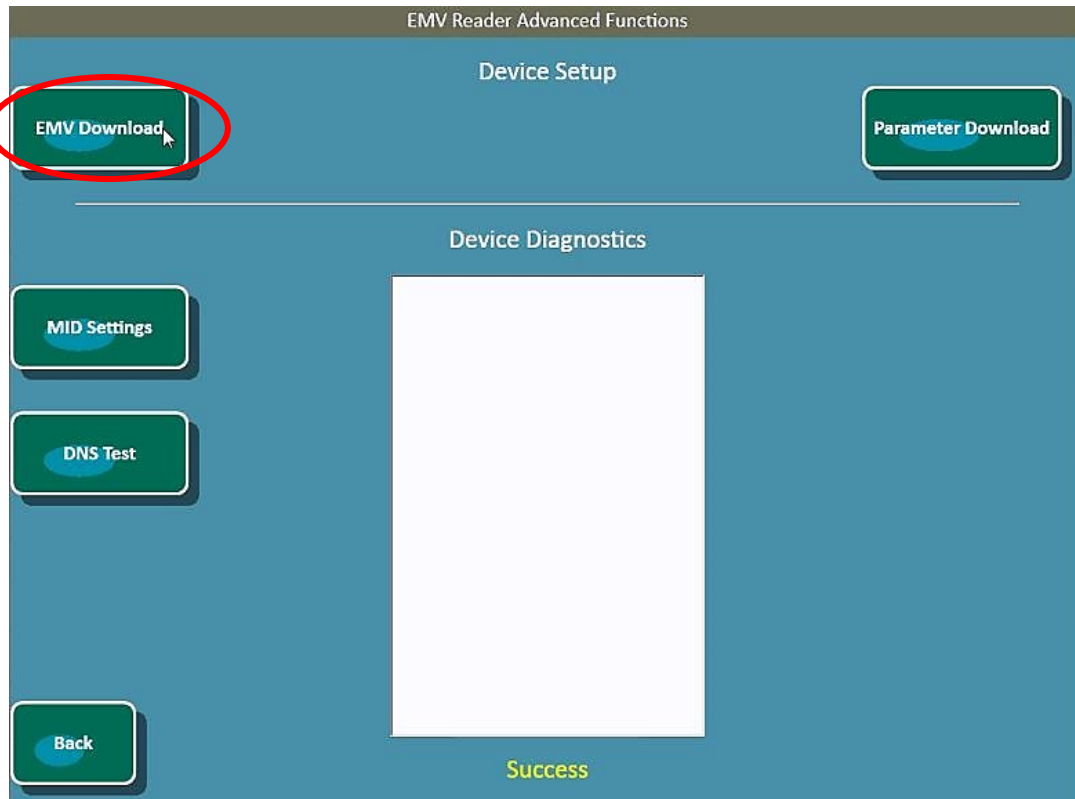
**Swipe Test**

**Back** **Advanced**

If the Card Reader button is grayed out, or the "EMV reader= Ok" does not appear on the Maintenance screen when entering Maintenance mode, do a restart and try again. If this still does not work, contact DRB-In Bay Merchant Services to verify the PDC Device ID is set up. Have the Device ID and site information ready for the representative.

## Perform an EMV Download in Maintenance Mode

1. In the Advanced screen, click on *EMV Download*.



Should show VP6800 screen will show its updating and then less than a minute after the 6800 screen shows its done, should show “Success” in yellow text on the bottom of the Cstart screen.

2. View MID settings. If the MID settings are 0's/ not populated, or the Gateway test failed, then have Tech on site power cycle the modem then do a parameter download again.



### Testing the System

Technician should Perform a Credit transaction with a known good Master Card or Visa chip card (Do not test with an Amex or Discover chip card).

If there is a credit decline, Contact the DRB SCE for further assistance. Log files should be viewed to indicate troubleshooting steps.

### Troubleshooting

When the PDC powers on, the blue light on the side will flash until it gets a connection to the local area network (the DRB Linksys Router). The blue light will remain solid when it has a stable connection. If this does not happen, the PDC will not update or function properly. If no light illuminates at all or the PDC does not respond to serial commands in Tran-EMV or Tran-Mag, replace the PDC with a new one. The distributor must give the Device ID to DRB in Bay Merchant Services. Once merchant services receive the Device ID, it may take up to one business day to complete troubleshooting.

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