

# BMW Multi Tool User Manual

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# 1. Safety Precautions and Warnings

**To prevent personal injury or damage to vehicles and/or the tool, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:**

- Always perform automotive testing in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well ventilated work area: Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
- Don't connect or disconnect any test equipment while the ignition is on or the engine is running.
- Keep the tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool, when necessary.

## 2. General Information

**Thank you for choosing BMW Multi Tool.**

This manual includes the use of equipment notes, please read this manual carefully before use so that you can correctly use it.

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No patent liability is assumed with respect to the use of the information contained herein. Moreover, because we is constantly striving to improve its high-quality products, the information contained in this manual is subject to change without notice. Every precaution has been taken in the preparation of this manual. Nevertheless, we assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained in this publication.

## 3. Hardware Overview

### 3.1. Tool Description



ITEM	Description
<b>1</b>	<b>OBD II CONNECTOR</b> Connects the tool to the vehicle's Data Link connector (DLC).
<b>2</b>	<b>Dongle</b> USB dongle.
<b>3</b>	<b>USB CONNECTOR</b> Connects the tool to the PC/Laptop through USB Cable.
<b>4</b>	<b>Programmer</b> Program keys.
<b>5</b>	<b>Programmer Female Pin</b> Connects programmer to device.
<b>6</b>	<b>Programmer Male Pin</b> Connects programmer to device.

### 3.2. Specifications

<b>ITEM</b>	<b>Description</b>		
<b>Operating Temperature</b>	-20 to 70 °C ( -4 to 158 °F )		
<b>Storage Temperature</b>	-40 to 85 °C ( -40 to 185 °F )		
<b>Diagnostic Interface</b>	16 PIN		
<b>USB Interface</b>	USB 2.0		
<b>Power</b>	DC 5 V - 12 V		
<b>Consumption</b>	1 W		
<b>Dimensions</b>	<b>Length</b> 95 mm(3.74")	<b>Width</b> 49 mm(1.93")	<b>Height</b> 28 mm(1.10")
<b>Net Weight</b>	85 g		
<b>Gross Weight</b>	223 g		

### 3.3. System Requirements

#### PC/Laptop Minimum Specification

	Minimum Specification	Recommended Specification
<b>CPU</b>	Pentium 3/1GHz or above	Pentium 4/1.6GHz or above
<b>Memory(RAM)</b>	512M or above	1G or above
<b>HDD</b>	40G or above	60G or above
<b>Display</b>	800 x 600 or above	1024 x 768 or above
<b>OS</b>	Win98/2000/XP/Vista	WinXP
<b>Port</b>	USB	USB

## 4. Software Overview

### 4.1. Overview

BMW Multi Tool includes forth parts, hardware device, dongle, programmer, software (CAS Plug and CAS4 antenna need pay extra) . Before running software you must connect dongle and hardware device to computer.

BMW Multi Tool Support Table			○	●	Not Support
System	Function	OBDII	CAS PLUG	Support	EEPROM Dump
EWS1	Change KE	○	○	○	○
	IMMO	○	○	●	●
EWS2	Change KE	○	○	○	○
	IMMO	○	○	●	●
EWS3	Change KE	○	●	●	●
	IMMO	○	●	●	●
EWS4	Change KE	○	●	●	●
	IMMO	○	●	●	●
CAS1(OK50E) (7 Series)	Change KE	●	●	●	●
	IMMO	●	●	●	●
CAS2(2K79X) (7 Series)	Change KE	○	●	●	●
	IMMO	○	●	●	●
CAS2(2K79X) (White box)	Change KE	○	●	●	●
	IMMO	●	●	●	●
CAS3(0L01Y)	Change KE	○	●	●	●
	IMMO	●	●	●	●
CAS3+(0L15Y) (no encrypt)	Change KE	●	●	●	●
	IMMO	●	●	●	●
CAS3+(0L15Y) (encrypt)	Change KE	●	●	●	●
	IMMO	●	○	●	●
CAS4	Change KE	○	○	●	●
	IMMO	○	○	●	●

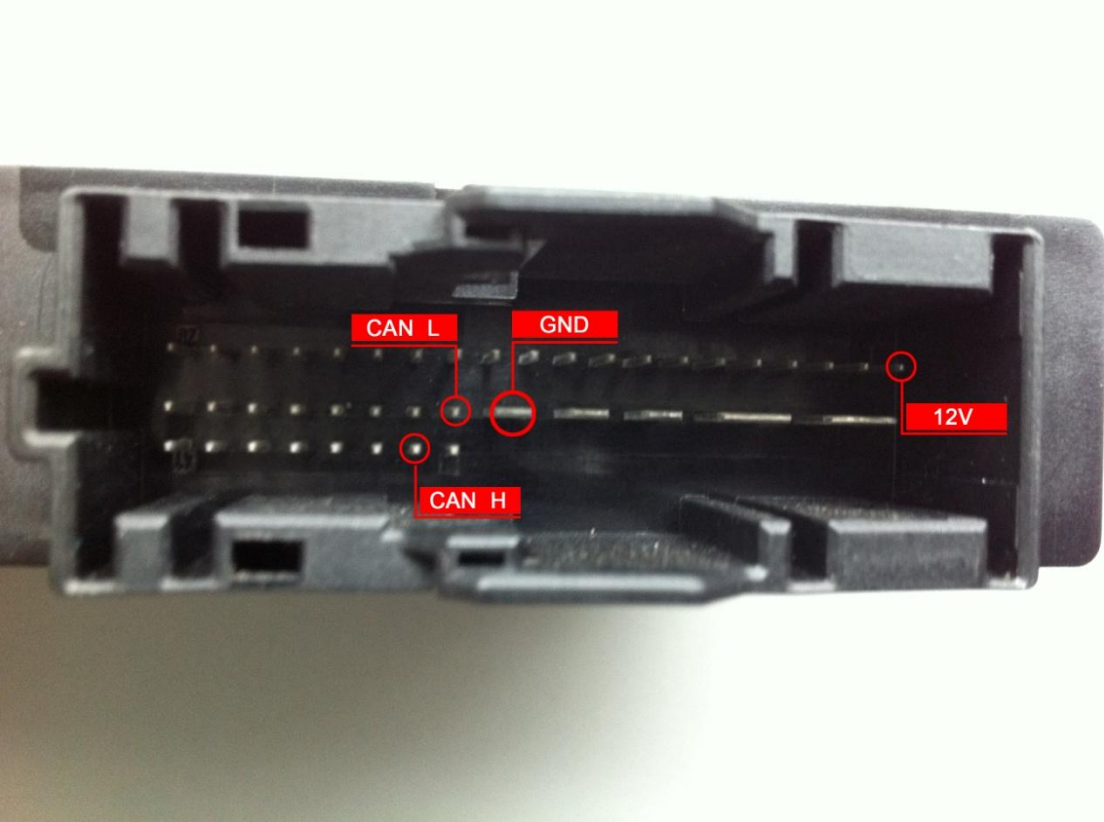
1. OBD II: BMW Multi Tool connects to car directly.
2. CAS PLUG: Connect CAN line manually, support 12V. Detail method followed in next page.
3. Support EEPROM dump: get EEPROM dump with programmer.



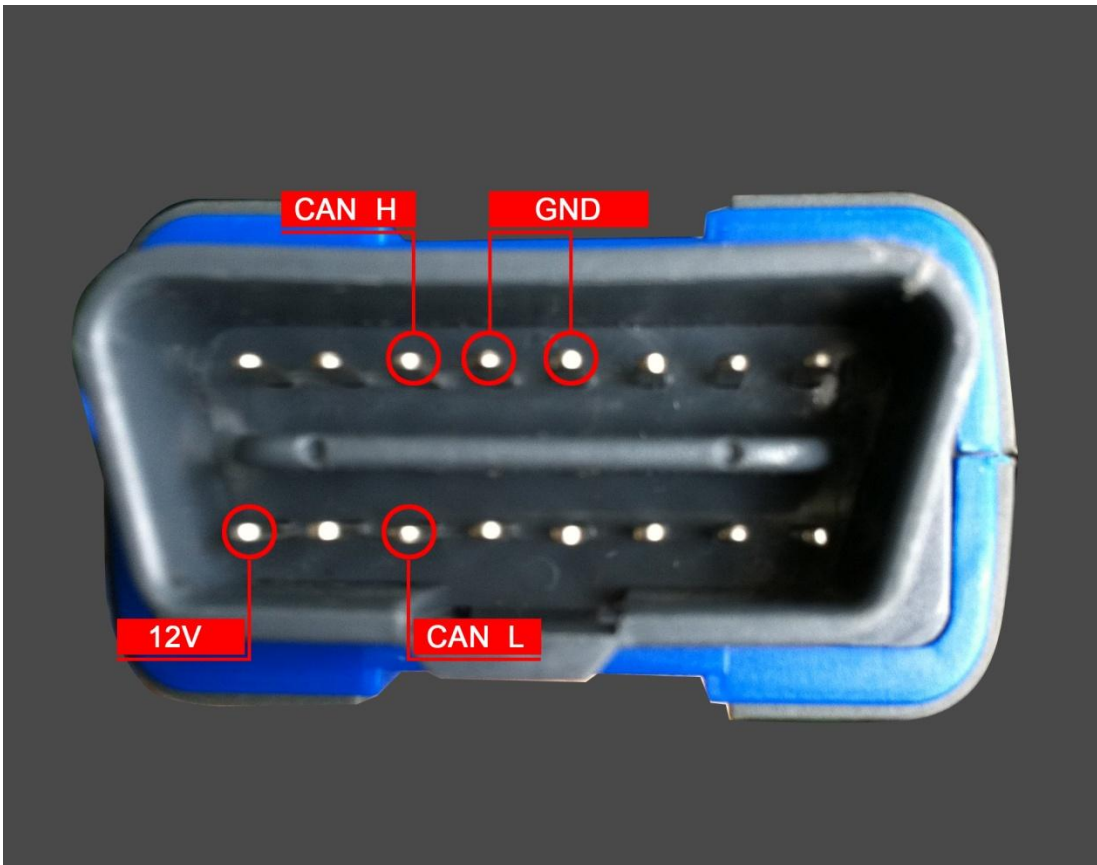
1. 7 Series CAS1/CAS2 pin method:



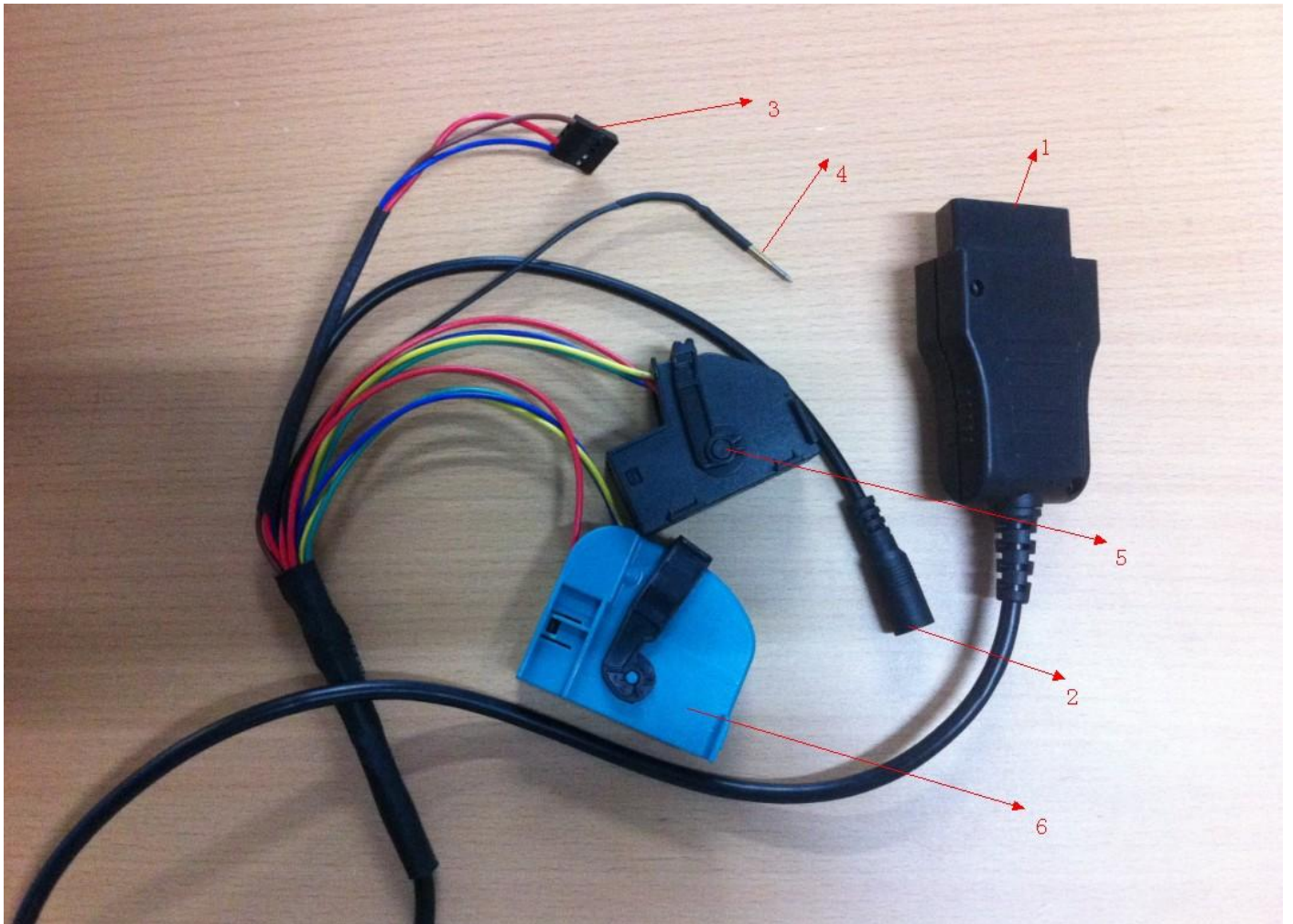
2. CAS2(White Box)/CAS3/CAS3+ pin method:



3. Device pin method:

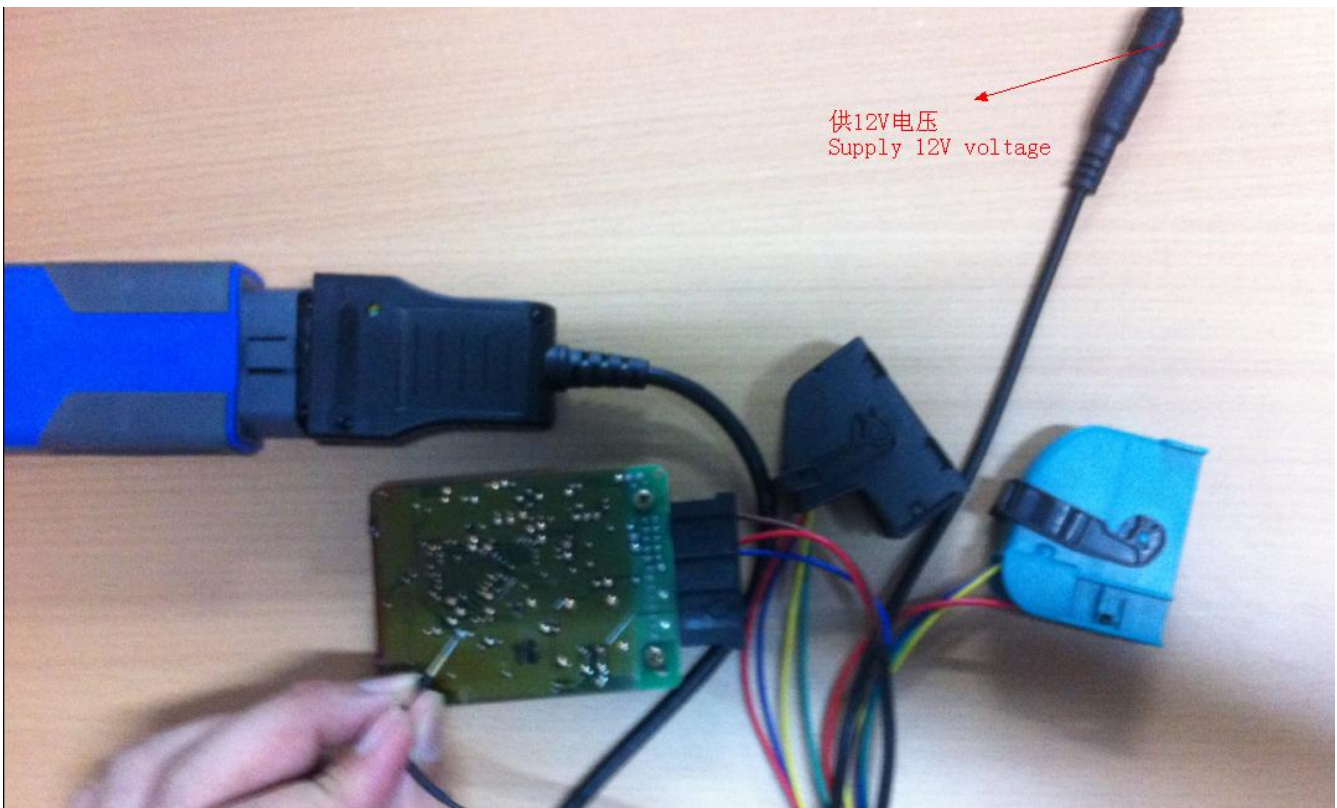
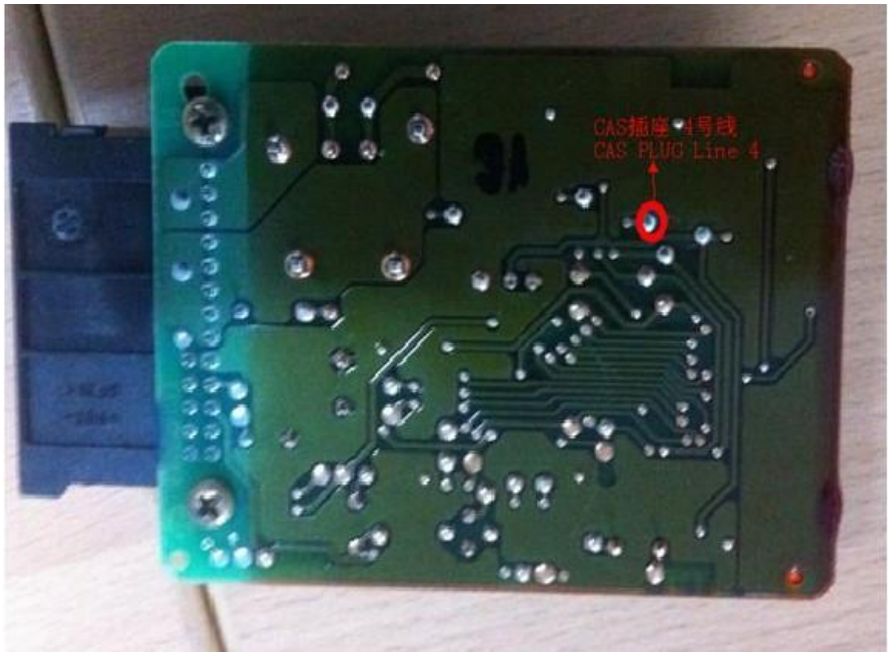


**4. CAS PLUG(Non-standard accessories sold separately):**

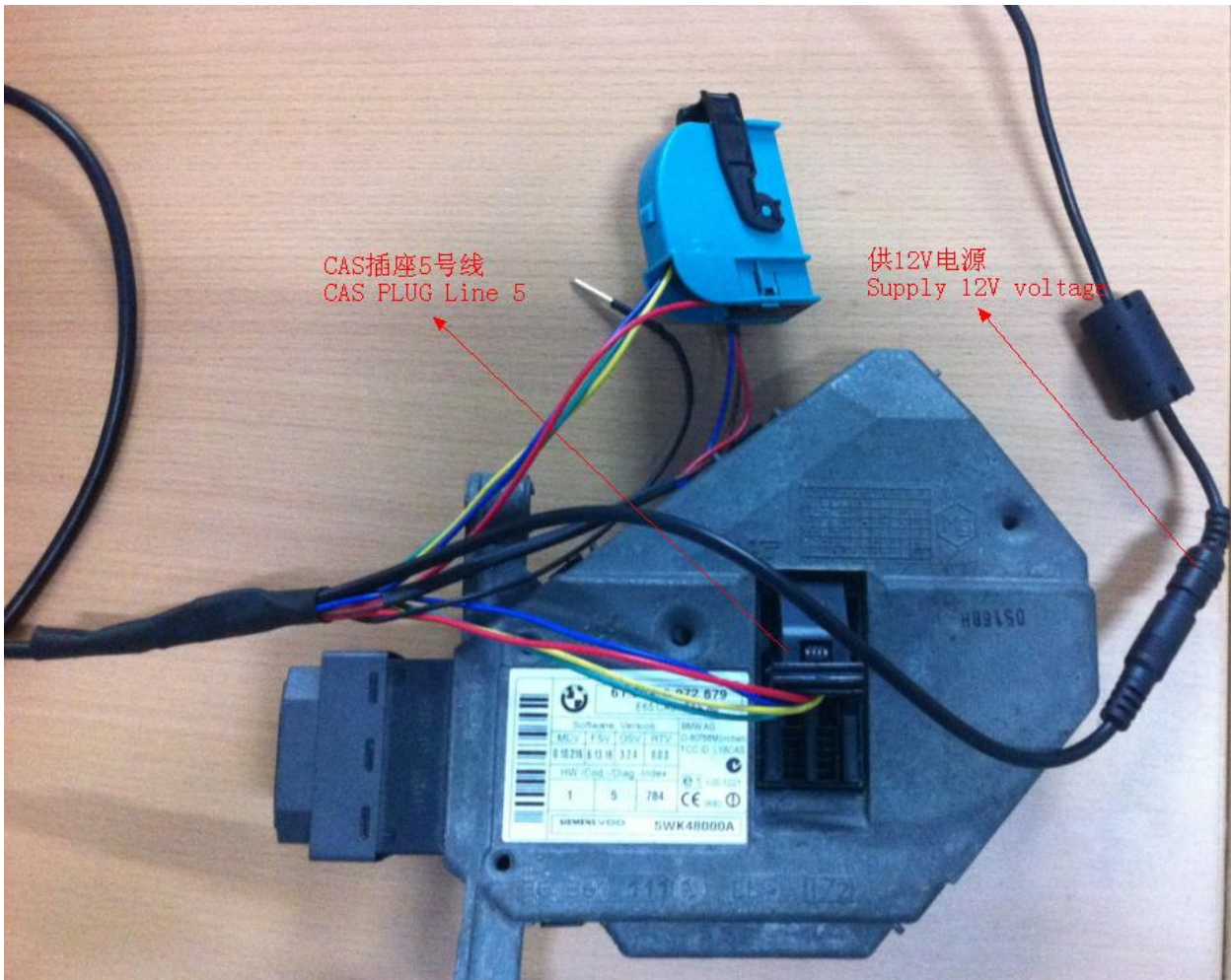


1. Connect to device OBDII.
2. Supply 12V voltage
3. EWS OBD Line
4. EWS OBD Line 2
5. 7 Series CAS1/CAS2 plug
6. CAS3/CAS3+ plug

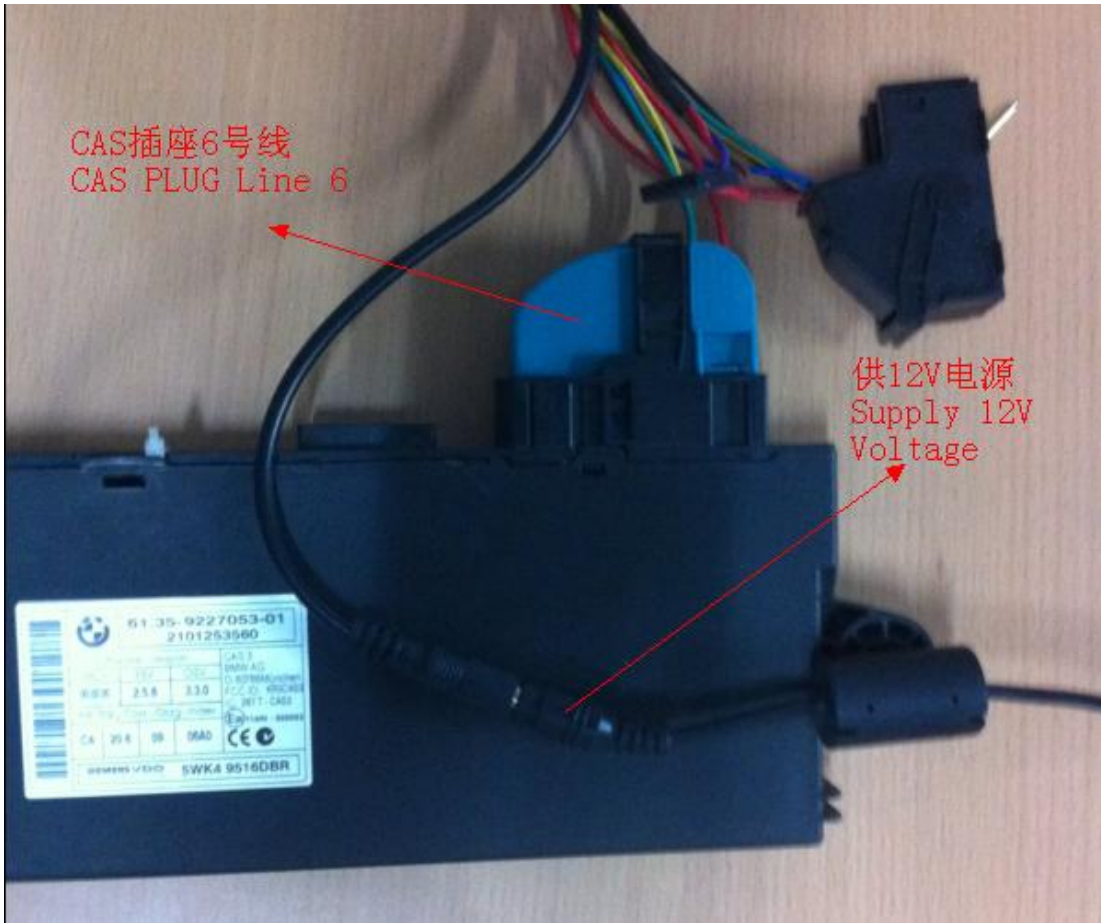
5. How to connect EWS with CAS PLUG



6. How to connect 7 Series CAS1/CAS2 with CAS PLUG

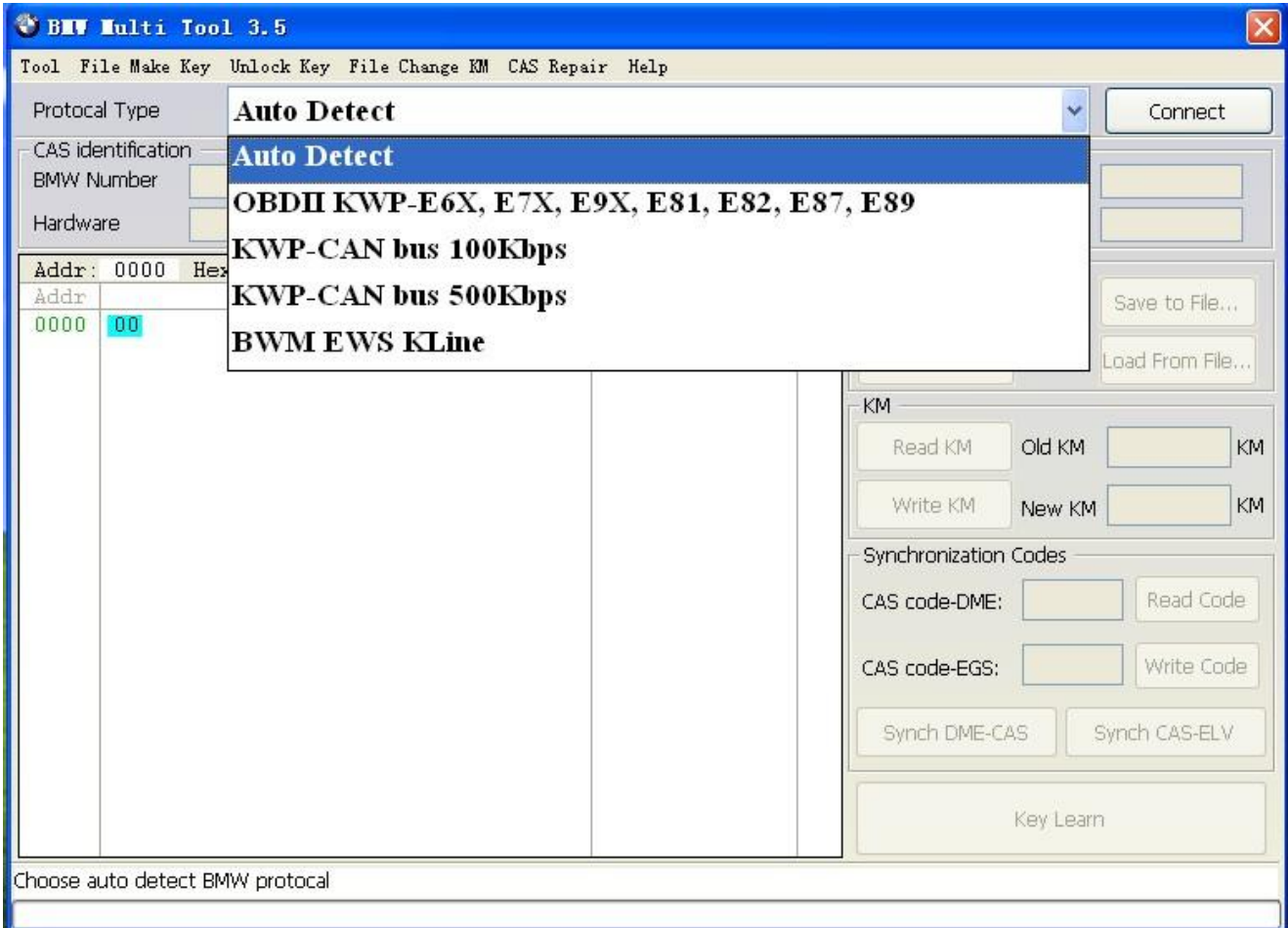


7. How to connect CAS3/CAS3+ with CAS PLUG



## 4.2. Function

Main window follows:



### i. Menu

**Tool:** you can choose language here, support “English” , “Chinese Simplified” , “German”, “Italian”, “Spanish” and “Hungarian”. Restart software to apply your settings.

**File Make Key:** Prepare dealer key with EWS and CAS EEPROM (**support CAS4 encrypt version**).

**Help:** Device update. You can get your device and dongle id version and update it.

**Unlock Key:** Key make by this software can be unlocked with the original EEPROM dump or key file (**Don't support CAS4 key**).

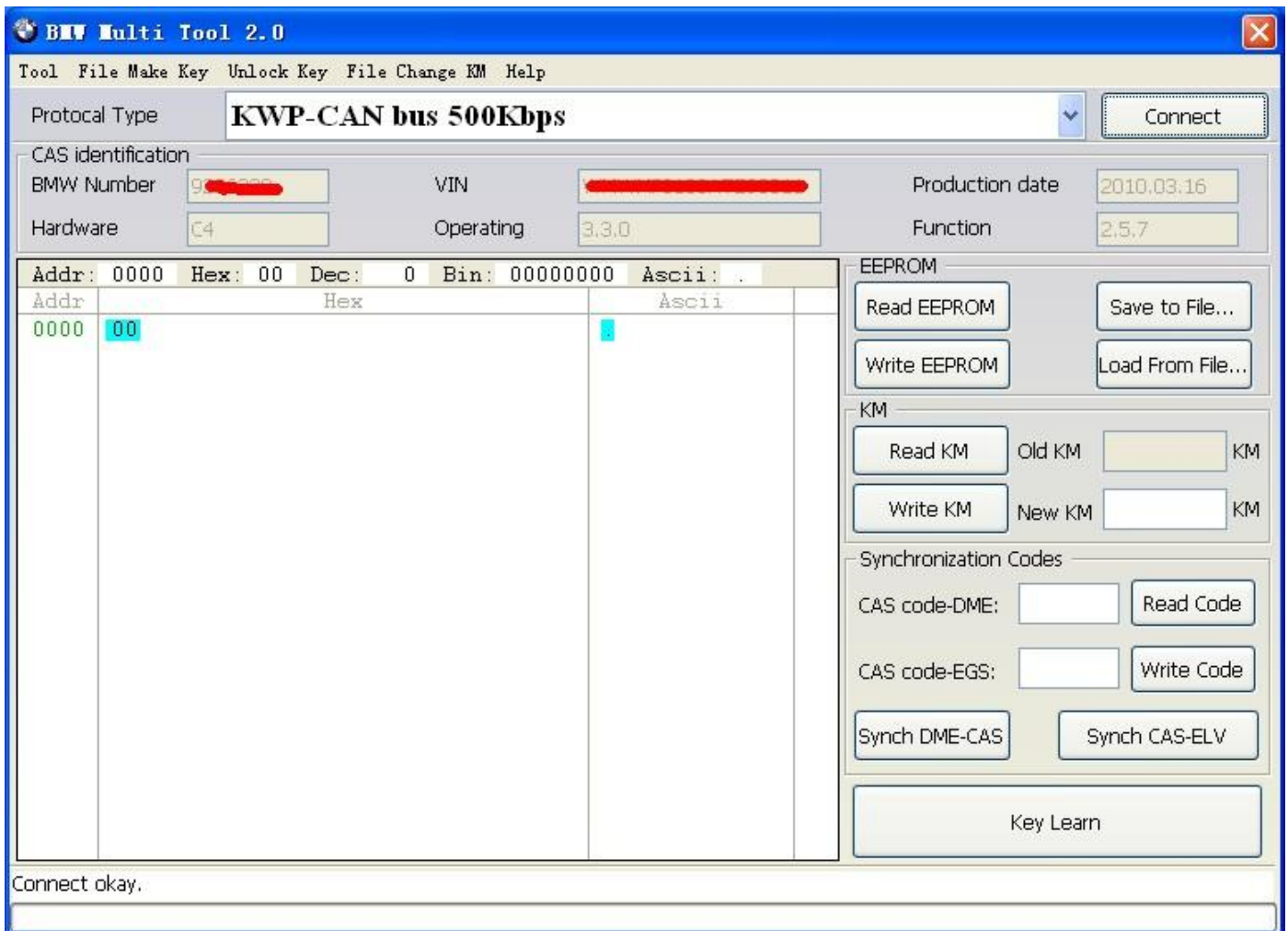
**File Change KM:** KM stored in CAS EEPROM and instrument dashboard (M35080) can be changed here.

**CAS Repair:** Repair CAS1(OBDII) soft repair/ ISTA-P4\* update flash repair.

**Help:** Update device, you can get newest software version and firmware version. Also update it to newest one.

ii. Protocol type:

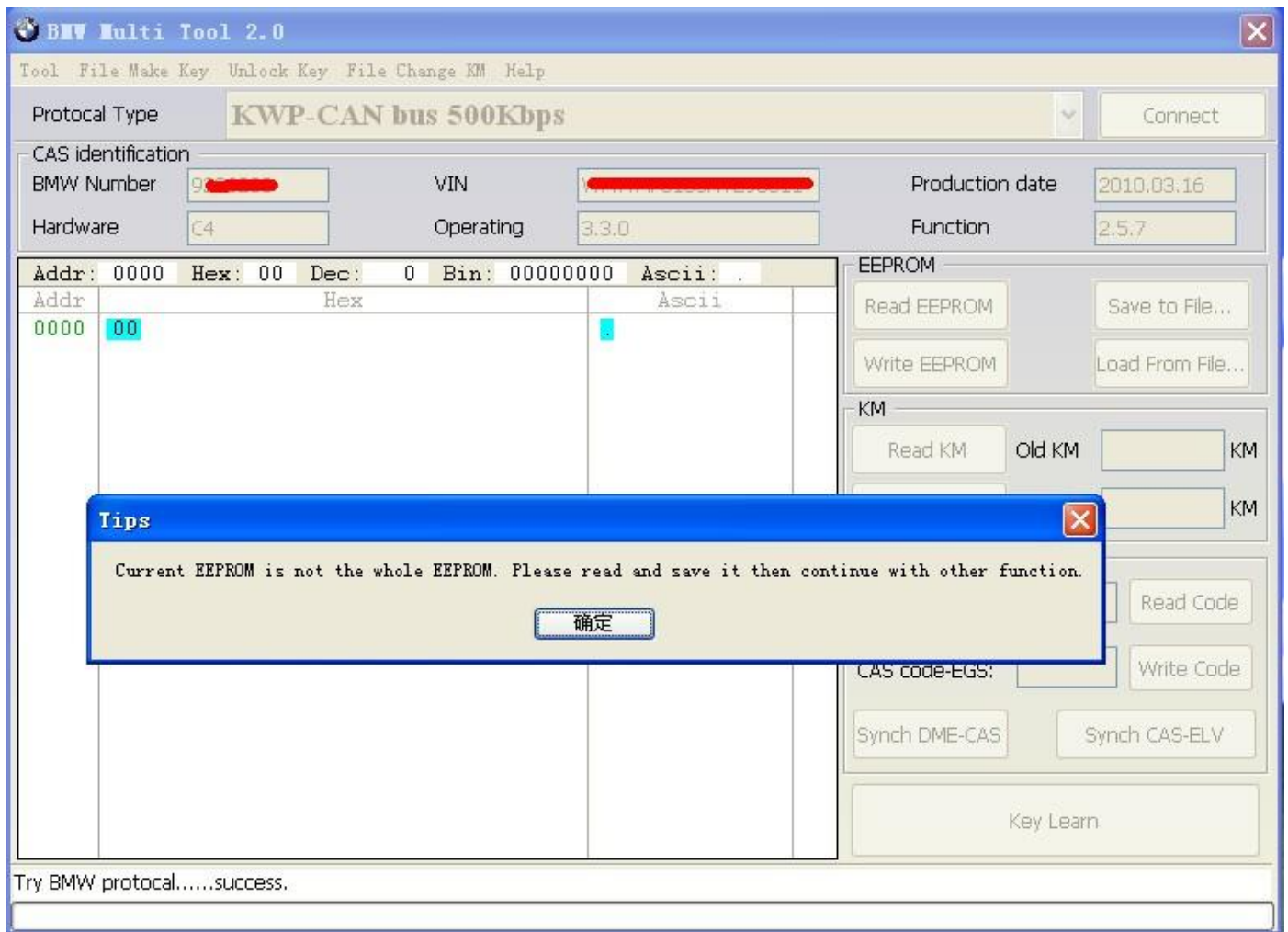
Now BMT support there type of protocol: KWP-CAN BUS 100Kbps, KWP-CAN BUS 500Kbps, KWP-2000. “Auto Detect” function can help you to choose the right protocol. After choose protocol okay, then press “Connect”. If connected success. All CAS info will display in CAS Identification. Include CAS number, VIN, production date, etc. see the picture follows:



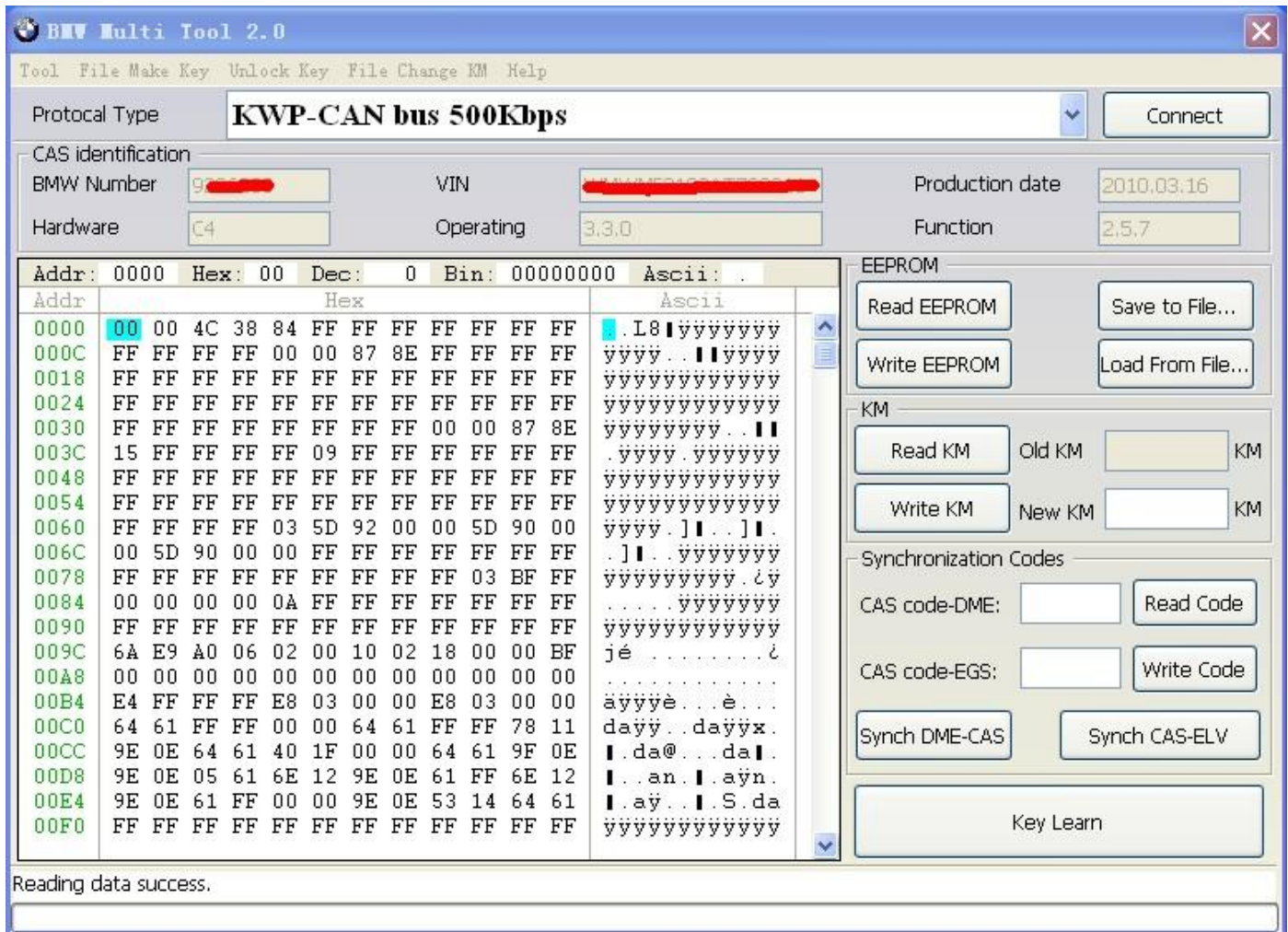


iii. EEPROM Function: Read EEPROM, Write EEPROM, Save File, Load File...

1. You should backup the CAS EEPROM before prepare dealer key. After succeed read EEPROM, please save it as back file. This step is very important. (For some part CAS system, Read EEPROM is not supported, you can go to Key Learn directly)
2. Now can't read the whole EEPROM for CAS3(0L15Y) system. But the main section is contained. It should be saved. When you read CAS EEPROM, it will give tips as follow(Press ok to continue):



3. After success read it, you will get:



4. Write EEPROM function is only support CAS1, CAS2 , CAS3(0L01Y)system. Doesn't support write to CAS3(0L15Y) system. **(Write EEPROM to CAS2/CAS3(0L01Y) system need CAS PLUG).**

- iv. **Odometer: Support read and change KM stored in CAS system. Don't support to change KM in instrument. If you want to change the KM display in instrument. You should remove dashboard from car and change the KM in it first. Before replace the dashboard to car, you should change KM in CAS system. Read KM :**

The screenshot shows the BMW Multi Tool 2.0 interface. The 'Protocol Type' is set to 'KWP-CAN bus 500Kbps'. The 'CAS identification' section shows the following details:

- BMW Number: [Redacted]
- VIN: [Redacted]
- Production date: 2010.03.16
- Hardware: C4
- Operating: 3.3.0
- Function: 2.5.7

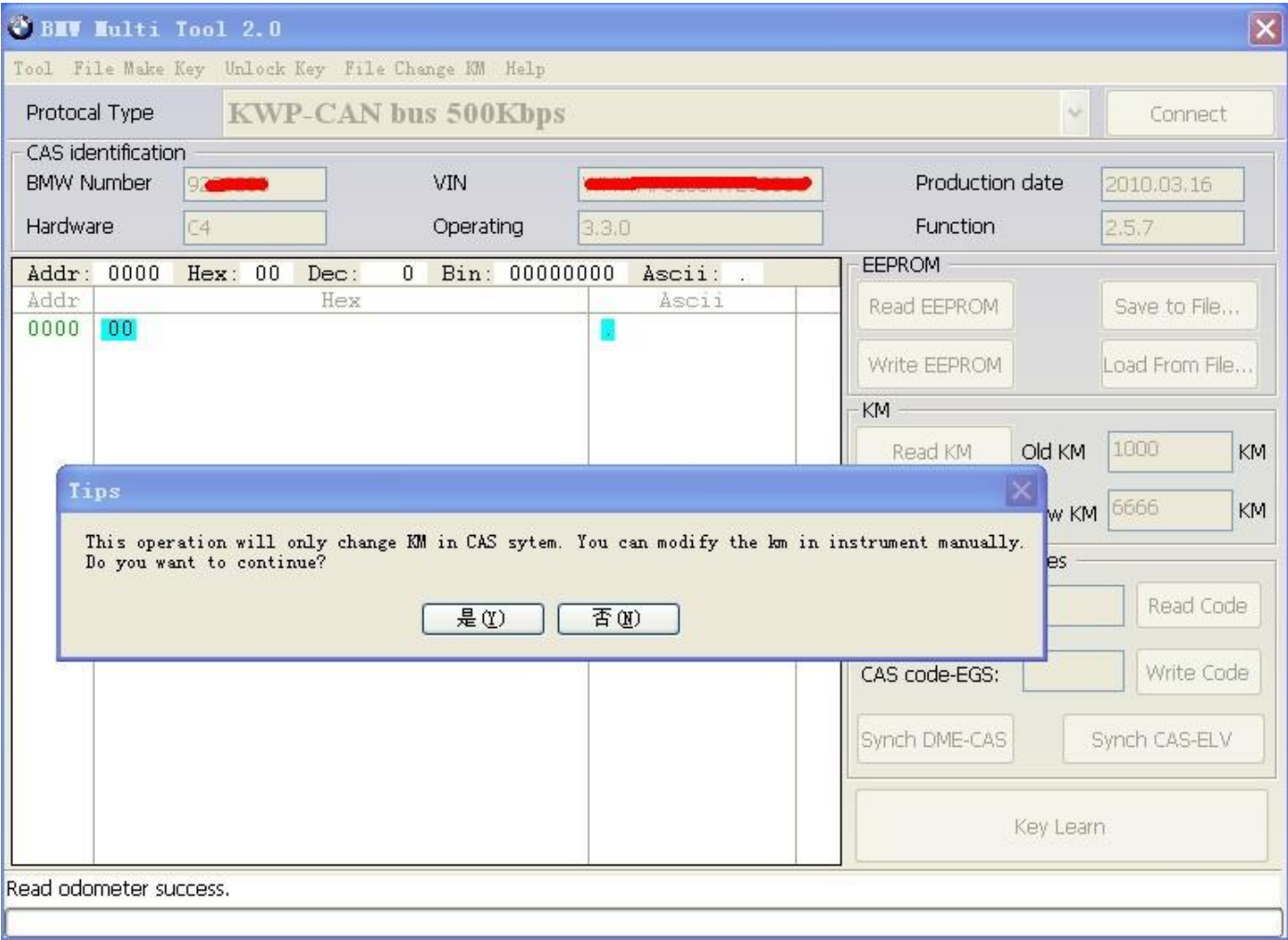
The main data area displays a hex dump of EEPROM data. The address 0090 is highlighted in blue. The data at this address is FF FF FF FF FF FF FF FF FF FF FF FF.

Addr	Hex	Ascii
0000	00 00 4C 38 84 FF FF FF FF FF FF	..L8 yyyyyyyy
000C	FF FF FF FF 00 00 87 8E FF FF FF FF	yyyy..  yyyy
0018	FF FF FF FF FF FF FF FF FF FF FF	yyyyyyyyyyyy
0024	FF FF FF FF FF FF FF FF FF FF FF	yyyyyyyyyyyy
0030	FF FF FF FF FF FF FF FF 00 00 87 8E	yyyyyyyy..
003C	15 FF FF FF FF 09 FF FF FF FF FF FF	.yyyy.yyyyyy
0048	FF FF FF FF FF FF FF FF FF FF FF	yyyyyyyyyyyy
0054	FF FF FF FF FF FF FF FF FF FF FF	yyyyyyyyyyyy
0060	FF FF FF FF 03 5D 92 00 00 5D 90 00	yyyy.] .]. .
006C	00 5D 90 00 00 FF FF FF FF FF FF	.] . .yyyyyy
0078	FF FF FF FF FF FF FF FF FF 03 BF FF	yyyyyyyy..ly
0084	00 00 00 00 0A FF FF FF FF FF FF	... .yyyyyy
0090	FF FF FF FF FF FF FF FF FF FF FF	yyyyyyyyyyyy
009C	6A E9 A0 06 02 00 10 02 18 00 00 BF	jé .....é
00A8	00 00 00 00 00 00 00 00 00 00 00	.....
00B4	E4 FF FF FF E8 03 00 00 E8 03 00 00	äyyè...è...
00C0	64 61 FF FF 00 00 64 61 FF FF 78 11	dayy..dayyx.
00CC	9E 0E 64 61 40 1F 00 00 64 61 9F 0E	!.da@...da!.
00D8	9E 0E 05 61 6E 12 9E 0E 61 FF 6E 12	!.an!.ayn.
00E4	9E 0E 61 FF 00 00 9E 0E 53 14 64 61	!.ay...!.S.da
00F0	FF FF FF FF FF FF FF FF FF FF FF	yyyyyyyyyyyy

On the right side of the interface, there are controls for EEPROM and KM. The 'EEPROM' section includes 'Read EEPROM', 'Write EEPROM', 'Save to File...', and 'Load From File...' buttons. The 'KM' section includes 'Read KM' and 'Write KM' buttons, with 'Old KM' set to 1000 and 'New KM' set to an empty field. Below this are 'Synchronization Codes' for 'CAS code-DME' and 'CAS code-EGS', each with a 'Read Code' and 'Write Code' button. At the bottom right, there are 'Synch DME-CAS' and 'Synch CAS-ELV' buttons, and a 'Key Learn' button.

At the bottom of the window, a status bar displays the message: "Read odometer success."

When you try to write KM to CAS system, you will get the following tips: Press OK to continue.



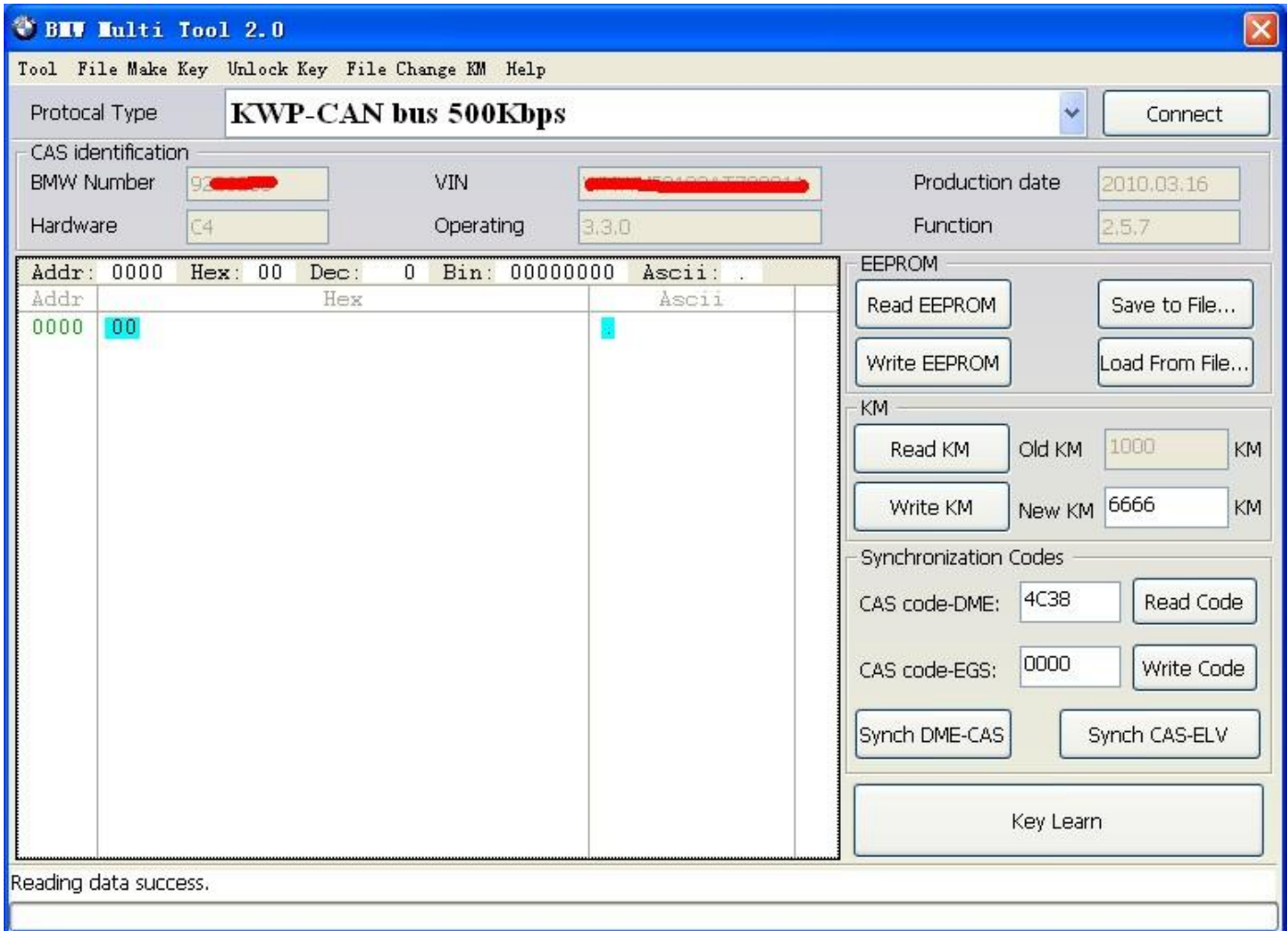
The screenshot shows the BMW Multi Tool 2.0 interface. At the top, the title bar reads "BMW Multi Tool 2.0". Below it is a menu bar with "Tool", "File", "Make Key", "Unlock Key", "File Change KM", and "Help". The main window is divided into several sections:

- Protocol Type:** A dropdown menu is set to "KWP-CAN bus 500Kbps". A "Connect" button is to its right.
- CAS identification:** Fields for "BMW Number" (redacted), "VIN" (redacted), "Production date" (2010.03.16), "Hardware" (C4), "Operating" (3.3.0), and "Function" (2.5.7).
- EEPROM:** A table with columns "Addr", "Hex", "Dec", "Bin", and "Ascii". The first row shows "0000" in hex, "00" in dec, and "0" in bin. To the right are buttons for "Read EEPROM", "Write EEPROM", "Save to File...", and "Load From File...".
- KM:** Fields for "Old KM" (1000) and "New KM" (6666). Buttons for "Read KM" and "Write KM" are present.
- Synchronization Codes:** Fields for "CAS code-DME" and "CAS code-EGS", with "Read Code" and "Write Code" buttons. There are also "Synch DME-CAS" and "Synch CAS-ELV" buttons.
- Key Learn:** A large button at the bottom right.

At the bottom of the window, a status bar displays the message "Writing data success."

v. Synchronization Codes:

- 1、CAS3 code-DME 、CAS3code-EGS: Read and write DME and EGS code stored in CAS3 system.
- 2、Synchronize DME and CAS— this function will be useful while prepare dealer key or any other operation which cause can't start the engine.
- 3、Synchronize CAS and ELV — this function can help clear wheel errors.
- 4、Once lost all working key, please don't run this function.



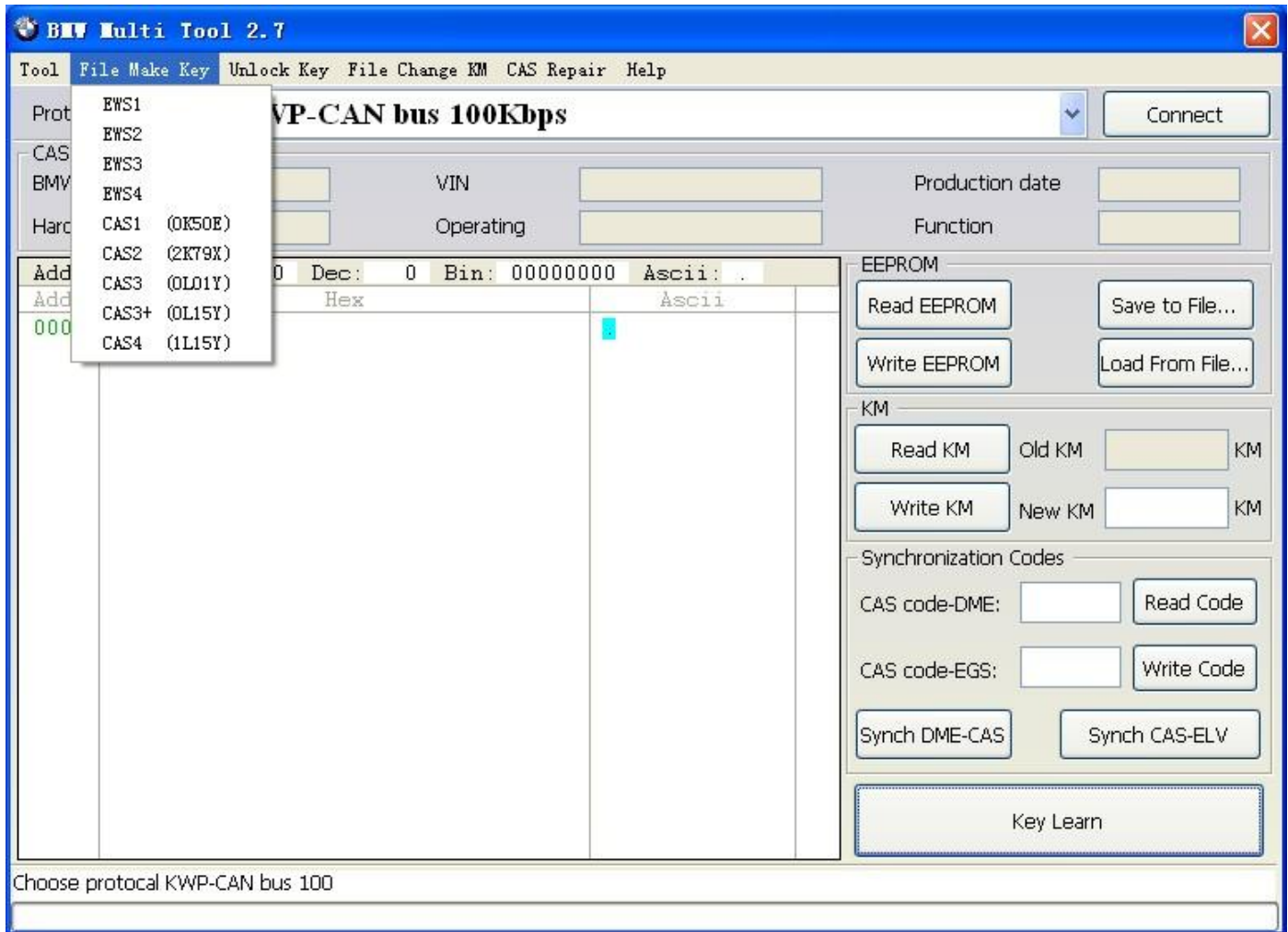
vi. Key Learn

**Function introduction:**

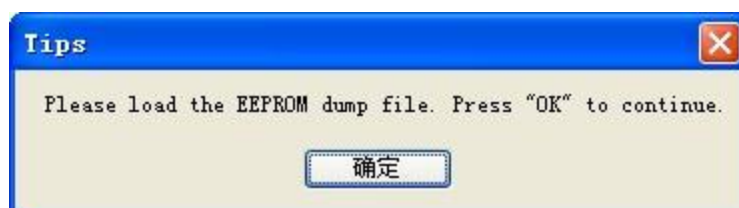
1. **Get Key Info:** With this function you can get the key cutting, remote frequency, and key data.
2. **Save Key Info:** Save the read key info.
3. **Load Key Info:** Load the saved key info. To see the key data and prepare for write key info.
4. **Write Key Info:** Write the loaded key info into CAS system.
5. **Prepare dealer key with programmer:** You can prepare dealer key with tag programmer after you get key info successfully. Also you should choose the key position.
6. **Add key:** Add the new dealer key into CAS system. Some CAS system needs this step to start the engine.
7. **Program Key Info:** This function will allow modify every item key info and update it to car (For advanced user).
8. **Prepare dealer key with ignition switch:** You can prepare dealer key with ignition switch after read key info successfully.
9. **Repair Keyless Key:** Sometimes the keyless key will don't have keyless. Just run this function to repair the keyless function.

10. **Enable Key:** Insert a working key, choose the key position which you want to disable. The key position can't be same with the key in ignition.
11. **Disable Key:** Insert a working key, choose the key position which you want to enable. The key position can't be same with the key in ignition.
12. **Clear DTC:** Before prepare dealer key and after it you can use this function to clear DTC.
13. **Clear Shadow:** Before prepare dealer key and after it you can use this function to clear Shadow.

vii. File Make Key



1. Choose CAS or EWS type. It will tips you:





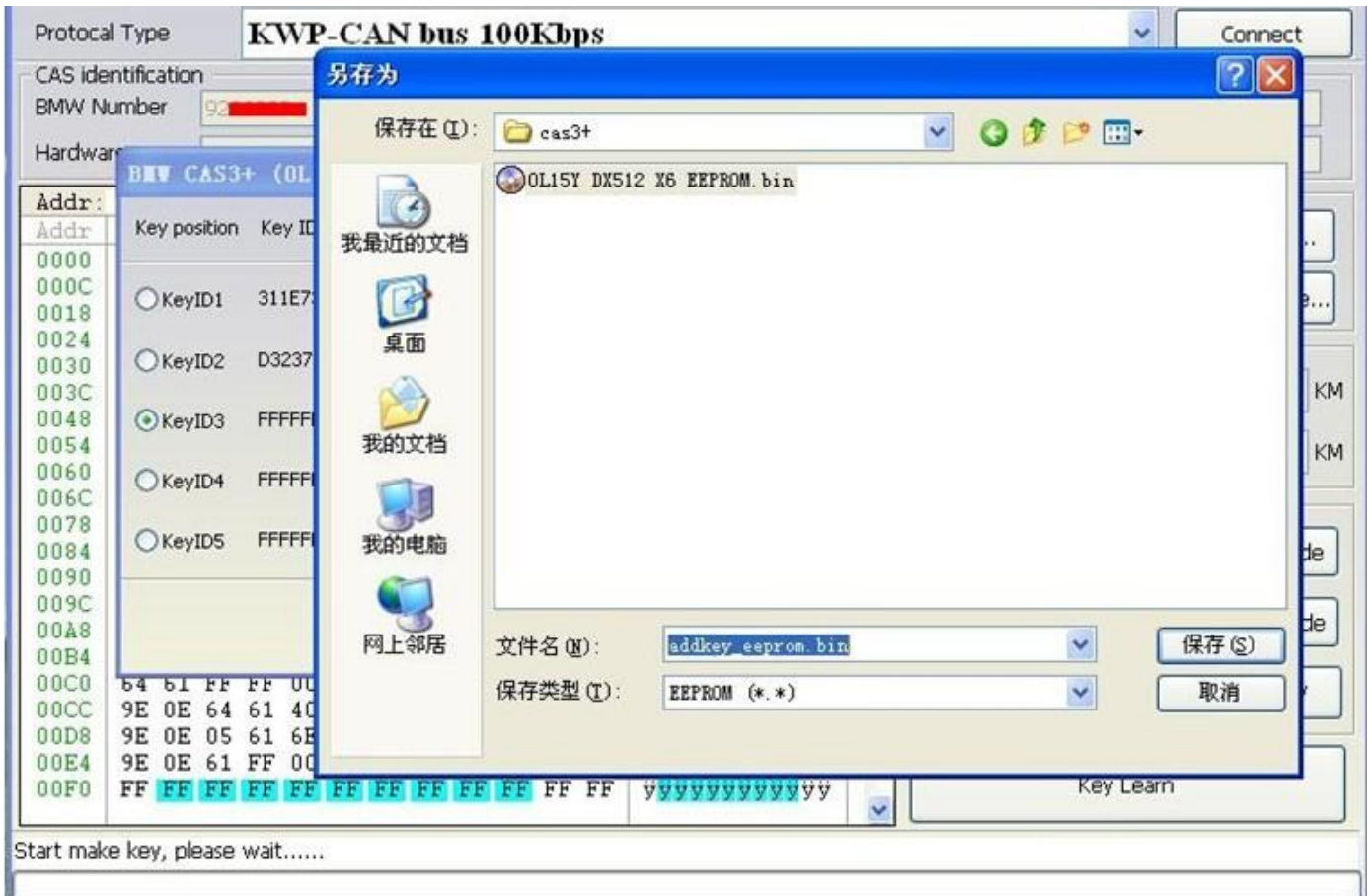
2. Load the choose EEPROM file you will get the make dealer key window:



3. Choose key position and press “Make Dealer Key” button. Flow the given tips to prepare dealer key. After succeed you can save the new EEPROM dump file.

For EWS1, EWS2, EWS3, EWS4, CAS1, CAS2, CAS3 type the prepared dealer key can start the engine directly.

For some CA3+ type you need to write back the new dump file into car. (Don't write EEPROM dump back to car for ISTAP45/46/47 version)



#### 4. CAS3 encrypt type, only can prepare dealer key with a working key data.

#### 5. How to prepare CAS4 dealer key:

- Read CAS4 EEPROM dump with other BDM programmer.
- Connect CAS4 antenna (need pay extra) to BMW Multi Tool. Support 12V extra power to CAS4 antenna.
- Run software and choose "File Make Key"->CAS4, load CAS4 EEPROM dump according to your car type. It shows you all the key info. Choose position where you want to place the key, put a new CAS4 key into CAS4 antenna. Press OK to continue
- Prepare dealer key for CAS4 needs about 2 minutes. The windows maybe false dead. Just wait for it complete.
- After you get the dealer key. It doesn't need write back the EEPROM dump, just insert the key to car ignition.
- Warning: You must choose the right type to load EEPROM dump. The dealer key maybe not start engine if the car isn't belong to our support type. Our support type now: Series 1 F20 (2011-), Series 5 F10/F11 (2010-), Series 5 GT F07(2010-), Series 6 F12/F13 (2011-), Series 7 F0x (2008-), Series X1 (2010-), Series X3 F25 (2011-), XEP100 MCU(5M48H mask) etc.
- Warning: For CAS4 encrypt version need Condor Automatic Key Cutting Machine authorize and update newest firmware. Add key for CAS4 encrypt version need working key support. Lost all key for CAS4 encrypt version need ECU dump file or

**known ISN.**

CAS4+ encrypt detected. Need working key or DME/DDE dump or ISN...

Have a working key. Insert working key to CAS4 programmer and continue.

Have ECU dump file. Continue will load ECU dump file

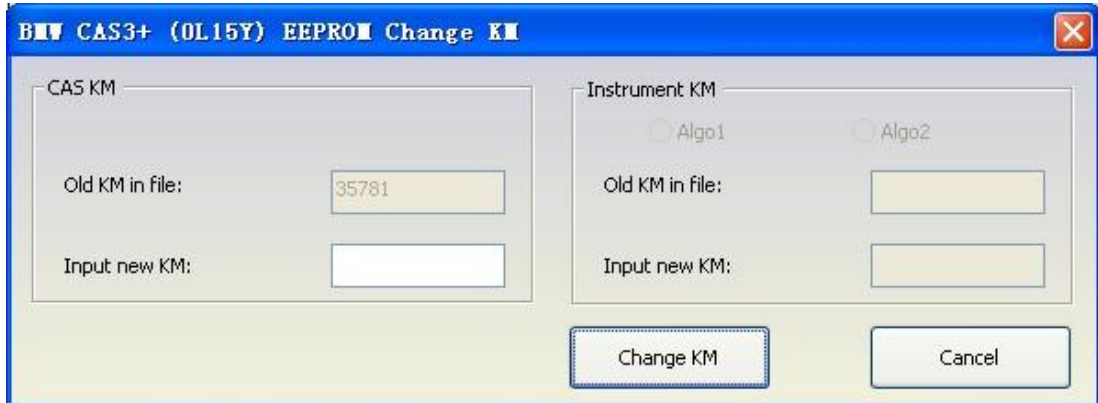
Known ISN

Cancel

NEXT

viii. File Change KM

Load EWS/CAS/Dashboard EEPROM file, you can get the old KM from EEPROM, after write new KM, save the new file. Then flash the new file to device. For M35080 chipset used in dashboard it has 2 methods to generate new KM. taker care for it.



ix. CAS Repair

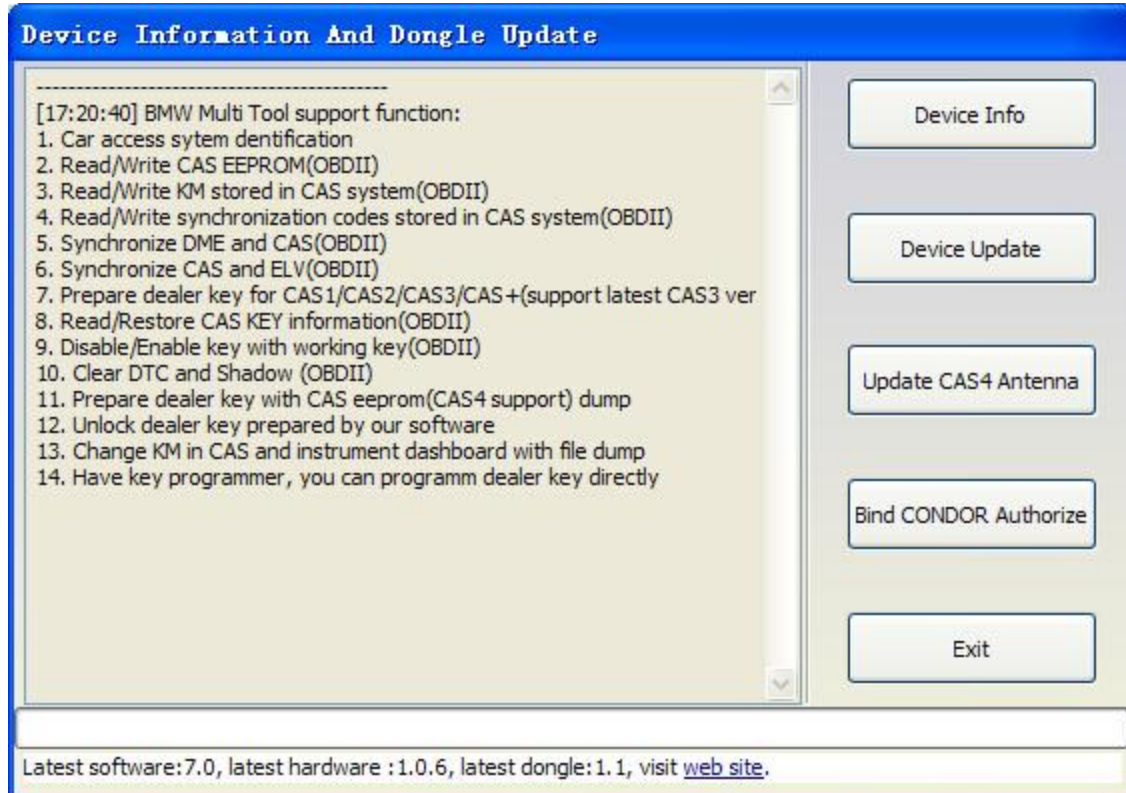
**CAS1 (0K50E) OBDII Repair:** If interrupt while read CAS1 EEPROM, cause CAS1 doesn't work, you can repair it.

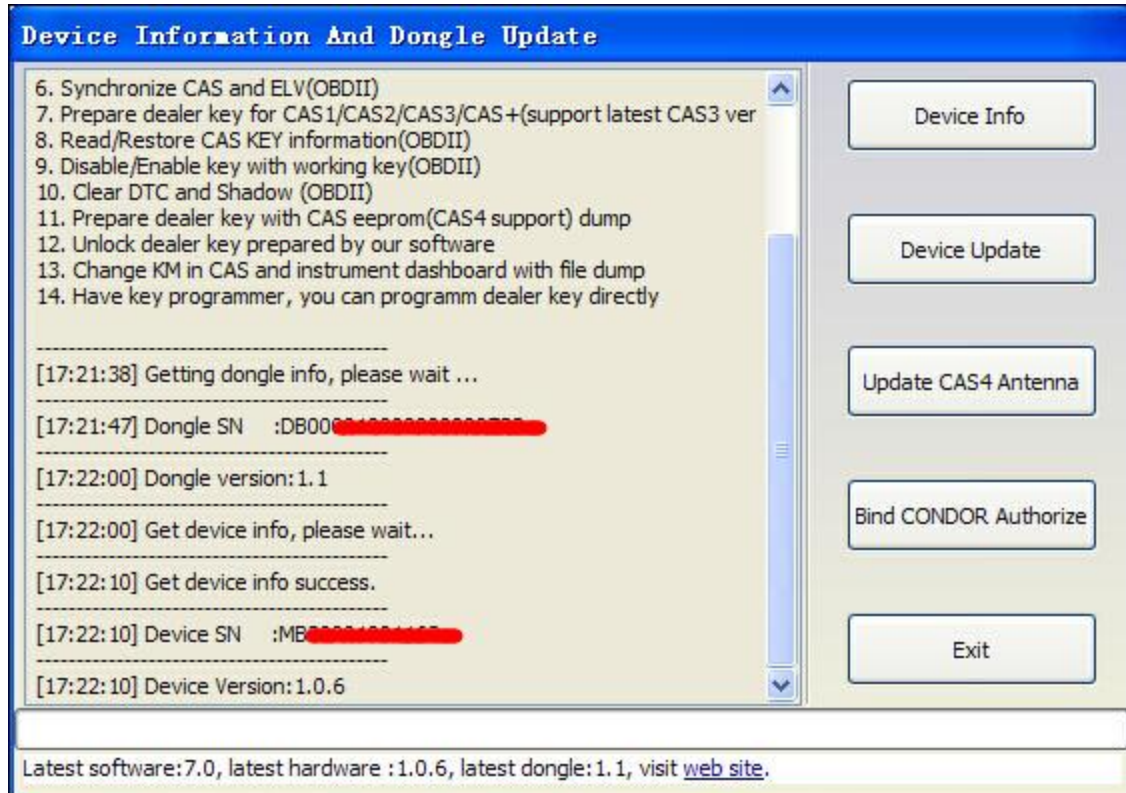
**ISTA-P 45 OBDII repair:** If interrupt while update ISTA-P 45 progress. You can repair it from here.



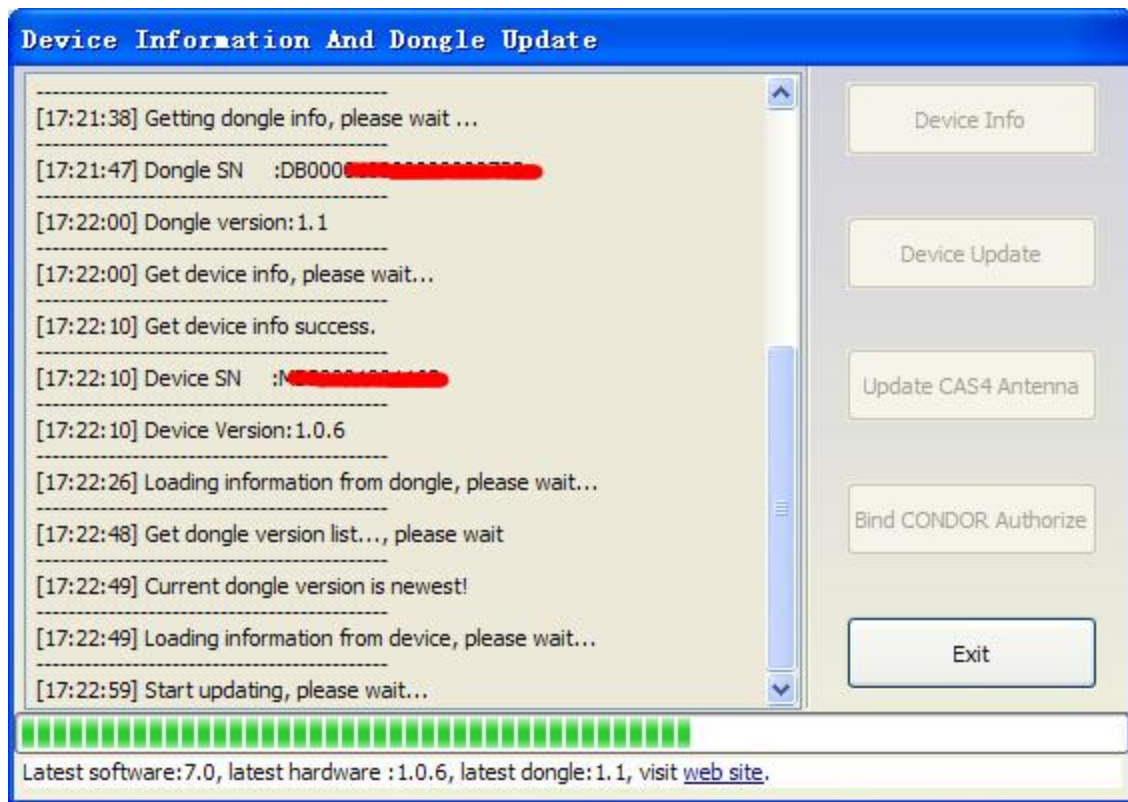
**x. Device Update**

Open this window after connect to internet. You can see the latest software version, firmware version, dongle version. You can go to our website for further information. After succeeded update device firmware, must reconnect the hardware to computer.

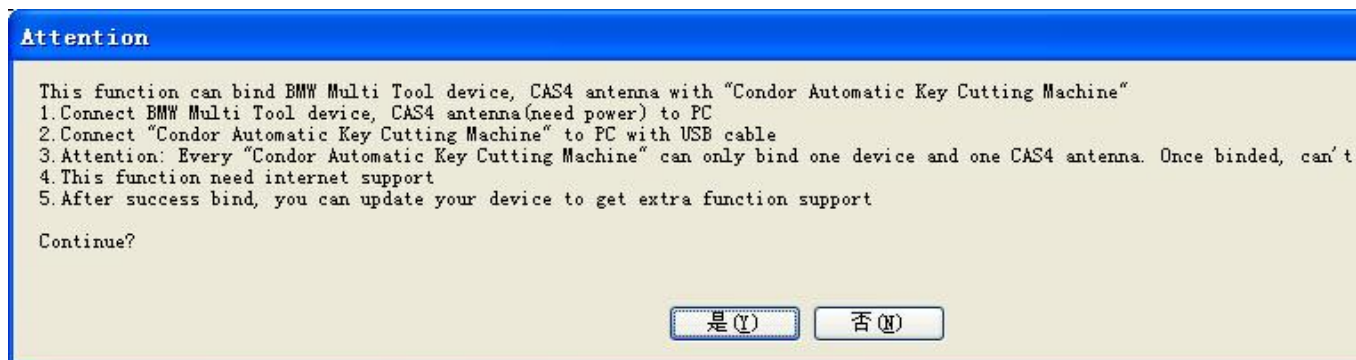
**1. Device Info: Get dongle and hardware SN and version.**



**2. Device Update: This function can update the dongle and device.**



- 3. Update CAS4 Antenna: This function can update CAS4 antenna firmware.**
- 4. Bind CONDOR Authorize: This function will bind your BMW Multi Tool with CAS4 antenna and “CONDOR Automatic Key Cutting Machine”. After binded you need update your device again to get extra function support. Ex: Make dealer key for CAS4 encrypt version**



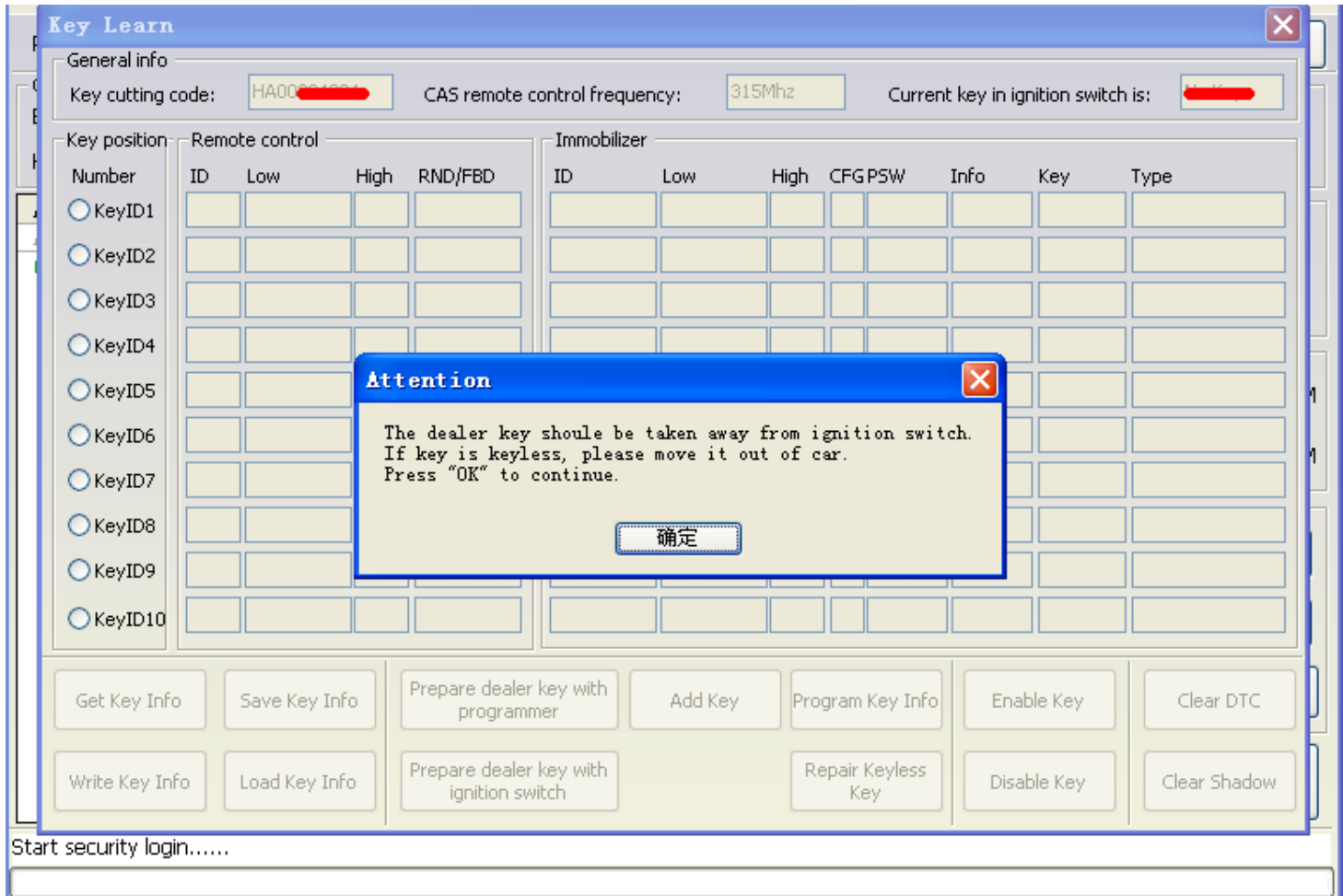
**Process to prepare dealer key:**

1. On main window choose "Connect" to auto detect the current car protocol and get the CAS info.
2. On main window choose "Read EEPROM" to read the CAS EEPROM file and save it.
3. On main window choose "Key Learn" button to get key learn window.
4. On Key Learn window choose "Get Key Info" to get the key info stored in CAS system.(Picture 2).(Warning: You must chose "Lost all key" type while the car is CAS3 encrypt type and lost all working key. Else choose "Add key" module. Picture 5)
5. Choose "Save Key Info" button to save the read key info for backup.
6. Check the connection between programmer and device. Keep connection while make key process. (Step 7-Step 13 is use programmer to prepare dealer key. If you choose ignition prepare dealer key please go to Step 14)
7. Put new blank key into the center of programmer.
8. Choose the position where you want to suit the key.
9. Press "Make Dealer Key" to prepare dealer key. After succeed you will get (Picture 3)  
 "Key make okay and locked. Please use it start the car. If can't start engine, use "Add Key" function add the new dealer key to CAS system." Once can start the engine, go to step 13.
10. Put the new dealer key into programmer. Use "Add Key" function to add the key to CAS system. After that you will get (Picture 4):"New dealer key success written to CAS system. You can start engine with the new key now. If can't please use the original working key first."
11. Please return to main widow and use function "Synch DME-CAS" to synchronize DME (ECU) with CAS.
12. Use "Synch CAS-ELV" to clear wheel errors.
13. Enter to key learn window use "Clear DTC" and "Clear Shadow" function clear all error sin CAS system. (Dealer key is okay for programmer)
14. While choose ignition prepare dealer key, You must chose key type, and pre-process with the new key, the key put into programmer while pre-processing.(Picture6, Warning: This window maybe not in the front, please choose window in taskbar make it shows in front.) After pre-process, insert the key into ignition and press "NEXT" to continue.



While prepare dealer key process. Once you get the tips like picture 1, remove the key from ignition switch, if key has keyless, take the key out of car.

Picture 1:



**Picture 2:**

Key Learn
✕

General info

Key cutting code:  CAS remote control frequency:  Current key in ignition switch is:

Key position	Remote control				Immobilizer							
	Number	ID	Low	High	RND/FBD	ID	Low	High	CFGPSW	Info	Key	Type
<input type="radio"/> KeyID1	EC5C	9807CADE	E971	F2070ED2	[redacted]	1[redacted]	C58E	08	4283AB	004B00	Enable	PCF 7942-7944 r
<input type="radio"/> KeyID2	F41B	BBFE78BB	5B0A	E408D2A2	[redacted]	3[redacted]	FE62	08	926E7C	004B00	Enable	PCF 7942-7944 r
<input type="radio"/> KeyID3	73DF	786608C2	A771	57023528	[redacted]	D[redacted]	6C4D	C8	03601D	004B00	Enable	PCF 7945 remote
<input type="radio"/> KeyID4	A1A4	CFC01206	D0E3	910B4745	FFFFFFFF	0[redacted]	9301	C8	9DF2DF	007608	Enable	Unknown
<input type="radio"/> KeyID5	FB56	A7A7AD[redacted]									Enable	Unknown
<input type="radio"/> KeyID6	942F	99D1B53[redacted]									Enable	Unknown
<input type="radio"/> KeyID7	72BC	D43B629[redacted]									Enable	Unknown
<input type="radio"/> KeyID8	15EC	F1C6AB2[redacted]									Enable	Unknown
<input type="radio"/> KeyID9	0F73	F2691CE8	B870	EB545468	[redacted]	6[redacted]	B322	08	91577C	002B00	Enable	PCF 7936 transp
<input type="radio"/> KeyID10	C93F	E8D2D788	5158	F3AEF99B	FFFFFFFF	DE[redacted]	FD0C	C8	E2F725	007608	Enable	Unknown

**Attention** ✕

Please use "Save Key Info" to save the original key information.

<input type="button" value="Get Key Info"/>	<input type="button" value="Save Key Info"/>	<input type="button" value="Prepare dealer key with programmer"/>	<input type="button" value="Add Key"/>	<input type="button" value="Program Key Info"/>	<input type="button" value="Enable Key"/>	<input type="button" value="Clear DTC"/>
<input type="button" value="Write Key Info"/>	<input type="button" value="Load Key Info"/>	<input type="button" value="Prepare dealer key with ignition switch"/>		<input type="button" value="Repair Keyless Key"/>	<input type="button" value="Disable Key"/>	<input type="button" value="Clear Shadow"/>

Reading data success.

**Picture 3:**

### Key Learn

General info

Key cutting code:  CAS remote control frequency:  Current key in ignition switch is:

Key position	Remote control				Immobilizer								
	Number	ID	Low	High	RND/FBD	ID	Low	High	CFG	PSW	Info	CRC	Type
<input type="radio"/> KeyID1	C979	7891304A	6EC9	2E520B31		70A5A897	6F	3715	C8	D25595	004B00	1E	PCF 7945 remote
<input type="radio"/> KeyID2	5E2A	FD6D94AF	D48C	643E1D66		036F6A97	9D	B6FA	C8	695B7A	004B00	6B	PCF 7945 remote
<input type="radio"/> KeyID3	4CD0	89995983	19D3	08A8F0EF		E5A5B516	A1	D69B	0E	ADA836	002B00	4C	PCF 7936 transpc
<input type="radio"/> KeyID4	6F10	E8122696	30CF	24602665		1FB6B516	84	F8F1	08	D433AC	002B00	A3	PCF 7936 transpc
<input type="radio"/> KeyID5	7D22	1FC38BE9	F721	B387FD40		E5A5B516	60	5E90	08	B12E96	002B00	14	PCF 7936 transpc
<input checked="" type="radio"/> KeyID6	38FE	4C42D7D1	9D8C	03BC7A77		FFFFFFF	29	705D	C8	48F534	007608	E4	Unknown
<input type="radio"/> KeyID7												71	Unknown
<input type="radio"/> KeyID8												68	Unknown
<input type="radio"/> KeyID9												3C	Unknown
<input type="radio"/> KeyID10												85	Unknown

**Tips**

Key make okay and locked. Please use it start the car.  
If can not start engine. use "Add Key" function add the dealer key to CAS system.

Picture 4:

**Key Learn**

General info  
 Key cutting code: 3 [redacted] CAS remote control frequency: 315Mhz Current key in ignition switch is: No Key

Key position	Remote control				Immobilizer									
	Number	ID	Low	High	RND/FBD	ID	Low	High	CFG	PSW	Info	CRC	Type	
<input type="radio"/> KeyID1	C979	7891304A	6EC9	2E520B31		70A5A897	6F [redacted]	3715	C8	D25595	004B00	1E	PCF 7945 remote	
<input type="radio"/> KeyID2	5E2A	FD6D94AF	D48C	643E1D66		036F6A97	9D [redacted]	B6FA	C8	695B7A	004B00	6B	PCF 7945 remote	
<input type="radio"/> KeyID3	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	4C	PCF 7936 transpc
<input type="radio"/> KeyID4	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	A3	PCF 7936 transpc
<input type="radio"/> KeyID5	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	14	PCF 7936 transpc
<input type="radio"/> KeyID6	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	E4	Unknown
<input type="radio"/> KeyID7	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	71	Unknown
<input type="radio"/> KeyID8	BF56	828D34A1	B352	BF995B43		FFFFFFFF	FC [redacted] E	51DE	C8	7DE830	007608	68	Unknown	
<input type="radio"/> KeyID9	8055	6E06DAE2	D8EC	73325755		FFFFFFFF	BE [redacted] B	D8A1	C8	C5AEF4	007608	3C	Unknown	
<input type="radio"/> KeyID10	86DA	35137491	D9ED	CB618D0B		FFFFFFFF	4A [redacted] B	A99C	C8	941D15	007608	85	Unknown	

**Tips**

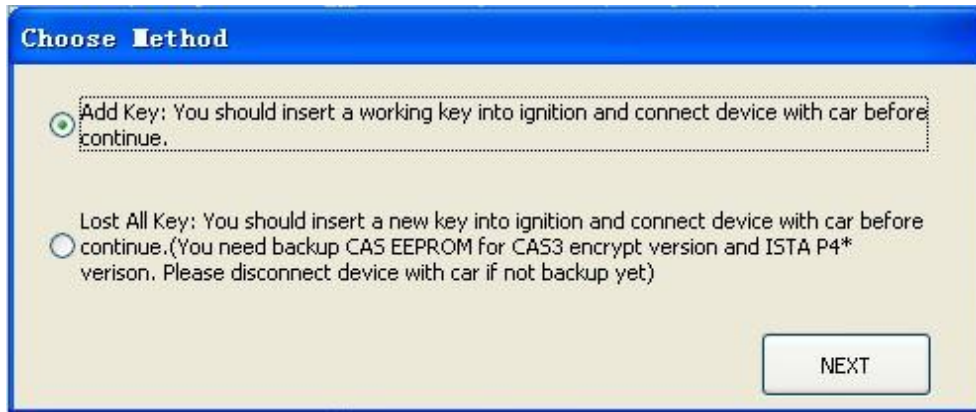
Make dealer key success written to CAS system.  
 You can start engine with the new key now. If cant please use the original working key first.

确定

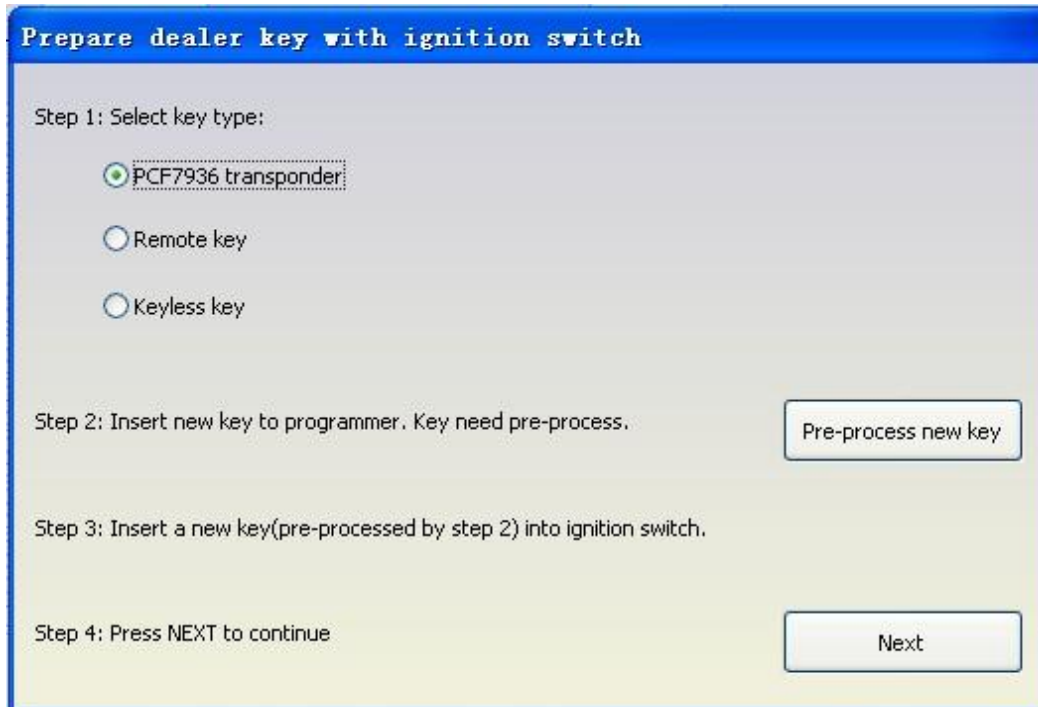
Get Key Info    Save Key Info    Make Dealer Key    Enable Key    Clear DTC

Write Key Info    Load Key Info    Add Key    Disable Key    Clear Shadow

Picture 5:



Picture 6:



## Prepare dealer key for CAS3+ encrypt version and ISTAP 45/46/47

### 1 Add key

#### i. CAS3+ encrypt version

Can use "File Make Key" and OBD prepare dealer key

- a. File Make Key (You'd better choose this method): Get CAS device and read EEPROM dump with other BDM programmer. Then use "File Make Key"->"CAS3+ (0L15Y)" prepare dealer key. It needs the working key support in this method. The new dealer key can start engine after write back the new EEPROM dump.
- b. OBDII prepare dealer key:
  - a) Insert working key into ignition switch
  - b) Use "Read EEPROM" to backup EEPROM (You can't write this file to CAS with BDM programmer. The file only used in this software)
  - c) Enter "Key Learn"
  - d) Press "Get Key Info". Use Add key method. Then NEXT
  - e) Use "Save Key Info" after read key info successfully
  - f) Choose where you want to place the new key
  - g) Use Programmer or Ignition switch prepare dealer key. (It may need the EEPROM read in step b.)
    - a. User programmer: It need put new key into device programmer. Try to start engine after make dealer key. Use "Add Key" to add the key to CAS if the key can't start engine.
    - b. User ignition switch: First choose new key type. Then put new key into device programmer to pre-process. Before continue insert the success pre-processed key into ignition. Wait until key make okay. The key can start engine without add it to CAS.

#### ii. ISTAP45/46/47 version

Can use "File Make Key" and OBD(need update flash) prepare dealer key

- a. File Make Key (You'd better choose this method): Get CAS device and read EEPROM dump with other BDM programmer. Then use "File Make Key"->"CAS3+ (0L15Y)" prepare dealer key. It needs the working key support in this method. The new dealer key can start engine without write back the new EEPROM dump.
- b. OBDII prepare dealer key:
  - a) You'd better get CAS device and backup flash and EEPROM with other BDM programmer
  - b) In main window, use "Connect" connect to CAS system and remember "BMW Number"
  - c) Enter Key Learn
  - d) Use "Get Key Info". It need update your CAS flash if it never does this step. See Picture 7. You must follow the step in picture 7.(Support

extra power to car battery and your pc. Avoid low voltage causes update failed). After update flash, you can follow add key for CAS3+ encrypt version step c)-step g) prepare dealer key

- e) You can use “CAS Repair”->”ISTAP4\* version OBDII repair” in menu to repair CAS if failed in update progress. It needs BMW Number.

## 2 Lost all working key

### i. CAS3+ encrypt version

Can use “File Make Key” and OBD prepare dealer key

- a. File Make Key (You’d better choose this method): Get CAS device and read EEPROM dump with other BDM programmer. Then use “File Make Key”->”CAS3+ (0L15Y)” prepare dealer key. (Picture 9) You can make dealer key with ECU dump or known ISN (this method need write back new CAS dump file). Also you can use try 16 times start method: You need write back EEPROM dump to CAS after first try, then you can follow the attention to try start engine at most 16 times, car will start.
- b. OBDII prepare dealer key:
  - a) Insert a new key into ignition switch
  - b) Use “Read EEPROM” to backup EEPROM (You can’t write this file to CAS with BDM programmer. The file only used in this software)
  - c) Enter “Key Learn”
  - d) Press “Get Key Info”. Use Lost All Key method. Then NEXT
  - e) Use “Save Key Info” after read key info successfully.
  - f) Choose where you want to place the new key
  - g) Use Programmer or Ignition switch prepare dealer key. (It may need the EEPROM read in step b.). This 2 methods use same steps:
    - a. First ask you it needs try 16 times (at most) to start engine. Continue
    - b. Choose new key type
    - c. Put new key into device programmer to pre-process
    - d. Before continue insert the success pre-processed key into ignition
    - e. Until you get “Picture 8” (It is the current try times in title of picture 8)
    - f. Then follow the tips insert key into ignition try to start the engine. If can’t start Press “NO”, else “YES”.

### ii. ISTAP45/46/47 version

Can use “File Make Key” and OBD(need update flash) prepare dealer key

- a. File Make Key (You’d better choose this method): Get CAS device and read EEPROM dump with other BDM programmer. Then use “File Make Key”->”CAS3+ (0L15Y)” prepare dealer key. (Picture 9) You can make dealer key with ECU dump or known ISN (this method don’t need write back new CAS dump file). Also you can use try 64 times start method: you can follow the attention to try start engine at most 64 times, car will start..
- b. OBDII prepare dealer key:
  - a) You’d better get CAS device and backup flash and EEPROM with other BDM programmer
  - b) In main window, use “Connect” connect to CAS system and remember

**“BMW Number”**

- c) Enter Key Learn
- d) Use “Get Key Info” . Choose lost all key method before continue. It need update your CAS flash if it never does this step. See Picture 7. You must follow the step in picture 7. (Support extra power to car battery and your pc. Avoid low voltage causes update failed). You can use “CAS Repair”->”ISTAP4\* version OBDII repair” in menu to repair CAS if failed in update progress. It needs BMW Number
- h) Press “Get Key Info” again after update flash. Choose lost all key method before continue
- i) Use “Save Key Info” after read key info successfully
- j) Choose where you want to place the key
- k) Use Programmer or Ignition switch prepare dealer key. This 2 methods use same steps:
  - a. First ask you it needs try 64 times (at most) to start engine. Continue
  - b. Choose new key type
  - c. Put new key into device programmer to pre-process
  - d. Before continue insert the success pre-processed key into ignition
  - e. Until you get “Picture 8” ( It is the current try times in title of picture 8 )
  - f. Then follow the tips insert key into ignition try to start the engine. If can't start Press “NO”, else “YES”.

**Attention:**

CAS3+ encrypt version includes following BMW Number: 9226238, 9227053, 9237046, 9237047 etc.

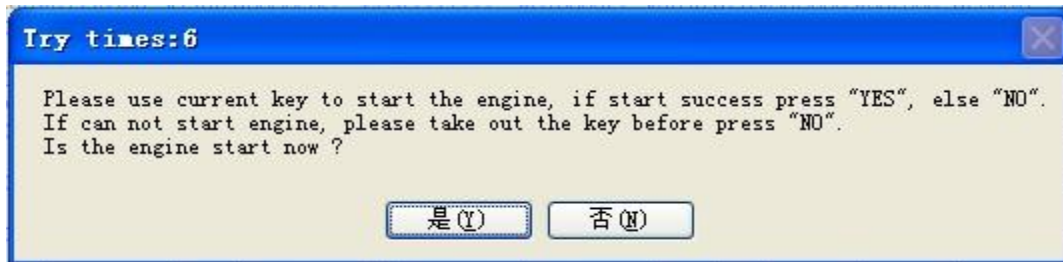
ISTAP 4\* version includes following BMW Number: 9262360, 9262361, 9278745, 9278746, 9287534, 9287535, 9267608, 9267609 etc.



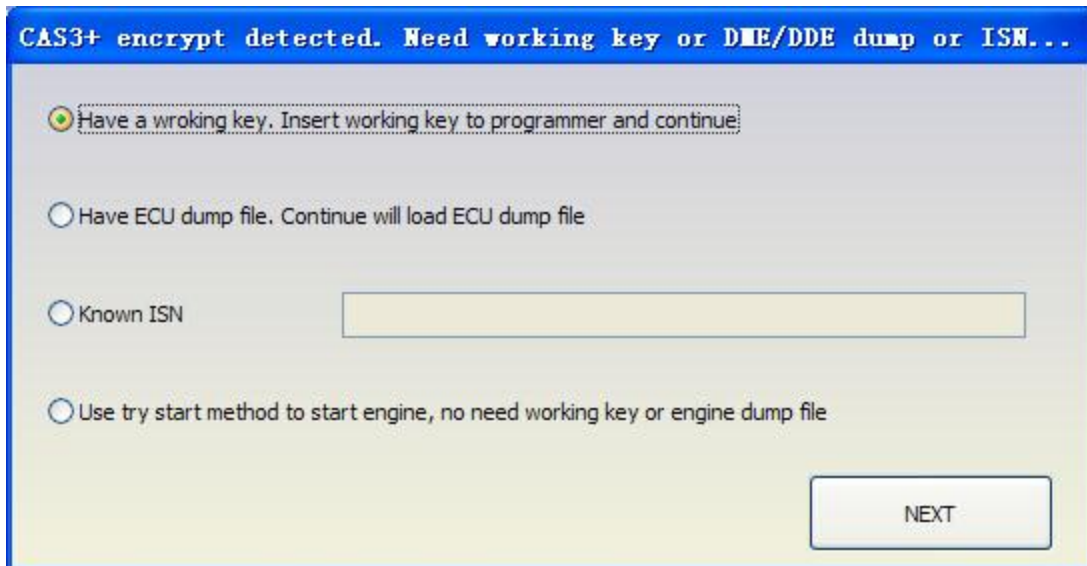
Picture 7:



Picture 8:



Picture 9:



**xi. EWS Data Read/Write**

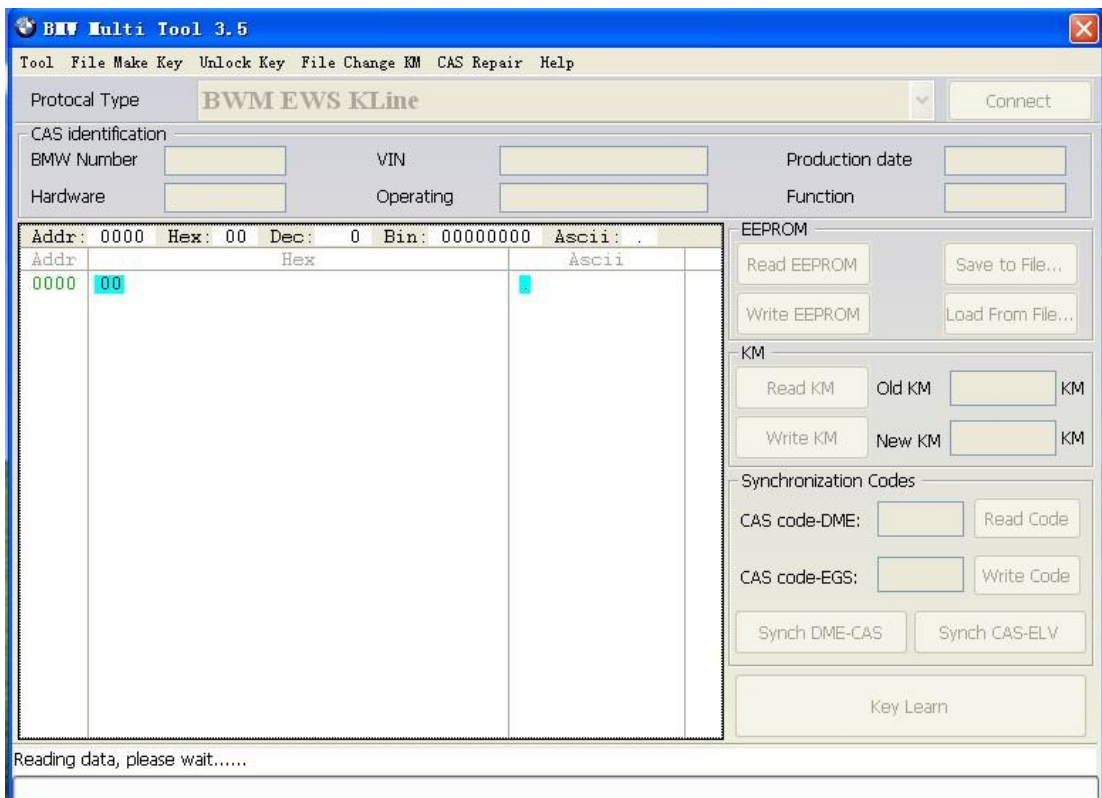
EWS support Read/Write EEPROM and prepare dealer key with EWS EEPROM

(in File Make Key). Only support 0D46J and 2D467 types EWS

After you press button READ EEPROM:



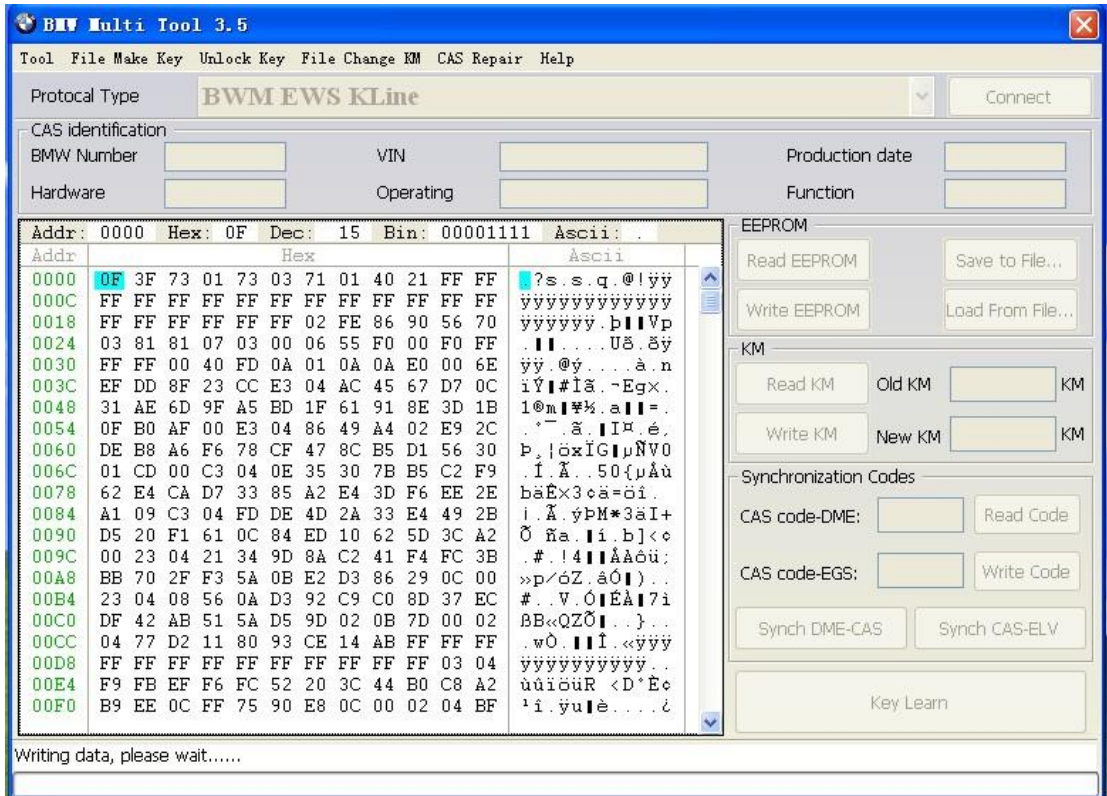
While Reading:



After read:



While writing:



**Warning: Make sure connect dongle to compute before run the software.**

## 5. Troubleshooting

### a) “Device not connected” Error



**Information:** Hardware not connected to PC with USB port.

**Solution:** Plug device to USB.

## 6. Warranty and Service

### a) Limited One Year Warranty

We warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one(1) year from the date of the original purchase, subject to the following terms and conditions:

- This warranty does not apply to damages caused by improper use, accident, flood, lightning, or if the product was altered or repaired by anyone other than the Manufacturer's Service Center.
- We shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the tool. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
- All information in this manual is based on the latest information available at the time of publication and no warranty can be made for its accuracy or completeness. We reserves the right to make changes at any time without notice.