

# Injectronics

Remanufactured Automotive Electronics Components

## TECHNICAL BULLETIN

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**Make: Nissan**

**Model: Pintara CA20E EFI**

**Subject: Ignition patterns**

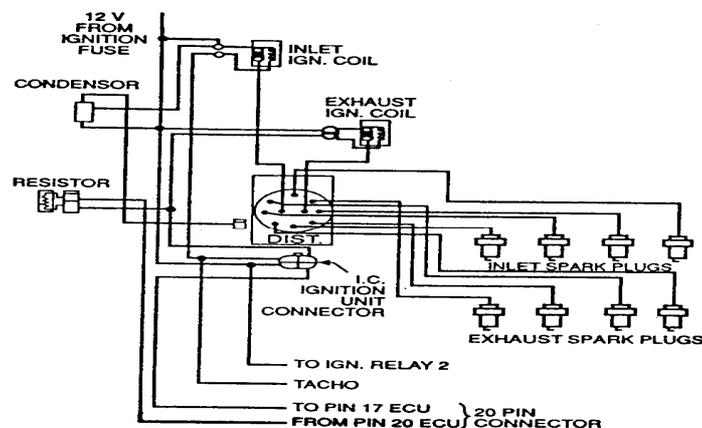
Injectronics has received numerous calls from mechanics regarding loss of oscilloscope patterns on Nissan vehicles fitted with the CA20E (2 spark plug per cylinder) engine.

With the CA20E EFI engine, a spark switching control system reduces the ignition system operation from a 2 spark plug per cylinder to a 1 spark plug per cylinder ignition system. This is done simply by electrically switching off the secondary ignition coil.

When the engine is idling or under light load and the engine temperature is above 15°C, all eight spark plugs are fired as both ignition coils are operational.

When the engine is under heavy load, the ECM directs a signal to the IC in the distributor which inhibits the operation of the exhaust side ignition coil, effectively reducing the engine to a 1 spark plug per cylinder ignition system. The ECM can only do this after receiving signals from the air flow meter, the coolant temp sensor and the throttle position switch, which will in turn indicate the amount of air passing through the air flow meter, that the coolant temperature is above 15°C and that the throttle position sensor contacts are closed.

When the engine temp is below 15°C, both coils are operational under all conditions. Note: It is imperative that the spark plug and coil leads are fitted to the distributor correctly (as marked on the distributor cap) and that the rotor button is in good working condition.



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