



Installation manual



MAKE OF AUTOMOBILE:
TYPE:
PISTON DISPLACEMENT:
NUMBER OF VALVES:
ENGINE NUMBER:
TYPE VSI INJECTOR (COLOR)
MODEL YEAR:
ENGINE SET NUMBER

OPEL
INSIGNIA SEDAN
1600
16
A16XER
ORANGE
2009
357/3500000.07

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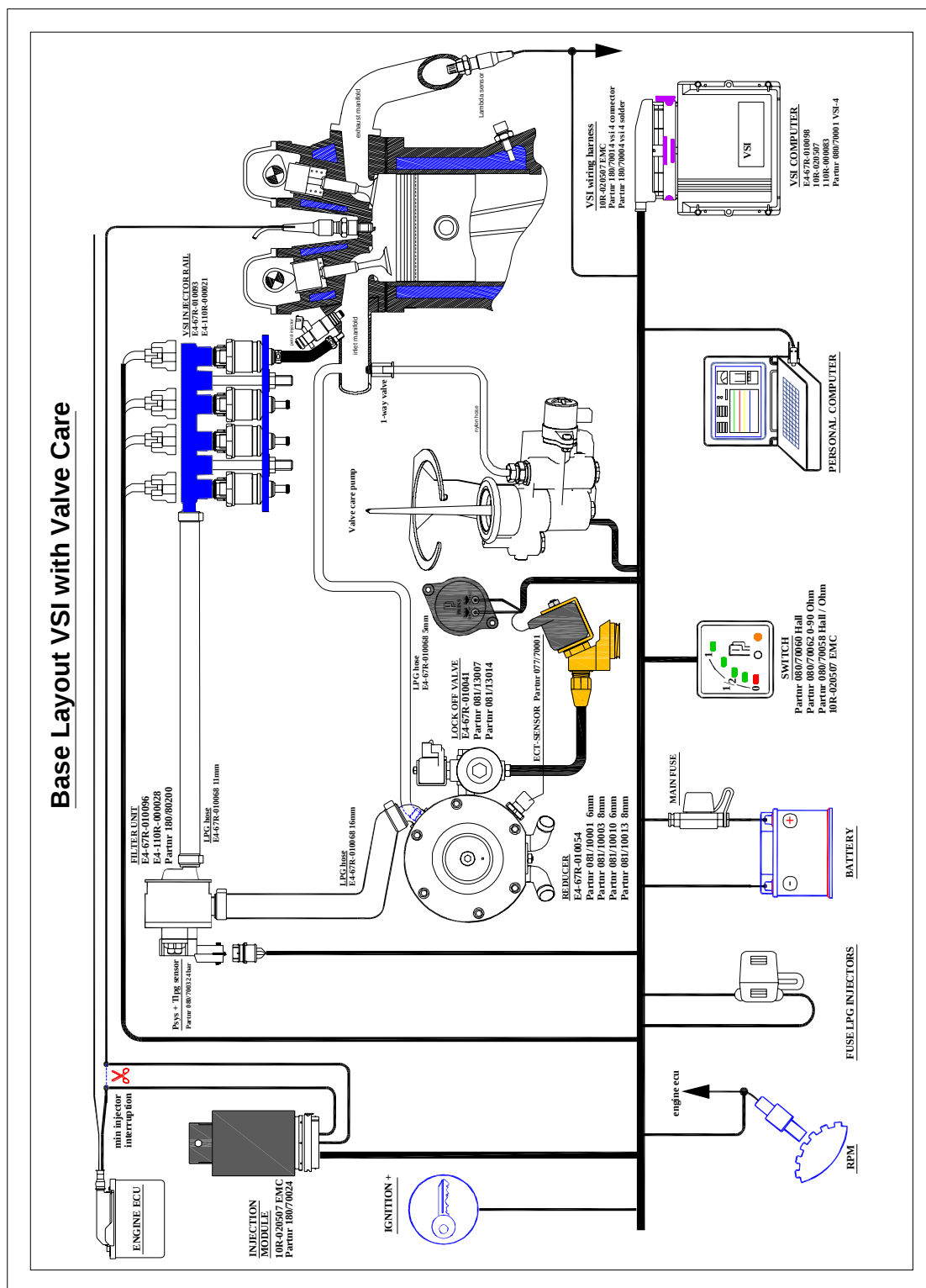
Required equipment / tools / materials for installing a complete system

- Complete workshop toolbox (wrenches, screwdrivers, cutters, pliers, ratchet, sockets)
- Portable computer : operating on Windows 98, W2000 or XP.
 - Internal memory : 16 Mb or more
 - Memory HD space : 5MB
 - Screen : 256 colours, advise colours 16 bits or more
 - Com port : 1 free COM port 1 or COM port 2 with a 9 or 25 pins connector
- Vehicle fuel system scan tool or OBD scan tool Prins (part nr. 099/99928)
- Valve care interface cable
- Valve care software
- Valve care air-breather pipe
- Multimeter
- Prins VSI diagnostic software
- Prins VSI serial interface
- Prins VSI break out box (part nr. 080/70090)
- Portable light
- Assortment drill bits 4 to 12 mm
- Portable drill or pneumatic drill
- Threading device (male M6x1)
- Air gun
- Soldering iron, soldering tin
- Wire-stripping pliers
- Adhesive tape
- Adhesive sealant
- Thread locking compound

Vehicle check

- Check the vehicle drivability on petrol
- Check the fuel system for error codes (scan tool)
- Check if the catalytic converter is in good condition (exhaust gas analyzer)

Base diagram



Mounting the Valve Care unit



temp. remove original M10 bolt from left front beam



mount the valve care unit onto the bracket



install the unit with the bracket with the removed M10 bolt

Installing the Valve Care valve



Drill a hole of Ø5mm and cut M6x1 thread into the manifold.
Install the valve with a lock compound.
Install the hose into the self-locking valve.

Valve Care nylon hose routing



Length of hose, Ø 6 mm	Valve care pump -> 1 way valve	= ±100cm
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Please observe that there is no damage or fouling to the hoses.

Electrical connections

Check and measure the wiring in case of changes in the cars wiring colours.

Valve care cable	Connection
Green	Wire colour : green Wire location : VSI ecu pin. 44
White-yellow	Wire colour : white-yellow Wire location : VSI ecu pin. 39
Brown	Wire colour : brown Wire location : VSI ecu pin. 50
Green-yellow	Wire colour : green-yellow Wire location : VSI ecu pin. 53
Red	Wire colour : grey-white Wire location : VSI ecu pin. 13

