



**IDTECH™**  
Value through Innovation

**ViVOPay®**

*iris VRX, User Guide*

Revision 1.0



ID TECH  
10721 Walker Street  
Cypress, CA 90630  
United States (408) 248-7001  
URL: <http://www.idtechproducts.com>

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ID TECH  
10721 Walker Street  
Cypress, CA 90630  
United States

Written and designed at ID TECH, Inc.

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## Overview

The ViVOPay Vend 3 seamlessly integrates with existing vending systems and fits into a standard bill changer opening. The ViVOPay Vend 3 is a PCI-certified unattended NFC contactless reader with integrated display, MSR, function keys, contact card reader, and optional PIN pad connectivity. This device features serial RS-232 and USB 2.0 communications to POS systems as well as an Ethernet port. The ViVOPay Vend 3 complies with ISO/IEC 18092 and supports the full peer-to-peer NFC feature set.

ViVOPay Vend 3 is certified for the following contactless payment applications:

- PayPass ISO/IEC 144443
- MasterCard PayPass Magstripe v3.3
- Visa payWave MSD v2.0.2
- American Express, ExpressPay v1.0
- Google Wallet
- Discover Zip v1.0
- Mifare ePurse (Passthrough)
- ViVOCARD 1 and 2

ViVOPay Vend 3 also fully supports magnetic stripe applications and can support debit/credit PIN transaction through the optional PIN pad connectivity.

This document assumes that users are familiar with their host POS systems and vending machines.

## Features

The following features are supported:

- PCI certified
- ISO14443 type A/B and Mifare based contactless payment transactions
- ISO 18092 support for peer-to-peer NFC devices and smartphones
- PIN entry for PIN debit transactions (optional)
- Three-track magnetic stripe card transactions
- One SoftSAM and three SAM card slots
- Contact card slot
- 10 Base-T Ethernet port
- PIN pad port

## Options

The following options are available:

- PIN pad

## Unpacking the ViVOpay Vend 3, iris VRX

The ViVOpay Vend 3,iris VRX requires a data cable and a power supply. Verify that you have all the required components for the installation.

<p>ViVOpay Vend 3, iris VRX (P/N 540-0717-XX*)</p> <p>*XX designates variations of the base model.</p>	
<p>Data and Power cables (varies by length)</p> <ul style="list-style-type: none"> <li>• Serial Data Cable (P/N 220-2467-XX*)</li> <li>• USB Data Cable (P/N 220-2466-XX*)</li> </ul> <p>These cables are recommended and approved by ID TECH to comply with FCC rules and regulations.</p> <p>*XX designates cable length.</p>	
<p>Power supply</p> <ul style="list-style-type: none"> <li>• US/North America (P/N 140-2035-00)</li> <li>• Europe (P/N 140-2035-01)</li> <li>• United Kingdom (P/N 140-2035-02)</li> <li>• Australia (P/N 140-2035-03)</li> </ul> <p>This power supply is recommended and approved by ID TECH to comply with FCC rules and regulations.</p>	

You may also need the following:

- Four M3 screws
  - If you want to secure the reader to a surface, you need four M3 screws of the appropriate length (not supplied).
- Contactless test card (ViVocard Contactless Test Card P/N 241-0015-03)

The ViVotech data cables and power supply are specifically designed to meet FCC requirements. If you are using other cables or power supply, you may be required to install ferrites. For your free ferrite core kit with installation instructions, please contact ViVotech support.

## Accessories

The following accessories are available for the ViVOpay Vend 3.

Part Number	Description
520-XXXX-XX	PIN pad



# Chapter 2

## Installing the ViVOpay Vend 3

### Overview

Before you connect and mount the ViVOpay Vend 3, iris VRX you should plan the installation to conform to PCI requirements and minimize radio frequency interference. Once you have determined the location and mounting of the ViVOpay Vend 3, iris VRX, you can connect it to power and the POS terminal. Finally, you should test ViVOpay Vend 3, iris VRX to make sure the installation is successful.

### Site Planning

Several environmental considerations affect how you install the ViVOpay Vend 3, iris VRX. If you are using the PIN pad option, PCI certification has specific restrictions on how the PIN pad is positioned to prevent PIN theft. You should also consider objects and devices near the reader that may affect the performance of the contactless radio frequency antenna.

### PCI PED Compliance with the PIN Pad

The ViVOpay Vend 3, iris VRX is a PCI certified payment device. When it is used in conjunction with a PIN pad, PCI certification requires that sufficient protection be provided to ensure that entering a PIN number CANNOT be viewed by a third party (such as another customer standing nearby or a security camera).

To fully implement PCI make sure you consider the following.

1. The ViVOpay Vend 3, iris VRX pad must be in a location that will NOT force a customer to enter a PIN that can be viewed by a third party.
2. If the ViVOpay Vend 3, iris VRX PIN pad is in view of a security camera, shielding must be provided to prevent a PIN being viewed by a third party observing the camera monitor.

**WARNING:** PCI requires that the device be mounted so that the PIN entry cannot be observed by a third party (such as another customer standing in line, the cashier at the counter, or a security camera mounted in the ceiling to observe the cash register area). If the PIN entry can be observed, the vending machine owner may be responsible for any losses incurred by the customer if it can be determined that the customer's PIN was stolen at that location.

### PCI Compliance Guidelines

Before completing the installation, you must verify the ViVOpay Vend 3, iris VRX PIN pad is positioned so that the PIN entry is not visible to other customers or video surveillance cameras. If PIN entry is visible, ViVOpay Vend 3, iris VRX PIN pad must be repositioned or shielding added until PIN entry cannot be observed.

The following sample tests usually require at least two people—one to simulate entering the PIN while the other attempts to view the keypad. For detailed information on PCI compliance, consult PCI compliance documentation.

#### Can Another Customer View the PIN?

While one person positions their hand to enter the PIN, the other tester should try to observe the keypad from behind and beside the first person.

**Can the Video Camera View the PIN?**

While one person stands at ViVOPay Vend 3, iris VRX with their hand positioned to enter the PIN, the other tester should observe what is being recorded by any video camera with a view of the ViVOPay Vend

3. This may require playing back a recording to see if PIN entry is visible. If the video camera is moveable, the second person should move the video camera to determine if there is a position where PIN entry can be observed.

**Retesting Requirements**

If PIN entry on the ViVOPay Vend 3, iris VRX pad is observable in these tests, you must provide shielding and completely retest all locations to verify that PIN entry is not visible.

**Radio Frequency Interference**

To perform contactless transactions, the ViVOPay Vend 3, iris VRX uses a radio frequency antenna. The range (reading distance) and performance of the reader can be affected by other radio frequency emitters and proximity to metal.

For best performance, adhere to the following guidelines:

- Do not position the ViVOPay Vend 3, iris VRX closer than 1 foot (30 cm) to ViVOPay readers or other RF-emitting devices (non-NFC). Some environments may require greater distances.
- Do not position the ViVOPay Vend 3, iris VRX near radio transmitters.
- Avoid placing the ViVOPay Vend 3, iris VRX on or near large metal objects.

**User Access**

The ViVOPay Vend 3, iris VRX is design for unattended use. Is is important to consider the following factors when planning the location of the reader.

- Clear visibility of the display
  - Anticipate the angles at which the user may be viewing the display to maximize visibility.
- Make sure the user can easily reach the reader
  - Provide access to the reader to push buttons and tap or swipe cards.
- No obstructions in the MSR swipe path
  - Make sure nothing is blocking the entrance or exit of a card passing through the MSR.



## Installing the ViVOpay Vend 3

This section describes how to install the ViVOpay Vend 3, iris VRX. The basic steps are:

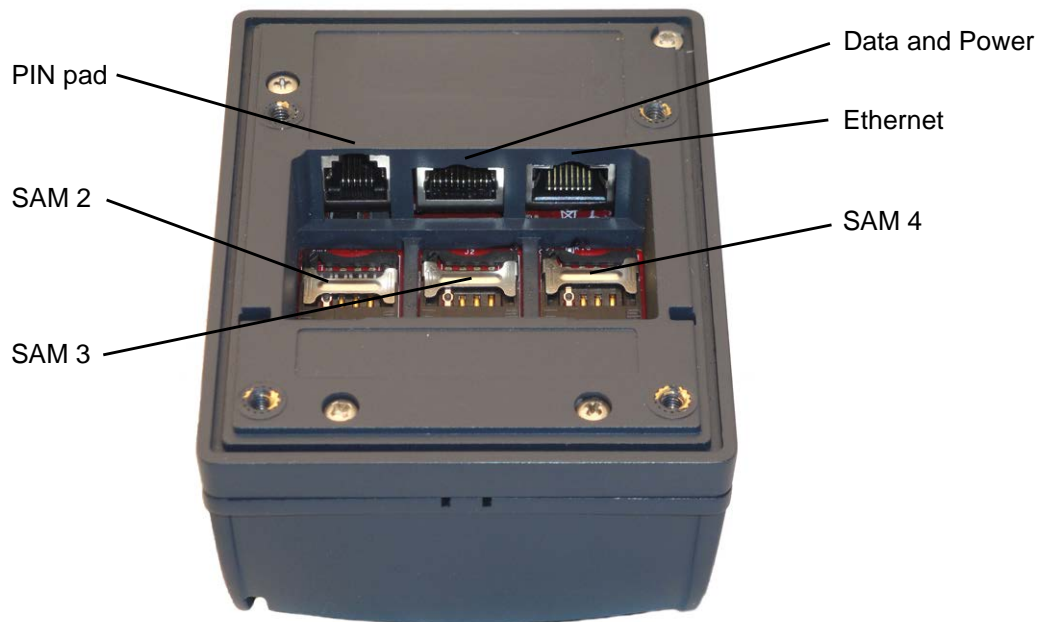
- Install SAMs if required
- Connect to power and POS
- Mount
- Test the installation

### Connector and SAM Access

The ViVOpay Vend 3, iris VRX connectors and SAM slots are on the bottom of the reader.

#### To access the connectors

1. Turn over the ViVOpay Vend 3, iris VRX so that the connectors and SAM slots are visible.



### Install a SAM Card

All ViVOpay Vend 3, iris VRX models have three SAM card slots in addition to one SoftSAM. In Advanced Reader Firmware, the SoftSAM is SAM 1. Consequently, the physical SAMs are labeled SAM 2 through SAM 4, left to right. If you are using a SAM card(s) in your application, insert the SAM card as described in the following steps.

**Warning:** Do not insert or remove a SAM card while the ViVOpay Vend 3, iris VRX is powered. This will cause permanent damage to the SAM card.

#### To install a SAM card

1. Use your fingernail to slide the lock bar down, away from the connectors, and pull the SAM cage away from the closed position. The cage hinges on the edge furthest from the connector ports.

2. Insert the card with the contacts facing the bottom of the SAM cage. The cut corner of the SAM should be positioned shown below.



3. Press the cage into the closed position. The cage will snap into place.
4. Slide the lock bar up, towards the connectors, to lock the SAM in position.

## Connect Data and Power

There are connectors for Ethernet, data and power, and PIN pad in back of the ViVOPay Vend 3, iris VRX. The connections you need to make are dependant on your specific POS configuration and application. The power is received on the data connector.

Data cables are available in 1, 2, and 3 meter lengths (part numbers ending in -00, -01, -02 respectively). The pinouts for the POS side of the data cables are given in the tables below.

### RS-232 (220-2467-0X)

DB9 Pin Number	Description
1	No connect
2	RS-232 Tx
3	RS-232 Rx
4	No connect
5	GND
6	No connect
7	No connect

DB9 Pin Number	Description
8	No connect
9	Power 7.5 - 45 VDC

#### USB (220-2466-0X)

USB Pin Number	Description
1	VBus
2	Data - (DM)
3	Data + (DP)
4	GND
5	GND
6	Power 12 VDC

#### To connect data and power

1. Connect your data cable to the RS232/USB port.



2. Connect the other end to the host system. Refer to the pinouts given above if needed.

The ViVOpay Vend 3, iris VRX displays the opening set of screens before it displays the

**Welcome** screen.

The opening screens include:

- Copyright screen

- Firmware version screen

The reader should then display **Welcome** or **Please present card** or similar wording, depending upon the POS application.

If the reader fails to power up, try reseating the power connector (or change to a different power outlet). For more troubleshooting information, see [“Troubleshooting” on page 13](#).

## Connect Ethernet

### To connect to Ethernet

1. Insert a CAT5 or better cable into the Ethernet port.



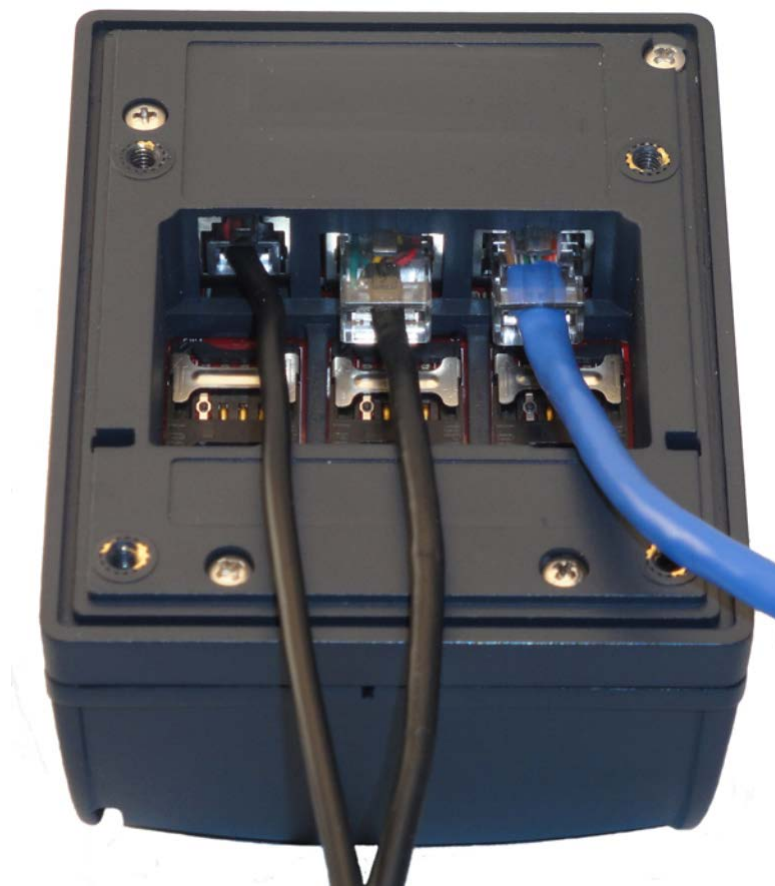
2. Connect the other end of the Ethernet cable to an Ethernet switch or hub.

## Connect PIN Pad

The ViVOPay Vend 3, iris VRX supports connection to a PIN pad via an RJ11 connector.

### To connect to a PIN pad

1. Connect the PIN pad cable to the PIN pad connector.

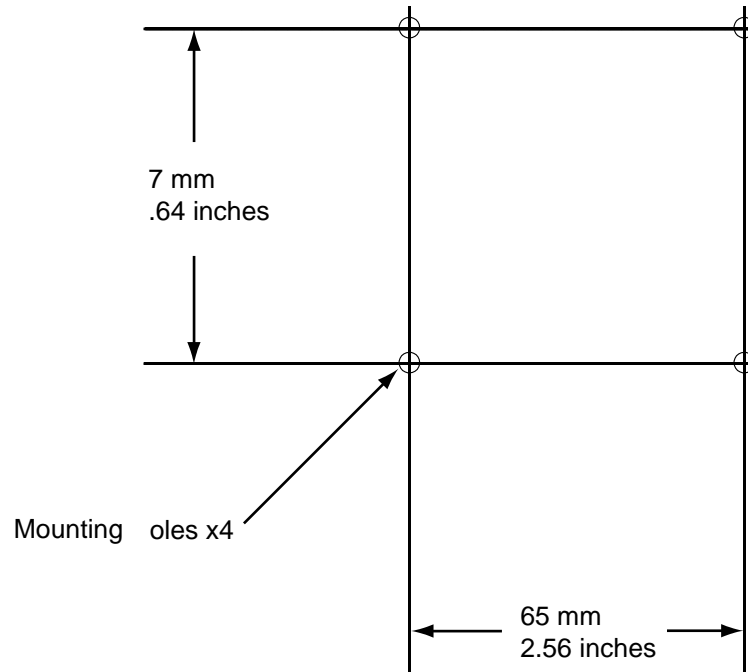


## External Mount

The ViVOPay Vend 3 can be mounted directly on a surface (external) or mounted from behind a surface (internal) using a flange bracket. Surface mounting requires the standoff and seal for effective weather proofing.

### To mount externally

1. Drill four 3.5mm (9/64 inch) holes in the surface where the ViVOPay Vend 3, iris VRX will be mounted. Use the hole spacing shown in [Figure 1](#).



**Figure 1. Mounting hole dimensions**

2. Drill a 5/8 inch hole or cut an access hole large enough to pass an RJ50 connector in the center of the area inside the mounting holes.
3. Position the ViVOPay Vend 3, iris VRX over the mounting holes and use four M3 screws (not supplied) long enough to secure the ViVOPay Vend 3, iris VRX to the mounting surface.

## Internal Mount

The ViVOPay Vend 3, iris VRX comes with a bracket designed to install the ViVOPay Vend 3 in the same location as a currency acceptance device.

### To mount internally

1. Disconnect power from the vending machine.
2. Open the vending machine to access the currency acceptor mounting locations.

3. Remove the currency acceptor or cover plate. Retain the fasteners for ViVOpay Vend 3 installation.



**Figure 2. Currency acceptor removed**

4. Insert ViVOpay Vend 3 with bracket from inside the vending machine.



**Figure 3. Placing the reader (ViVOpay Vend shown)**

- Secure the ViVOPay Vend 3, iris VRX with the fasteners from [Step 3](#).



Figure 4. ViVOPay Vend 3 in position (ViVOPay Vend shown)

## Testing the Installation

After you have completed the installation and have checked for PCI conformance, check that the ViVOPay Vend 3, iris VRX and the POS are communicating correctly by performing a sample transaction using a contactless card and a magstripe card.

You can also test basic functionality using the Onboard Diagnostics (OBD) described in [“Onboard Diagnostics”](#) on page 14.





# Chapter 3

## Troubleshooting and Maintenance

### Troubleshooting

The ViVOPay Vend 3, iris VRX readers are reliable and easy to troubleshoot. The components that may require troubleshooting include the power supply, the reader, and the data cable.

Symptom	Possible Cause	Remedy
<b>General Issues</b>		
Reader does not appear to be powered on—no LEDs lit, no LCD display.	<ul style="list-style-type: none"> <li>Reader not powered on.</li> <li>Incorrect power supply used.</li> </ul>	<ul style="list-style-type: none"> <li>Check cable connections.</li> <li>Verify that power is on and correct voltage and current are present.</li> <li>Replace the power supply.</li> <li>Verify that power cable plug is fully inserted.</li> <li>Replace the reader.</li> </ul>
<b>Reading Cards/Fobs/Phones</b>		
LEDs do not light and beeper is not audible when card/fob/phone is presented.	<ul style="list-style-type: none"> <li>Card/fob/phone not properly presented.</li> <li>Metal or RF interference.</li> <li>Firmware issue (contact your local support representative).</li> <li>Reader not powered on or incorrect voltage.</li> <li>Incorrect power supply used.</li> <li>Unsupported card/fob/phone used.</li> </ul>	<ul style="list-style-type: none"> <li>Present card/fob/phone closer to the reader and ensure it's parallel to the reader's display.</li> <li>Verify that the card/fob/phone is valid/current.</li> <li>Test with "ViVOcard Contactless Test Card" part number 241-0015-03.</li> <li>Try a different card/fob/phone.</li> <li>Verify that the unit is not near any large metal objects.</li> <li>Verify that correct firmware is loaded (local support representative only).</li> <li>Verify that power is on and correct voltage and current are present.</li> <li>Verify that power cable plug is fully inserted.</li> <li>Replace the reader.</li> </ul>
Some cards/fobs/phones read, but not all.	<ul style="list-style-type: none"> <li>Wrong firmware (contact your local support representative).</li> <li>Possible bad card/fob/phone.</li> <li>Unsupported card used.</li> </ul>	<ul style="list-style-type: none"> <li>Verify that correct firmware is loaded on reader (local support representative only).</li> <li>Check to see if card/fob/phone is damaged.</li> <li>Try a different card/fob/phone.</li> </ul>
<b>Communication to POS/ECR</b>		
No data is received, or data is garbled.	<ul style="list-style-type: none"> <li>Faulty or incorrect cable connections.</li> <li>Unsupported card used.</li> <li>Contactless application is not installed on terminal (for serial connections only).</li> <li>Magstripe card not swiped correctly.</li> <li>Magstripe card not level during card swipe.</li> <li>The POS application is not using the correct communications parameters.</li> </ul>	<ul style="list-style-type: none"> <li>Check that the cable connection is secure and in the correct port on the POS/ECR.</li> <li>Check that the POS/ECR has the correct software application to accept data from the contactless reader (may need assistance from the POS vendor).</li> <li>Try a different card/fob/phone or magstripe card if testing the magstripe reader.</li> <li>If testing with the magstripe card, try turning the card around; make sure that the card is level during the card swipe.</li> <li>Contact the payment processor for an application upgrade.</li> <li>Check that the cable is correctly attached to the back of the ViVOPay Vend 3.</li> <li>Check the POS application.</li> </ul>

## Onboard Diagnostics

The ViVOPay Vend 3, iris VRX has a built-in diagnostics program accessible through the RS232 interface. If you did not purchase an RS232 data cable with your ViVOPay Vend 3, iris VRX, you will need one to access the diagnostic tests. The Onboard Diagnostics (OBD) tests the following components of the ViVOPay Vend 3.

Test	Possible Results
LCD Test	Pass/Fail
Touch Screen Test	Pass/Fail. This test is not valid for the ViVOPay Vend 3.
Key Test	Pass/Fail 1234567890<cancel><clear><enter>
LED Test	Pass/Fail
Tone Test	Pass/Fail
Magstripe Test	Pass Tracks 1 or 2 or 3/Fail
RFID Test	Pass Type A or B/Fail
Security Keys Test	KPK, DUKPT, Master 1234567890

### Accessing the OBD Tests

**To connect the ViVOPay Vend 3, iris VRX to a terminal emulator**

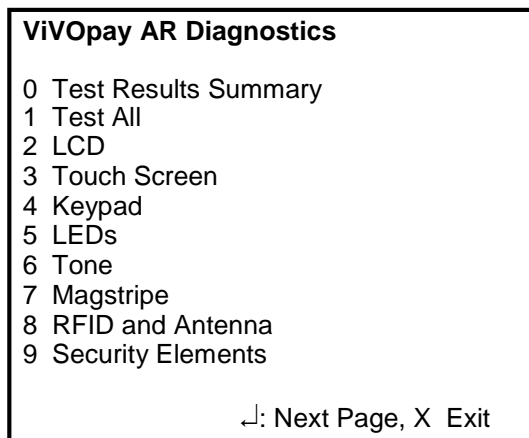
1. Connected the RS232 data cable to the ViVOPay Vend 3 as described in “[Connect Data and Power](#)” on page 6.
2. Launch the terminal emulation program and set the serial communication parameter of the terminal emulation program to the following:
  - Baud rate: 115200
  - Parity: none
  - Data bit: 8
  - Stop bit: 1
  - Flow control: none
3. Connect the BD-9 end of the data cable to the COM port of a computer running a terminal emulation program.

**To enter the Onboard Diagnostics**

1. Power off the ViVOPay Vend 3 by removing the power supply from the power receptacle.
2. Plug the power supply back into the power receptacle.
3. Press the **3** key on the ViVOPay Vend 3 and hold it down until the **Main Menu** screen appears. This is approximately 40 seconds after power is first applied.

Main Menu
1 Onboard Diagnostics
2 Setup
3 Test Applications
4 Version Information
5 Boot

- Press the **1** key on the ViVOpay Vend 3 to enter the OBD. Do not select options 2 or 3. These are for use by ViVOtech Support only. The **ViVOpay AR Diagnostics** menu displays on the PC.



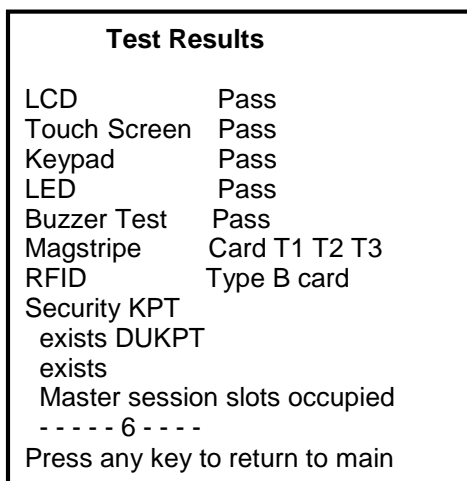
The **ViVOpay AR Diagnostics** screen is the main menu.

### Test Results Summary

The **Test Results Summary** displays the results of all tests performed. Once the ViVOpay Vend 3, iris VRX is returned to normal mode, all results are cleared. If you reenter the **ViVOpay AR Diagnostics**, all test are marked as not performed.

- Press the **0** key on the ViVOpay Vend 3, iris VRX at the **ViVOpay AR Diagnostics** screen. The

**Test Results** screen is displayed with the results of all the tests run.



### Test All

Test All runs the entire test sequence and displays the results.

- Press **1** when the **ViVOpay AR Diagnostics** screen is displayed. All of the tests are run in sequence and the results are displayed. See each individual test for information.

### LCD Test

The LCD test turns the pixels on/off and checks screen clarity to verify that the LCD screen is working properly. The results will be displayed on the LCD.

1. Press **2** from the **ViVOpay AR Diagnostics** screen. The **AR LCD Test** screen is displayed.

**AR LCD Test**

1 Test Character Display (not run)  
 2 Test all pixels OFF (not run)  
 3 Test clarity of display (not run)  
 4 Set 8100 Contrast (not run)  
 CANCEL(X) Exit to main menu  
 Select Test with 1, 2, or 3 and:  
 Press ENTER (↵) to pass test  
 Press CANCEL (X) to fail test

2. Press **1**. The display will fill with alpha characters on line one and numeric characters on line 2.
3. Press **ENTER** if the correct screen is displayed otherwise press **CANCEL** to fail the test. The AR LCD Test screen is displayed on the PC.
4. Press **2**. All pixels should be turned off and the screen should be bright.
5. Press **ENTER** if the correct screen is displayed otherwise press **CANCEL** to fail the test. The AR LCD Test screen is displayed on the PC.
6. Press **3**. Both lines of the display are filled with the # character.
7. Press **ENTER** if the correct screen is displayed otherwise press **CANCEL** to fail the test. The AR LCD Test screen is displayed on the PC.
8. Press **4**. You can change the contrast by pressing the 7 key for more contrast or the 9 key for less contrast. A numeric value (20 high to 42 low) for the contrast is displayed.
9. To save an new contrast setting, press **ENTER** and press the keys as instructed by the prompt.
10. Press **CANCEL** to exit back to the main menu.

### Touch Screen Test

The Touch Screen test does not apply to the ViVOpay Vend 3, iris VRX . **Test All** skips this test or press **CANCEL** to abort this test.

### Keypad Test

This test asks you to enter each of the keys in sequence to verify that the keypad is working correctly. The results will be displayed on the LCD.

1. Press **4** on the **ViVOpay AR Diagnostics** screen. The **Keypad Test** screen is displayed on the PC.

**Keypad Test**

Press key 1

2. Press key **1**. The screen then asks for the next key in sequence.
3. Continue pressing each key as requested.

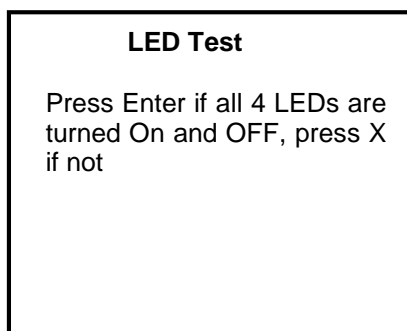
When you have finished testing the keys, the keypad will be tested for intrusion. Remove your hand and any other object from the keypad until the test is complete.

**Note:** If the tamper value is too high (failed), the ViVOPay Vend 3, iris VRX will not accept PIN entry. To see if the keypad passed the tamper test, use the **Test Results Summary** option. Readers that fail the keypad tamper test should be returned for recalibration.

## LED Test

This test asks you to verify that all of the LEDs are working correctly. The results will be displayed on the PC.

1. Press **5** on the **ViVOPay AR Diagnostics** screen. The **LED Test** screen is displayed.

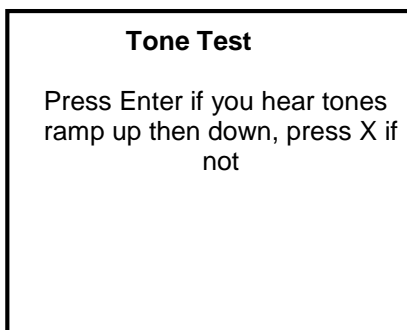


2. Press **ENTER** if all four LEDs flash on and off in sequence otherwise, press **CANCEL** to indicate that the LEDs did not flash. The ViVOPay AR Diagnostics screen appears.

## Tone Test

This test asks you to verify that the buzzer is audible. The results will be displayed on the LCD.

1. Press **6** on the **ViVOPay AR Diagnostics** screen. The **Tone Test** screen is displayed on the PC.

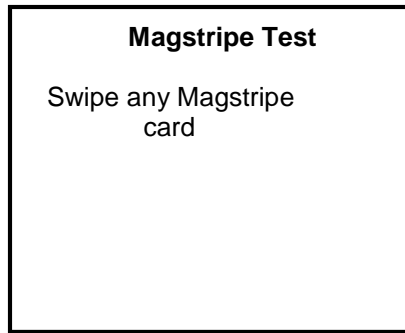


2. Listen for the tones and make sure they ramp up and then down.
3. Press **ENTER** if you hear the tones otherwise press **CANCEL** to indicate that the tones did not ramp up and down.

## Magstripe Test

This test asks you to swipe a magstripe card through the slot at the top of the ViVOPay Vend 3 and displays the tracks read correctly. The results will be displayed on the PC.

1. Press **7** on the **ViVOPay AR Diagnostics** screen. The **Magstripe Test** screen is displayed on the PC.

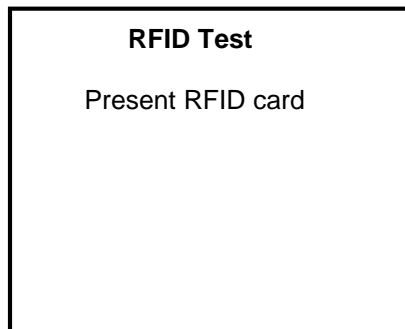


1. Swipe a card with a magnetic stripe through the slot on the top of the ViVOPay Vend 3.
2. The panel displays the results of the swipe; either the card has been successfully read or an error is indicated.
3. Press any key to return to the **ViVOPay AR Diagnostics** screen.

### RFID and Antenna Test

This test asks you to present a contactless card/phone/fob close to the touch screen to verify that the antenna is able to detect a contactless card. The results will be displayed on the PC.

1. Press **8** on the **ViVOPay AR Diagnostics** screen. The **RFID Test** screen is displayed on the PC.

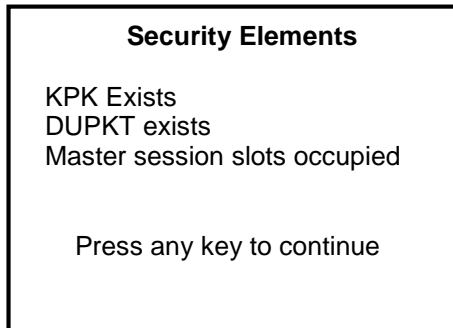


2. Present the card/fob/phone in close proximity to the reader and so that maximum surface area is parallel to the touch screen. The screen indicates if a card/phone/fob has been detected.
3. Press any key to return to the ViVOPay AR Diagnostics main menu.

### Security Elements Test

This test verifies that the KPT and DUPKT keys are loaded into the ViVOPay Vend 3, iris VRX. It also verifies which slot contains the master Key. The results will be displayed on the PC.

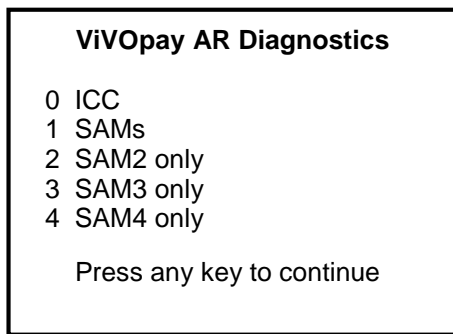
1. Press **9** on the **ViVOPay AR Diagnostics** screen. The **Security Elements Test** screen is displayed.



2. Press any key to return to the **ViVOPay AR Diagnostics** main menu.

### Contact Interface Tests

1. To test the SAM slots, press **ENTER** from the Onboard Diagnostics Main Menu.



If the ViVOPay Vend 3 does not have an ICC contact card slot, skip the first test.

2. Press 0 to check the contact card reader.
3. Press 1 to check all SAMs
4. Press 2 to check a SAM in SAM slot 2.
5. Press 3 to check a SAM in SAM slot 3.
6. Press 4 to check a SAM in SAM slot 4.

## Maintenance

The ViVOPay Vend 3, iris VRX contains no user-serviceable parts within its enclosure. Do not open the ViVOPay Vend 3 enclosure.

**WARNING:** Attempting to open the ViVOPay Vend 3, iris VRX enclosure will trigger security measures and it will stop functioning even after reassembly!

You can upgrade the ViVOPay Vend 3, iris VRX firmware if required.

## Upgrading the Firmware

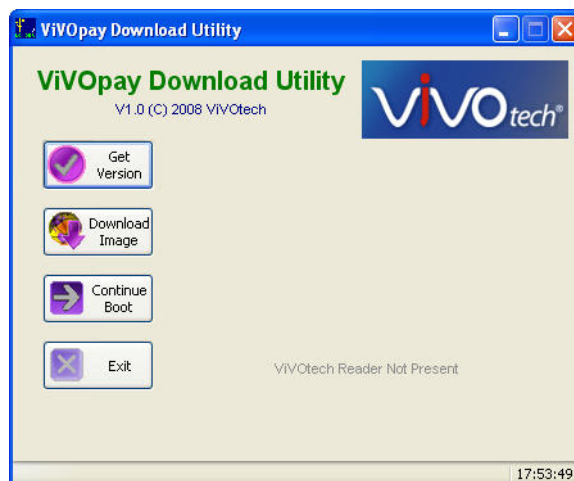
You can upgrade the firmware of the ViVOpay Vend 3, iris VRX if required for your application. You will need the following from your ViVOpay Vend 3 distributor:

- New ViVOpay firmware
- ViVOpay download utility
- USB data cable

You also need a PC with a USB port. The PC should have the required USB driver USBSER.SYS and HID.DLL files. If not, they are available for download from Microsoft's website.

### To upgrade the firmware

1. Make sure you have the USBSER.SYS and HID.DLL files installed on the PC.
2. Copy the firmware image and ViVO download utility, provided by ID TECH Support or your ID TECH representative, to the PC you are using for the upgrade.
3. Copy the vivopay.inf file to the Windows\inf directory.
4. Connect the USB data cable to the ViVOpay Vend 3, iris VRX and PC (see [“Connect Data and Power”](#) on page 6).
5. Double click the ViVO download utility icon or .exe to start the utility.



6. Power on the ViVOpay Vend 3, iris VRX 3. The bootloader version appears under the ViVOtech logo.
7. Click **Download Image**.
8. When prompted, locate and select the firmware (.hex file) to download and click **OK**.

A progress bar indicates the status of the download. It will take approximately eight minutes to complete the download.

9. When the download is complete disconnect the ViVOpay Vend 3, iris VRX from the PC and power.

The new firmware will be active next time you apply power to the ViVOpay Vend 3, iris VRX.

10. Connect the ViVOpay Vend 3, iris VRX to the POS with the appropriate data cable.
11. Reconnect power.





## ViVOpay Vend 3 Specifications, iris VRX

RF Interface	
Frequency	13.56 MHz
Standards	ISO 14443 Type A/B ISO 18092
Physical	
Length	106.5 mm (4.19 in)
Width	83.9 mm (3.3 in) maximum
Depth	46.6 mm (1.84 in)
Weight	0.4 Kg (0.9 lbs)
Environmental	
Operating Temp.	-25 to 70° C (-13 to 158° F)
Storage Temp.	-40 to 85° C (-40 to 185° F)
Operating Humidity	0 to 85% non-condensing
Operating Environment	Indoor only
Power	
Voltage	7.5-45 VDC regulated, +/- 10%
Consumption	

## Lithium Battery Warning

The Lithium Battery used in the products may not be replaced by the user. The product must be returned to a ID TECH Inc. authorized service center for replacement with the same or equivalent type recommended by the manufacturer. If, for any reason, the battery or ViVOpay card reader must be disposed of, do so following the battery manufacturer's instructions.

## Regulatory Compliance

### FCC Part 15 Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### FCC Information for User

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

### Industry Canada Information for User

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.