



CK - PROG

Automotive Intelligent ProgrammerV1.0

Table of Contents

Table of Contents-----	2
Introduction-----	3
Safety Precautions-----	4
Document Disclaimer-----	5
Product Overview – Exterior View-----	6
Hardware Introduction-----	10
Housing Material Introduction-----	11
Function Area Introduction-----	12
Equipment Accessories Introduction-----	13
Detailed Software Features-----	15
After-Sales Service-----	25

Safety Precautions

To prevent personal injury, property damage, and damage to vehicles and equipment, please strictly adhere to the following safety precautions:

- 1.The equipment must be used in an environment with stable electromagnetic conditions.
- 2.During soldering operations, ensure that the soldering station is properly grounded and use only an anti-static, temperature-controlled soldering station.
- 3.To prevent damage to equipment and components caused by short circuits, always confirm that the device and components to be soldered are completely powered off before beginning any soldering work.
- 4.Ensure adequate ventilation in the working area to avoid health hazards from harmful fumes generated during soldering.
- 5.Do not connect the equipment to a power source that does not meet its rated specifications, as this may result in equipment damage.
- 6.Do not place the equipment in damp, oily, or excessively dusty environments. Avoid contact with oil, water, and corrosive substances. Do not subject the equipment to heavy pressure, dropping, or prolonged exposure to direct sunlight.
- 7.Clean the equipment using a clean, soft cloth and a mild, non-abrasive cleaning agent.
- 8.Store the equipment in a location out of reach of children.
- 9.For any matters not covered in these safety precautions, please promptly contact technical support for assistance.

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Document Disclaimer

Dear user, Thank you for choosing the CK-PROG device. To help you use the equipment more conveniently, please carefully read this manual and strictly adhere to the following disclaimer before use:

Ownership of Rights:

All intellectual property rights—including but not limited to copyright, patents, trademarks, and other proprietary rights—pertaining to the software programs (including chip-embedded firmware and companion client applications), hardware design (including circuit layout and structural molds), chip encryption information, and product documentation (including this manual) included with this product are exclusively owned by our company.

Core Prohibitions:

It is strictly prohibited to crack, decrypt, or otherwise tamper with the product's chip, or to extract any programs or data stored therein for illegal purposes (including, but not limited to, unauthorized copying, illicit distribution, or infringement of third-party intellectual property rights). It is strictly prohibited to reverse-engineer, decompile, crack, copy, modify, or extract source code from the product's software programs for any purpose. It is strictly prohibited to disassemble, replicate, reverse-engineer the product's hardware structure or circuit design, or to use the hardware design for manufacturing or commercial sale. Without prior written authorization from our company, no individual or entity may use any software, hardware, or chip-related content of this product for commercial purposes, nor disclose, transfer, or share such content with any third party.

Warning on Infringement:

Any violation of the above terms—particularly chip cracking or engagement in illegal activities—will result in legal action by our company to enforce its intellectual property rights. In serious cases, we will cooperate fully with judicial authorities to pursue criminal liability.

Product Overview (Appearance)





Product Overview (Appearance)

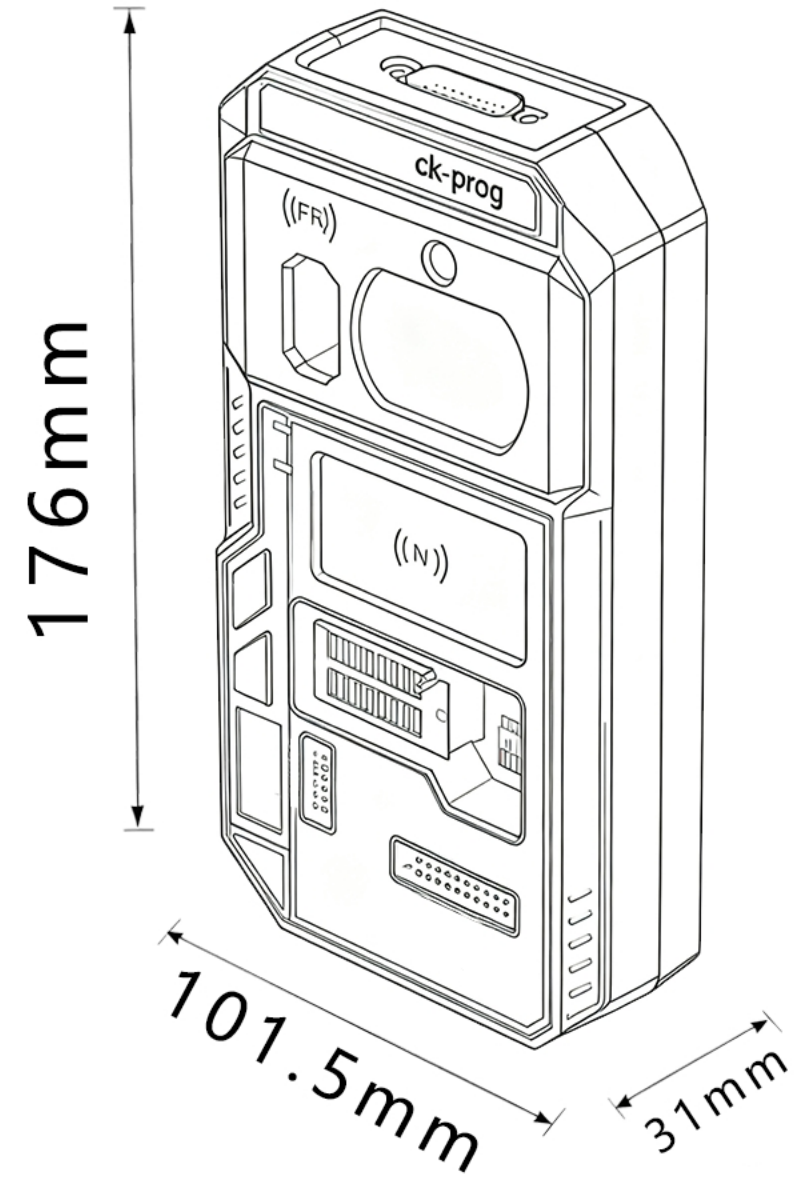


Product Overview (Appearance)



Hardware Introduction

USB Interface	USB 2.0		
External Power Supply	12V / 2A		
Power	1W		
Product Dimensions	Length	Width	Height
	176mm	101.5mm	31mm



Introduction to Housing Materials

Front Panel
Material: Acrylic
Color: Black
Surface Finish: Silk-screen Printing

Buttons
Material: Silicone
Color: Black
Surface Finish: Matte Fine Leather Texture

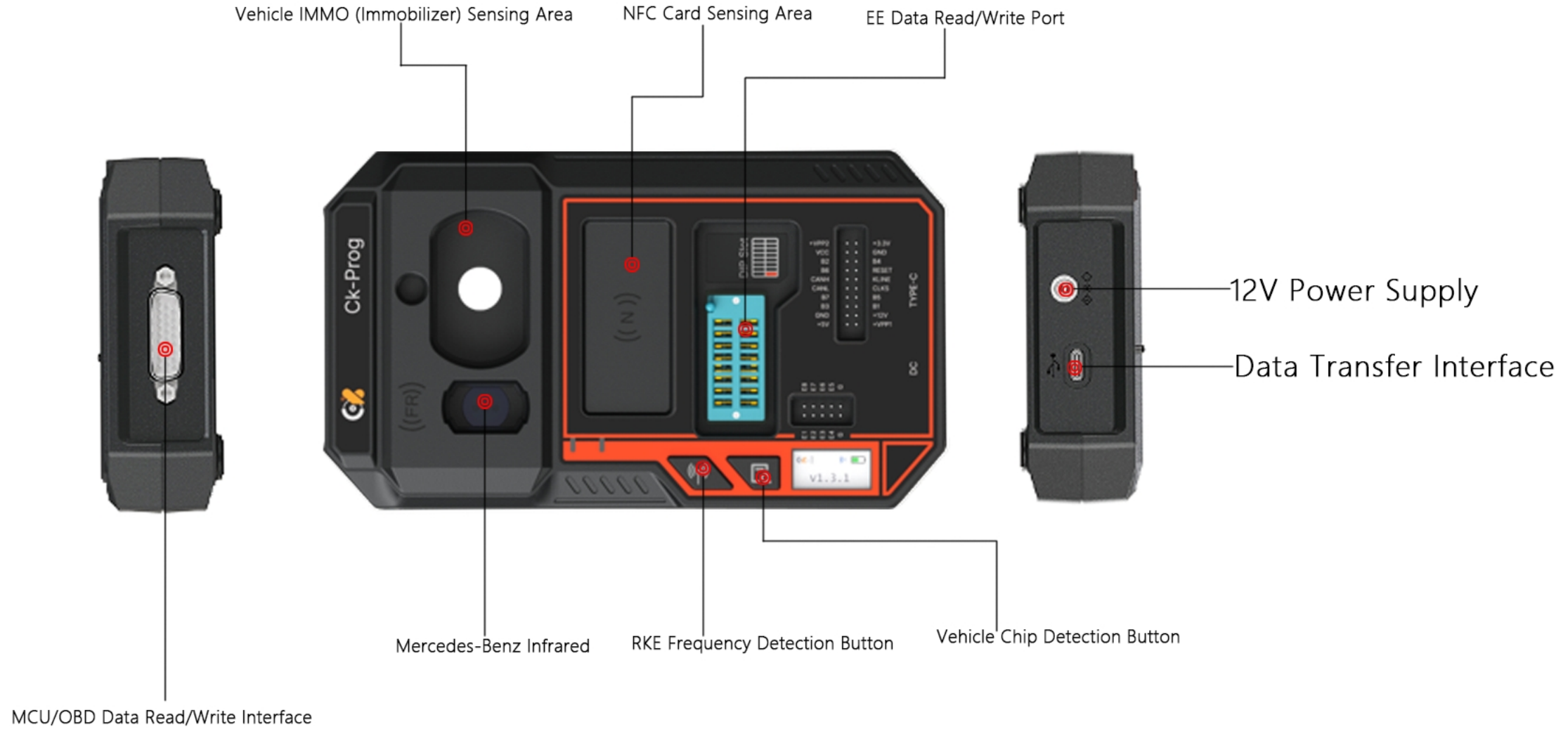
Main Housing
Material: Plastic
Color: Black
Surface Finish: Matte Fine Leather Texture

Logo Nameplate
Material: Acrylic
Color: Black
Surface Finish: Silk-screen Printing

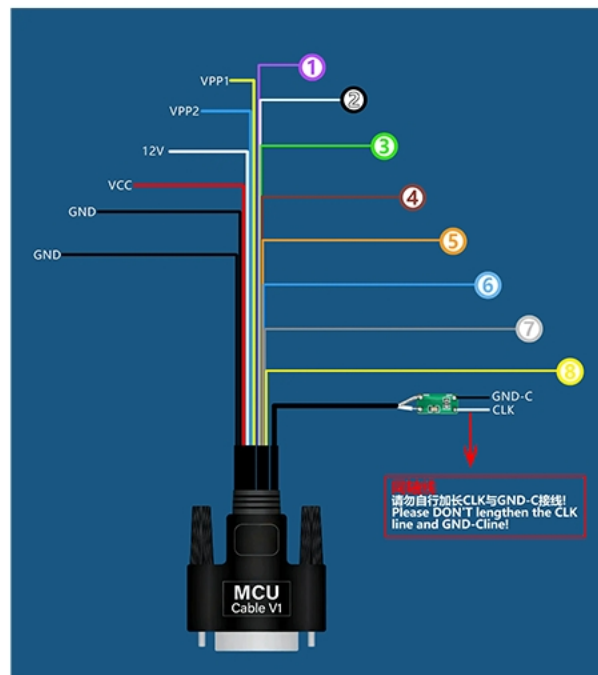
"((RF)))/((N))" Marking
Material: Plastic
Color: Black
Surface Finish: Glossy



Function Area Introduction



Equipment Accessories Introduction



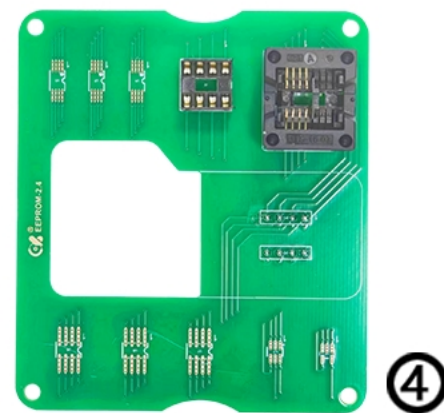
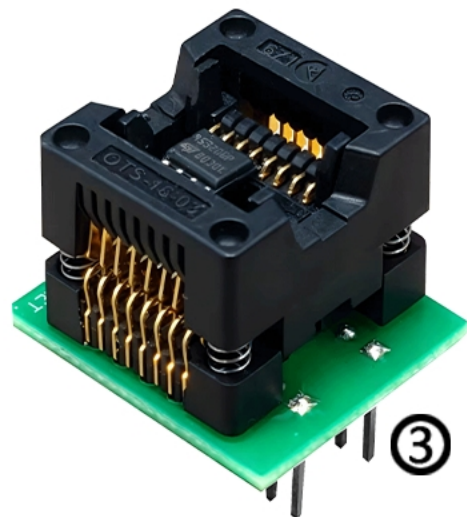
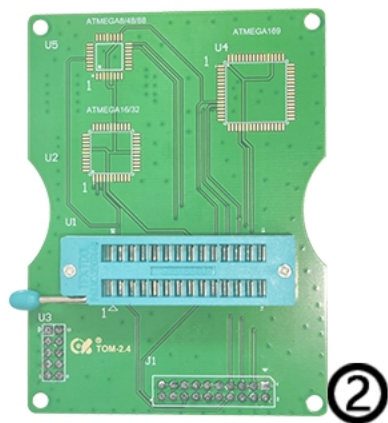
线颜色	网络/功能	套管丝印	备注
白色	ECU_B2	2	信号线束
棕色	ECU_B4(TX)	4	
蓝色	ECU_B6	6	
黄色	ECU_RESET	8	
红色	ECU_SI_VDD/VCC	VCC	电源线束
黄色	VPP1/VPP	VPP1	
紫色	ECU_B1	1	信号线束
绿色	ECU_B3	3	
橙色	ECU_B5	5	
灰色	ECU_B7	7	
蓝色	VPP2/VPPR	VPP2	电源线束
白色	ECU_W/R_FREQ/CLK		clk线束
黑色两条	GND	GND	接地线
黑色	GND-C		clk线束接地线(此线是屏蔽线)
白色	12V	12V	电源线束

① MCU-CableV1 Programming Cable: Widely compatible, supports programming of various chips, clearly labeled wire numbers, ensuring stable and safe soldering.

Precautions:

- (1) After soldering, please inspect all connections to ensure they are correct.
- (2) Do not extend the CLK line or the GND-C line yourself, as this may cause data reading failures.

设备配件介绍



- ② ATMEGA Adapter (Standard Included): Compatible with various chip specifications including 8/16/32-pin packages. Comes standard with a plug-in, solder-free socket and three soldering positions. Supports odometer correction and chip erasure.
- ③ Octagonal Chip Socket (Optional): Designed for use with a programmer to program 8-pin chips. Features solder-free contact pins and compatible solder pads for both 6-pin and 8-pin chips.
- ④ Octagonal Adapter Board (Standard Included): Used together with an adapter socket to program 8-pin chips. Features a solder-free spring-contact socket for reliable pin contact, and solder pads compatible with both 6-pin and 8-pin chips.

To facilitate user programming and operation, we will continuously release various adapters in the future, such as adapter boards for Porsche, BMW, Land Rover, RH850 decryption, and more.

Detailed Software Features

一、 Core Processing Function

Cloud Processing: Upload data to the cloud for processing and repair.

二、 Programming Function

Programming Module: Supports general-purpose memory and MCU options.

三、 Automotive Electronics Repair Functions

Airbag Repair: Covers 80%–90% of airbag control modules available on the market. Odometer Correction: Covers 75%–85% of instrument clusters on the market. Repair of Commonly Damaged Modules: Includes standard steering locks and frequently damaged body control modules.

四、 Key-Related Functions

Key Unlocking: Unlocks standard OEM keys available on the market.

Key Detection: Detects key chips and frequencies.

Supports copying both encrypted and unencrypted keys—including BMW BDC2, BDC3, U-chassis, and LCD keys—onto new or used key shells.

Detailed Explanation of Software Features

5、 Immobilizer / Immobilizer Programming Function

Immobilizer Data Processing: Load immobilizer data into the vehicle's immobilizer control unit and write/start the system.

6、 Auxiliary Functions

User-defined programming menu and one-click flashing
Program file editing
Program log recording (including logs of updates, diagnostics, and other processes)
Wiring diagrams and help guidance

1、 Core Processing Function

Cloud-Based Data Upload, Processing, and Repair

Function Description:

Upload local fault data from automotive electronic modules (e.g., airbag control units, instrument clusters) to a cloud server, where professional databases and algorithms are used to repair or reset the data.

Applicable Scenarios:

Complex data-related faults that cannot be resolved locally—such as airbag module lockouts on specific vehicle models or abnormal encrypted data in instrument clusters.

Core Value:

Leverage cloud computing resources to overcome the limitations of local hardware and resolve challenging data-related issues.

Detailed Explanation of Software Features

2、Programming Function

General Programming Options

Function Description:

Provides programming protocols and parameter templates for commonly used memory chips and microcontroller units (MCUs) in automotive electronics. Enables program flashing and parameter modification for memory and MCU devices. Supports user-defined programming menus and one-click flashing of customized data.

Applicable Scenarios:

Writing new firmware or adjusting operational parameters for hardware modules such as airbag control units, instrument clusters, and body control modules.

Core Value:

Compatible with the majority of mainstream memory and MCU models available on the market, enabling reliable read/write operations and parameter configuration for automotive electronic hardware.

Detailed Explanation of Software Features

三、Automotive Electronics Repair Functions

1. Airbag Repair

Function Description:

Resets the “crash lockout status” and clears fault codes stored in the airbag control module after airbag deployment, thereby unlocking and restoring the module to normal operational condition.

Applicable Scenarios:

Applies to 80%–90% of common vehicle models on the market (e.g., Volkswagen, Toyota, Honda), allowing repair of the airbag control unit without hardware replacement.

Core Value:

Eliminates the high cost of replacing the airbag control module by enabling fast, software-based restoration of airbag system functionality.

2. Odometer/Instrument Cluster Calibration

Function Description:

Calibrates displayed data on the vehicle’s instrument cluster—including odometer reading, fuel gauge accuracy, and tachometer/speedometer display errors—to correct abnormal or inaccurate readings.

Applicable Scenarios:

Suitable for 75%–85% of vehicles with mechanical or digital instrument clusters (e.g., cases involving erratic mileage jumps or inaccurate fuel level indications).

Core Value:

Resolves display inaccuracies and restores precise, reliable instrument readings.

Detailed Explanation of Software Features

3. Repair of Commonly Damaged Modules

Function Description:

Resets and repairs fault data in commonly damaged modules such as the steering column lock module (direction lock) and body control modules (BCM).

Applicable Scenarios:

Steering lock jamming or failure|Intermittent malfunctions in body control modules (e.g., erratic window operation, door lock failures)

Core Value:

Enables low-cost, software-based repair of vulnerable electronic components without requiring hardware replacement.

Detailed Explanation of Software Features

(4)、Key-Related Functions

1. Standard OEM Key Unlocking

Function Description:

Releases the pairing lock between an original equipment manufacturer (OEM) key and the vehicle's immobilizer system, restoring the key's authorization to communicate and pair with the vehicle.

Applicable Scenarios:

When an OEM key has been blocked by the vehicle's immobilizer system (e.g., due to multiple incorrect password entries or after being lost and later recovered).

Core Value:

Restores the key's pairing eligibility, avoiding the cost of reprogramming or replacing the key.

2. Key Chip and Frequency Detection

Function Description:

Reads the chip type and encoded data embedded in the key, and detects the key's radio communication frequency (e.g., 433 MHz or 315 MHz).

Applicable Scenarios:

Verifying key parameters before programming a new key
Diagnosing key-related issues (e.g., failure to be recognized or respond during remote/start operations)

Core Value:

Provides essential key parameters to support accurate key matching, cloning, or troubleshooting

Detailed Explanation of Software Features

3.Key Programming for Immobilizer Start Authorization

Function Description:

Writes key encryption codes and immobilizer authorization data into the key's chip, then pairs it with the vehicle's immobilizer system to bind the key with engine-start privileges.

Applicable Scenarios:

Adding a new key Replacing a lost original key with a new one Replacing a damaged key chip

Core Value:

Enables the new key to obtain full "start authorization," allowing it to start the vehicle normally.

Detailed Explanation of Software Features

(5)、 Immobilizer / Start Authorization Function

Immobilizer ECU Data Loading and Start Authorization

Function Description:

Loads key codes, vehicle-specific immobilizer passwords, and other security data into the vehicle's immobilizer control unit (ECU), completing the pairing between the immobilizer system and the key to restore engine start capability.

Applicable Scenarios:

Immobilizer ECU data loss (e.g., due to corruption or battery drain) System re-pairing required after replacing the immobilizer ECU with a new unit

Core Value:

Re-establishes the authorized relationship between the vehicle's immobilizer system and the keys, resolving "immobilizer lockout" issues that prevent the engine from starting.

Detailed Explanation of Software Features

(6) Auxiliary Functions

1. Program File Editing

Function Description:

Allows modification and editing of program files (e.g., .hex firmware files) used in automotive electronic modules, including parameter adjustments and content changes.

Applicable Scenarios:

Customizing device behavior—such as modifying instrument cluster display logic or adapting parameters for specific repair needs.

Core Value:

Enables flexible, user-driven configuration of automotive electronic device firmware.

2. Program Log Recording

Function Description:

Automatically logs the entire software operation process, including data updates, device detection, repair steps, and operation results.

Applicable Scenarios:

Troubleshooting by reviewing historical operations

Maintaining records for operational compliance or audit purposes

Core Value:

Preserves a complete trace of user actions to support post-operation analysis and accountability.

3. Wiring Diagrams and Help Guidance

Function Description:

Provides clear wiring diagrams and step-by-step instructions for connecting the device to various automotive electronic modules.

Applicable Scenarios:

New users unfamiliar with the equipment

Situations involving less common or complex module connections

Core Value:

Prevents incorrect wiring and guides users to perform correct, safe, and effective connections and operations.

Detailed Explanation of Software Features

(6) Auxiliary Functions

4.Quick Access

Function Description:

Provides instant access to system features through a dedicated entry point, including recently accessed records and user-defined favorites, enabling rapid navigation to frequently used functions or content.

Applicable Scenarios:

Frequently accessing specific repair or programming functions

Retrieving past operation history

Managing and using personalized bookmarks/favorites

Core Value:

Minimizes repetitive navigation steps, enhances operational efficiency, and helps users quickly locate desired features or data.

5.More Features Under Continuous Development...

After-Sales Service

After-Sales Support

(1). Software-Related Inquiries

1. Please call our official customer service hotline: 139 5516 7331 Service Hours:

- Weekdays: 9:00 AM – 6:00 PM
- Weekends: 10:00 AM – 4:00 PM

2. Via CK-PROG Software:

- Use the built-in "Send Error Details to Online Support" feature.
- Our team will respond within 24 hours.

(2). Hardware-Related Issues

1. Mail-In Repair Service

- Go to WeChat Official Account "13955167331" → "After-Sales Request" → Select "Hardware Failure".
- Fill in your shipping address and send the device to our authorized service center:

Return Address:

Kenno Automotive Electronics, Fulemen Plaza, Changjiang West Road,
Shushan District, Hefei City, Anhui Province

Recipient: After-Sales Department (Attn: Engineer Shao)

Phone: 139 5516 7331

After-Sales Service

Warranty Coverage and Duration

During the specified warranty period, the device is eligible for free repair or replacement if the malfunction results from inherent quality defects or occurs under normal use conditions.

The warranty period begins on the date of delivery/signature acceptance, and its exact duration shall be as stated in the product manual or as agreed upon at the time of purchase.

(2). Responsibility Allocation and Cost Bearing

1. Costs Covered by Our Company

If inspection confirms that the fault is due to a product quality issue attributable to us, we will:

Provide free repair, replacement of parts, or whole-unit replacement

Bear all round-trip shipping costs for the device

2. Costs Borne by the User

The user shall be responsible for repair fees and shipping costs in any of the following cases:

Expired Warranty: The device is beyond the valid warranty period

User-Induced Damage, including but not limited to:

Water ingress, moisture exposure

Dropping, impact, or physical collision

Internally damaged circuits or burnt components caused by improper operation

Unauthorized Disassembly or Modification:

Any damage resulting from disassembly, repair, or modification performed without authorization from our official service centers

(3). Additional Notes

To request warranty service, users must provide proof of purchase (e.g., order number, invoice) and return the device to an official authorized service center.

For repairs outside the warranty scope, we will provide a detailed repair quotation; service will proceed only upon user confirmation.