

INSTALLATION DIAGNOSIS

1. For what engines?

All diesel engines are compatible with Econokit:

- All turbocharged or atmospheric engines
- Injection system
- Electronic injection (common rail type)
- Pump-injectors (with mechanical control or electronic process)

All gasoline engines, atmospheric or turbocharged are also compatible with Econokit:

- With carburetor
- Injection system
- Electronic injection
- Mono or multipoint injection
- Direct or indirect injection
- THP, TCe, TFSI, Twin air...

2. Which bubbler to choose and how many Econokit to install?

Type of engine	Fuel Consumption	Installation
Car or utility using gasoline	Until 25L/100km	1 Econokit with 1 bubbler S
Car or utility using gasoline	From 25 to 45L/100km	2 Econokit with 2 bubblers S
Car or utility using diesel	Until 20L/100km	1 Econokit with 1 bubbler S
Car or utility using diesel	From 20L/100km	2 Econokit with 2 bubblers S
Truck, boat, agricultural machine, construction vehicle	Until 20L/100km	1 Econokit with 1 bubbler L
Truck, boat, agricultural machine, construction vehicle	From 20L/100km	2 Econokit with 2 bubblers L

3. Before the installation, the diagnosis!

To be able to establish a prerequisite diagnosis to help you choose the most appropriate installation for your needs, we provide you with a calculation tool in the form of an Excel sheet. This tool allows you to quickly calculate the loading rate of the engine and associates with it an estimated return on investment. To use this calculation sheet you will need 2007 (minimum) Microsoft® Excel software. The file is available on our website www.econokit.fr.

The cells colored in light green are to be completed with numbers whereas the cells colored in dark green are simple drop-down menus. The first group of cells must be filled with selected units for the next calculations. It is important to best adjust the given values so that the calculation is the most coherent as possible.

It is to be noted that the written speeds are average speeds in order to obtain a global result. For example, on a freeway we consider the average speed to be around 90-100km/h and not 130km/h. This is due to possible slow-downs, traffic variations, etc...

Unit of measurement for the calculations	
Which unit do you want to use to realize the diagnosis?	L / 100km
VAT rate applicable	20%
Fuel price (including VAT or pre-tax, by litter or gallon)	1,03
Average speed in City (km/h)	30
Average speed on the road (km/h)	60
Average speed on Highway (km/h)	90

The second sheet must be completed with the prices without taxes of the product you are suggesting to your customer. The spreadsheet will calculate the added taxes based on the taxes informed in the first part.

Selling prices of the products (pre-tax prices)	Pre-tax price	Including VAT prices
Econokit + Bubbler S		0
Econokit + Bubbler L		0
Deflector		0
Total price for the installation of 1 Econokit + 1 Bubbler S		0
Total price for the installation of 1 Econokit + 1 Bubbler L		0
Total price for 2 Econokit + 2 Bubbler L		0

The third sheet is there to give an account of the precise use of the vehicle. This information directly impact the calculation of the average speed of the vehicle and therefor the calculation of the loading rate.

Vehicle's use	
Trips in the City	Sometimes
Trips on the Departmental road	Regularly
Trips on Highway	Daily
Distance travelled per month (km, miles or hours)	12500

The distance travelled monthly will be useful to calculate the return-on-investment

The forth sheet invites to precise the data concerning the type of engine, its power as well as its consumption which are the three essential data to calculate the loading rate. The consumption must be indicated in the chosen unit in the first sheet and the power is to be given in DIN horsepower.

Engine's Information	
Engine's type	Diesel engine
Horsepower of the engine	125
Consumption of the engine depending on the unit	10

On the next sheet, you will find some intermediary information like the average speed of your vehicle, its hourly consumption, its monthly consumption as well as the loading rate. All this data are only determined with the information typed in the different previous spreadsheets. The loading rate is then linked to an estimation of fuel savings in percentage. The bold value on the next sheet indicates the percentage as well as the adjusted return-on-investment.

Important:

- **If the loading rate of the vehicle is under 20%, the efficiency will be hardly measurable; nevertheless the engine output will be improved and the environmental impact will be better.**
- **The calculation sheet directly gives you the number of Econokit to install and the type of adapted bubbler depending on the data given. This while masking or making suited lines appear.**