

# VAG KM+IMMO Tool User Manual



X-Horse Electronics Co., Ltd.

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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 VAG KM+IMMO Tool.**

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

### **X-Horse Electronics, 2011**

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## 3. VAG KM+IMMO Tool Overview

### 3.1. Tool Description



| ITEM | Description  |
|------|--|
| 1    | <b>OBD II CONNECTOR</b><br>Connects the tool to the vehicle's Data Link connector (DLC). |
| 2    | <b>USB CONNECTOR</b><br>Connects the tool to the PC/Laptop through USB Cable.            |

### 3.2. Specifications

| ITEM                  | Description                    |                              |                               |
|-----------------------|--------------------------------|------------------------------|-------------------------------|
| Operating Temperature | -20 to 70 °C ( -4 to 158 °F )  |                              |                               |
| Storage Temperature   | -40 to 85 °C ( -40 to 185 °F ) |                              |                               |
| Diagnostic Interface  | 16 PIN                         |                              |                               |
| USB Interface         | USB 2.0                        |                              |                               |
| Power                 | DC 5 V - 12 V                  |                              |                               |
| Consumption           | 0.25 W                         |                              |                               |
| Dimensions            | <b>Length</b><br>78 mm(3.07")  | <b>Width</b><br>44 mm(1.73") | <b>Height</b><br>22 mm(0.86") |
| Net Weight            | 89 g                           |                              |                               |
| Gross Weight          | 176 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> | 256M or above           | 512M 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                       |

### 3.4. Features

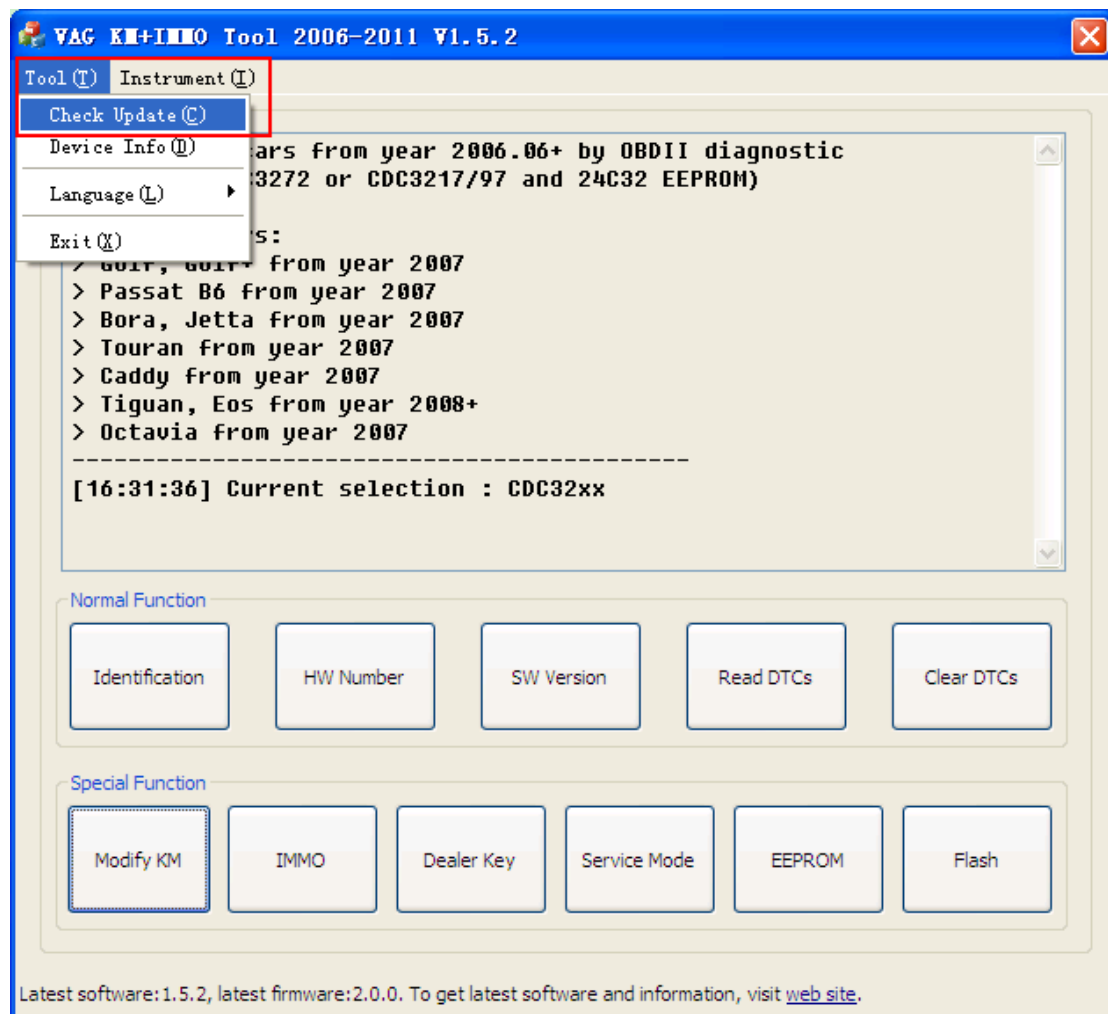
- CDC32xx
  - Support VAG cars from year 2006.06+ by OBDII diagnostic (MICRONAS CDC3272 or CDC3217/97 and 24C32 EEPROM)
  - Supported cars:
    - > Golf, Golf+ from year 2007
    - > Passat B6 from year 2007
    - > Bora, Jetta from year 2007
    - > Touran from year 2007
    - > Caddy from year 2007
    - > Tiguan, Eos from year 2008+
    - > Octavia from year 2007
  
- A5,Q5,A4 08+
  - Supported cars by OBDII diagnostic:
    - > A5
    - > Q5
    - > A4 from year 2008
  
- Moto MM7 (Golf6,Tiguan)
  - Supported cars by OBDII diagnostic:
    - > Golf 6
    - > Tiguan
  
- NEC24C32
  - Supported cars by OBDII diagnostic:
    - > VW Golf 6
    - > VW Multivan 2009
    - > VW EOS 2009
    - > VW Caddy 2009
    - > VW Scirocco
    - > VW Polo 2009
    - > VW Bora 2010
    - > VW Jetta 2010
    - > VW Passat CC
    - > VW Amarok
    - > Skoda Octavia II 2009
    - > Skoda Superb 2009
    - > Skoda Fabia 2009
    - > Skoda Yeti 2009
    - > Seat Leon 2009



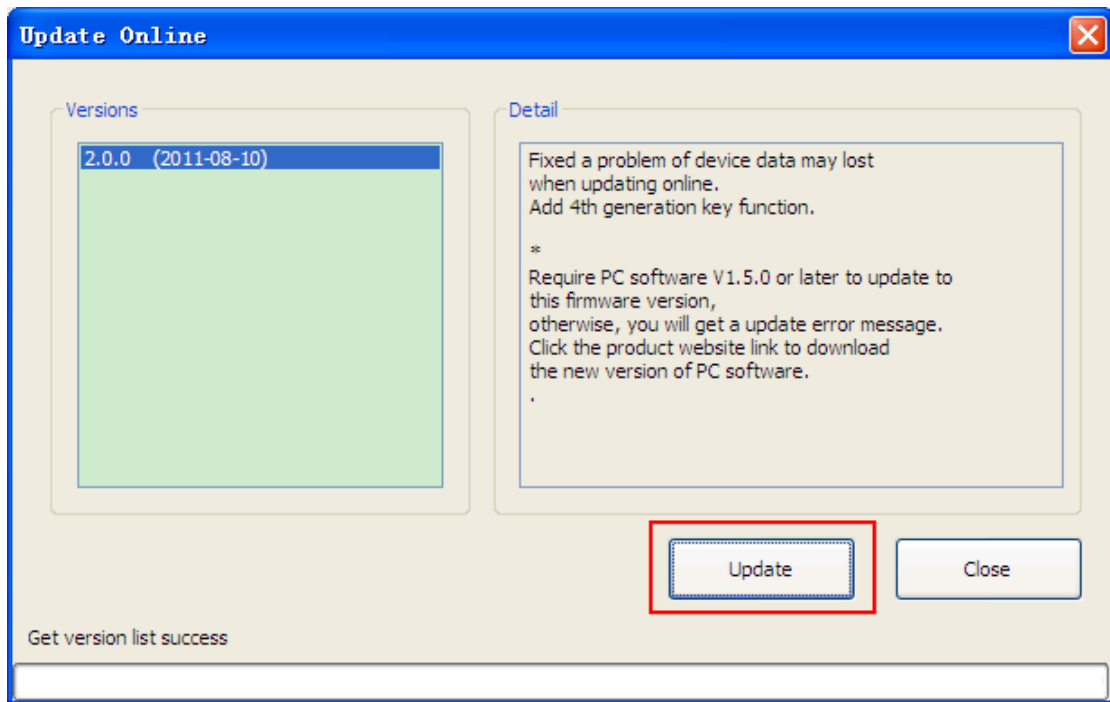
- > Seat Altea 2009
- > Seat Exeo 2009
- > Seat Ibiza 2009
  
- NEC24C64
  - Supported cars by OBDII diagnostic:
    - > VW Golf 6
    - > VW Multivan 2009-
    - > VW EOS 2009-
    - > VW Caddy 2009-
    - > VW Scirocco
    - > VW Polo 2009-
    - > VW Bora 2010-
    - > VW Jetta 2010-
    - > VW Passat CC
    - > VW Amarok
    - > Skoda Octavia II 2009-
    - > Skoda Superb 2009-
    - > Skoda Fabia 2009-
    - > Skoda Yeti 2009-
    - > Seat Leon 2009-
    - > Seat Altea 2009-
    - > Seat Exeo 2009-
    - > Seat Ibiza 2009-

## 4. Firmware Update

Click **Tool > Check Update**

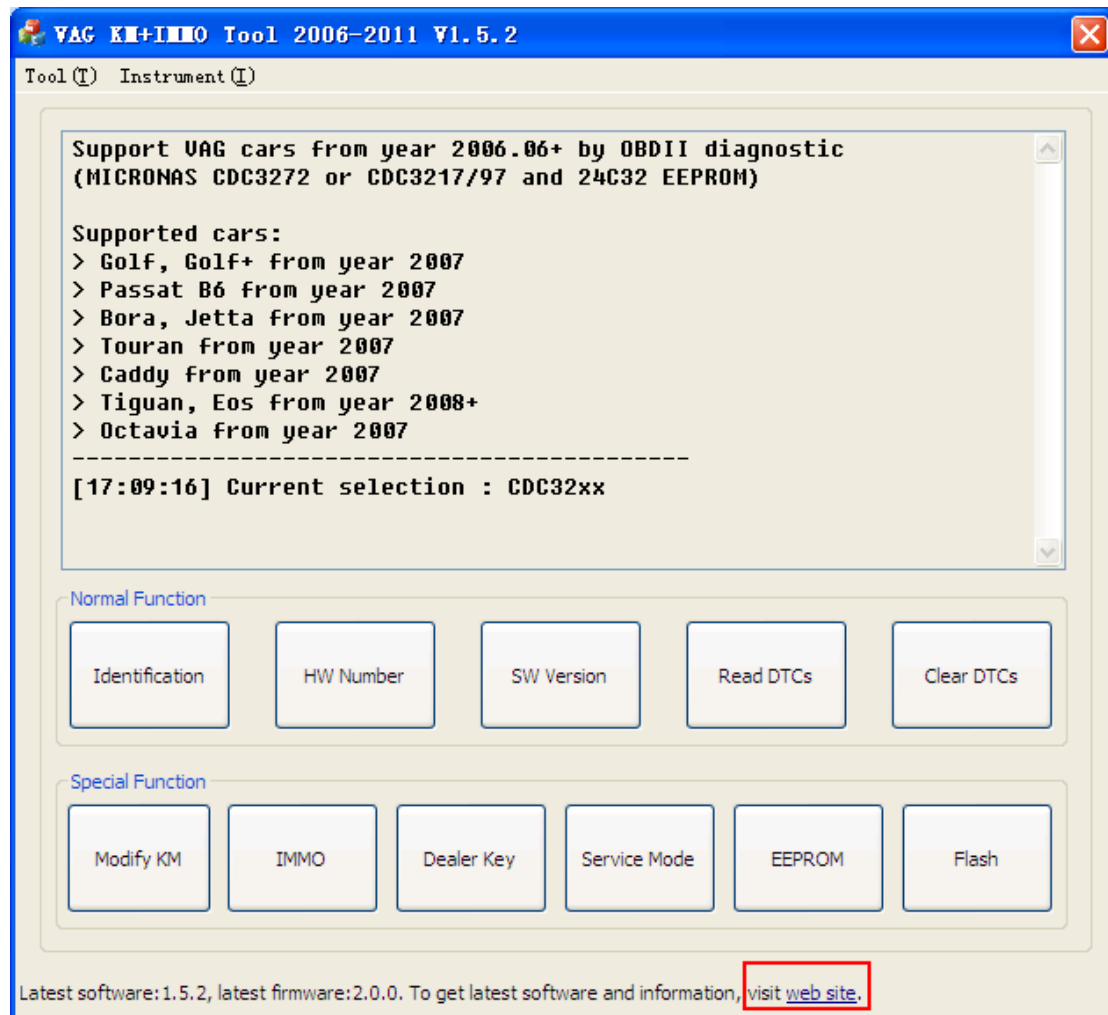


Select Version, then click **Update**



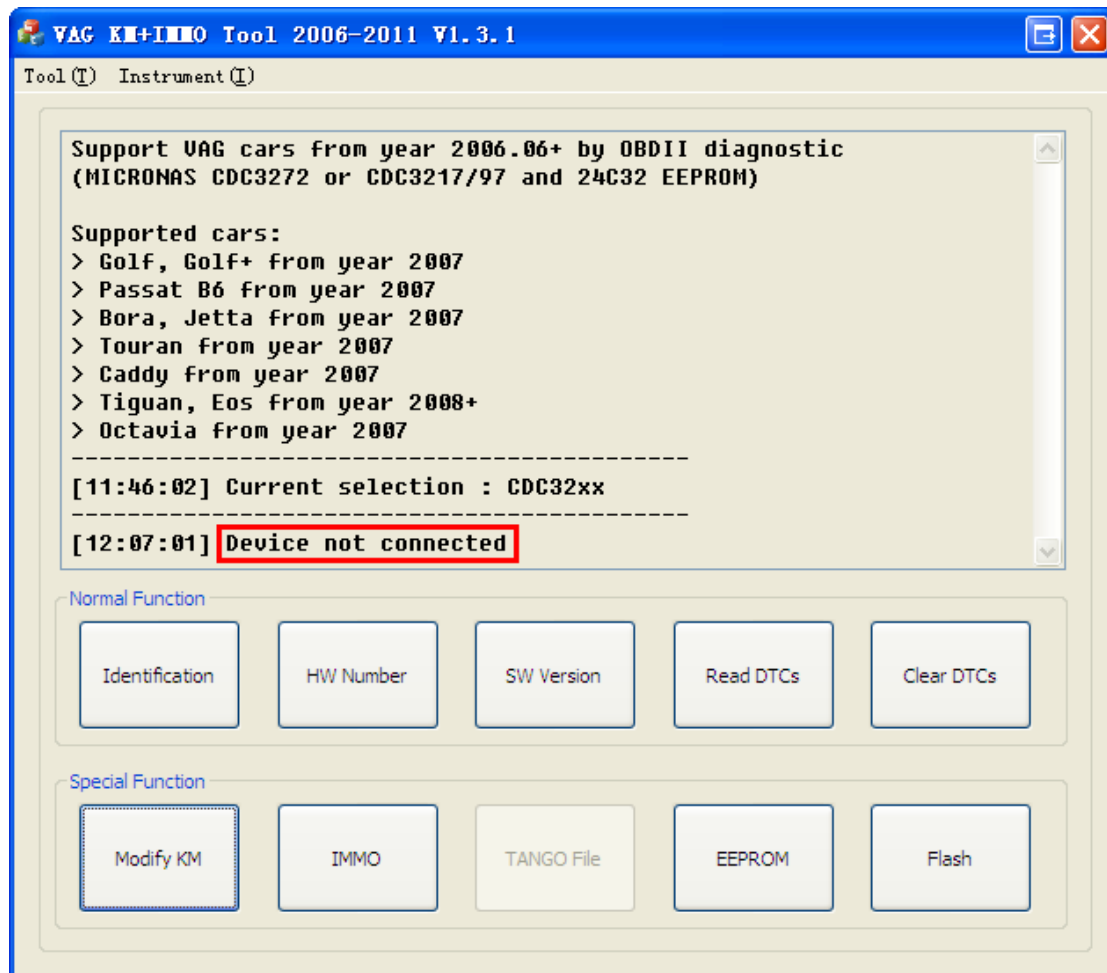
## 5. PC side Software Update

Click the **web site** link to download latest PC software.



## 6. Troubleshooting

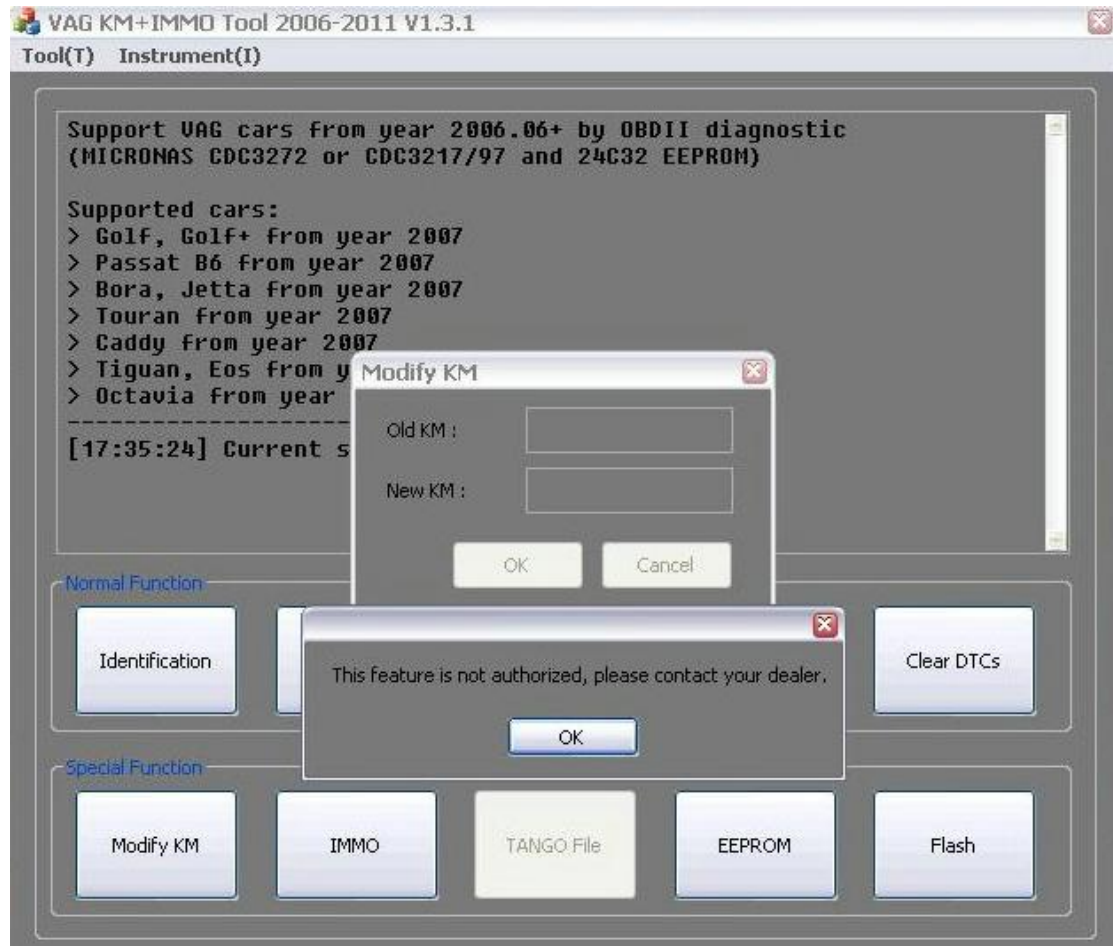
### 6.1. “Device not connected” Error



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

**Solution:** Plug device to USB.

## 6.2. “No authorization” Error



**Information:** If you have bought this feature, your hardware firmware version is too old.

**Solution:** Update hardware firmware to latest version..

## 7. Adding dealer key with Tango

### 1. Condition 1: At least one key can be used.

- 1) Connect "VAG KM+IMMO Tool" to both pc and car.
- 2) Click "EEPROM" button, read EEPROM and save it for backup.
- 3) Click "Dealer Key" button, open "Dealer key" dialog.
- 4) Use the prompt key chip to make key.

Nec24c32 and Nec24c64: Megamos 48

CDC VW: TP23

CDC Audi: TP25

CDC Skoda: TP24

CDC Seat: TP22

**Dealer Key**
✕

Please use the Megamos 48 chip

Use TagKey Tool, Tango, AD90, Zedbull or other tools to read and write data.

Step 1 : Use tools to read data of Transponders Page 1

Page(Word) 1

Step 2 : Calculate the dealer key data

Step 3 : Write the following data to corresponding Transponders Page

|   |   |
|---|---|
| Page(Word) 11 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/> | Page(Word) 10 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/> |
| Page(Word) 9 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/>  | Page(Word) 8 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/>  |
| Page(Word) 7 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/>  | Page(Word) 6 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/>  |
| Page(Word) 5 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/>  | Page(Word) 4 <input style="width: 40px; height: 15px; border: 1px solid #ccc;" type="text"/>  |

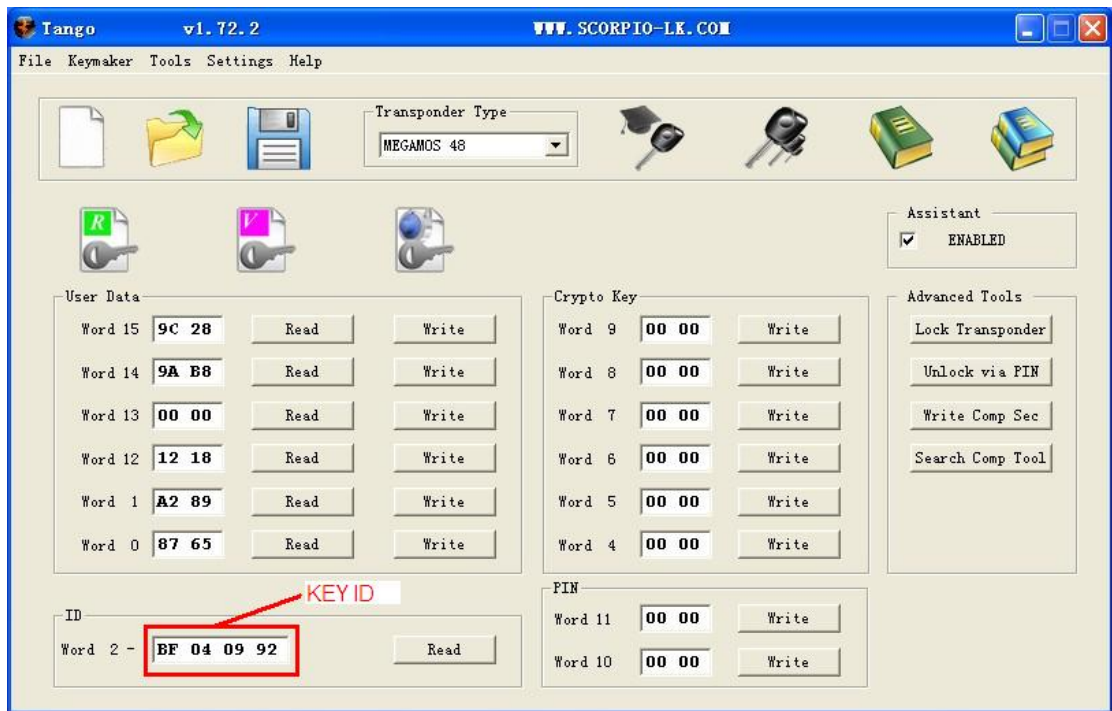
Step 4 : Write Transponders Page 1 data, lock key

Note: When Page 1 data is written, the key is locked and can not be modified, make sure that the previous steps have been completed correctly.

Page(Word) 1



5) Switch to Tango, read "Word 1" data and "Key ID" data.



- 6) Switch back to “Dealer key” dialog, input “Page(Word) 1” data, and click “Calculate Dealer Key Data” button.

**Dealer Key**

Please use the Megamos 48 chip  
Use TagKeyTool, Tango, AD90, Zedbull or other  
tools to read and write data.

Step 1 : Use tools to read data of Transponders Page 1

Page(Word) 1

Step 2 : Calculate the dealer key data

Step 3 : Write the following data to corresponding Transponders Page

|               |                                    |               |                                    |
|---------------|------------------------------------|---------------|------------------------------------|
| Page(Word) 11 | <input type="text" value="AA BB"/> | Page(Word) 10 | <input type="text" value="CC DD"/> |
| Page(Word) 9  | <input type="text" value="3B D7"/> | Page(Word) 8  | <input type="text" value="BD E9"/> |
| Page(Word) 7  | <input type="text" value="68 43"/> | Page(Word) 6  | <input type="text" value="2F 8C"/> |
| Page(Word) 5  | <input type="text" value="C6 A2"/> | Page(Word) 4  | <input type="text" value="0C F8"/> |

Step 4 : Write Transponders Page 1 data, lock key

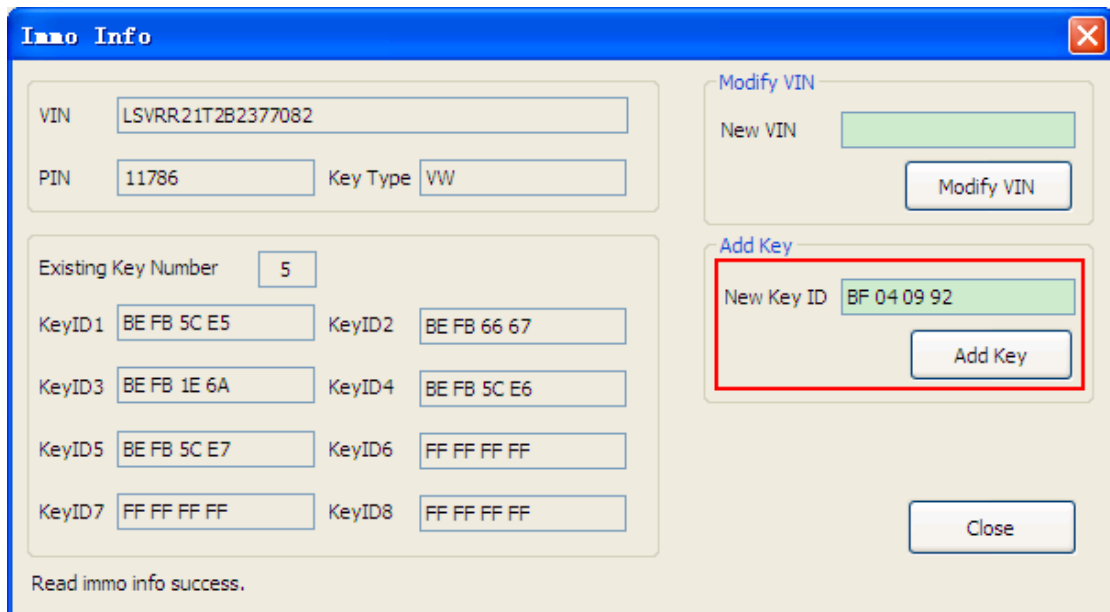
Note: When Page 1 data is written, the key is locked and  
can not be modified, make sure that the previous steps  
have been completed correctly.

Page(Word) 1

Generate dealer key success.

- 7) Switch to Tango, write Word 6-11(for Nec24c32 and 24c64, you need write additional Word 4 and Word 5).
- 8) In Tango, write Word 1 to lock the key.
- 9) Switch back to “Dealer key” dialog, click “Close”, and then click “IMMO” button to open “Immo Info” dialog.

- 10) Input "New Key ID" with key id data read from step 5, then click "Add Key" button.



The screenshot shows the 'Immo Info' window with the following fields and values:

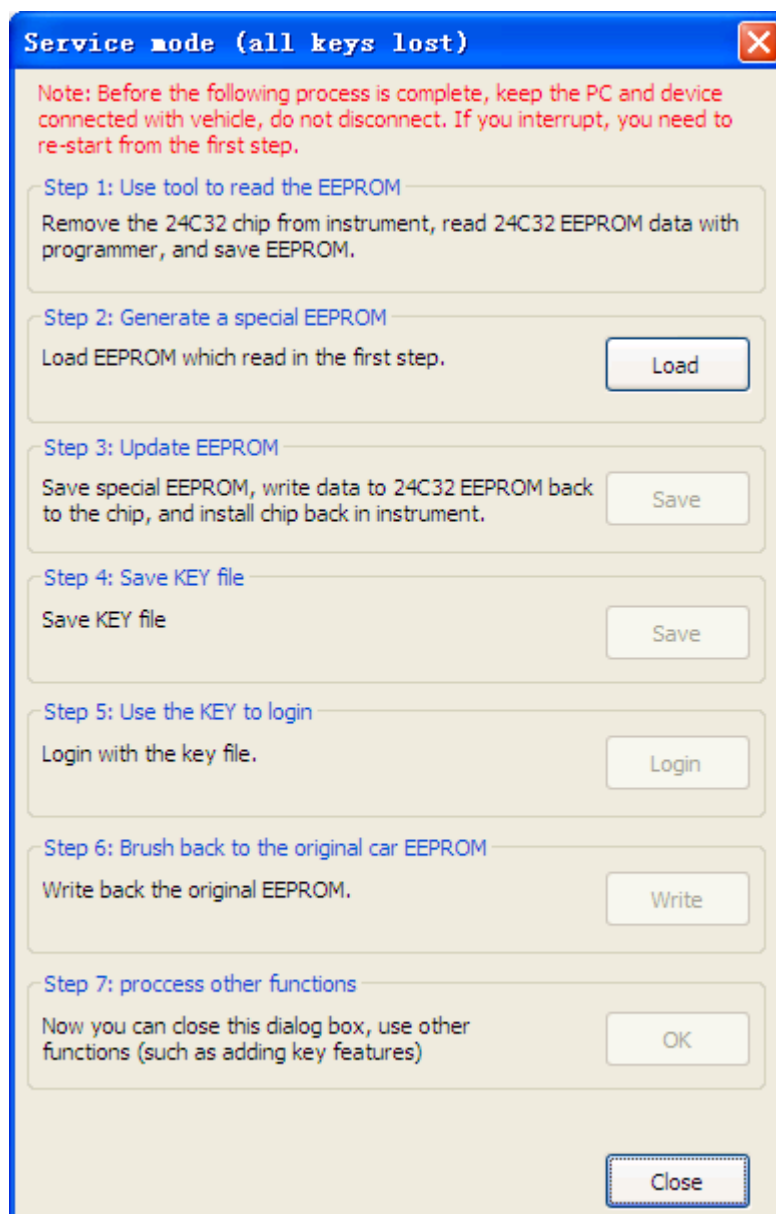
| Field               | Value             |
|---------------------|-------------------|
| VIN                 | LSVRR21T2B2377082 |
| PIN                 | 11786             |
| Key Type            | VW                |
| Existing Key Number | 5                 |
| KeyID1              | BE FB 5C E5       |
| KeyID2              | BE FB 66 67       |
| KeyID3              | BE FB 1E 6A       |
| KeyID4              | BE FB 5C E6       |
| KeyID5              | BE FB 5C E7       |
| KeyID6              | FF FF FF FF       |
| KeyID7              | FF FF FF FF       |
| KeyID8              | FF FF FF FF       |
| New Key ID          | BF 04 09 92       |

The 'Add Key' button is highlighted with a red box. The status bar at the bottom indicates 'Read immo info success.' and there is a 'Close' button at the bottom right.

- 11) Finish.

## 2. Condition 2: All keys are lost

- 1) Connect “VAG KM+IMMO Tool” to both pc and car.
- 2) Click “Service Mode” button to open “Service Mode” dialog.



- 3) Remove the 24C32 chip from instrument, read 24C32 EEPROM data with programmer, and save EEPROM.

- 4) Switch to “Service Mode” dialog, load EEPROM.
- 5) Save special EEPROM, write data to 24C32 EEPROM back to the chip, and install chip back in instrument.
- 6) Save KEY file.
- 7) Login with the key file.
- 8) Click “Write” button to write back the original EEPROM (via OBDII).
- 9) Close “Service Mode” dialog, start adding dealer key from [Step 3 of Condition 1](#) above.

Note: Before the process is complete, keep the PC and device connected with vehicle, do NOT disconnect. If you interrupt, you need to re-start from the first step.

## 8. Warranty and Service

### 8.1. Limited One Year Warranty

X-Horse 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.
- X-Horse 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. X-Horse reserves the right to make changes at any time without notice.

### 8.2. Service Procedures

If you have any questions, please contact your dealer.

If it becomes necessary to return the tool for repair, contact your dealer for more information.