V-Net RPM Module

Part Number: 220-VP-TURBORPM

Module Configuration Setup:

Module Type: SC_RPM   **Serial Number:**

Channel Name: _____	**Sensor Scaling:**
V_Net ID: _____	**A 0 will become 0**
Sensor Type: 800-SS-SPEED	**B 12 will become 64**

Channel Options: **Graph Scaling:**
Pulses per Revolution   0   **Min Value: 0   Max Value: 200,000**
Odd Fire Pulses   16   **Digits Before: 6   Digits After: 0**
V_Net Update Rate: 50 /second
Logger Sample Rate: 50 /second

Sensor Installation:

This module has been designed to interface an open collector Hall Effect rpm sensor to the RacePak V_Net system. The module connector pin assignment is shown below.

1) 5v Power- Red

2) Ground - Black

3) Signal - Clear
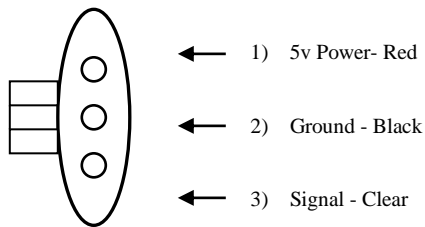
Module Installation:

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:

The module has been factory configured as described in the setup box located at the top of this page. No further setup is required to begin using the module.   In stand-alone V_Net system you must insure, however, 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 on the back of this setup sheet or exchange this module for one programmed with an appropriate ID.

If you are using the RacePak DataLink II program to configure your V_Net system or to upload data from the system using a V-Net Series 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 on the back of this installation sheet.

Software Setup, Sensor Calibration, 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 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 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 **"TB1 RPM"**.
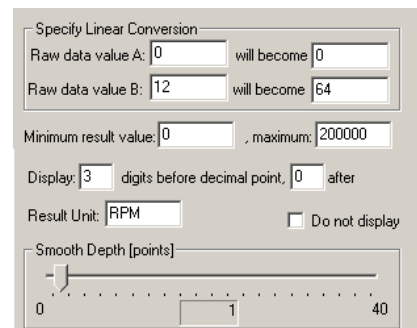
If a new button is added, however, the button is captioned **"SN XXXXX"** (where XXXXX represents the serial number of this module), you have two rpm sensors in your system programmed to measure turbo rpm. You must change the V_Net ID on one of the sensors to measure the actual parameter measured such as "Turbo 2 Rpm".

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 RPM 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 are used to scroll through the instructions.

Locate the area labeled **Specify Linear Conversion**, located in the top right area of the **Input Channel Parameters** window. **Locate the Raw data value B:** line item. Change the value on the right to indicate the number of blades counted on the turbo compressor wheel including small (splitter) blades. **Factory Default value is 12**

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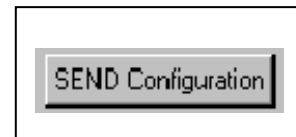
When finished sending the message "**Device Programmed Successfully**" should be displayed at the bottom of the progress box. If you receive an error message, turn power to the system off and then back on and repeat the send configuration process. If problems persist, check the troubleshooting section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

Update the Module Configuration Setup Box on the front of this worksheet with the new setup configuration.
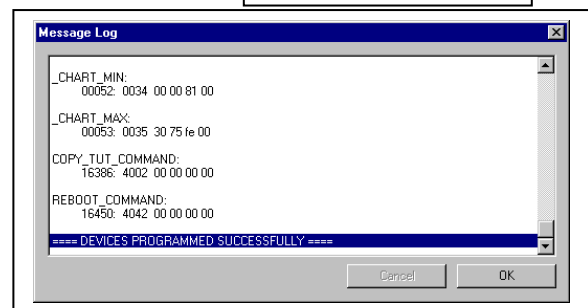
IMPORTANT:
Save this Installation Worksheet in your System Manual in Appendix V. This worksheet is part of your system documentation. You may need this worksheet when modifying or trouble shooting your system.