

V_Net Vacuum/Pressure Sensor Module

Part Number 220-VS-VB

Module Configuration Setup:

Module Type: SC_TI_PRESS

Serial Number:

Channel Name: _____

Channel Options:

V_Net ID: _____

Sensor Type: 30 PSI - 30 In. Hg

V_Net Update Rate: 50 /second

Logger Sample Rate: 50 /second

Module Record Rate: 25 /second

Sensor Scaling:

A 1.8 will become 0

B 4.5 will become 30

Graph Scaling:

Min Value: 30 In. Hg **Max Value:** 30 PSI

Digits Before: 3 **Digits After:** 1

This module is designed to measure both pressure and vacuum within the range of 30 PSI and 30 inches Hg. When, in reference to the atmosphere, there is pressure applied to the transducer the data units will be in PSI and when there is vacuum applied the data units will be in inches of Hg.

Sensor Installation:

Select a location to install the pressure sensor element such that the sensor element and the wires connecting the sensor to the V_Net connector module are not exposed to high temperatures and or high voltage ignition wires. Be sure to select a location that allows the sensor wires and V_Net cables to be routed where they will not interfere with the safe operation of the vehicle. If the fluid being measured is hot and/or flammable the sensor element should be mounted outside of the driver's compartment to prevent injury to the driver.



Install the pressure sensor element using an 1/8 inch pipe thread adapter. Be sure to use an appropriate pipe thread sealant to insure fluid leakage does not occurs during operation. Tighten securely.

Module Installation:

The V_Net connector module can be inserted at any location in the V_Net cable in your vehicle. Select locations where the connector module can be mounted safely. Avoid mounting near heat sources and high voltage ignition wires. The connector module must be mounted in a location the temperature does not exceed 185 degrees or the module will be damaged.



Route and secure the sensor cable from the module and connect the sensor element. If there is excess cable, the cable can be shortened using connector kit P/N 800-CN-TI3P. You should complete the installation and verify operation before shortening the cable.

Module Setup:

The module has been factory configured as described in the setup box located at the top of this page. The **V_Net ID** and **Sensor Type** parameters have not been programmed. These parameters must be programmed before the module can be utilized in your system.

Software Setup and Module Configuration

Before you can use this module with a V50 Record Playback Module or with a V300 or V500 Data Logger you will need to update your Car Configuration File in your PC and program the **V_Net ID** and **Sensor Type** parameters. To perform this step you will need to connect the V50 unit or your data logger to your PC using the units serial interface cable (See your units instruction manual for details). Next start the RacePak DataLink program. If you selected the your car configuration file as the default configuration file, the file will be opened and the file tab for

the car configuration file will be selected. If it is not, open your car configuration file by selecting the **Open Car Configuration** menu item located in the **Files** main menu selection.

Next apply power to your on board system, wait 10 seconds and select the **Read VNET Config** menu item located in the **Edit** main menu selection. The DataLink program will read in the configuration of your system. If everything works properly, a new channel button will be added to the configuration file representing this module. The button will be captioned “SN XXXXX” where XXXXX represents the serial number of this module.

To edit the setup parameters on this sensor module, position the mouse cursor over the channel button and click the right mouse button. The VNET Input Channel Parameters dialog box will be displayed. A Portion of this dialog box is show below.

Locate the text box labeled **Single Channel TI Pressure Module Setup Instructions**. This text box provides online instructions for modifying the setup of this module. Read the instructions and modify the setup as desired. (Please note the scroll bars located on the left- hand portion of the text box is used to scroll through the instructions). You must program the **Sensor Type** and the **V_Net ID** parameters before you the module will function.

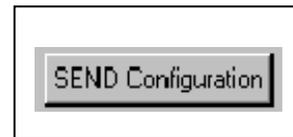
Programming the Sensor Type Parameter:

To program the sensor type parameter click on the Sensor selection box located in the channel edit dialog box. The selection list shown to the right will be displayed. Locate the appropriate sensor (see the sensor type in the Module Configuration Setup box previous page) position the mouse cursor over the selection and click the left mouse button. The sensor will be selected and the appropriate settings will be applied.

Programming the V_Net ID:

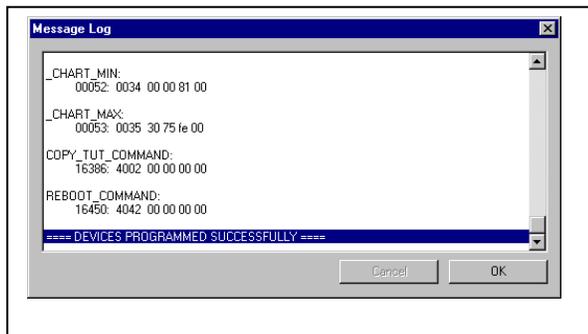
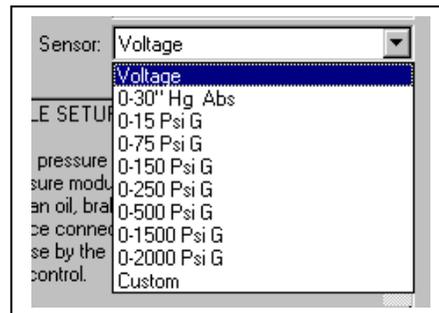
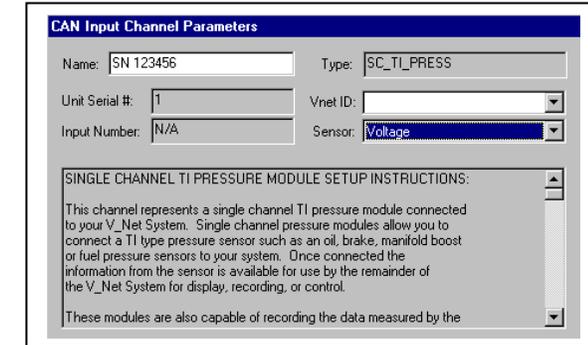
Every sensor device in your data logger system must be assigned a unique V_Net ID. This ID identifies to the system what the sensor is measuring. For instance engine oil pressure. To set the V_Net ID click on the V_Net ID selection list located above. A list of sensor groups will be displayed. Each group contains an extensive list of parameters associated with that grouping. To open a group click on the plus sign located in front of the group name. The group will be expanded and individual parameters such as water temperature will be listed. Select the parameter that matches you application by clicking on it. The program will load the appropriate default values including the name for the selection. If you wish to modify the name change the name in the name entry box after you have selected the V_Net ID.

When you have finished editing the configuration on your PC, you will need to send the information to the sensor module. Be sure the serial interface cable is connected to your V50 unit or data logger and power is applied to the system. To send the information position the mouse cursor over the **Send Configuration** button and click the left mouse button. The progress box as shown to the left will be displayed.



When finished sending the message “**Device Programmed Successfully**” should be displayed at the bottom of the progress box. If you receive an error message, turn power to the system off and then back on and repeat the send configuration process. If problems persist, check the troubleshooting section in your manual and then contact RacePak.

Update the Module Configuration Setup Box on the front of this worksheet with the new setup configuration.



IMPORTANT:

Save this Installation Worksheet in your System Manual in Appendix V. This worksheet is part of your system documentation. You may need this worksheet when modifying or trouble shooting your system.