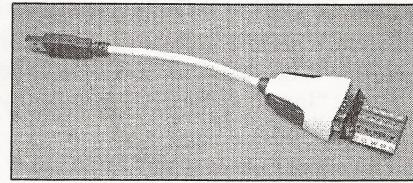


VR2C Communication Package (beta)

A division of **AMIRIX**

The VR2C communication package is intended to allow the customer to communicate with the VR2C in an office or lab setting using a PC. The communication package contents consist of:

- USB to RS232 converter (US232R-10 device available from FTDI Chip)
- RS232(DB9) to screw terminal block
- VR2C external cable with flying leads
- VR2CTool (beta software) located on CD



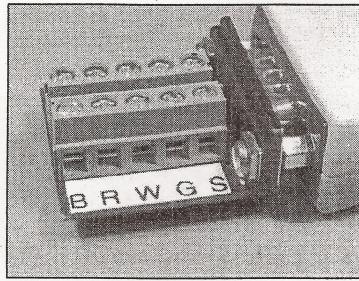
USB to DB9 converter and terminal block

RS232 Screw Terminal and VR2C External Cable Pinout

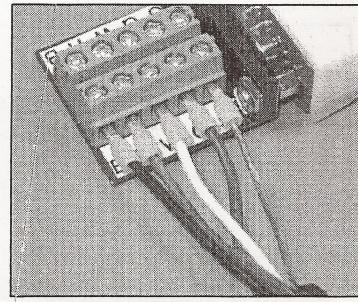
Screw Label	Signal Name	Flying Lead from VR2C Cable
S	CGND	Silver
G	RS-232 RX (to PC)	Green
W	RS-232 TX (from PC)	White
R	DC + (+12V to +32V)	Red
B	DC -	Black

NOTE:

It is not necessary to provide external DC power to the VR2C provided the internal battery is connected. If providing external DC power via the screw terminal block, extreme caution must be exercised to ensure that the **voltage polarity is correct**.



Screw labels on terminal block

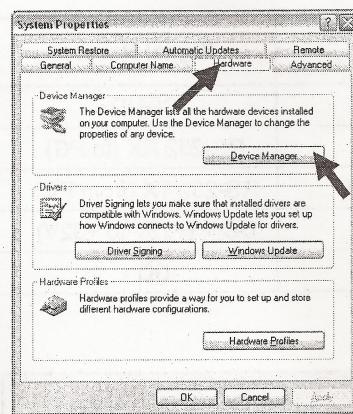
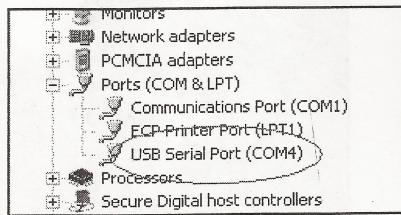


Flying Lead connected to terminal block

USB to RS232 Converter Installation

When the USB to RS232 converter is plugged into a USB port on a PC, Windows® configures it as a virtual COM port and assigns a COM port number to it. This COM port number should be noted as the VR2CTool software utility needs this information to communicate with the VR2C.

1. Plug the USB to RS232 converter into a USB port on the PC.
2. When Windows detects it, you should see a “Found New Hardware Wizard” dialog box. The device is identified as “US232R”. Select “Yes, This time only” and click “Next”.
3. Select “Install software automatically (recommended)” and click “Next” and wait.
4. Click “Finish”.
5. You should see another “Found New Hardware Wizard” dialog box. This time the device is identified as “USB Serial Port”. Select “Yes, This time only” and click “Next”.
6. Select “Install software automatically (recommended)” and click “Next”.
7. Click “Finish”.
8. Open the Windows® Control Panel and then select “System” to open the System Properties window.
9. Click the “Hardware” tab in the System Properties window and then click on the “Device Manager” button. The Device manager screen will open with a list of all devices installed on PC.
10. Click the + symbol next to “Ports” in the device list to expand the ports list. You should see an entry “USB Serial Port (COM x)” where the “x” is a number. Record the “x” number for future reference when using the VR2CTool software. In the example shown below, the COM number is 4.



The automatic install may not work – it depends whether the drivers are available on that PC or not. If not, you need to tell Windows where to find the driver (e.g. local drive or wherever). The drivers can be downloaded from <http://www.ftdichip.com/Drivers/VCP.htm>.

VR2CTool Software (beta)

Description

VR2CTool is a software utility that is provided in order to facilitate access to a VR2C connected to a PC communication port.

Note: Alternatively, any serial terminal program (Hyper Terminal...) can be used to send/receive ASCII commands to the VR2C.

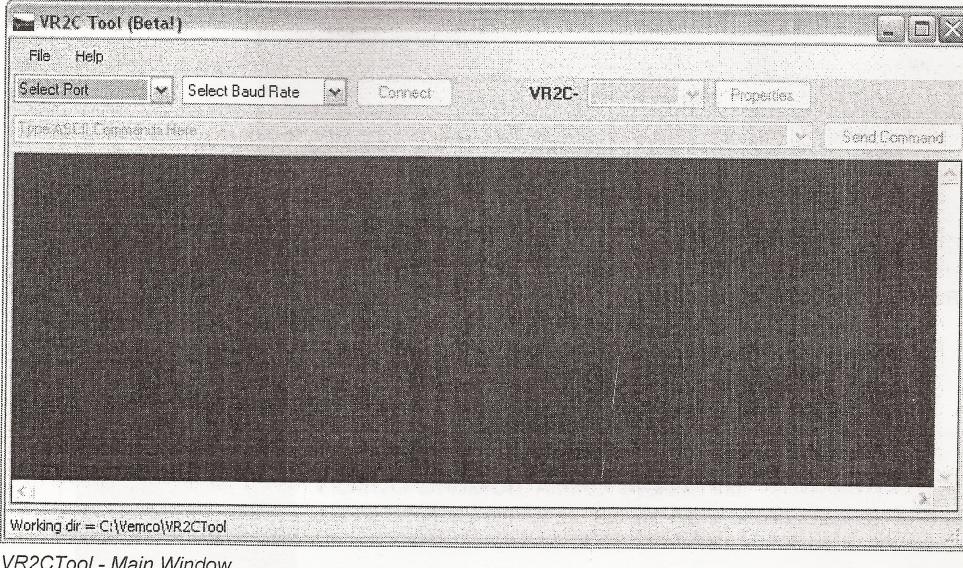
System Requirements and Installation

VR2CTool requires Microsoft .NET framework 3.5 to be installed on the PC.

The VR2C CD contains a zipped VR2CTool installation archive. Unzip this archive into the desired working directory on your PC.

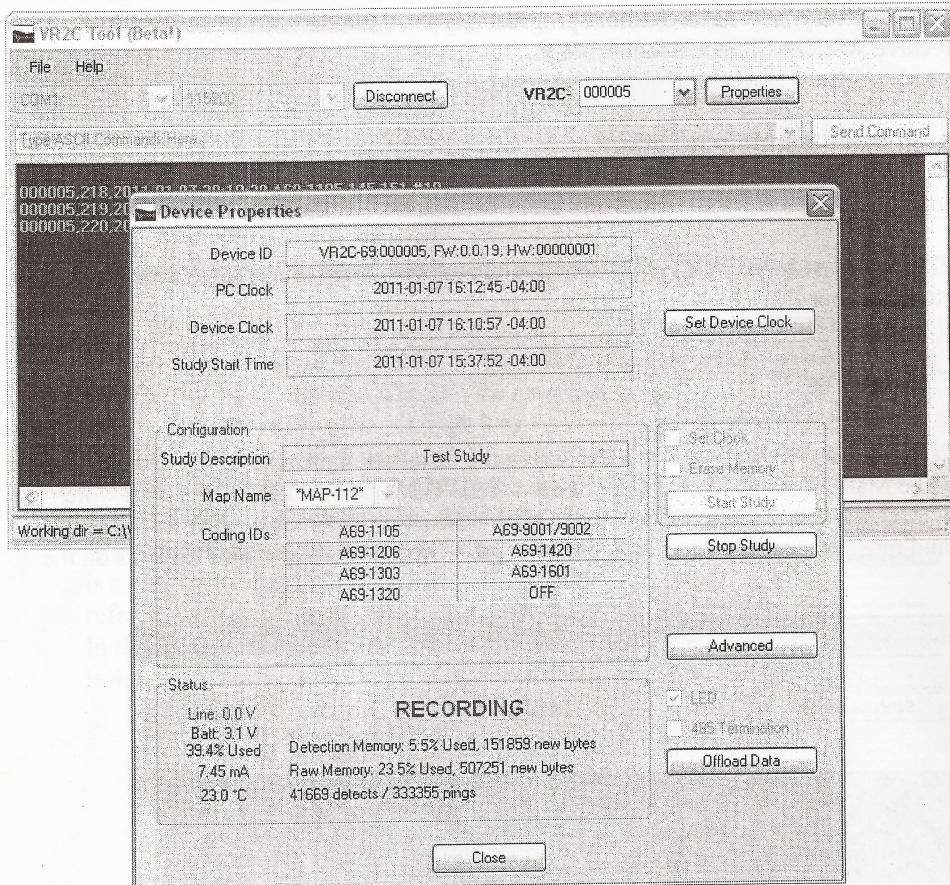
Usage

Open the VR2CTool.exe file that was extracted during the installation process. Use the two left drop down boxes in the Main Window to select the desired serial COM port and baud rate with which to access the VR2C. Click the “Connect” button to initialize the port, switch any connected devices to the selected baud rate and populate the VR2C serial number drop down box which appears on the right.



VR2CTool - Main Window

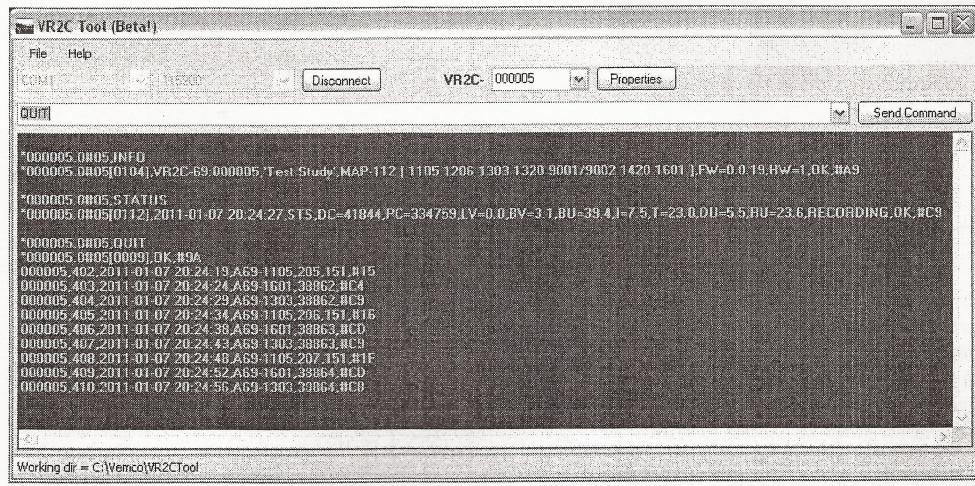
Once connected, you can view the VR2C's device properties by choosing the desired VR2C serial number from the serial number drop down box and clicking the “Properties” button. Within the Device Properties window, you can configure the receiver, start or stop studies, and offload data. Offloaded data will be saved in the working directory indicated in the status bar located at the bottom of the Main Window.



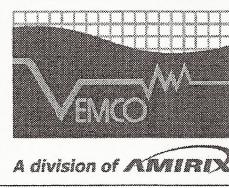
VR2CTool - Device Properties Window

VR2CTool, in addition to accessing a VR2C using the Device Properties window, can also be used to facilitate communicate with a VR2C using ASCII commands. These commands can be issued within the Main Window by typing them in the command area and clicking the “Send Command” button or hitting Enter on the keyboard. ASCII command responses and Real-Time Mode (RTM) output from the VR2C will be shown in the terminal window section of the Main Window.

Note that VR2CTool will automatically enable the attached VR2C's serial drivers when you send a command. Also, if the address portion of the command is omitted, VR2CTool will fill it in with the current serial number showing in the serial number drop down box.



VR2CTool - Terminal Window



VEMCO Division, AMIRIX Systems Inc.
211 Horseshoe Lake Drive, Halifax, Nova Scotia, Canada B3S 0B9
Tel: (902) 450-1700; Fax: (902) 450-1704

www.vemco.com

DOC-5080-02