Part Number: 230-VM-EFIAUT

Autronic EFI Module

Module Configuration Setup:

Module Type: Autronic EFI SMC/SM2   **Serial Number: 501060**

Sample Rate: All channels set to 20 samples per second:

Channel Number	Channel Name	V_Net ID #	EFI Variable	Default Units
1	EFI Engine Rpm	0x532	Engine Rpm	RPM
2	EFI MAP Press	0x53C	Manifold Abs Pressure	PSI
3	EFI TPS	0x538	Throttle Position	%
4	EFI A/F 1	0x539	Air Fuel Ratio	AFR
5	EFI Voltage	0x52A	Battery Volts	VOLTS
6	EFI H2O Temp	0x536	Water Temperature	DegF
7	EFI Intake Temp	0x529	Intake Air Temp	DegF
8	EFI Speed	0x533	Vehicle Speed	MPH
9	Wheel Speed	0x3B8	Driven Wheel Speed	MPH
10	Man Temp	0x207	Manifold Temperature	DegF
11	Ex Back P	0x60D	Exhaust Back Pressure	PSI
12	Inj Pulse W	0x520	Injector Pulse Width	milliSec
13	Timing Ign 1	0x288	Ignition 1 Timing	DEG
14	*Custom 1	0x501	Spare Temperature #1	F
15	*Custom 2	0x502	Spare Temperature #2	F
16	*Custom 3	0x503	Spare Temperature #3	F
17	*Custom 4	0x504	Spare Temperature #4	F

* Optional channels only available on some EFI models

Description:

The Autronic EFI Module is used to convert the serial data stream for an Autronic SMC or SM2 into a CAN bus data stream compatible with the RacePak V_Net System.   Data from the module is then available for use with the full range of RacePak V_Net devices including on board displays, real time telemetry, and data logging applications. The module also provides setup capability to accommodate selection of scaling units, data logging sample rates and even custom sensor calibration. Up to 17 different EFI data channels can be monitored and recorded.

NOTE: This VNet module will not work with Autronic SM4 models. Part number 230-VM-EFIAUT4 is required to interface with the SM4.

Module Installation:

The V_Net connector module can be inserted at any location in the V_Net data bus 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 that does not exceed 185°F or the module will be damaged.

Autronic EFI Hookup:

This module has been designed to interface directly to the Autronic EFI unit via the serial connector on the Module. Please refer to your EFI manual for connector locations.

Module Setup:

The module has been factory configured to work in conjunction with the Autronic line of electronic fuel injection hardware. **This module supports Autronic SMC and SM2 models only.** The SM4 model requires Racepak part number 230-VM-EFIAUT4. Contact your Autronic dealer if you have any questions as to compatibility. The module is capable of monitoring up to 17 data channels within the EFI control unit. The data for these channels is taken from the serial output from the EFI unit. Data from these channels is placed on the RacePak V_Net data bus and can be used for dash and gage displays, data logging and real time display.

The data channels and their default configurations are shown at the top of the first page of this sheet. The sensor ID's and default calibrations can be modified through the use of a PC and the DataLink data acquisition software.

No further setup is required to begin using the module if the default setup information is correct for your application. In stand-alone V_Net systems, however, it is up to the user to insure that no other V_Net modules in your system have been assigned to the same V_Net ID numbers shown in the default channel list. If you already have a module in your system assigned to one of these ID's you will need to change the ID of the particular channel in this module or in the previously installed V_Net module. In most cases the previously installed module will duplicate the monitoring function contained in the EFI module. In this case the module can simply be removed. Changing V_Net IDs is described on the back of this setup sheet.

If sensor inputs to the EFI unit are not being used the sample rate to that channel should be set to zero. This will disable the channel and will free up data logger memory as well as V_Net data bus resources. Software setup is discussed below.

Software Setup and Module Configuration

Before you can use this module with a V-Net Series data logger, you will need to update your 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 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 for each of the 17 data channels shown on the previous page.

If a new button is added, however, the button is captioned per the unit serial number (example: **SN 1001**), you have sensors in your system programmed to with the same V_Net ID as one of the channels in this module. You must change the V_Net ID on one of the sensors. In the case of duplicate sensors measuring the same value either remove the duplicate module or change the V_Net ID on one of the modules to the Engine 2 (E2) parameters.

To edit the setup parameters of any of the 17 data channels, 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 Input Number text box this value corresponds to the data channel from the module as outlined on page 1. If you change any of the default configurations for the channel be sure you are editing the proper input channel as pointed to by this value.

Locate the text box labeled **Autronic EFI Input Module 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 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. The progress box as shown to the left will be displayed.
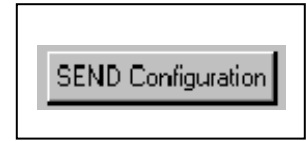
When finished sending the message "**Device Programmed Successfully**" should be displayed at the bottom of the progress box. If you receive an error message, turn power to the system off and then back on and repeat the send configuration process. If problems persist, check the troubleshooting section in your manual and then contact RacePak.
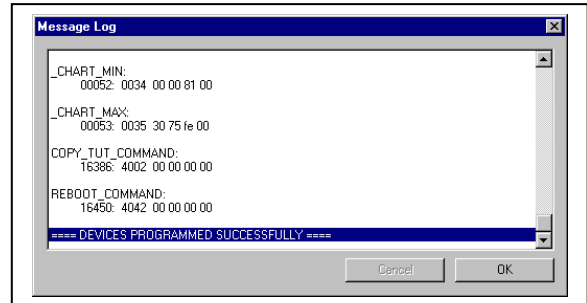
IMPORTANT INFORMATION FOR V300 AND V500 DATA LOGGERS:

V300 Data Loggers Require Firmware Version 36 or Higher.
V500 Data Loggers Require Firmware Version 53 or Higher.

If you do not know how to check the firmware version currently installed in your V300 or V500 data logger, please call us 949-709-5555 for assistance.

If you have a V300 or V500 data logger and do not meet the minimum firmware version requirement, you will need to send your data logger to Racepak to have the firmware upgraded.

All other Racepak data loggers, including V300SD, will work with all firmware versions and do not require any firmware updates to work properly with this module.