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# Air Resources Board

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Gray Davis  
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## Air Resources Board

### Emission-Related Parts List

Adopted November 4, 1977  
Amended May, 1981  
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The following list of components are examples of emission related parts as defined in Section 1900 (b) (3), Chapter 3, Title 13, California Code of Regulations.

#### I. Carburetion and Air Induction System

##### A. Air Induction System:

1. Temperature sensor elements
2. Vacuum motor for air control
3. Hot air duct & stove
4. Air filter housing & element
5. Turbocharger or supercharger
6. Intercooler

##### B. Emission Calibrated Carburetors:

1. Metering jets
2. Metering rods
3. Needle and seat
4. Power valve
5. Float circuit
6. Vacuum break
7. Choke mechanism
8. Throttle-control solenoid
9. Deceleration valve
10. Dashpot
11. Idle stop solenoid, anti-dieseling assembly
12. Accelerating pump
13. Altitude compensator

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.*

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California Environmental Protection Agency

### C. Mechanical Fuel Injection:

1. Pressure regulator
2. Fuel injection pump
3. Fuel injector
4. Throttle-position compensator
5. Engine speed compensator
6. Engine temperature compensator
7. Altitude cut-off valve
8. Deceleration cut-off valve
9. Cold-start valve

### D. Continuous Fuel Injection:

1. Fuel pump
2. Pressure accumulator
3. Fuel filter
4. Fuel distributor
5. Fuel injections
6. Air-flow sensor
7. Throttle-position compensator
8. Warm-running compensator
9. Pneumatic overrun compensator
10. Cold-start valve

### E. Electronic Fuel Injection:

1. Pressure regulator
2. Fuel distribution manifold
3. Fuel injectors
4. Electronic control unit
5. Engine speed sensor
6. Engine temperature sensor
7. Throttle-position sensor
8. Altitude/manifold-pressure sensor
9. Cold-start valve

### F. Air Fuel Ratio Control:

1. Frequency valve
2. Oxygen sensor
3. Electronic control unit

### G. Intake Manifold

## II. Ignition System

### A. Distributor

1. Cam
2. Points
3. Rotor
4. Condenser
5. Distributor cap
6. Breaker plate
7. Electronic components (breakerless or electronic system)

### B. Spark Advance/Retard System:

1. Centrifugal advance mechanism:
  - a. Weights
  - b. Springs
2. Vacuum advance unit
3. Transmission controlled spark system:
  - a. Vacuum solenoid
  - b. Transmission switch
  - c. Temperature switches
  - d. Time delay
  - e. CEC valve
  - f. Reversing relay
4. Electronic spark control system:
  - a. Computer circuitry
  - b. Speed sensor
  - c. Temperature switches
  - d. Vacuum switching valve
5. Orifice spark advance control system:
  - a. Vacuum bypass valve
  - b. OSAC (orifice spark advance control) valve
  - c. Temperature control switch
  - d. Distributor vacuum control valve
6. Speed controlled spark system:

- a. Vacuum solenoid
- b. Speed sensor and control switch
- c. Thermal vacuum switch

C. Spark Plugs

D. Ignition Coil

E. Ignition Wires

### III. Mechanical Components

A. Valve Trains:

- 1. Intake valves
- 2. Exhaust valves
- 3. Valve guides
- 4. Valve springs
- 5. Valve seats
- 6. Camshaft

B. Combustion Chamber:

- 1. Cylinder head or rotor housing<sup>1</sup>
- 2. Piston or rotor<sup>1</sup>

### IV. Evaporative Control System

A. Vapor Storage Canister and Filter

B. Vapor Liquid Separator

C. Filler Cap

D. Fuel Tank

E. Canister Purge Valve

### V. Positive Crankcase Ventilation System

A. PCV Valve

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<sup>1</sup> Rotary (Wankel) engines only

- B. Oil Filler Cap
- C. Manifold PCV Connection Assembly

## VI. Exhaust Gas Recirculation System

- A. EGR Valve:
  - 1. Valve body and carburetor spacer
  - 2. Internal passages and exhaust gas orifice
- B. Driving Mode Sensors:
  - 1. Speed sensor
  - 2. Solenoid vacuum valve
  - 3. Electronic amplifier
  - 4. Temperature-controlled vacuum valve
  - 5. Vacuum reducing valve
  - 6. EGR coolant override valve
  - 7. Backpressure transducer
  - 8. Vacuum amplifier
  - 9. Delay valves

## VII. Air Injection System

- A. Air Supply Assembly:
  - 1. Pump
  - 2. Pressure relief valve
  - 3. Pressure-setting plug
  - 4. Pulsed air system
- B. Distribution Assembly:
  - 1. Diverter, relief, bypass, or gulp valve
  - 2. Check or anti-backfire valve
  - 3. Deceleration control part
  - 4. Flow control valve
  - 5. Distribution manifold
  - 6. Air switching valve
- C. Temperature sensor

## VIII. Catalyst, Thermal Reactor, and Exhaust System

A. Catalytic Converter:

1. Constricted fuel filler neck
2. Catalyst beads (pellet-type converter)
3. Ceramic support and monolith coating (monolith-type converter)
4. Converter body and internal supports
5. Exhaust manifold

B. Thermal Reactor:

1. Reactor casing and lining
2. Exhaust manifold and exhaust port liner

C. Exhaust System:

1. Manifold
2. Exhaust port liners
3. Double walled portion of exhaust system
4. Heat riser valve and control assembly

IX. Miscellaneous Items Used in Above Systems

1. Hoses, clamps, and pipers
2. Pulleys, belts, and idlers

X. Computer Controls

1. Electronic Control Unit (ECU)
2. Computer-coded engine operating parameter (including computer chips)
3. All sensors and actuators associated with the ECU