





# LPG/CNG SOLUTIONS



# TECHNICAL SUPPORT



IDEA



DESIGN



PRODUCTION



TESTING



DELIVERY



SUPPORT

## Research & Development Department

Europegas engineers characterize with long-term experience and broad professional knowledge. Those people are the foundation of the company. For extra demanding testing purposes we established fully equipped modern laboratory, and car service with car chassis dynamometer. It allows to carry out the assembly and the testing for LPG/CNG converted vehicles.

## Quality is our goal

Being the part of automotive industry sets the high requirements concerning the quality and innovative solutions. Europegas products trials conditions are more demanding than those required by the testing institutes. That is why our LPG/CNG equipment works effectively in the most difficult conditions.

## Leading manufacturer of 0km LPG/CNG kits

We have over 70 representatives of our brand around the World. We can proudly talk about the successful cooperation with our local and foreign partners, which annually purchase more than 100 000 LPG/CNG components. We create the future trends in automotive industry. Europegas was the first Polish company which have established the cooperation with South Korean Ssangyong. We are their leading supplier concerning LPG/CNG 0km conversion kits. On the same field, in 2022 we have started to work with Japanese Subaru.



## EuropeGAS

Since 2005 we design, produce, and deliver our trusted automotive conversion gas equipment to our Polish and foreigner partners. Europegas headquarter is located in Białystok, as is the production, and research and development laboratory. We manufacture full LPG/CNG kits for petrol and diesel engines including the electronics.

## We create the future

Longterm automotive experience on local and foreign markets allows Europegas to fill even the most challenging client's requirements. Driving economy and ecology are the most frequent slogans which are mentioned while discussing about autogas installation. Europegas also cares about the product innovation, reliability, durability and safeness.

## Industry experience

EuropeGAS is a company with many years of experience. Our products are used on automotive production lines. We pay big attention to installer's experience, which highly value the intuitiveness, and simplicity of our solutions. Product's construction, its software, and the spare parts used in the sets allow to get on higher level of LPG/CNG conversion process.

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# DEDICATED LPG CONVERSION SETS

When the direct injection engines started to become more popular, EuropeGAS R&D department intensified the development of sequential controller for those vehicles. Another stage was to develop from the very beginning the LPG/CNG sets for the newest car models equipped with direct petrol injection engines.

Controller's software and the selection of the components were configured in a way to assure the highest driving comfort on both fuels, and yet the trouble-free use during the guarantee period for the vehicle and gas installation.

EG INJECTO controller protects the valve seats, and the petrol injectors which are placed in the combustion chamber by injecting small doses of gasoline every few engine cycles. In the dedicated sets, EuropeGAS applied special mounting brackets, electrical harnesses ended up with sealed connectors, and profiled water and gas hoses to limit the interference in vehicle's construction to the minimum. Installation is applied according to the manuals prepared by Europegas Technical Department and approved by Ssangyong Auto Polska Sp. z o.o.



## What we offer?

- Full LPG conversion set fitted for particular model and engine type of Ssangyong Tivoli (G15GDI and G12DTF), Korando (G15GDI) and Torres (G15GDI).
- Detailed manual saying step by step how to install each component of Europegas gas installation.
- Controller with uploaded dedicated emission and performance settings:
  - records continuously the gasoline usage while driving on gas.
  - records the driving distance
- 5 years warranty, or 100 000 km for complete gas installation depending what will happen first.
- Mobile sales and technical support advisors on the terrain of Poland.
- Gas filling valve discreetly located under the fuel filler flap.
- Built-in OBD parameters reader.

# CONVERSION SET



- Aluminium case with Automotive Molex connector which meets the IP65 norms. Built-in ventilation valve prevents from water condensation inside the controller.
- Dedicated mounting brackets for reducer, filter, controller and injection rail allow to install it using the fabric screws and holders.
- Dedicated Plug&Play electric harness. All connectors are ended with plugs, and soldered connections are limited to a minimum. Only the RPM, and ignition wire have to be soldered obligatory.
- Dedicated OBD-II adapter simplifies the connection of the LPG installation with the vehicle OBD socket without soldering.
- Profiled coolant EPDM hoses in Korando and Tivoli prevent from interfering in vehicle's factory installation.
- Remote technical support available via internet directly through the diagnostic software.
- Gasoline/Gas switch with full fuel level indicator which perfectly fits in with car interior and allows to change the light colour.

# DEDICATED LPG CONVERSION SETS

## SSANGYONG TORRES

*Engine 1.5 T-GDi 163 HP*





# SSANGYONG KORANDO

*Engine 1.5 T-GDi 163HP*



# SSANGYONG TIVOLI

*Engine 1.2 T-GDI 128HP, 1.5 T-GDI 163HP*



**ULTIMATE EQUIPMENT**

ONEBRAND. ONEMANUFACTURER.

# DEDICATED LPG CONVERSION SETS

## SSANGYONG REXTON

*Engine 2.0 E-XGDI200T 225HP*



## EG SPINNER

EG SPINNER is an innovative vapour phase filter with an interchangeable universal filter insert. The DSF Double Spin Force system provides even greater efficiency in separating the oily fractions. Rotating connectors allow the filter to be mounted anywhere in the engine compartment.

## EG INJECTO 48.4

EG INJECTO 48.4 is a sequential gas injection controller for cars with gasoline direct injection. Innovative algorithm of auto-calibration and mapping enables the system tuning with a wide range of vehicles in a simple and fast way.

## EG SUPREMO 270 HP

EG SUPREMO is designed for vehicles with high power engines. Cut-Off Block System eliminates the effect of gas pressure overload during engine braking. Its construction guarantees the appropriate gas temperature even in the most difficult weather conditions.



## EG SWITCH RGB

EG SWITCH that is located inside the vehicle and allows to change the fuel type. Gives a possibility to adjust the light colour of LED diods wich display the gas level.

## EG ABS400KPA

Gas temperature, pressure and vacuum sensor. Compact size, and five pin AMP connector, ensure IP 54 tightness, long-term and trouble-free usage.

## EG2000

EG2000 is a high quality injector with a piston design. Guarantee high precision and gas dosage repeatability in each single cycle. Replaceble nozzles allow to adjust the LPG/CNG gas flow up to nominal engine power.



## COMPLETE EUROPEGAS KIT

# INNOVATIVE

## INDIRECT GAS INJECTION



### EUROPEGAS CONTROLLERS COMPARISON

	EG BASICO 24.4	EG BASICO 32.6	EG AVANCE 32.4/48.4/48.6/48.8	EG SUPERIOR 48.4 STD/3D
External dimensions (mm)	110x91x32	120x99x36	120x99x36 / 124x150x38	124x150x38
Connector (PIN)	24	32	32/48	48
Housing	Composite	Composite	Composite /Aluminium	Aluminium
Number of cylinders supported	4	6	4/6/8	4
Number of lambda sensors possible to connect	0	2	1/2	2
Extra gasoline injection under engine load	✓	✓	✓	✓
Communication with vehicle's OBD by connecting the harness wires of the gas Controller	-	-	✓	✓
Communication with vehicle's OBD using the ELM327 external OBD interface	✓	✓	✓	✓
Automatic adaptation of multiplier (inbuilt injectors characteristics)	✓	✓	✓	✓
Built-in Timing Advance Processor (1 induc- tive signal with 2 digital signal or 3 digital signals at the same time)	-	-	-	✓
Adjustment of RGB switch's backlight colours and the tone of the buzzer	✓	✓	✓	✓
Automated advancing of gas injection sequ- ence order	✓	✓	✓	✓
Automated system calibration by pressing and holding the switch button	✓	✓	✓	✓
Automated calibration of gas level LED indication by pressing and holding the switch button	✓	✓	✓	✓
Preview and change of the settings protec- ted by password	✓	✓	✓	✓



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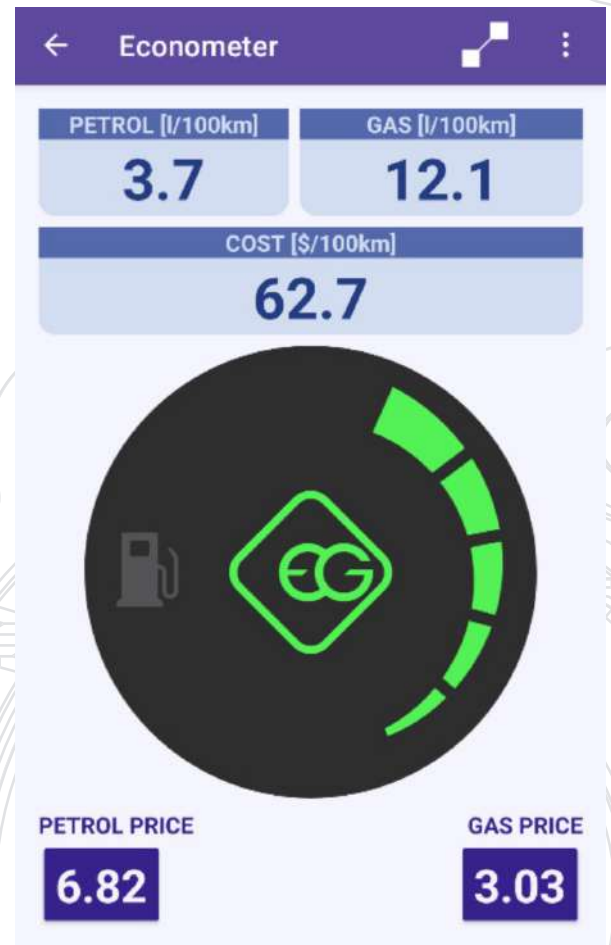
**EUROPEGAS CONTROLLERS  
COMPARISON**

	<b>EG BASICO 24.4</b>	<b>EG BASICO 32.6</b>	<b>EG AVANCE 32.4/48.4/48.6/48.8</b>	<b>EG SUPERIOR 48.4 STD/3D</b>
No need for the RPM wire connection	✓	✓	✓	✓
Incorporated remote support assistant	✓	✓	✓	✓
No need for connecting the +12V ignition key wire	✓	✓	-	-
Pre-heating of LPG/CNG injectors before switchover to gas	✓	✓	✓	✓
Valvetronic system supported	-	-	✓	✓
Start&Stop system supported	-	-	✓	✓
High precision oscilloscope for petrol and gas injection signals	-	-	✓	✓
Possibility to block gas ECU after a certain period of time	-	-	✓	✓
Control of the temporary fuel pump shutdown	-	-	✓	✓
Programmable change of the injectors order	✓	✓	✓	✓
Dropping gasoline pressure value through petrol injectors	✓	✓	✓	✓
Testing of system key elements	✓	✓	✓	✓
Automated forced start on gas	✓	✓	✓	✓
Overlapping of fuel cycles during switchover	✓	✓	✓	✓
Assistant of proper nozzles size selection	✓	✓	✓	✓
Support of "Cold VAG" function	✓	✓	✓	✓
Manual testing of gasoline petrol injector emulators	✓	✓	✓	✓
Freeze frames function for gas controller errors	✓	✓	✓	✓
Automated OBD errors erasing	-	-	✓	✓
Engine load test during the drive (road dyno function, measuring power and Torque)	-	-	✓	✓

EG Injecto Lerta application allows to monitor the fuel usage in vehicles equipped with LPG/CNG system EG Injecto. Consumption data is displayed on the Android smartphones screens or on the vehicle's screen if it has Android app.

For correct performance of the application at least EG Conecto V3 is required. It enables trouble free gas system connection with the software installed on Android smartphone. In result car users may continuously monitor the gas usage and adapt their driving manner to achieve the savings and eco-friendliness.

Fully integrated EG Injecto platform allows to monitor the gas usage, but also other parameters of gas installation and OBD readings without necessity of using other diagnostics tools.



## SPECIFICATION

- Gasoline and gas usage displayed in cubic meters or liters per 100km.
- Inbuilt fuel cost and usage calculator.
- Fuel usage calculator displayed in user's currency.
- Displays key gas installation & vehicles OBD parameters.
- Possibility to read and erase the OBD errors from gasoline computer.





EG INJECTO 48 is a sequential LPG/CNG controller for direct injection petrol cars.

Innovative autocalibration and map gathering algorithm allow to adapt the system with wide range of vehicles in easy and fast way.

Oscilloscope built-in in the ECU enables the quick identification of input signals and correctness verification of joints.

Housing made of aluminium, assures durability and protects from extreme weather conditons.

Together with 48-pin Molex automotive connector, and valve which prevents from water condensation inside the controller it guarantee tightness and trouble-free usage.



## SPECIFICATION

- Hermetic-aluminium IP65 housing.
- 48-pin Molex-type automotive connector.
- Built-in ventile valve.
- Operating temperature -40 ... +120°C.
- Operation of vehicles from 3 to 8 cylinders.
- Built-in emulators for high and low petrol pressure (HPS&LPS).
- Operation of vehicles with combined (dual) injection.
- Automatic, simplified callibration with the use of OBD parameters.
- Continuous recording and monitoring of gasoline usage percentage while driving on gas.
- Automatic OBD error erasing for the petrol controller.
- Works with external parameters recorder connected to gas installation adapter.
- Operation of cars with START/STOP function.



EG INJECTO DUO is a sequential gas injection system for cars with 3-cylinder and 4-cylinder engines with dual petrol injection system, i.e. having both MPI and direct petrol injection.

System is based on two controllers which are communicated via signal wire. One is EG INJECTO 48.4 Duo, second is EG INJECTO 24.4 MPI, the multipoint system emulator which enables the right MPI injectors signal emulation while engine works on gas. Gas is delivered to the intake manifold through 3 or 4 gas injectors depending on number of engine cylinders.

Innovative auto calibration and mapping algorithm enables quick and intuitive system calibration similar to standard EG INJECTO 48.4.

When the system is properly calibrated moment of switch over to gas is imperceptible and the performance of the vehicle stays on the same level as on gasoline.



## SPECIFICATION

- Support for 3-cylinder vehicles (3 DI electromagnetic petrol injectors + 3 MPI petrol injectors) and 4-cylinder vehicles (4 DI electromagnetic petrol injectors + 4 MPI petrol injectors).
- Automated, simplified installation tuning using OBD readings.
- Continuous recording and monitoring of the percentage of gasoline while driving on gas.
- Possibility of automatic erasing of OBD errors of the petrol controller.
- Works with the parameter recorder connected to the diagnostic connector of the installation.
- Support for cars with the START / STOP function.
- Built-in high pressure fuel (HPS) and low fuel pressure (LPS) emulator.
- Working temperature -40... +120 degrees C.

# STABLE



EG PREMIO



EG SUPREMO



EG SUPREMO  
400HP

## EUROPEGAS REDUCERS COMPARISON

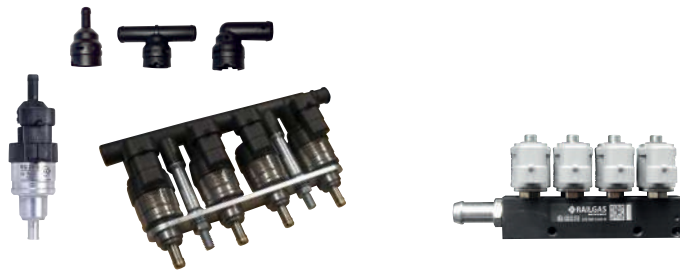
Power	up to 150 HP	up to 270 HP	up to 400 HP
Reducer integrated with solenoid valve	✓	✓	✓
LPG liquid phase heating	✓	✓	✓
LPG gas phase heating	✓	✓	✓
Filter chamber heating	-	✓	✓
Universal filter cartridge	✓	✓	✓
Working pressure range	0,9-1,3 bar	0,9-1,3 bar	0,9-1,3 bar
Gas inlet	Ø6 thread M10x1	Ø8 thread M12x1	Ø8 thread M12x1
Gas outlet	Ø12 mm	Ø16 mm	Ø16 mm
Intake manifold pressure connector	Ø4 mm	Ø4 mm	Ø4 mm
Heating liquid elbows	Ø16 mm	Ø16 mm	Ø16 mm
Rotary connection elbows	✓	✓	✓
Integrated 4k7 temperature sensor	thread M5	thread M5	thread M5



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# EFFICIENT



## EUROPEGAS INJECTORS COMPARISON

	EG2000	EG RAILGAS
Maximum static flow rate, 3mm nozzle (at 1.2 bar)	115 l / min	100 l / min
Maximum working pressure	4,5 bar	4,5 bar
Operating voltage range	12V	12V
Working temperature	- 40 ÷ 120 °C	- 40 ÷ 120 °C
Connectors adapted to the plug	AMP Superseal 282080 - 1	AMP Superseal 282080 - 1
Opening time	1,9 ms	2,7 ms
Closing time	1,2 ms	2,4 ms
Coil resistance	1,9 Ω	2,0 Ω
Gas outlet	thread M5x0,5, calibration nozzles Ø5	thread M8x1, calibration nozzles Ø5
Effective expenditure per cylinder	12 - 50 HP	10 - 32 HP
Type	or single assembly and on 3 cyl. or 4 cyl. fuel rail	rail 3 cyl. or 4 cyl.
Calibration nozzles	1,5 mm for drilling, and pre-calibrated 1,9mm (III), 2,2 (II) i 2,5mm (I)	1,5 mm for drilling





### EG DYNAMIC STD / EG DYNAMIC 3D

Timing Advance Processor for multipoint injection vehicles.

- Advances the moment of ignition in engines which run on LPG/CNG fuel in order to optimize the engine power and improve the dynamics of its work.
- It is scanning, learning and supporting crankshaft and camshaft signals shifting for various engines. Dynamic ignition angle advancing depending on actual value of engine speed, TPS throttle position and MAP.
- Support single inductive sensor and up to two digital sensors (Standard version) or three digital sensors (3D version).



### EG FUEL LEVEL RESETTER

The fuel level indication emulator EG FLR v2.6 is designed for a wide range of cars with a resistive gasoline level sensor with one signal wire and a gas supply system, in which the petrol level indication drops when driving on gas and does not reset automatically after restarting engine.



### EG CARBURETOR

Changeover switch intended for cars with carburetor engines or with electronic injection, fueled with gaseous fuel (LPG or CNG). It has a full indication of the gas level and the possibility of automatic switching between fuels.



### OBD DIAGNOSTIC INTERFACE

OBD diagnostic interface connected to the computer's USB port.

- Gives ability to preview the values of the STFT and LTFT mixture correctors and other parameters, and to erase OBD errors.
- EG Configuration Center supports ELM327 interface in USB version.
- Supports all vehicles with OBDII protocol (manufactured after year 2000). Compatible with EG BASICO, EG AVANCE and EG SUPERIOR controllers.



### EG CONECTO

WiFi diagnostic interface designed for wireless connection with Europegas controllers.

- Works with EG Configuration Center and EG Movi diagnostic software.
- No need of configuring the WiFi module before starting to work.
- Compatible with IEEE 802.11 b/g/n standard.



### EG HLS

Contactless gas level sensor with linear output voltage (Hall Level Sensor).



- Manufactured without using mechanical elements.
- Accurate gas level indication.
- Very low power consumption (10-12 mA).
- Voltage value: 0 V – empty tank, 5 V – full tank.



## EG SPINNER

**EG Spinner is an innovative vapour phase filter using Double Spinn Force system and with an interchangeable universal filter insert.**

- Filter cartridge with glass fiber and acrylic resins.
- Filtration area: 0,0227 m<sup>2</sup>.
- Maximum operating pressure: 4.5 bar.
- Operating temperature from -40 °C do +120 °C.
- Diameter of the connectors: ø12 or ø16 mm.
- Dimensions in mm: 100x80x80.



## FL01

**Disposable LPG/CNG volatile phase filter with a paper insert.**

- Housing material: aluminium.
- Filtration efficiency: 99% particles from 2 µm.
- Filtration material: blotting paper: 843 VH 134.
- Filtration area: 0,039 m<sup>2</sup>.
- Outlet diameter Ø12 lub Ø16 mm.
- Size in mm: 119x45.

**Available in all varieties of inlet and outlet diameters.**



## EG FLEX with fittings

**High-pressure flexible hoses are an excellent alternative for use in automotive LPG installations instead of rigid copper pipes.**

- Fittings available in two versions: D6 and D8: 180°, 135°, 90°.
- 2 types of FTH hose:
  - D6 (internal diameter 5.0 mm / external diameter 9.6 mm).
  - D8 (internal diameter 6.5 mm / external diameter 12.2 mm).



## EG TESTER

**A professional agent for testing the tightness of gas installations.**

- Quick and easy application.
- Operation in any position.
- Does not cause corrosion.
- Operating temperature range: od -8°C do 35°C.
- Capacity: 400ml.



## EG INJECTO LERTA

**Diagnostic software for EG INJECTO controllers for devices running under Android system.**

- Displays key gas installation & vehicles OBD parameters .
- Possibility to read and erase the OBD errors from gasoline computer.
- Fuel usage calculator displayed in user's currency.
- Inbuilt fuel cost and usage calculator.
- Gasoline and gas usage displayed in cubic meters or liters per 100 km.



## EG DETECTOR

**Professional electronic gas detector designed for precise detection of leaks in gas installations.**

- Sensitivity potentiometer allowing for fast and accurate location of leaks.
- Audible and visual indication of leak detection.
- Quick response time, below two seconds for less than 40% LEL.
- Flexible probe with a length of 42 cm.

## TECHNICAL SUPPORT



EuropeGAS, as a manufacturer, gives the customer not only product, but also knowledge. We put our greatest efforts to be certain that the workshops properly install and service the installation. We conduct software and manual trainings for EG installers. We provide remote technical support regarding callibration and LPG/CNG kit diagnosis, using EG Configuration Centre with integrated remote desktop software.

Each Europegas product is designed for the users, that is why our main factors are easiness and intuitiveness of service. Through direct meetings with our clients we are able to familiarize with product feedback, and share the experiences regarding everyday usage of our equipment.



**EG INJECTO 48** software training.

# TRAININGS



**Technical Support Department** together with our distributors organize cyclical trainings all over the World. We consider this as an investment, because properly trained installer is the best showcase of the company.

**We organize cyclical assembly and service trainings of authorized workshops in the operation and installation of EG INJECTO.**

## INSTALACJA LPG ZALETY MONTAŻU DEDYKOWANEJ INSTALACJI DO SUV-ÓW SSANGYONG



TIVOLI



TIVOLI



KORANDO



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