Twin Tec
Model 1005T with Stage RPM Limiter Tech Note

CAUTION: CAREFULLY READ INSTRUCTIONS BEFORE PROCEEDING. NOT LEGAL FOR SALE OR USE IN CALIFORNIA OR ON ANY POLLUTION CONTROLLED VEHICLES.

OVERVIEW

This tech note applies to the Model 1005T ignition module intended for drag racing applications. This is a modified version of the standard Twin Tec Model 1005 that features stage and maximum RPM limits.

The purple/white wire normally used for the VOES connection is used to select between the stage and maximum RPM limit. The stage RPM limit is set by means of the two rotary switches on the module. The maximum RPM limit is programmed by means of the USB interface cable (P/N 18014) and PC Link Evo software. When the purple/white wire is grounded by means of a switch, the stage RPM limit is selected, otherwise the maximum RPM limit is selected.

Stage and maximum RPM limits are independent and may have any value between 3,000 and 9,900 RPM. The maximum RPM limit is programmed at the factory to 5,700 RPM. You must use the USB interface cable and PC Link Evo software to reprogram the maximum RPM limit. The stage limit can be adjusted at any time, even when the engine is running, by changing the RPM switch settings on the module.

Since the normal VOES input is not available, the wide open throttle (WOT) advance curve is always active.
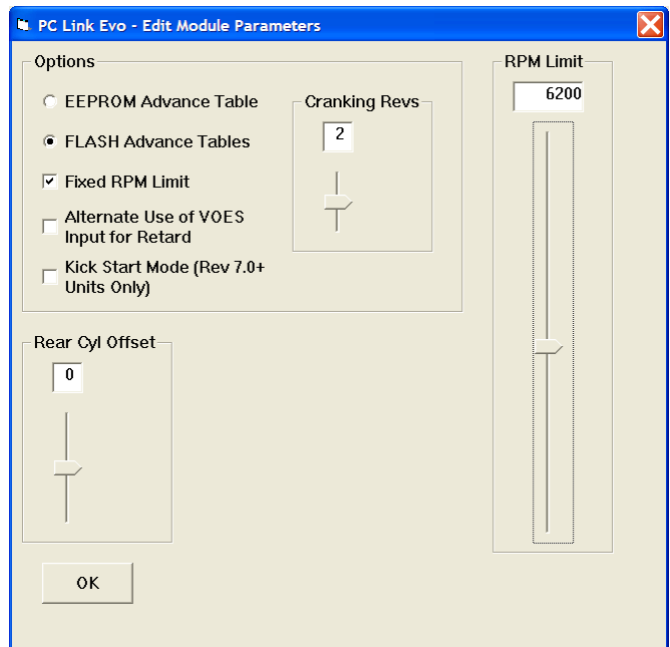
INSTALLATION

1. Follow the standard installation instructions for your module, except ignore any steps that relate to VOES hookup.

2. Refer to the Figure 2. **Please note that single fire configuration is recommended when using the Model 1005T.** Connect the stage limit switch as shown. The stage limit switch must be normally open. You can use a microswitch attached to the clutch lever. When the clutch lever is pulled in, the switch contacts should close to activate the stage RPM limit. Do not rely on a ground connection at the handlebars. Run the ground wire from the stage limit switch back to a reliable ground connection on the frame.

PROGRAMMING

Use the USB interface cable and PC Link Evo software to program the maximum RPM limit. You can also program a custom advance curve and other parameters such as a rear cylinder offset if desired.

The maximum RPM limit is set on the Module Parameters dialog box shown in Figure 1. Click on the Fixed RPM Limit option. **The value set on the RPM Limit slider becomes the maximum RPM limit setting**. The example shows the maximum limit set to 6,200 RPM.

Figure 1 - Module Parameters Dialog Box

Please note that the Alternate Use of VOES Input for Retard option is not available. If you select this option, the module will ignore it.

Once you have selected the appropriate settings, upload the data to EEPROM to program the module. Refer to the PC Link Evo software instructions for details.

IGNITION POWER RELAY

The installation of an ignition power relay that applies direct battery power to the coil is highly recommended for all race applications. Please refer to the Ignition Power Relay Tech Note on our website for details.

MODULE ID

"T" version modules can be identified by the engraved part number and date on the back of the units. The firmware ID read by the PC Link software will also include the "T" suffix after the part number.

Figure 2 – Model 1005T Single Fire Wiring Diagram