Twin Tec — Tech Note for TC88 Module with Stage RPM Limiter

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 P/N TC88T ignition module intended for drag racing applications. The TC88T module is a modified version of the standard Twin Tec TC88 that features stage and maximum RPM limits.

Pin 10 on the black 12 terminal Deutsch connector is used as a stage limit input. This pin is normally connected to the green/gray wire from the bank angle sensor or TSM/TSSM module. **Since the engine shutoff function of the bank angle sensor is lost when the TC88T is installed, the motorcycle should only be operated by a professional rider on a closed course.**

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 PC link software. When the pin 10 on the black Deutsch connector 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 PC link 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.
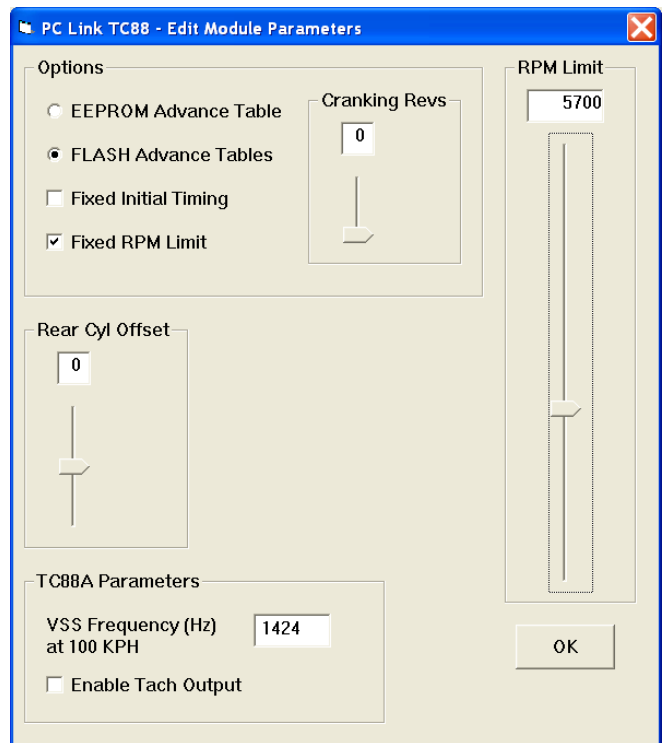
INSTALLATION

1. Follow the standard TC88 installation instructions.

2. Refer to the Figure 2 of this Tech Note. 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 PC Link TC88 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.
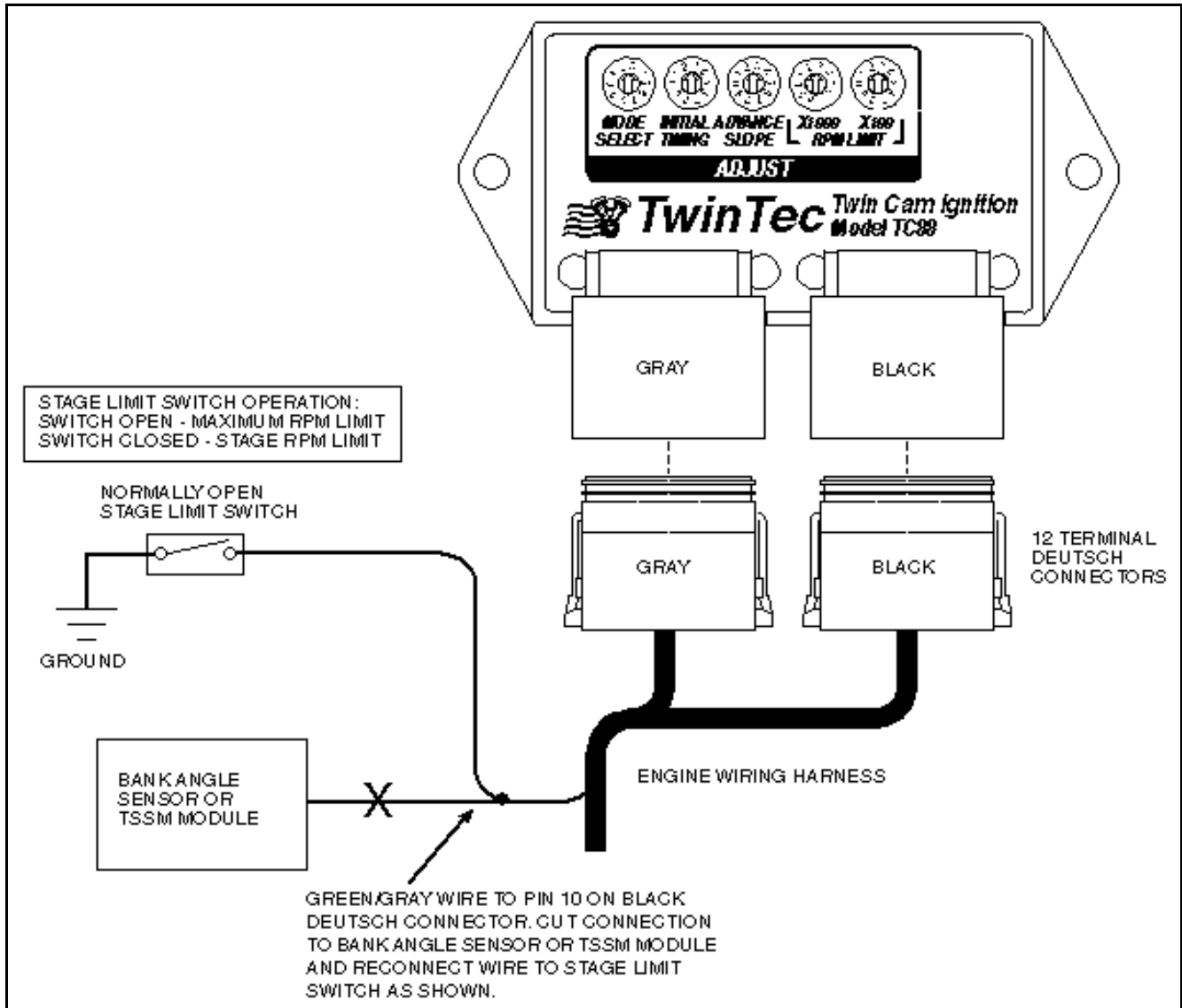
The maximum RPM limit is set on the Module Parameters dialog box shown in Figure 1. Click on the Fixed RPM Limit option. **The value set on the RPM Limit slider becomes the maximum RPM limit setting.**

Figure 1 - Module Parameters Dialog Box

Once you have selected the appropriate settings, upload the data to EEPROM to program the module. Refer to the PC Link TC88 software instructions for details.

Figure 2 – TC88T Stage Limit Switch Wiring Diagram

STAGE LIMIT SWITCH OPERATION:
SWITCH OPEN - MAXIMUM RPM LIMIT
SWITCH CLOSED - STAGE RPM LIMIT

NORMALLY OPEN
STAGE LIMIT SWITCH

GROUND

BANK ANGLE
SENSOR OR
TSSM MODULE

GREEN/GRAY WIRE TO PIN 10 ON BLACK
DEUTSCH CONNECTOR. CUT CONNECTION
TO BANK ANGLE SENSOR OR TSSM MODULE
AND RECONNECT WIRE TO STAGE LIMIT
SWITCH AS SHOWN.

GRAY

BLACK

GRAY

BLACK

12 TERMINAL
DEUTSCH
CONNECTORS

ENGINE WIRING HARNESS

MODULE ID

The TC88T module can be identified by the engraved part number and date on the back of the unit. The firmware ID read by the PC Link software will also include the "TC88 Two Stage" designation.

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