



Twin Tec Quick Start Guide for TC88A Twin Cam Ignition

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

Figure 1 – TC88A Ignition Module



RECOMMENDED TIMING SETTINGS

The Twin Cam 88® engine utilizes a non-adjustable crankshaft position sensor. Thus no mechanical means exist for adjusting the timing. The TC88A module overcomes this limitation. The initial timing switch allows you to shift the entire advance table up or down. Switch setting 5 corresponds to nominal timing. Lower switch settings decrease (retard) the initial timing and higher switch settings increase (advance) the initial timing in one-degree steps.

The TC88A module accommodates a wide range of engine applications. The advance slope switch allows you to control the aggressiveness of the ignition advance. Switch setting 5 is similar to the OE advance.

Tuning a particular engine setup always requires some trial and error experimentation, but maximum power is usually obtained by using the highest advance settings possible without audible spark knock. Some recommended starting points are given below:

For stock engines run on normal pump gas (87-89 octane), use initial timing setting 5 and advance slope setting 5.

For stock or mildly modified engines run on 92 or higher octane gas, use initial timing setting 5 and advance slope setting 7.

For high compression engines, use initial timing setting 2 and advance slope setting 2.

If you experience spark knock only at low RPM, you can try reducing the initial timing switch setting while maintaining an aggressive advance slope for maximum power at high RPM by increasing the advance slope switch setting. If spark knock is a problem at high RPM, decrease the advance slope switch setting.

INSTALLATION

1. Turn off the ignition switch and disconnect the battery ground cable before proceeding.
2. Find and remove the OE ignition module. The OE module is usually located under the seat or under a side cover. You may need to use a small flat screwdriver to press on the connector locking tabs.
3. Install the new Twin Tec module. You can reuse the original mounting hardware.
4. **PC link jumper wire. If you are not planning on using on-bike PC link communications (refer to figure 2 for details) you can skip this step.** Install the supplied white PC link jumper wire between pin 2 of the ignition module connector (12 pin Deutsch) and pin 1 of the OE diagnostic connector (4 pin Deutsch). Remove and carefully tape up the existing wire on pin 2 of the ignition module connector. Refer to the factory service manual for connector location and disassembly techniques.
5. Reconnect the battery ground cable.

RPM LIMITER SETTING

You can set the RPM limit from 3,000 to 9,900 RPM in 100 RPM increments by means of two rotary switches. The RPM limit is X100 switch setting (i.e. 57 = 5,700 RPM). Inadvertent settings below 3,000 RPM are ignored and result in a 3,000 RPM limit. **Setting the RPM limit switches to zero will disable the module.**

The TC88A module uses a newly developed RPM limiting algorithm that has been highly optimized for odd firing V twin engines. When the engine is held against the RPM limit, cylinder firing is always paired. This eliminates a torque couple and results in

very smooth operation compared to random or sequence type RPM limiters.

Set a safe RPM limit that is appropriate for your engine. Most Twin Cam 88® engines with OE valvetrain components should not be run over 5,700

TUNING TIP: Lean air/fuel ratio (AFR) increases the tendency for spark knock. Check AFR and rejet carburetor before optimizing ignition timing. Test the motorcycle on a dyno with an exhaust gas sniffer or use our WEGO.

For a full Installation Manual please visit our website at <http://www.daytona-twintec.com>

Figure 2 – TC88A Pin Out

