(1FZ–FE)

DESCRIPTION

IG072–01

The ECU is programmed with data for optimum ignition timing under any and all operating conditions.

Using data provided by sensors which monitor various engine functions (Engine RPM, intake air volume, engine coolant temperature, etc.), the microcomputer (ECU) triggers the spark at precisely the right instant.

The ECU monitors the engine condition by signals from each sensor, calculates the ignition timing and sends an ignition signal to the igniter. High voltage from the ignition is distributed to each spark plug in the appropriate order to generate a spark between the electrodes, which ignites the air–fuel mixture.

IGNITER

The igniter temporarily interrupts the primary current with the ignition signal (IGT signal) from the ECU and generates sparks at the spark plug. Also, as a fail–safe measure, when ignition occurs an ignition confirmation signal (IGF signal) is sent to the ECU.

IGNITION COIL

The ignition coil uses a closed core coil with the primary coil wrapped around the core and the secondary coil wrapped around the primary coil. This allows the generation of a high voltage sufficient to cause a spark to jump across the spark plug gap.

DISTRIBUTOR

This correctly distributes high voltage to the spark plug of each cylinder in the specified ignition order.

PICKUP COILS

The NE coil detects the crankshaft position, and the G1 and G2 coils detect the camshaft position.