

Four Analog Mount Box

Part Number 230-VM-4TD

Module Configuration Setup:

Module Type: TD_BOX_VNET

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 V-Net transducer box and plug-in transducer modules as shown in the illustration to the right is designed to interface to RacePak V-Net series data loggers. Each transducer box can contain up to four transducers for measuring various engine parameters utilizing your on board data logging 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 mounting ears on the ends of the housing.

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 transducer box to the V-Net data bus in your vehicle. The module can be inserted into the V-Net data bus (blue connectors) 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 a 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 systems 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, select your system shown in the list.

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. For example, the button may be captioned “Carb PSI”.

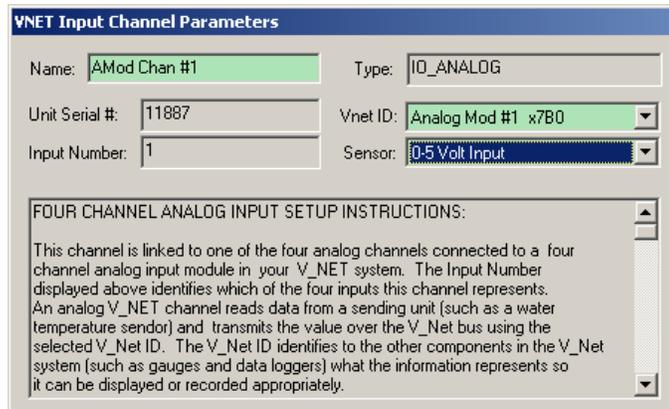
However, if the new button is captioned as the module serial number (example: SN_12000), you have two modules in your system programmed using the same V-Net ID, in this example “Carb PSI”. You must change the V-Net ID on one of the modules to something else like “Pump PSI”. If you cannot find an appropriate 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 **OR** if you are replacing/changing one or more of the transducer sensors in the box, you will need to configure each of the channels in the box. This process is described below.

Changing the Module Setup:

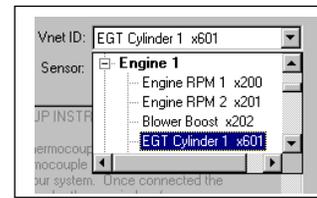
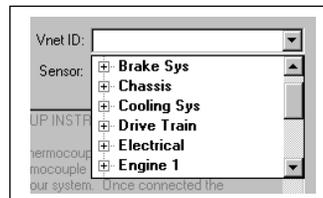
To edit the setup parameters on this sensor module, position the mouse cursor over the channel button and click the right mouse button. The VNET Input Channel Parameters dialog box will be displayed. A Portion of this dialog box is show below. Locate the **Unit Serial** number box and verify the serial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

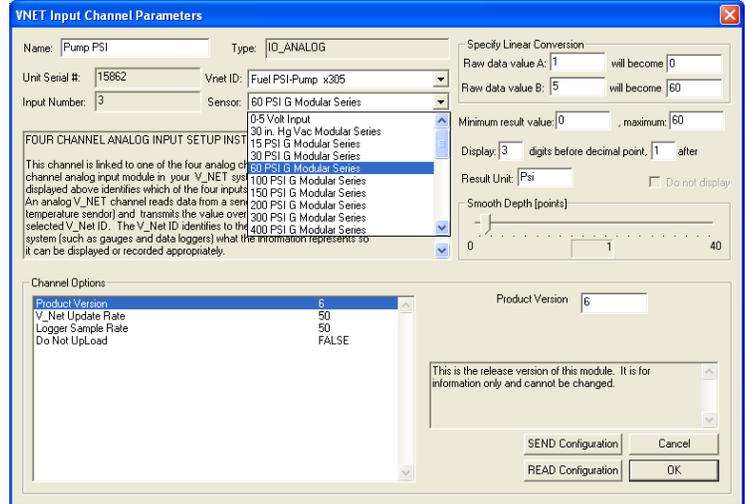


Verifying the Sensor:

The next step in setting up the channel is to verify what type of plug-in transducer is plugged into the corresponding channel in the Pro Transducer mount box. The software automatically sets this when the transducer is plugged into the Pro Transducer mount box. The software will also automatically setup the channel scaling for the channel to the default values for the module type.

NOTE:

The Sensor should not need to be changed. Changing this to a different value than what is shown on the transducer will show incorrect values in the Datalink program for the channel affected.

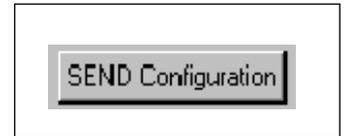


Setting the Channel Options:

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).

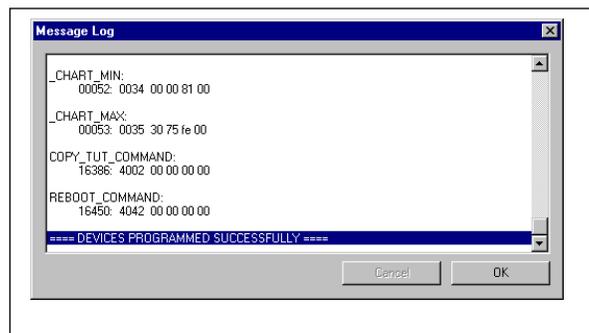
Sending the Configuration to the module:

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.