

# V\_Net Clutch Rpm Sensor Module

Part Number: 220-VP-CL-1

## Module Configuration Setup:

**Module Type:** SC\_RPM

**Serial Number:**

**Channel Name:** Clutch Rpm

**Channel Options:**

**V\_Net ID:** Clutch Rpm x380

**Sensor Type:** Zero Crossing

**Pulses per Revolution** 1

**V\_Net Update Rate:** 50 /second

**Logger Sample Rate:** 50 /second

**Module Record Rate:** 25 /second

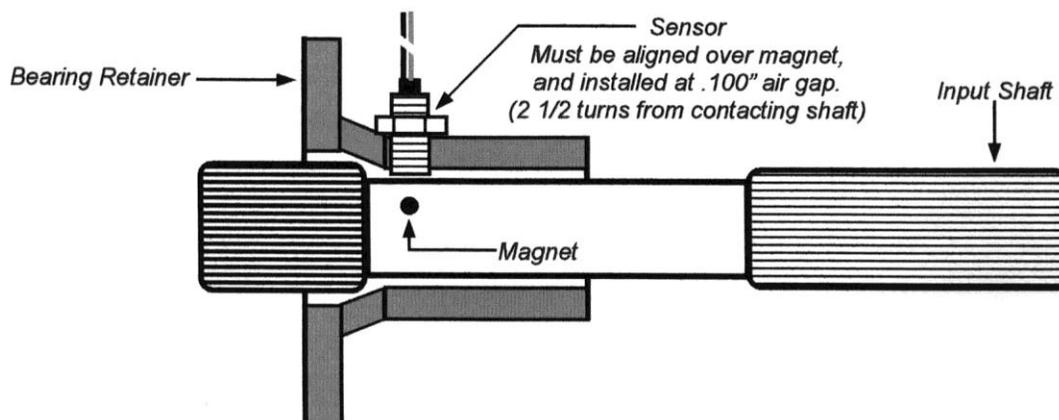
## Sensor Installation:

The clutch rpm kit (input shaft kit) is used to monitor the rpm of the input shaft to the transmission. The ratio between the engine rpm and the input shaft rpm is then used to compute clutch slip.

In the past, if you wished to monitor the input shaft rpm, it required machining your own input shaft for the magnets, and modifying the bearing retainer for the pickup. Today most manufactures of transmissions and input shafts offer these components already machined with the magnets pre-installed. If your clutch can has already be drilled and tapped for an input shaft sensor chances are it was setup for a 5/16-24 sensor. The supplied sensor requires a 3/8-24 thread which means you will have to drill out the 5/16-24 hole for a 3/8-24 hole.

When installing these components, be sure the rpm pickup is located on the bearing retainer centered directly above the magnet. Also be sure the rpm pickup does not interfere with the operation of any mechanism inside the bell housing. The sensor should be adjusted to approximately .100 inch air gap.

The drawing below demonstrates a proper installation:



**Important!!** The supplied magnet will be marked on one end with yellow ink. Epoxy the magnet inside the input shaft with the yellow side facing upward. If your input shaft has a magnet pre-installed from the manufacture and you are not sure if the polarity of the magnet is correct you should contact RacePak at (949) 580-6898 to obtain more detailed directions on preparing the input shaft.

## 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. Route and secure the sensor cable from the module and connect the sensor element



## 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 program to configure your V\_Net system or to upload data from the system using a V50 Record/Playback module or a V300 or V500 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 and Module Configuration

Before you can use this module with a V300 or V500 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 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.

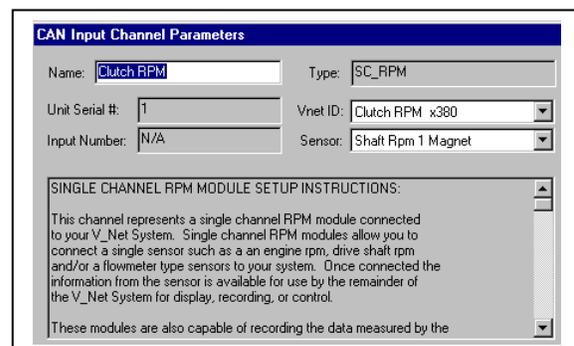
Next apply power to your on board system, wait 10 seconds and select the **Read VNET Config** menu item located in the **Edit** main menu selection. The DataLink program will read in the configuration of your system. If everything works properly, a new channel button will be added to the configuration file representing this module. The button will be captioned "**Clutch RPM**". If this is the case, no further setup is required. Select **File** from the menu bar and then select **Save**. You may skip the steps below.

If a new button is added, however, and the button is captioned "**#2 Clutch RPM**", you have two rpm sensors in your system programmed to measure clutch rpm. You must change the V\_Net ID on one of the sensors to measure the actual parameter measured such as "Front Wheel 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 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.

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.



**CAN Input Channel Parameters**

Name:  Type:

Unit Serial #:  Vnet ID:

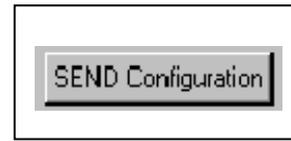
Input Number:  Sensor:

**SINGLE CHANNEL RPM MODULE SETUP INSTRUCTIONS:**

This channel represents a single channel RPM module connected to your V\_Net System. Single channel RPM modules allow you to connect a single sensor such as a an engine rpm, drive shaft rpm and/or a flowmeter type 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.

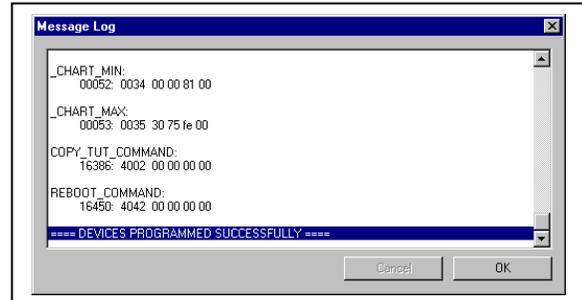
These modules are also capable of recording the data measured by the

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.**