VRX Company Inc.

Read All of Me First

1.   Inspect your kit. Depending on the kit and specifications given to VRX, you may not have all of these documents. If you don't have these included, they can be downloaded from our website at www.vrxinc.com

1.1.   VR100IP Install Sheet for SCALE

1.2.   VR100IP Install Sheet for Camera

1.3.   VR100IP Install Sheet for NVR

2.   Next, prepare your network for the installation of additional devices. This may include getting access or passwords for switches and routers as needed., adding additional category 5/6, Ethernet, cables of appropriate length and making sure you have enough free router ports for the additional network devices.

3.   Before connecting the VR100IP, configure the NVR and camera and make sure the video system is working as expected. Once the NVR and camera are working, then the Text Inserter can be added to the system.

4.   Schedule if necessary your POS technician for support as some systems will require a technician to reconfigure the POS to output proper data.
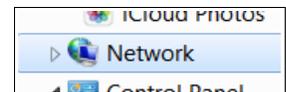
4.1.   For Verifone terminals, preference should be a COM port on the terminal set as Virtual Journal Printer (AKA DVR) or a real Journal Printer.

4.2.   Receipt printers can be interfaced but are not recommended since most are not "real time" data.

5.   Connect the VR100IP Text Inserter per the interconnection diagrams on the following pages.

5.1.   Use Network Neighborhood in Windows Explorer to find the Serial Numbered device for the VR100IP Text Inserter. Clicking the icon should bring up the GUI in a web browser. The first time you will be asked to accept the self signed certificates and add exceptions to your browser. The default User/PW is "admin", and "admin".

5.2.   Once you can access the GUI, then follow all of the specific instructions for setting up the VR100IP for your POS, Camera, and NVR settings.
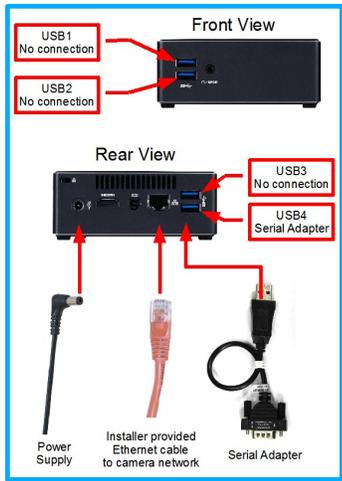
If you have difficulty, then contact our Technical Support at: support@vrxinc.com or the Phone Number below. Please have your device serial number ready when you call or included in your email.

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Connections to VR100IP

Front View
- USB1 — No connection
- USB2 — No connection

Rear View
- USB3 — No connection
- USB4 — Serial Adapter

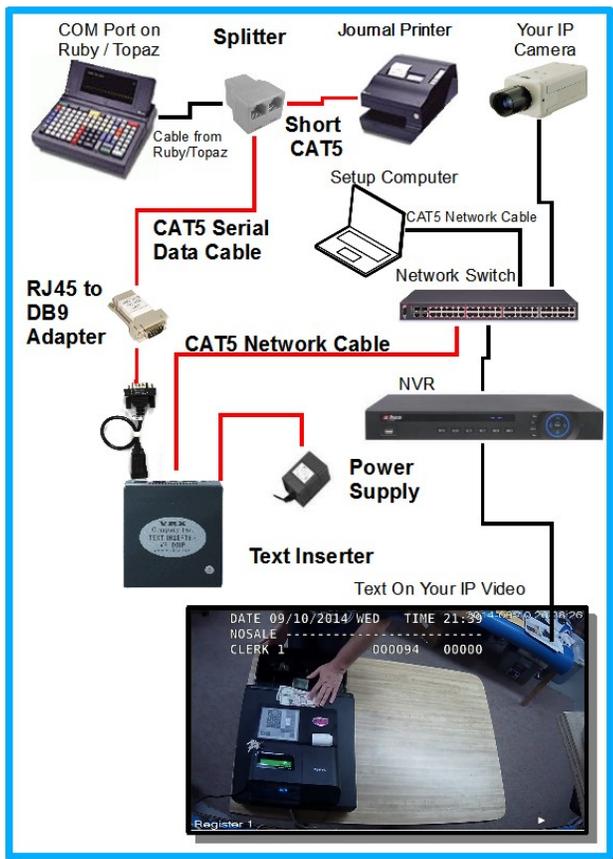Power Supply | Installer provided Ethernet cable to camera network | Serial Adapter

Connections to VR100IP:
1. There are no permanent connections at the "Front" of the VR100IP.
2. On the "rear", connect the USB to Serial adapter to USB port 4 lower right.
3. Connect the camera network Ethernet cable into the build in Ethernet socket. This connection typically comes from a network switch. See the diagram below.
4. Connect the power supply.
5. Press the power button which should light up.

Interconnection Diagram for Ruby/Topaz

COM Port on Ruby / Topaz | Splitter | Journal Printer | Your IP Camera

Cable from Ruby/Topaz | Short CAT5

Setup Computer — CAT5 Network Cable

CAT5 Serial Data Cable

Network Switch

RJ45 to DB9 Adapter

CAT5 Network Cable

NVR

Power Supply

Text Inserter

Text On Your IP Video

DATE 09/10/2014/WED   TIME 21:39
NOSALE
CLERK 1   000094   00000
Register 1

Typical System Connections, Journal Split:
6. Power off the point of sale terminal.
7. Connect a CAT5 cable to real time Journal Printer data. There are two common solutions.
   7.2. Connect to a COM port on the terminal which has been set up as a Virtual Journal Printer (DVR Interface) per Verifone Bulletin 1007-001.
   7.3. OR split data from a TMU-950 / Citizen 3200 journal printer, disconnect the Ruby/Sapphire RJ45 cable adapter on the JOURNAL printer. Connect the Ruby/Sapphire RJ45 cable into one of the female sockets of the RJ45 splitter. (See at left.) Using the short CAT5 cable provided in the kit, reconnect the serial data to the journal printer. Connect the long serial data CAT5 cable to the remaining free port in the splitter.
8. On the Text Inserter end of the serial data CAT5 cable connect into the RJ45 to DB9F adapter provide in the kit.
9. Connect the RJ45 to DB9 adapter to the serial adapter
10. Connect the VR100IP network cable to the NVR or network switch.
11. Apply power to the sales terminal.
12. Make a sale or other transaction on the cash register to verify the journal printer still prints correctly.
13. Connect a Setup Computer to the NVR network.
14. Setup per the instructions on the other side of this sheet.

We lead you to Loss Prevention Success!

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Kit Description

   IP Text Inserter for Verifone Ruby / Topaz terminals for interface to an actual journal printer or to a COM port set as a Virtual Journal printer. This kit provides the Text Inserter and everything you need <u>except</u> two CAT5 cables of the appropriate length to reach from the Point Of Sale to the VR100IP and from the VR100IP to the Switch/NVR.

Journal Printer Type Identification

      For proper inserted text the installer must identify the printer type. The Text Inserter kit is compatible with the Seiko and Verifone journal printers. Many customers will prefer to have text insertion on what Verifone calls a "Virtual Journal" COM port on the Ruby. The owner of the cash register must provide any required Verifone technical support to get Virtual Journal set up and ON. **Refer your Verifone value added reseller to:** <u>VASC Field Service Bulletin</u> **NO: 1007-001**

Printer Identification and Setup

Seiko DPU-E247	Verifone 950	Direct to COM

Setup Text Inserter for Verifone 930 or 950 or Direct to COM.

As of January , 2015, the text inserter is shipped set for **Connected Device** interface set for **Epson Printer** codes.

   For optimum text on Verifone printer set: **Connected Device**: **Epson Printer**

   For optimum text on Virtual Journal printer set: **Connected Device**: **Epson Printer**

   For optimum text on Seiko Journal printer set: **Connected Device**: **Seiko Printer.**

   For optimum text on COMMANDER set the POS System for: **Commander.** Other settings are the same as for Virtual Journal printer. NOTE: Set for Commander only after getting normal inserted text.
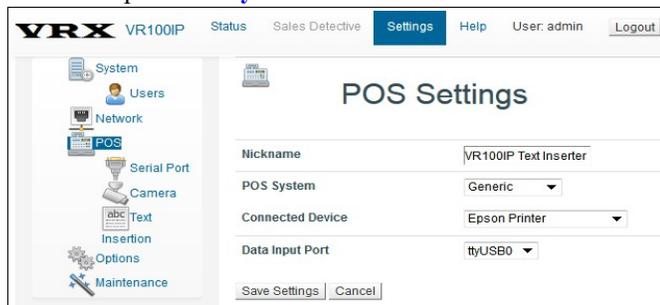
User Settings Summary

To access the GUI, follow the procedure in the Network Discovery / GUI sheet.

POS Settings menu:
      Nickname: *User choice,example: Register 1*
      POS System: *See Printer Identification and Setup*
      Data Input Port: **ttyUSB0**

Serial Port menu:
      Serial bps **9600 8-N-1** . Flow control **None**.

Text Inserter Settings menu:

Example settings.
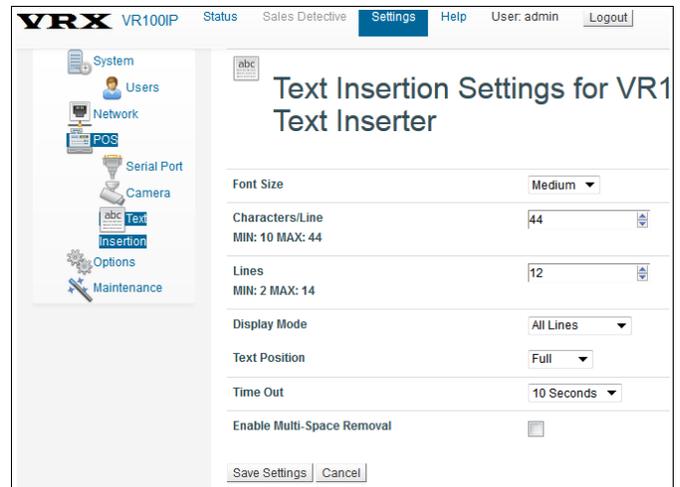   Font Size: **Medium**
      Characters/Line: **44** Lines
      Lines: **12** Lines
       Display Mode: **ALL LINES**
      Text Position: **Full**
      Time Out: **10** SECONDS
      Multi Space Removal: **Not checked**

Setup Camera and NVR Video

   If you have not yet set up the VR100IP to connect to the camera video stream and set up the NVR to connect to the VR100IP output video stream, refer to the separate VRX Company Inc. documents and the the camera / NVR manuals for further information and help. Once they are setup, test the VR100IP installation by making transactions.

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Troubleshooting Ruby/Topaz

If terminal reports "MECH ERROR" or printer off line, check all cable connections.

Getting "i4"s or "e"s between transactions. Check Printer identification and change type on DB9DEV to try each printer type (Epson and Seiko).

No Text: Check for proper power to all devices.

Check for data into Text Inserter: Go to the Status > Text Inserter menu and look for **Input Data Status** for **Last Data Received:** and **Total Data Received:** .

If present, verify the journal printer is operating normally.

If a COM port pole display is present, temporarily connect the VR100IP in place of the pole display and look for inserted text like this:
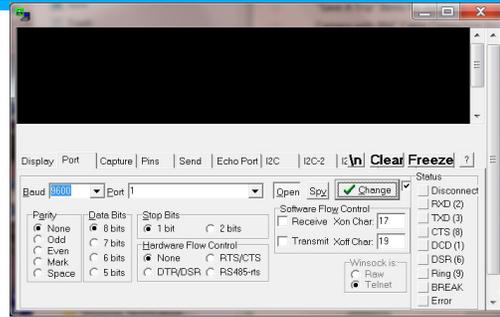

Examine all RJ45 connections checking for full insertion and retention of the cables into the adapters. Check for bent wires in the RJ45 connections.

Save A Trip

This is a check list of general things you should have to ward off the demons of the unexpected during the install of text inserters. This general information is not specific to the Ruby / Topaz install.

Although you should need none of these, if the unexpected happens, each one can help find and localize a problem and save you a trip.

1. Have a portable composite video monitor like you would use to monitor a security camera. You may use this to monitor the text inserter Video Output too.

2. Have a PC with a serial port (for example use a USB to serial adapter). Have a terminal program on the PC.

3. For a terminal program, we suggest Realterm. Here is the link for Realterm: http://realterm.sourceforge.net/ Look for the Download link on the left of their web page.

Realterm Port Setup

Once you have Realterm installed and the program running you have to choose the correct serial port. Change any other settings like the baud rate and then press the "Change" button for the changes to take effect. Forgetting to press the "Change" button is the only significant difficulty when working with Realterm.

4. Have a straight through DB9F to DB9M cable (pin3 to pin 3 and so on.)

5. Have a DB9 F-M NULL MODEM adapter.

6. Have both DB9F-F and DB9 M-M gender changers.

7. Have a multimeter.

8. Alligator wire clips.

9. Ethernet cable tester.

10. RJ45 terminations, termination tool and CAT5 cable. Wiring information for EIA568B.

11. Fresh / fully charged batteries for all test equipment.

Other information about serial devices
For most Point Of Sale pole displays and printers the setup is Baud = 9600; Parity = None; Data Bits = 8; Stop Bits = 1. Most pole displays are Flow Control = NONE and most printers are Flow Control = DTR/DTS.
However , there are exceptions to everything so assume nothing is standard.

Warranty Summary

One year parts and labor for defects in materials and workmanship. Repair, replace or refund at manufacturers discretion. See the on-line user manual for full warranty. NOTE: Damage due to lighting or mis-installation not covered.

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