

VR2003

User Interface Supplement

V1.10 Firmware

VRX Company Inc.

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Abbreviations

ASCII	Standardized codes for characters used by most computers. For example the character “A” is code decimal 65.
bps	Bits Per Second
EEPROM	Electrically Erasable, Programmable Read Only Memory
Firmware	A program in hardware which can not be readily altered.
OSD	On Screen Display
PC	Personal Computer
POS	Point of Sale

Table 1 Abbreviations used in this manual

New Feature with V1.10 Firmware for VR2003.

The version V1.10 Firmware for the VR2003 adds several features to facilitate installation of the VR2003 and to let the installer customize the behavior of the VR2003 OSD display to best suite the application.

A summary of the new features include:

- Automatic Sync detection on video input.
- User can select character background black or transparent
- User can select the time to OSD erase: 3, 5 and 10 seconds,
- User can select 14 or 28 character wide display.
- User can select 2 to 11 lines of OSD characters.
- Trouble shooting debug screens.

VR2003 Basic Function Has Not Changed.

Please refer to the VR2003 User Manual for instruction on connecting the VR2003 to the Point of Sale terminal. The VR2003 is a device to encourage accuracy at the point of sale. The VR2003 allows the product description and pricing information sent to a point of sale pole display or a receipt printer to be embedded into the video from a video camera for recording on VCR or a DVR. This embedded video is also referred to as an on-screen display, commonly abbreviated as OSD. The recorded video with OSD information allows the store manager to review sales to check for correspondence between what the cashier entered and what the customer actually received at the point of sale.

The VR2003 applies a simple approach which we believe makes the VR2003 easier to install and independent of the particulars of many POS systems. Our approach is to Keep It Simple, a.k.a. KIS(S) . We do not try to emulate the brand specific behavior of many pole displays, we simply give visibility to the nuts and bolts of the sale by displaying only most basic of the industry standard ASCII characters. Escape characters are ignored, but any ASCII in the escape sequence is displayed. This gives visibility to the message with out making the VR2003 as difficult to setup as some pole displays. It is also in keeping with the primary function of the VR2003 which is to give visibility to the user of the data sent to the pole display. The VR2003 is therefore potentially useful to an installer who is trouble shooting an interface incompatibility between a pole display and the POS software.

Firmware V1.10 Feature Explanation and User Setup

The VR2003 firmware V1.10 has the following features:

Automatic sync detection.

When there is a valid video input to the VR2003 the OSD will be a B&W overlay on top of the input video. Where there is no video input to the VR2003 a stable full screen OSD will be generated and the Alert character will be visible in the lower right of the screen. Normal operation of serial port, parallel port and User Interface is possible with out any input video. With the functionality to generate full screen OSD even in the absence of an input video the VR2003 no longer echoes the user interface menus to the serial port.

There is no user selection regarding the automatic sync detection.

Enhanced User Interface.

The User Interface is now composed of a MAIN MENU and three sub menus. The sub menus are organized by functions.

MAIN MENU.

Use a small object such as a small screw driver to press the switch SW1 to enter the **MAIN MENU**.

The first three lines of the MAIN MENU are information only, they tell you that you are at the MAIN MENU, The hardware version and the software version.

Below the information lines are the sub menu lines of the display.

One line of the display will blink to indicate it is the active line. Advance through the MAIN MENU selections by using a quick press and release action on SW1. Once you have selected a sub-menu item so that it is blinking press and hold SW1 for several seconds and then release. If you do not want to make any changes or are done with changes EXIT the MAIN MENU by a similar method. Use a quick press and release of SW1 to advance to the EXIT menu item. Pressing SW1 for a few seconds and releasing will select the MAIN MENU exit option. There will be a short message saying EXITING and the VR2003 will return to normal operation with any saved changes.

```
Main Menu  
VR2003-01 POS  
Software $Revision 1.10 $  
SERIAL bps SETUP MENU  
POS OPTIONS MENU  
DEBUG MENU  
EXIT
```

```
Quick press to advance  
Press and hold to select
```

SERIAL bps SETUP MENU

This menu is for set up of the serial communication port typically used with a pole display.

When you enter the SERIAL bps SETUP MENU the current bps (Bits Per Second) will be displayed. A list of all possible bps are displayed below in the order in which they will be selected. Pressing SW1 for a few seconds and releasing will select the next available bps from the list. A quick press and release will advance the menu from the bps setup to the SAVE AND EXIT menu choice or the EXIT WITHOUT SAVING menu choice. Pressing SW1 for a few seconds and releasing will select the appropriate exit option. You will see a message confirming your EXIT and you will return to the MAIN MENU. If you are done EXIT the MAIN MENU be a similar method. Use a quick press and release of SW1 to advance to the EXIT menu item. Pressing SW1 for a few seconds and releasing will select the MAIN MENU exit option and return the VR2003 to normal operation with any saved changes.

bps SETUP MENU

Serial bps 9600 8 N 1

SAVE AND EXIT

EXIT WITHOUT SAVING

Available bps 600 1200 2400

4800 9600 19200 38400

Quick press to advance

Press and hold to select

POS OPTIONS MENU

You can select the character background to be black or transparent. Black is better if there are any bright objects or sun shine in the video where the OSD text will be inserted..

You can select a time out of 3, 5 or 10 seconds for the OSD to be erased after the last character is sent.

You can select 14 or 28 characters per line. If 14 characters are selected they will be on the left half of the video.

You can select 2 to 11 lines of characters starting from the top of the video and working down.

POS OPTIONS MENU

BACKGROUND: SOLID

TIMEOUT: 10 SECONDS

DISPLAY: 28 Chars x 11 Lines

SAVE AND EXIT

EXIT WITHOUT SAVING

Quick press to advance

Press and hold to select

DEBUG MENU

The DEBUG MENU brings up a selection of three sub menus. The register display and EEPROM display show the status of current program operation with in the VR2003 and may be useful when trying to understand unexpected behavior of the VR2003 or a POS or Pole display. There is a lot of numerical data in coded form and this information could be video taped for reference.

The STATUS DISPLAY will display messages indicating if there has been serial port or parallel port errors which could be useful when trying to understand unexpected behavior of the VR2003 or a POS or Pole display.

DEBUG MENU

REGISTER DISPLAY

EEPROM DISPLAY

STATUS DISPLAY

EXIT

Quick press to advance

Press and hold to select

Still having trouble with your VR2003 User Interface?

Look for updated information on our web site:

<http://home.earthlink.net/~vr2003/>

Contact the VRX Company Inc at VR2003@earthlink.net or by calling 1-865-805-2437.

Contacting the VRX Company Inc.
Send email to: VR2003@earthlink.net.