

CGDI BMW User Manual

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CGDI BMW User Manual

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User Manual

Hardware Model: CGDI

**Please Read This Manual Carefully Before
Use**

1. CGDI Introductions for Use

Dear customer, Shenzhen Changguang technology co., ltd. deeply appreciate your trust and support to our products before use. Next, the function and usage of CGDI will be shown for you to help solve all kinds of problems that you may meet during use. Hope it can be useful.

CGDI includes two parts: hardware devices and software drivers.

Lifetime free maintenance, committed to user's stable use, software drivers are downloaded on the official website, and software upgrades are completely free and available to all CGDI users.

1.1 Product Overview

CGDI is a high-performance product which integrates Auto diagnose, programming, anti-theft maintenance into one. It features in quick software reply, short-time programming, and many new breakthroughs in operational safety and technical support has been made.

1.2 Function and Features

1. Update in real time, product upgraded with zero cycle time, support car model added in real time.
2. BMW CAS3/CAS2+data restore--support CAS computer changing and dismantling, BMW MSV80/MSV80.0/MSD80/MSD80.0/MSD85/ engine computer changing, ISN code reading.
3. Device security enhanced greatly, hardware anti-decryption, software anti-copying.

1.3 Applicable Car Model

1. BMW CAS1/CAS2/CAS3/CAS3+/ key match adding, key all lost matching, CAS computer changing, CAS3+/P4X above version can directly downgrade through OBD in 5 minutes, 100% safety.
2. BMW CAS4/CAS4+/ support key matching, support key all lost matching.
3. Support BMW key detection, can detect key status.
4. Support BMW engine computer DME replacement.
5. Support BMW MSV80/MSD80/MSD85/series OBD read ISN code (no need to disassemble computer when matching key)
6. Support BMW key unlock.

Car Model list

model	Have key to match key	Without key to match key	Read ISN code	Replace engine Computer DME	BMW key to unlock	Use time
CAS1	support	support			support	1 minute
CAS2	support	support	support		support	1 minute
CAS3	support	support	support		support	1 minute
CAS3+	support	support	support		support	1 minute
CAS4	support	support	support			30 seconds
CAS4+	support	support	support			30 seconds
MSV80			support	support		5 minutes
MSD80			support	support		5 minutes
MSD85			support	support		5 minutes

2. Hardware Device Introduction

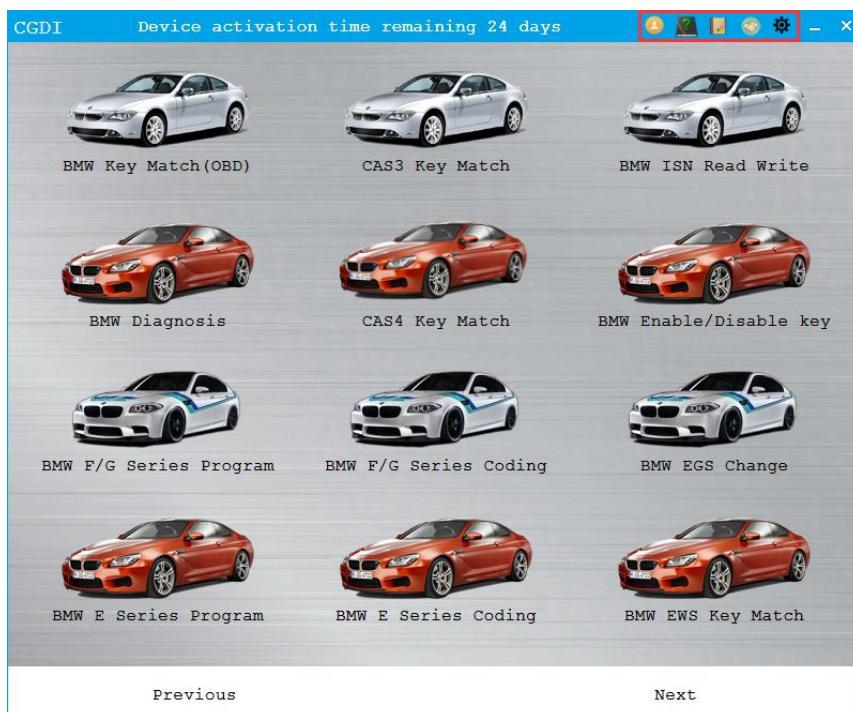


The three parts above are indispensable.

- 1) USB wire is mainly used for connecting computer software driver and getting through electricity to normally work. However, please often check whether the interface is loose after long time use.
- 2) Mainframe device used for key matching and BMW engine CAS ISN reading.
- 3) OBD wires used for OBD connection between mainframe device and BMW vehicle.

3. Software Use

CGDI Main User interface



Menu Bar, function from left to right.

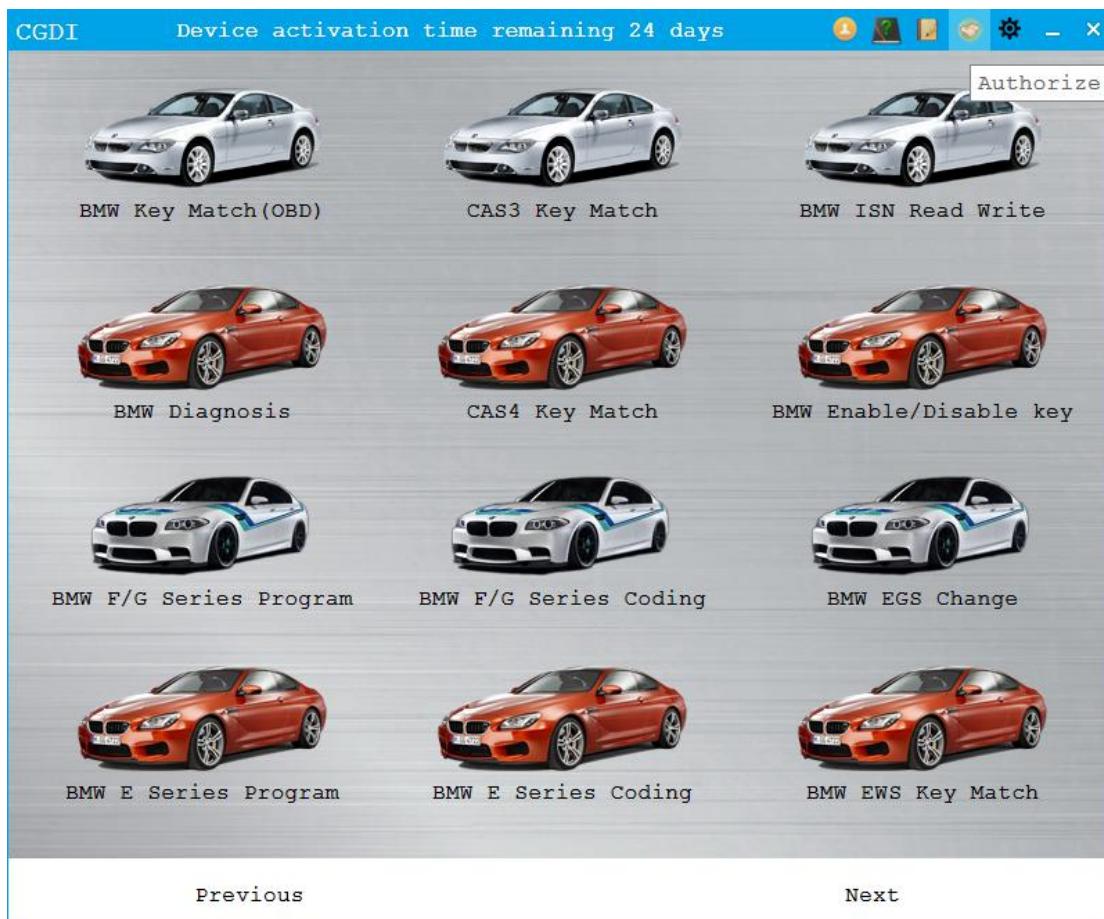
- ① Log in User log in
- ② Help Open use file
- ③ Journal Find problems for manufacturer
- ④ Authorization Partial CGDI software functions only can be used after authorization
- ⑤ Settings Set language, upgrade firmware
- ⑥ Software minimization
- ⑦ Log out software

3.1 Activation

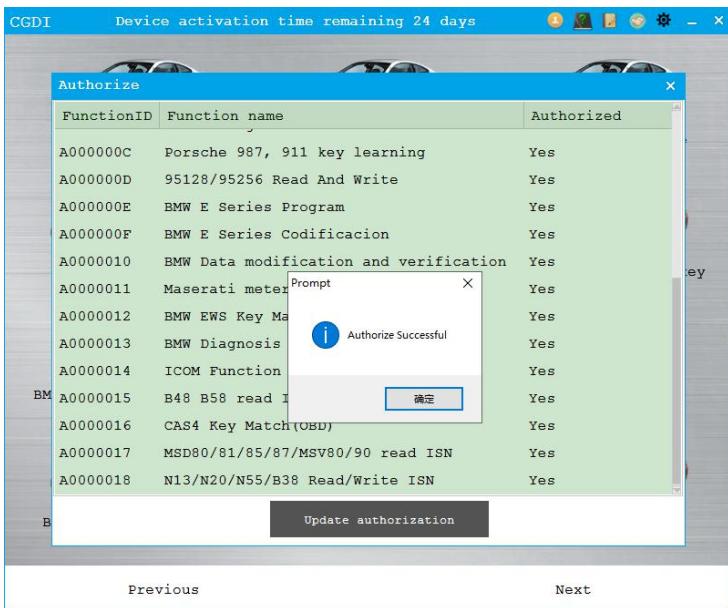
It will be activated automatically when software detects the device without activated days, no need user to operate. The process needs networking.

3.2 Device Authorization

Partial CGDI software functions only can be used after authorization.



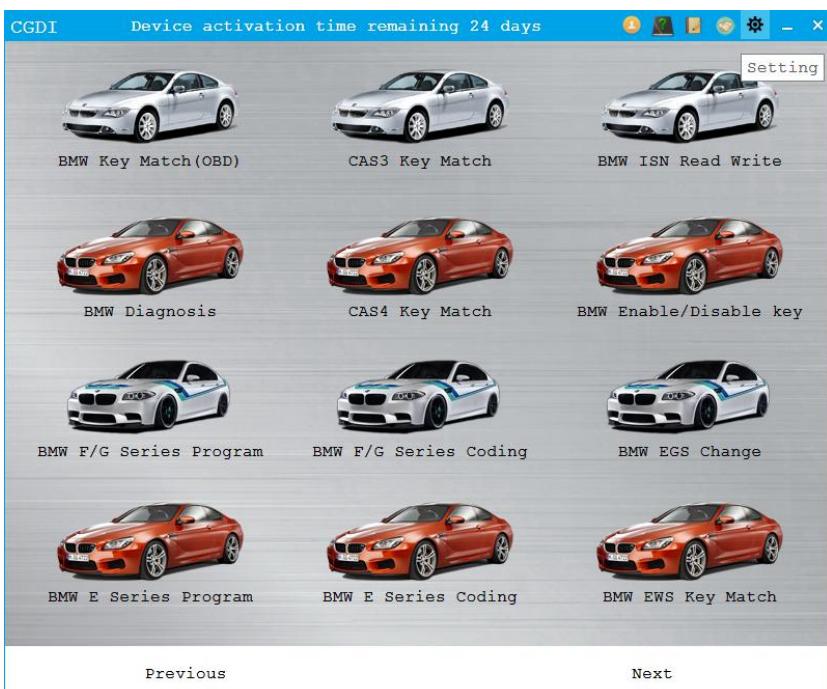
- ◎ Log in authorization page to view authorized list
- ◎ Click “update authorization” button

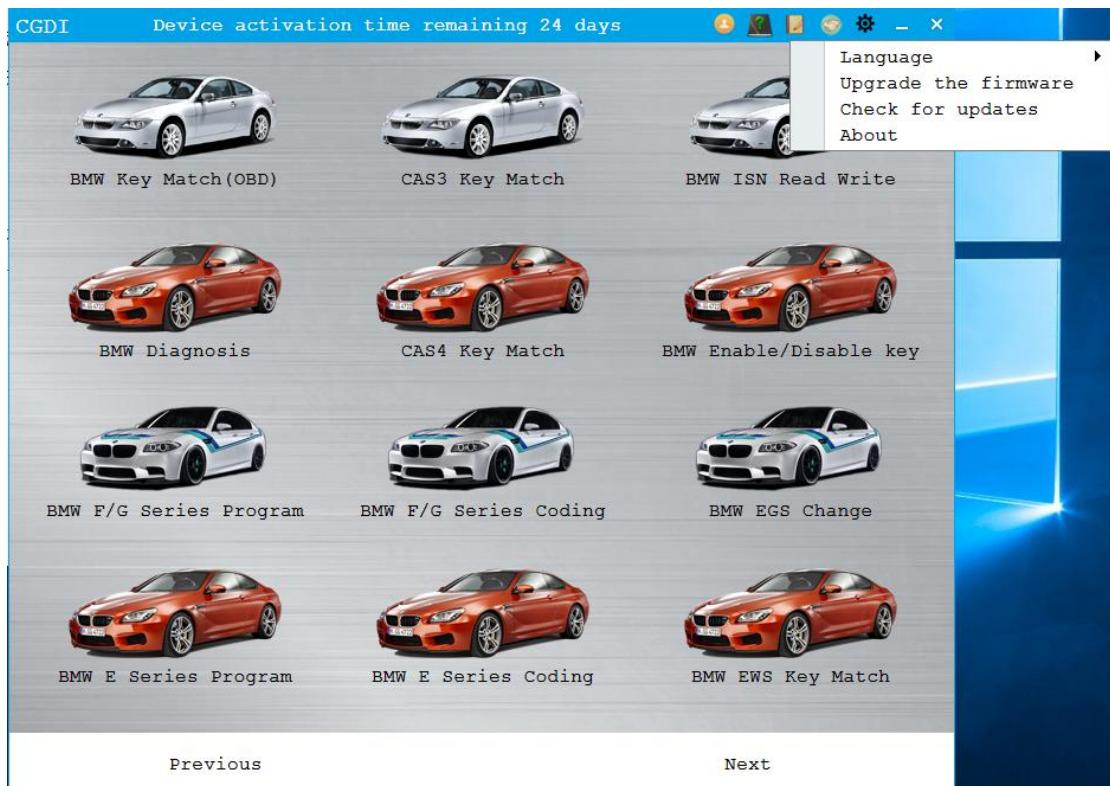


◎Please feel free to contact manufacturer if still show “No” after updating authorization succeeded.

3.3 Settings

- ◎Language Language shift, support Chinese and English now
- ◎Firmware upgrade Device firmware upgrade
- ◎Detection Software update detection and software update journals browse
- ◎About Software, firmware version information view etc.





3.3.1 Language

Currently Support switch among Chinese, English, French, Spanish, Turkish.

3.3.2 Firmware Upgrade

- ① The software will inform user when firmware version is lower than built-in version.

Log in firmware upgrade page, no need user to operate, log out after device reconnection successful.

3.3.3 Update Check

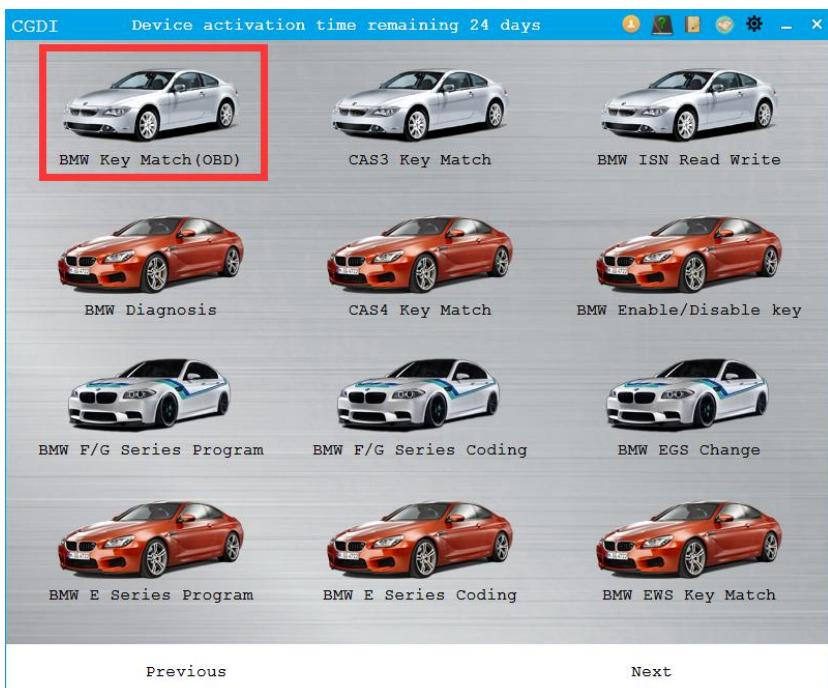
Software check update.

3.3.4 About

- ◎ Software version and device information, manufacturer company website as well.



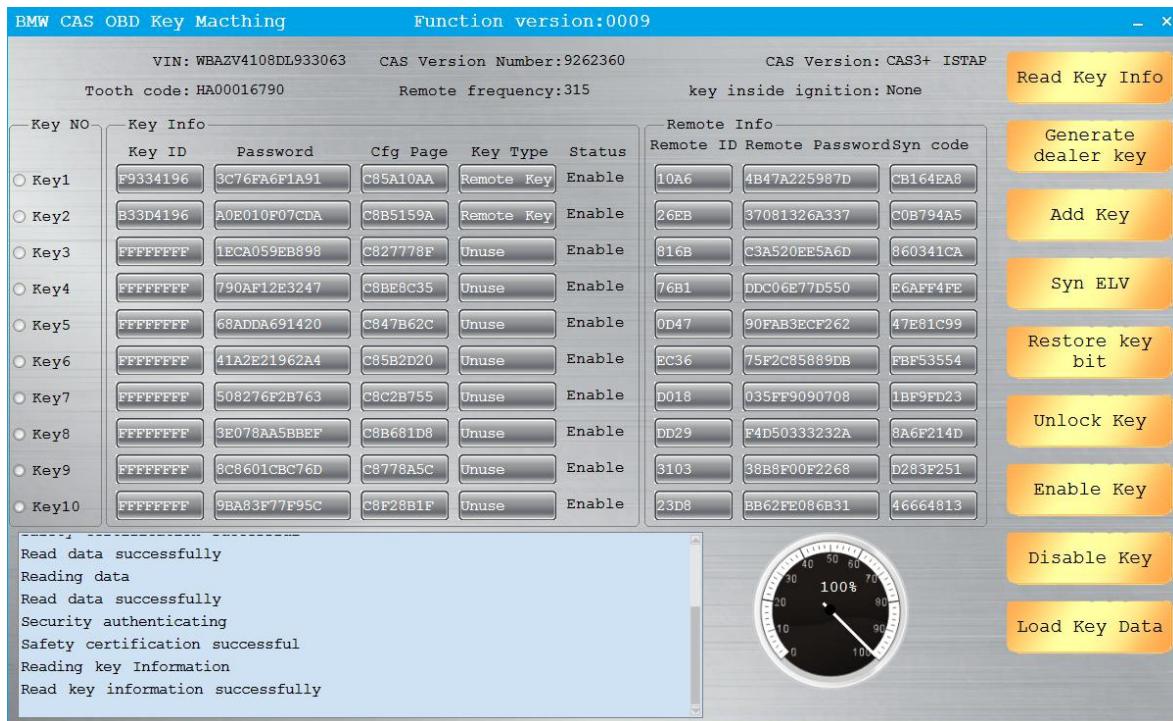
4. BMW OBD Key Match



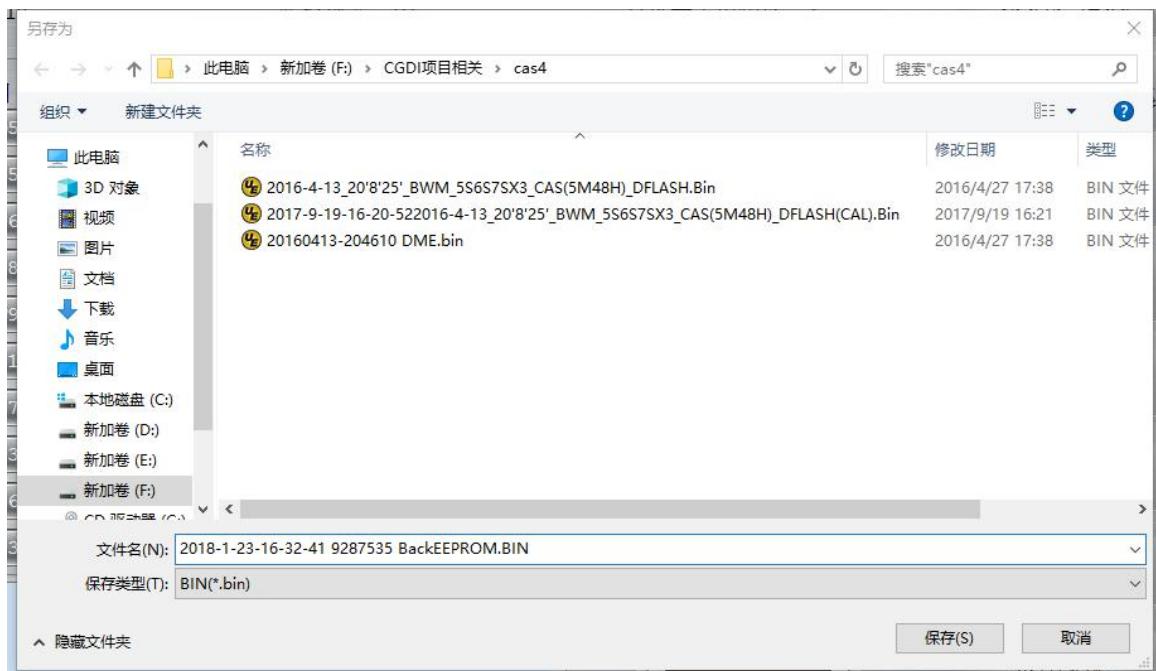
4.1 CAS1-3+Key

4.1.1 Read Key Information

- ◎ First step, read key information or load key data.
- ◎ Other functions are operated based on existing key information.

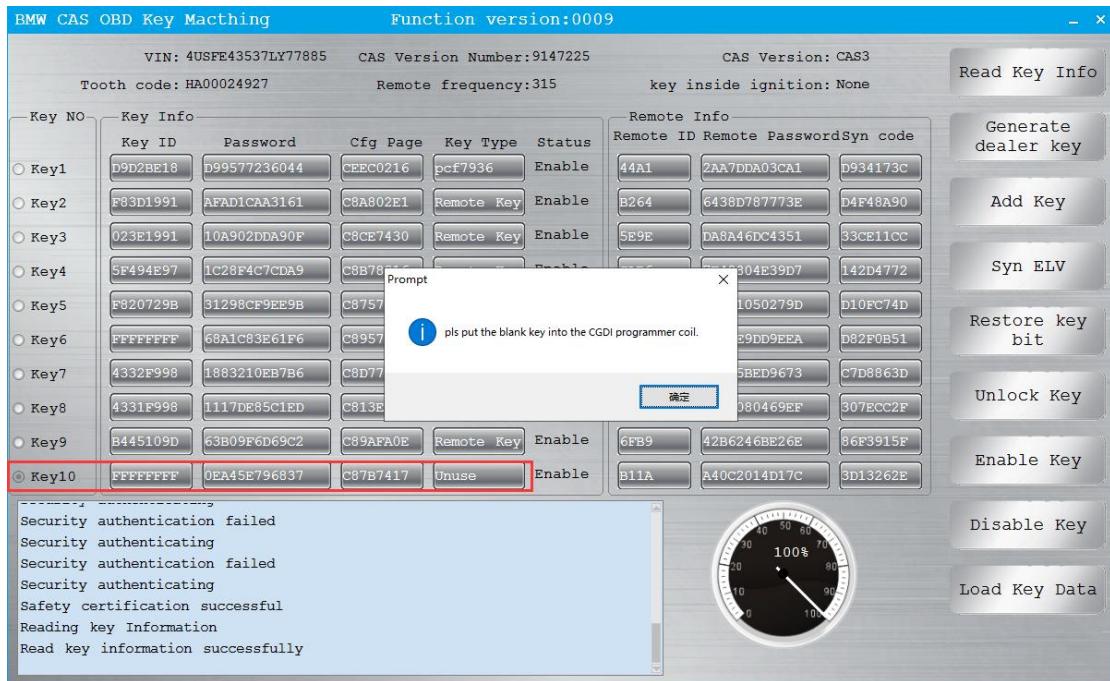


4.1.2 Click “Load Key Data” Button to Load Key Data



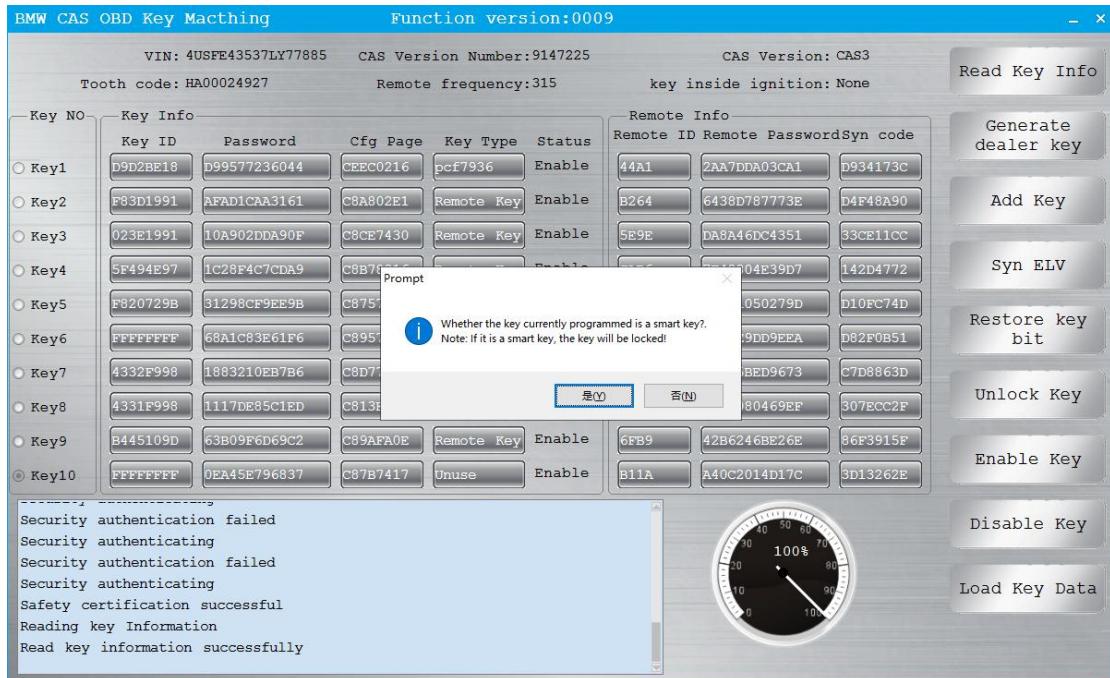
4.1.3 Generate Dealer's Key

- ◎ Select an unused key ID.
- ◎ Click “Generate dealer's Key” button

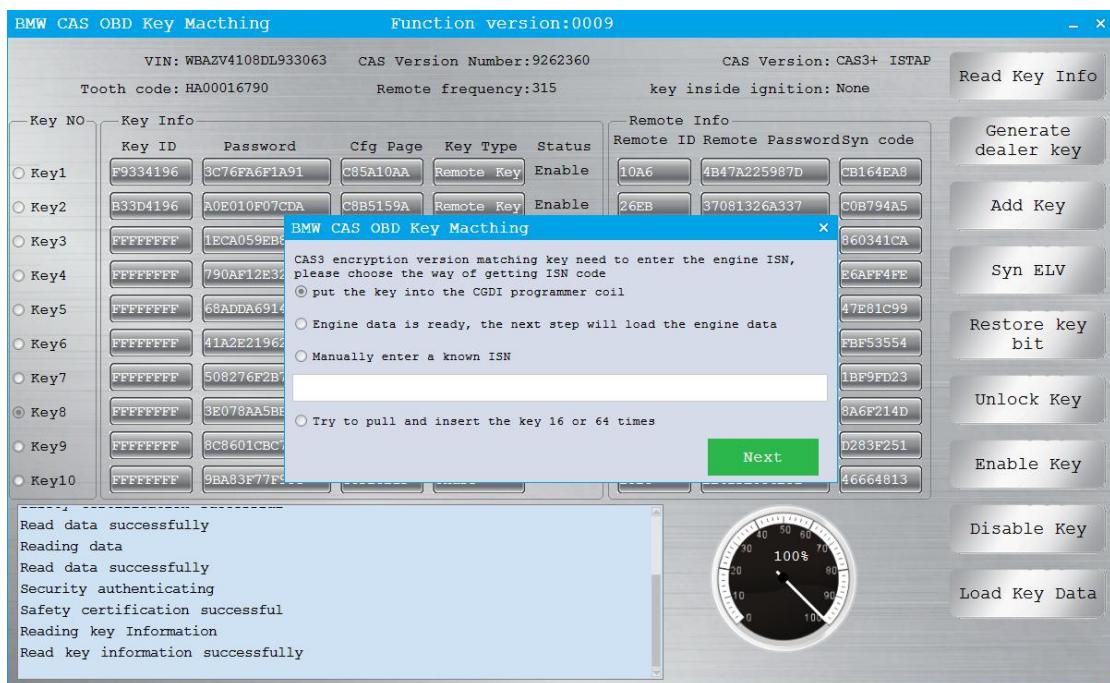
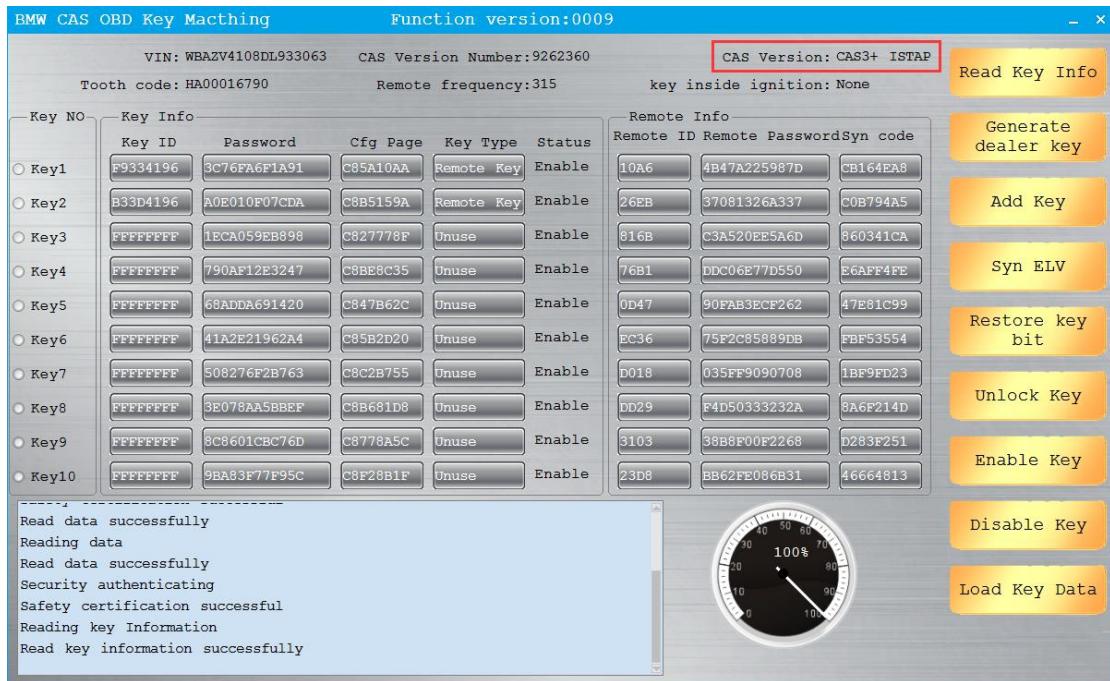


◎ Choose key types

Check whether the key is intelligent: intelligent key (Y), normal key (N).



◎ The key cannot be generated directly if CAS version is 3+, needing engine ISN.

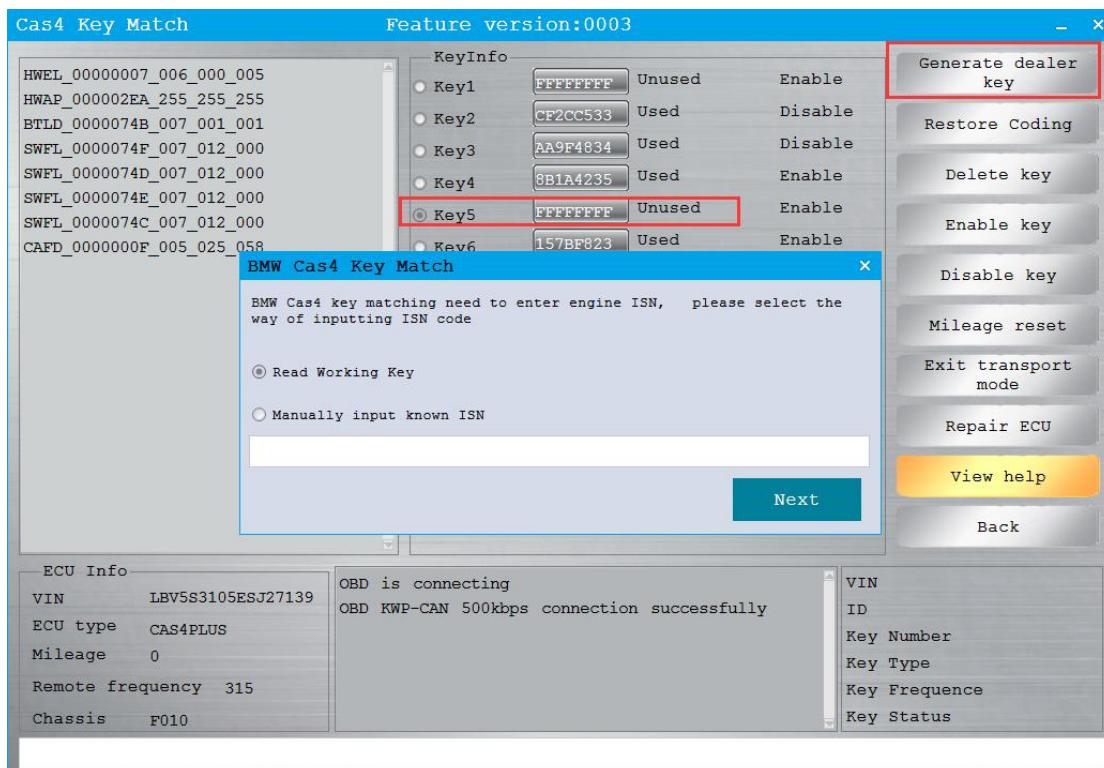


4.2 CAS 4 Key Match



This screenshot provides a detailed view of the CAS4 Key Match feature menu. On the left, there's a list of vehicle codes: HWEL_00000007_006_000_005, HWAP_000002EA_255_255_255, BTLD_0000074B_007_001_001, SWFL_0000074F_007_012_000, SWFL_0000074D_007_012_000, SWFL_0000074B_007_012_000, SWFL_0000074C_007_012_000, CAFD_0000000F_005_025_058. The main area is titled "Feature version:0003" and contains a "KeyInfo" table with 10 rows, each for a key numbered 1 to 10. The columns show the key number, a hex value, usage status (Unused or Used), and enable status (Enable or Disable). To the right of the table are several orange buttons with white text: "Generate dealer key", "Restore Coding", "Delete key", "Enable key", "Disable key", "Mileage reset", "Exit transport mode", "Repair ECU", "View help", and "Back". At the bottom, there are three sections: "ECU Info" (VIN LBV5S3105ESJ27139, ECU type CAS4PLUS, Mileage 0, Remote frequency 315, Chassis F010), "OBD Info" (OBD is connecting, OBD KWP-CAN 500kbps connection successfully), and "VIN" (VIN, ID, Key Number, Key Type, Key Frequency, Key Status).

4.2.1 Select unused key, click “Generate Dealer's Key” button.



4.3 FEM/BDC Key Match



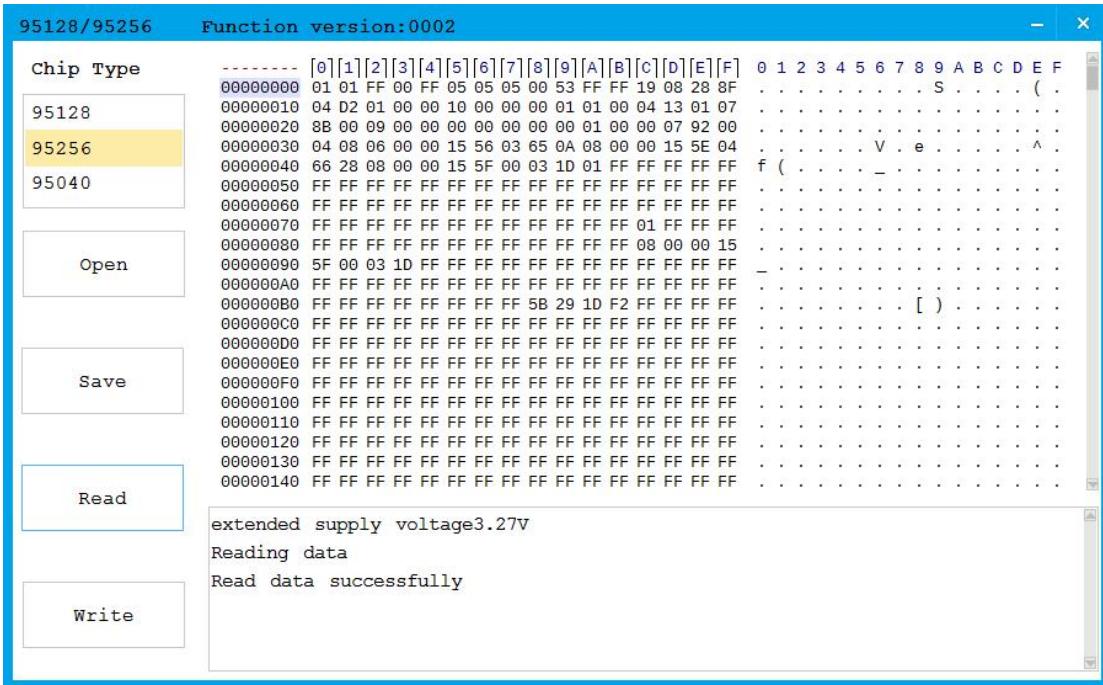
4.3.1 Use CGDI to connect vehicle, then open software.

Red line corresponds to the chip, 1 port clamps the chip.



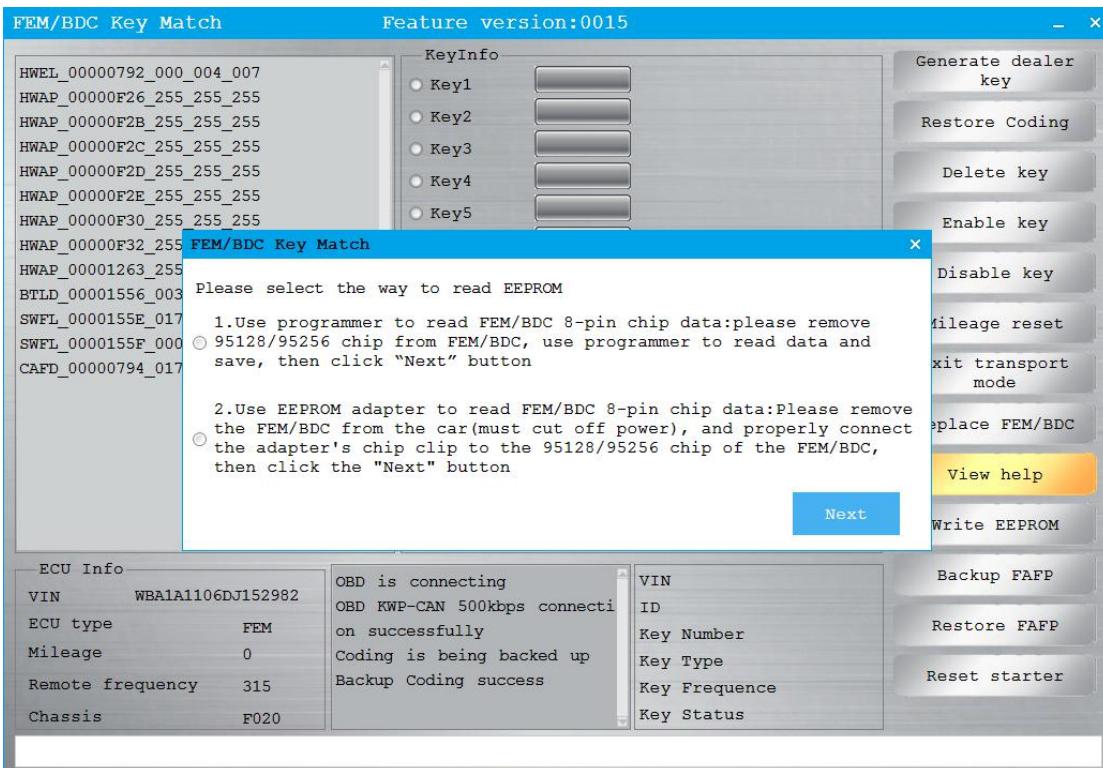
Use CGDI to read and store FEM/BDC 95128/95256 chip data.





1. Turn on FEM/BDC key match

Please operate as instructions shown.



2. Please follow the CGDI software tips to load 95128/95256 chip data, the software will produce a service file, use CGDI to write the service file in 95128/95256 chip, then weld and install FEM/BDC back to vehicle.

3. Please follow the CGDI tips to click “Next” button, CGDI start programming. The software will remind departing FEM/BDC after 2 minutes at most, dismantle 95128/95256 chip, use CGDI to write back original file, then install FEM/BDC back to vehicle.

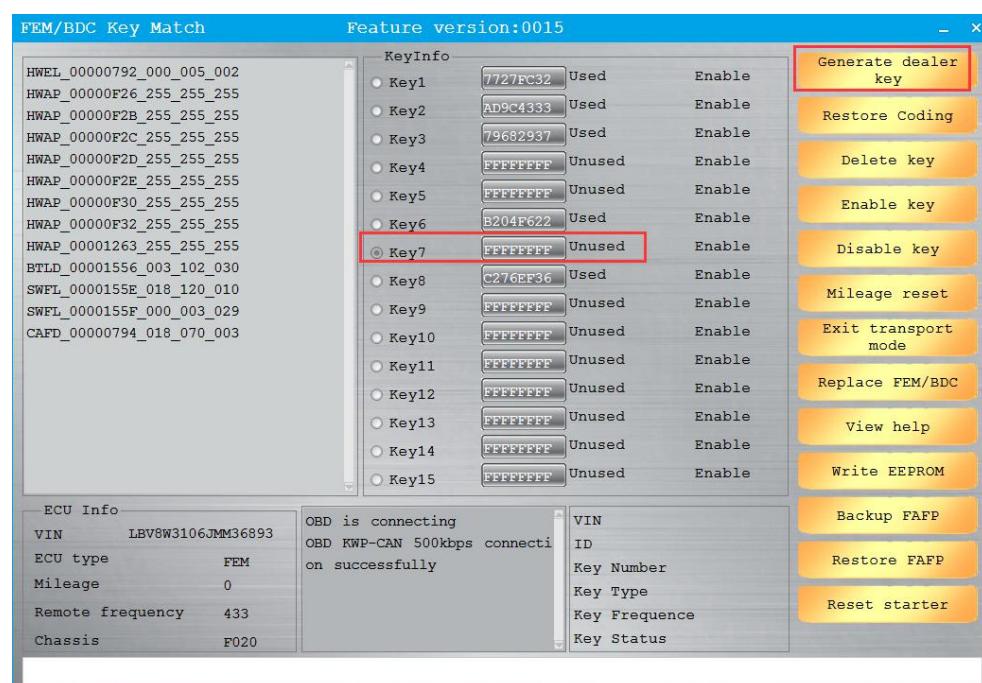
4. Please follow the CGDI tips to click “Next” button, the software will read and show key information automatically, select the key that needs match, click “Generate dealer's key” button, choose the way of gaining ISN: read original vehicle key, load engine data or manually input known ISN.

5. Please follow the CGDI tips to keep the original car / new key closer to the key sensor area below the steering wheel.

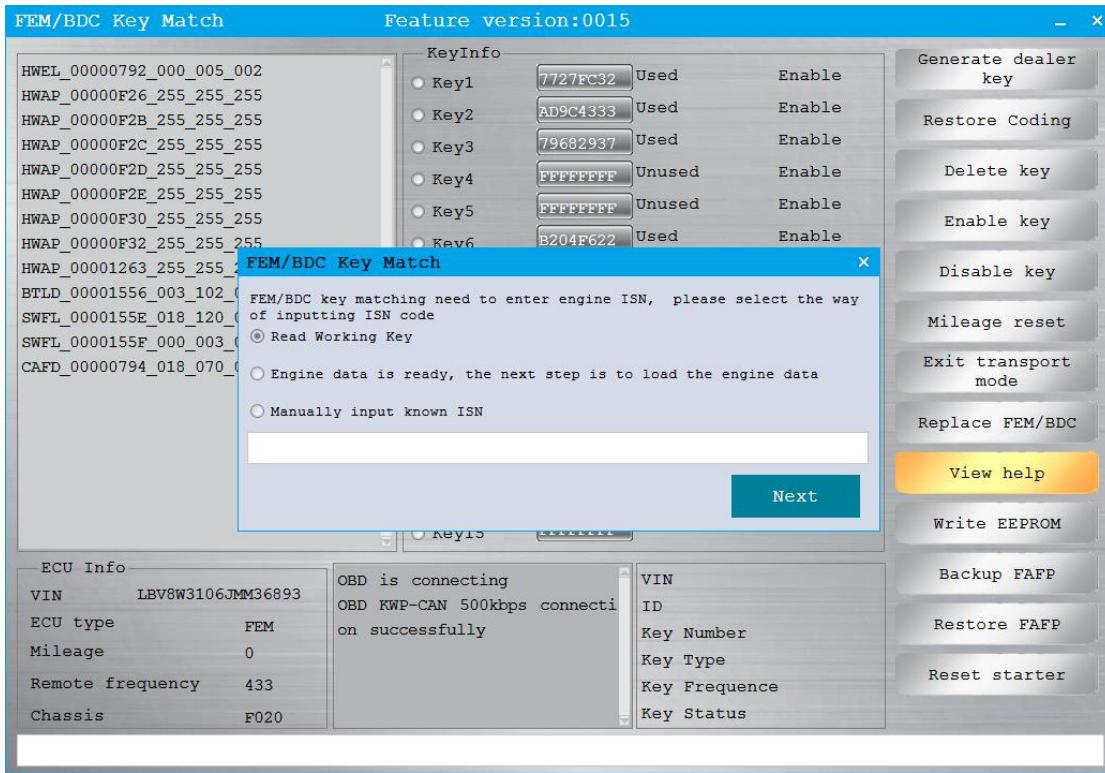
4.3.2 Generate Dealer's Key

1. Select an unused key ID

2. Click “Generate dealer's Key” button

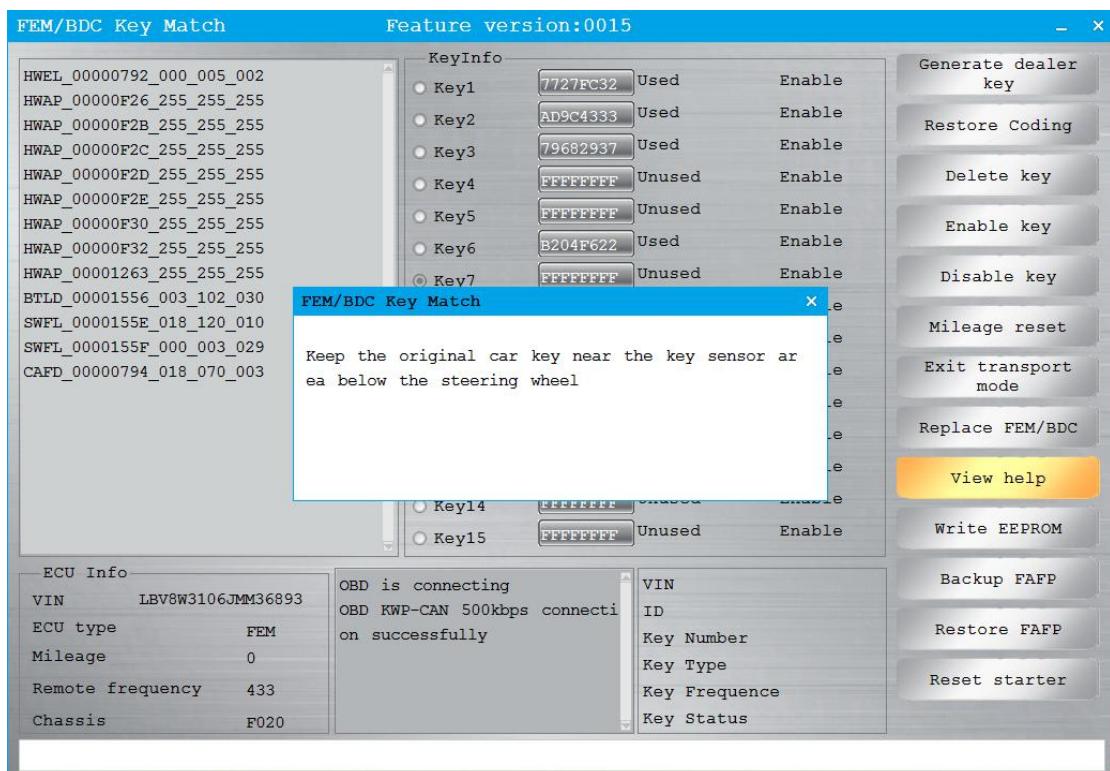


Please follow the tips to select the way of inputting ISN code.



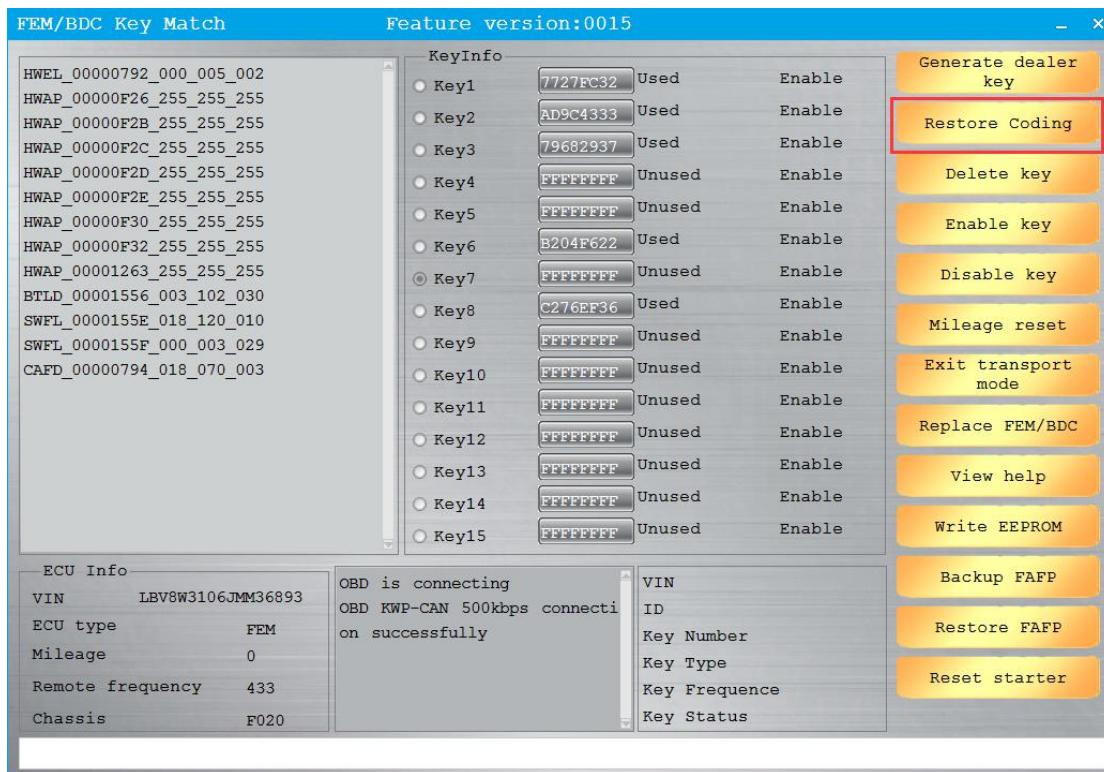
Take reading the car key successfully as an example:

Keep the original car key near the key sensor area to generate key information.

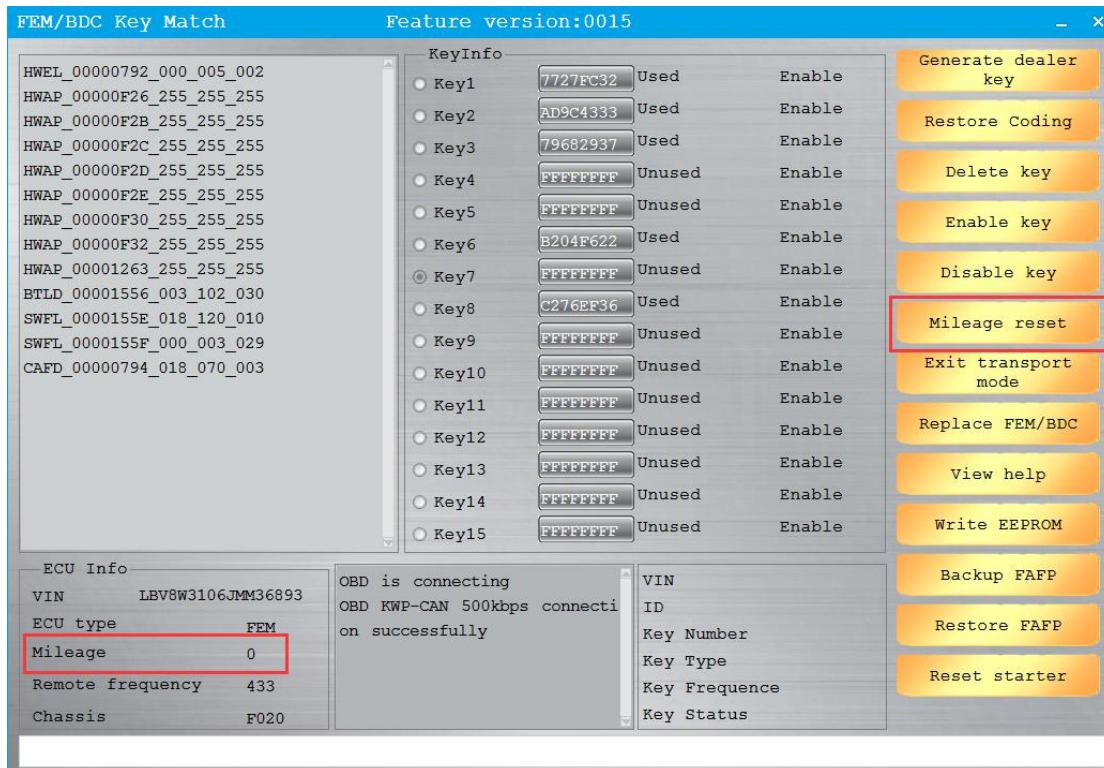


4.3.3 Restore Coding

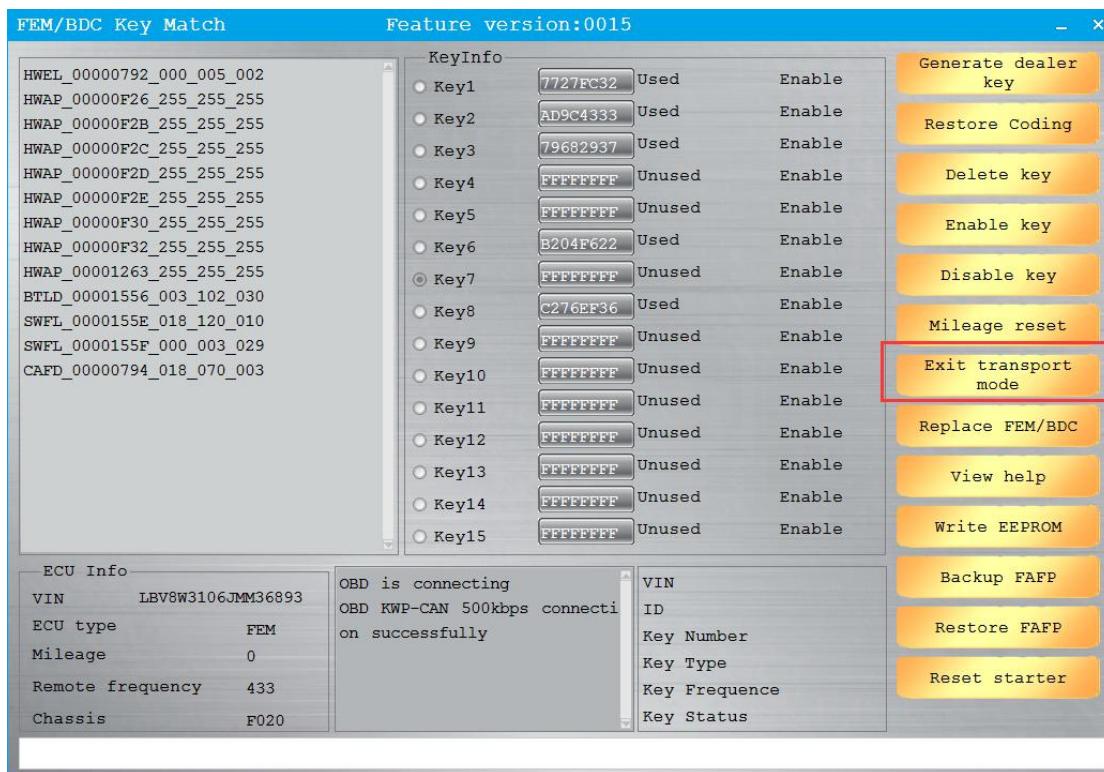
Load code document, coding succeeded.



4.3. 4 Mileage Reset

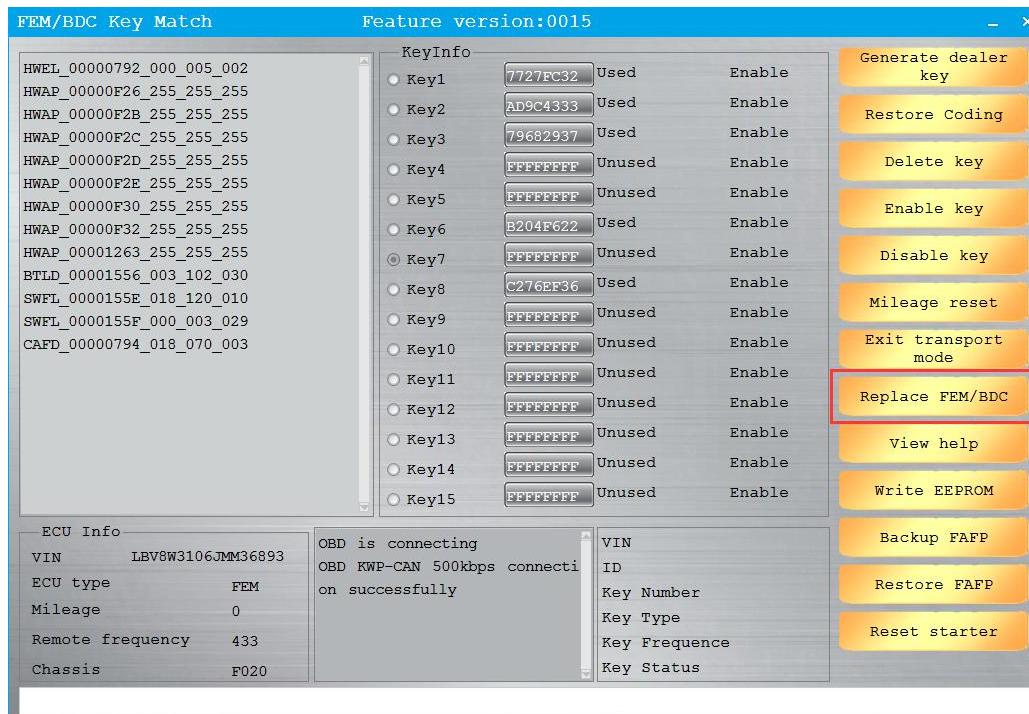


4.3.5 Exit Transport Mode

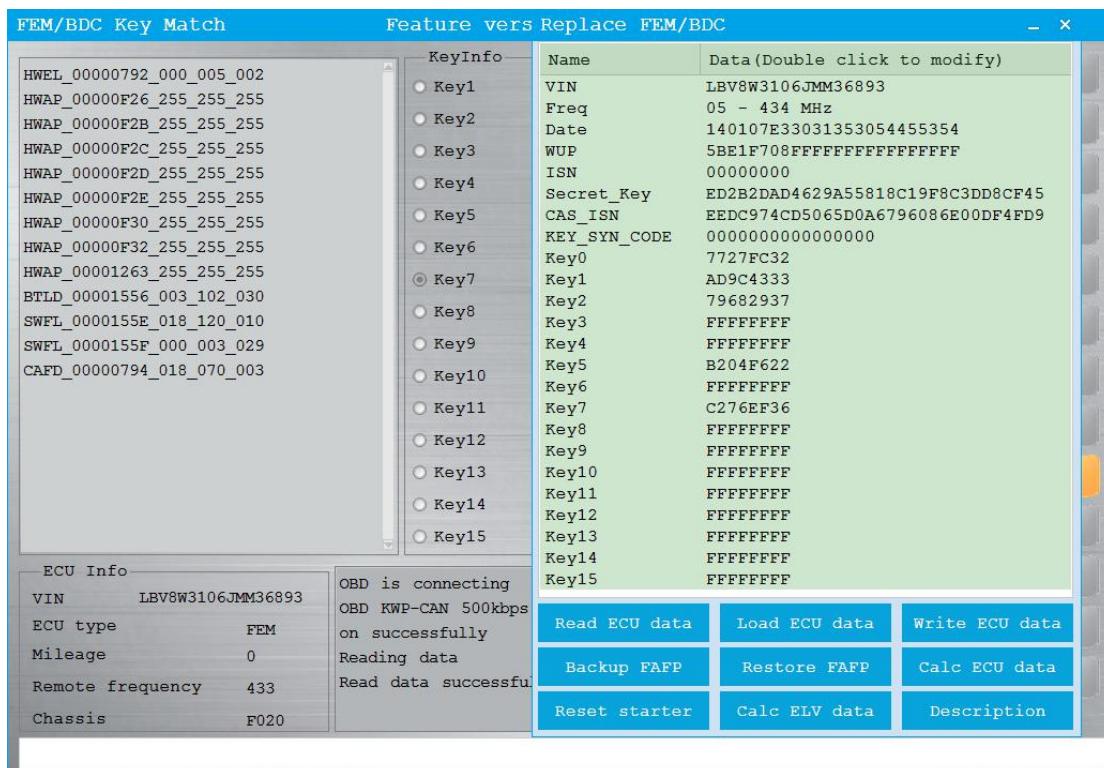


4.3.6 Replace FEM/BDC

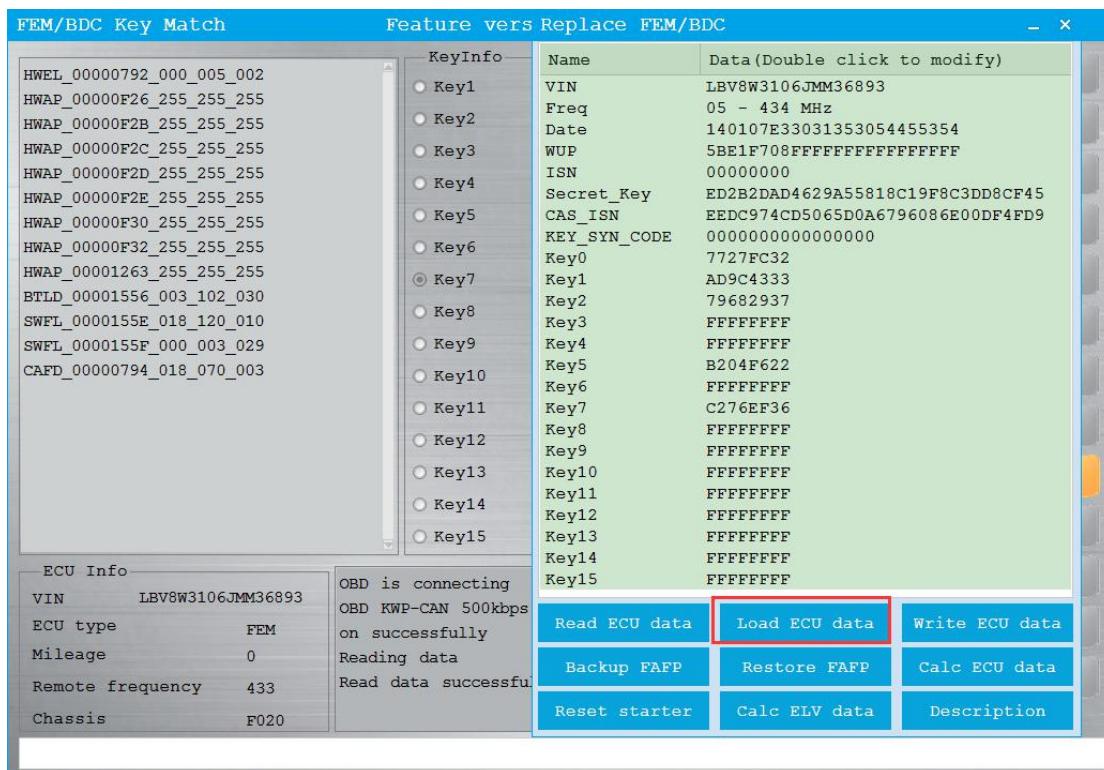
Backup ECU data



4.3.7 Read ECU Data

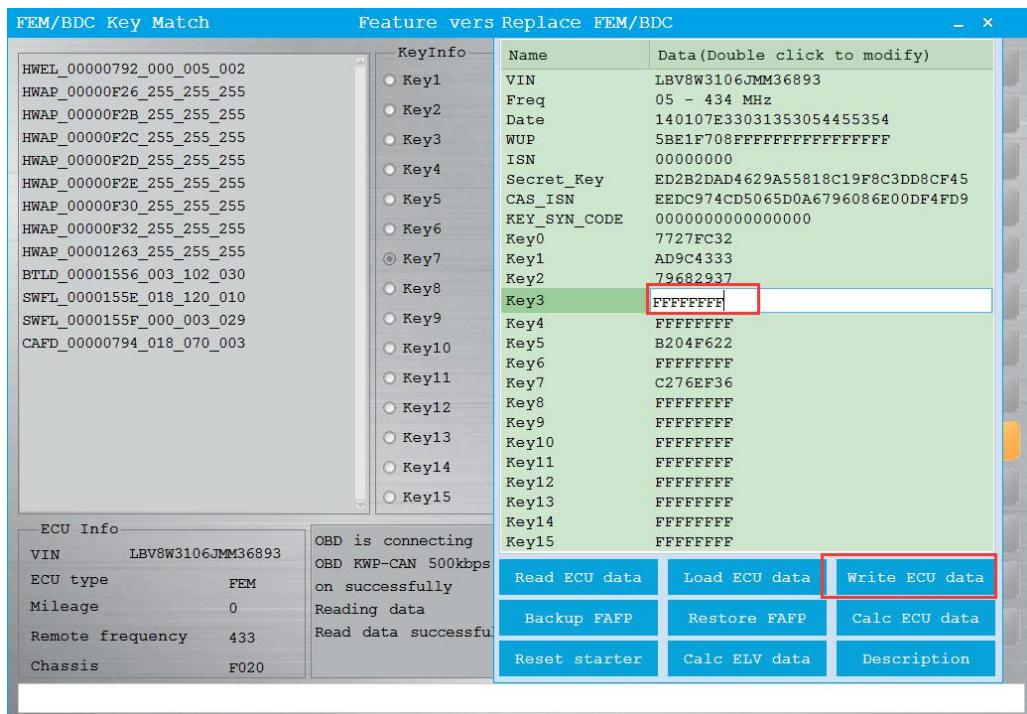


4.3.8 Load ECU Data

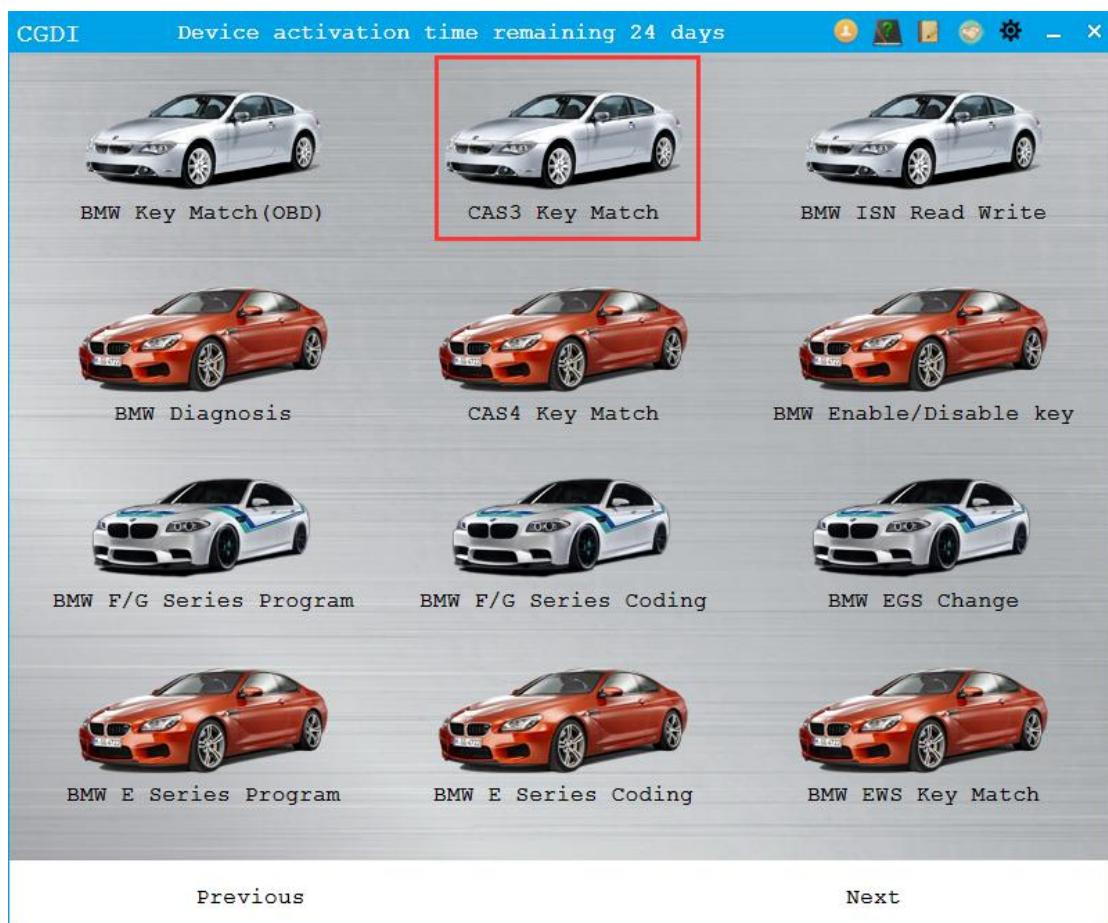


4.3.9 Write ECU Data

Double-click input, then write ECU data.



5.BMW CAS 3 Key Match

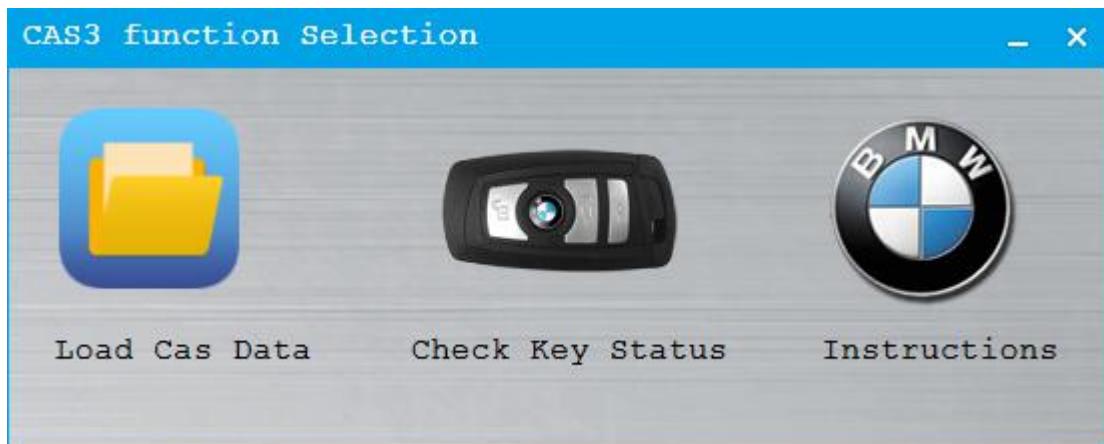


5.1 Functions

Load CAS data

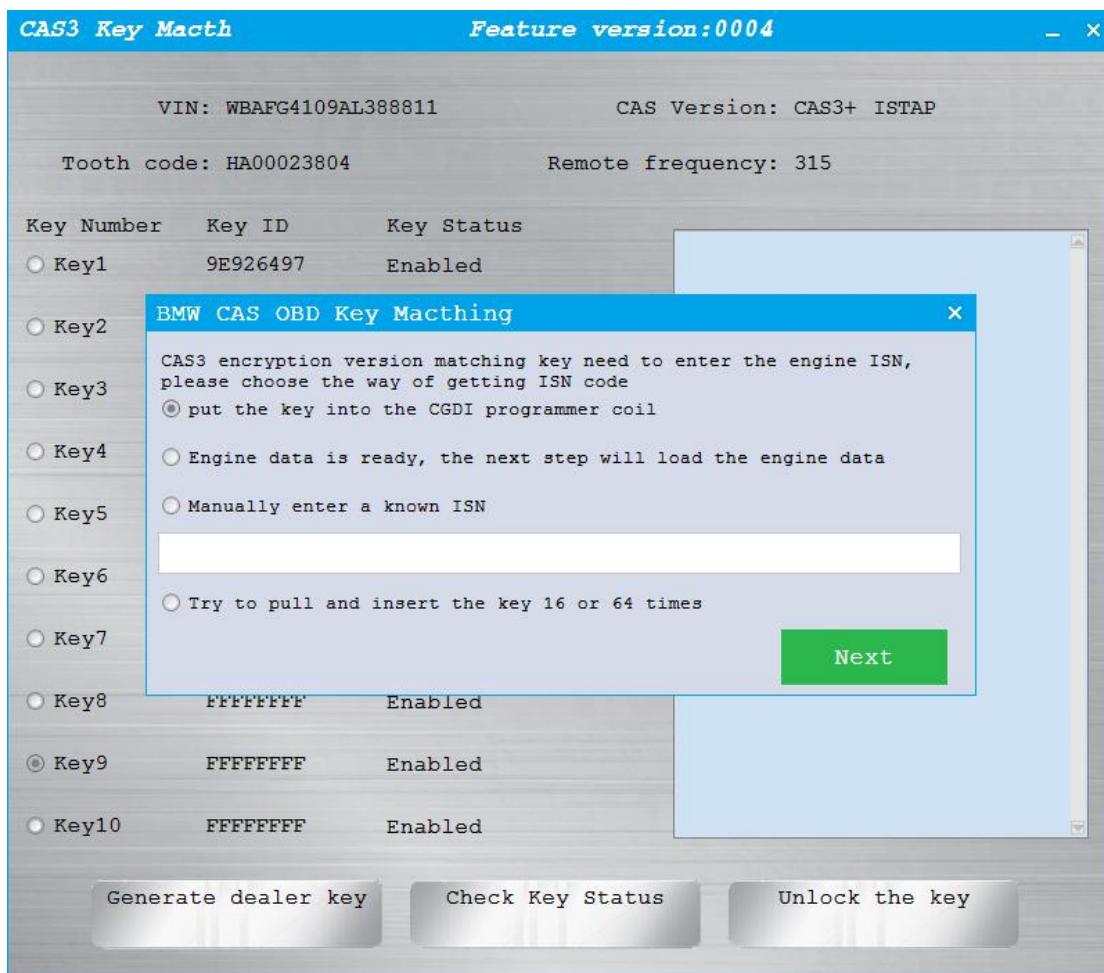
Check key status

Instructions



5.2 The Process of CAS3 Generating dealer's Key

- ◎ Load CAS EEPROM data. CAS read requires programmer.
- ◎ Select key number that needs programming.
- ◎ Click “generate dealer's key” button. Please follow tips to input ISN code if it is CAS3+.

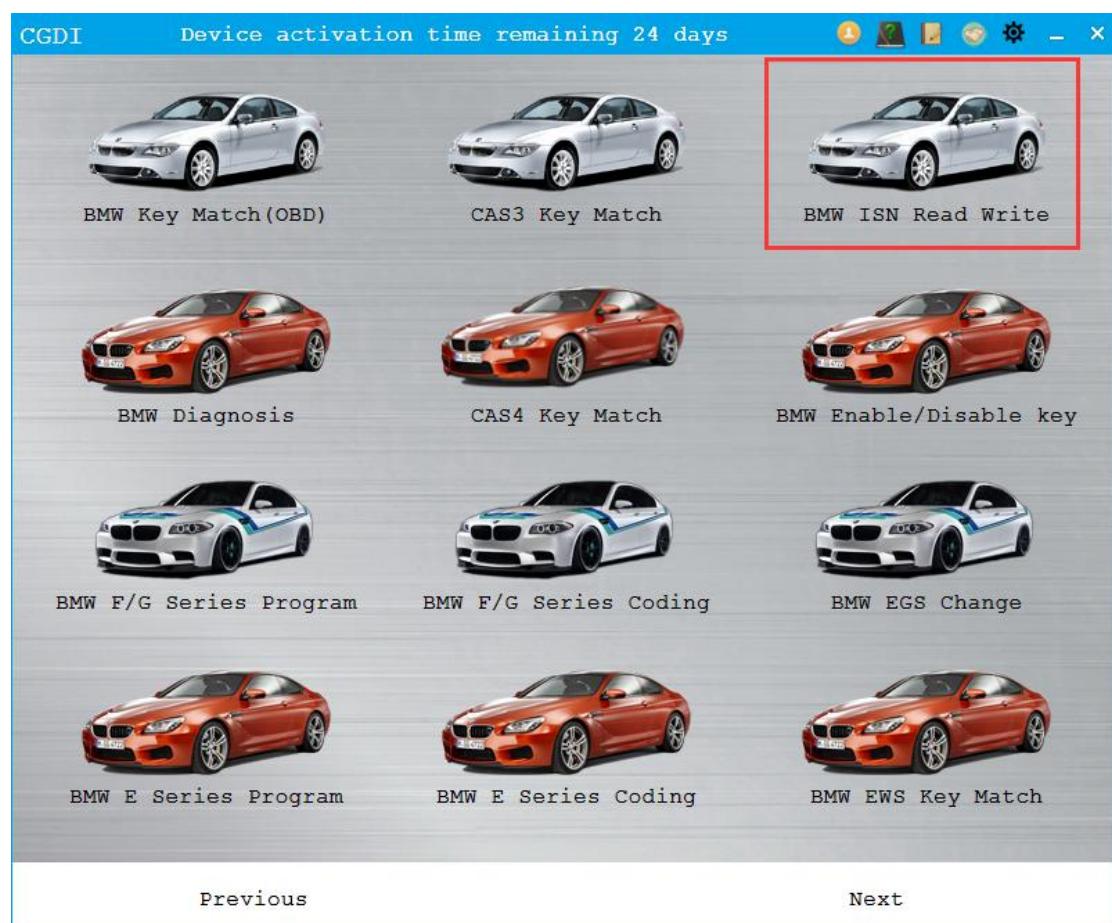


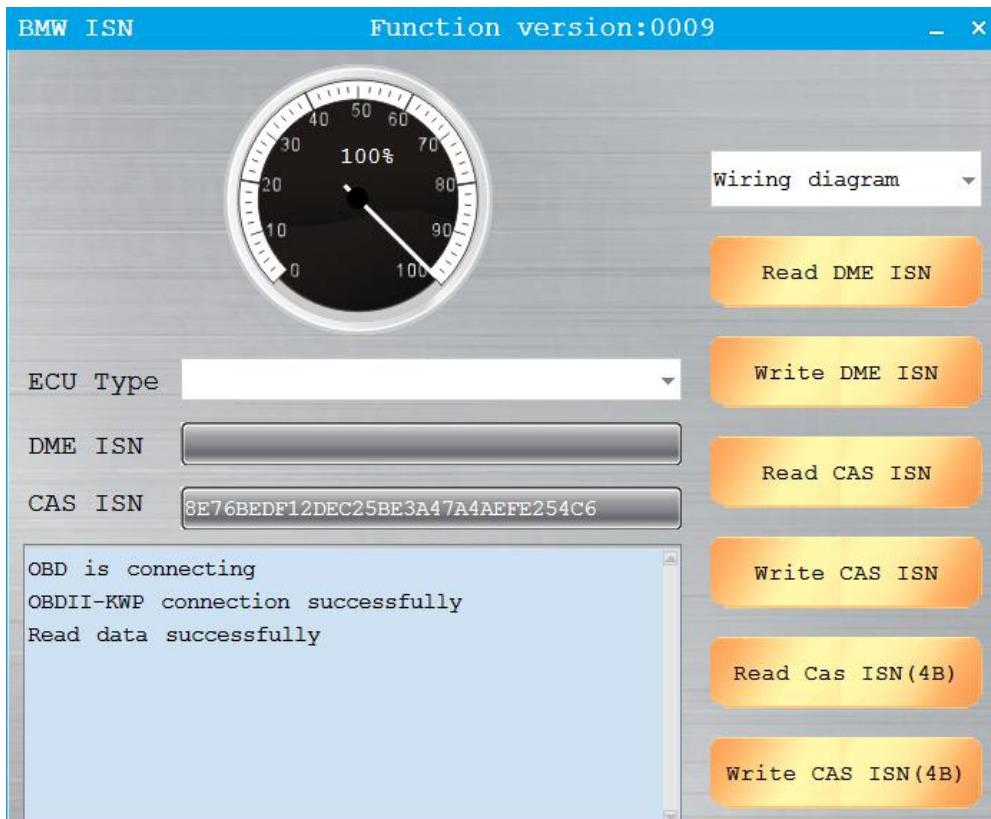
6.BMW DME and CAS Read ISN

6.1 Read CAS ISN

Connect OBD before starting engine, then open software.

Select reading DME ISN or reading CAS ISN to identify.

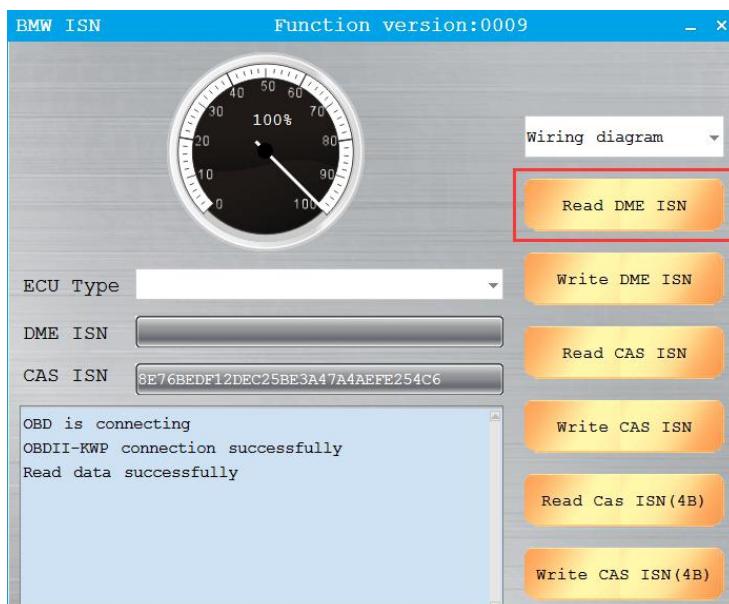




6.2 Read DME ISN

6.2.1 Approach 1: directly read ISN code on vehicle.

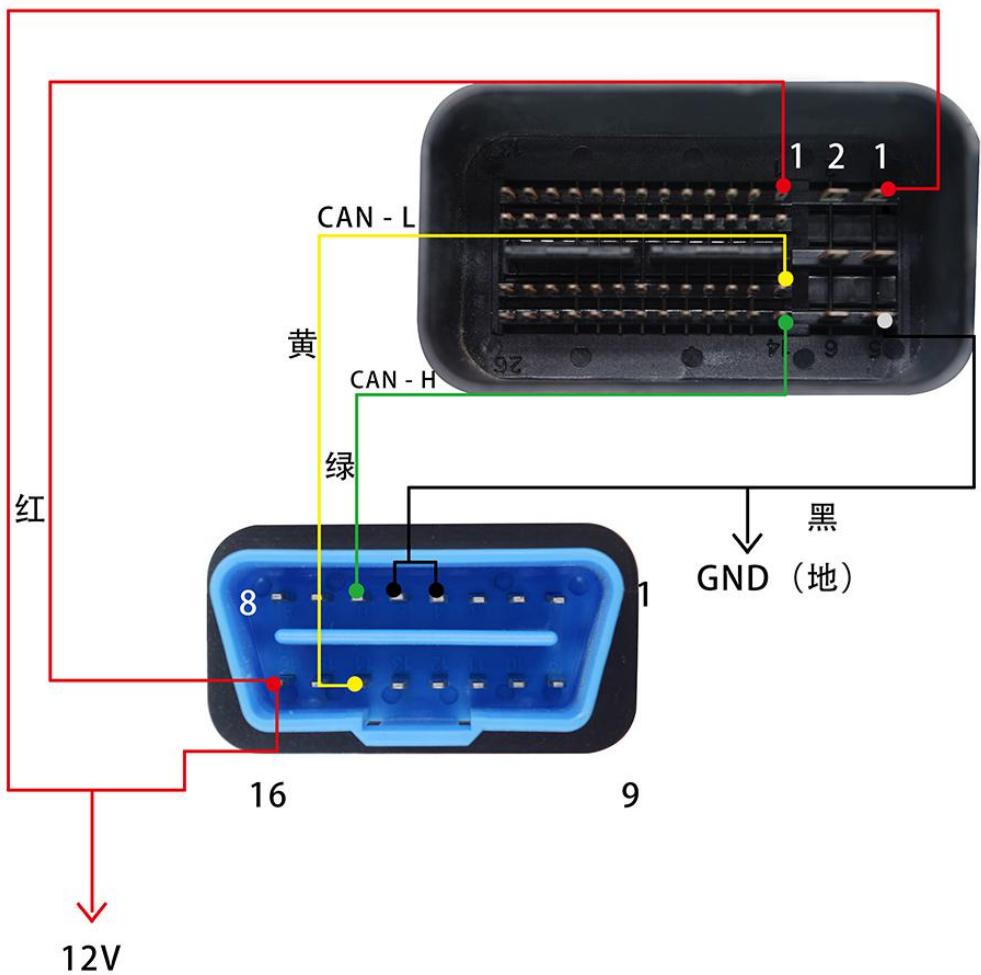
Be sure that the car voltage is above 12V, and directly connect OBD to operate for 5 minutes.



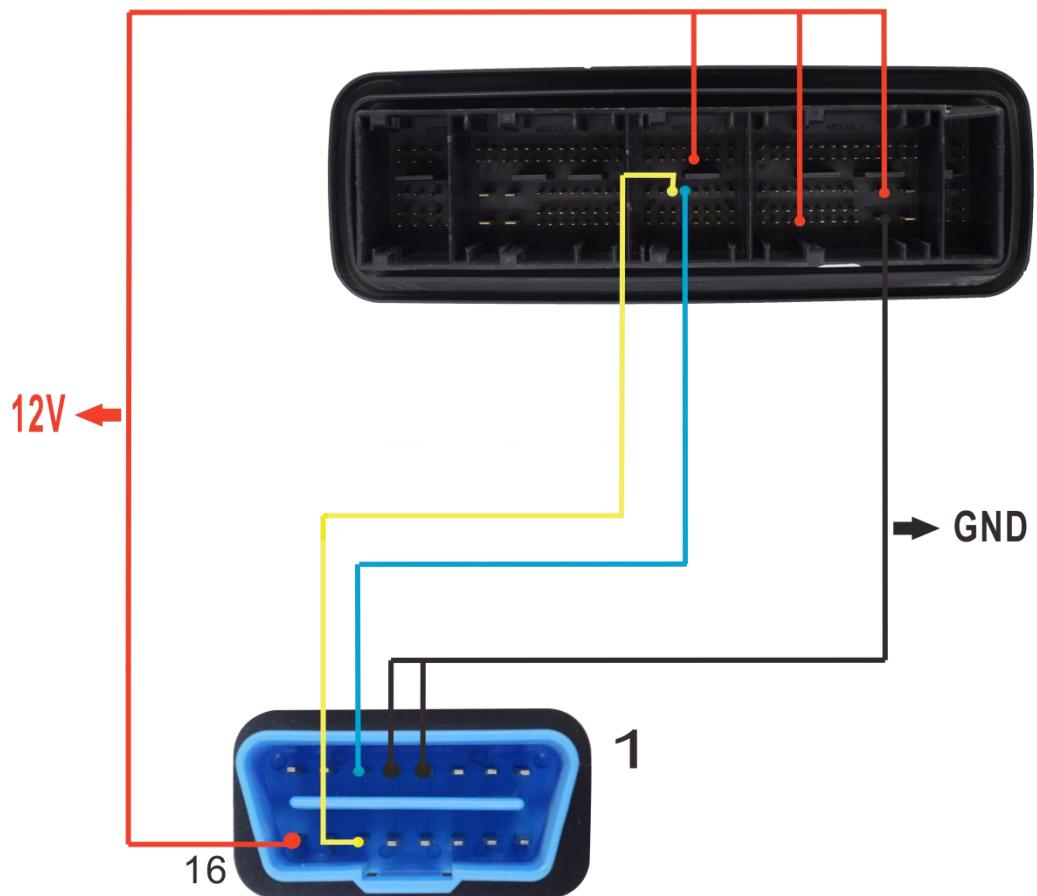
6.2.2 Approach 2: directly dismantle engine computer (DME) operation

Wiring diagram instructions as follows:





MSV80/D80/D81/test station wire connecting



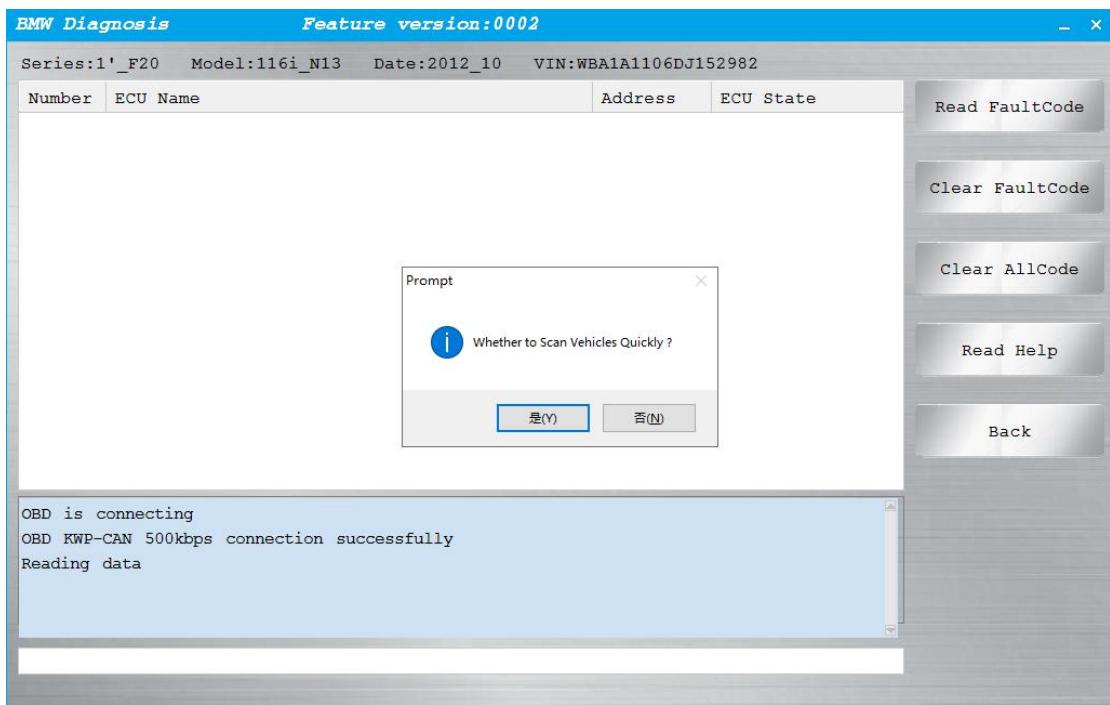
MSD85/D85.0/D85.1/D85.2/D85.3 test station wire connecting

Replace engine computer.

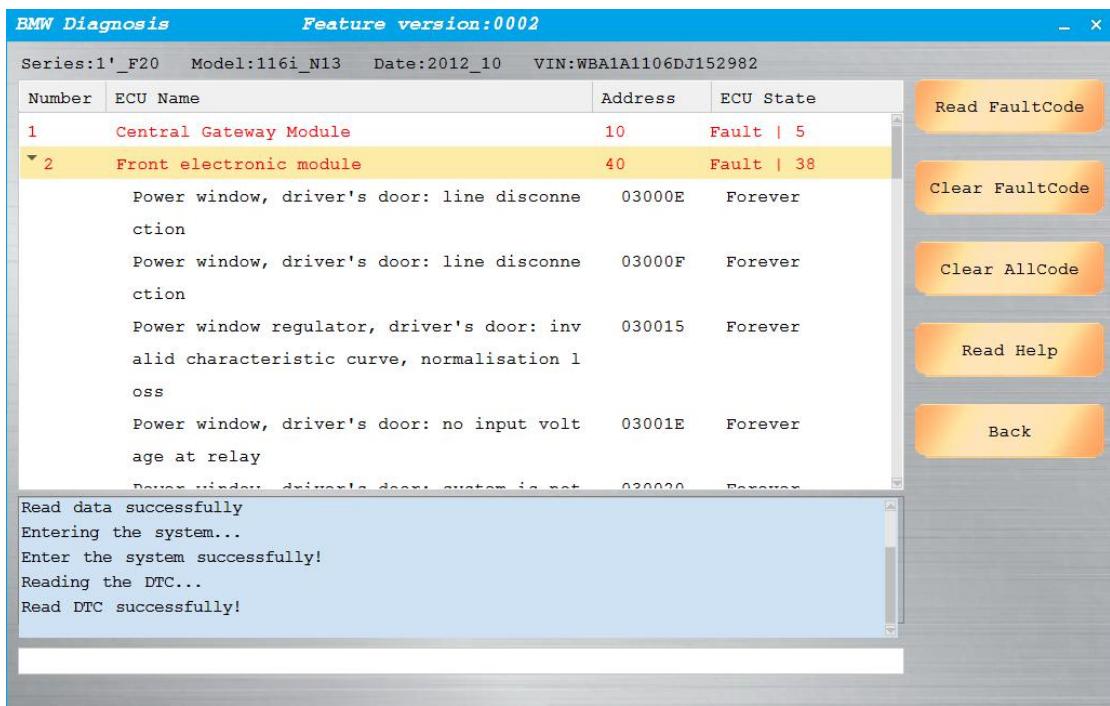
Read the ISN of new computer, then read CAS ISN.

7. BMW Diagnosis

Connect the OBD to open software, pop up prompt box. Yes: quick scan. No: full scan.

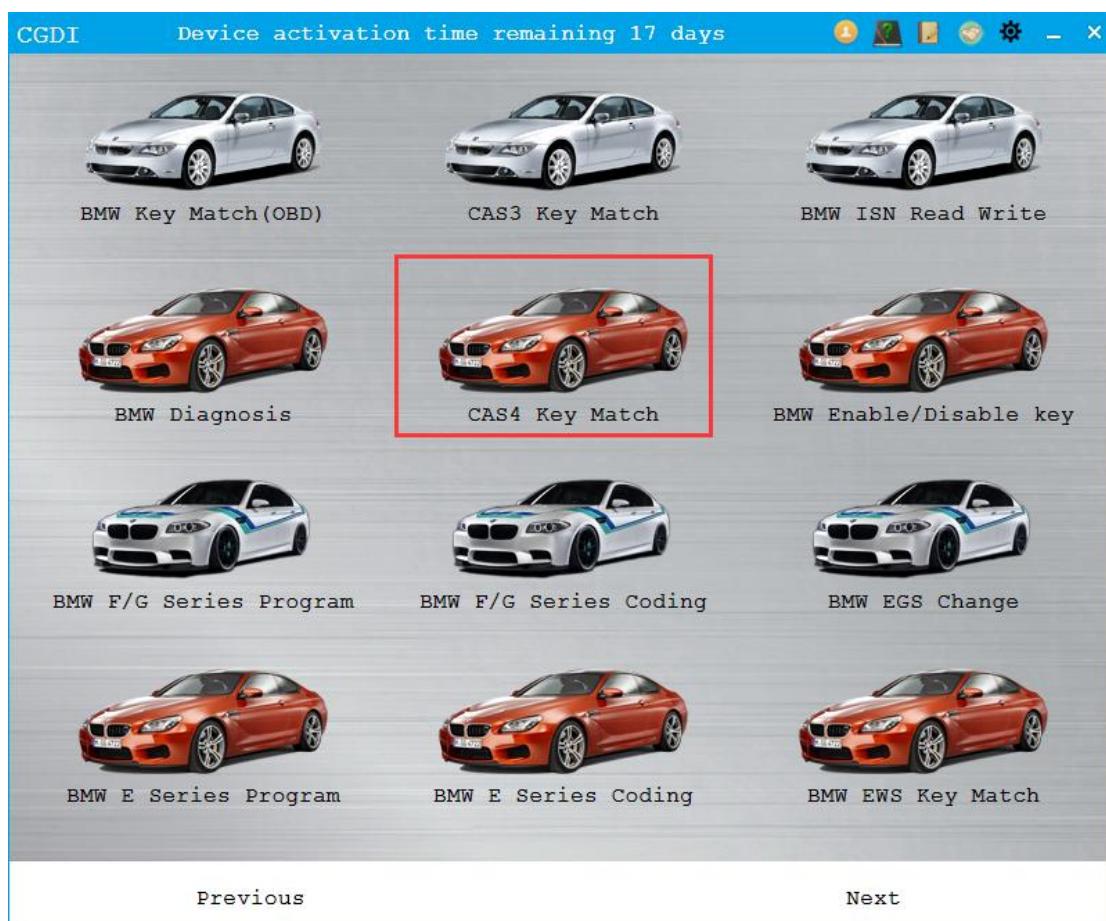


Select ECU, click to read error code.

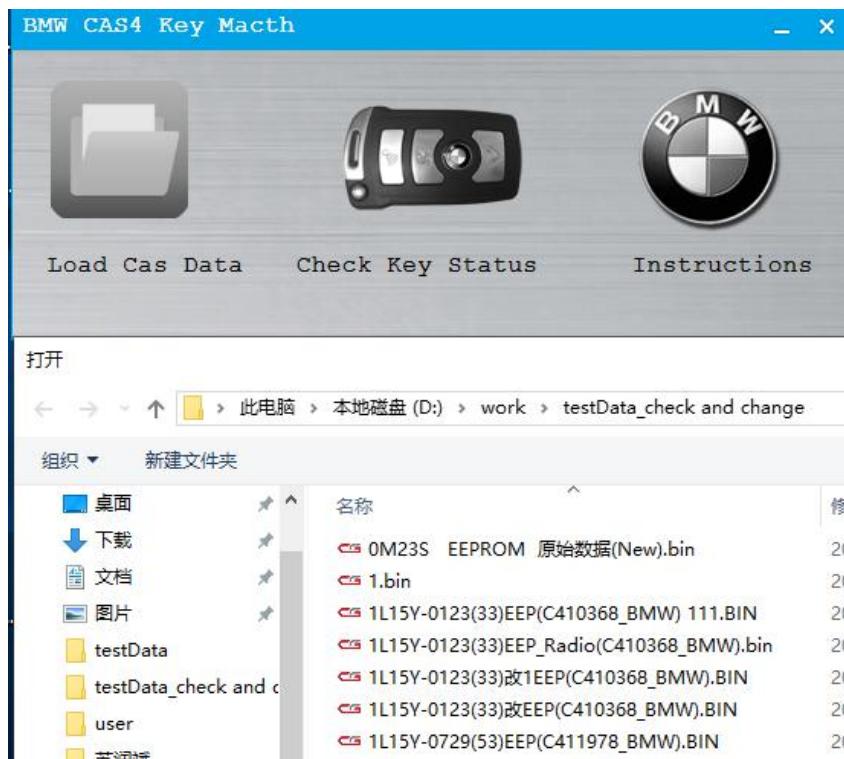


8. CAS4 Key Match key Producing

8.1 Load CAS4 Data Document

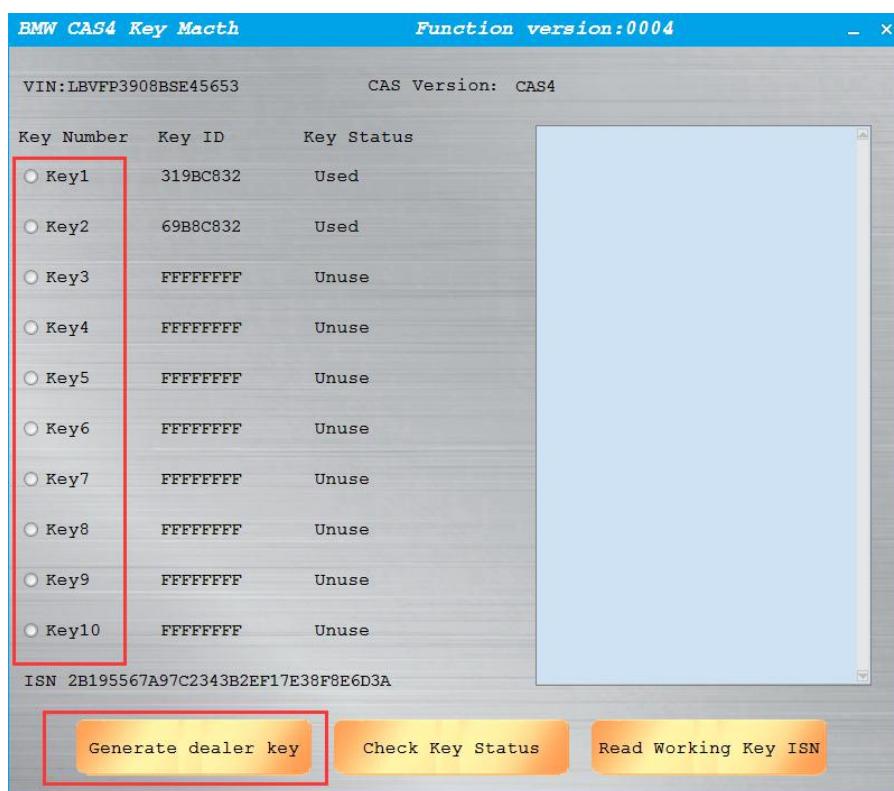


Click to load CAS data

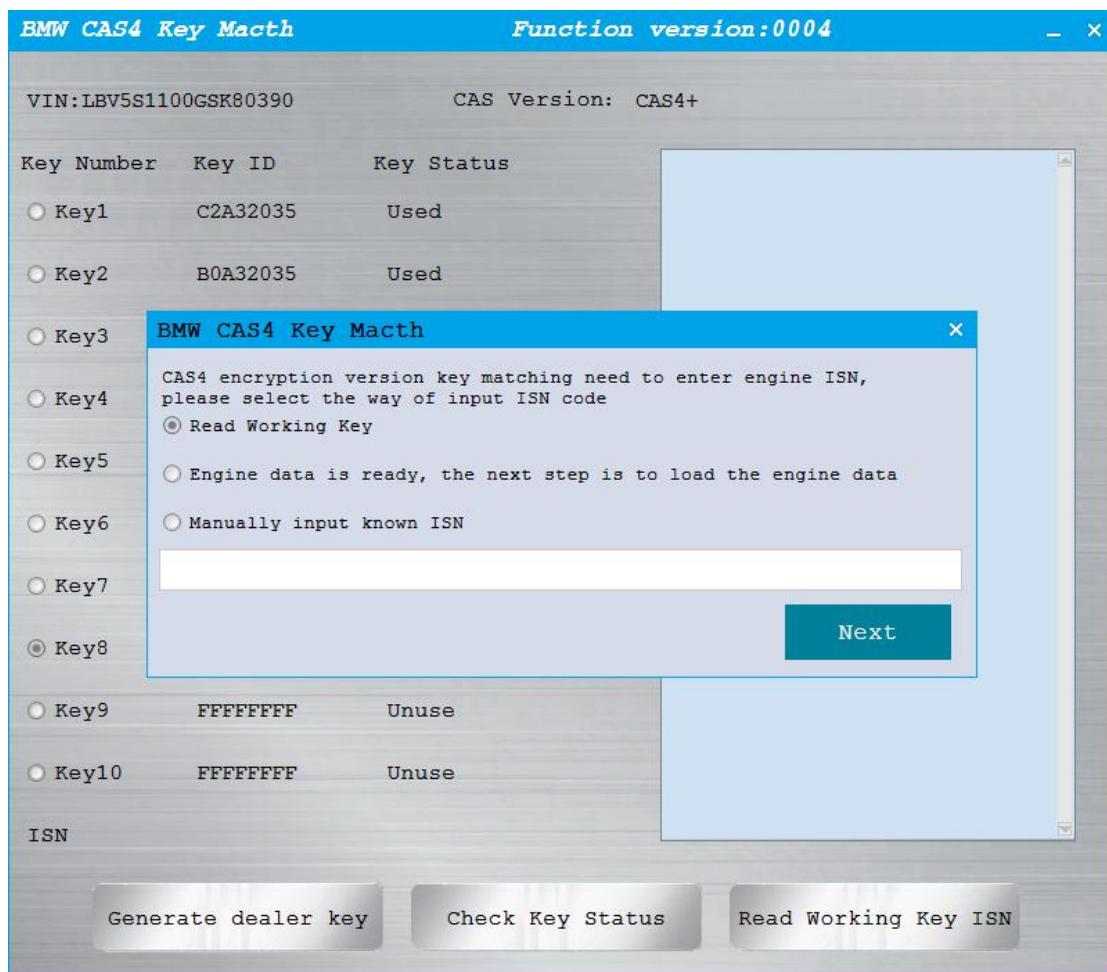


Display key information, click unused key number to operate.

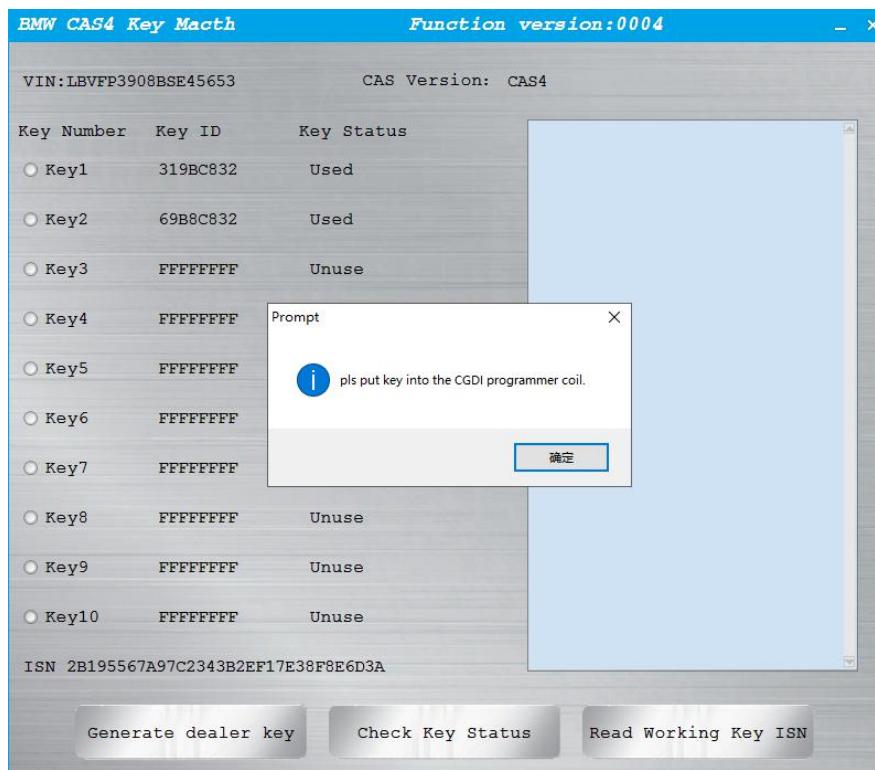
Select an unused key, then click to “Generate dealer's Key” button, follow tips to input ISN, then click “next” button.



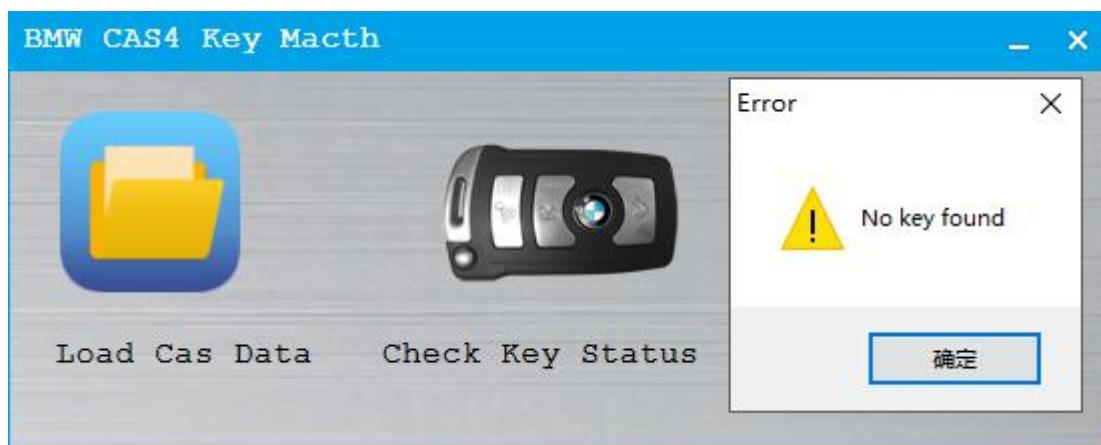
To generate dealer's key, CAS 4+ requires inputting ISN according to tips.



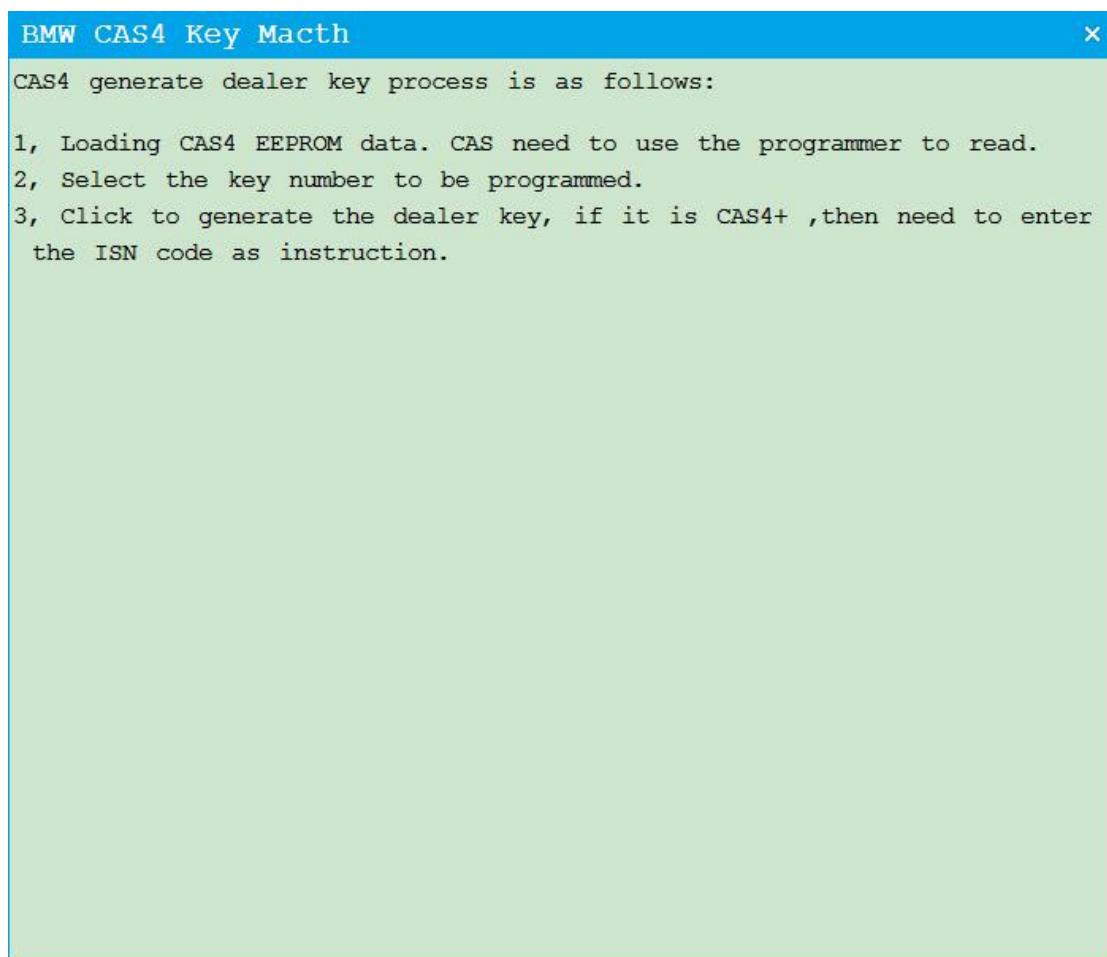
Take successful reading car key for an example.



8.2 Check Key Status

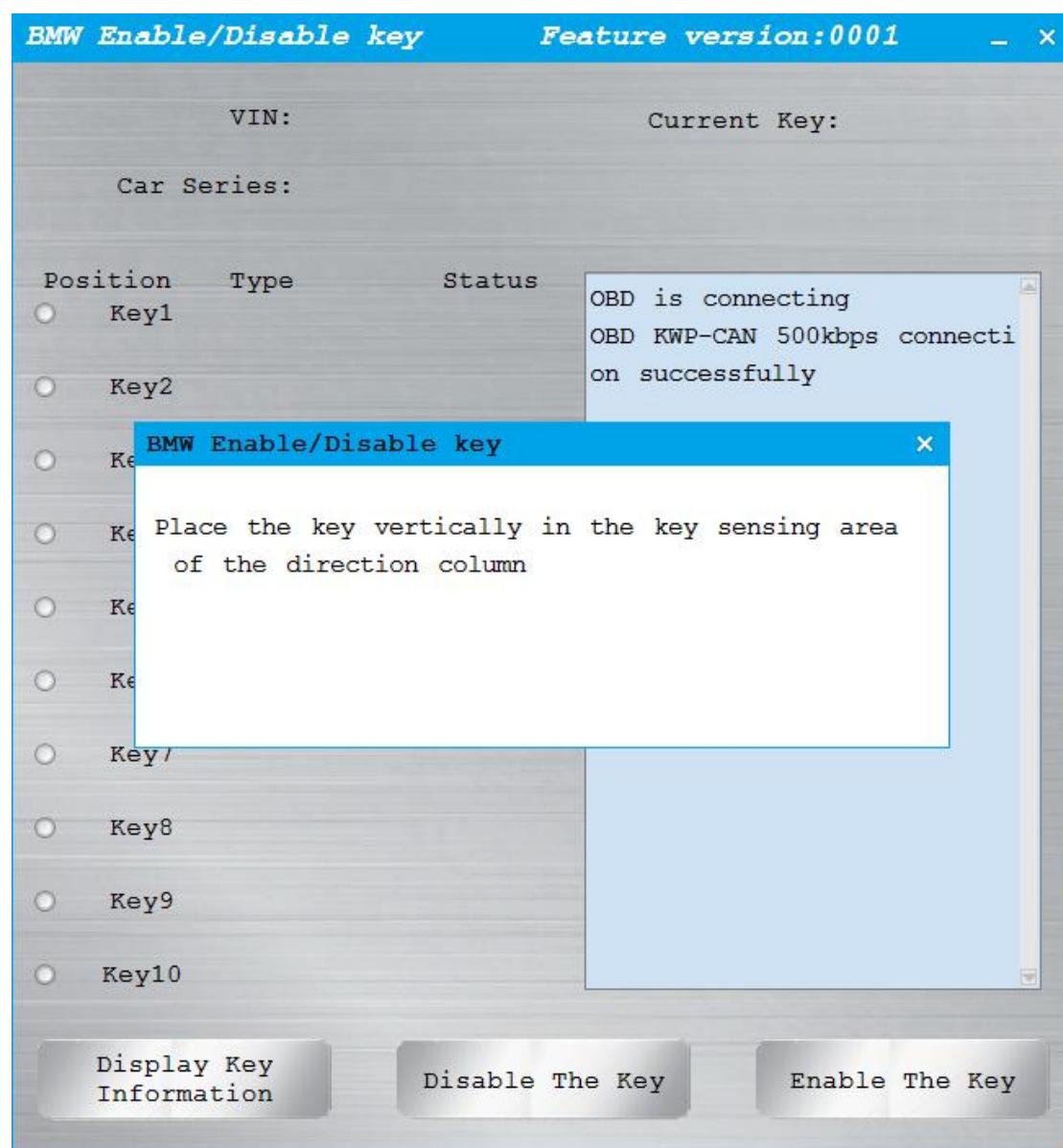


8.3 Instructions



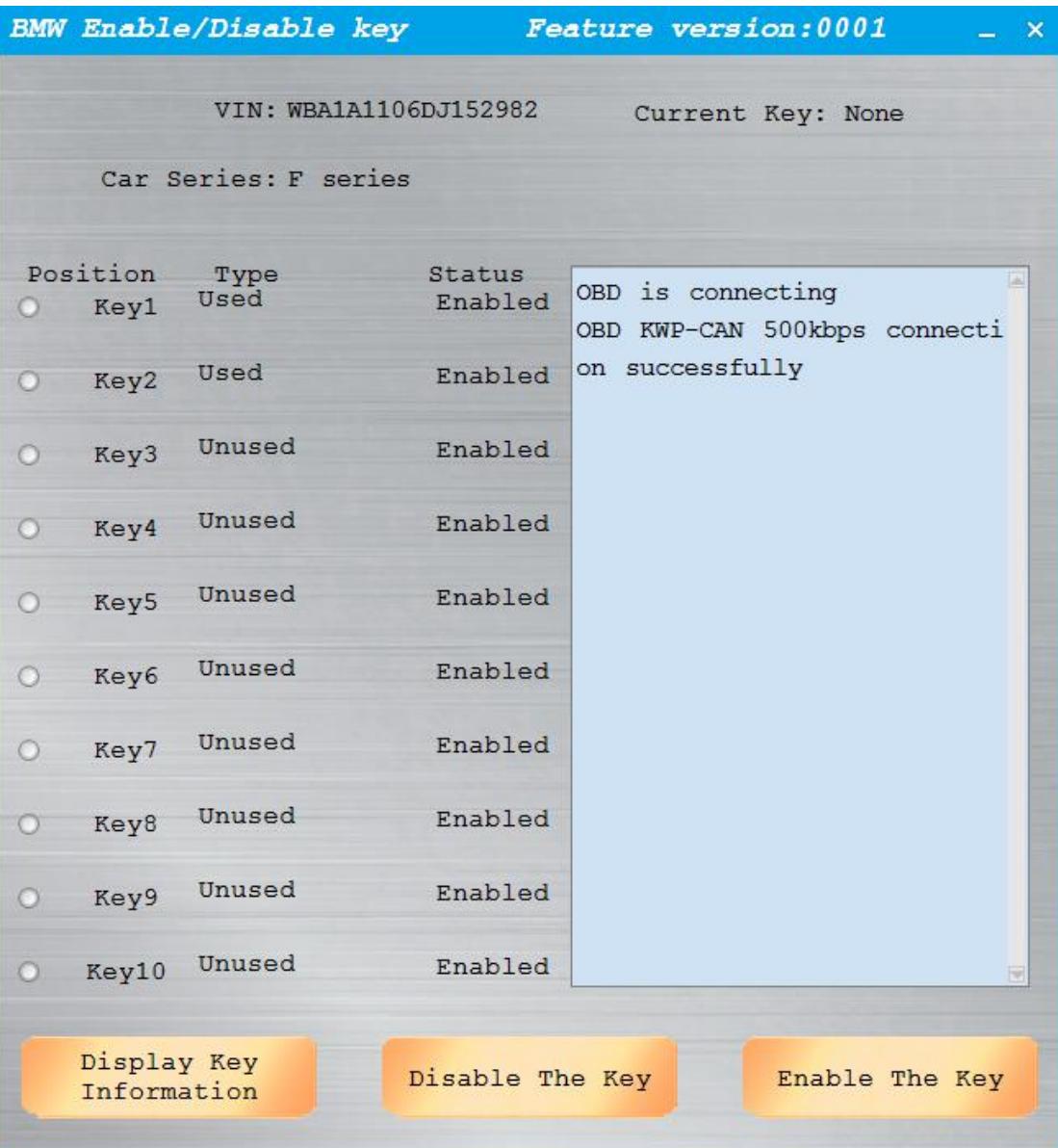
9. BMW Enable / Disable Key

9.1 Display Key Information

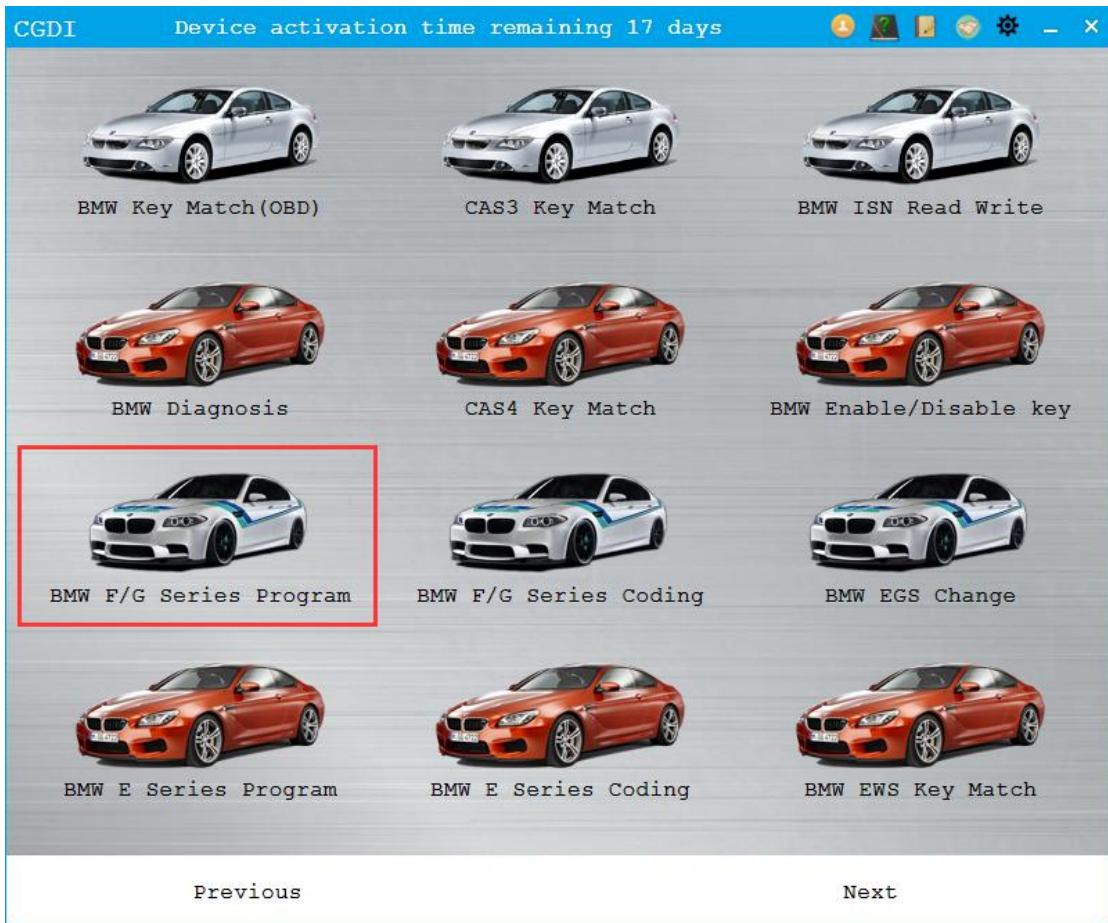


9.2 BMW Enable / Disable Key

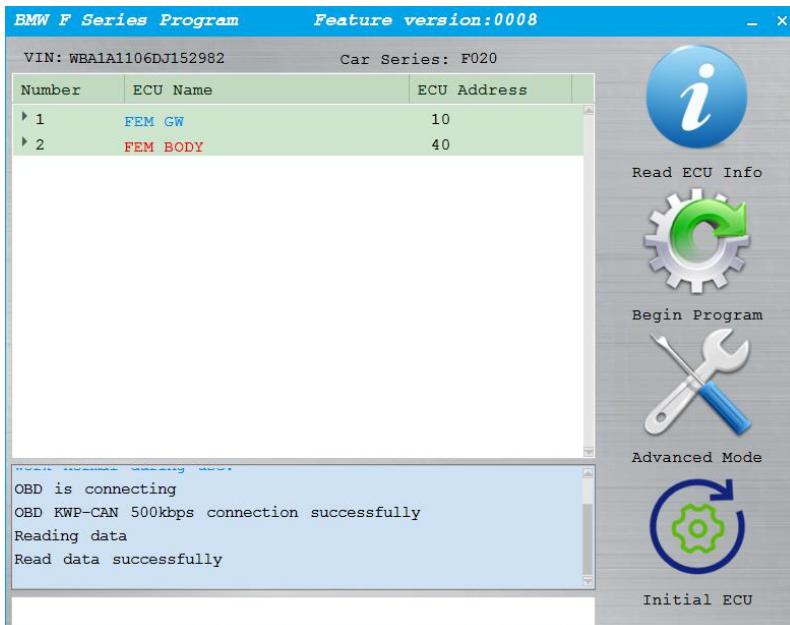
Select key to enable / disable



10. BMW F Series Program

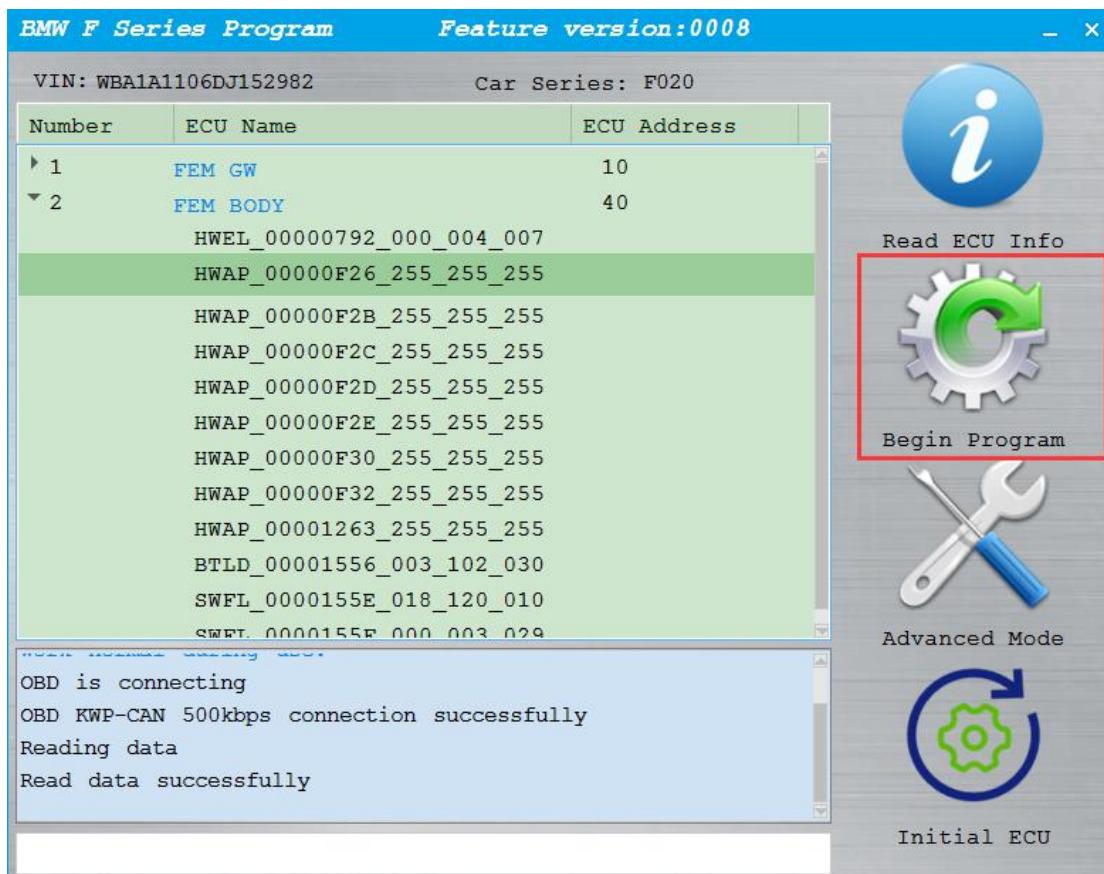


This function requires Internet to use.



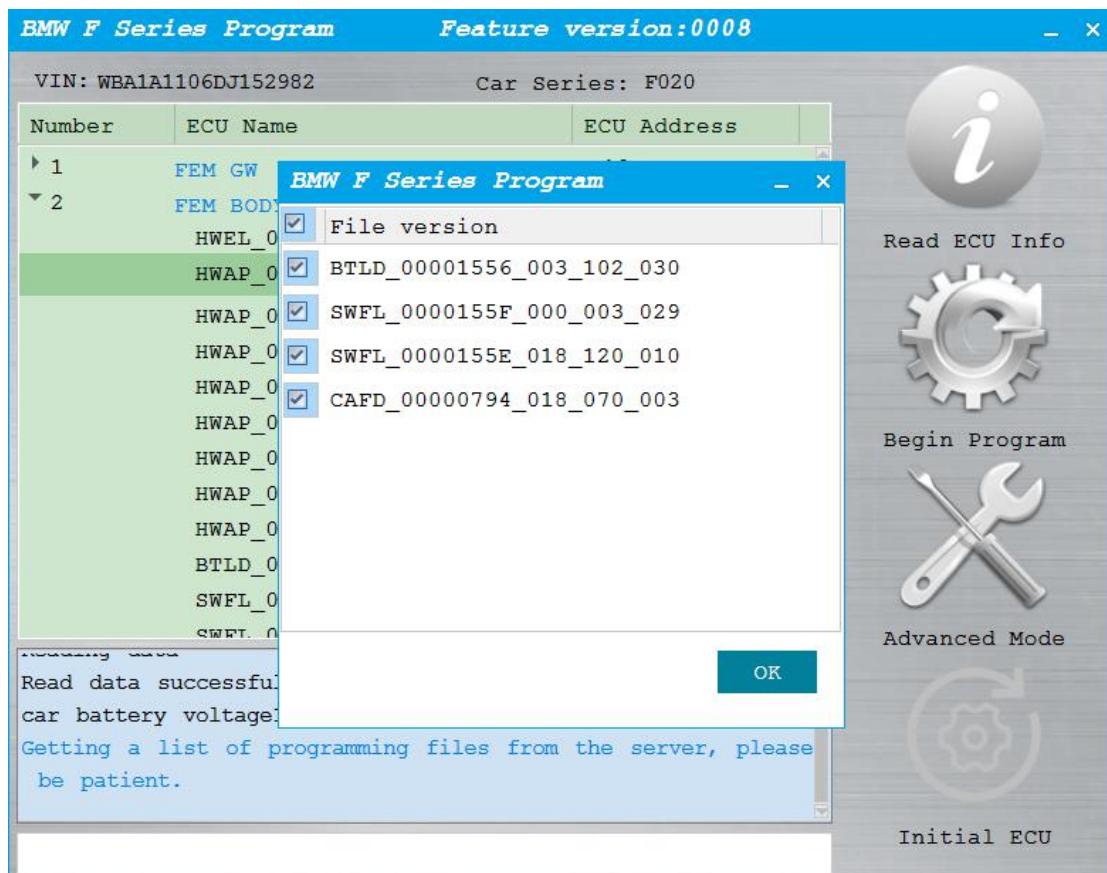
10.1 Programming

Click and pull down, then choose ECU to start programming.

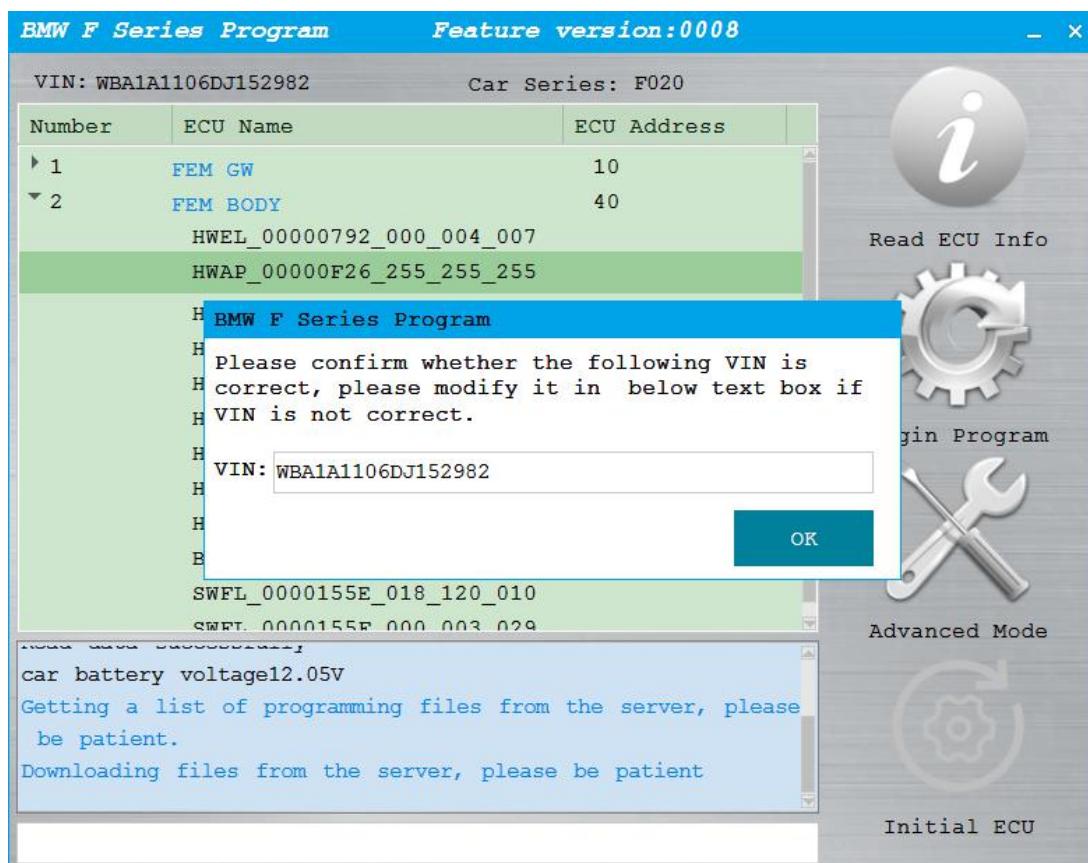


◎Start programming

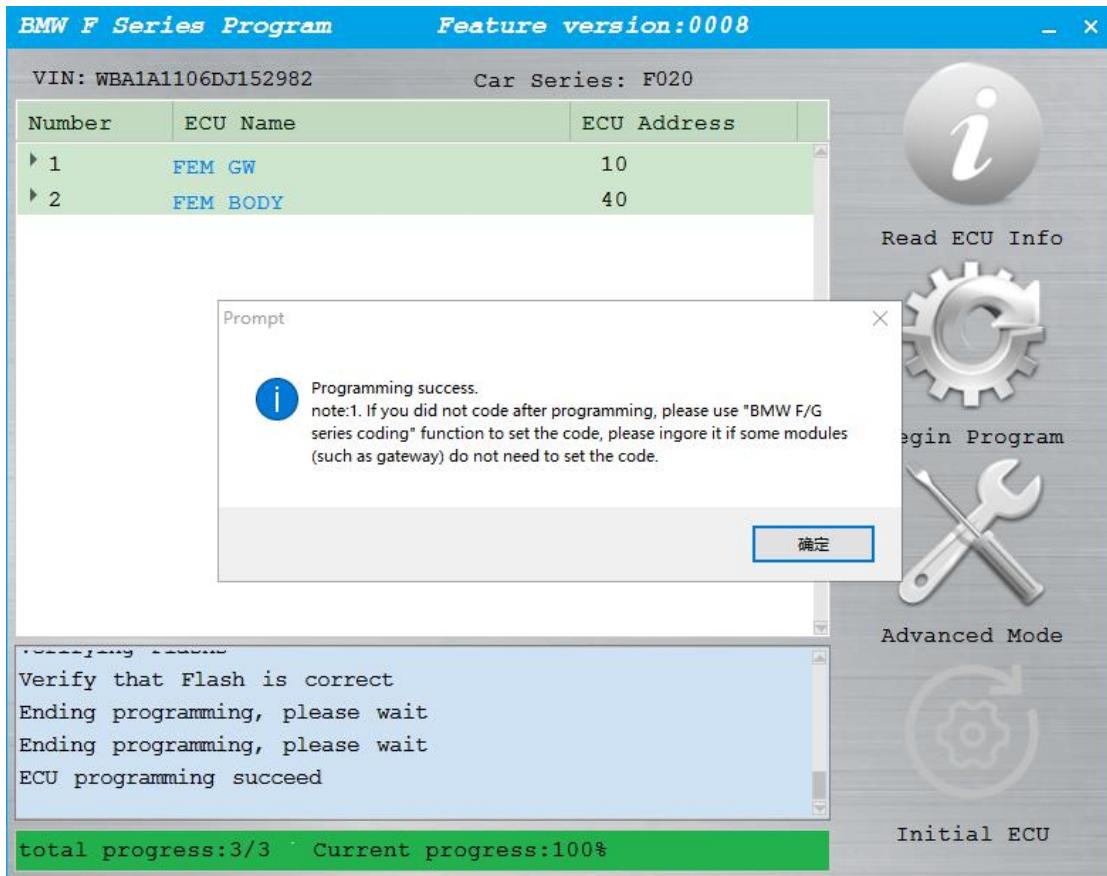
Select programming file, directly click “ok” in general.



◎ Whether to choose to modify the frame number



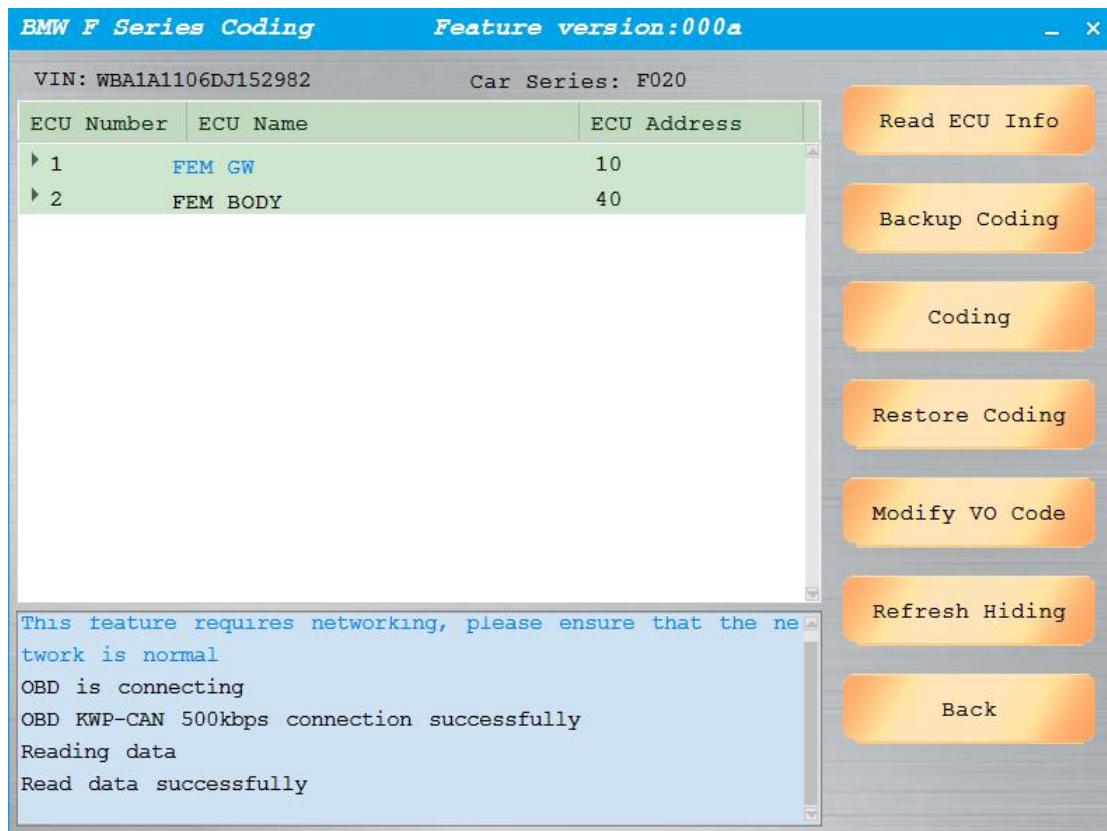
- ◎ Finish programming



11. BMW F Series Coding

11.1 Function Introduction

- ◎ Read ECU Info
- ◎ Backup Coding
- ◎ Coding
- ◎ Restore Coding
- ◎ Modify VO Code
- ◎ Refresh hiding

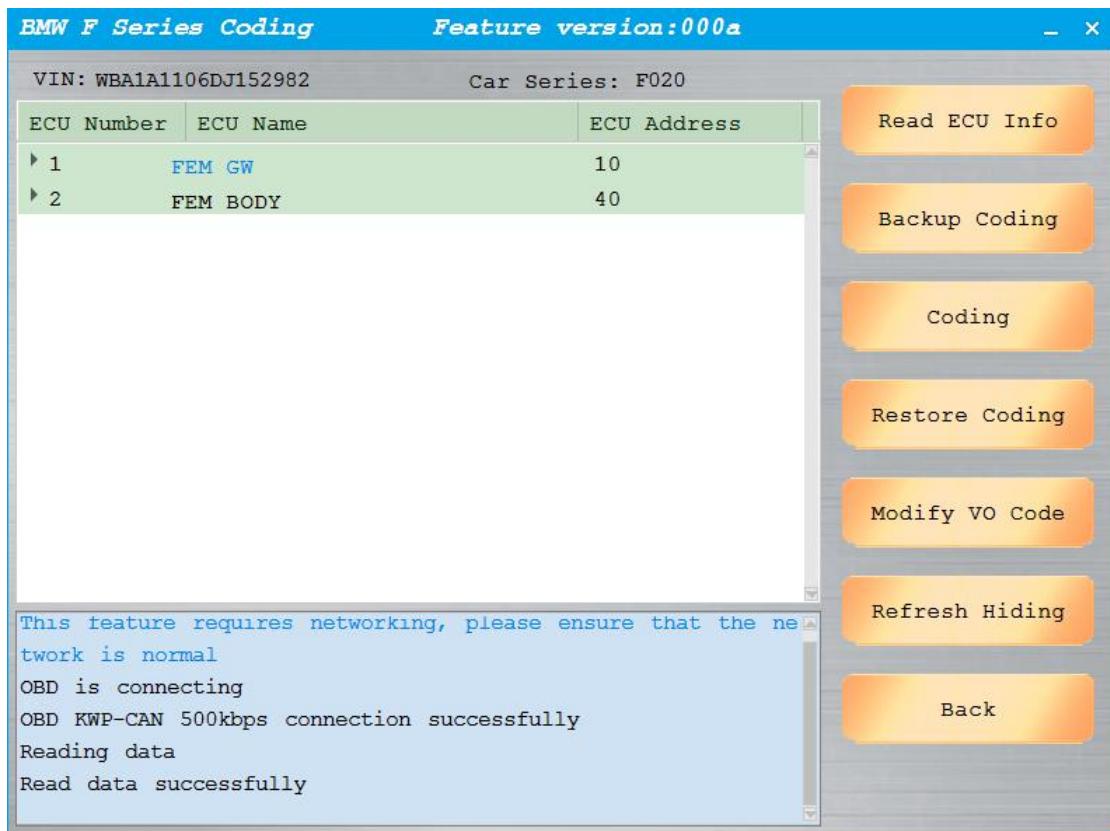


11.2 How to Use

- ◎ Directly click “Read ECU Info” button, other functions need to select one of ECU in list, then click function you want to use.
- ◎ BMW F series programming requires Internet connection.

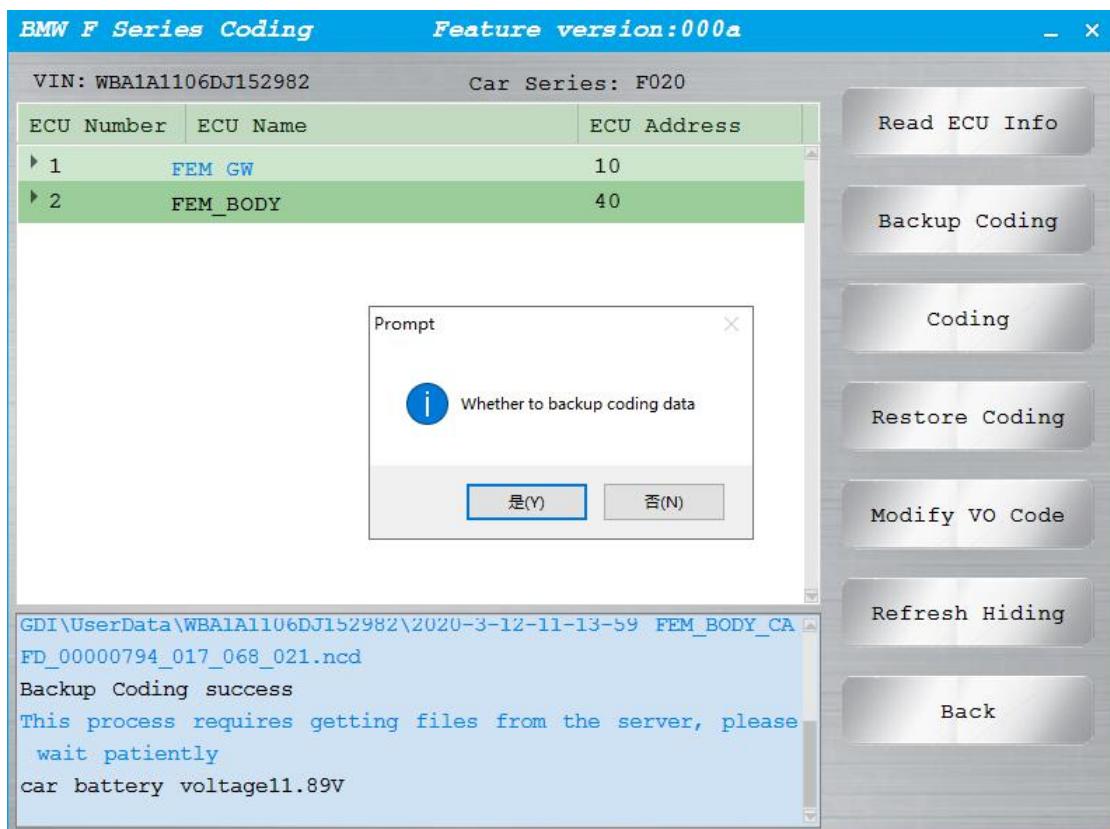
11.3 Function Paradigm

- ◎ Backup coding

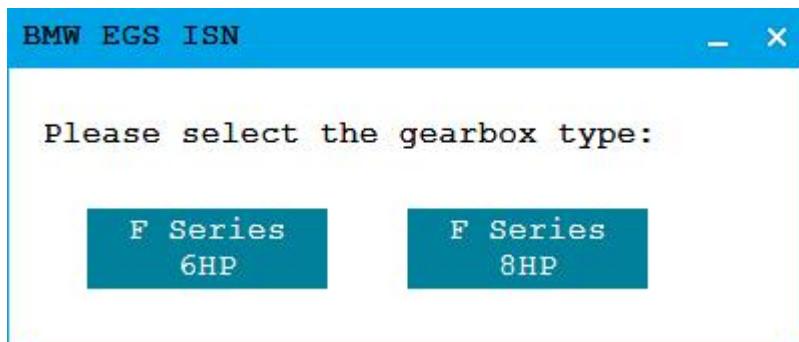
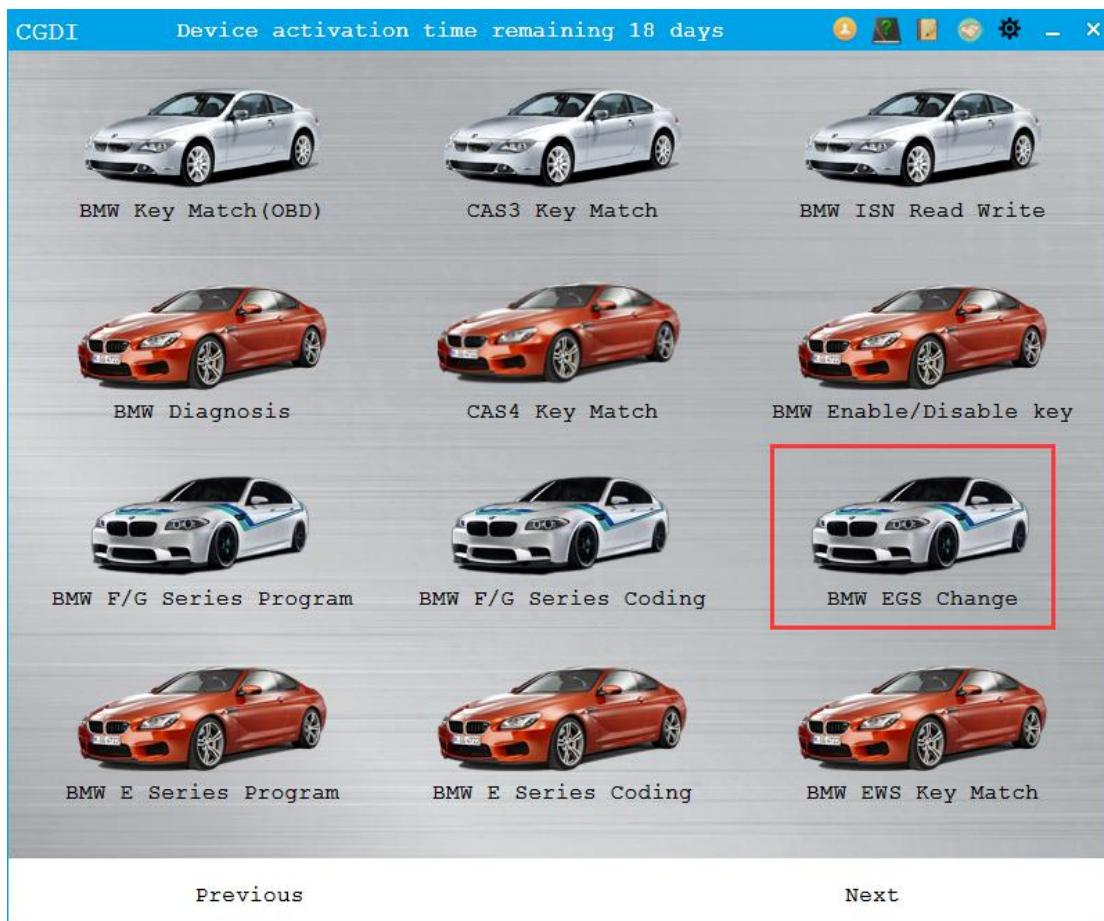


② Coding

Select ECU that requires coding, the device will display current vehicle battery voltage, and remind whether to backup coding data for restore.



12. BMW EGS Change (6HP and 8HP)

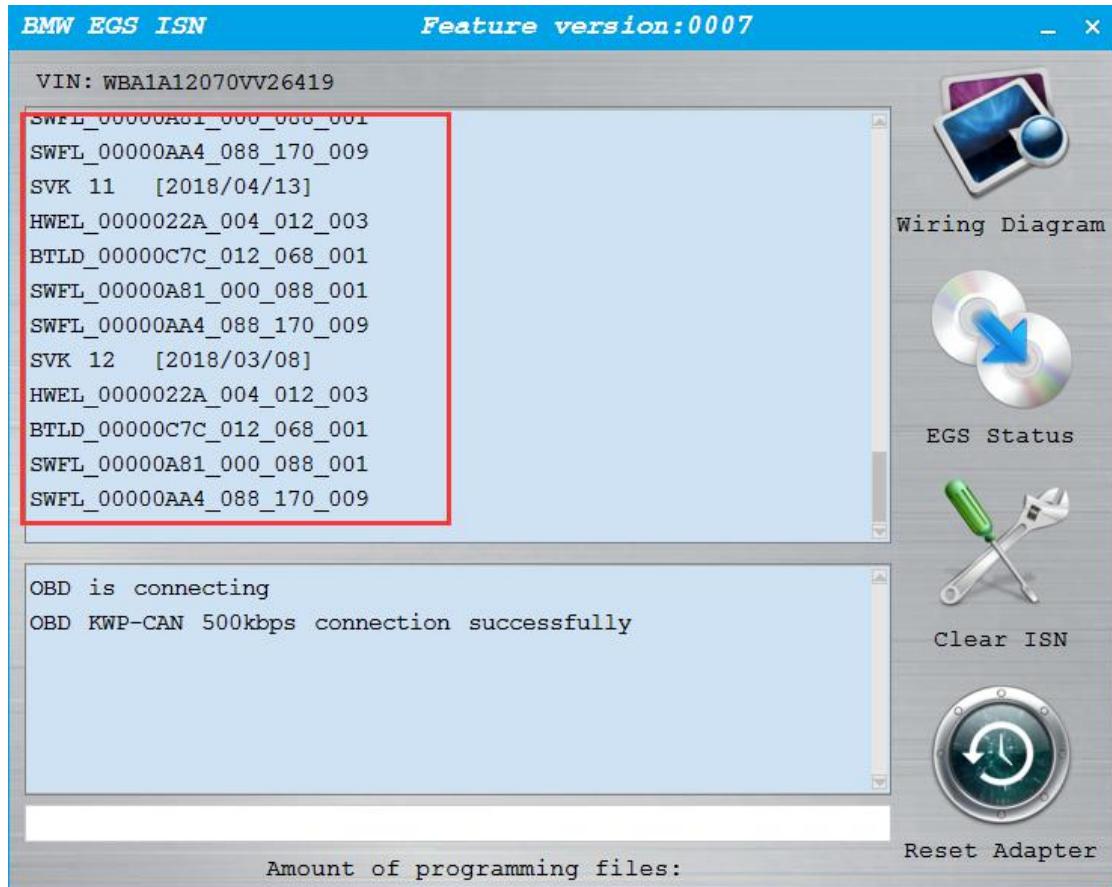


12.1 8HP Gear Box Computer Clear Function

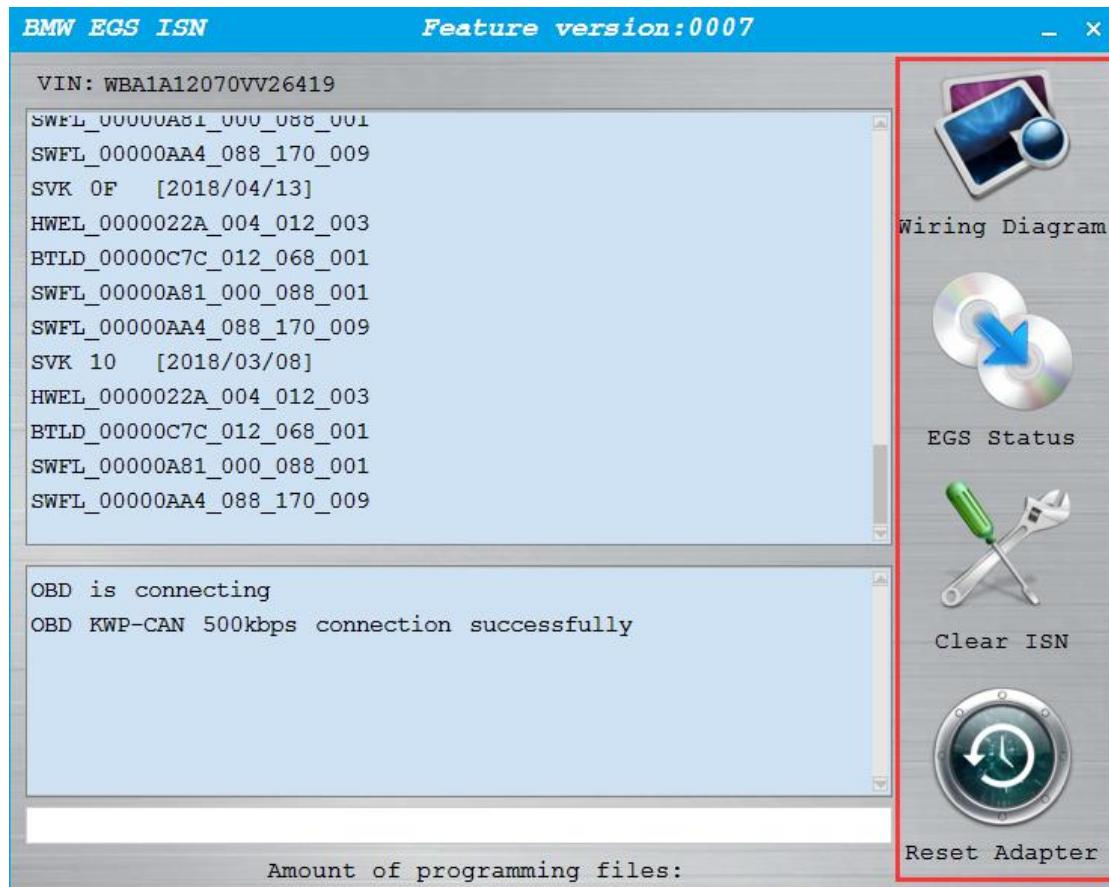
CGDI can clear the ISN of 8HP (F and G series, don't support E series) automatic gear box. You can install back to the vehicle after removed totally. The ignition switch will synchronize new ISN automatically to EGS when ignited for the first time. Coding on

EGS can be used normally. Please reuse programme function to programme EGS if error occurred.

The red box is SVK version information

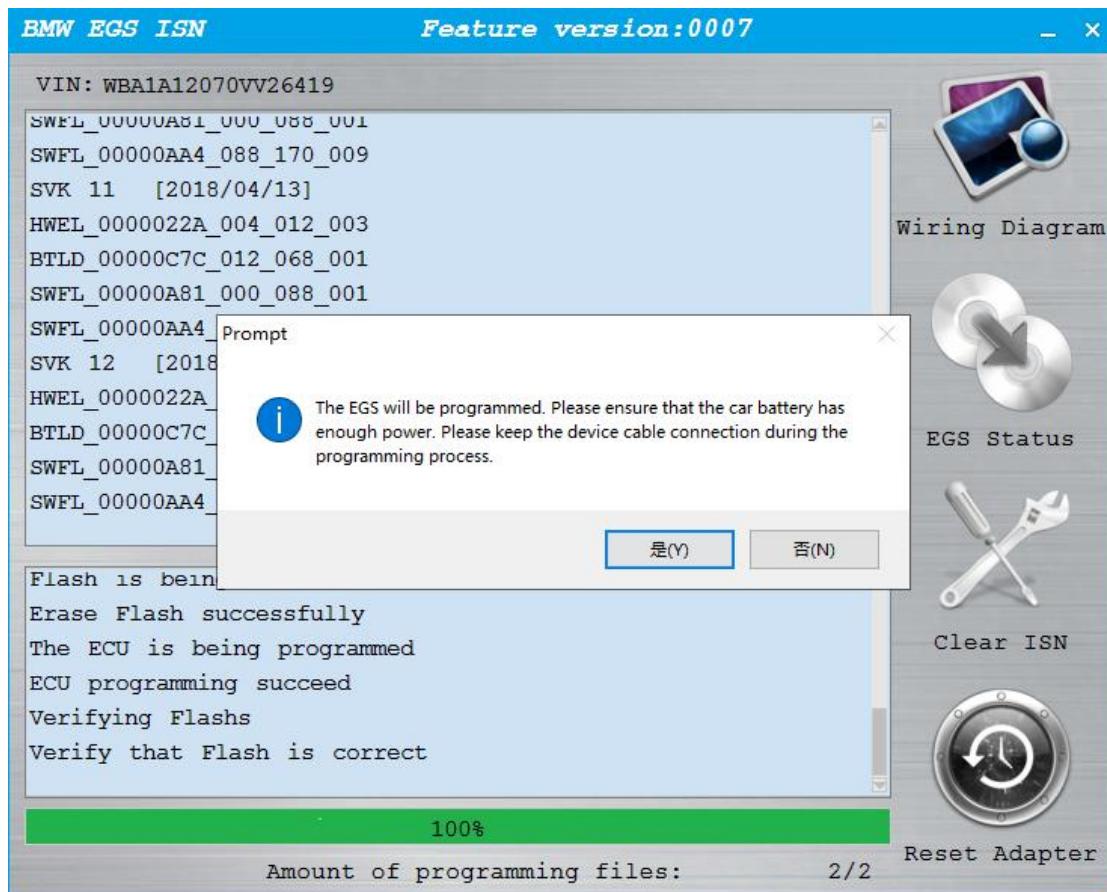


12.1.1 EGS wiring diagram, EGS status, clear ISN, reset adapter

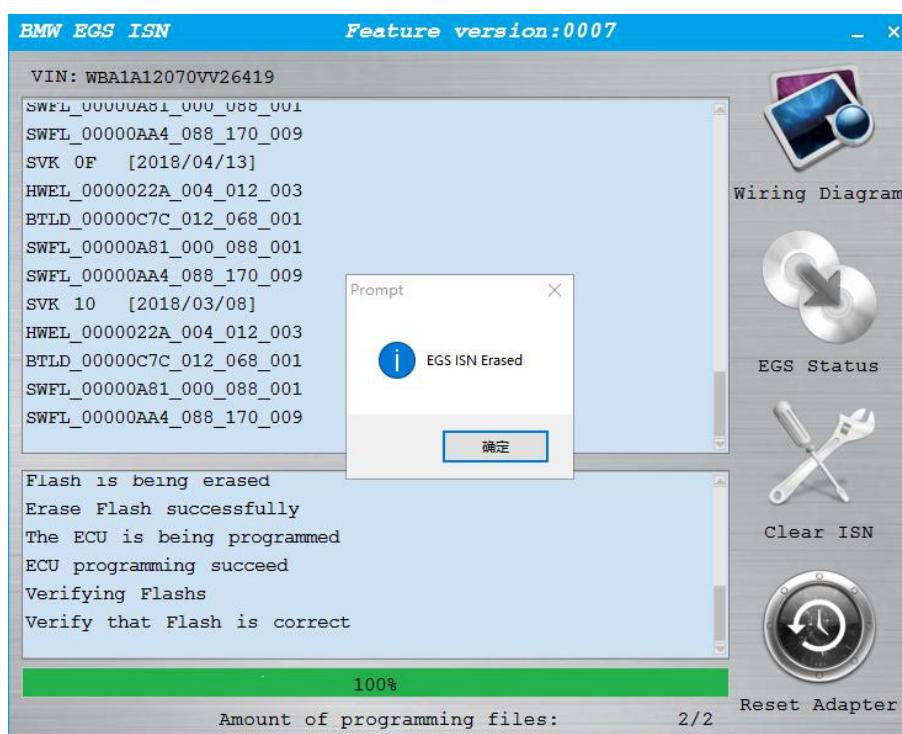


12.1.2 Clear ISN

- ◎ Clear ISN

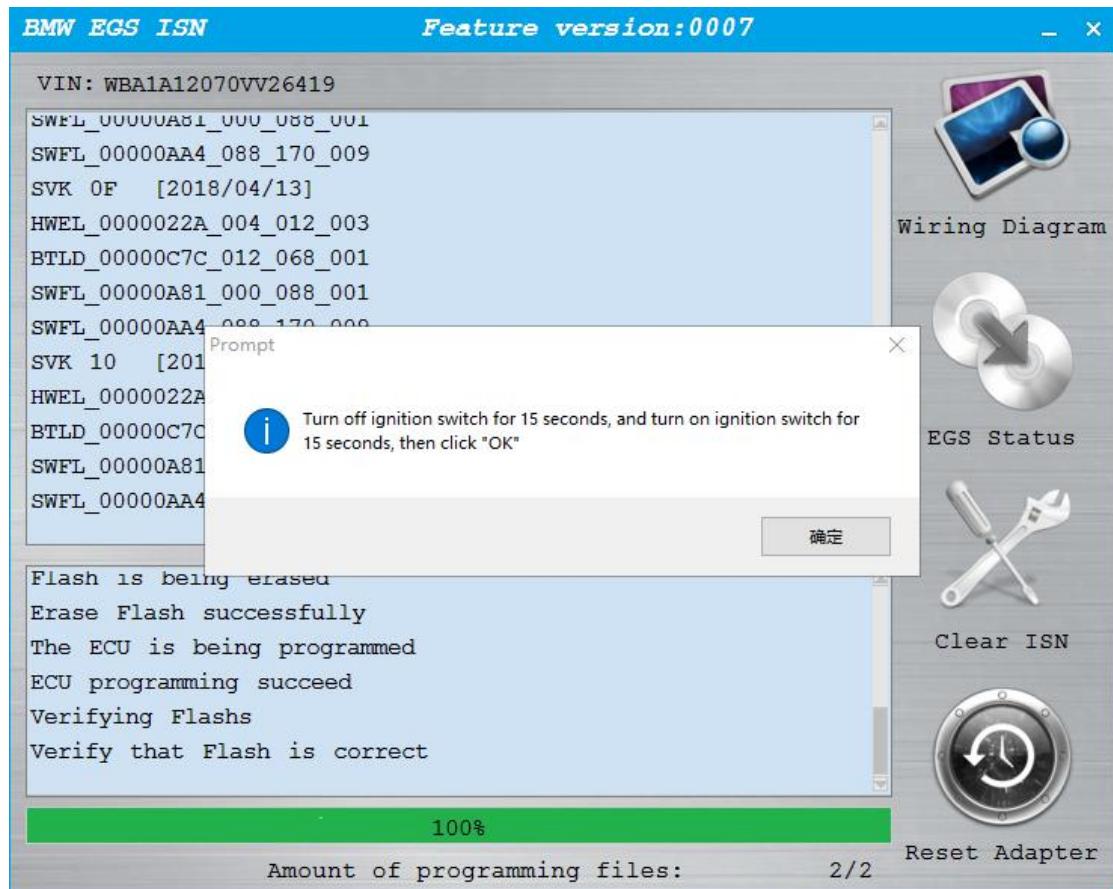


- ◎ Whether to change the car frame number
- ◎ Programming process Wait, programming and programming files amount
- ◎ Finish ISN remove



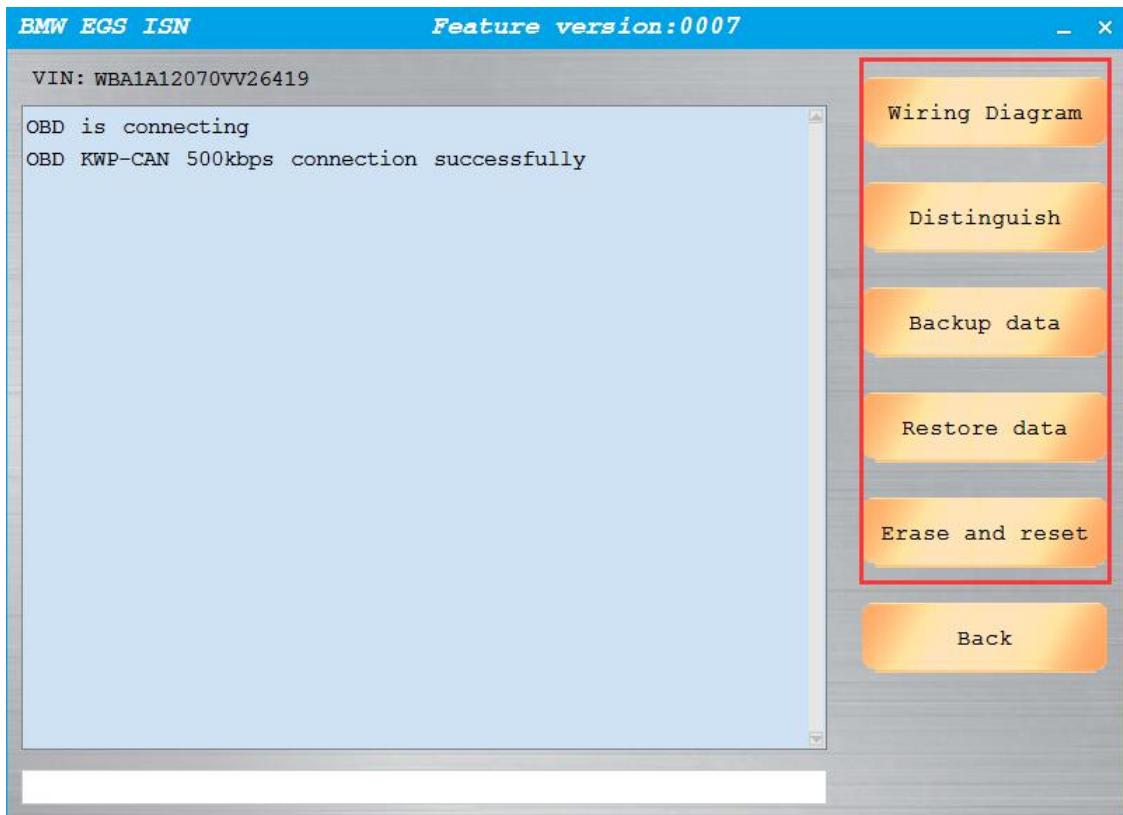
12.1.3 Reset Adapter

- ◎ Follow tips to click “OK” button to finish reset adapter.

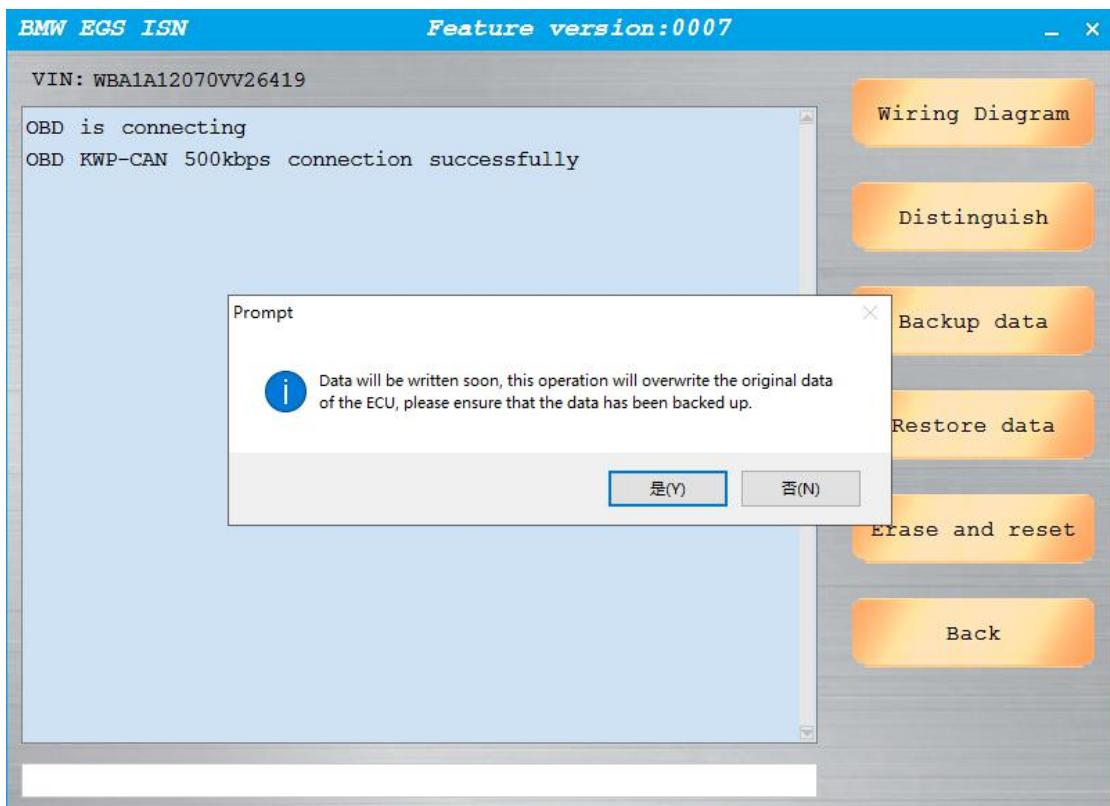


12.2 EGS 6HP

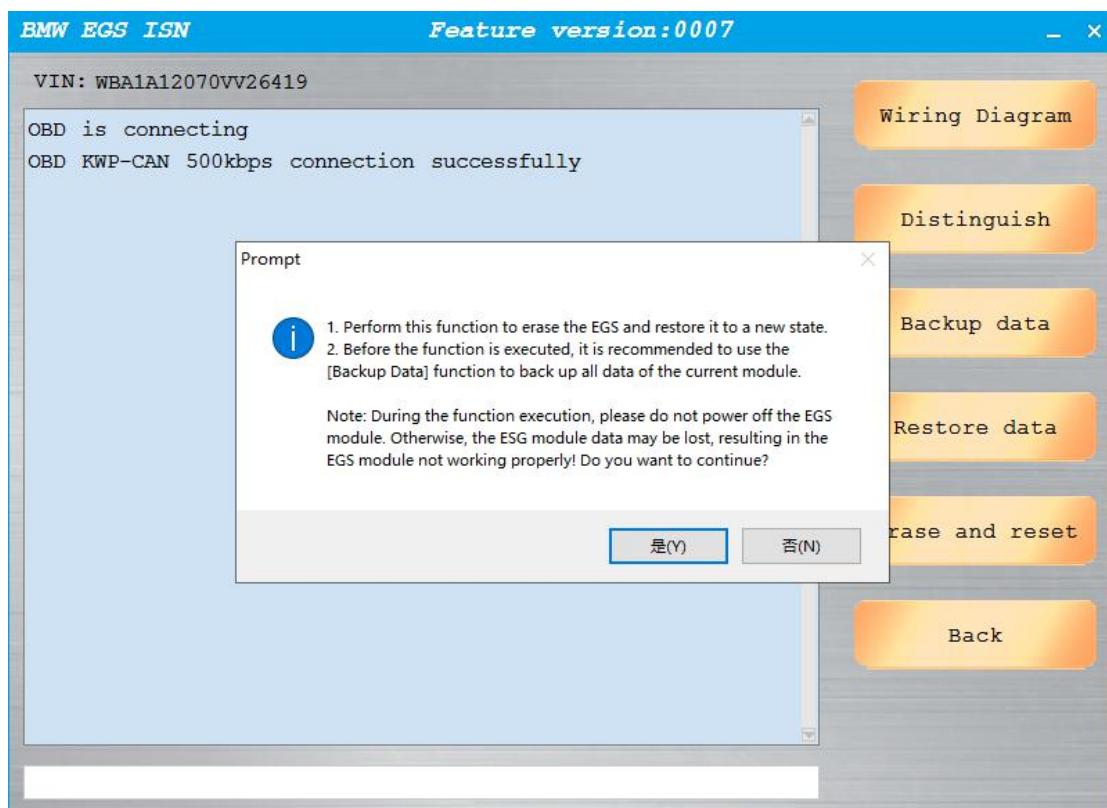
- ◎ Backup data before use.



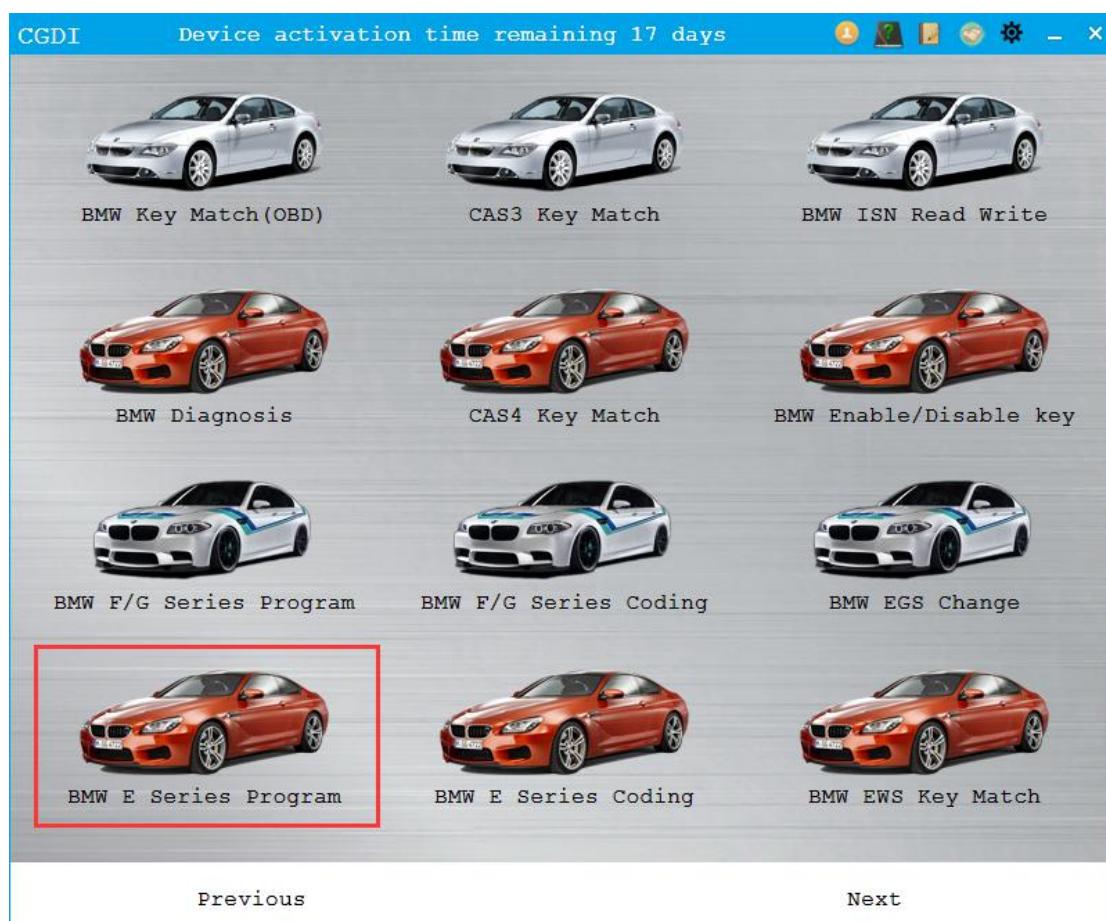
◎ Backup data before data store.



◎ Backup data before erasing and resetting.



13. BMW E Series Program



Click “Choose ECU” button for programming

BMW E Series Program Function version:0004

Address	ECU Nombre	Part Number
00	KGM	6962952
01	SGM	6975687
40	CAS	9147215

VIN: WBANA32060B353765 Car Series: E60

Read ECU info
Program
Advanced programming
Read index
Back

OBD is connecting
OBDII-KWP connection successfully
Reading data
Read data successfully

BMW E Series Program Function version:0004

Address	ECU Nombre	Part Number
00	KGM	6962952
01	SGM	6975687
40	CAS	9147215

VIN: WBANA32060B353765 Car Series: E60

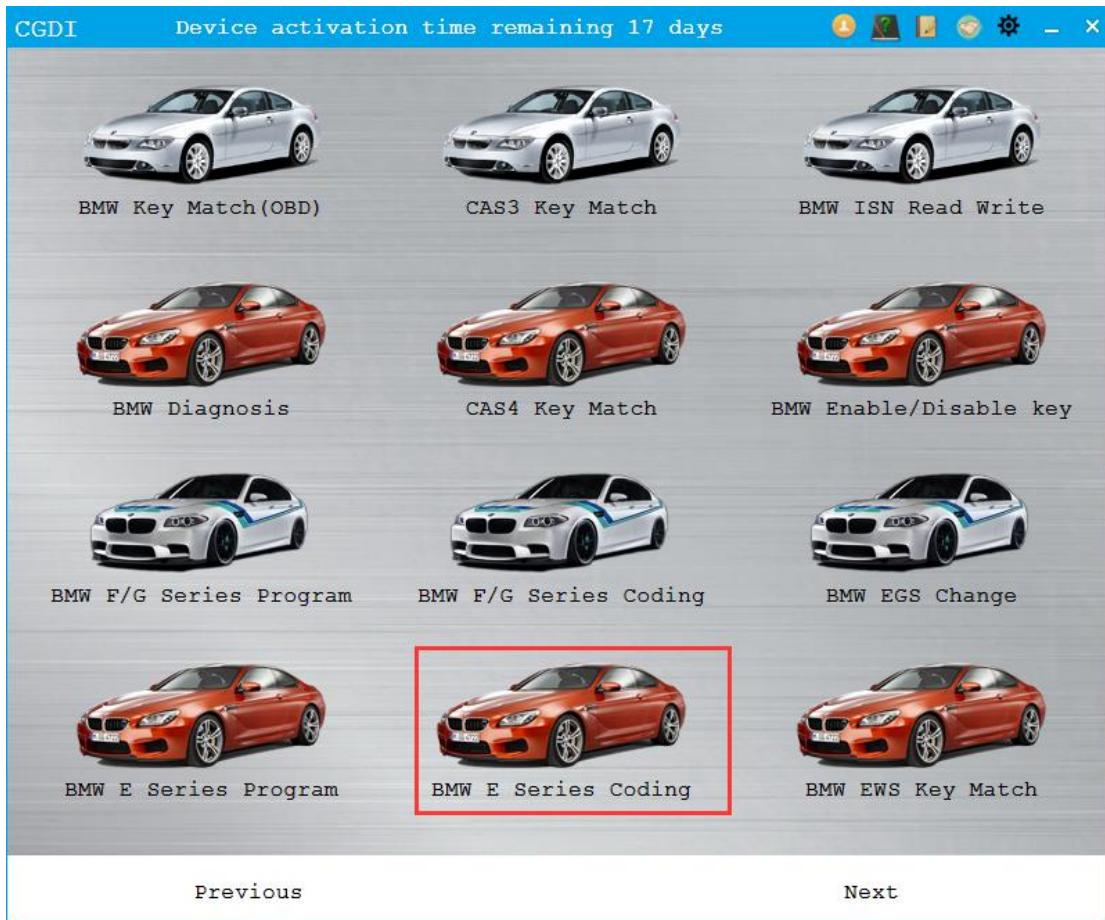
Read ECU info
Program
Advanced programming
Read index
Back

Select

Search
chip
index
VIN

OBD is connecting
OBDII-KWP connection successfully
Reading data
Read data successfully

14. BMW E Series Coding



14.1 Function Introduction

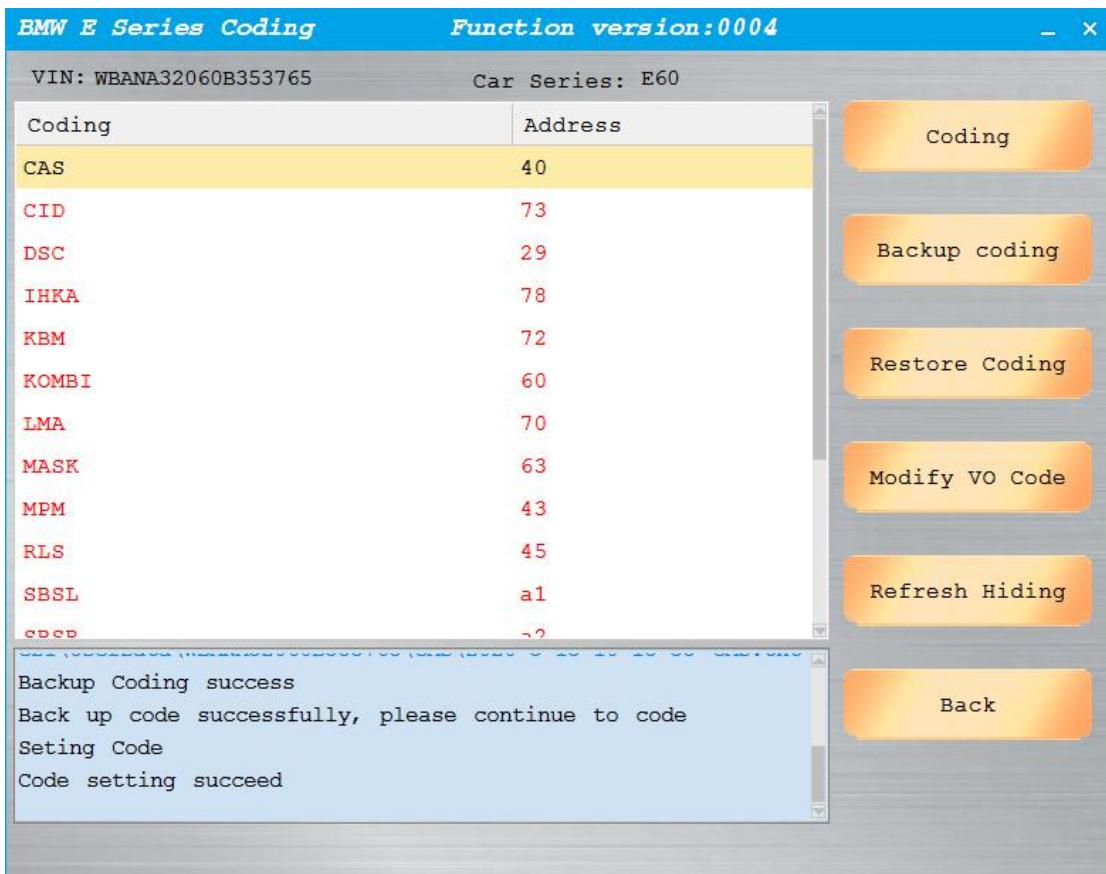
- ◎ Coding
- ◎ Backup Coding
- ◎ Recover Coding
- ◎ Alter VO Code
- ◎ Refresh Hiding

14.2 Use Ways and Examples

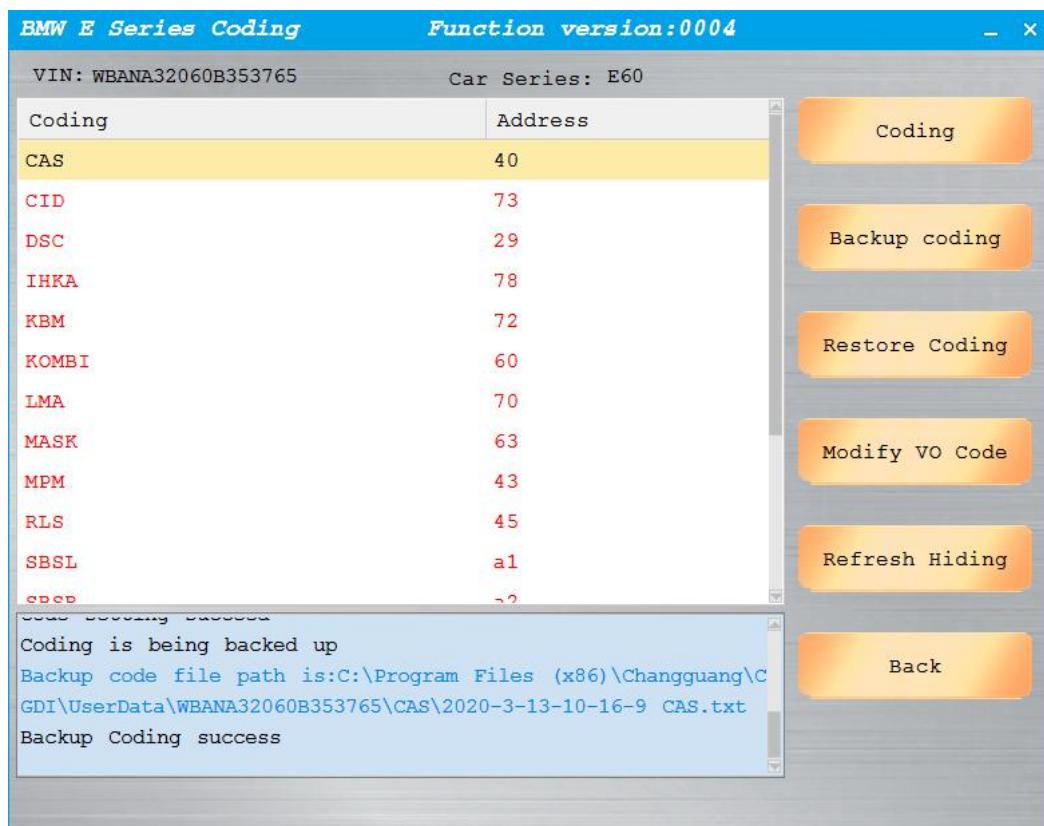
- ◎ Connect device and open software. Programming requires Internet, other functions need left button to select one ECU that you want in list.

◎ Coding

Select ECU that requires coding, display whether backup coding for restore.

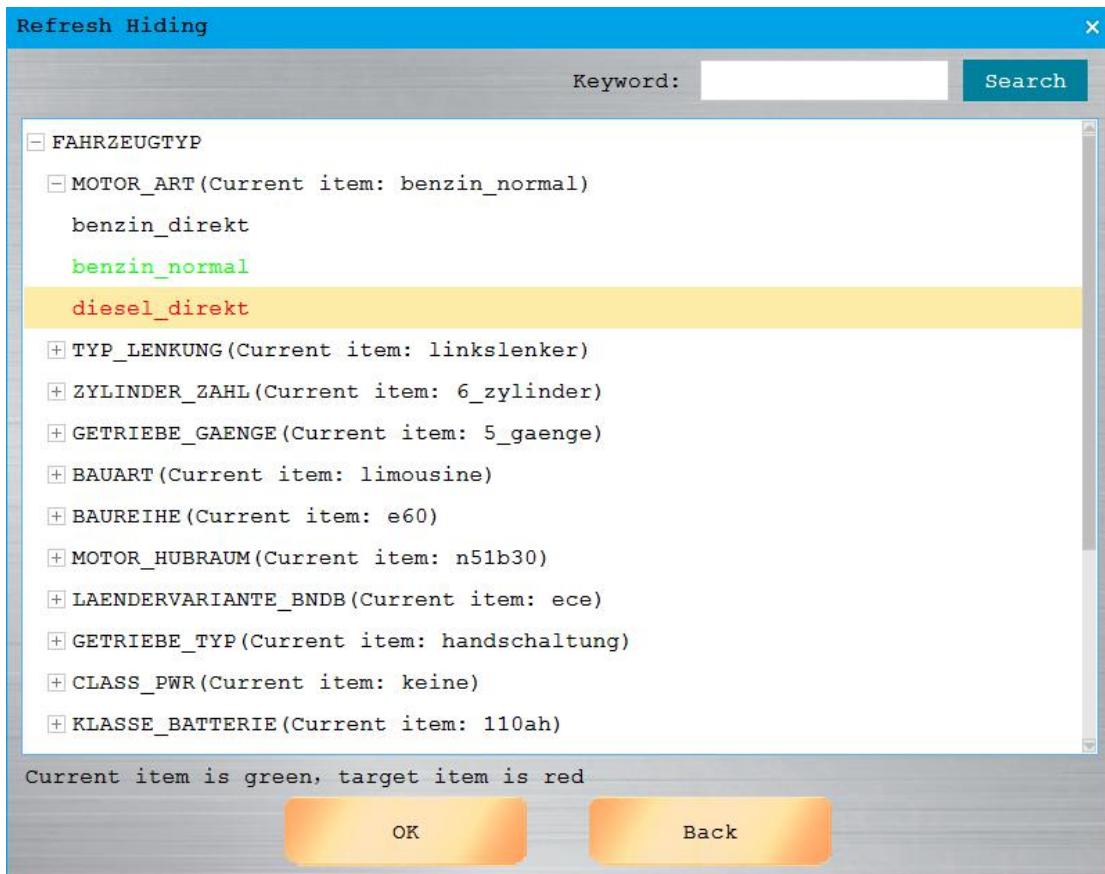


◎ Backup Coding



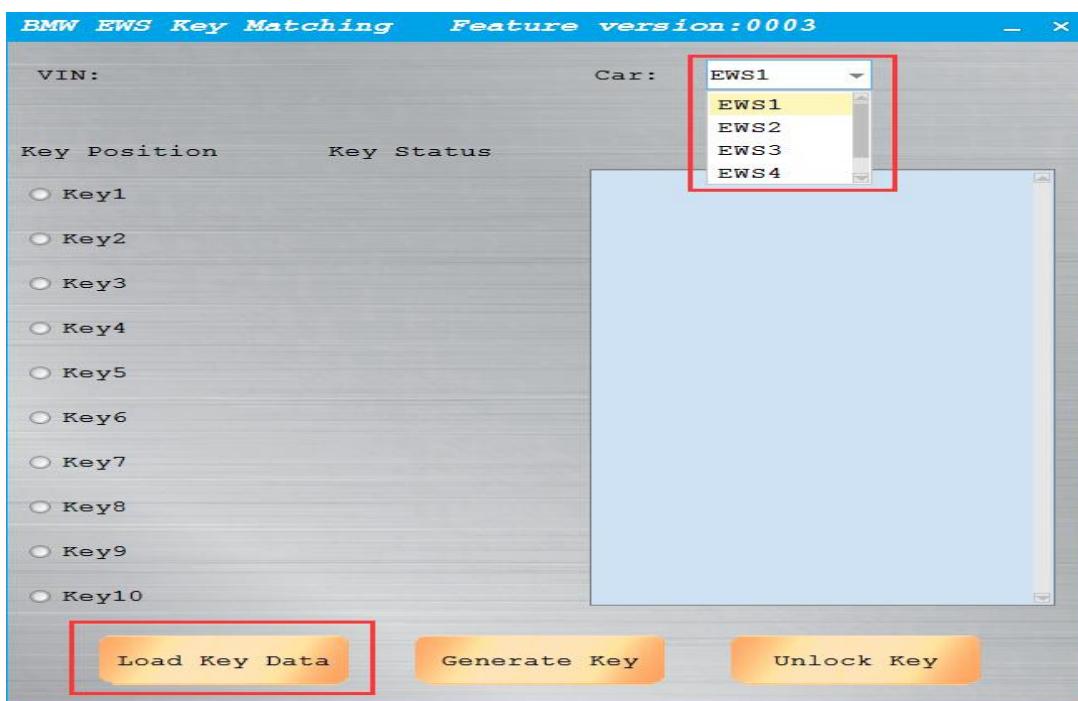
② Refresh hiding

Existing item is green, target item is red.

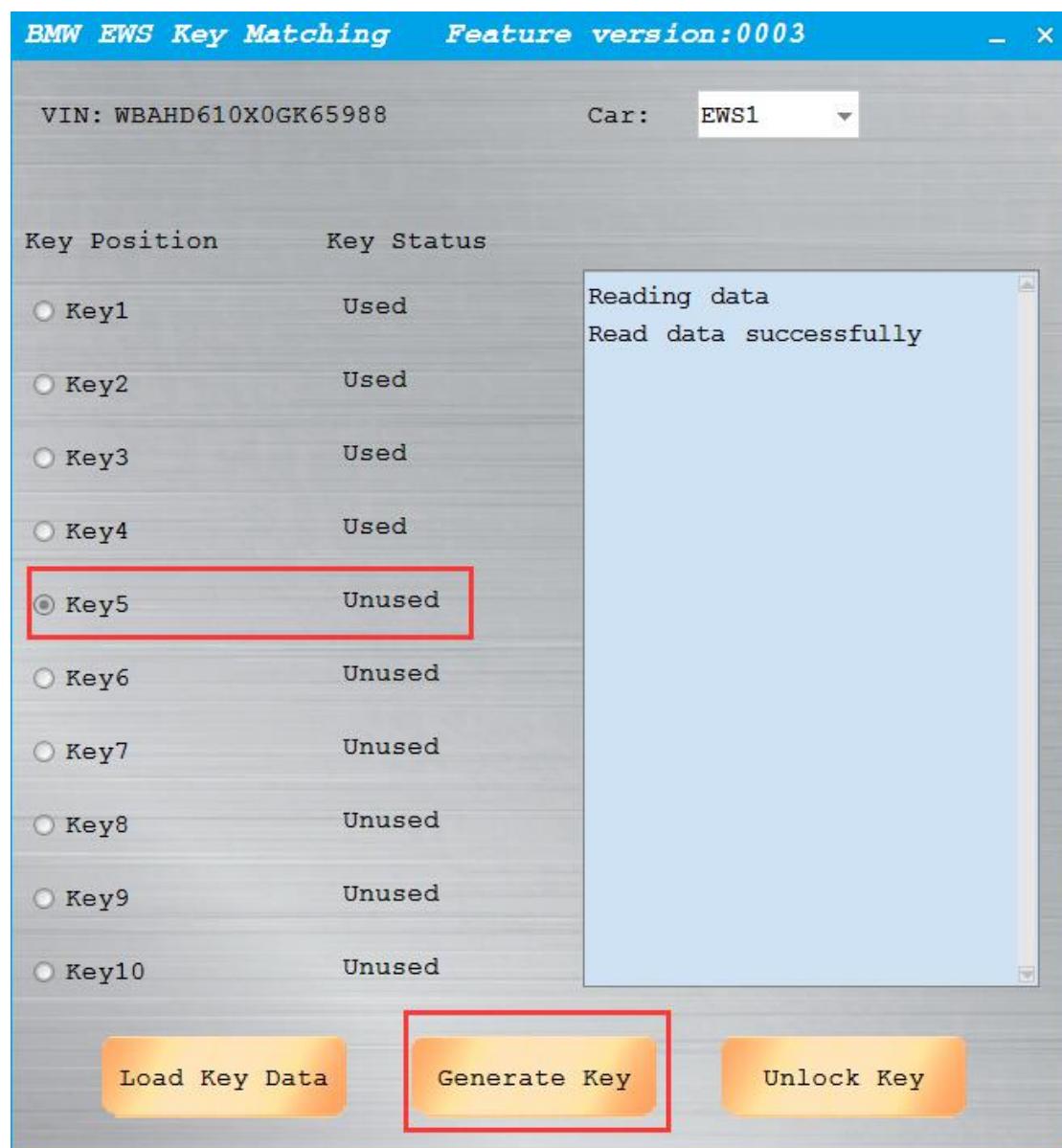


15. BMW EWS Key Match

Choose type should click “Encrypt and Decrypt Key Data” button.

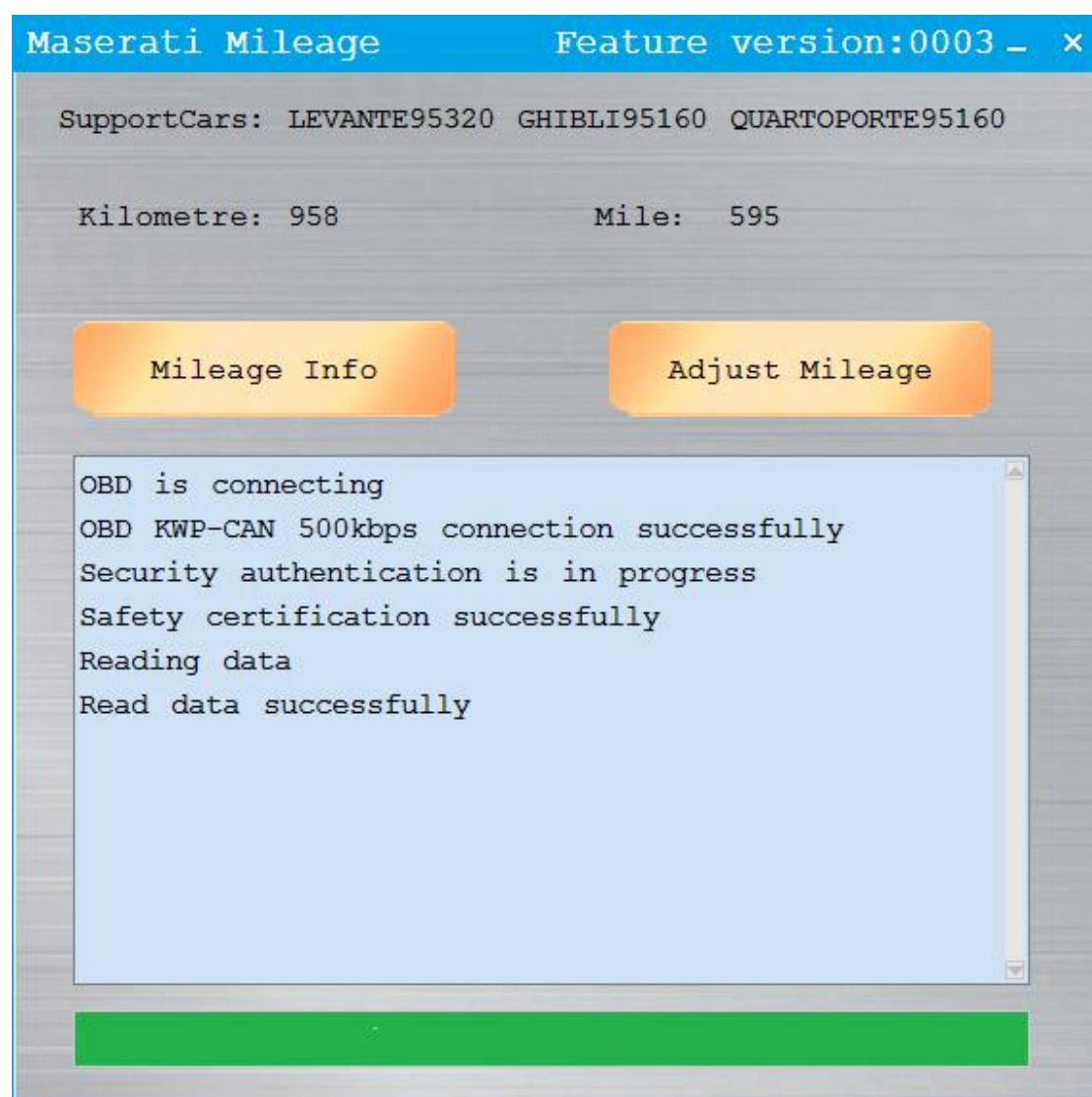


Select unused key number to generate dealer's key.

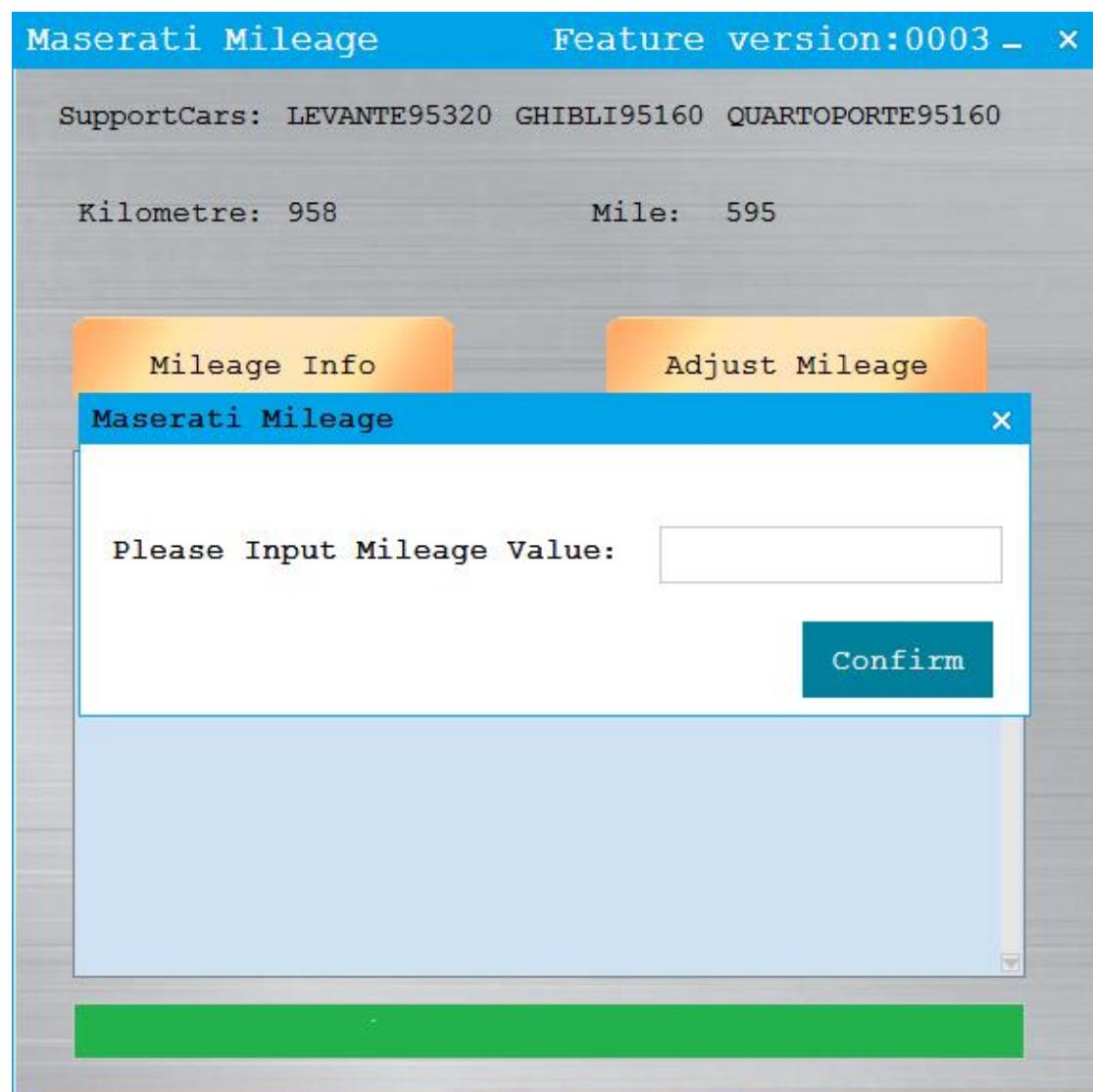


16. Maserati Mileage Check and Adjust

16.1 Read mileage, store data



16.2 Adjust mileage, input mileage value



17. Porsche Key Learning

Read basic information

支持车型: 911和Boxster987

VIN: WP0AA2988BU760419

读基本信息

钥匙学习

OBD正在连接
OBD KWP-CAN 500kbps连接成功
正在进行安全认证
安全认证通过

Click “Key Learning” button, follow tips to input

SupportCars: 911 and Boxster987

VIN: WP0AA2988BU760419

Read

Prompt

X

OBD is

OBD KW

Securi

Safety

OBD is connecting

OBD KWP-CAN 500kbps connection successfully

Security authentication is in progress

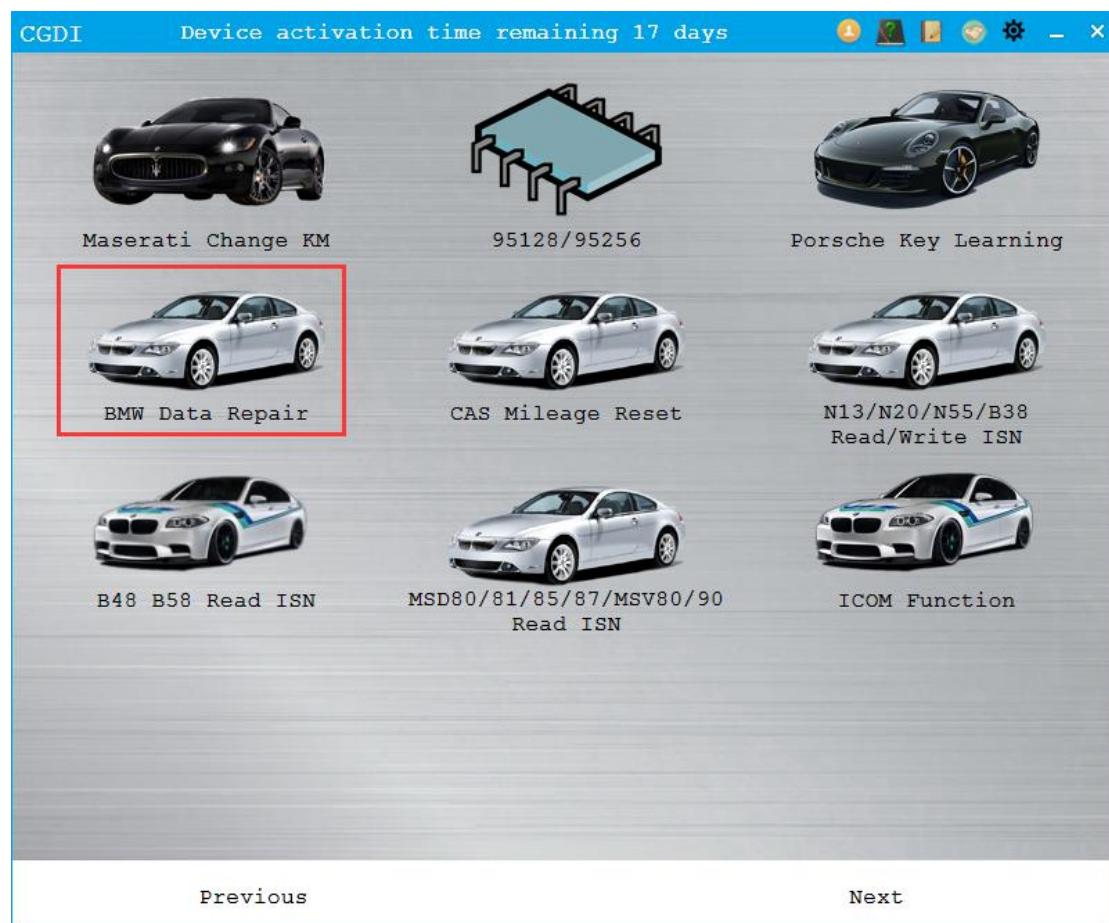
Safety certification successfully

确定



pls put the blank key into the CGDI programmer coil.

18. BMW Data Repair



18.1 Data Loading

Select data type firstly, then load data file



18.2 Data Modification

Pull down to choose frequency after data loaded, click “modify frequency” button.

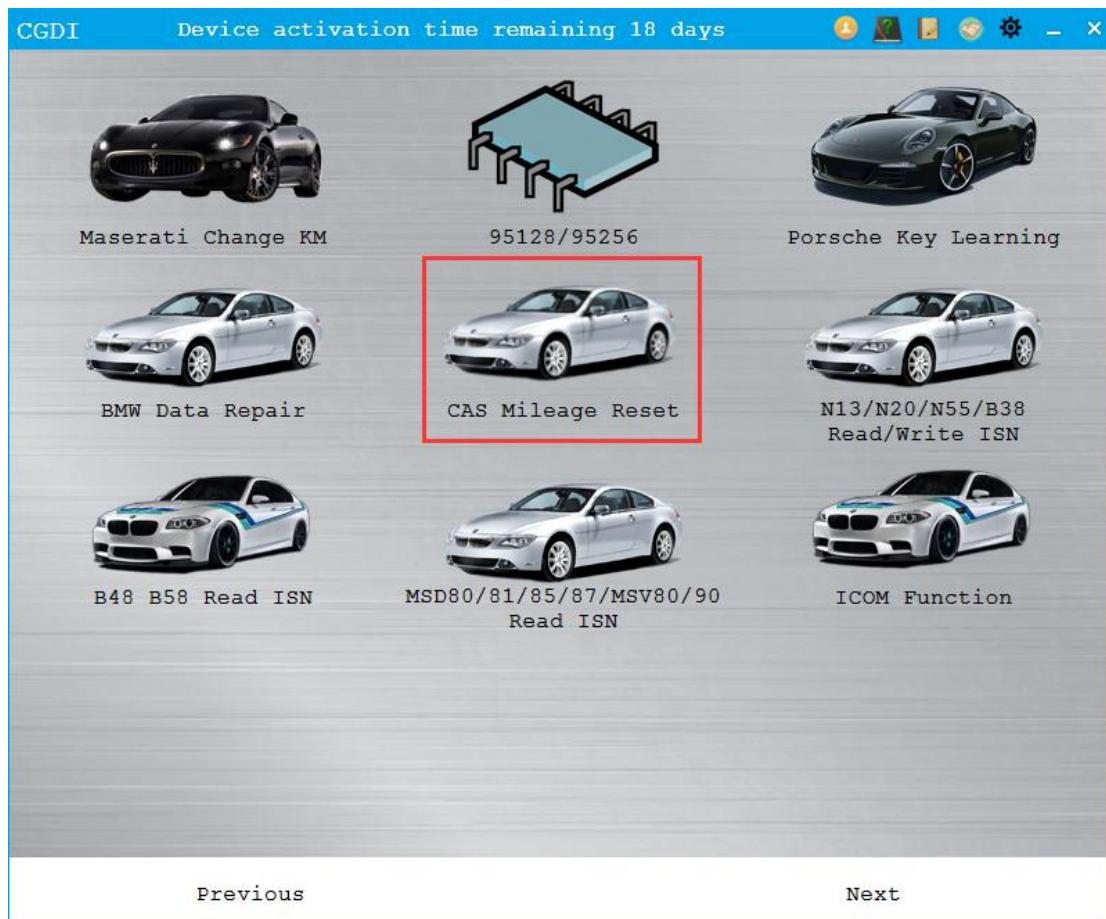


It supports VIN code and ISN code alteration, click “Alter” button after manual input.



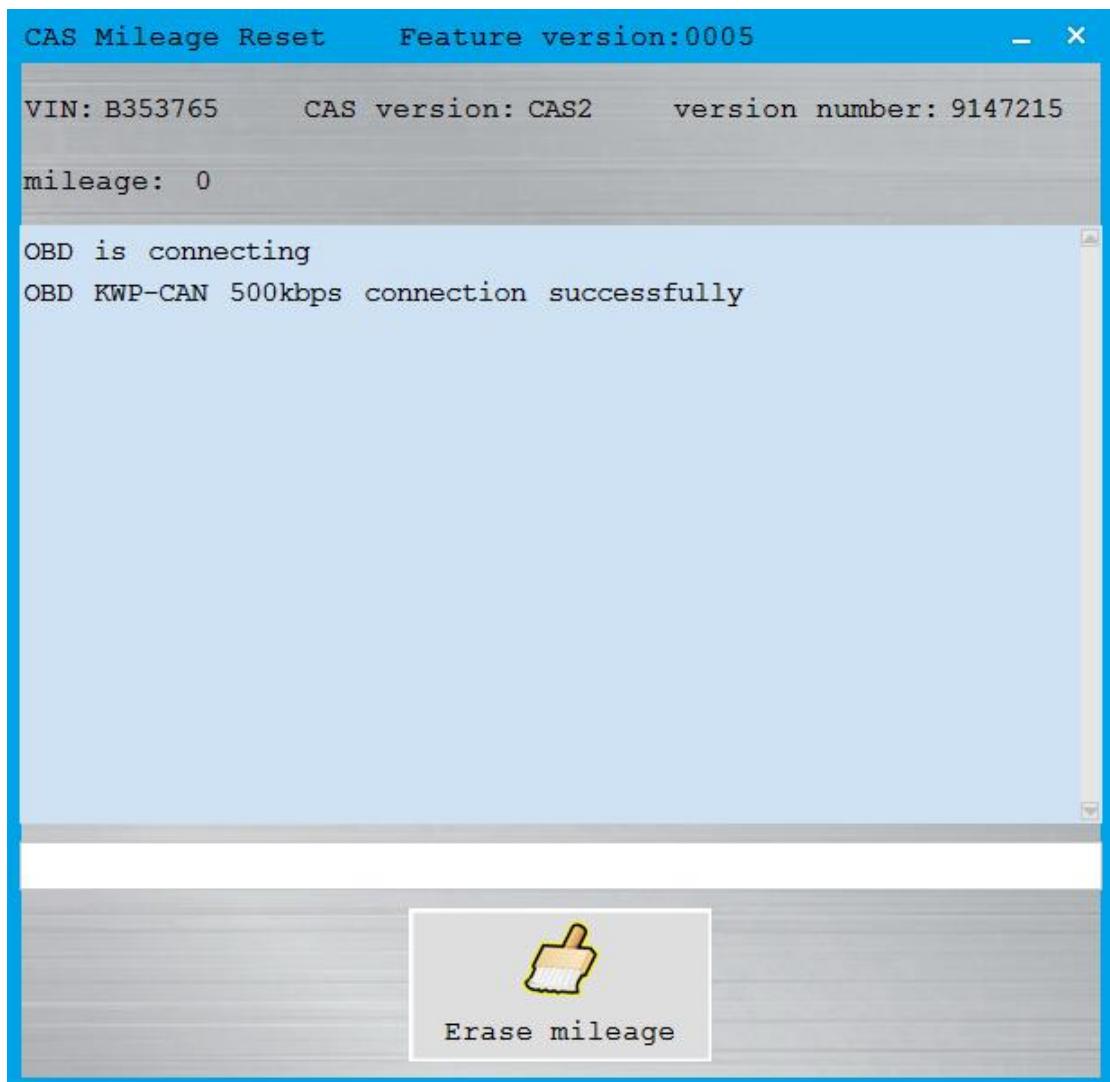
19. CAS Mileage Reset

The mileage reset function of CGDI can erase mileage information in CAS, support CAS1\CAS2\CAS3\CAS3+\CAS3++. Please dismantle dashboard first, use device to erase mileage information in CAS, install adjusted dashboard back, then the mileage data in dashboard will synchronize to CAS automatically.



19.1 Erase Mileage

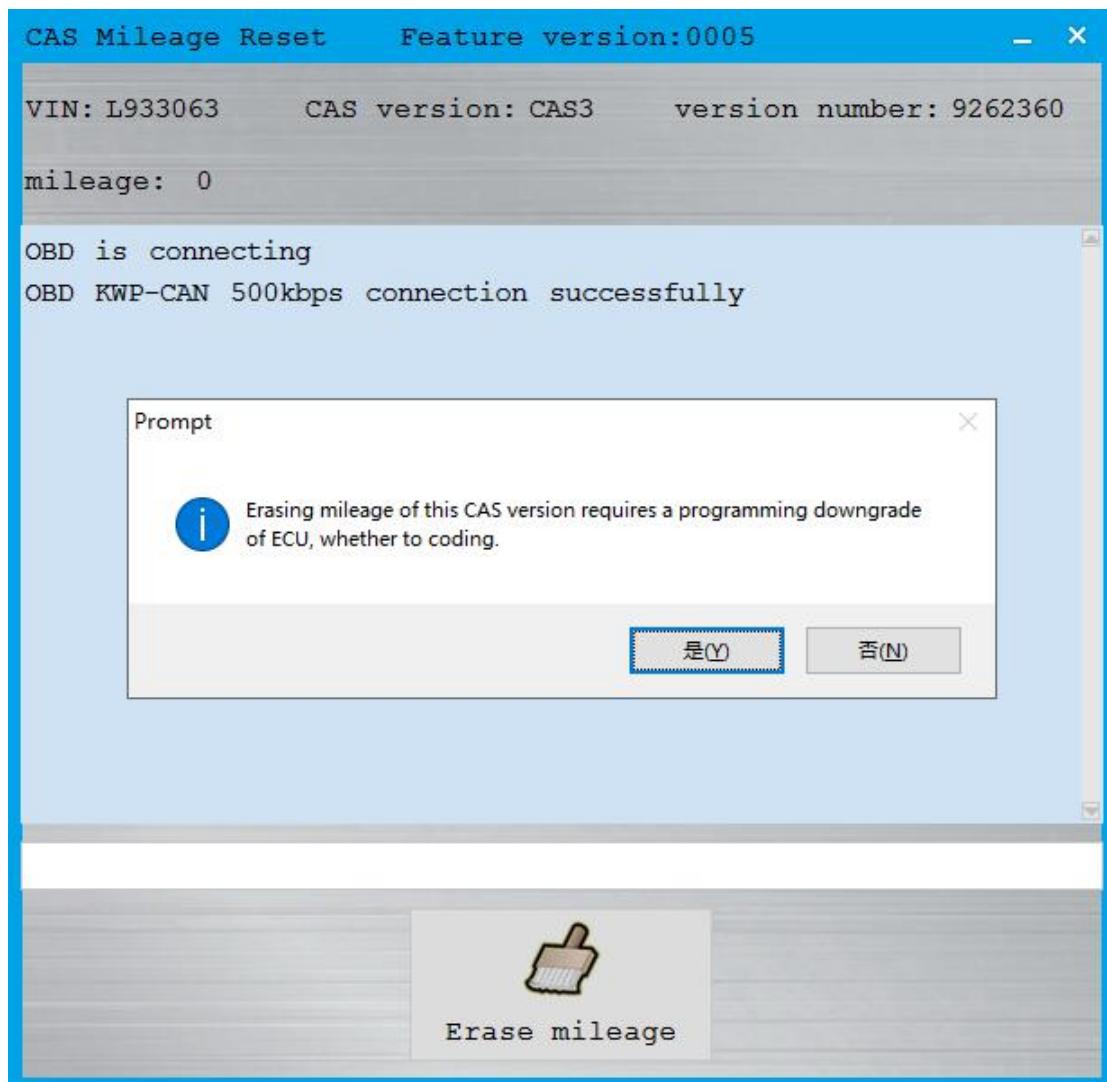
After entering the CAS mileage reset function, the basic information and mileage of the CAS can be seen. (The mileage needs to be connected with the dashboard)



Click “Erase Mileage” button

Some CAS versions need to degrade programming before mileage reset.

Cautions: be sure that the battery can last more than 30 minutes, do not disconnect the cable during the programming process.



Pull out the key in ignition lock

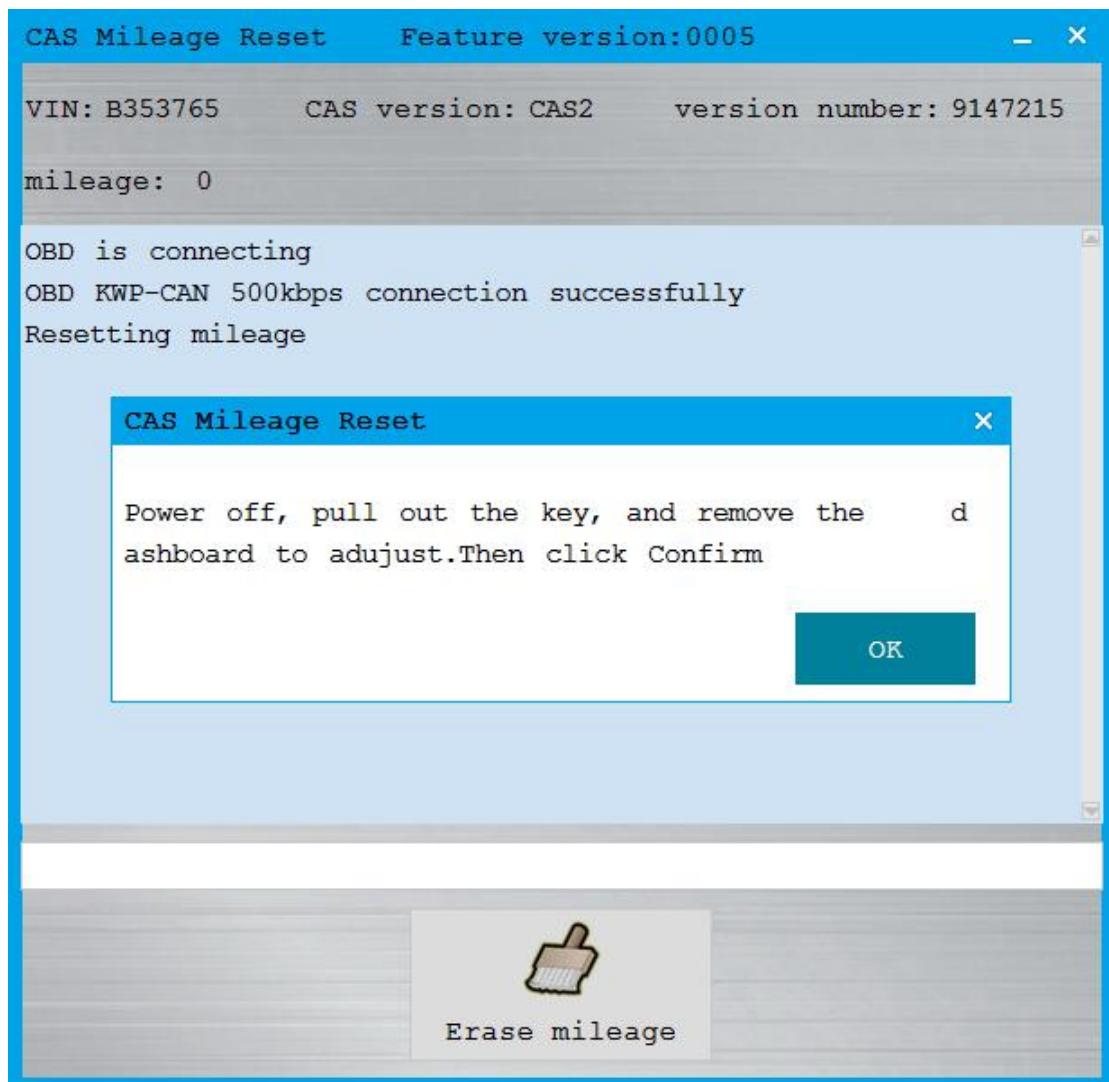
Display current programming process

Check FLASH

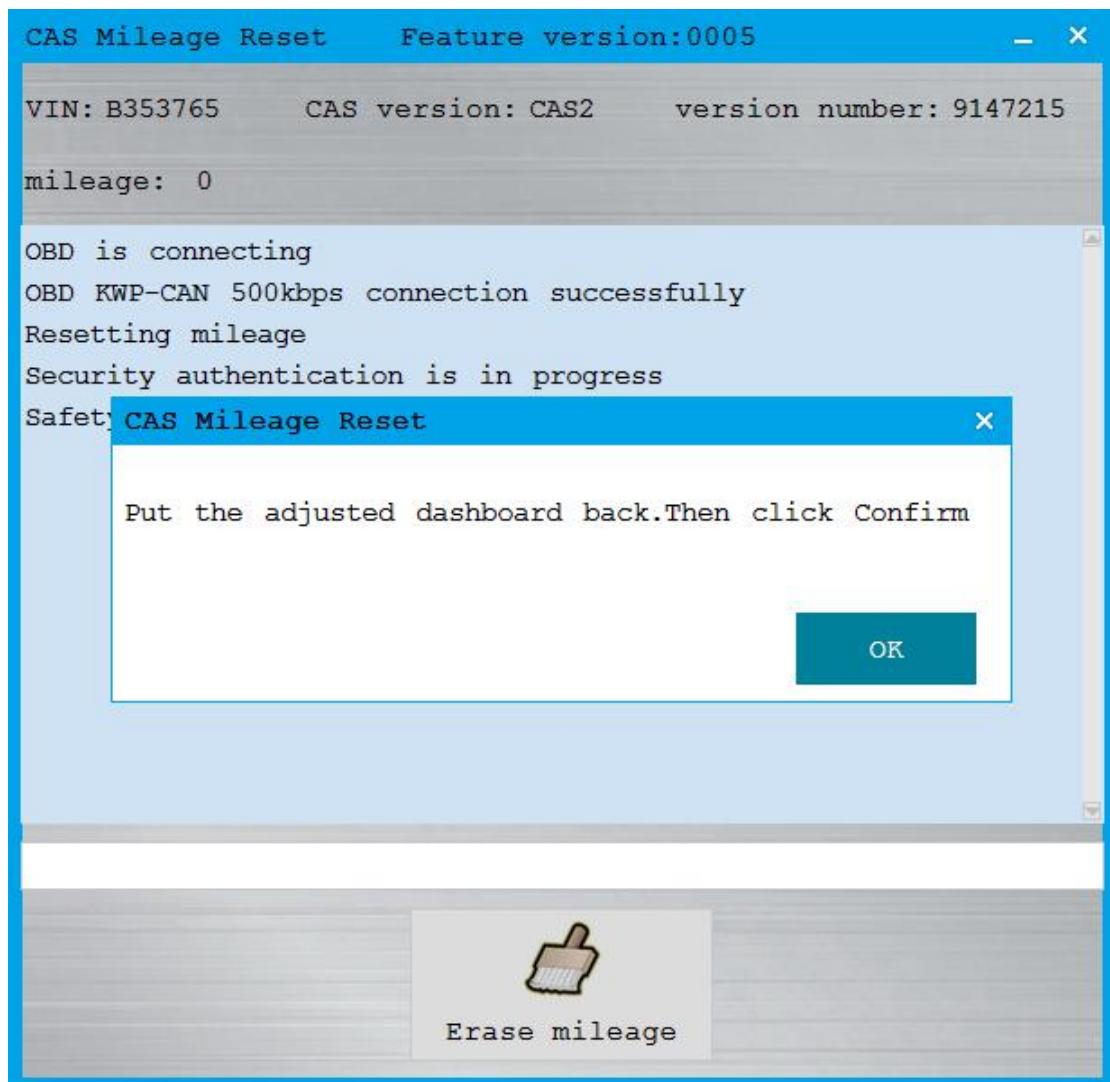
Please follow tips to adjust mileage after programming succeeded.

Step 1: power off, pull out the key, and remove the dashboard to adjust, then click confirm.

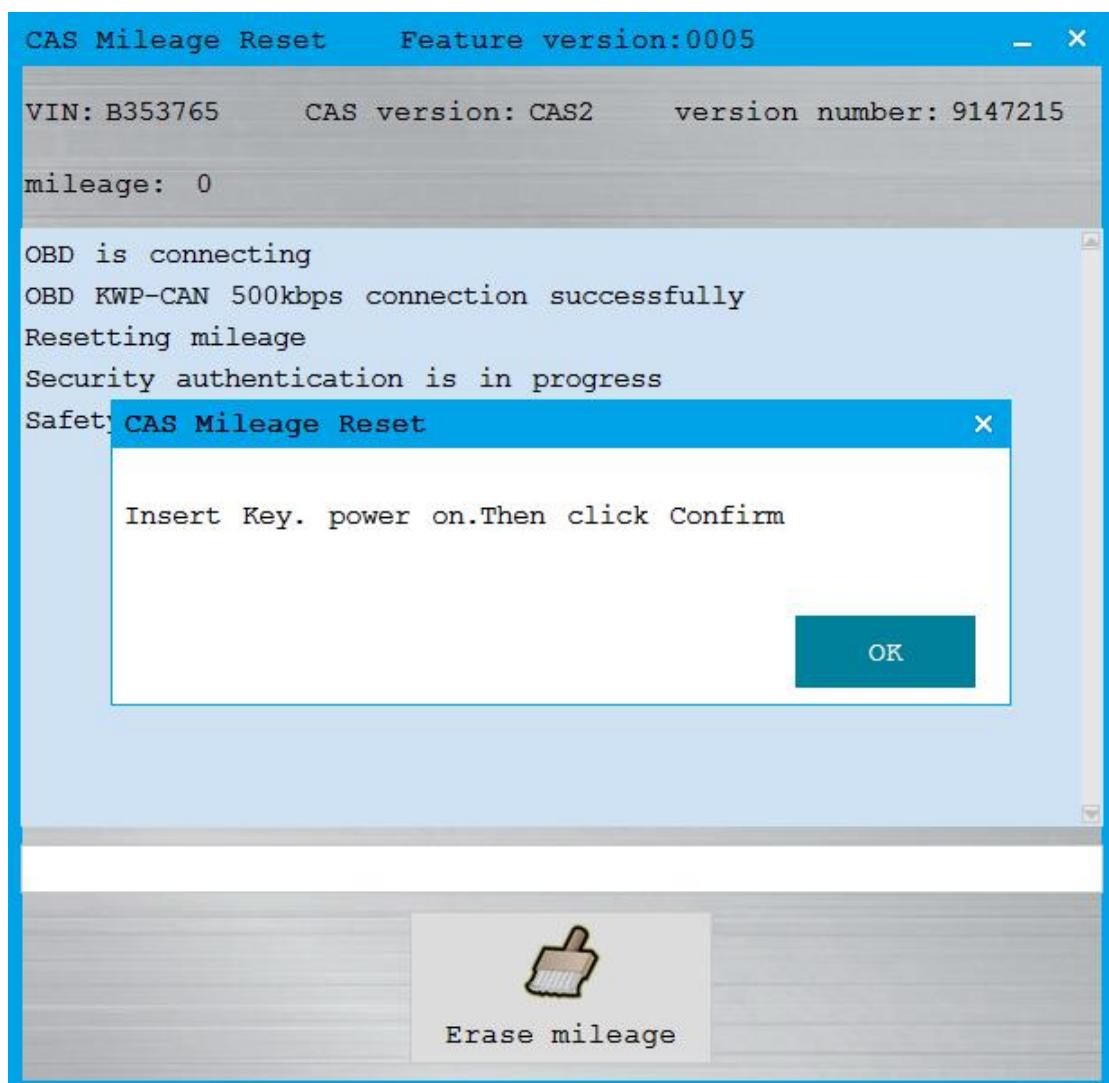
Caution: be sure that the dashboard has been removed from vehicle, then click "OK" button.



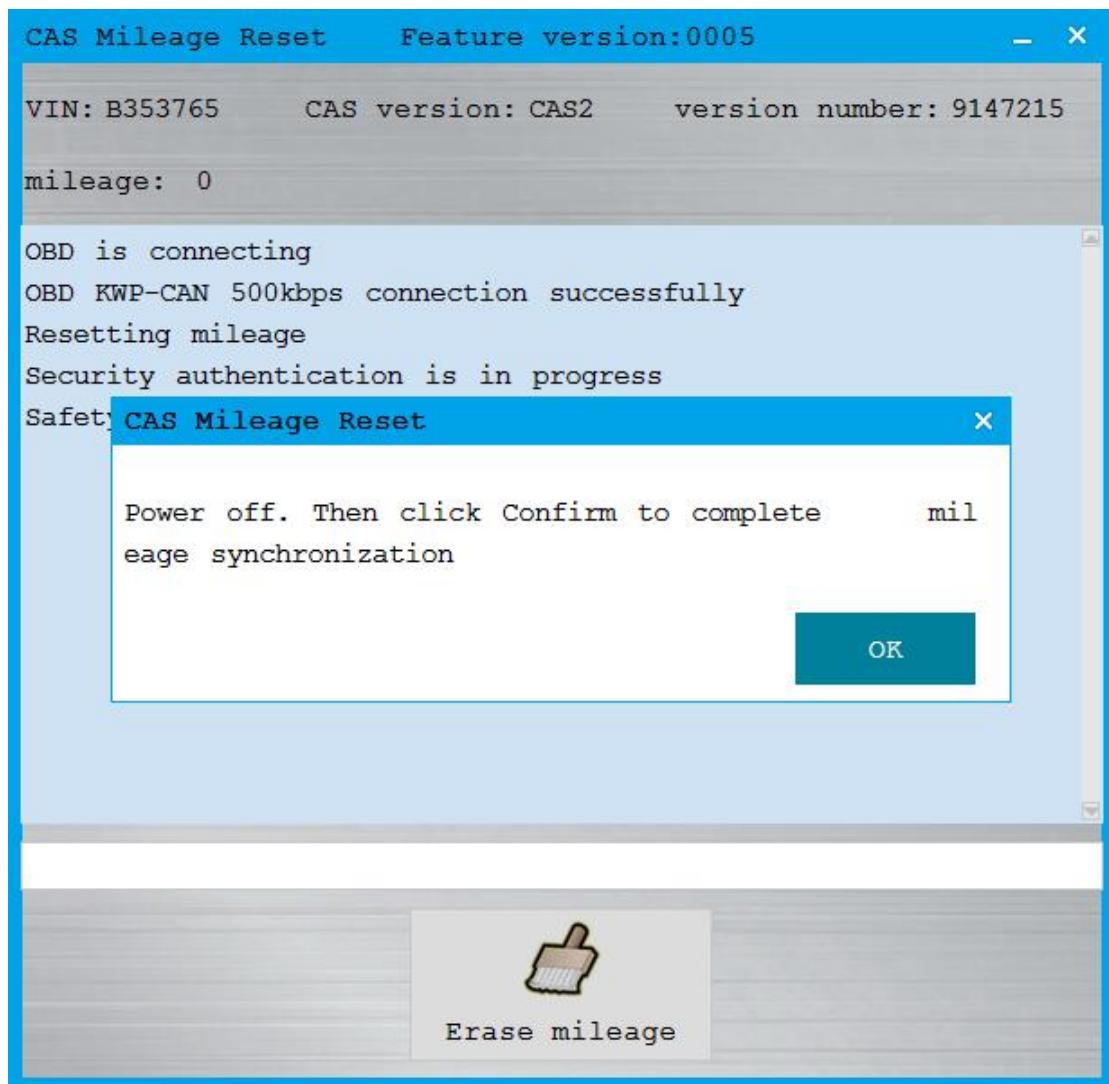
Step 2: put the adjusted dashboard back. Then click “OK” button.



Step 3: Insert key. Power on. Then click “OK” button.

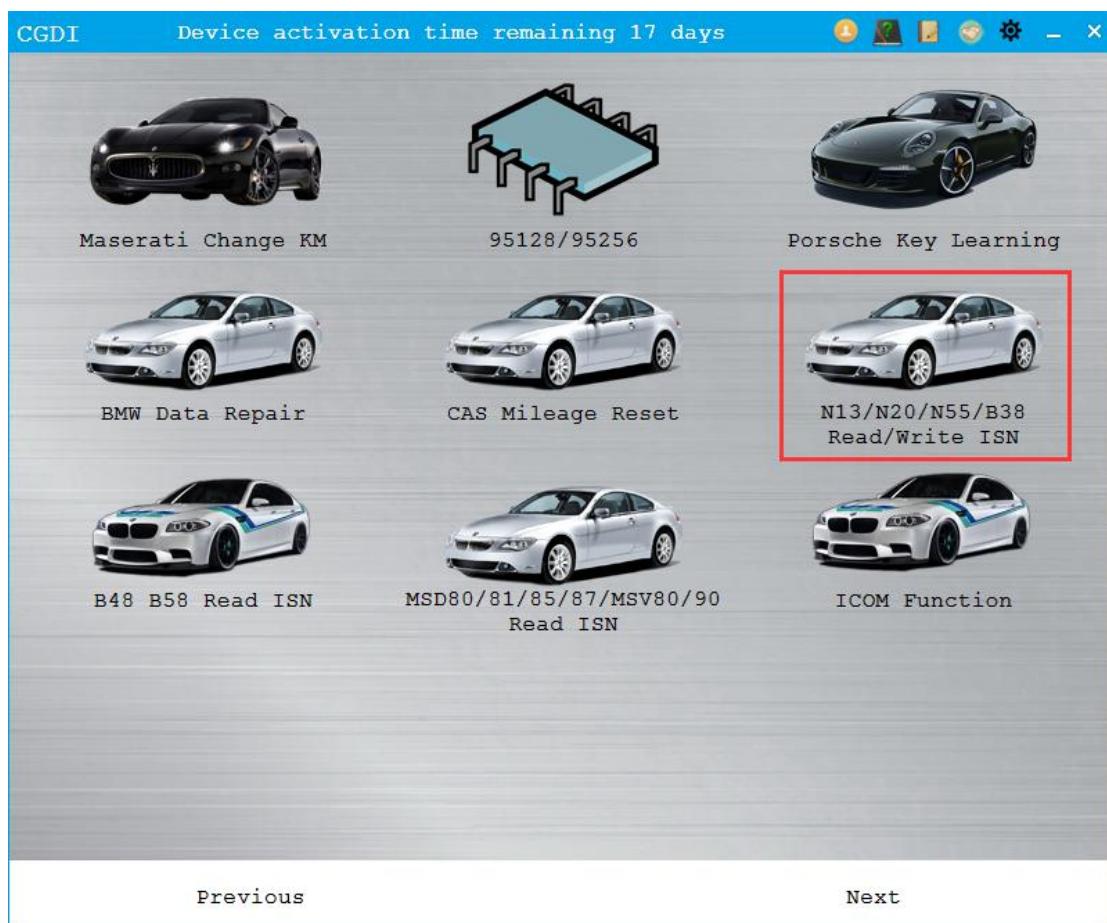


Step 4: power off, then click confirm to complete mileage synchronization.



When mileage reset display succeeded, a new mileage can be seen after re-entering the mileage reset function.

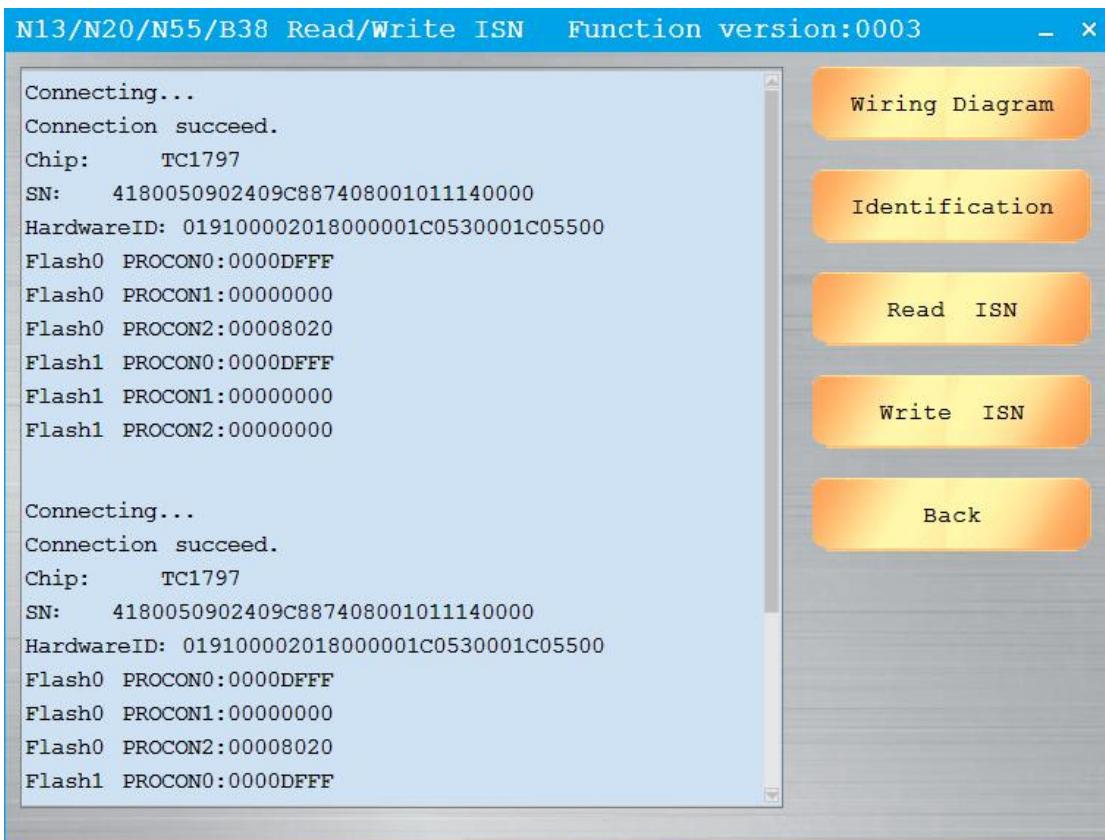
20. N13/N20/N55/B38 Read and Write ISN



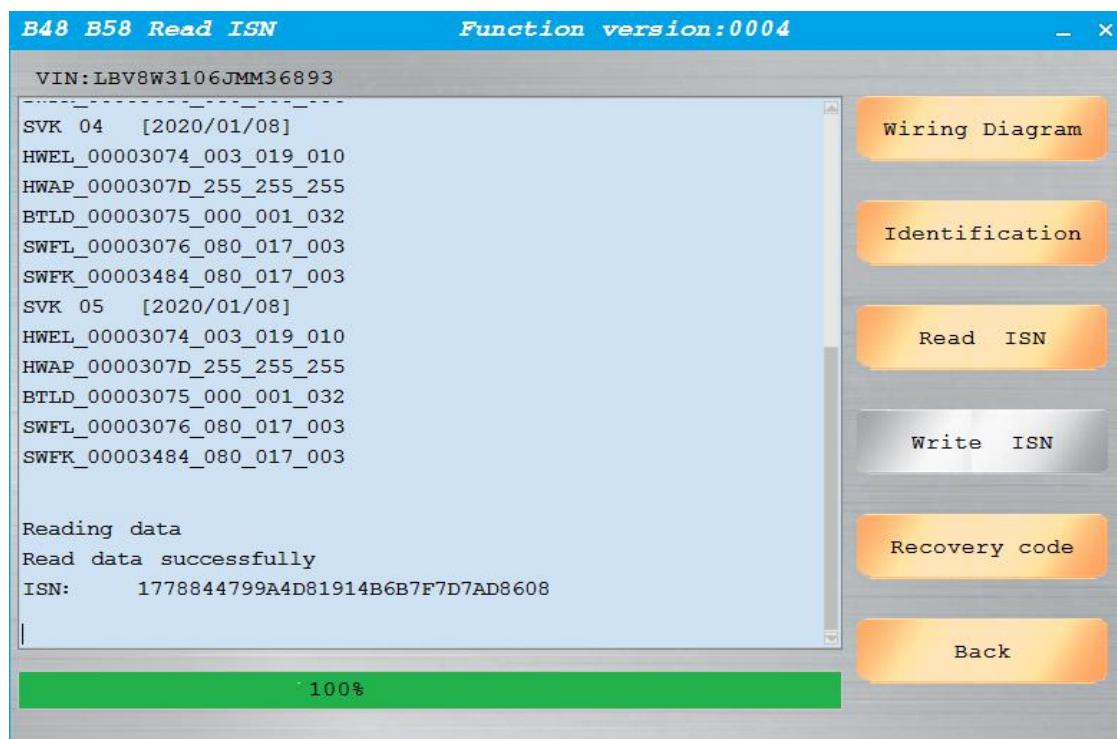
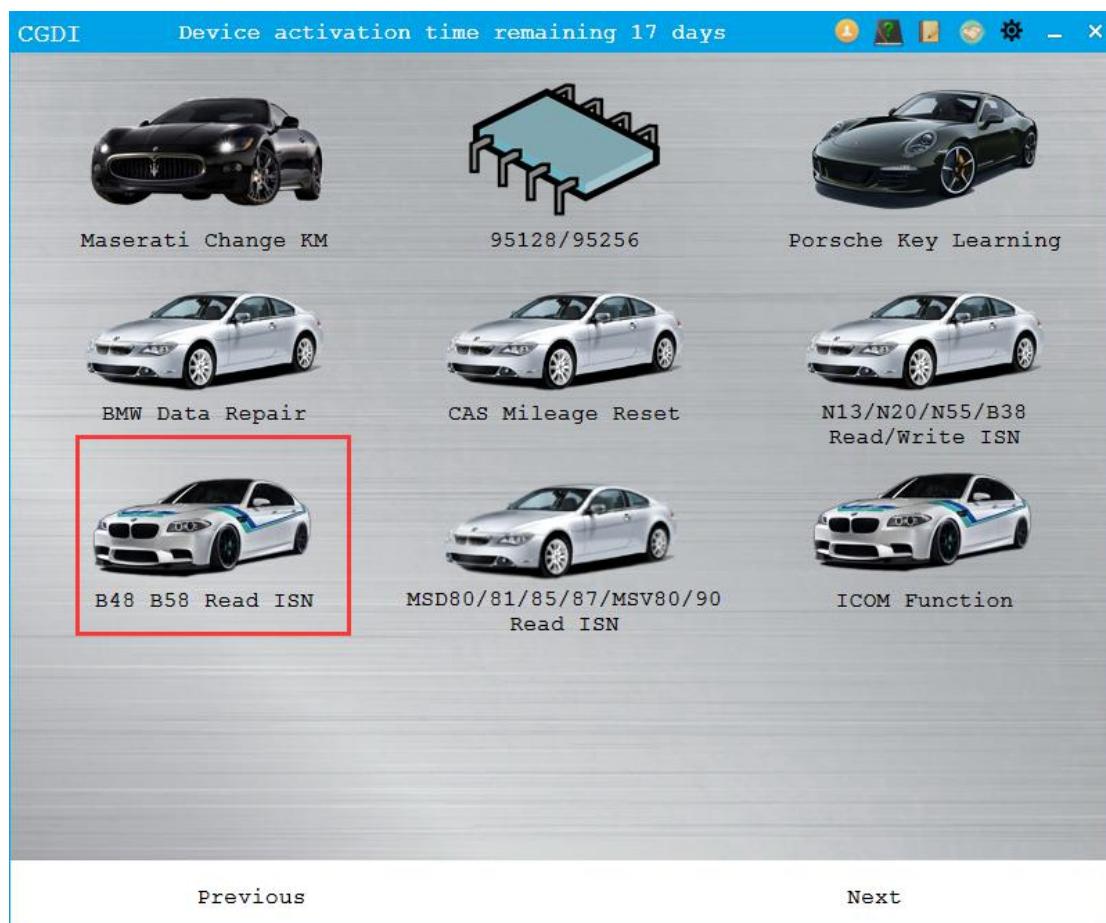
Pull down to select chip



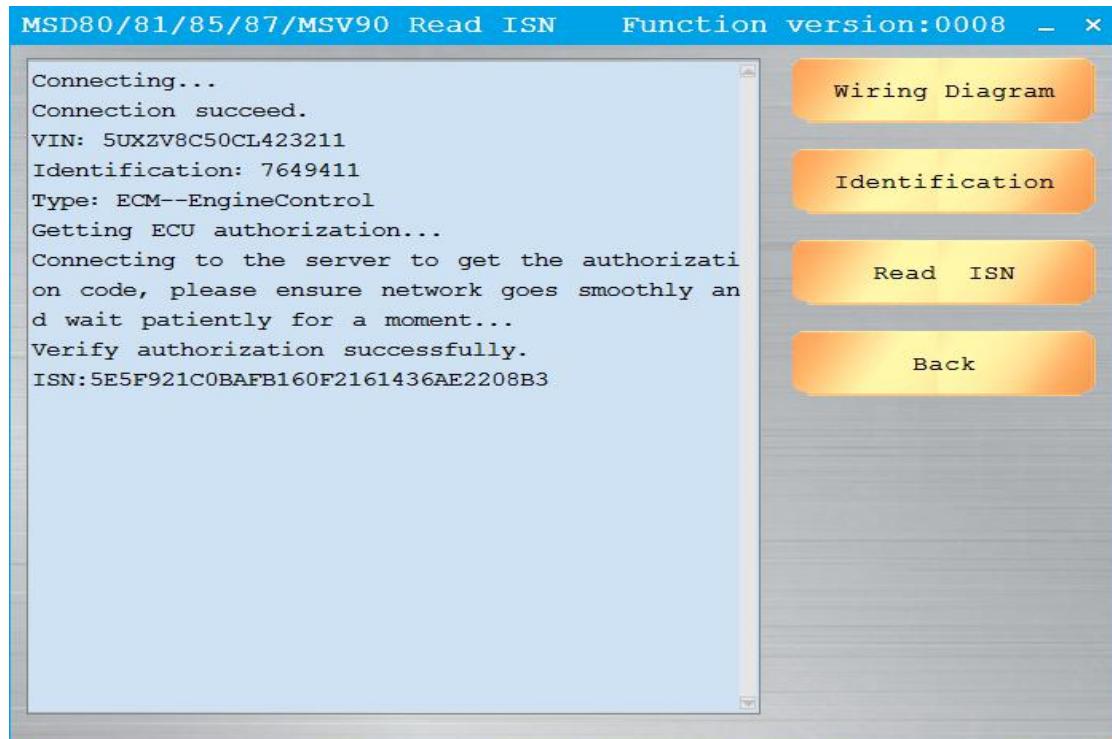
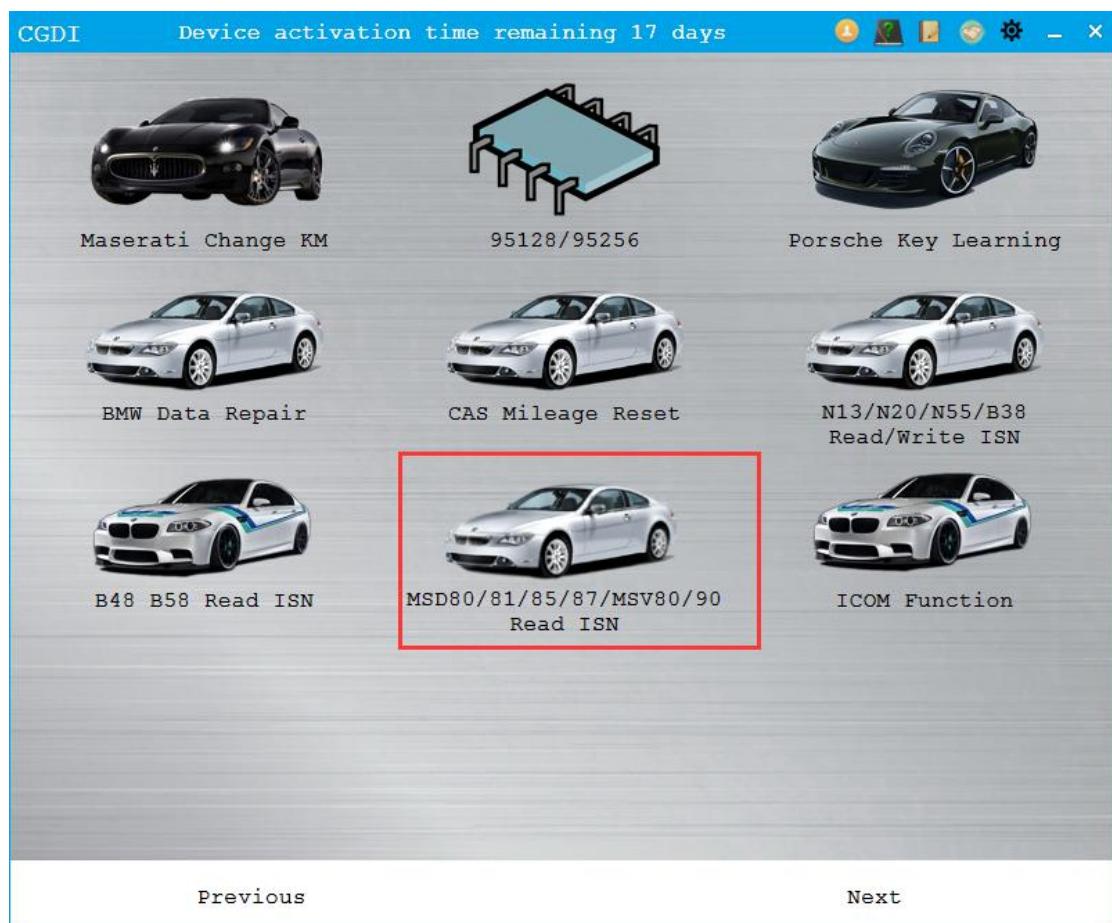
Read and write ISN, click "write ISN" button will read backup data first.



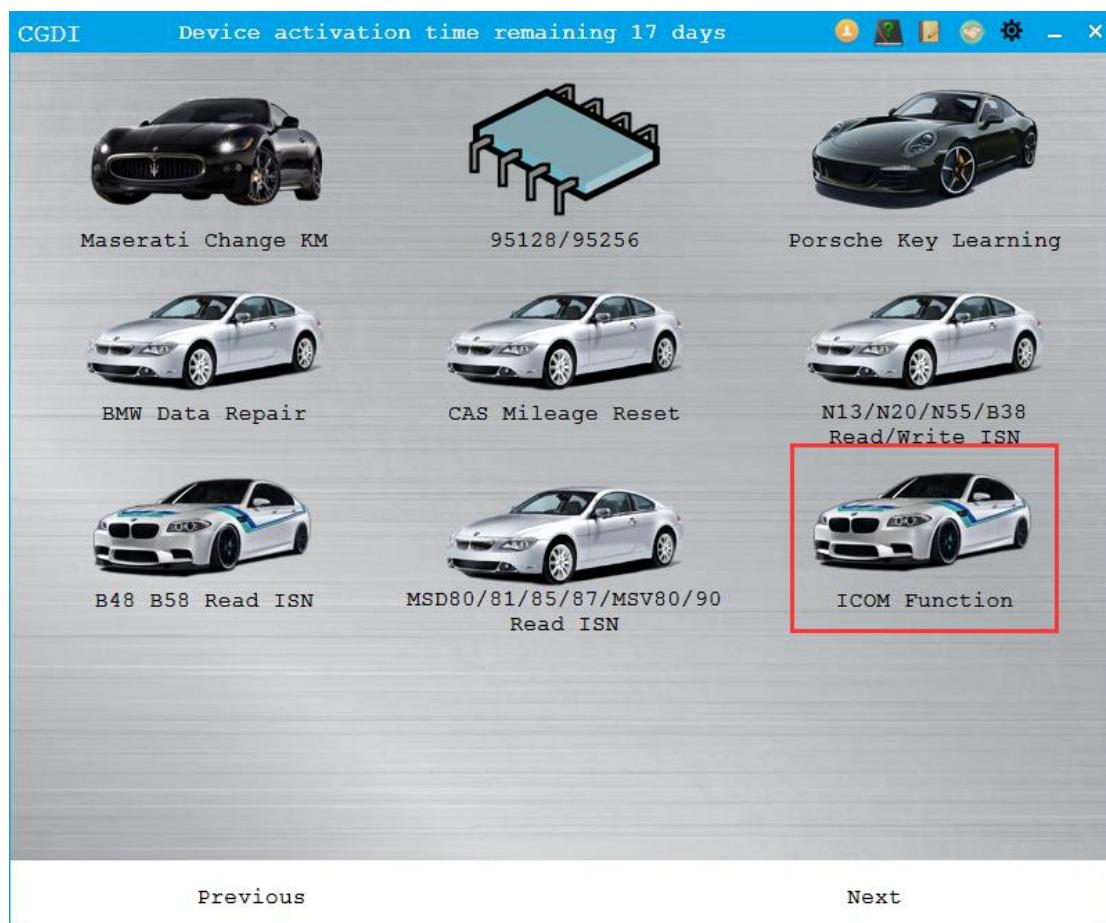
21. B48 B58 Read ISN



22. MSD80/81/85/87 MSV80/90 read ISN



23. ICOM Function



Please operate as instructions showed.

