

V_Net Single Channel Air/Fuel Interface

Part Number: 230-VM-AF

Module Configuration Setup:

Module Type: SC_ANALOG

Serial Number:

Channel Name: _____

Channel Options:

V_Net ID: _____

Sensor Type: NGK AFX or other
0-5 volt output

V_Net Update Rate: 50 /second

Logger Sample Rate: 50 /second

Sensor Scaling:

Module Record Rate: 25 /second

A 0.0 will become 9.0

B 5.0 will become 16.0

Graph Scaling:

Min Value 10 Max Value 15

Digits Before 3 Digits After 2

Introduction:

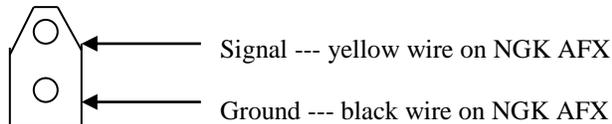
This module has been scaled to interface with NGK AFX wide band air/fuel ratio controller.

If you plan to use this module with a air/fuel ratio controller other than the NGK AFX, you need to make sure that the scaling parameters of the controller you are using matches the scaling list above. If the scaling is incorrect, the air/fuel ratio readings will also be incorrect.

Sensor Installation:

Exiting the NGK AFX cable harness is a yellow signal wire and a black ground wire. Using a proper crimping tool, crimp these wires with the supplied pins and insert them into the supplied connector as shown below.

Racepak crimp tool part number: 800-xp-crimp



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.

Module Setup:

If you have purchased this module as part of a complete V300 or V500 system (not an add-on to an existing system) you will **NOT** need to perform the steps outlined in the rest of this document as they have already been performed for you at the factory. However, it is highly recommended that you read through the rest of this document so you may become more familiar with the configuration procedure.

This module has been factory configured to read and display the channel as outline in the Module Configuration Setup box at beginning of this document . In a stand-alone V_Net system you must insure that no other modules in your system have been assigned to the same V_Net ID as this module. If you already have a module in your system assigned to this ID you will either need to change the ID as described later in this setup sheet or exchange this module for one programmed with an appropriate ID. If you are using the RacePak DataLink program to configure your V_Net system, or to upload data from the system using a data logger, 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 in the following section.

Software Setup and Module Configuration

Before you can use this module as an upgrade to an existing V50 Module, V300 or V500 Data Logger you will need to update the Car Configuration File in your PC. To perform this step you will need to connect the V50 module or 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 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, “Cyl A/F #1”, will be added to the configuration file.

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. You must change the V_Net ID on one of the modules to something else like “Cyl A/F #2”. 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.

Locate the box labeled **Unit Serial #**. Make sure the serial number is the same as the serial number of the module as shown in the module configuration box on the opposite side of this installation work sheet. If it is not, you are not editing the correct channel/sensor module. Check the other channel buttons to locate the correct sensor module.

Name: A/F Cyl 1 Type: SC_ANALOG
Unit Serial #: 10485 Vnet ID: A/F Ratio Cyl 1 x310
Input Number: N/A Sensor: Custom

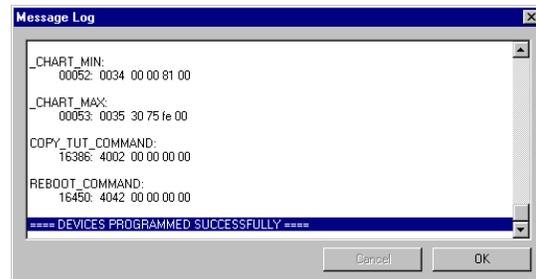
SINGLE CHANNEL ANALOG MODULE SETUP INSTRUCTIONS:
This channel represents a single channel analog module connected to your V_Net System. Single channel analog modules allow you to connect a single sensor such as a water temperature, brake pressure and or acceleration sensors to your system. Once connected the information from the sensor is available for use by the remainder of the V_Net System for display, recording, or control.
These modules are also capable of recording the data measured by the

Locate the large text box label **Setup Instructions**. This 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 are used to scroll through the instructions).

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.



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.



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.