

## **TECH FILE: #1**

### **BOSCH IGNITION MODULE CONVERSION**

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This article describes the conversion from the standard JA STARION ignition arrangement to a simpler setup using readily available components. The ignition module used is a Bosch unit, part number 9 222 067 021. This unit was used on VK Commodore, XE/XF Falcons and TN/TM Magnas. Similar units that may work satisfactorily have 016 and 017 as the last three digits, application unknown.

The factory igniter module has three signal inputs:

Ignition timing signal, from the distributor.

Knock sensor signal, from a piezo sensor mounted on the engine block, below the inlet manifold.

Boost sensor signal, from the factory MAP sensor, mounted on the right rear of the engine bay.

The knock and boost signals are used to retard the ignition timing, should the engine be detonating or over boosting. Neither of these functions are supported with this new ignition setup.

#### **STEP 1.**

Remove the factory igniter. The white knock sensor wire and green/black boost sensor wires are no longer required. They can be taped back onto the existing loom.

#### **STEP 2.**

Mount the Bosch igniter module as shown in FIG 1. It does require heat-sinking and good ground connections to the chassis on the mounting screws.

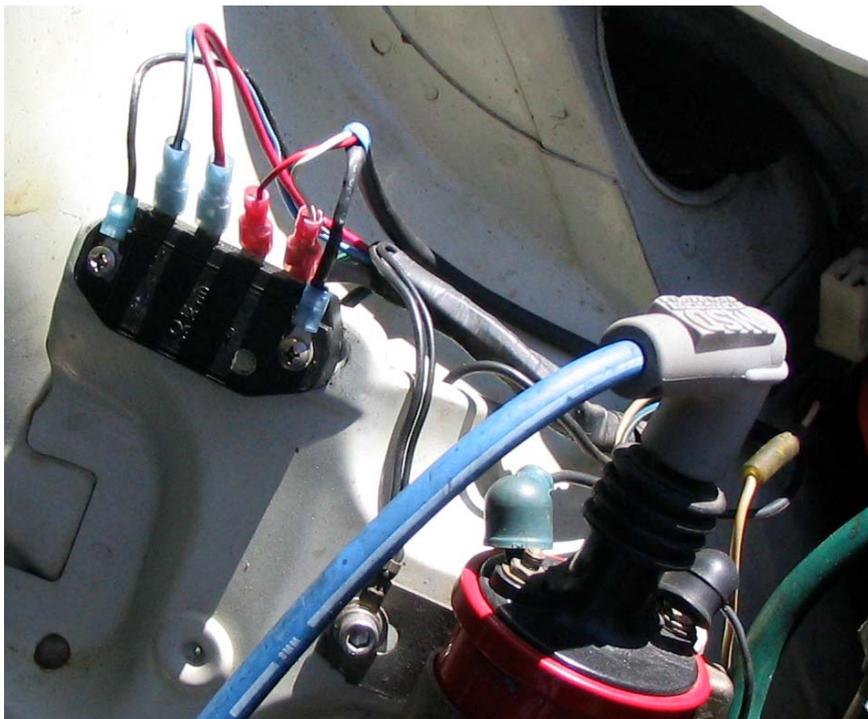
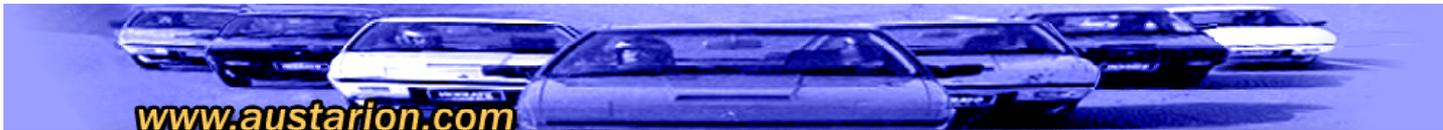


FIG.1 BOSCH IGNITER MOUNTED IN THE FACTORY IGNITER POSITION



**STEP 3.**

Wire the igniter module to the distributor and coil as shown in FIG 2.

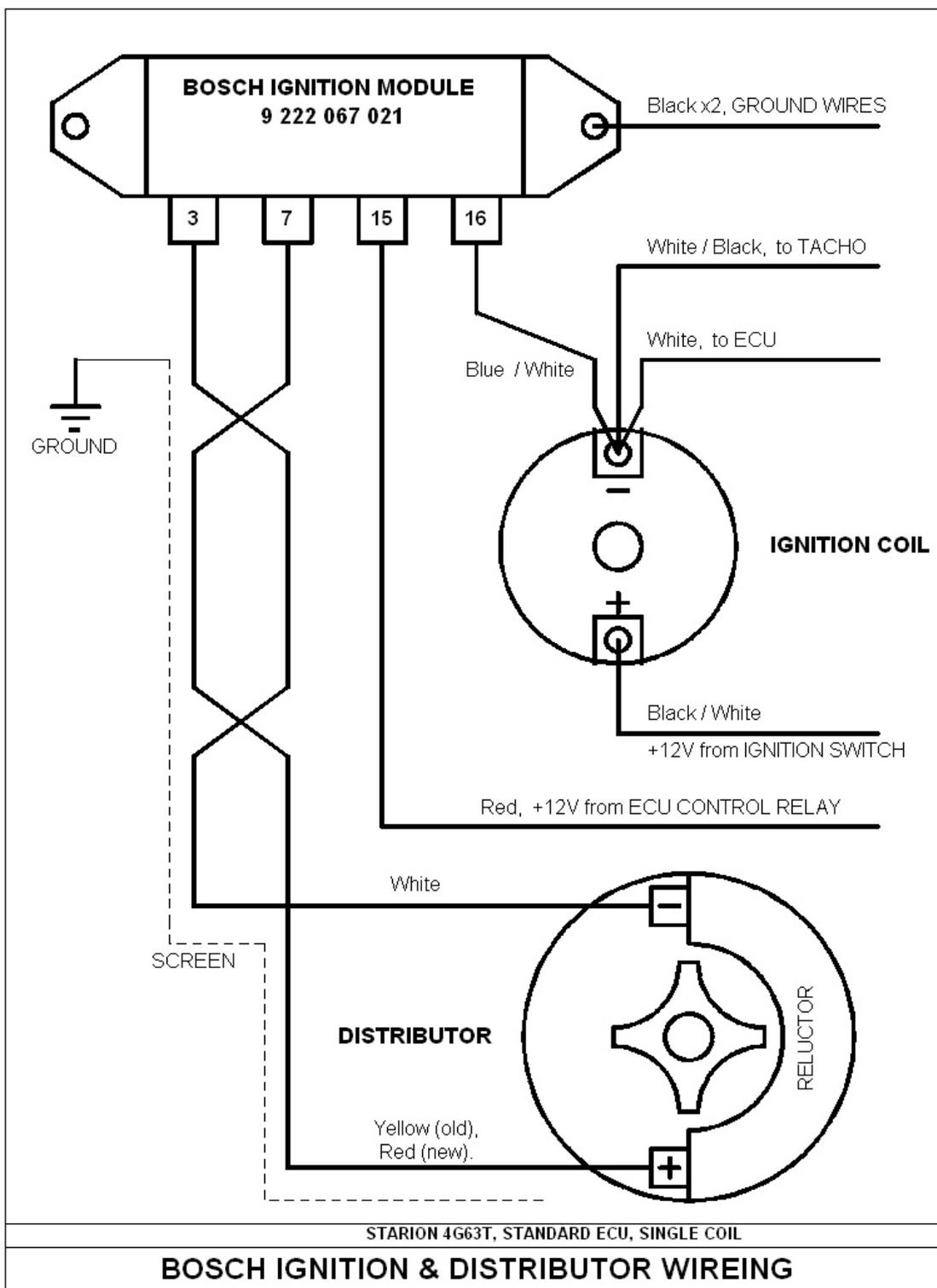


FIG 2.

Note: The factory distributor signal cable has been replaced with a new screened twisted pair cable, with red and white cores. The cable screen should be connected to ground at the igniter module. The original connections to the Reluctor had deteriorated and required replacement.

The Reluctor wiring can be seen in FIG 3 below. Note the negative side wire is at the top. The cable hole in the rubber grommet had to be opened up to fit the new cable, which was heat hardened and very brittle. The spade connectors to the Reluctor were loose enough to cause intermittent ignition failure.

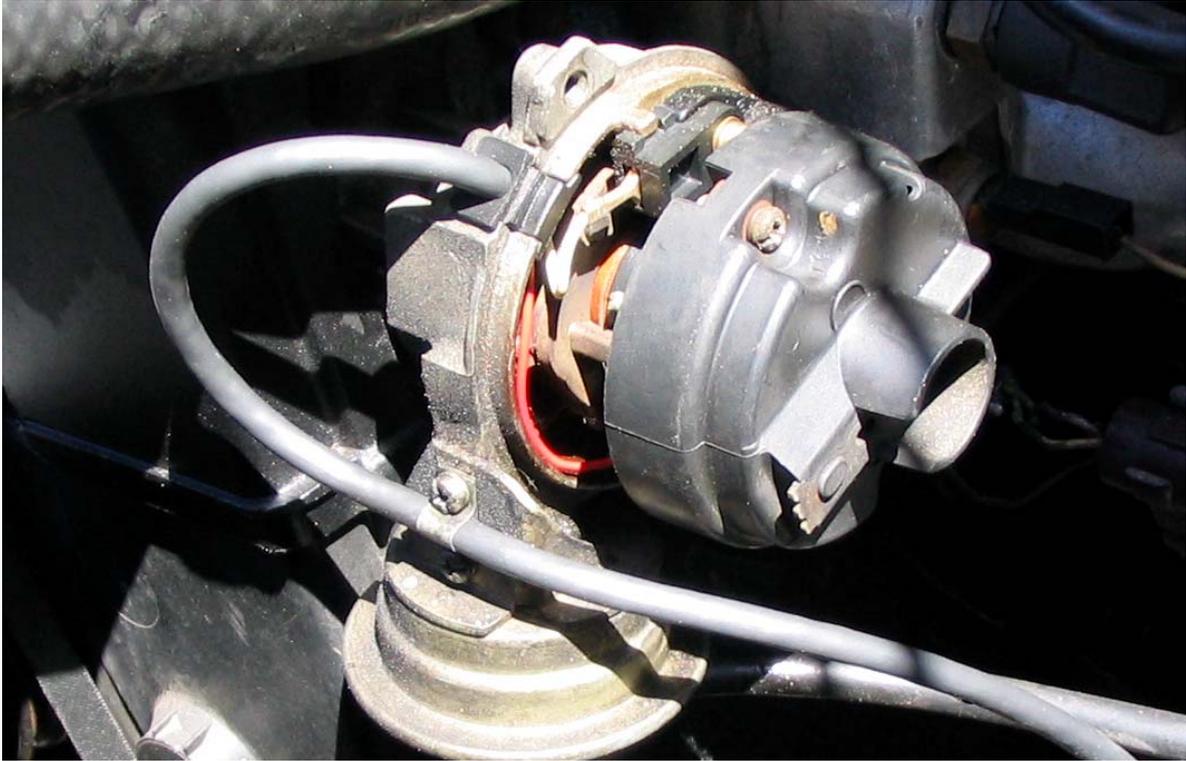


FIG 3. RELUCTOR WIREING with DISTRIBUTOR CAP REMOVED

STEP 4.

Connect a timing light. Loosen the distributor locking nut. Start the engine. I found the ignition timing to be about 10° advanced from its previous setting with this new setup. Allow the engine to warm up and reset the ignition timing to 12°BTDC at idle.

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