

## SETTING OF THE SYSTEM

Completed the installation of the system, fill the gas tank and verify that there are no gas leaks in the system.

Proceed to the setting (please ask our commercial office for the manual or download it from our site [www.bedinigas.com](http://www.bedinigas.com), restricted technical area).

For any problem that might appear during the setting, our technical department is available either on the phone or through the service of remote assistance ( a fast Internet connection ADSL or ISDN is requested)



# INSTALLATION MANUAL

Gaseous sequential injection system  
**ECO**  
geo **3000**

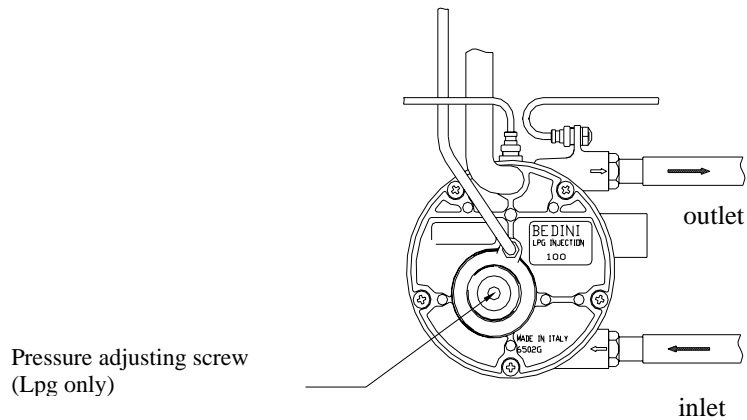
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## REDUCER

Install the reducer in an easily accessible position for the regulation and the maintenance.

Fix the reducer to the body and not on the engine or to parts directly connected to it.

Connect the pipes of the water circulation as in picture 1, watching out for the direction of the printed arrows on the reducer.



Picture 1

The other extremities of the pipes have to be connected in parallel with the system of heating of the car with the T- junctions given in the kit.

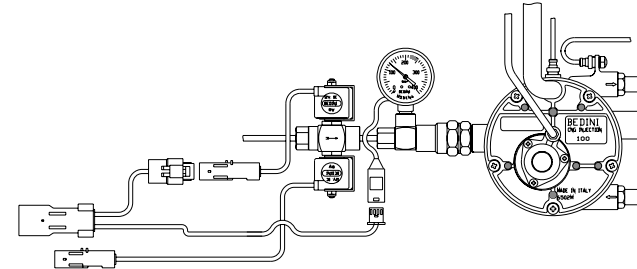
Place the pipes so that no narrowings that can prevent the correct circulation of the water are created.

Install the reducer below the level of the radiator to avoid beads of air.

Once the installation is ended, add some cooling liquid in order to restore the recommended level and start the engine at idling to eliminate possible beads of air.

## CNG DOUBLE SAFETY VALVE

Watch out for the correct installation of the double safety valve upstream of the reducer (only for CNG conversions). Follow the flow of the gas pointed out by the arrow on the body of the valve.

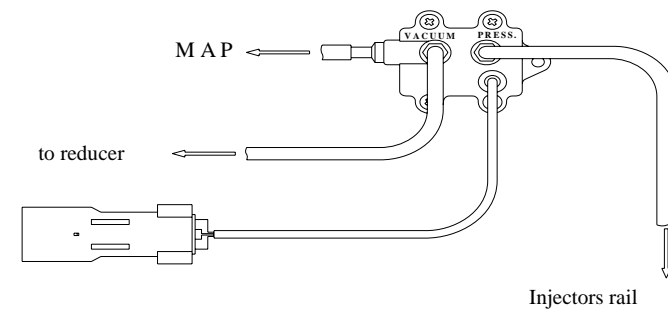


Picture 8

## PRESSURES SENSOR

Place the sensor far away from sources of heat.

Connect the vacuum to the reducer, using the special chromed wrappers, and then downstream of the throttle body, the press to the injectors rail. (Picture 9)

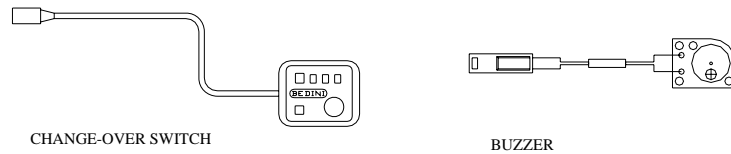


Picture 9

## CHANGE-OVER SWITCH

Install the change-over switch in the cabin, in well visible position and accessible from the driver.

Install the buzzer in the cabin, hidden to the sight but well audible from the driver ( see picture 5).



Picture 5

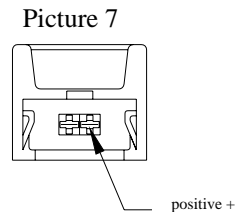
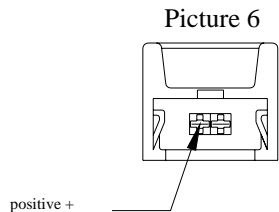
## CUT INJECTORS WIRING HARNESS

For the mounting of the cut injectors it is necessary to find the negative command of the injectors on the vehicle:

either disconnect the pin of an injector.

or turn the key on running.

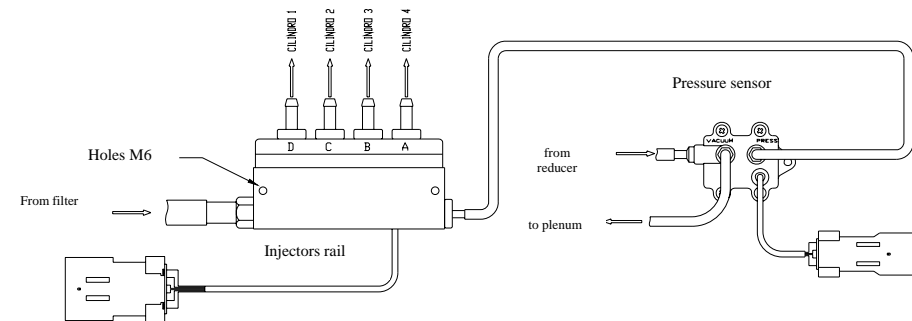
or, with the aid of a multimeter, find the positive one and accordingly the negative one. If the positive is on the right, the left cut injectors must be used (Picture 7), and the other way round (Picture 6).



## INJECTORS RAIL

Install the injectors rail using the two holes M5.

Give particular attention to the correspondence of the letters set on the rail with the number of the cylinders. The injector A. has to correspond to the cylinder number 4 and the injector D to the cylinder number 1 (Picture 2).



Picture 2

Put the injectors rail next to the suction manifold so that the pipes of the injectors are the shortest possible and without curves that strangle the passage section.

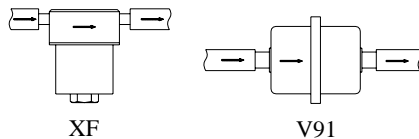
The pipes of the injectors have to be 15 cms long maximum, with a difference between them of maximum 1.5 cms. Use the black wrappers to rubber band.

## **FILTER LPG**

Mount the filter between the reducer and the injectors rail (in vertical position only for the model XF), holding the pipes away from sources of heat.

Follow the direction of the flow of gas from the reducer to the rail pointed out by the arrow on the filter (Figure 3).

The filter FX is inspectionable and the cartridge must be replaced every 20.000 km, while the filter V91 is one-time-use and must be replaced completely every 20.000 km.



Picture 3

## **NOZZLES ON THE SUCTION MANIFOLD**

Get off the suction manifold to proceed to the perforation watching out for the gasket.

Establish the position of the holes as near as possible to the suction valve.

Apply some grease on the drill to avoid the spreading of the drillings, using a drill of 5 mm.

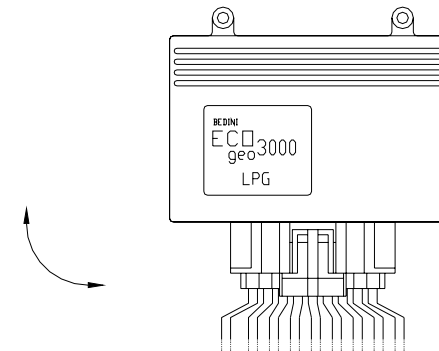
Thread the hole with a male M6x1.

Screw the nozzles using a drop of dope to stop threads.

Carefully clean the manifold and reassemble it.

## **ECU- CONTROL UNIT**

Install the control unit in the engine compartment or in the cabin in the suitable position as shown in picture or rotated of 90 degrees.(Picture 4)



Picture 4

Place the ECU far away from sources of heat and protect it from infiltrations of water.

Install the ECU in such position to have easy access to the connector F7 for the connection to the pc. (or for the setting) (Picture 4).

Connect the control unit with the disconnected key.

The first time that the control unit is connected, turn the key on march without turning on the engine. Then open the program EcoGeo 3000. Wait that the data of the technician are memorized on the control unit. In this phase don't remove the feeding of the positive under-key.

Don't do any operation on the electronic and electric components with the feeding of the positive under-key.