



K-1000

AUTOMATIC PARTICULATE
FILTER CLEANING

INSTRUCTIONS MANUAL



MADE TO LAST

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WARNING!

It is recommended that the operating instructions described in this manual be read carefully before turning on K-1000 in order to achieve optimum performance and reliability over time.

Keep this manual close to K-1000 for any quick reference by operators!

The manufacturer accepts no liability for malfunctions and/or other consequences resulting from incorrect operations by the user.

Reproduction of this manual, even in part, in any form without written permission from the manufacturer is prohibited. The manufacturer reserves the right to make improvements or changes to its products at any time and without prior notice.

Dear Customer,

Thank you for purchasing K-1000, a new system for cleaning particulate filter systems. The safety information below is a guideline to help you use K-1000 safely.

In this regard, we would like to point out that this manual is an integral part of the machine and contains general instructions for its correct use.

We therefore invite you to:

- Read the operating instructions carefully before turning on K-1000,
- Adequately train operators
- Keep the instructions carefully for future reference.

These good standards will be your guarantee for an excellent performance and reliability over time with K-1000.

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1 SAFETY NORMS

1.1 For K-1000



Read this user manual carefully before using K-1000!

- Do not connect K-1000 to a voltage other than that indicated on the nameplate.
- Use K-1000 only in dry, sufficiently bright and well-ventilated places.
- Do not expose K-1000 to strong sources of heat.
- Do not subject K-1000 to shocks.
- Do not get K-1000 wet and in any case protect it from direct contact with rain.
- Do not clean K-1000 with products that may affect its display.
- Extraordinary maintenance of K-1000 must be carried out by qualified personnel.
- Opening K-1000 by unauthorized personnel is prohibited.
- The use of non-original spare parts is prohibited
- Use only GEATEK cleaning products
- Broken or defective fuses must be replaced with fuses of the same rating.

1.2 For the operator



Read this user manual carefully before using K-1000!

- Adopt appropriate protective clothing and behaviour.
- Always wear safety glasses to protect your eyes from violent jets of hot liquid. Do not use ordinary goggles, only safety glasses.
- Always clean up the floor in the event of a spillage of cleaning product, as this can cause falls.
- Use only the supplied power cables, checking that the insulation is intact.
- Pay close attention to moving parts on the vehicle. Electrically driven fans in particular may activate unexpectedly even when the engine is turned off.



Always obtain the safety data sheet of the materials used and comply with its contents!

1.3 Disposal

- Upon dismantling the machine, separate electrical, electronic, plastic and ferrous parts beforehand.
- Then proceed to separate in accordance with national and/or local regulations in force.
- It is considered WEEE according to Directive 2012/19/EU.



2 TECHNICAL FEATURES

Power supply:

- **12 Vcc battery** (vehicle battery)

Visualization:

- **4 LED lights**

Hardware:

- **Control electronic board**

Pump:

- **Max flow = 2,5 litri/min, Max pressure = 1 bar**

Size and weight:

- **L = 200 mm, H = 200 mm, P = 370 mm weight ~ 5 Kg**

Operating temperature:

- **+ 5 ° C + + 40°C**

Noise level:

- **< 80 dB**

Vibrations

< 2,5 m/s²

3 DESCRIPTION

K-1000 is the equipment for cleaning the particulate filter. The treatment is carried out quickly without dismantling, in a fully automated and safe manner for the mechanic and their staff.

K-1000 is able to carry out effective cleaning of:

- **Particulate filter** – catalytic converter, filter (also with SCR system)

At the end of the process, K-1000 will finish the treatment automatically

3.1 K-1000 components



1 1L TANK

2 LED LIGHTS FOR VISUALIZATION

3 START/STOP BUTTON

BACK

4 QUICK-COUPLING

5 BATTERY POWER SUPPLY CABLE

4 TRANSPORT AND DELIVERY

4.1 Transport

Transport must be carried out in strict compliance with the provisions of the regulations in force on health and safety at work



In the case of transport by vehicle, ensure the degree of stability before moving.



Handling: this can be done easily as the machine is portable. In any case, handling must be done with empty tanks.

4.2 Delivery

The operator must proceed with unloading in accordance with the regulations in force regarding hygiene and safety at work; remove the packaging, not dispersing it in the surrounding environment. Always check the integrity of the components and devices present. If necessary, contact the dealer immediately.



Lift and remove K-1000 from carton box, total weight approx. 5 kg.

5 PREPARATION FOR USE

5.1 K-1000 preparation

- Connect K-1000 to the car battery: the black terminal to the negative (-) pole and the red terminal to the positive (+) pole.



WARNING: K-1000 only operates on 12 volts. If the power supply is not correct, the machine will not turn on.

5.2 Vehicle preparation

- After positioning the vehicle, put it in parking position and turn off the engine.

5.3 Connection to particulate filter

Connect the black service hose in place of the differential pressure sensor, using the fittings supplied in the kit: if on the vehicle you disconnect the sensor from its rubber hose, use the hose holder supplied in the kit, while if on the vehicle you disconnect the rubber hose from the metal hose, use the rubber hose supplied in the kit.

It is also possible to connect to the temperature sensor or lambda sensor, depending on the convenience of the connection.

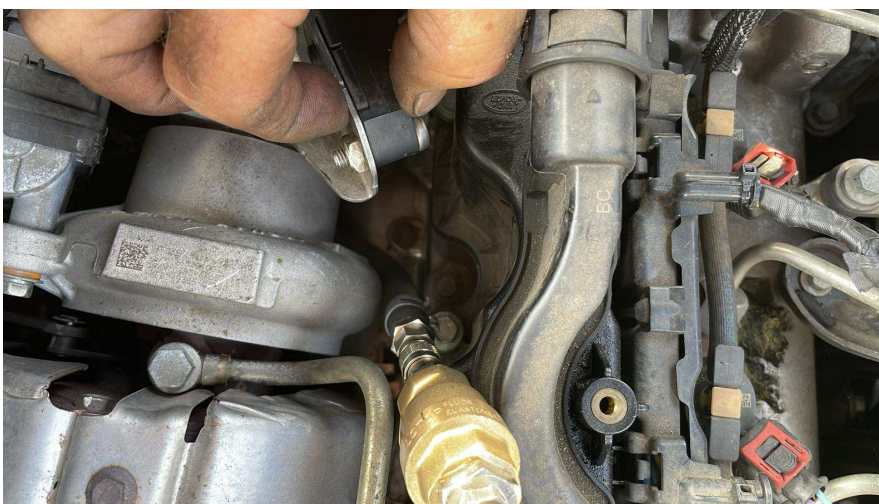
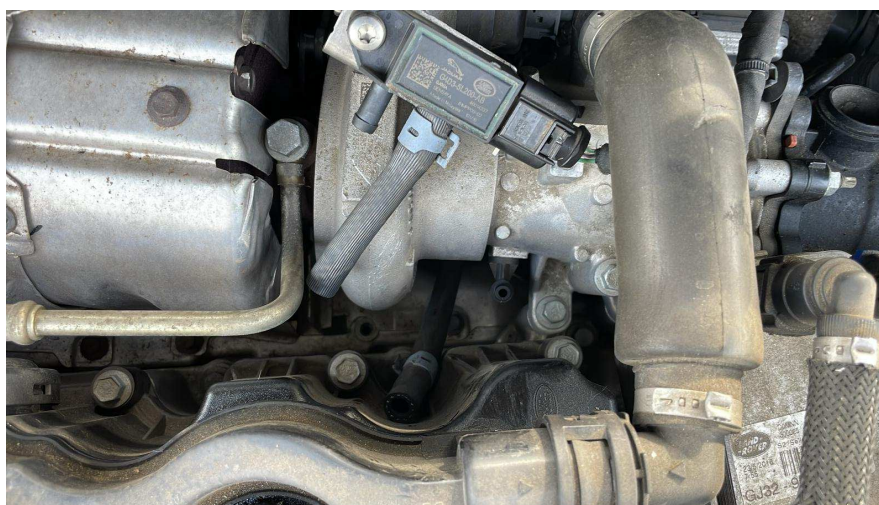
Make sure that you connect upstream of the particulate filter, so that the cleaning products follow the same direction as the exhaust fumes, and pay attention that the turbo is higher than the point where the sensor you chose reaches the particulate filter.

In vehicles with low pressure EGR systems, disconnect the mass airflow sensor before treatment.

NOTE







Always connect the golden valve to the end of the black service hose, to avoid foam backflow from cleaning products







6 USE





6.1 LED lights legenda





ICON	STATE	MEANING
	Off	-
	Flashing in sequence	Fill tank
	Flashing	Press start
	On	Operation under way

6.2 Particulate filter cleaning


1. Connect to the vehicle (see dedicated section)
2. Connect the terminals of the machine's electrical cable to the vehicle battery: the black terminal to the negative (-) pole and the red terminal to the positive (+) pole
3. Treatment must be started with **engine off and cold** (<50°C)
4. Treatment may be interrupted at any time by pressing and holding the button, which restarts the cycle from the beginning

	2500 RPM	<ol style="list-style-type: none">1. Initial state:<ul style="list-style-type: none">• pour 1 litre of product GEATEK PFK1 in K-1000's tank
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	





	2500 RPM	<ol style="list-style-type: none">2. Ready for phase PFK1:<ul style="list-style-type: none">• press start to begin phase PFK1
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	


	2500 RPM	<ol style="list-style-type: none">3. Phase PFK1 under way:<ul style="list-style-type: none">• wait for intermittent injection of the cleaning product, in order to avoid excessive foam in the particulate filter
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	

<input type="radio"/>	2500 RPM	<p>4. Automatic start of waiting time:</p> <ul style="list-style-type: none"> wait 15 minutes to let the cleaning product act on the particulate filter
<input type="radio"/>	PFK2 CLEANING	
<input checked="" type="radio"/>	WAITING	
<input type="radio"/>	PFK1 CLEANING	





	2500 RPM	<p>5. Ready for phase acceleration n.1:</p> <ul style="list-style-type: none"> press start to begin phase acceleration n.1
<input type="radio"/>	PFK2 CLEANING	
<input type="radio"/>	WAITING	
<input type="radio"/>	PFK1 CLEANING	





<input checked="" type="radio"/>	2500 RPM	<p>6. Phase acceleration n.1 under way:</p> <ul style="list-style-type: none"> <u>start vehicle engine</u> <u>accelerate to 2500 rpm</u> for 5 minutes
<input type="radio"/>	PFK2 CLEANING	
<input type="radio"/>	WAITING	
<input type="radio"/>	PFK1 CLEANING	





	2500 RPM	<p>7. Phase acceleration n.1 completed:</p> <ul style="list-style-type: none"> leave <u>engine idling</u> pour 1 litre of product GEATEK PFK2 in K-1000's tank
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	

<input type="radio"/>	2500 RPM	<p>8. Ready for phase PFK2:</p> <ul style="list-style-type: none"> press start to begin phase PFK2
	PFK2 CLEANING	
<input type="radio"/>	WAITING	
<input type="radio"/>	PFK1 CLEANING	

<input type="radio"/>	2500 RPM	<p>9. Phase PFK2 under way:</p> <ul style="list-style-type: none"> Wait for injection of the cleaning product
<input checked="" type="radio"/>	PFK2 CLEANING	
<input type="radio"/>	WAITING	
<input type="radio"/>	PFK1 CLEANING	





	2500 RPM	10. Ready for phase acceleration n.2 : <ul style="list-style-type: none"> press start to begin phase acceleration n.2
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	

	2500 RPM	11. Phase acceleration n.2 under way: <ul style="list-style-type: none"> <u>accelerate to 2500 rpm</u> for 5 minutes
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	

	2500 RPM	12. Operation completed: <ul style="list-style-type: none"> Disconnect K-1000 from vehicle battery
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	

13. Restore the original condition of the vehicle

14. Initiate a **forced regeneration** of the particulate filter

	2500 RPM	Error code <ul style="list-style-type: none"> See section 7.1
	PFK2 CLEANING	
	WAITING	
	PFK1 CLEANING	

7 K-1000 MAINTENANCE



CAUTION: All maintenance operations must be carried out with K-1000 disconnected from the power supply and vehicle. It is recommended that you wear personal protective equipment and comply with current legislation on health and safety at work.

In order for K-1000 to function properly and maintain its reliability over a long period of time, it is of paramount importance that the following guidelines are followed:


- Clean K-1000's chassis with non-aggressive and non-abrasive products.
- Do not leave K-1000 exposed to sunlight and weather.
- Avoid violent blows when handling K-1000.
- Empty K-1000 tank before handling.
- Periodically check the condition of the connection hoses. In the case of damaged hoses, replace them immediately with new ones to avoid possible malfunctions and accidental spillage.



NOTE

Use only original spare parts.

7.1 Error diagnosis and resolution

ERROR	CAUSE	SOLUTION
Leak	Internal hose disconnected	Check torque on internal hoses
Does not detect liquid	Liquid quantity too low or faulty level sensor	Check that the quantity in the tank is sufficient to raise the float, check level sensor connections, replace level sensor if necessary
Does not inject liquid	Solenoid valve stuck	Check solenoid valve connections, unscrew the solenoid valve head to release the spring from any residue, replace solenoid valve head if necessary
	– 4 LEDs on steady – Pump stuck	Disconnect and reconnect K-1000 to the vehicle battery, contact assistance if necessary