



SERVICE BULLETIN

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ENGINE CRANKS, BUT WILL NOT START OR IS HARD TO START

APPLIED VEHICLE: All

SERVICE INFORMATION

This bulletin has been developed to address complaints of an engine which cranks over normally, but is difficult to start or will not start at all.

SERVICE PROCEDURE

1. Connect CONSULT. If the vehicle you are working with is not CONSULT compatible, connect a tachometer (digital readout if possible).
2. Start the engine (the accelerator may have to be opened and/or the fuel pump fuse removed during cranking to get the engine to start), and warm it to operating temperature.

Note: If the engine will not start after performing the above procedure, clean and dry the spark plugs, and attempt to start the engine again.

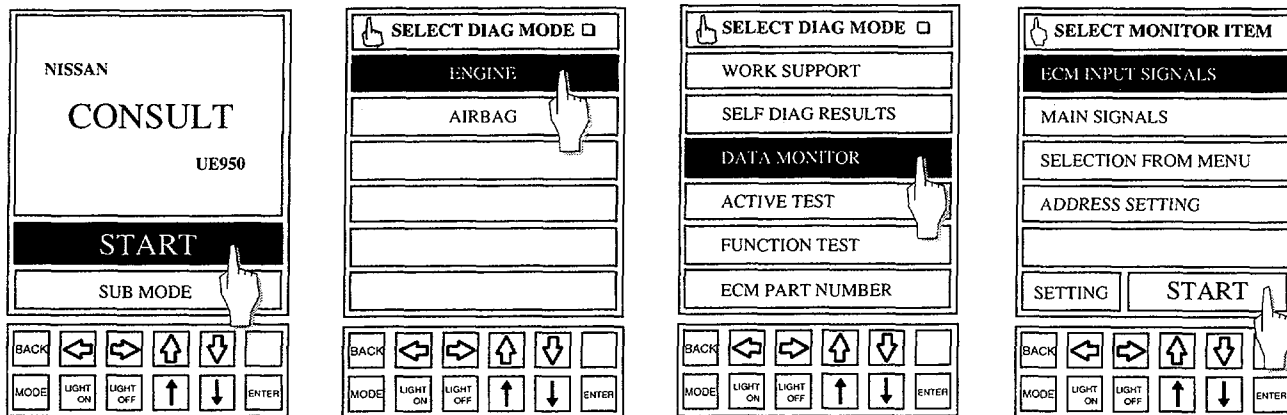
3. Run the engine at 2000 rpm (no load) for two minutes. Then shut the engine off.
4. Check the oil level and correct if necessary (between the "L" and "H" marks on the dipstick). If the oil level is overfull *and* has a gasoline odor, change the oil and filter *before* performing this procedure. If the crankcase is overfull with oil, idle speed adjustment may be affected.
5. Disconnect the throttle position sensor (TPS) connector. Now re-start the engine.

Note: When the engine is in this condition (TPS disconnected), the IACV-AAC valve and the ignition timing are held in a "fixed" position, and the idle speed is called "base idle." If the engine stalls with the TPS disconnected, the base idle speed is adjusted too low. Temporarily increase the base idle speed by turning the adjusting screw on the IACV-AAC valve until the engine will idle.

Note: On 1989-1994 Maxima's (J30) with VG30E engine the IACV-AAC valve is a "stepper motor" type valve. To set base idle on these vehicles, set the ECCS ECM mode screw fully "clockwise". This will close the IACV-AAC valve completely to allow base idle speed adjustment. Return the ECCS ECM mode screw fully counter-clockwise after setting the base idle (see step 9).

6. Rev the engine 2-3 times to 2000-3000 rpm, then allow it to idle (all accessories "off").

7. Check the ignition timing with a timing light and adjust it to specification (if necessary).



TC960396

Touch "START"

Touch "ENGINE"

Touch "DATA MONITOR"

Touch "START"

8. If the vehicle is not CONSULT compatible, monitor the idle speed using the tachometer connected in step 1. If using CONSULT, perform the following procedure:

Monitor the idle speed (CMPS•RPM) on the CONSULT screen.

9. Check the idle rpm and adjust to specification (if necessary) using the screw on the IACV-AAC valve.

The table below shows ignition timing and base idle speed for some models.

| Model | Model Years | Engine | Transmission | Timing | Base Idle |
|--------------------|-------------|--------|--------------|----------|---------------|
| B14 Sentra & 200SX | '95-On | GA16DE | A/T | 8° ± 2° | 725 ± 50 rpm* |
| | | | M/T | 8° ± 2° | 625 ± 50 rpm |
| B13 Sentra & NX | '91-'94 | GA16DE | A/T | 10° ± 2° | 725 ± 50 rpm* |
| | | | M/T | 10° ± 2° | 600 ± 50 rpm |
| U13 Altima | '93-On | KA24DE | A/T | 20° ± 2° | 650 ± 50 rpm* |
| | | | M/T | 20° ± 2° | 650 ± 50 rpm |

* A/T in "N" position.

If the model or model year you are working on is not listed, refer to the appropriate service manual (EF &) EC section, and perform the "IDLE SPEED/IGNITION TIMING/IDLE MIXTURE RATIO INSPECTION" procedure.

10. Turn the engine off, and re-connect the TPS.