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1. Document Declaration

Please view the following declaration carefully:

- VVDI2 – Transponder Programmer User Manual can help you maintenance vehicles and read/write transponder with VVDI2 device. Please DON'T use for illegal purpose, Please follow the national law.
- VVDI2 – Transponder Programmer User Manual is written by VVDI2, please DON'T use for commercial purposes without authorize.
- VVDI2 – Transponder Programmer User Manual can help you how to use Transponder Programmer software, please view carefully.
- Any illegal use VVDI2 – Transponder Programmer User Manual, illegal use VVDI2 device, The user should take all risks, the company does not assume any responsibility.
2. Overview

2.1. Noun explanation

- **Transponder**: immo transponder, the transponder inside key, sometimes we call it chip
- **sub-remote-pcb**: the remote PCB, used in Prepare Remote function. After write data with remote programmer, it can adapt to car for remote function
- **Remote Programmer**: It is not standard device. This device can connect to DB15 in VVDI2, it can prepare remote key with sub-remote-pcb
- **Byte**: a decimal value between 0-255, but we can’t input decimal value, we input hex value, every byte between 00-FF. Note: For the byte use in transponder, every input character must belong to 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F

2.2. Options

Detail can be found in chapter 3 Options

- **Choose Language**

2.3. Transponder Programming

Detail can be found in chapter 4 Transponder Programming

**Support auto detect transponder type**, support following types:

1) PCF7930/PCF7931/PCF7935
2) HITAG2
3) HITAG2+ EE
4) HITAG2 Extended
5) HITAG3
6) HITAG Pro
7) HITAG (BMW)
8) HITAG (VAG)
9) MEGAMOS13
10) MEGAMOS48
11) MEGAMOS8E
12) TEMIC 11/TEMIC 12
13) TEMIC 8C
14) TIRIS 4C
15) TIRIS DST 4D/4E
16) TIRIS DST+
17) T5/TK5551
2.4. **Special Transponder**

Detail can be found in chapter 5 Special Transponder
This function can prepare a blank transponder to special one, just as key ordered by dealer, it can be learned to car with PIN

2.5. **Immobilizer Data Tool**

Detail can be found in chapter 6 Immobilizer Data Tool
This function can make a working key directly with immobox EEPROM dump. Support most of the car manufacture

2.6. **Other Key Tool**

Detail can be found in chapter 7 Other Key Tool
Mainly include unlock key, VAG searching 7th bytes CS, VAG prepare dealer with 7 bytes CS, Change MEGAMOS 48 ID etc

2.7. **Prepare Remote**

Detail can be found in chapter 8 Prepare Remote
This function use Remote Programmer write special data to sub-remote-pcb, make sub-remote-pcb become an original remote key, it can adapt to car for remote function

2.8. **Remote frequency test**

Just provide power to VVDI2, place remote key on CHECK area, CHECK area is on VVDI2 device, Press button “F”, then press any button of your remote key, the frequency and type will display on VVDI2 LCD display

2.9. **IC Chip Program**

Attention: this function not support now
3. Options

3.1. Choose Language

Support following languages:
- Chinese (Simplified)
- English

Please manual set user language after first run program

3.2. Antenna Parameters

You can make the antenna more stable with change gain value. For every key is different from each other, the transponder is different position in the key, Thus will cause bad answer while access transponder. You can change antenna gain to large the sensing range, make antenna access the far away transponder.

Antenna gain value can be 0, 1, 2, 3

When gain value smaller, the sensing range will be small and lower. If the transponder position is higher from antenna, the access may failed.
When gain value larger, the sensing range will be large and higher. If the transponder position is lower from antenna, the access may failed.

Simply:
If the transponder position is far away from antenna, you need select higher gain for access, example: 2 or 3
If the transponder position is nearby or in antenna, you need select lower gain for access, example: 0 or 1
4. Transponder Programming

Support following types:
1) Autodetect Transponder
2) PCF7930/PCF7931/PCF7935
3) HITAG2
4) HITAG2+ EE
5) HITAG2 Extended
6) HITAG3
7) HITAG Pro
8) HITAG (BMW)
9) HITAG (VAG)
10) MEGAMOS13
11) MEGAMOS48
12) MEGAMOS8E
13) TEMIC 11/TEMIC 12
14) TEMIC 8C
15) TIRIS 4C
16) TIRIS DST 4D/4E
17) TIRIS DST+
18) T5/TK5551
4.1. Autodetect Transponder

Input transponder to VVDI2 programmer, press button “Autodetect Transponder”, it will detect transponder type and simple status information. You can turn to specify type after success read (PICTURE 4.1). Autodetect Transponder function can run without software, just provide power to VVDI2, press button “T” on the device, transponder type will show in the LCD display.
4.2. PCF7930/PCF7931/PCF7935

Many old cars use this transponder as immo transponder, this transponder support generate many types special transponder. It mainly contains Password, Main memory, Shadow memory etc. Note: PCF7930 and PCF7931 dont have Shadow memory, only have Main memory. PCF7935 have this 2 memory both. Shadow memory only has 16 bytes.

Write: You need read transponder success before write, modify the position to your expect value, the byte will change read after edit, then write to transponder. (PICTURE 4.2)

- **Read Transponder**: Read Main memory don’t require password
- **Write**: For the transponder enabled Password feature, you must place correct password in Password area before write
4.3. HITAG2

HITAG2 is very popular immo transponder, it is compatible with PHILIPS PCF7936 transponders. It support following types:

- PCF7936
- PCF7941
- PCF7942/44
- PCF7943
- PCF7945
- PCF7946
- PCF7947
- PCF7952
- PCF7953
- PCF7961

(There's some other HITAG2 transponder made by small company, it don't have the above type, but also support)

**Access method:**

- PCF7936 support Password mode and Cipher mode
- Other's don't have Password mode itself, only have Cipher mode
- For Password mode: Only SK low was used for login. Default key: 4D494B52
- For Cipher mode: It use SK low and SK high for login. Default key: SK low: 4D494B52; SK high: 4F4E

**Coding method:**

- Support Manchester and Biphase coding (Note: Most immo transponder use Manchester coding, rarely use Biphase type)
◆ Read Transponder
It will read all readable page and shown in window (Transponder information, Transponder data, Remote control(not all transponder have this area)). it will try password mode and cipher mode automatically, also Manchester and Biphase automatically. For the transponder with default key we can read all readable pages. If the transponder was changed SK value, we can only read ID before you input correct SK value in Parameter. Every page in HITAG2 has 4 bytes. The type is detect with identifier, so it will not strictly for many OEM keys

◆ About the transponder manufacture configuration(TMCF)
TMCF byte is very important; usually it is the first byte in Config page. Example: Config page is “XXXYYZZWW” (4 bytes). The first byte “XX” is TMCF, write error TMCF value can lock the transponder or damage it. The specify explanation for TMC following: Convert XX(hex) to binary, it have 8 bits, every bit can be 0 or 1, we set as:

X1: If set to 1, the SK low and SK high was unable to read and write
X2: If set to 1, the Config page was unable to write, but read is always available
X3: If set to 1, Remote control area was unable to read and write(Note: PCF7936 have none about this bit)
X4: If set to 1, transponder data was unable to write, but read is always available
X5: If set to 1, transponder is use transponder data area. If set to 0, mean use remote control area (Attention: For PCF7936, if set to 1, transponder use Cipher mode, if set to 1, transponder use Password mode)
- X6: Always 0, reserve bit (Attention: PCF7936 must set to 1, set to 0 will damage transponder)
- X7: Always 0, reserve bit (Attention: PCF7936 must set to 1, set to 0 will damage transponder)
- X8: If set to 0, transponder use Manchester coding, if set to 1, use Biphase coding (CDP)

How to change a byte to binary: With PC system Calculator - Select Scientific - Select Hex - input TMCF value - Select Bin, you can see the binary values. If binary not have total 8 bits, means the front have several 0

Example: TMCF value is C8, so X1-X8 have value: 11001000
The transponder use Manchester coding
The transponder use transponder data area
The SK low and SK high was unable to read and write
The Config page was unable to write, but support read
4.4. **HITAG2+ EE**

Support read EEPROM data for PCF7952, PCF7945, PCF7953 etc. (Note: Standard access method for HITAG2+ EEPROM, just like Hyundai, Kia keys. BMW key not belong to this type) *(PICTURE 4.4)*
4.5. **HITAG2 Extended**

Support read/write EEPROM data for HITAG2 Extended transponder, mainly used in GM cars. You can read with SK values. Enable SK will read more data compared with not enable SK.

**Write:** You need read transponder success before write, modify the position to your expected value, the byte will change read after edit, then write to transponder (Picture 4.5)

![HITAG2 Extended transponder programmer](image)
4.6. HITAG3

Support read EEPROM data for HITAG3 (Some new key in Nissan use this type) (PICTURE 4.6)
4.7. **HITAG Pro**

HITAG Pro transponder, now we know BMW F-Series keys, new Porsche keys belong to this type. Support read EEPROM data (PICTURE 4.7)
4.8. HITAG (BMW)

Support read/write EEPROM data for BMW remote (keyless) keys.
Write: You need read transponder success before write, modify the position to your expect value, the byte will change read after edit, then write to transponder (PICTURE 4.8).
4.9. HITAG (VAG)

HITAG (VAG) is a special transponder for VAG immo5 keys. It can read EEPROM data. As we know, A4/A5/A6/A7/A8/Q5/Touareg cars with immo5 system use this type key. (PICTURE 4.9)
4.10. MEGAMOS 13

MEGAMOS 13 only have a data stream.
Support copy transponder: Just write the transponder identifier to the simulate transponder (T5 or PCF7935) (PICTURE 4.10)
4.11. MEGAMOS 48

MEGAMOS 48 have 16 pages (PICTURE 4.11). We can read Page0-Page4, Page15-Page12. Other pages only have write operation. Every page has 2 bytes.

- **Read Transponder**
  Read identifier (Page3/Page2), config page (Page1, Page0) and user page (Page15-Page12).
  If page 1 shown with red mean the transponder is locked. You can't write any data to locked transponder.
  About change MEGAMOS 48 identifier: see Change megamos 48 ID in chapter 7 Other Key Tool.

- **PIN / Unlock**
  The PIN code is stored in Page11, Page10. this 2 pages is write only page. You can lock the transponder to blank one with button “Unlock” and correct PIN code.
  Attention: Electronic MEGAMOS 48 made by VAG don't support unlock operation.

- **Crypto Key**
  MEGAMOS 48 have 12 bytes crypto key, stored in page9-page4.
  Input correct key in page9-page4 (not write, only input). Press button “Verify”, you can verify the crypto key with values stored in transponder.
4.12. MEGAMOS 8E

MEGAMOS 8E transponder (PICTURE 4.12), mainly contain identifier, Data area, Crypto key area. This transponder usually used in A6/Q7/Allroad (EZS-Kessy J518 4th immobilizer system)

- **Read Transponder:** It can read identifier, and 8 pages data area. Every page has 2 bytes
- **Crypto key area:** This area only support write. It contain the crypto key, total 12 bytes
- **Unlock:** You can unlock the transponder to blank with correct crypto key
- **Check Blank:** Check transponder locked or not, the transponder will locked immediately after write crypto key
4.13. TEMIC 11/ TEMIC 12

TEMIC 11 和 TEMIC 12 芯片非常接近，通讯方式略有不同。对于标准的芯片来说，TEMIC 11 芯片默认头部为 BEFA，TEMIC 12 芯片默认头部为 660F 或 66F0。可以使用自动搜索，也可以通过移位功能手动搜索（图 4.13）。此芯片只有一个数据流信息，支持芯片拷贝。拷贝只要把原始芯片 ID 写入到 T5 模拟芯片中。
4.14. TEMIC 8C

TEMIC 8C 芯片只有一个数据流信息（Picture 4.14）
4.15. TIRIS 4C

TIRIS 4C only have a Data stream (PICTURE 4.15).
Support copy transponder: Just write the Tiris 4C data to TIRIS 4C or TPX1.
4.16. **TIRIS DST 4D/TIRIS DST 4E**

TIRIS DST 4D is very similar with TIRIS DST 4E, they have same data area and algorithm, crypto key is 40 bit (5 bytes) stored in page 4. The only different is they have different coding method, so this 2 transponder can’t instead each other (PICTURE 4.16)

- **Read Transponder**: Read Page1-Page4 (default key can read for page4) and get lock status. If the page was locked, you can’t write data anymore. Page3 usually use as identifier, it combined with 3 bytes Serial and 1 bytes manufacture code
- **Write**: Write data to unlock page. Page1 and Page2 have 1 byte, Page3 have 4 bytes, Page4 have 5 bytes
- **Lock**: It can protect the page for write operation
- **TIRIS crypto verify**: This function can verify the stored crypto key (page4) right or not
  - Check TIRIS response (40 bits): VVDI2 send the seed to transponder and read the crypto value (3 bytes)
  - Calc TIRIS response (40 bits): VVDI2 have the algorithm for TIRIS 40 bits, we can calculate the seed and key, get right crypto value (3 bytes). Compare this value with transponder response value, if they are same, the transponder have same crypto key as you input. (Attention: For some special crypto key, you need check several different seed for the verify)
4.17. TIRIS DST+

TIRIS DST+ support 2 algorithm, one is same as TIRIS DST 4D (40 bits), another is 80 bits (10 bytes) algorithm (Toyota G transponder use this type). It have same coding method with TIRIS DST 4D, so if the transponder deploy to 40 bits method, it can instead TIRIS DST 4D transponder (PICTURE 4.17).

◆ **Read Transponder**: Read Page1, Page2, Page3, Page4 (Default key can be read), Page8-Page12, Page29, Page30 and lock status. If the page was locked, you can’t write data anymore. Page3 usually use as identifier, it combined with 3 bytes Serial and 1 bytes manufacture code.

◆ **Write**: Write data to unlock page. Page1 and Page2 have 1 byte, Page3 have 4 bytes, Page30 have 2 bytes, other’s page all have 5 bytes.

◆ **Lock**: It can protect the page for write operation.

◆ **TIRIS crypto verify**: This function only support verify 40 bits method transponder
  - Ch Check TIRIS response (40 bits): VVDI2 send the seed to transponder and read the crypto value (3 bytes).
  - Calc TIRIS response (40 bits): VVDI2 have the algorithm for TIRIS 40 bits, we can calculate the seed and key, get right crypto value (3 bytes). Compare this value with transponder response value, if they are same, the transponder have same crypto key as you input. (Attention: For some special crypto key, you need check several different seed for the verify)
4.18. T5/TK5551

T5/TK5551 is a very useful transponder; it can simulate many other transponders. The Data area only support write. Simulate require write different config and data. Attention: This transponder is very complex, you’d better not write data manually, use function provide by VVDI2, write error data can damage transponder (PICTURE 4.18)
5. Special Transponder

5.1. Mainly function

Special Transponder, it can prepare a special transponder (original manufacture key). It can be learned to car with PIN code (PICTURE 5.1).

5.2. Support Type

Support following types:
1) TP22 (Seat-CAN) --- Megamos Crypto 48
2) TP23 (Volkswagen-CAN) --- Megamos Crypto 48
3) TP24 (Skoda-CAN) --- Megamos Crypto 48
4) TP25 (Audi-CAN) --- Megamos Crypto 48
5) ID33 Citroen/Peugeot/Fiat/Lancia VALEO --- PCF7935
6) ID33 Fiat BOSCH --- PCF7935
7) ID33 Mazda --- PCF7935
8) ID33 Mitsubishi --- PCF7935
9) ID33 Nissan --- PCF7935
10) ID33 Nissan 2 --- PCF7935
11) ID33 Opel/Vauxhall/Cadillac/Holden --- PCF7935
12) ID33 Opel/Vauxhall/Cadillac/Holden 2 --- PCF7935
13) ID33 Volkswagen --- PCF7935
14) ID40(44) China Cars --- PCF7935
15) ID40 Opel/Vauxhall/Cadillac/Holden --- PCF7935
16) ID41 Nissan --- PCF7935
17) ID42 Volkswagen --- PCF7935
18) ID44 Mitsubishi --- PCF7935
19) ID44 Volkswagen 1 --- PCF7935
20) ID44 Volkswagen 2 --- PCF7935
21) ID45 Peugeot --- PCF7935
22) ID46 China Cars --- PCF7936
23) ID46 VAG --- PCF7936
24) ID46 Nissan X-Trail
25) ID46 Nissan Platina
26) ID46 Nissan Keyless --- Key Card
27) ID46 Infinity Keyless --- Key Card
28) ID46 Nissan Micra --- Remote Key
29) ID46 Nissan Tida --- Remote Key
30) ID46 Renault Master II --- Remote Key
31) ID46 Renault Clio II --- Remote Key
32) ID46 Renault Master II --- Transponder 7936
33) ID46 Renault Trafic II --- Remote Key
34) ID46 Renault Trafic II --- Transponder 7936
35) ID46 Nissan Primastar --- Remote Key
36) ID46 Nissan Primastar --- Transponder 7936
37) ID46 Nissan Interstar --- Remote Key
38) ID46 Nissan Interstar --- Transponder 7936
39) ID46 Opel Astra H / Zafira B --- Remote Key
40) ID46 Opel Corsa D --- Remote Key
41) ID46 Opel Vectra C --- Remote Key
42) ID46 Opel Vivaro --- Remote Key
43) ID46 Opel Vivaro --- Transponder 7936
44) ID46 Opel Movano --- Remote Key
45) ID46 Opel Movano --- Transponder 7936
46) ID46 Opel Movano III --- Remote Key
47) ID46 Renault Master III --- Remote Key
48) ID46 Renault Clio III --- Remote Key
49) ID46 Renault Modus III --- Remote Key
50) ID46 Renault Espace IV --- Transponder 7936
51) ID46 Renault Espace IV --- Key Card 2-buttons
52) ID46 Renault Espace IV --- Key Card 3-buttons
53) ID46 Renault Laguna II --- Transponder 7936
54) ID46 Renault Laguna II --- Key Card 2-buttons
55) ID46 Renault Laguna II --- Key Card 3-buttons
56) ID46 Renault Laguna III --- Key Card
57) ID46 Renault Vel Satis --- Transponder 7936
58) ID46 Renault Vel Satis --- Key Card 2-buttons
59) ID46 Renault Vel Satis --- Key Card 3-buttons
60) ID46 Renault Megane II --- Key Card
61) ID46 Renault Scenic II --- Key Card
62) ID46 Renault Twingo --- Remote key
63) ID46 Renault Twingo --- Transponder 7936
64) ID46 Citroen/Fiat/Lancia/Peugeot --- PCF7936
65) ID46 Citroen/Peugeot --- PCF7936
66) ID46 Citroen/KIA/Hyundai/Peugeot --- PCF7936
67) ID46 Fiat/Iveco --- PCF7936
68) ID46 Renault/Chrysler --- PCF7936
69) ID46 Chrysler CAN bus (Y164,Y170) --- PCF7936
70) ID46 Chevrolet Circle Plus --- PCF7936
71) ID46 Mitsubishi --- PCF7936
72) ID46 Saab
73) ID46 Hyundai Remote key 7946
74) ID46 KIA Remote key 7946
75) ID60 Generic --- Texas 4D
76) ID61 Mitsubishi II --- Texas 4D
77) ID62 Suzuki BIKE --- Texas 4D
78) ID62 Kawasaki BIKE --- Texas 4D
79) ID62 Mitsubishi III --- Texas 4D
80) ID63 Ford/Mazda --- Texas 4D
81) ID64 Chrysler/Subaru --- Texas 4E
82) ID65 Suzuki/Subaru --- Texas 4D
83) ID66 Suzuki --- Texas 4D
84) ID67 Toyota --- Texas 4D
85) ID68 Lexus --- Texas 4D
86) ID69 Yamaha --- Texas 4D.(JMA TP31)
87) ID70 Toyota Europe --- Texas 4D
88) ID70E Toyota Hybrid --- Texas 4D
89) ID73 Mitsubishi --- PCF7935
90) ID8C Ford/Mazda --- Temic 8C
91) ID8C Proton --- Temic 8C
92) Mercedes Benz G- Class --- PCF 7930
93) Mercedes Benz C- Class/E- Class --- PCF 7930
94) Mercedes Benz ML --- PCF 7930
95) VW Jetta 2010 (China) --- Megamos Crypto 48
5.3. Some Special Transponder Note

- **ID40(44) China cars --- PCF7935**: this type need select sub type: Chery, Geely, Great Wall, Haima, ChangAn *(PICTURE 5.2)*

- **ID46 China cars --- PCF7936**: this type need select sub type: Chery, Geely, Great Wall, Haima, Zotye Auto, Maple Auto, Zhonghua 530, Zhonghua 230  *(PICTURE 5.3)*
VDI2 – Transponder Programmer

**ID67 (Toyota)/ID68 (Lexus)/ID70 (Toyota-Euro)/ID70E (Toyota Hybrid) --- TIRIS 4D**

- this type need select key position: Master key1, Master key2, Master key3, Master Key4, Valet Key1, Valet Key2

**ID68 (Lexus) --- Texas 4D**

- Models: Lexus; all models 4D
- Transponder: Texas Crypto TIRIS 4D

Important note: This operation is irreversible; once the transponder is locked, the key must be replaced.
6. Immobilizer Data Tool

6.1. Mainly function – Make a working key

Immobilizer Data Tool, simply name write start. It can load car immobox EEPROM dump, make a working key directly. Provide detail transponder type and EEPROM type accord selected car (PICTURE 6.1): car original transponder, require new transponders, EEPROM chip, EEPROM size etc.

How to make a working key with immobox EEPROM dump file, steps:
1) Load immobox EEPROM dump (BIN file) with Load EEPROM dump..., it will display used key ID, key number, and PIN(if it have) etc.
2) Select a key position for new key
3) Input a blank key to VVDI2 programmer, Press button Make Dealer Key
4) After make key success, if you get save new EEPROM window, you need write new dump file to immobox to make new key working(Expect there's special note). If there's no save new EEPROM window, the made key can start engine directly.

(PICTURE 6.1)
6.2. Support Car Type

Support following types:

◆ **Asia**
  - Acura
  - Brilliance
  - Besturn
  - Chang An
  - Great Wall
  - Chery
  - Daewoo
  - Daihatsu
  - Geely
  - Haima
  - Honda
  - Hyundai
  - Infiniti
  - Isuzu
  - Kawasaki
  - Kia
  - Lexus
  - Mazda
  - Mitsubishi
  - Nissan
  - Proton
  - SaicMotor
  - Saipa
  - IKCO
  - SsangYong
  - Subaru
  - Suzuki
  - Tata
  - Toyota
  - Yamaha

◆ **Euro**
  - Alfa Romeo
  - Aprilia
  - Aston Martin
  - Audi
  - Bentley
  - BMW
  - Citroen
  - Dacia
  - DAF
- Ducati
- Ferrari
- Fiat
- Gilera
- Iveco
- Jaguar
- Lancia
- LDV
- MAN
- Maserati
- Mercedes Benz
- Opel
- Peugeot
- Piaggio
- Polonez
- Porsche
- Renault
- Rover
- Saab
- Scania
- Seat
- Skoda
- Smart
- TagAZ
- UAZ
- VAZ
- Volvo
- VW

◆ USA
- Buick
- Bombardier
- Cadillac
- Chevrolet
- Chrysler
- Dodge
- Ford
- GMC
- Jeep
- Lincoln
- Oldsmobile
- Pontiac
6.3. Special Note

- You’d better use VVDI Programmer for read Immobox EEPROM dump file
- When you save new EEPROM dump, DON’T write to original dump file, save a new name
- For VAG CDC32xx type, some type need FLASH for make dealer key
- For BMW CAS3+ encrypt version, we need working key, engine EEPROM dump or ISN support (PICTURE 6.2)
- For some special immobox, VVDI2 can fix the crashed EEPROM dump to new one. Please load new saved EEPROM dump and make key
- Porsche support Erase key, after ease key will save new dump. Make dealer key should load new dump (PICTURE 6.3)
7. Other Key Tool

Mainly include following types, there will be a steps after select one item

- Unlock – Megamos 48 transponder: Unlock all dealer key prepared by VVDI2 (Expect electronic MEGAMOS 48) (PICTURE 7.1)
- Unlock – A6/Q7/Allroad Key (MEGAMOS 8E): Require load J518 EEPROM (PICTURE 7.2)
- Unlock – PassatB6/CC 46 transponder key (need 95320 EEPROM): Require comfort module EEPROM dump(95320) (PICTURE 7.3)
- Unlock – PassatB6/CC 46 transponder key (need 6 bytes CS): Require the 7 bytes CS stored in key (PICTURE 7.4)
- Unlock – 5th OEM key (PICTURE 7.5): Now the OEM key is not support unlock, the locked OEM key can prepare new dealer key directly. Just use it as a new one
- Special – VW cars find 7th CS from working key(Megamos 48): (VAG cars) Find 7th byte CS from working key, require known 6 bytes CS (PICTURE 7.6)
- Special – VW cars prepare dealer key with 7 CS(Megamos 48): (VAG cars) Prepare a dealer key with car manufacture and 7 bytes CS (PICTURE 7.7)
- Special – Change megamos 48 ID, need special 48: Change MEGAMOS 48 identifier, require special MEGAMOS 48 transponder. You can make a key support enter in dealer server by change 48 ID to original one (PICTURE 7.8)
VVDI2 – Transponder Programmer

![Screen Capture: VVDI2 Transponder Programmer]

**Type: Unlock A5, O7, All Read Key (MEGAMOS SE)**

1. First load EKS EEPROM dump file (.J16).
2. Input dealer key to programmer. Press unlock button.

![Screen Capture: Unlock A5, O7, All Read Key]

**Type: Unlock Passat B6 CC 46 Transponder Key (need 95320 EEPROM)**

1. Unlock Passat B6 CC dealer key (46 transponder) made by VVDI.
2. Load comfort module EEPROM dump file.
3. Input key to programmer and press unlock button.

![Screen Capture: Unlock Passat B6 CC 46 Transponder Key]

Ver: 1.0
**Unlock Passat B6 CC 46 transponder key (need 6 bytes CS)**

1. Unlock Passat B6 CC dealer key (46 transponder) made by VVDI.
2. Input 7 bytes CS.
3. Input key to programmer and press unlock button.

**Unlock 5th immo OEM key**

1. Input immo5 OEM key to programmer, press unlock button.
VVDI2 – Transponder Programmer

**Special VW cars find 7th CS from working key (Megamos 48)**

1. Choose car manufacture.
2. Input 6 bytes CS.
3. Input key to programmer and press Find 7th byte CS

Find 7th byte CS

**Special VW cars prepare dealer key with 7 CS (Megamos 48)**

1. Choose car manufacture.
2. Input 7 bytes CS.
3. Input key to programmer and press Make Dealer Key

Make Dealer Key

Load file success.
VVDI2 – Transponder Programmer

1. This function needs special 48 transponder.
2. Input 48 transponder to programmer.
3. First read 48 ID then write new ID.

(PICTURE 7.8)
8. Prepare Remote

8.1. Prepare new remote key

This function can write special data to sub-remote-pcb via Remote Programmer (Picture 8.1). Make sub-remote-pcb have original remote key function (Picture 8.2).

- Requires connect Remote Programmer to VVDI2 DB15 Interface. Remote Programmer is not a standard device, you can connect your dealer for detail.

- Have offline database, and can update database via internet automatically.

- Choose specify remote type, connect Remote Programmer to VVDI2 DB15 interface, and connect another head to sub-remote-pcb. Press “Prepare Remote” and wait end.

- After write success, the sub-remote-pcb have same function as original remote key. What you need to do is adapt the sub-remote-pcb to car.

- About Prepare from file: If you select this option, it will ask you load a remote file when prepare remote. Attention: the file must get from VVDI2. Write other data may damage sub-remote-pcb.

- Feedback: You can feedback any question in prepare remote here. Just write your question and contact method and feedback to VVDI2.