System Description

General

Simtec 56.5 is a fuel injection and ignition system that is used in Opel and Vauxhall cars. The system uses certain sensors which operate in an unusual way. The first is the camshaft sensor, which is described on page 5. The second is the lambda sensor which, unlike the lambda sensor in other systems, has a signal that alternates between O-5 V.

Note:

It is important that the connection of the equipment is done according to Users Guide (page 6).

Summary – Car Models

The following car models are equipped with Simtec 56.5:

Manufacturer	Engine size	Engine	Model
Calibra	20	X20XEV	95-
Astra-F	1.8	X18XE	95-
Astra-F	20	X20XEV	95-
Vectra-B	1.8	X18XE	95-
Vectra-B	20	X20XEV	95-
Omega	1.8	X18XE	95-
Omega	20	X20XEV	95-

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

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Interface - Signal Locations

- 1. Diagnosis
- 2. Ground from chassis
- 3. Loadsignal to automatic gear*
- 4. Status signal from automatic transmission*
- 5. Signal from speedometer
- 6. Gearchange time signal from automatic transmission*
- 7. Ground from chassis
- 8. Signal from air temperature sensor
- 9. Status signal from air conditioning system*
- 10. Signal from lambda sensor
- 11. Ground from chassis
- 12. Signal from knock sensor
- 13. Signal from camshaft sensor
- 14. Ground to air mass meter
- Ground from chassis.
- 16. Power supply to crankshaft sensor
- 17. Power from ignition switch (terminal 15)
- 18. Power supply to throttle potentiometer
- 19. Ground from chassis
- 20. Engine speed signal to revolution counter
- 21. Fuel consumption signal to boardcomputer
- 22. Diagnosis
- 23. Signal from air conditioning compressor
- 24. Signal from crankshaft sensor
- 25. Not connected
- 26. Signal from throttle potentiometer
- 27. Signal from coolant temperature sensor
- Not connected
- 29. Ground from chassis
- 30. Signal from knock sensor
- Oscillation signal to the camshaft sensor
- 32. Ground to camshaft sensor
- 33. Signal from air mass meter
- Control signal to the air conditioning compressor relay*
- Power supply from main relay
- 36. Power supply to lambda sensor
- 37. Not connected

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- Control signal to ignition amplifier, cylinder 2 & 3
- 39. Control signal to ignition amplifier, cylinder 1 & 4
- 40. Control signal to injection valve, cylinder 4
- 41. Control signal to injection valve, cylinder 2
- Control signal to injection valve, cylinder 1
 Control signal to injection valve, cylinder 3
- 44. Power supply from main relay

- 45. Control signal to EGR-valve
- 46. Control signal to idle speed correction valve
- 47. Control signal to tank ventilation valve
- 48. Control signal to lambda sensor pre-heater
- 49. Control signal to main relay
- 50. Control signal to secondary air injection
- 51. Not connected
- 52. Engine control lamp
- 53. Control signal to adjustable manifold valve**
- 54. Control signal to fuel pump relay
- 55. Constant power supply from battery
- ' If AC/Automatic
- ** Not OMEGA-B

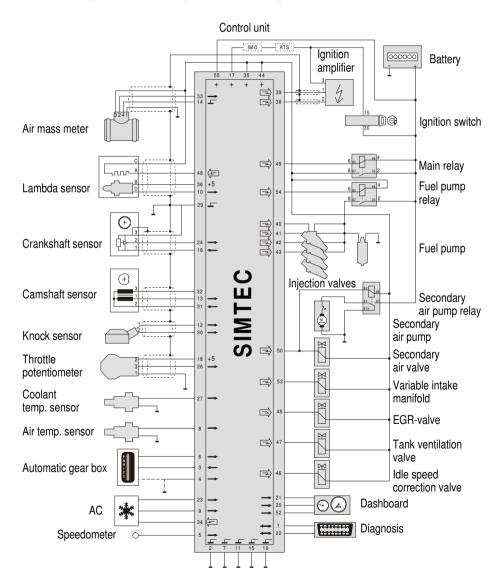
Wiring

55	37	19		
54	36	18		
53	35	17		
52	35 34 33 32	16		
	33	15		
51 50	32	14		
	31	13		
49 48	30	12		
47	30 29	11		
46	28	10		
45	27	9		
11	26	8		
44	25	7		
42	23	6		
41	24 23	5		
	23	4		
40	22	3		
39	21	2		
38	20	5 4 3 2 1		

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Wiring Diagram

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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