

**INSTRUCTION OF THE INSTALLATION
AND ADJUSTMENT OF REDUCER LPG****Vega-i | Vega-i SPORT****WITH INTEGRATED LPG FILTER AND ELECTROVALVE****WARNING: INSTALLATION CAN BE EXECUTED ONLY BY PERSONS TRAINED BY ELPIGAZ****A. DEDICATED FOR**

The reducer LPG Vega-i / Vega - i SPORT is the one-stage membrane reducer designed to power supply gas propane - butane of petrol engine.

B. INSTALLATION OF LPG REDUCER**1 - Fixing of LPG reducer VEGA-i/ VEGA- i SPORT**

Reducer fit up in engine cabin, should be fixed to body or to chassis of car solidly (the fixing to engine or different internal devices is forbidden).

For fastening reducer, please use being in back cover screw #8 (drawing 1).

Warning:

During reducer installation warn recommendations below:

- to fix reducer provide easy access to LPG filter # 5 and regulating screw of pressure # 7 (drawing 2),
- to install in distance not smaller than 150 mm from outlet manifold and exhaust if this distance would be smaller but however larger than 75 mm ,should to put in between these elements thermal barrier about thickness not smaller than 1 mm
- to install in place below upper level of liquid in radiator,
- if is possible to install with GAS OUT # 4 on top (drawing 2)

2 -After installing reducer approach to connecting pipes:

- connect to small circulation cooling system. WATER ↑ and WATER ↓, should connect by water hose designed to arrangements cooling across water three-way adapters

-to connect copper pipe D6 or D8 of high pressure from LPG tank to hub of entry of gas (LPG IN) #3 (drawing 2)

-to connect pipe of low pressure D17 or D19 to pipe of exit of gas (GAS OUT) #4 (drawing 2)

Warning: Clean the copper gas pipes before their connecting to reducer, to protect before dirt or limitations in supply of gas.

- connect the pipe of compensation of pressure uniting the pipe of under pressure on reducer from of underpressure installed in inlet manifold pipe (behind throttle),

3. Connect the coil of electrovalve #1 (drawing 2) -connect wires the feeding electrovalves of gas to coil of reducer according to electric diagram of given installation (don't connect wire ground to elements of reducer)

C. Adjustment reducer LPG Vega-i / Vega-i SPORT.

⚠ Warning: DON'T COME NEAR TO ENGINE WITH KEEN CIGARETTE, FIRE OR DEVICES WHICH CAN COUSE SPARK.

Reducer Vega is calibrated during control of quality on productive line by factory. Reducer is equipped in screw to control of working pressure # 7 (drawing 2)

- 1 - **Check leakiness of connections** after connecting pipes (according to. the description B. 2.) before start engine
- open out tank supply from LPG of gas to reducer,
- give the power supply on positive wire the feeding to elektrovalve of gas without starting the engine and check for gas leak on executed joints, please using set of leakage gas tester.

⚠ Warning: DON'T TOUCH CONTACT OF BATTERY BY ELECTRIC WIRE FOR EXECUTION OF TEST! THE RISE OF SPARK CAN CAUSE THIS!

- 2 - **Start engine** (on petrol) and bringing to normal temperature of work.
- 3 - **Connect the analyser of exhaust** or the measure of signal Lambda (in case of vehicle with catalyst) and check if indications on petrol are correct
- 4 - **Load to LPG controller** the file of calibratio or to execute suitable configuration and autocalibration.
- 5 - **Switch on** power supply gas.
- 6 - **Check on idle** the working pressure of reducer (in diagnostic programme)
(Pressure LPG = 0.95 +/- 0,05 bar for system Stella, Pressure LPG = 1.2 +/- 0,05 bar for system Elisa HD).
- 7 - **Control of leakiness** - on working engine check the leakiness using set of leakage gas tester in place of connection copper pipe (supply) D6 or D8 (the exit of gas from valve, the entry of gas to reducer), filter LPG (cover of filter LPG, round screw the valve gas), on exit of gas from reducer on joints of gas (filter, injector, reductions, three-way adapters).

D. SERVICE

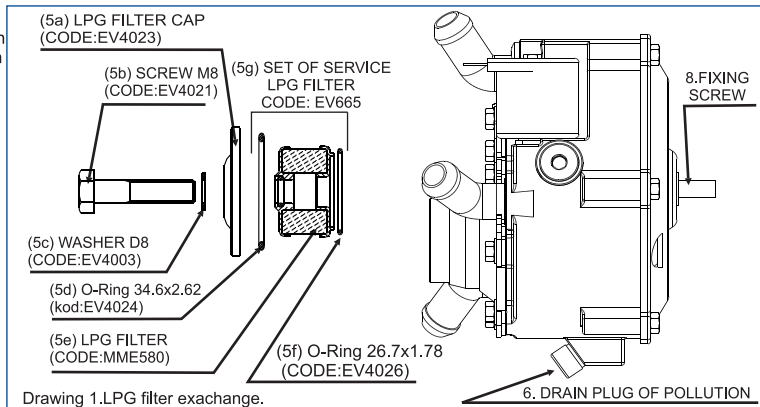
- 1. After mileage 1000-1500 kilometres should screw tight the cover of reducer (moment 5 Nm). Check then and adjust on reducer working pressure with requirements peaceably (according to description C. 6)
- 2. Exchange of filter the LPG - please replace after every 15 000 kilometers or once on 12 months
- If You want exchange of contribution LPG filter in reducer Vega-i / Vega-i SPORT - should to (drawing 1):

 - a) close the supply of gas to engine
 - close the outflow of gas from tank on working engine by hand valve being on LPG tank
 - after stop in result of lack of fuel engine (gas) switch off ignition
 - b) exchange filter LPG
 - unscrew screw # 5b (drawing 1) fixing cover of LPG filter # 5a (drawing 1) in order to take out the dirtied contribution of filter to clean the chamber of filter in reducer, put new clean contribution of filter then. The exchange of contribution of LPG filter was recommended on original together with o-rings #5g (set service code: EV665) (drawing 1)
 - after exchange of contribution of LPG filter, screw cover of filter LPG
 - c) check the leakiness of installation before starting engine and during work on LPG, after opening valve on LPG tank according to with description C. 7.

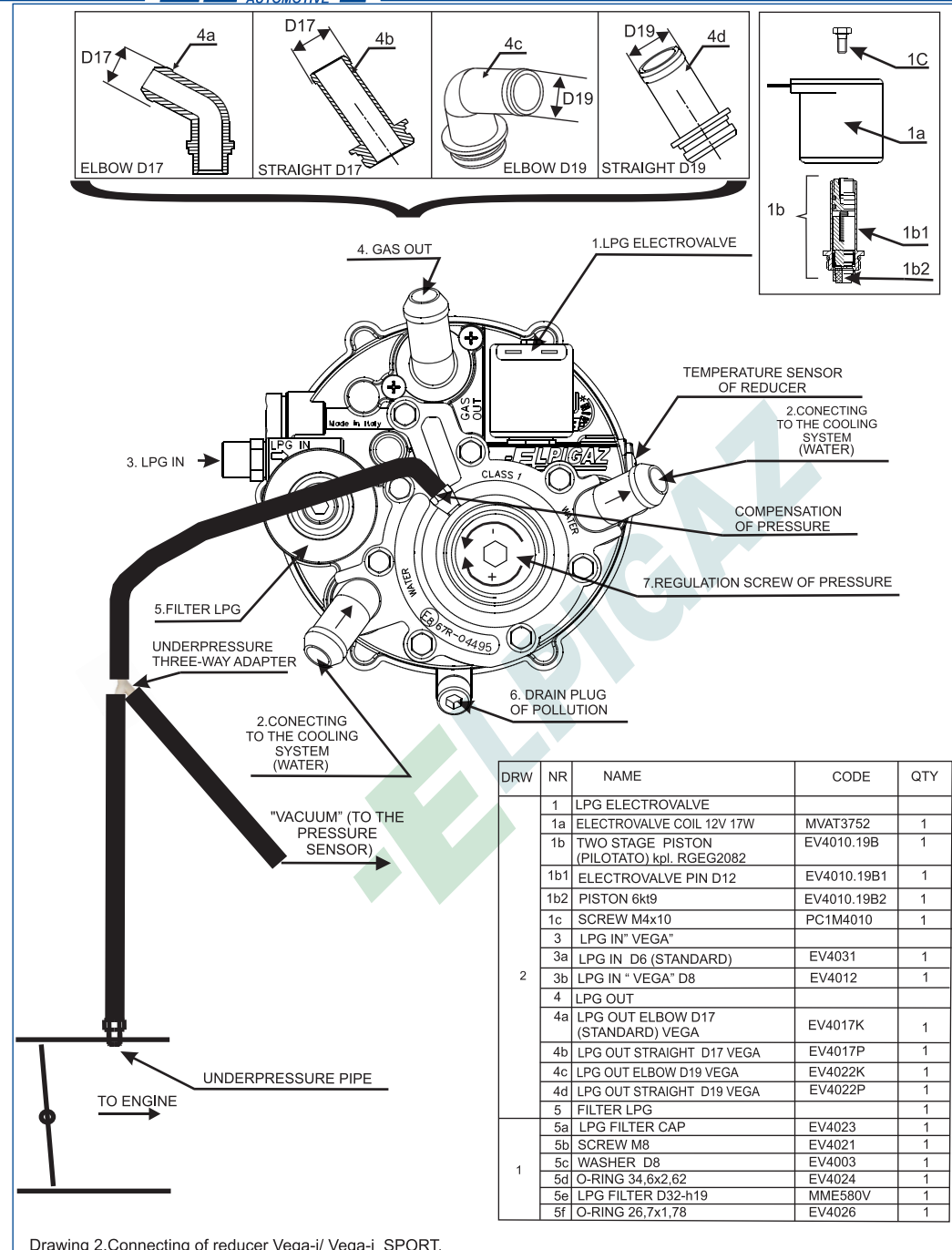
- 3. After every 15000 km. (but not seldom than once on 12 months or if necessary more often) electrovalve needs Service # 1 (drawing 2).

 - a) close to engine the supply of gas
 - b) electrovalve service- unscrewed coil of electrovalve by 7mm spanner then unscrewed electrovalve pin of gas (use socket key code: WR6803) and clean piston, pin by brush with cleaned petrol. If this necessary exchange piston and the case of piston on new.
 - c) install electrovalve on reducer
 - d) check leakiness - (like in C. 7).

- 4. After every 15000 km or once on 12 months, drain pollution which settled in reducer unscrewing drain plug pollution. Do this on not working warm engine.
- 5. Main repair of LPG reducer Vega-i/Vega-i SPORT depends on exchange:
 - set of service reducer Vega-i code: SW3140.VEGAI,
 - set of service LPG filter (5g) code: EV665
 - electrovalve service (like in D.3).



Drawing 1. LPG filter exchange.



Drawing 2. Connecting of reducer Vega-i/ Vega-i SPORT.