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:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Type</th>
<th>Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfa Romeo</td>
<td>33</td>
<td>1.5</td>
</tr>
<tr>
<td>Alfa Romeo</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Citroën</td>
<td>AX</td>
<td>1.4</td>
</tr>
<tr>
<td>Citroën</td>
<td>BX, ZX</td>
<td>1.9</td>
</tr>
<tr>
<td>Citroën</td>
<td>XM</td>
<td>2.0</td>
</tr>
<tr>
<td>Peugeot</td>
<td>106</td>
<td>1.4</td>
</tr>
<tr>
<td>Peugeot</td>
<td>405</td>
<td>1.9</td>
</tr>
<tr>
<td>Peugeot</td>
<td>605</td>
<td>2.0</td>
</tr>
<tr>
<td>Yugo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
Interface - Signal Locations, distributor and CO-potentiometer

1. Control signal to ignition amplifier
2. Control signal to ignition amplifier
3. Signal from throttle potentiometer
4. Diagnosis
5. Ground
6. Ground to sensor
7. Not connected
8. Not connected
9. Power supply to throttle potentiometer and CO-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 CO-potentiometer
25. Signal crankshaft sensor
26. Not connected
27. Ground*
28. AC*
29. AC*
30. Not connected
31. Not connected
32. AC*
33. Control signal to idle speed correction valve*
34. Control signal to idle speed correction valve*
35. Powers supply 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.