1982 Datsun/Nissan 6 Tune-Up

TUNE-UP

280ZX, 280ZX Turbo, Maxima

ENGINE IDENTIFICATION

Engine serial number is stamped on right rear side of cylinder block at cylinder head contact surface. Serial number is preceded by engine model number.

ENGINE CODE

Application	Code
280ZX	L28E
280ZX Turbo	L28ET
Maxima	L24E

ENGINE COMPRESSION

Test compression with engine at normal operating temperature, spark plugs removed, all injector connectors and cold start valve disconnected, throttle valve fully open and engine at cranking speed (350 RPM).

COMPRESSION SPECIFICATIONS

Compression Pressure	128 psi (9.0 kg/cm²)
Max. Variation Between Cylinders	20%

VALVE CLEARANCE

1) Adjust valves with engine off and at normal operating temperature. Remove rocker cover. Rotate crankshaft until No. 1 cam lobe points up. Adjust intake valves on cylinder No. 2, 4 and 6, and exhaust valves on cylinder No. 1, 4 and 5.

2) Rotate crankshaft so that No. 1 cam lobe points down. Adjust intake valves on cylinder No. 1, 3, and 5, and exhaust valves on cylinder No. 2, 3 and 6.

VALVE CLEARANCE SPECIFICATIONS

Application	[1] Clearance In. (mm)
Intake	.010 (.25)
Exhaust	.012 (.30)

[1] — Adjust valves with engine hot.

VALVE ARRANGEMENT

E-I-I-E-I-E-E-I-E-I-I-E (Front to rear)

SPARK PLUGS

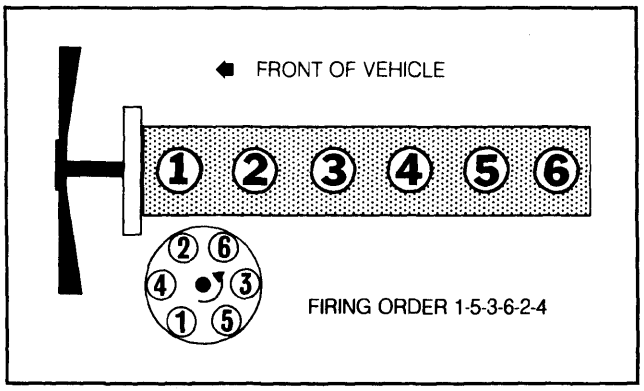
SPARK PLUG TYPE

Application	NGK No.
All Models	BPR6ES-11

SPARK PLUG SPECIFICATIONS

Application	Gap In. (mm)	Torque Ft. Lbs. (N.m)
All Models	.041 (1.05)	13 (17)

Fig. 1: Firing Order and Distributor Rotation



HIGH TENSION WIRE RESISTANCE

Remove distributor cap from distributor but do not disconnect high tension wires from cap. Disconnect high tension wires from spark plugs. Using an ohmmeter, check resistance from contact at spark plug end of wires to contact inside distributor cap. Resistance should be as specified. If resistance is higher, disconnect wire from cap and recheck resistance. Replace wire if resistance still exceeds specifications.

WIRE RESISTANCE

Application	Ohms
All Models	.012-.020 (.3-.5)

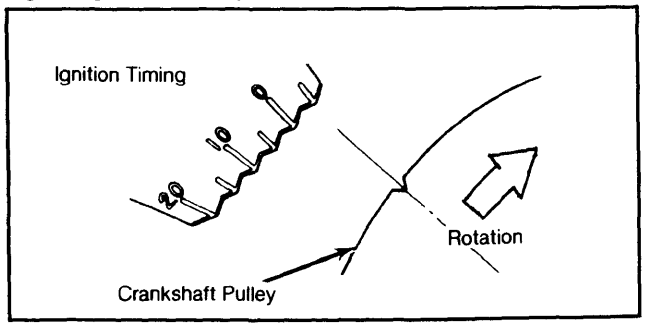
DISTRIBUTOR

All models use a single pick-up transistor ignition system with no point set. The only adjustment needed is for air gap between the reluctor and pick-up coil. Measure air gap using non-magnetic feeler gauge. If gap is not to specifications, loosen pick-up coil screws and adjust gap.

DISTRIBUTOR PICK-UP COIL AIR GAP

Application	In. (mm)
All Models	.012-.020 (.3-.5)

Fig. 2: Ignition Timing Mark Location



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TUNE-UP (Cont.)

IGNITION TIMING

NOTE: Regular ignition timing adjustment is not necessary on 280ZX Turbo models. Timing cannot be changed by turning distributor.

1) With engine at normal operating temperature, connect a timing light and tachometer to engine. With Man. Trans. in neutral or Auto . Trans. in "D", check and, if necessary, adjust air gap and idle speed.

2) On all models except 280ZX Turbo, disconnect and plug distributor vacuum hose. Adjust timing by loosening set screw and rotating distributor until timing is set. Tighten set screw and recheck timing.

IGNITION TIMING (Degrees BTDC@RPM)

Application	Man. Trans.	[1] Auto. Trans.
280ZX	8@600-800	8@600-800
280ZX Turbo	20@600-700	20@600-700
Maxima	8@600-800	8@550-750

[1] — Transmission in "D"

IDLE SPEED & MIXTURE

NOTE: Regular idle speed and mixture adjustment are not necessary on 280ZX Turbo models.

NOTE: Mixture adjustment is NOT a part of normal tune-up procedure and should not be performed unless mixture control unit is replaced or vehicle fails emissions testing.

NOTE: The following adjustment procedures should be performed with engine at normal operating temperature, air conditioning "OFF" (if equipped), ignition timing set to specifications and air cleaner installed. Set parking brake, block drive wheels and, on models with automatic transmission, place gear selector in "D" position.

1) Connect a tachometer to engine and run at 2000 RPM for 5 minutes to stabilize operating condition. Accelerate engine 2-3 times and return to idle. Turn idle speed adjusting screw to obtain specified idle RPM.

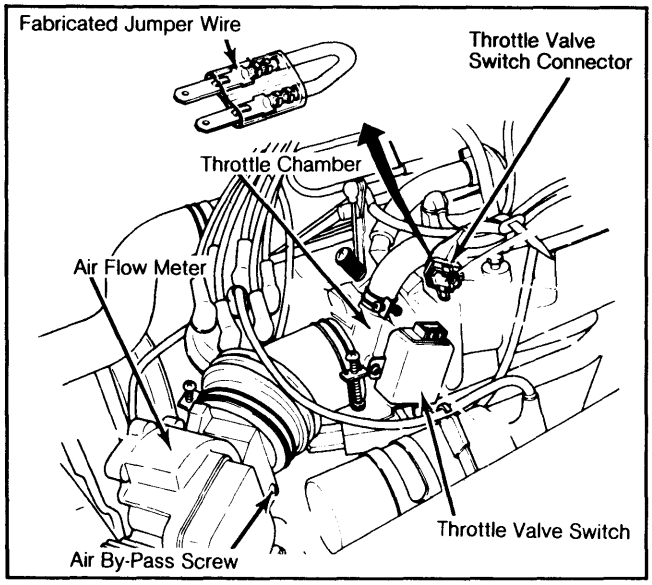
2) Turn ignition switch off and disconnect throttle valve switch harness connector. Position harness connector at least 4" away from any secondary ignition wires.

3) Disconnect and plug distributor vacuum hose. Disconnect air induction hose and canister purge hose at intake manifold. Plug air induction pipe and purge hose fitting on intake manifold. Start engine, accelerate 2-3 times and allow to idle for 1 minute.

4) Check and, if necessary, adjust ignition timing. Connect a jumper wire between throttle valve switch harness connector terminals No. 24 and No. 30. *See Fig. 3.* Insert CO meter probe into tail pipe at least 16". Disconnect oxygen sensor.

NOTE: Connecting jumper wire between connector terminals signals the control unit of a full throttle condition which allows the idle mixture to run at full load enrichment. This step is necessary to enrichen the CO% level at idle enough to be read by the CO meter.

Fig. 3 Idle Mixture Adjustment (CO%) (280ZX Shown - Maxima Similar)



5) With engine idling, check CO level. If necessary to adjust CO, remove air flow meter and drill a small hole in plug covering air by-pass screw. DO NOT allow drill to contact screw. Clean up metal shavings. Install self-tapping screw into hole and pull plug from bore. Install air flow meter.

6) Adjust CO level by turning air by-pass screw clockwise to richen mixture and counterclockwise to lean mixture. Remove air flow meter. Tap new seal plug, with convex side up, into air by-pass screw bore. Install air flow meter.

7) Stop engine and remove jumper wire from throttle valve switch harness connector. Reconnect harness and all hoses. Reset idle speed to specified RPM.

IDLE SPEED & CO LEVEL

Application	Idle RPM [1]	Max. CO%
Maxima & 280ZX		
Man.Trans.	700	5.0
Auto. Trans.	650	5.0

[1] — Auto Trans. in "D".

FUEL PUMP

FUEL PUMP PERFORMANCE

Application	Pressure psi (kg/cm²)
All Models	36.3 (2.6)

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

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GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Hitachi Transistor Ignition System.

IGNITION COIL

RESISTANCE Ohms@68°F (20°C)

Application	Primary	Secondary
280ZX & Maxima	.84-1.02	8200-12,400
280ZX Turbo	.63-.77	7000-8600

FUEL SYSTEMS

FUEL INJECTION

All models are equipped with Bosch AFC Fuel Injection System.

ELECTRICAL

BATTERY

BATTERY SPECIFICATIONS

Application	Amp. Hr. Rating
All Models	60

STARTER

All Maxima and 280ZX models use Hitachi reduction gear type starters.

STARTER SPECIFICATIONS

Application	Volts	Amps	Test RPM
All Models	11	100	3900

ALTERNATORS

All models use a Hitachi alternator.

ALTERNATOR SPECIFICATIONS

Application	Rated Amp. Output
All Models	60

ALTERNATOR REGULATOR

All models use a Hitachi alternator regulator.

REGULATOR OPERATING VOLTAGE@68°F (20°C)

Application	Voltage
All Models	14.5-15.0

SERVICE SPECIFICATIONS

BELT ADJUSTMENT

Application	[1] Deflection In. (mm)
Cooling Fan	.3 (8)
Air Conditioning Compressor	.2 (5)
Power Steering Pump	.4 (10)

[1] — Deflection is with 22 lbs. (10 kg) pressure applied midway on belt run.

REPLACEMENT INTERVALS

Component	Miles
Oil Filter	7500
Oil	
Turbo	3750
All Others	7500
Air Filter	30,000
Spark Plugs	30,000

FLUID CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	
280ZX	4.8 qts. (4.5L)
280ZX Turbo	5.5 qts. (5.2L)
Maxima	5.3 qts. (5.0L)
Cooling System (Includes Heater)	
280ZX & 280ZX Turbo	
With Reservoir	11.1 qts. (10.5L)
Without Reservoir	10.3 qts. (9.7L)
Maxima	11.6 qts. (11.0L)
Man. Trans. (API GL-5/SAE 80)	4.3 pts. (2.0L)
Auto. Trans. (Dexron)	5.9 qts. (5.6L)
Rear Axle (API GL-5/SAE 80-90)	
280ZX	
Model R-180	2.1 pts. (1.0L)
Model R-200	2.8 pts. (1.3L)
280ZX Turbo	2.8 pts. (1.3L)
Maxima	2.1 pts. (1.0L)
Fuel Tank	
280ZX & 280ZX Turbo	21.1 gals. (80.0L)
Maxima	
Sedan	16.4 gals. (62.0L)
Station Wagon	15.9 gals. (60.0L)