

Application of the controller:

MINI λ controller serves for correction of the blend on the basis of the λ probe signal. The controller is designed for vehicles with a single or multipoint injection. It operates with our production **WR** type switch. This is a simplest controller offered by our company. For adjustment and correct tuning up, PC computer is not required. All settings are done manually by means of controls located on the controller front panel.

Operation of the controller:

Switching on the supply voltage of 12V from **WR** element causes switching on of the controller that controls the gas – air mixture ratio supplied to the vehicle engine. Functions of programming switches are given in Table No. 1. TPS function switching on level (additional opening of the stepper motor) is set by a potentiometer at the connection socket and is signaled by TPS LED indicator.


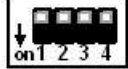
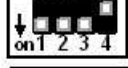

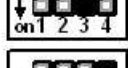
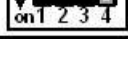
Controller tuning:

1. Set the vehicle engine idle revolutions after previous heating up the engine to working temperature.
2. Set TPS potentiometer so that the TPS indicator in the controller lights up under light pressure of the gas pedal.
3. Set the TEST switch in the TSL-01 lambda probe tester in switched on position.
4. Adjust with the regulator till the moment the rich blend is reached.
5. Set the vehicle engine revolutions at approx. 3000 rpm and adjust by means of the valve installed at the stepper engine to obtain weak mixture.
6. Set TEST switch in TSL-01 lambda probe tester in switching on position.
7. Check for cyclic switching between the rich and weak mixture in the full range of engine revolutions.

Repeat operations of points 3, 4 and 5 if necessary.

NOTE. To access switches, the potentiometer and TPS indicator, move away the connection rubber shield.

In the table switches are presented as they are visible from the front of the controller (the controller is set with printed inscription on the top of housing):

Switches	Probe type	Simulation
	1V	Wave 1V
	5V	Wave 5V
	1V	From probe
	5V	From probe
	1V	Mass
	5V	Mass

Explanation of used symbols:

Simulation:

Wave 1 V (5V) – simulation with rectangular wave, amplitude 1V (5V), period 0.3 s, filling 50%

From probe – signal from lambda probe controls the MINI λ and is supplied to the car computer.

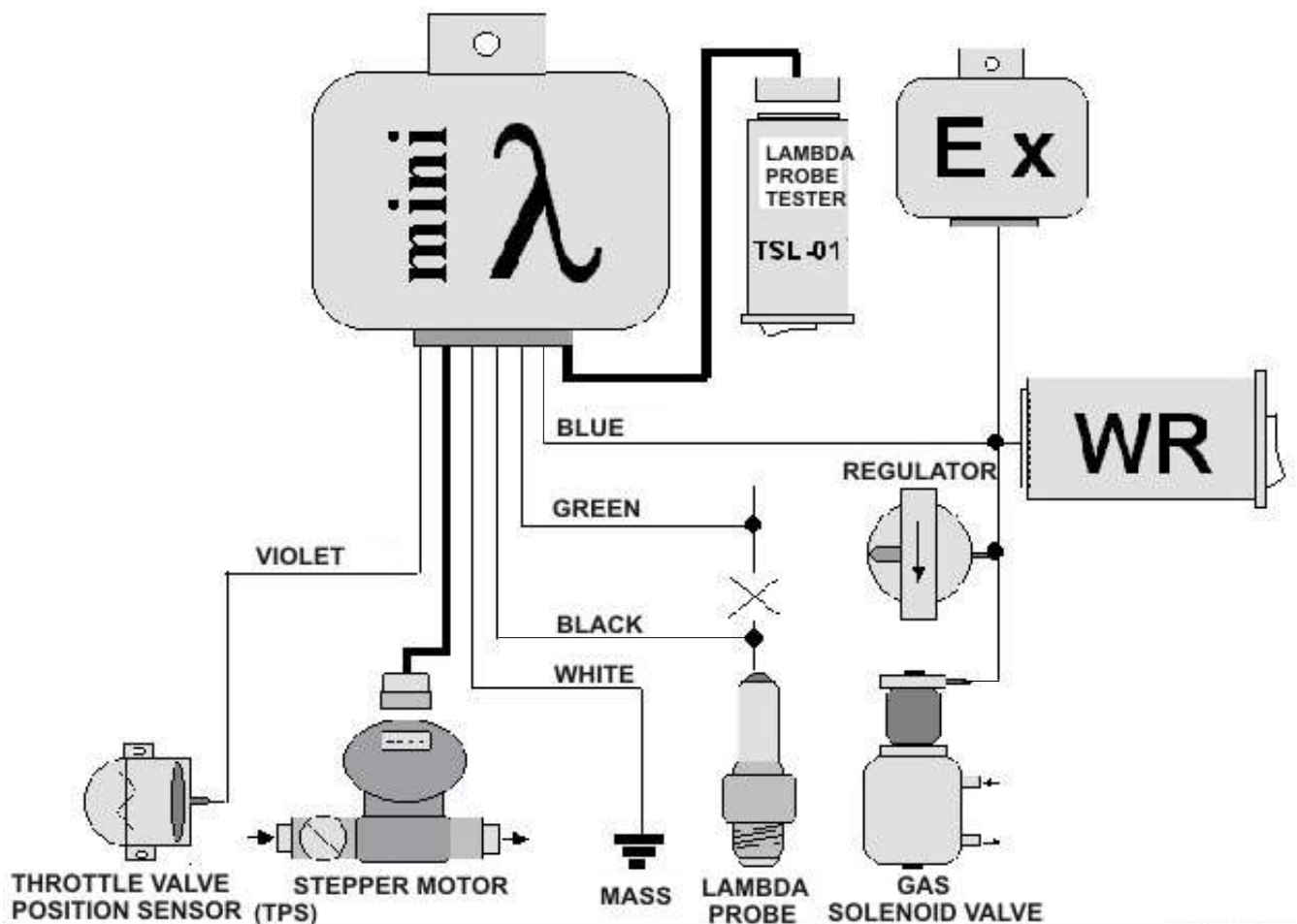
Mass – on the simulation output is no signal. The output is connected to the system supply mass.

Probe type:

1V – operation with probes 0..1V, threshold of the stepper motor reversal of rotation equals 0.5V

5V – operation with probes 0..5V, threshold of the stepper motor reversal of rotation equals 2.5V

Controller connection diagram:



DEVICE TECHNICAL DATA:	MINI λ controller
Nominal supply voltage	14V
Maximum supply voltage	10..16V
Working temperature	-25...+70 °C
Supply current	0,5A
TPS input	Uwej.=0 – 15V, Rwej.=5M Ω
λ input	Uwej.=0 – 5V, Rwej.=5M Ω

Official certificate No.: **E8** 67R - 013512

Warranty:

Manufacturer warrants that the system will operate correctly during 12 months from the date of its purchase. In case of improper operation, please send the system complete with the present instructions for use and a description of the fault to the point in which the device was purchased. Systems that were damaged as a result of incorrect installation, interference of unauthorized persons or damaged mechanically are not subject to claims.

Date of manufacturing:

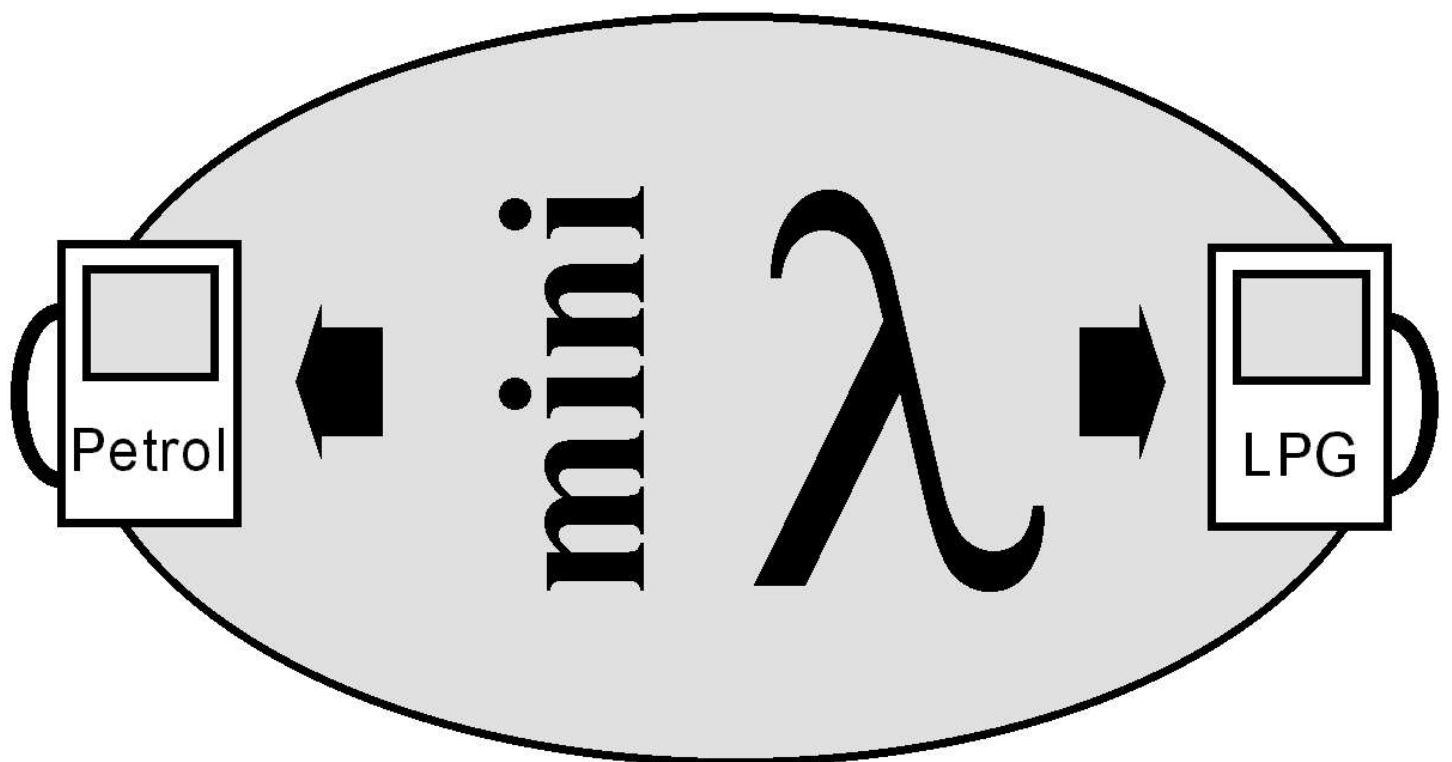
Manufacturer:

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Distributor:

LECHO

Elektronika autogaz



Lambda probe control system

for vehicles with fuel injection engines