System Description

General

Motronic MP 3.1 is a variation of the 35-pole Motronic system. This system differs from other 35-pole systems primarily by having a built-in MAP sensor, and by the use of a throttle potentiometer. Amongst other things, the engine's electronic system controls fuel injection, ignition and idling speed. Fuel is distributed through four injection valves, regulated by the values supplied by the throttle potentiometer and MAP sensor, built into the control unit and connected to the manifold via a tube. The amount of fuel is adjusted according to the air and engine temperatures by means of two thermal sensors, and by a lambda probe which measures the oxygen content of the exhaust gas.

Motronic MP 3.1 controls ignition in either of two ways:

1. Conventional electronic means, with a high tension distributor.

2. Electronically, by-passing the distributor (DIS).

Summary – Car Models

The following car models are equipped with Motronic MP 3.1:

Manufacturer	Туре	Engine
Alfa Romeo	33	1.5
Alfa Romeo	145	
Citroën	AX	1.4
Citroën	BX, ZX	1.9
Citroën	XM	2.0
Peugeot	106	1.4
Peugeot	405	1.9
Peugeot	605	2.0
Yugo		

Please check the workshop manual to verify if the actual car is equipped with a system described in this manual.

Interface - Signal Locations, DIS and lambda sensor

- 1. Control signal to ignition amplifier, cyl. 1 & 4
- 2. Control signal to ignition amplifier, cyl. 2 & 3
- 3. Signal from throttle potentiometer
- 4. Diagnosis
- 5. Ground
- 6. Ground to sensor
- 7. Not connected
- 8. Ground to lambda sensor
- 9. Power supply to throttle potentiometer
- 10. Not connected
- 11. Not connected
- 12. Diagnosis
- 13. Signal from coolant temperature sensor
- 14. Control signal to injection valves
- 15. "Octane switch"*
- 16. Ground
- 17. Diagnosis / Engine control lamp*
- 18. Constant power supply from battery
- 19. Not connected
- 20. Control signal to fuel pump relay
- 21. Engine speed signal to revolution counter*
- 22. Signal from air temperature sensor
- 23. Ground to crankshaft sensor
- 24. Signal from lambda sensor
- 25. Signal from crankshaft sensor
- 26. Not connected
- 27. Ground*
- 28. AC*
- 29. AC*
- 30. Not connected
- 31. Control signal to tank ventilation valve
- 32. AC*
- 33. Control signal to idle speed correction valve*
- 34. Control signal to idle speed correction valve*
- 35. Power supply from main relay
- * Only certain systems



Wiring Diagram, DIS and lambda sensor

This wiring diagram is an example. Check in the relevant workshop manual for the diagram of the car you are working with.



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Interface - Signal Locations, distributor and CO-potentiometer Wiring harness

1.	Control signal to ignition amplifier	
2.	Control signal to ignition amplifier	
3.	Signal from throttle potentiometer	
4. E	Diagnosis	í
ວ. ເ	Ground to concer	
b. 7	Ground to sensor	
1. 0	Not connected	19
ο. ο	Not connected	
9. N	Not connected	20
1	Not connected	21
2	Diagnosis	21
3.	Signal from coolant temperature sensor	22
4.	Control signal to injection valves	
5.	"Octane switch"*	23
6.	Ground	
7.	Diagnosis / Engine control lamp*	24
8.	Constant power supply from battery	
9.	Not connected	25
0 .	Control signal to fuel pump relay	
1.	Engine speed signal to revolution counter*	26
2.	Signal from air temperature sensor	27
ა. ⊿	Ground to crankshall sensor	21
4. 5	Signal from 60-potentiometer	28
Ј. 6	Not connected	20
0. 7	Ground*	29
8.	AC*	
9.	AC*	30
0.	Not connected	
1.	Not connected	31
2.	AC*	20
3.	Control signal to idle speed correction valve*	32
4.	Control signal to idle speed correction valve*	33
5.	Powers upply from main relay	55
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15. "Octane switch"* 16. Ground

10. Not connected

11. Not connected 12. Diagnosis

- 17. Diagnosis / Engine control lamp*
- 18. Constant power supply from batte
- 19. Not connected
- 20. Control signal to fuel pump relay
- 21. Engine speed signal to revolution
- 22. Signal from air temperature sens
- 23. Ground to crankshaft sensor
- 24. Signal from CO-potentiometer
- 25. Signal crankshaft sensor
- 26. Not connected
- 27. Ground*
- 28. AC*
- 29. AC*
- 30. Not connected
- 31. Not connected
- 32. AC*
- Control signal to idle speed corre
- Control signal to idle speed corre
- 35. Powers upply from main relay
- * Only certain systems



Wiring Diagram, distributor and CO-potentiometer

This wiring diagram is an example. Check in the relevant workshop manual for the diagram of the car you are working with.

