

## **N51/N52/N52N INTAKE & EXHAUST CAM SENSOR TRIGGERS FOR BOSCH MOTORSPORT MANAGEMENT SYSTEMS Part # TEN9009N52**



The “Quick-Start” feature recently implemented by Bosch in their Motorsport ECUs is a more economical feature since the engine can now start from anywhere in the firing order. Conventional previous systems would require a full 360° rotation for the ECU to synchronize the firing order before allowing the engine to start. The Bosch Motorsport system is much more efficient as it does not waste battery power or add undue wear to the starter and alternator. The faster start is also much safer for critical engine components as there is less cranking with low oil pressure. These Cam Sensor Triggers were developed for our own Grand-Am team, saving you the cost and time to design and manufacture your own. We have developed these specifically for the Bosch Motorsport engine management but they may also work on other aftermarket engine management systems.

Advantages of TMS Quick-Start cam trigger wheels –

- Precise CNC manufacturing (not stamped steel)
- Less mechanical wear on engine components while cranking with low oil pressure
- Less mechanical wear on starter from repeated cranking
- Less draw on battery
- Less wear on alternator over time.
- Improved fuel economy as less gas is used during the cranking process.

Parts list for kit:

- Two identical TMS Cam Sensor Trigger Wheels for N51, N52, and N52N engines

**TMS insists that ALL factory removal and installation guidelines be followed during the installation of the TMS Cam Trigger Wheels. In addition if you are not comfortable with any aspect of the installation of this product, TMS recommends you find a qualified mechanic to do the installation.**

**Note:** Each gear is machined and etched with a “E” and a “I” as seen in **Image #1**. Each dowel pin is positioned to line up the trigger wheel on both the intake and exhaust cam while using the factory BMW cam alignment tool as seen in **Image #2**. You must make sure that the dowel pin for the intake cam is lined up with the hole labeled “I” on the intake cam and the hole labeled “E” is lined up with the dowel pin of the factory tool for the exhaust.

**Image #1**



**Image #2**

