



User Manual

KM eFlash-USB01



This user manual contains important information on how to handle the device. Please pass this manual on if you hand over the device to a third party. Keep the manual in a safe place for future reference.

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1 Product Description

The KM eFlash-USB01 – hereinafter referred to as **eFlash** – is a diagnostic device for motor vehicles with a 12-volt onboard electrical system. It connects via the vehicle's standardized OBD2 interface (On-Board Diagnostics).

Operation is performed through a Windows application via USB 2.0.

Note: The required application is available free of charge. Information regarding installation and use of the application is not part of this user manual.

1.1 General Information

Product Name	KM eFlash
Manufacturer	KM Engineers GmbH
Model Number	eFlash-USB01

Please note that upon first use, the device will be assigned to your personal user account and can thereafter only be used by you. Returns or exchanges of the device after this assignment are excluded. The statutory warranty period of two years remains unaffected.

1.2 Scope of Application

The product is primarily designed to program the engine control unit, transmission control unit, and other vehicle control units with new or modified software. Additionally, it enables the use of diagnostic functions to retrieve current status information, sensor values, live data, and other relevant information for monitoring the vehicle or engine condition. Furthermore, standardized fault codes can be read and cleared.

2 Technical Specifications

- Operating Temperature: 0 °C bis 40 °C (32°F to 104°F)
- Storage Temperature: -20 °C bis 60 °C (-4°F to 140°F)

2.1 Electrical Specifications

The eFlash is powered exclusively via the OBD2 connector and supports an input voltage range of 8.0 V to 16.0 V DC. The maximum power consumption is 0.6 W at a voltage of 12 V DC. The USB-C port is solely intended for data transfer and is not designed for power supply.

2.2 Dimensions and Weight

Length: 81 mm

Width: 45 mm

Height: 24 mm

Weight: 45 g

2.3 Scope of Delivery

- KM eFlash-USB01
- 1.5m USB Cable
- Storage Bag

3 Features

This section describes the essential features.

3.1 Transmission of Tuning Software

With the eFlash, you can transfer software to an engine control unit (ECU) or transmission control unit (TCU) – a process known as “flashing.” Please ensure your vehicle is compatible with the system before purchase. If in doubt, contact our customer service team – we will be happy to assist you.

Note: The tuning software required for use is not included and must be purchased separately.

3.2 Data Logging

Data logging of up to 100 measurement values per second is possible. However, this function is only available if the corresponding tuning software has been flashed onto the engine control unit (ECU) beforehand. Please note that this function depends on the tuning software being used. Therefore, check the product description of the tuning software to see if data logging is supported.

3.3 OBD2 Diagnostics – Fault Codes, System Status, and Live Data

Reading and clearing standardized OBD2 diagnostic trouble codes (DTCs), reading the readiness status, and displaying real-time data (live data) are generally possible with the eFlash on all OBD2-compatible vehicles. This includes parameters such as engine speed, coolant temperature, mass air flow, or oxygen sensor signals – depending on the specific vehicle model and installed control unit.

Note: Functionality may vary depending on the vehicle model. Manufacturer-specific fault codes, data parameters, and special functions may not be supported.

3.4 USB

The use of the features mentioned above is possible via a wired connection through USB with the corresponding Windows application.

4 Position of the OBD-2 Interface

The OBD-2 interface (On-Board Diagnostics) is the standardized 16-pin connector through which diagnostic devices connect to the vehicle's onboard computer. In most vehicles, the OBD-2 connector is typically located about 30 cm (12 inches) from the center of the instrument panel (dashboard) underneath or near the driver's side. If the OBD-2 connector is not located under the dashboard, there should be a label indicating its position. In Asian and European vehicles, the OBD-2 connector is often found behind the ashtray, which needs to be removed for access. If the OBD-2 connector cannot be located, please consult the vehicle's service manual.

5 Status LED

A slow “fading” (turning off and on) of the LED indicates that the device is ready for operation. A rapid fading or flashing signals that a process is ongoing. Do not interrupt ongoing processes and follow the specified steps in the Windows application.

6 Operating and Maintenance Instructions

The operation of this device is only authorized for vehicles with a 12-volt electrical system or a 12-volt OBD-2 supply. Using it in vehicles with other voltage supplies may cause damage and is therefore not permitted.

No special maintenance measures are required for this device. However, it is recommended to regularly check the device for external damage and ensure that all connections and cables are functioning properly.

The device must not be used if external damage exposes the electronics or contacts of the plug, or if the device's connections are damaged.

The device is not waterproof and must be protected from moisture and dampness.

6.1 Operating the eFlash

The eFlash can only be operated using the dedicated Windows application. This application is not covered in this document.

7 Legal Aspects

The software intended for your vehicle, engine control unit and/or transmission will hereinafter be referred to as "tuning software".

Disclaimer of Warranty and Manufacturer's Guarantee

The use of our tuning software may void the statutory warranty and the manufacturer's guarantee for your vehicle and any affected components. KM Engineers GmbH accepts no liability for any resulting consequences or damages.

Changes to Performance Data

Modifications to the engine, control unit, or control parameters performed by the tuning software will alter the performance characteristics of the vehicle. Please note that the engine, and potentially other vehicle systems and components, may be subjected to increased mechanical and thermal stress. This can, due to physical factors, lead to increased wear and tear on the vehicle. In particular, excessive strain, sustained high-load operation, and the increase in top speed achieved through tuning may negatively affect the service life of the engine and its components. Fuel consumption and pollutant emissions may also increase. KM Engineers GmbH accepts no liability for any consequences or damage resulting from such modifications.

Operating Permit Type Approval and Road Legality

Depending on the country in which the tuning software is used, the vehicle's type approval (roadworthiness certification) may be rendered invalid. We accept no liability for the continued validity of the vehicle's type approval or any consequences resulting from its expiration. Any claims against KM Engineers GmbH due to a rejection by a regulatory or registration authority are excluded, unless KM Engineers GmbH has explicitly confirmed compliance in writing, including any applicable conditions.

User Responsibility

In some countries, specific laws and regulations regarding the use of tuning software must be followed. It is the sole responsibility of the user to familiarize themselves with and comply with the applicable legal requirements in their country. This may include, but is not limited to:

- Re-registration or reclassification of the vehicle for liability and comprehensive insurance
- Ensuring that the vehicle continues to hold valid road approval

KM Engineers GmbH accepts no liability for any violations of legal requirements by the user or for any resulting consequences or damages.

8 Safety Instructions

- A sudden interruption of power supply or switching off the ignition during the flashing process may result in an incomplete write operation. This can cause severe damage to the engine control unit (ECU) or transmission control unit (TCU).
- Before flashing, ensure that the vehicle's battery is sufficiently charged. Ideally, use a battery charger. Switch off unnecessary electrical consumers such as ventilation, lights, and multimedia systems to preserve battery power.
- Never interrupt the flashing process. Follow the instructions in the Windows application carefully.
- Only perform the flashing process in a safe and secure environment, where no danger arises to yourself or others in case the vehicle becomes inoperable.
- In vehicles with a constant power supply to the OBD2 port, leaving the eFlash device connected may lead to battery drain. Remove the eFlash from the OBD2 port when not in use.

Note on Road Legality

- The use of the eFlash device and the software modifications made with it is not permitted on public roads. Use is strictly limited to research, development, motorsport, or testing purposes on private property.
- The user is solely responsible for ensuring compliance with applicable laws and type approval regulations.

9 Disclaimer of Liability

USE OF THE EFLASH DEVICE AND ANY ASSOCIATED SOFTWARE IS AT THE USER'S SOLE RISK.

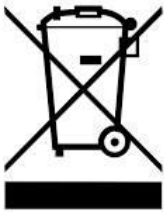
By using this product, you acknowledge and agree that any modifications to vehicle control units (including but not limited to ECU and TCU) may result in unpredictable behavior, system malfunctions, or damage to the vehicle and its components. KM Engineers GmbH, its affiliates, directors, employees, and distributors expressly disclaim all liability for any direct, indirect, incidental, special, consequential, or punitive damages, including but not limited to property damage, loss of use, vehicle failure, or legal violations arising from or related to the use of this product or its software.

The customer is solely and entirely responsible for:

- Ensuring the legal use of the product in accordance with all applicable local, national, and international laws;
- Maintaining the safety, roadworthiness, and regulatory compliance of the vehicle after modifications;
- Any consequences resulting from use of the product on public roads or in violation of regulatory approvals.

KM Engineers GmbH makes no warranties, express or implied, regarding the merchantability, fitness for a particular purpose, or legal compliance of this product.

10 Disposal



The product must not be disposed of with normal household waste. You are legally obligated to dispose of the device in an environmentally friendly manner. Please inform yourself about local regulations regarding the disposal of electrical and electronic devices.

10.1 Manufacturer's Responsibility

As the manufacturer, we offer a take-back option for this device. Please contact us for information on how to return the product. We ensure that the device is properly recycled or disposed of in an environmentally friendly way.

10.2 Collection Points

You can also return the product to designated collection points for recycling or proper disposal. Please take the device to a local recycling center or a waste disposal site that specializes in the disposal of electrical devices. You may also dispose of the device at a local recycling center or collection point specializing in the disposal of electronic equipment.

A list of available return and collection points for Germany can be found here: <https://e-schrott-entsorgen.org/>

11 Warranty and Service

A warranty of 24 months from the date of purchase is granted for this device in accordance with statutory provisions. A copy of the invoice serves as proof of the warranty claim. Damage resulting from normal wear and tear, overload, or improper handling, as well as consumables, is excluded from the warranty.

Complaints can only be accepted if the device is returned unopened and freight prepaid to the supplier.

KM Engineers GmbH is not liable for incidental or consequential damages resulting from the use, misuse, or improper installation of the eFlash.

All information in this manual is based on the current status at the time of publication. No warranty is given for the accuracy or completeness of the information. KM Engineers GmbH reserves the right to make changes at any time without prior notice.

The EC Declaration of Conformity for this product is available upon request.

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