

# V\_Net Four Channel Analog Module for use with Four Analog Mount Box

Part Number 230-VM-4ANA8

## Module Configuration Setup:

### Module Type: IO\_ANALOG

### Serial Number:

#### Channel #1:

Module Part # \_\_\_\_\_

Description \_\_\_\_\_

Channel Name: \_\_\_\_\_

V\_Net Update Rate \_\_\_\_\_ SPS

#### Channel #2:

Module Part # \_\_\_\_\_

Description \_\_\_\_\_

Channel Name: \_\_\_\_\_

V\_Net Update Rate \_\_\_\_\_ SPS

#### Channel #3:

Module Part # \_\_\_\_\_

Description \_\_\_\_\_

Channel Name: \_\_\_\_\_

V\_Net Update Rate \_\_\_\_\_ SPS

#### Channel #4:

Module Part # \_\_\_\_\_

Description \_\_\_\_\_

Channel Name: \_\_\_\_\_

V\_Net Update Rate \_\_\_\_\_ SPS

## Module Installation:

The four-channel analog module with 8 pin style connector is a special purpose V\_Net module designed to interface to RacePak's Pro Analog Transducer Box and plug-in transducer modules as shown in the illustration to the right. Each transducer box can contain up to four transducer for measuring various parameters in your on board system.



The first step in installing the module is to mount the mount box assembly in a location that is convenient to the routing of the cables and hoses used to connect the various transducer modules.

In most cases the mount box is mounted to the using the two mounting screws on the rear of the housing.

For vehicles with tubular construction an optional frame rail adapter (Part # 800-MB-ANA) is available. Care should be taken to mount the transducer box assembly in a location that will not interfere with the safe operation of the vehicle. In addition the transducer box assembly should be mounted to avoid exposure to high temperatures and to the high voltage ignition wires.

The next step is to connect the V\_Net Four Analog module to the V\_Net data bus in your vehicle. The module can be inserted into the V\_Net data bus (blue cable) at any location. Select a location where the connector module can be mounted safely. Avoid mounting near heat sources and avoid the high voltage ignition wires.

Next, use -3 or -4 AN fittings and thread them into the 1/8" NPT female fitting on each transducer. Connect from each transducer to the desired pressure measuring point. **Quick disconnect plastic tubing is not recommended unless you are connecting to pan vacuum.**

## Module Setup:

This module has been factory configured as described in the setup box located at the top of this page. If you purchased this module as an upgrade to an existing system, you will need to update your car configuration file before you will be able to access the information from this module. Please refer to the setup instructions below. If this module was purchased with a complete data logger system from Racepak and it is not an upgrade to an existing system, no further setup is required and you do not need to perform the steps below. However, it is highly recommended that you read through the next section to familiarize yourself the software setup procedure.

## Software Setup and Module Configuration

Before you can use this module as an upgrade to an existing V-Net Series data logger, you will need to update the Car Configuration File in your PC. To perform this step you will need to connect the 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 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 the 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. For example, the button may be captioned "Carb PSI".

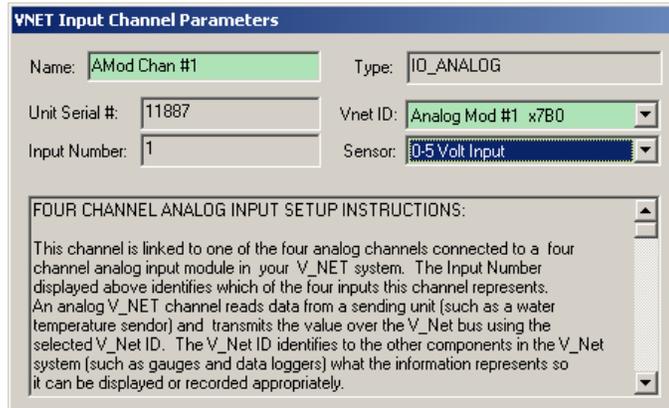
However, if the new button is captioned as the module serial number (example: SN\_12000), you have two modules in your system programmed using the same V\_Net ID, in this example "Carb PSI". You must change the V\_Net ID on one of the modules to something else like "Pump PSI". If you cannot find an appropriate V\_Net ID in the list to match what the module is measuring you can use one of the User Custom ID's found under the V\_Net ID list.

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.

If the module was not configured at the factory you will need to configure each of the channels that are used in your system. This process is described below.

### Changing the Module Setup:

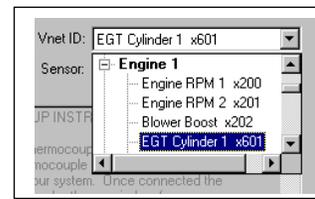
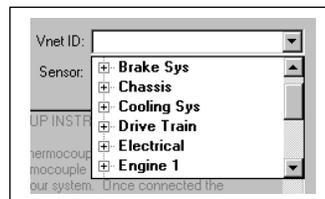
To edit the setup parameters on this sensor module, position the mouse cursor over the channel button and click the right mouse button. The VNET Input Channel Parameters dialog box will be displayed. A Portion of this dialog box is show below. Locate the **Unit Serial** number box and verify the serial number is the same number as the module you wish to edit. Next locate the **Input Number** box. The number in this box corresponds to the transducer number on the Pro Analog Box. Make sure you are editing the desired channel.



Locate the **Four Channel Analog Input Setup Instruction** text box. 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 bar located on the left-hand portion of the text box is used to scroll through the instructions).

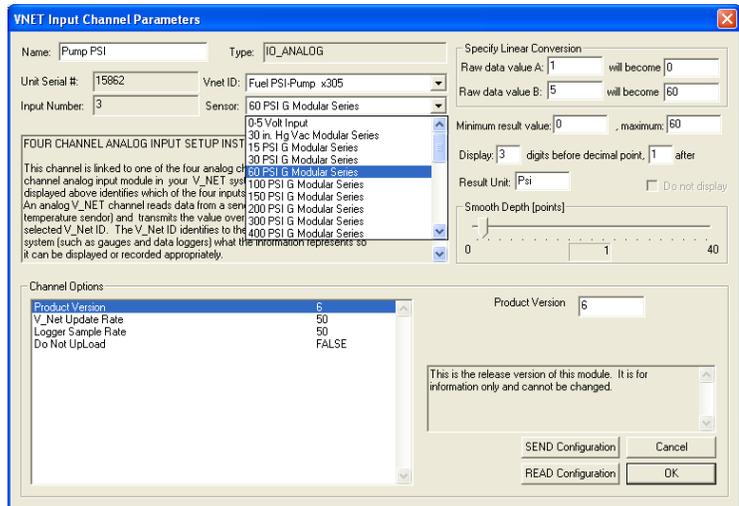
### Programming the V\_Net ID:

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 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 as shown. 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 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.



### Setting the Sensor Type:

The next step in setting up the channel is to tell the V\_Net module what type of plug-in transducer is plugged into the corresponding channel in the Pro Transducer mount box. To set the module type click on the Sensor selection list as shown in the illustration on the right. Scroll through the list and locate the type of plug-in module that is installed. Select the type by double clicking on the name in the list. The software will automatically setup the channel scaling for the channel to the default values for the module type.

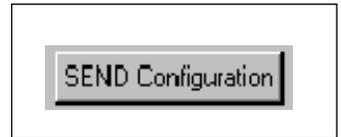


### Setting the Channel Options:

Next locate the Channel Options box located in the lower left hand corner of the channel edit box. The channel options box will contain a list of options associated with this channel such as logger sample rate. These options are used to customize the operation on the module to best fit your application. To edit an option simply place the mouse cursor over the option and click the left mouse button. The option edit dialog box and option help box located at the right side of the Channel Options box will display information on the option and allow the option to be modified. Refer to the Four Channel Analog Input Setup Instructions dialog box for further help (see above).

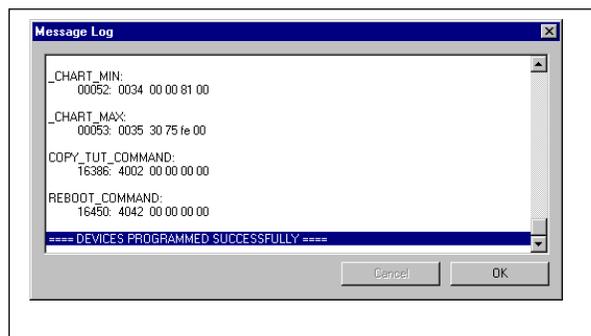
### Sending the Configuration to the module:

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 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 below 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.

Save the configuration file to disk and 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.