

TUNE-UP

911SC

ENGINE IDENTIFICATION

Engine identification number is stamped on left of engine crankcase near fan housing. The first 3 digits in engine number identify engine type and year.

ENGINE CODE

Application	Code
911SC	641

ENGINE COMPRESSION

Perform compression test with wide open throttle and oil temperature not less than 140°F (60°C). Remove all spark plugs and allow about 12 piston strokes per cylinder test.

COMPRESSION SPECIFICATIONS

Compression Ratio	9.3:1
Compression Pressure	
Normal	142-184 psi (10-13 kg/cm ²)
Minimum	107 psi (7.5 kg/cm ²)
Max. Variation	
Between Cylinders	22 psi (1.5 kg/cm ²)

VALVE CLEARANCE

Adjust the valve clearance to specification with the engine cold.

VALVE CLEARANCE SPECIFICATIONS

Application	Clearance In. (mm)
Intake & Exhaust (Cold)004 (.1)

VALVE ARRANGEMENT

Engine cylinders have individual heads and contain one intake and one exhaust valve per head. Upper valves are intake and lower valves are exhaust.

SPARK PLUGS

SPARK PLUG TYPE

Application	Bosch No.
911SC	W225T30 (W5D)

SPARK PLUG SPECIFICATIONS

Application	Gap In. (mm)	Torque Ft. Lbs. (N.m)
911SC028 (.7)	22 (30)

HIGH TENSION WIRE RESISTANCE

Carefully remove high tension wires from spark plugs and distributor cap. Using an ohmmeter, check high tension wire resistance while gently twisting wires. If resistance is incorrect, or fluctuates from infinity to any value, replace high tension wire(s).

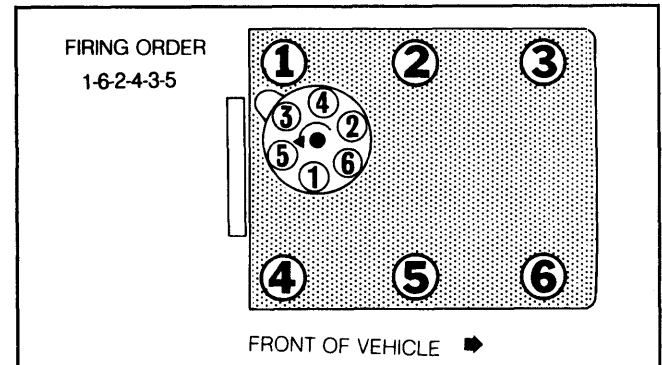
WIRE RESISTANCE

Application	Ohms
All Models	25,000-30,000

DISTRIBUTOR

All models use Bosch breakerless electronic distributors. No adjustments are necessary.

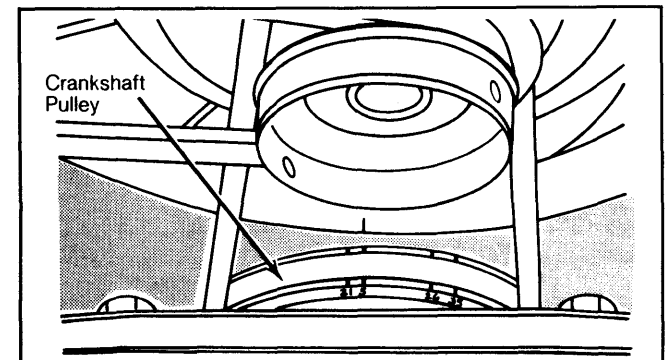
Fig. 1: Firing Order and Distributor Rotation



IGNITION TIMING

Warm engine to normal operating temperature and disconnect both distributor vacuum lines. Connect tachometer and timing light. With engine idling, rotate distributor until mark on pulley is lined up with reference mark on blower housing.

Fig. 2: Ignition Timing Mark Location



IGNITION TIMING (Degrees BTDC@RPM)

Application	Timing
911SC	1 5@950
1 — Distributor vacuum lines disconnected.	

1982 Porsche 6 Tune-Up

TUNE-UP (Cont.)

IDLE SPEED & MIXTURE

1) Engine should be at normal operating temperature and oil filler cap must be tightly sealed. Connect CO level meter to pick-up point on catalytic converter and connect tachometer to ignition control box Black/Purple wire.

2) Disconnect plug from oxygen sensor on left side of engine compartment. Turn idle by-pass screw on throttle housing to obtain correct idle RPM. If mixture must be adjusted, remove plug from mixture control unit.

3) Insert adjusting tool and rotate clockwise for richer mixture and counterclockwise for leaner mixture. Rotate slowly without pressing down on adjusting tool. Be sure to plug opening before accelerating engine or testing mixture.

4) Accelerate engine briefly. Allow idle to stabilize before taking readings. When CO level is correct, check idle speed and readjust if necessary. Remove test equipment, coat threads of test point cap (on converter) with anti-seize compound, and reconnect oxygen sensor.

IDLE SPEED & CO LEVEL

Application	Idle RPM	CO%
All Models	850-950	0.4-0.8

FUEL PUMP

FUEL PUMP PERFORMANCE

Application	Pressure psi (kg/cm ²)	Volume in 30 Sec. Pints (Liters)
All Models	65-75 (4.5-5.2)	1.5 (.7)

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models use Capacitive Discharge Ignition systems with Bosch breakerless distributors.

IGNITION COIL

RESISTANCE Ohms@68°F (20°C)

Application	Primary	Secondary
All Models	0.4-0.6	600-790

FUEL SYSTEMS

FUEL INJECTION

All models are equipped with Bosch Lambda Continuous Injection System (CIS) with oxygen sensor.

ELECTRICAL

BATTERY

Battery is located on left in front luggage compartment, under the floor mat.

BATTERY SPECIFICATIONS

Application	Amp. Hr. Rating
All Models	66

STARTER

All models are equipped with Bosch starters with overrunning clutch.

ALTERNATORS

All models use a Bosch alternator.

ALTERNATOR SPECIFICATIONS

Application	Rated Amp. Output
All Models	70

ALTERNATOR REGULATOR

All models are equipped with Bosch or Motorola alternator regulators.

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

Application	Voltage
All Models	1 13.5-14.5
1 — Voltage at 2500 RPM.	

SERVICE SPECIFICATIONS

BELT ADJUSTMENT

Application	1 Deflection In. (mm)
All Belts2-.5 (6-13)
1 — With light pressure applied halfway between pulleys.	

REPLACEMENT INTERVALS

Component	Miles
Oil Filter	15,000
Air Filter	30,000
Fuel Filter	30,000
Spark Plugs	30,000
Oxygen Sensor	30,000

FLUID CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	13.7 qts. (13.0L)
Oil Change	10.6 qts. (10.0L)
Transaxle (SAE 90)	3.2 qts. (3.0L)
Fuel Tank	1 21 gals. (80.0L)
1 — Includes 2.1 gals. (8.0L) in reserve.	