
VVDI2 - Transponder Programmer User Manual

VVDI

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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 used for illegal purpose, Please follow the national law**
- ◆ VVDI2 – Transponder Programmer User Manual is written by VVDI2, **please DON'T used 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 [\(PICTURE 3.1\)](#)
 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

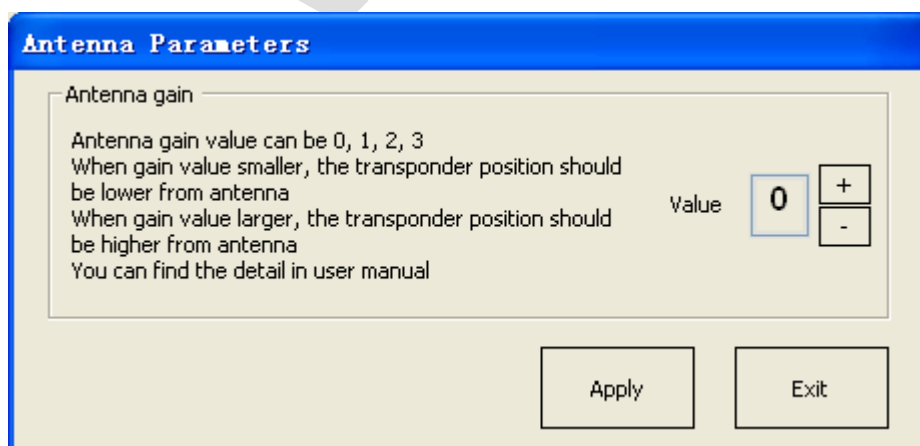
When gain value smaller, the sensing range will be small and lower. If the transponder
 position is higher from antenna, the access may failed

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



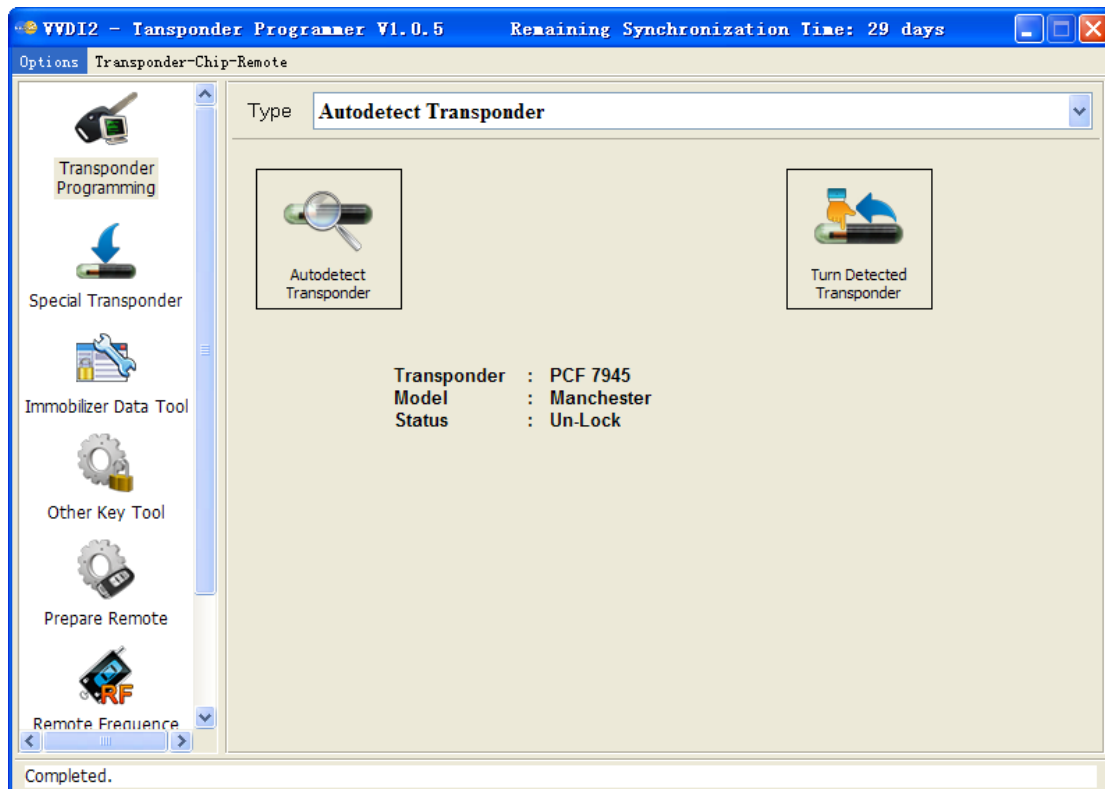
[\(PICTURE 3.1\)](#)

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



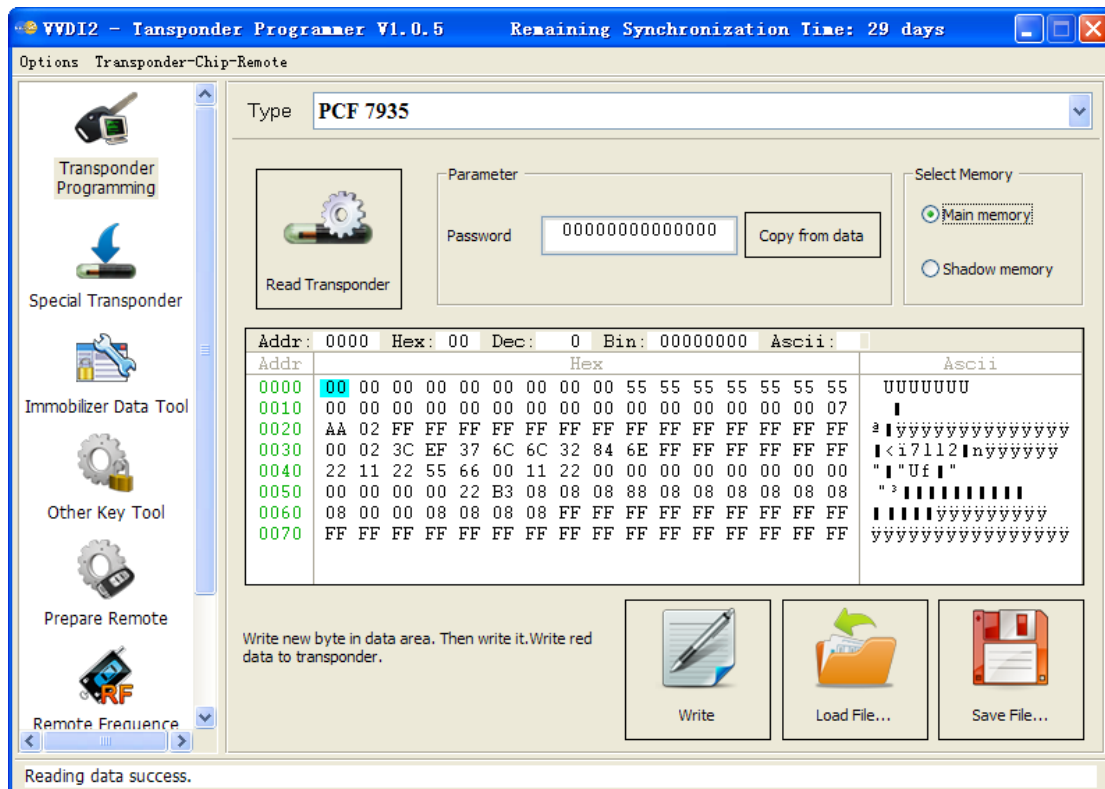
(PICTURE 4.1)

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)



(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 [\(PICTURE 4.3\)](#), it is compatible with PHILIPS PCF7936 transponders. It support following types:

PCF7936

PCF7941

PCF7942/44

PCF7943

PCF7945

PCF7946

PCF7947

PCF7952

PCF7953

PCF7961

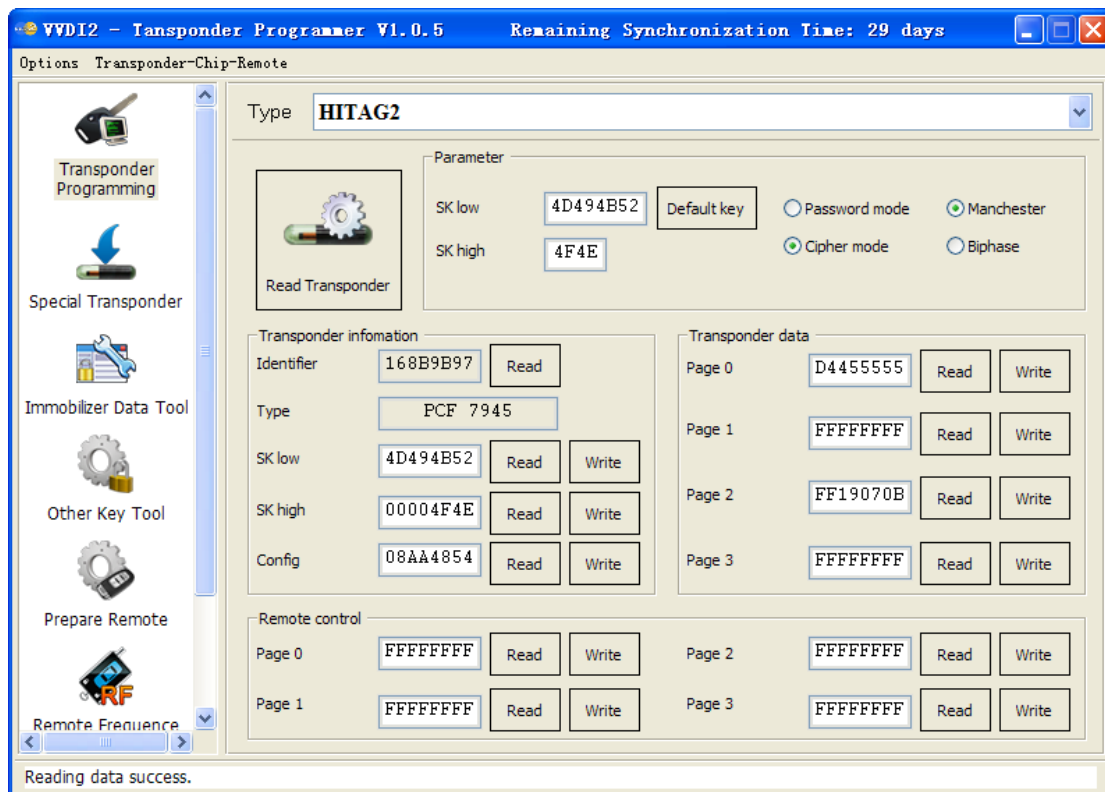
(There's some other HITAG2 transponder made by small company, it don't have the above type, but also support)

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)



(PICTURE 4.3)

◆ 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 "XXYYZZWW" (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 X2 X3 X4 X5 X6 X7 X8

- 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

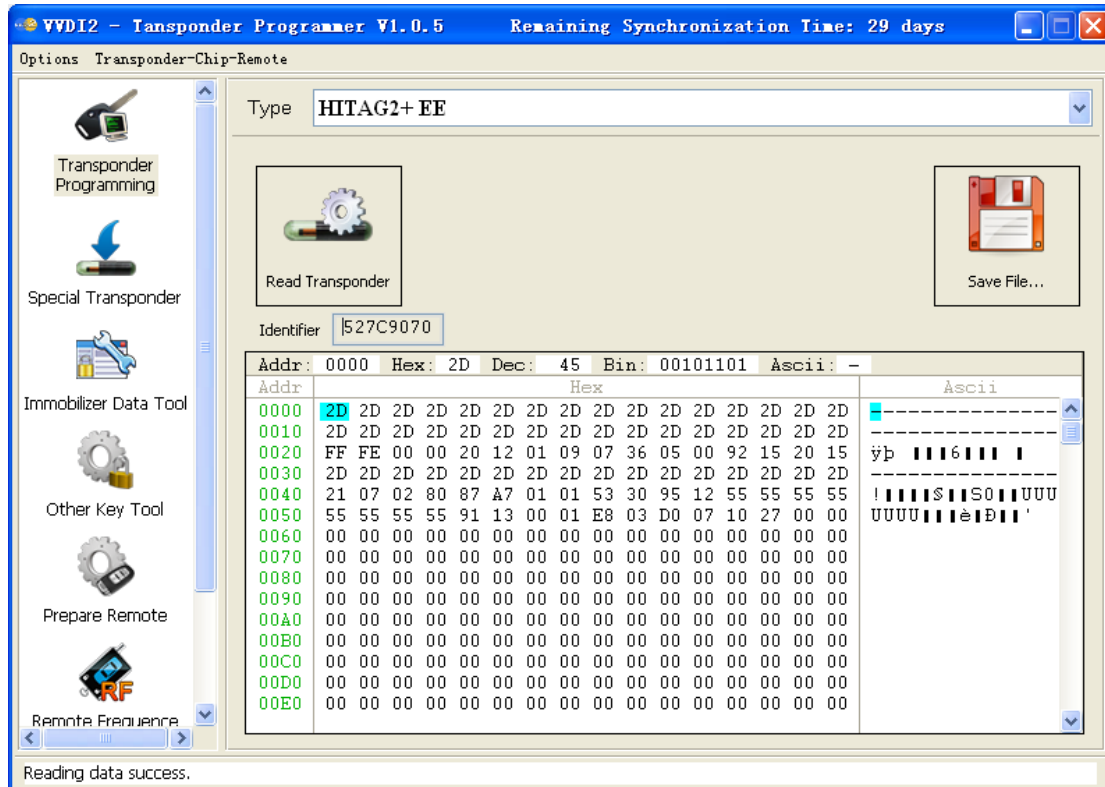
The transponder use transponder data area

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

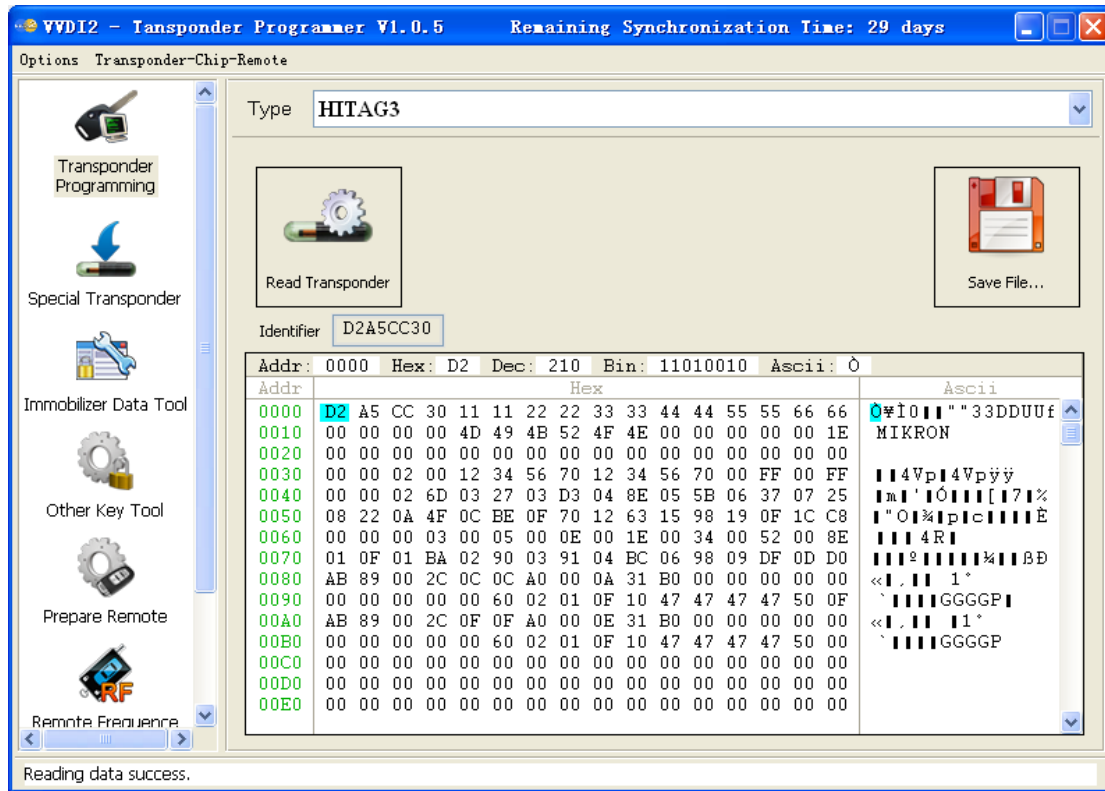
Support read EEPROM data for PCF7952, PCF7945, PCF7953 etc. (Note: Standard access method for HITAG2+ EEPROM, just like Hyundai, Kia keys. BMW key not belong to this type) (PICTURE 4. 4)



(PICTURE 4. 4)

4.6. HITAG3

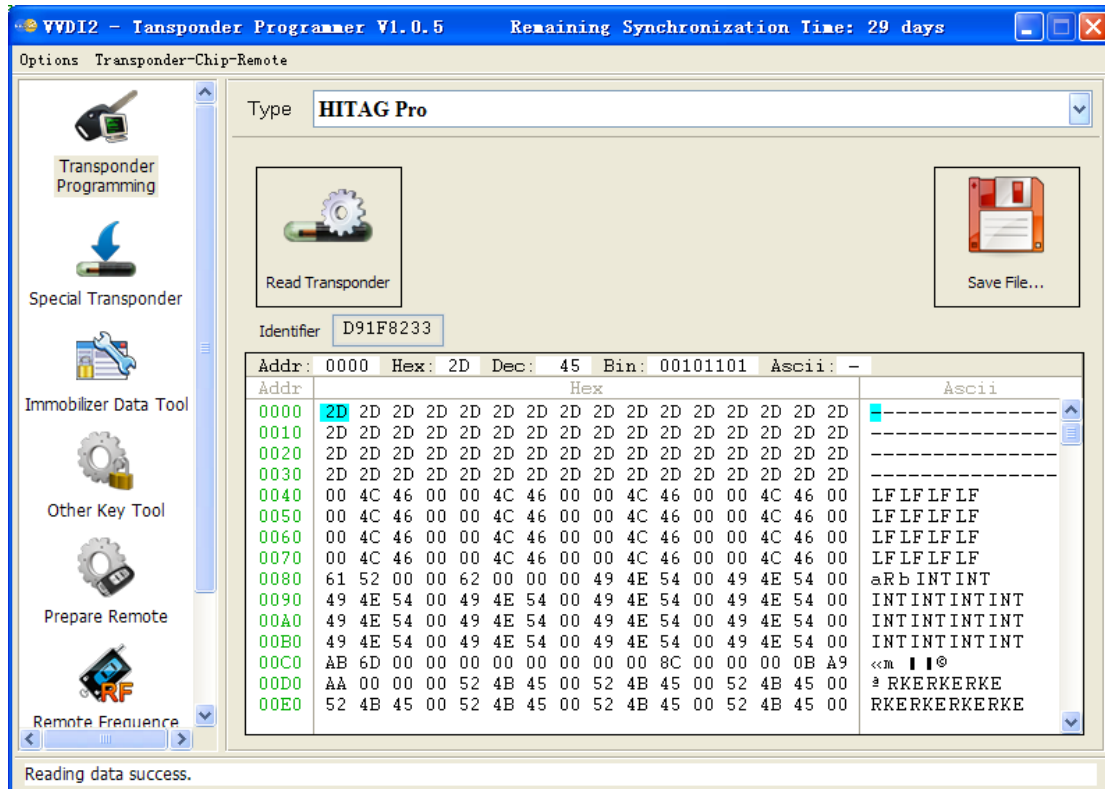
Support read EEPROM data for HITAG3 (Some new key in Nissan use this type) [\(PICTURE 4.6\)](#)



(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 [\(PICTURE 4. 7\)](#)

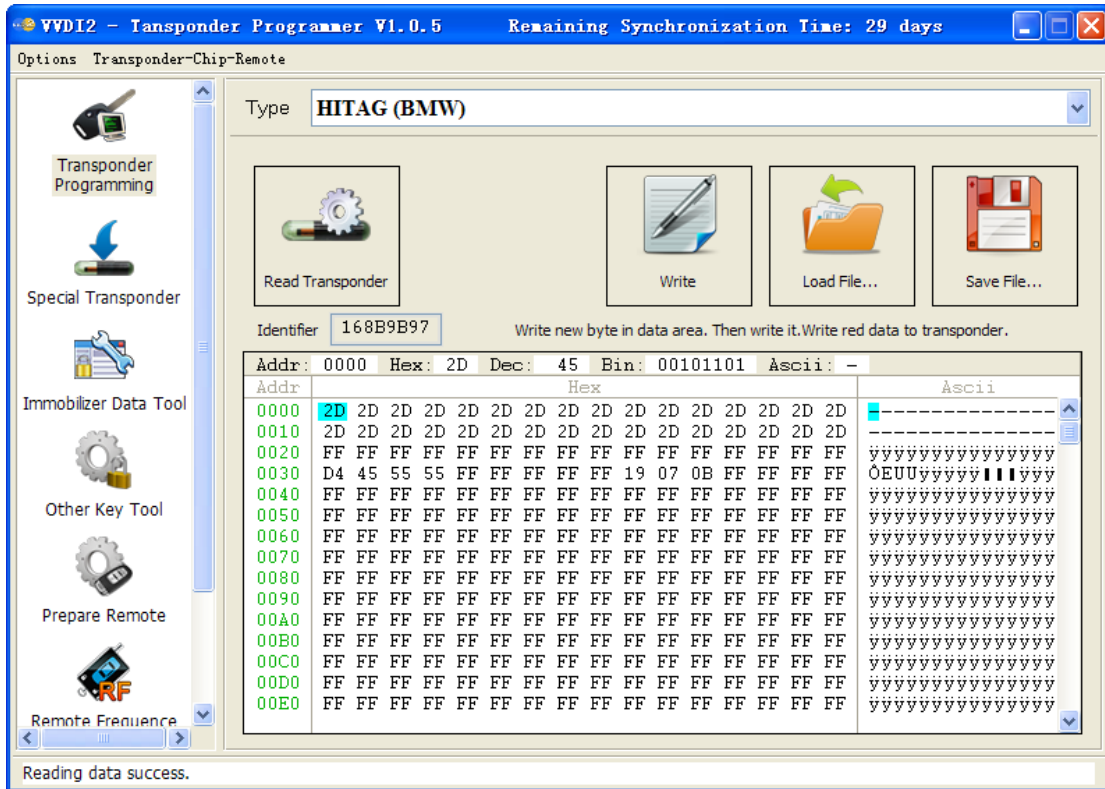


[\(PICTURE 4. 7\)](#)

4.8. HITAG (BMW)

Support read/write EEPROM data for BMW remote (keyless) keys.

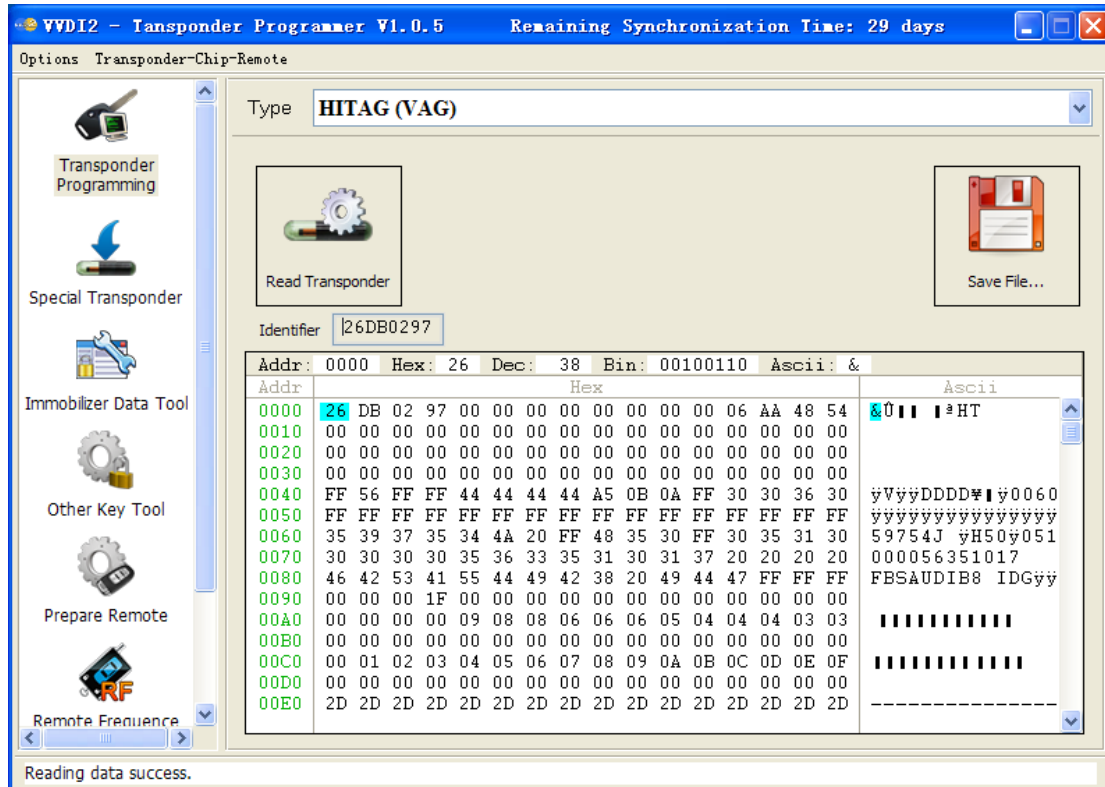
Write: You need read transponder success before write, modify the position to your expect value, the byte will change read after edit, then write to transponder [\(PICTURE 4. 8\)](#)



(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 [\(PICTURE 4. 9\)](#)

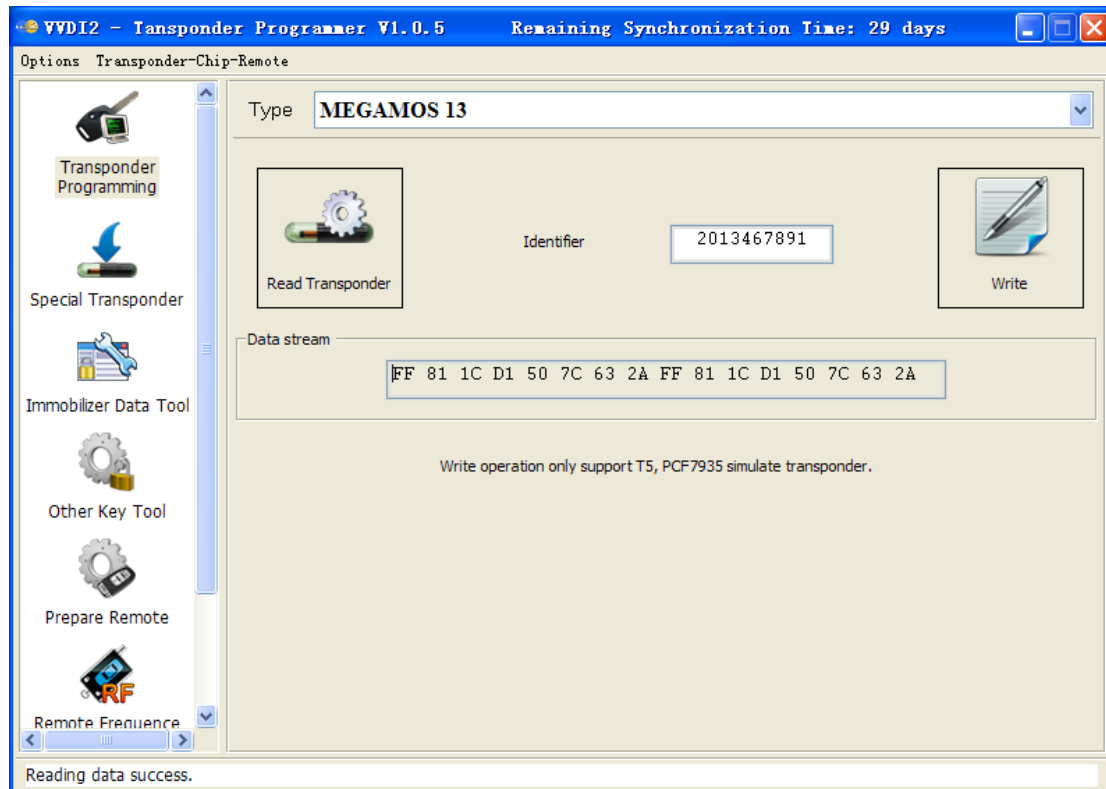


[\(PICTURE 4. 9\)](#)

4.10. MEGAMOS 13

MEGAMOS 13 only have a data stream.

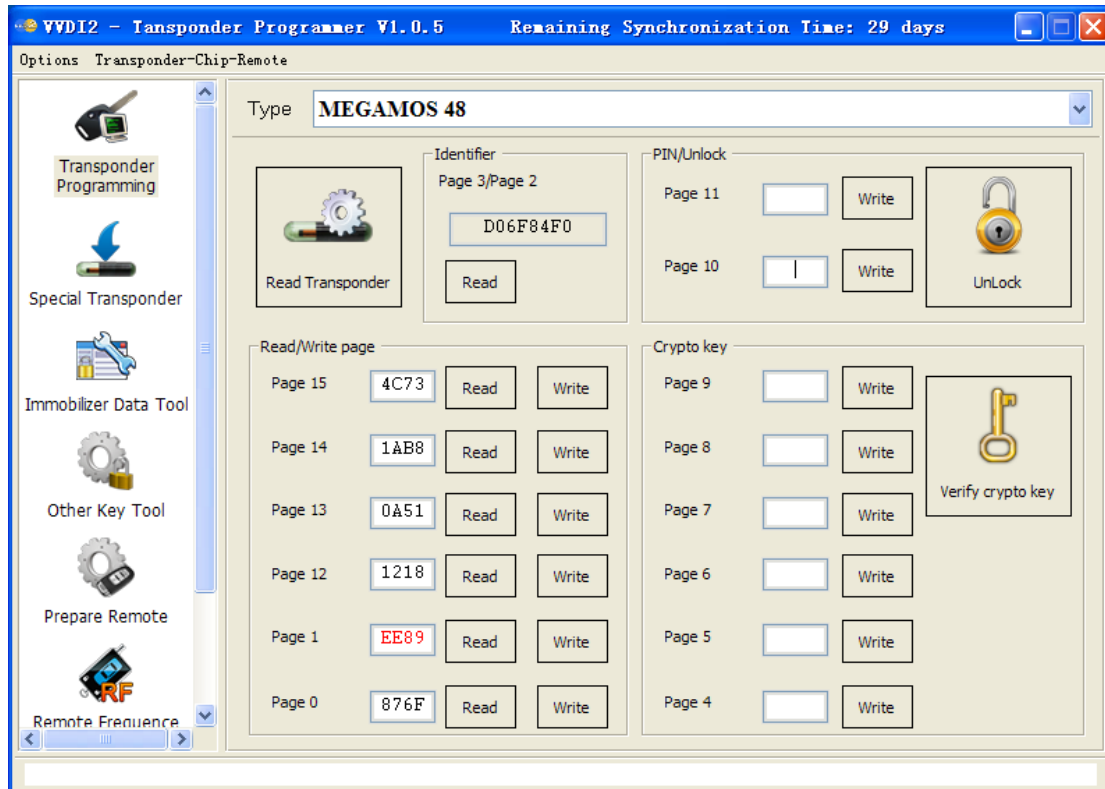
Support copy transponder: Just write the transponder identifier to the simulate transponder (T5 or PCF7935) [\(PICTURE 4.10\)](#)



[\(PICTURE 4.10\)](#)

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



(PICTURE 4.11)

◆ 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

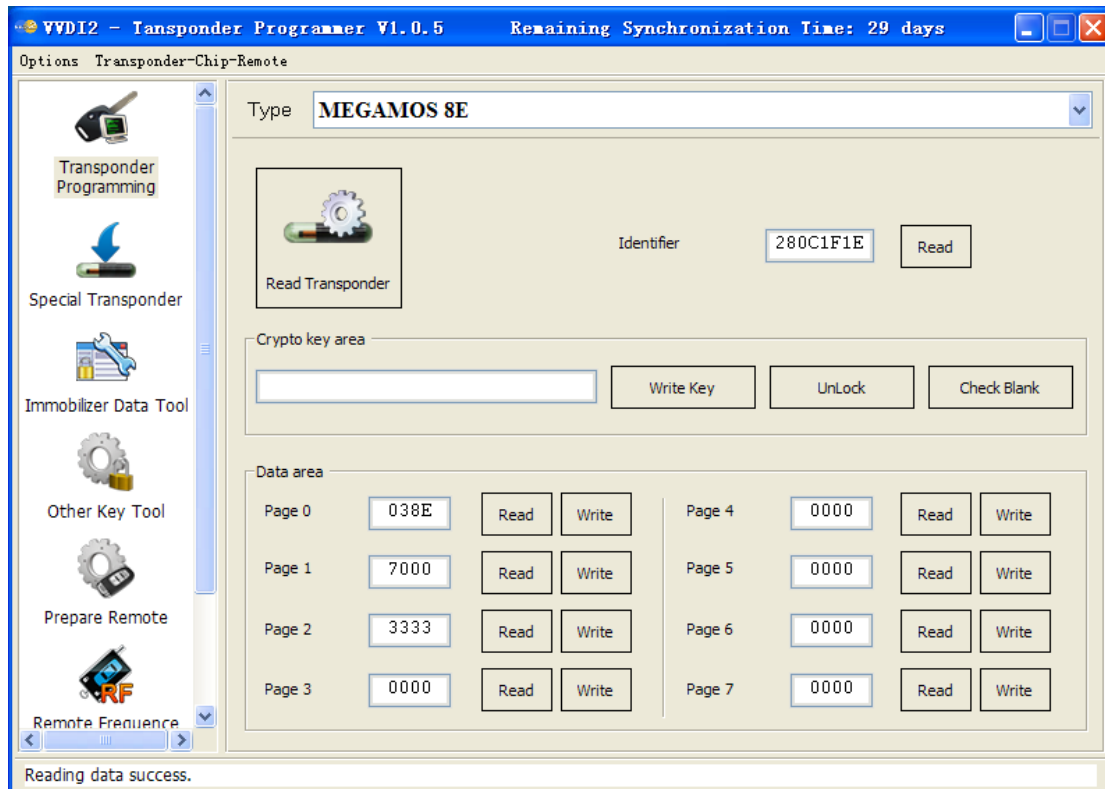
◆ Crypto Key

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)

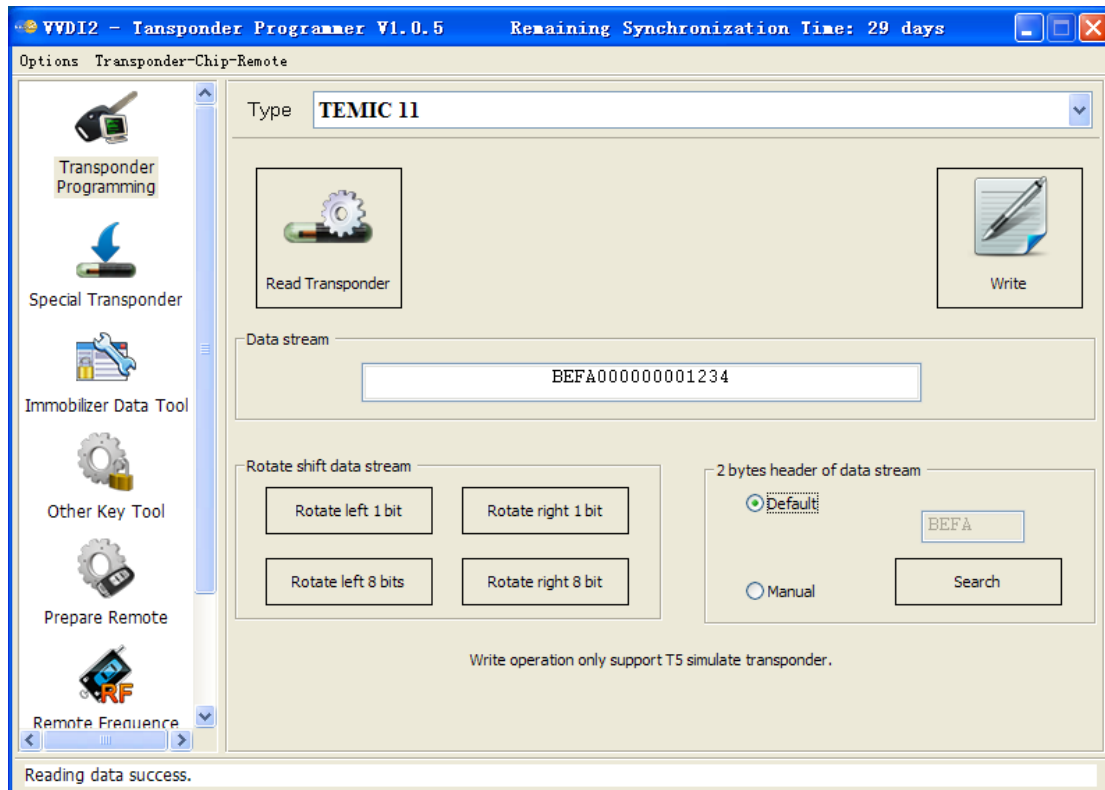


(PICTURE 4.12)

- **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

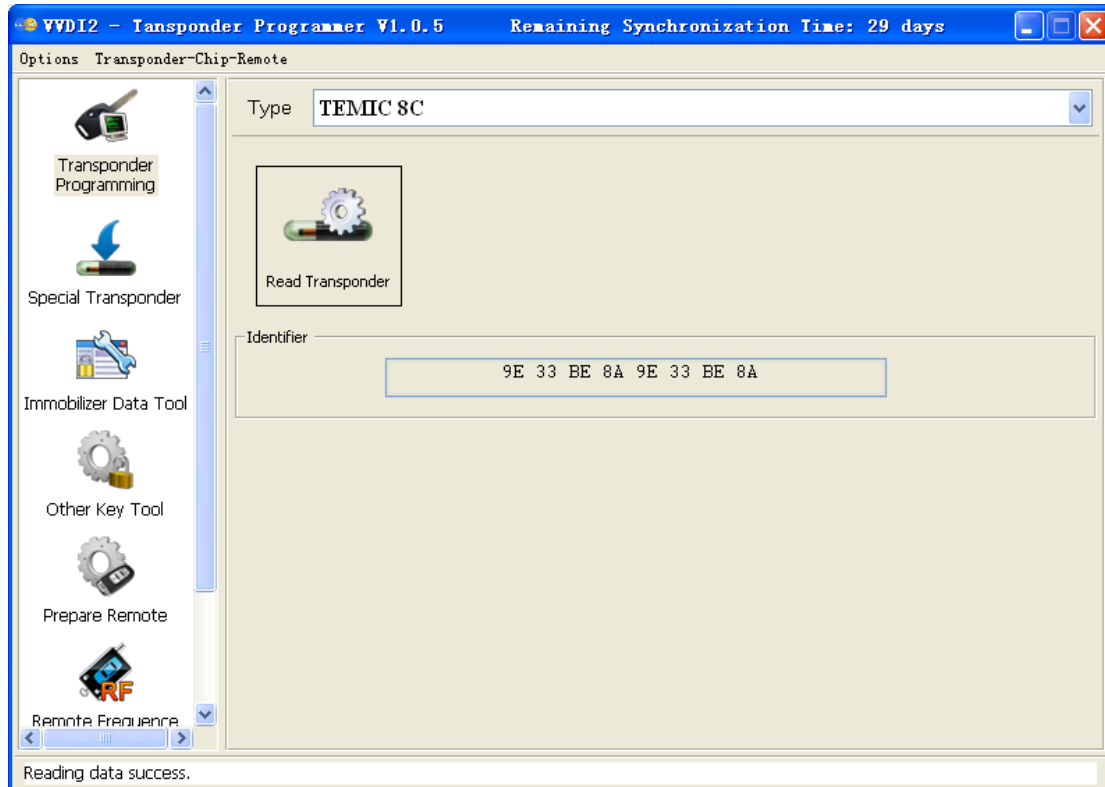
TEMIC 11 和 TEMIC 12 芯片非常接近，通讯方式略有不同。对于标准的芯片来说，TEMIC 11 芯片默认头部为 BEFA，TEMIC 12 芯片默认头部为 660F 或 66F0。可以使用自动搜索，也可以通过移位功能手动搜索 (PICTURE 4.13)。此芯片只有一个数据流信息，支持芯片拷贝。拷贝只要把原始芯片 ID 写入到 T5 模拟芯片中



(PICTURE 4.13)

4.14. TEMIC 8C

TEMIC 8C 芯片只有一个数据流信息 [\(PICTURE 4.14\)](#)

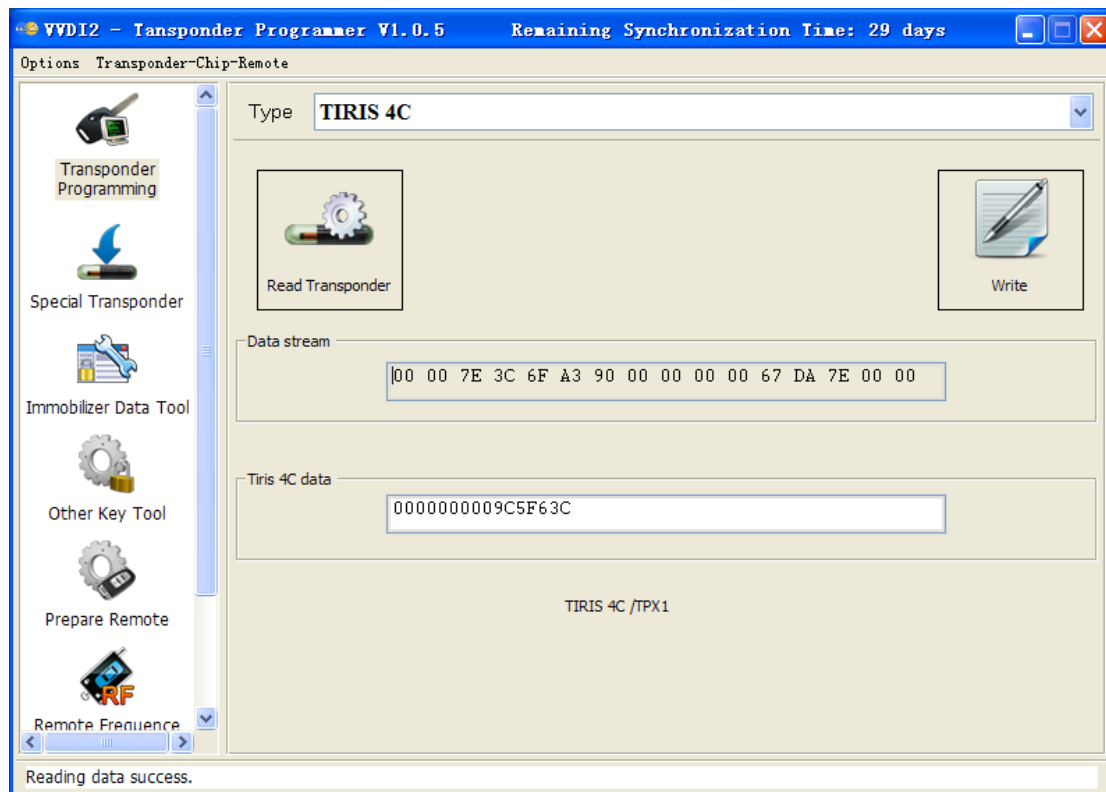


[\(PICTURE 4.14\)](#)

4.15. TIRIS 4C

TIRIS 4C only have a Data stream [\(PICTURE 4.15\)](#)

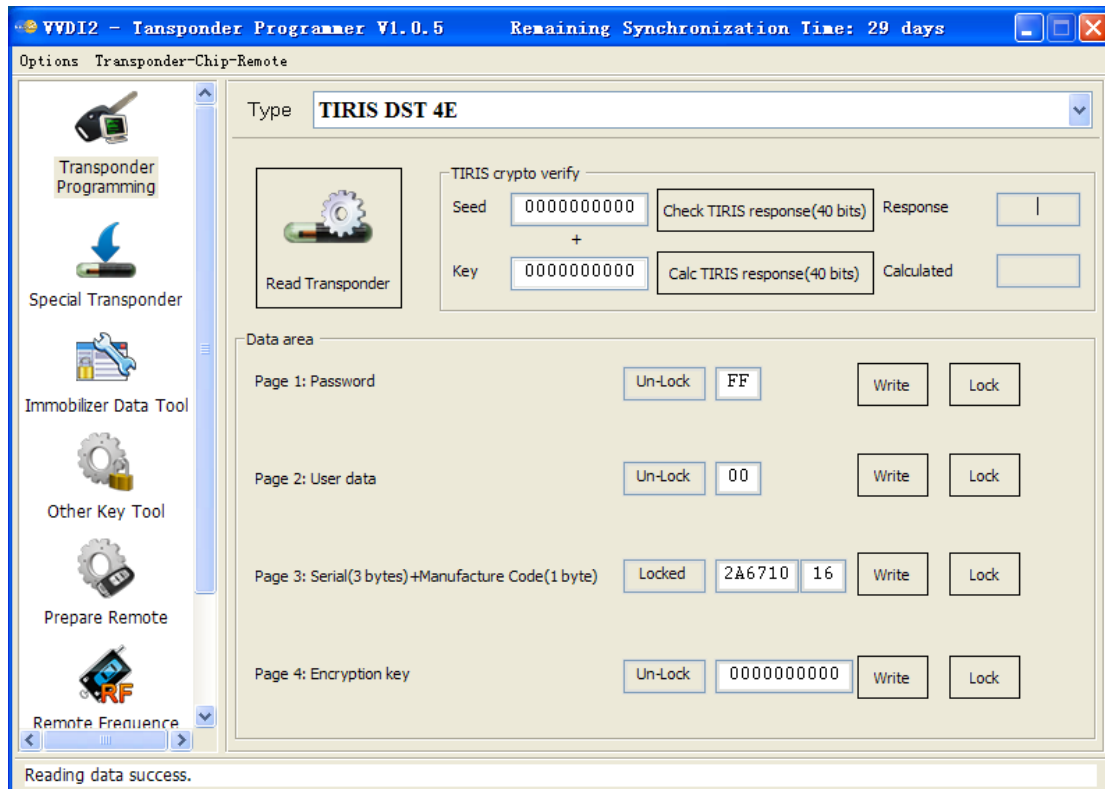
Support copy transponder: Just write the Tiris 4C data to TIRIS 4C or TPX1



[\(PICTURE 4.15\)](#)

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 [\(PICTURE 4.16\)](#)

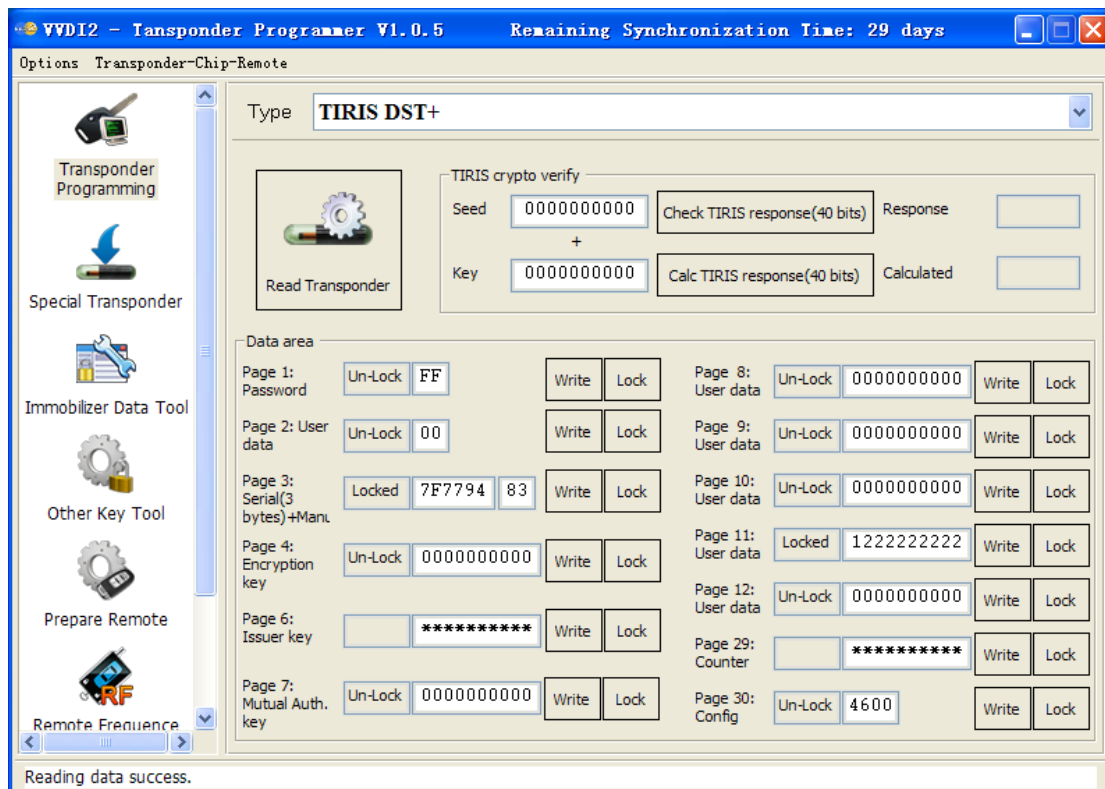


[\(PICTURE 4.16\)](#)

- ◆ **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 (3bytes). 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 [\(PICTURE 4. 17\)](#)

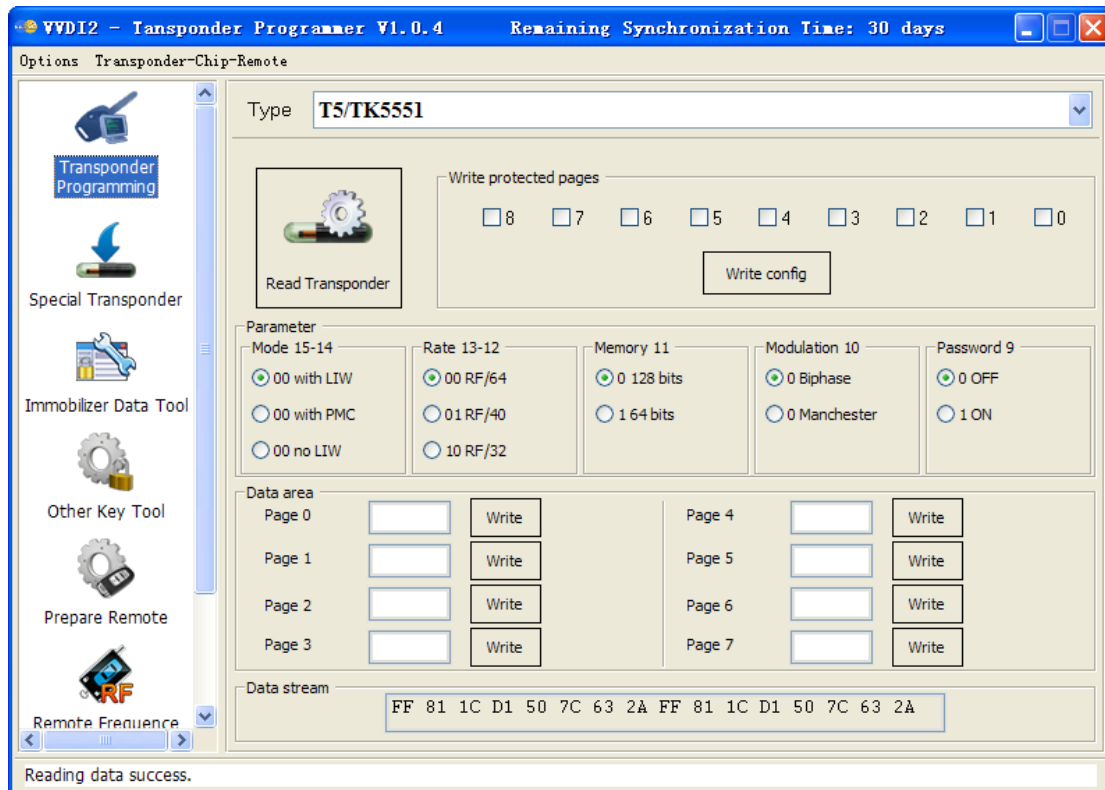


[\(PICTURE 4. 17\)](#)

- ◆ **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 (3bytes). 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 [\(PICTURE 4.18\)](#)

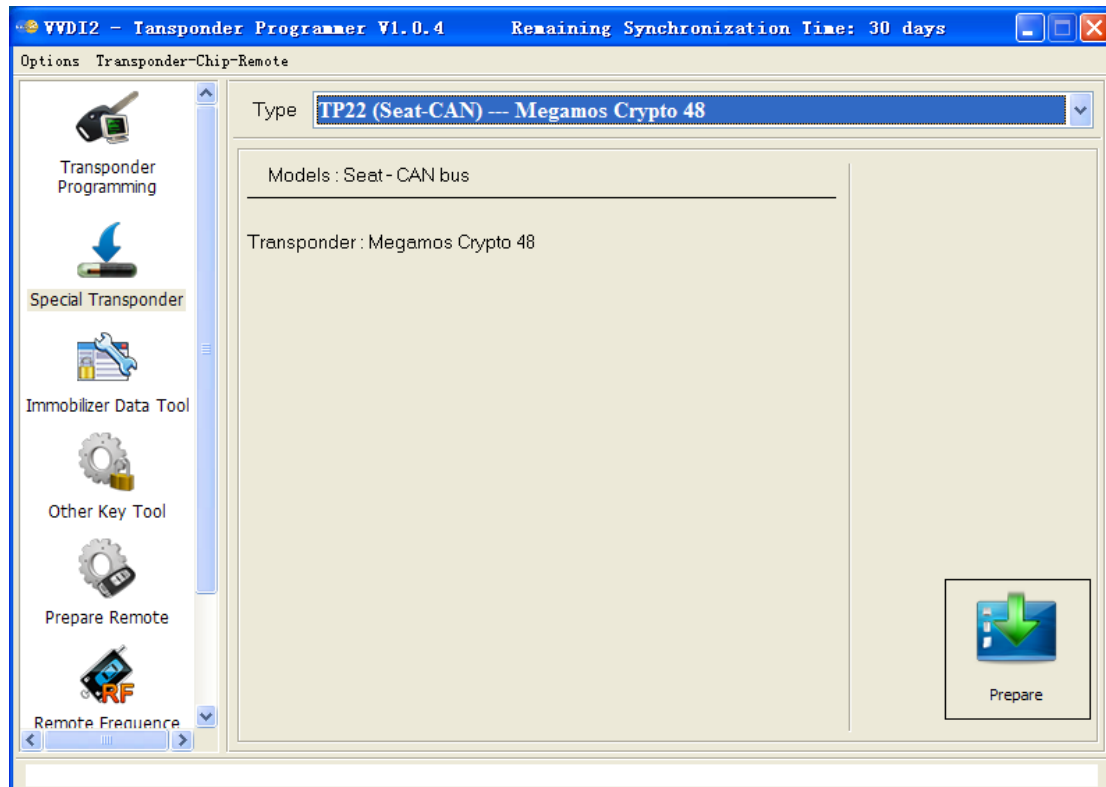


[\(PICTURE 4.18\)](#)

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 [\(PICTURE 5. 1\)](#)



[\(PICTURE 5. 1\)](#)

5.2. Support Type

Support following types:

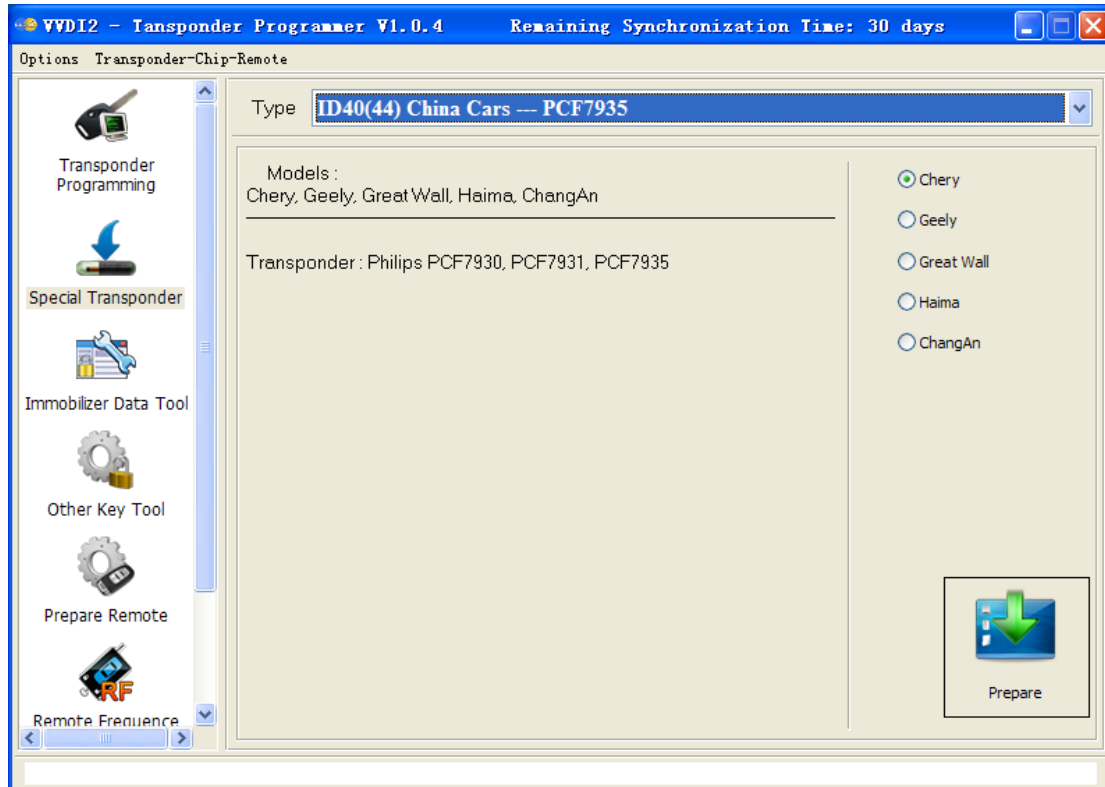
- 1) TP22 (Seat-CAN) --- Megamos Crypto 48
- 2) TP23 (Volkswagen-CAN) --- Megamos Crypto 48
- 3) TP24 (Skoda-CAN) --- Megamos Crypto 48
- 4) TP25 (Audi-CAN) --- Megamos Crypto 48
- 5) ID33 Citroen/Peugeot/Fiat/Lancia VALEO --- PCF7935
- 6) ID33 Fiat BOSCH --- PCF7935
- 7) ID33 Mazda --- PCF7935
- 8) 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

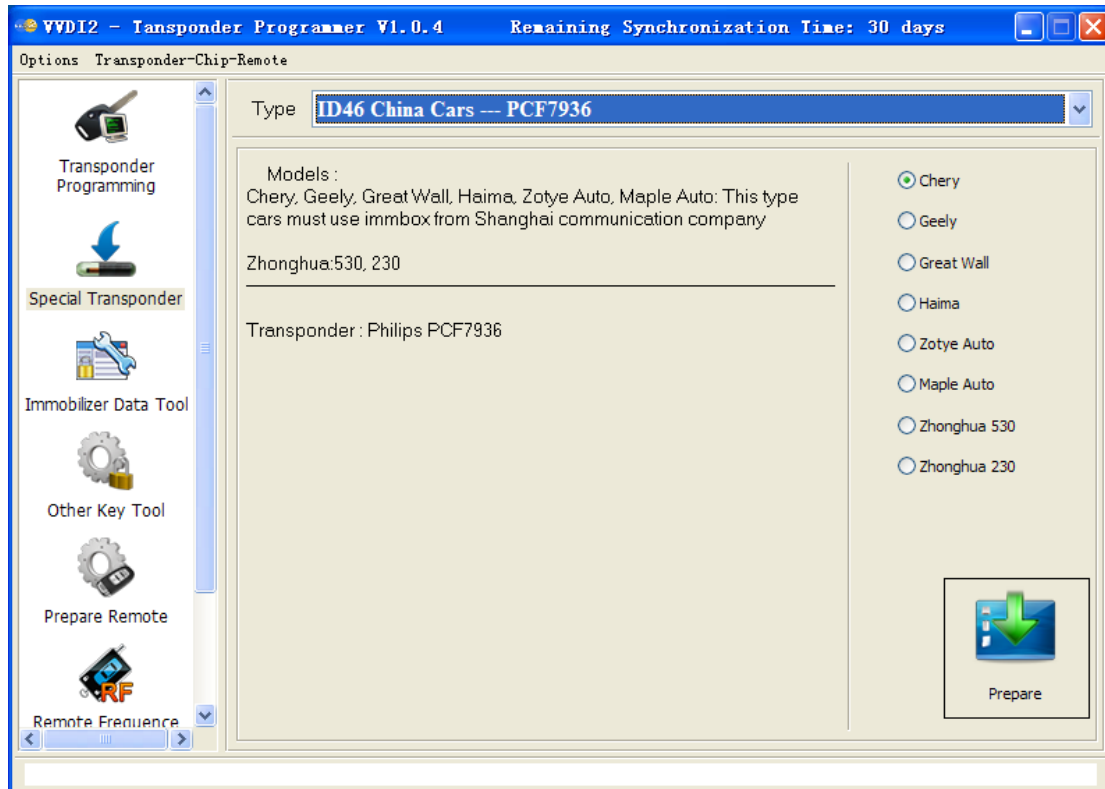
5.3. Some Special Transponder Note

- ◆ **ID40(44) China cars --- PCF7935:** this type need select sub type: Chery, Geely, Great Wall, Haima, ChangAn [\(PICTURE 5. 2\)](#)



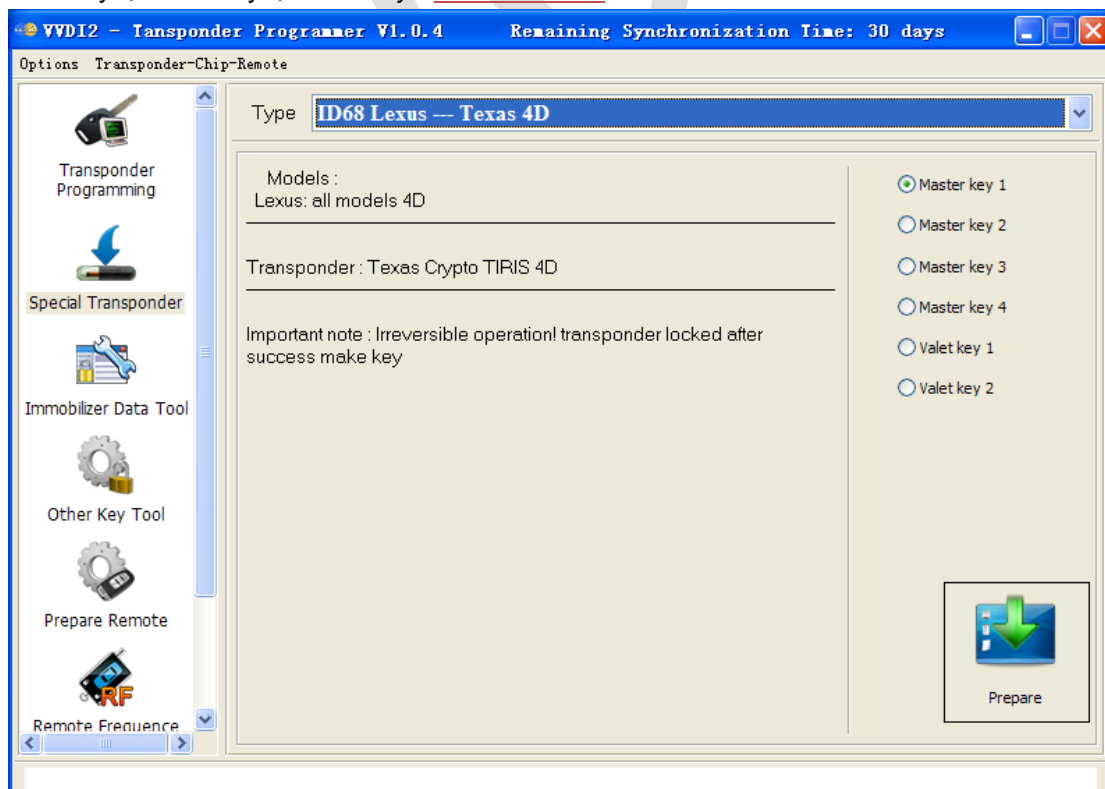
[\(PICTURE 5. 2\)](#)

- ◆ **ID46 China cars --- PCF7936:** this type need select sub type: Chery, Geely, Great Wall, Haima, Zotye Auto, Maple Auto, Zhonghua 530, Zhonghua 230 [\(PICTURE 5. 3\)](#)



(PICTURE 5. 3)

- ◆ **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 (PICTURE 5. 4)



(PICTURE 5. 4)

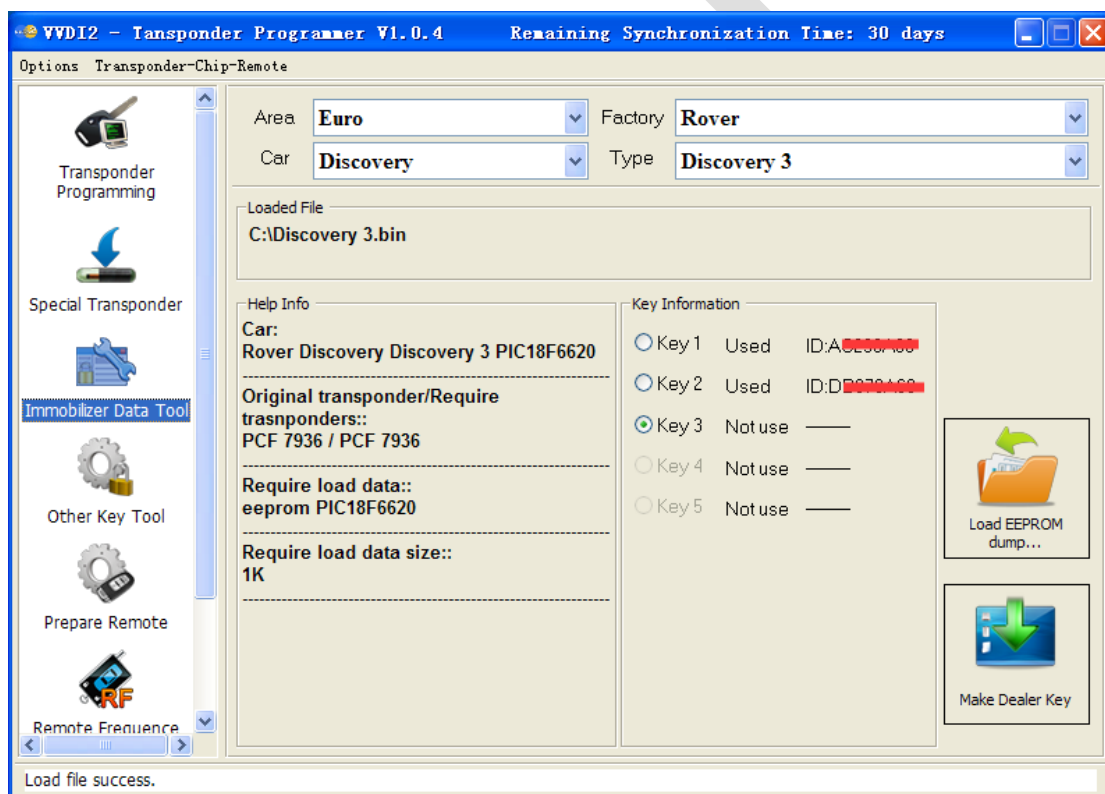
6. Immobilizer Data Tool

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

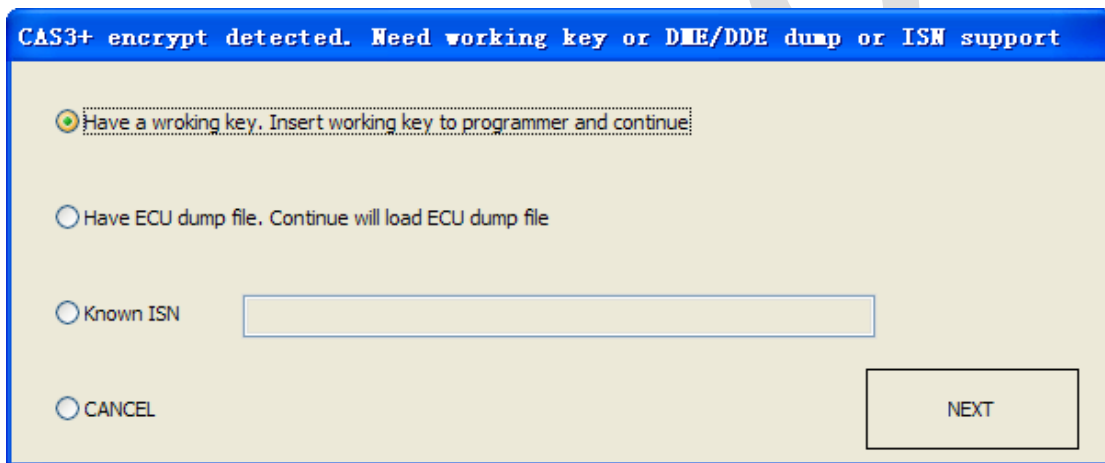
- Ducati
- Ferrari
- Fiat
- Gilera
- Iveco
- Jaguar
- Lancia
- LDV
- MAN
- Maserati
- Mercedes Benz
- Opel
- Peugeot
- Piaggio
- Polonez
- Porsche
- Renault
- Rover
- Saab
- Scania
- Seat
- Skoda
- Smart
- TagAZ
- UAZ
- VAZ
- Volvo
- VW

◆ **USA**

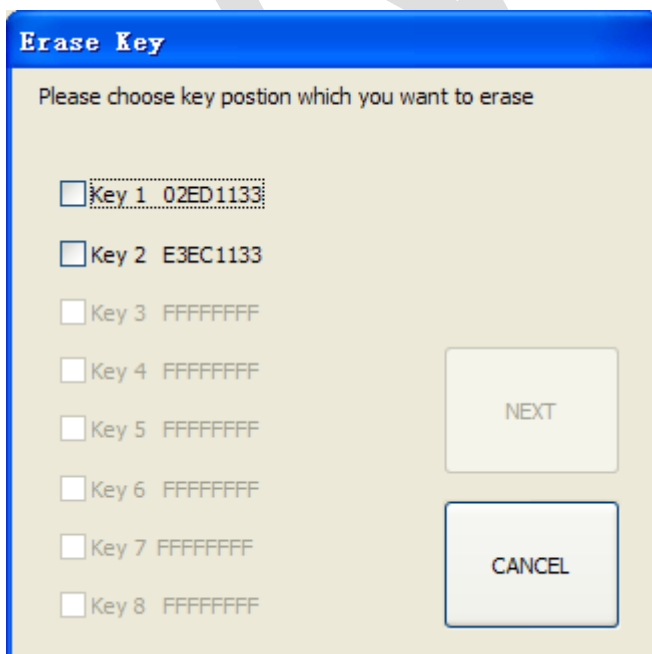
- Buick
- Bombardier
- Cadillac
- Chevrolet
- Chrysler
- Dodge
- Ford
- GMC
- Jeep
- Lincoln
- Oldsmobile
- Pontiac

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 [\(PICTURE 6.3\)](#)



[\(PICTURE 6.2\)](#)

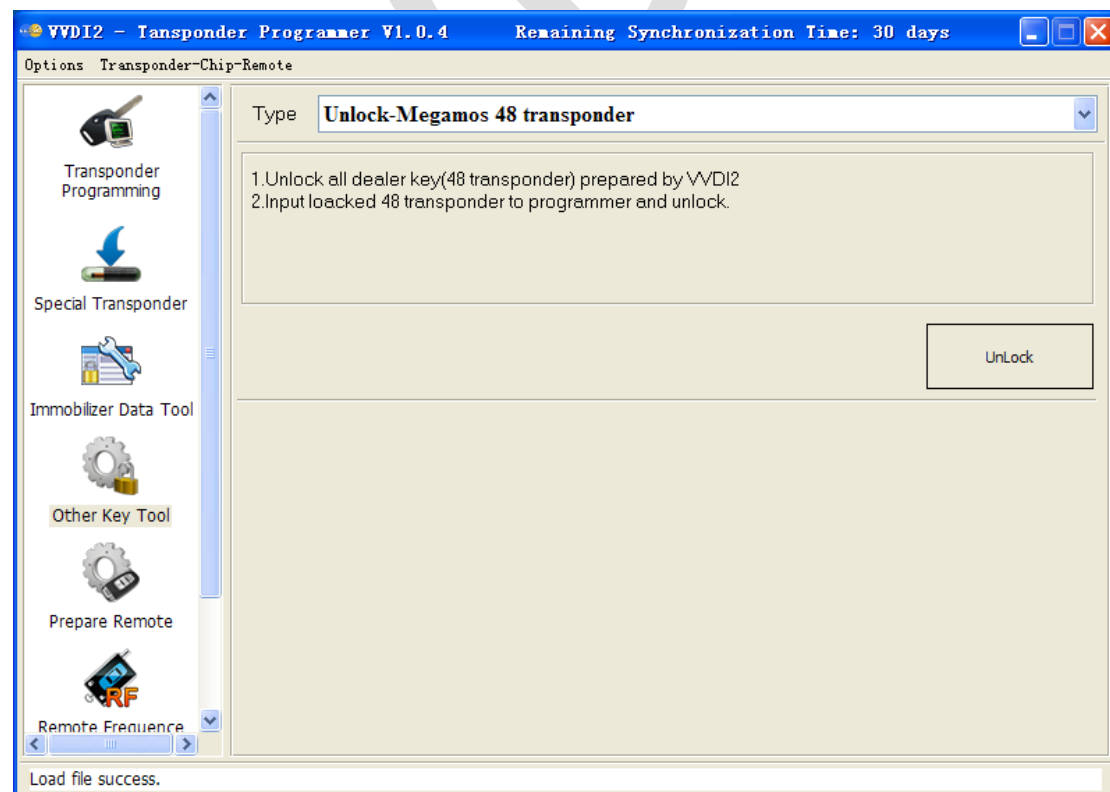


(PICTURE 6. 3)

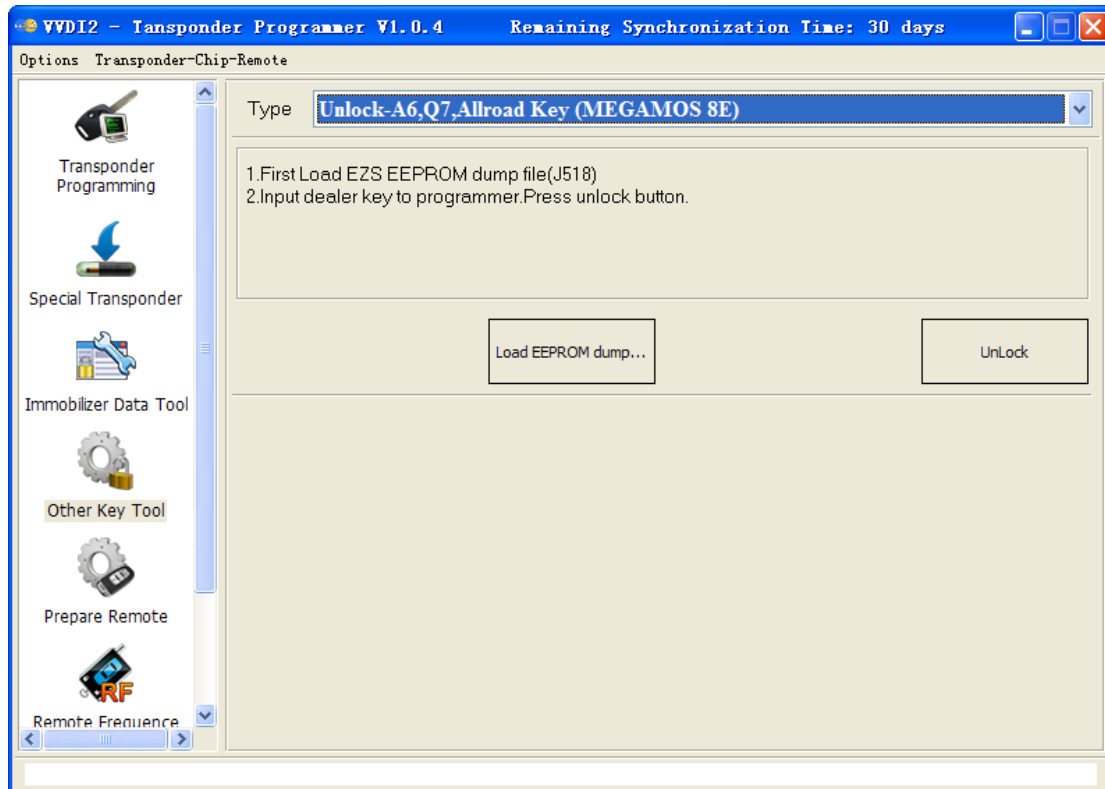
7. Other Key Tool

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

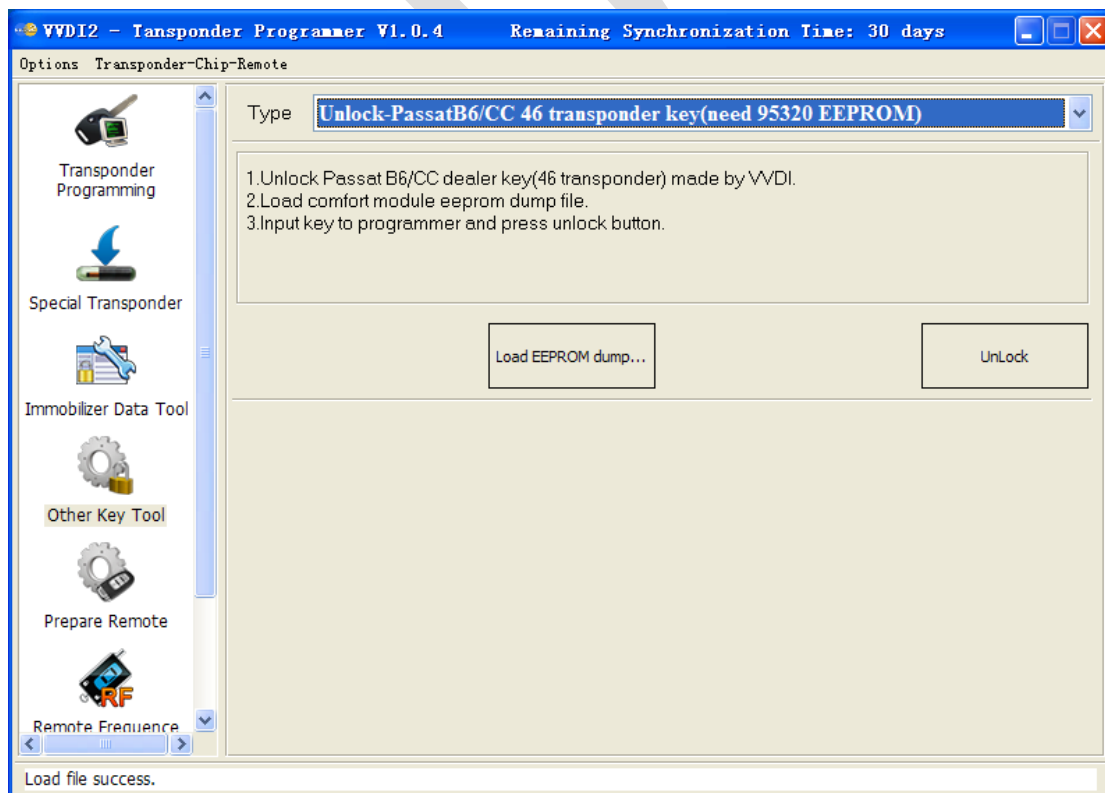
- ◆ Unlock – Megamos 48 transponder: Unlock all dealer key prepared by VVDI2 (Expect electronic MEGAMOS 48) (PICTURE 7. 1)
- ◆ Unlock – A6/Q7/Allroad Key (MEGAMOS 8E): Require load J518 EEPROM (PICTURE 7. 2)
- ◆ Unlock – PassatB6/CC 46 transponder key (need 95320 EEPROM): Require comfort module EEPROM 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)



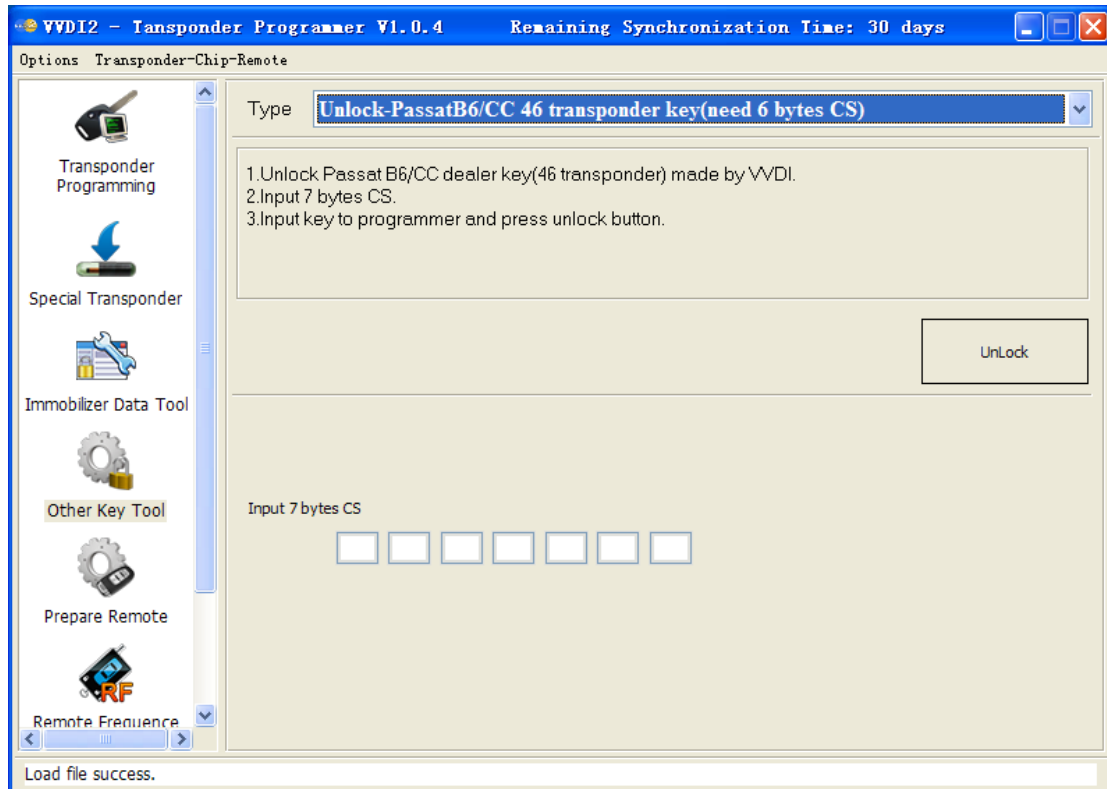
(PICTURE 7. 1)



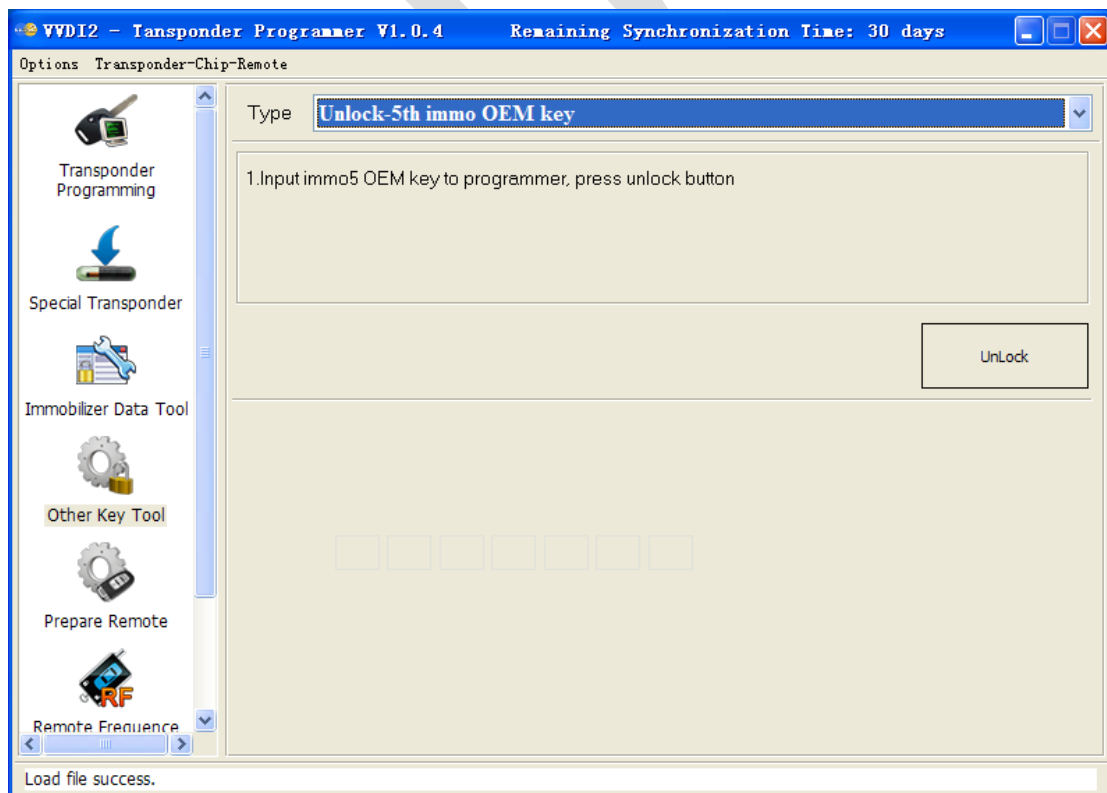
(PICTURE 7.2)



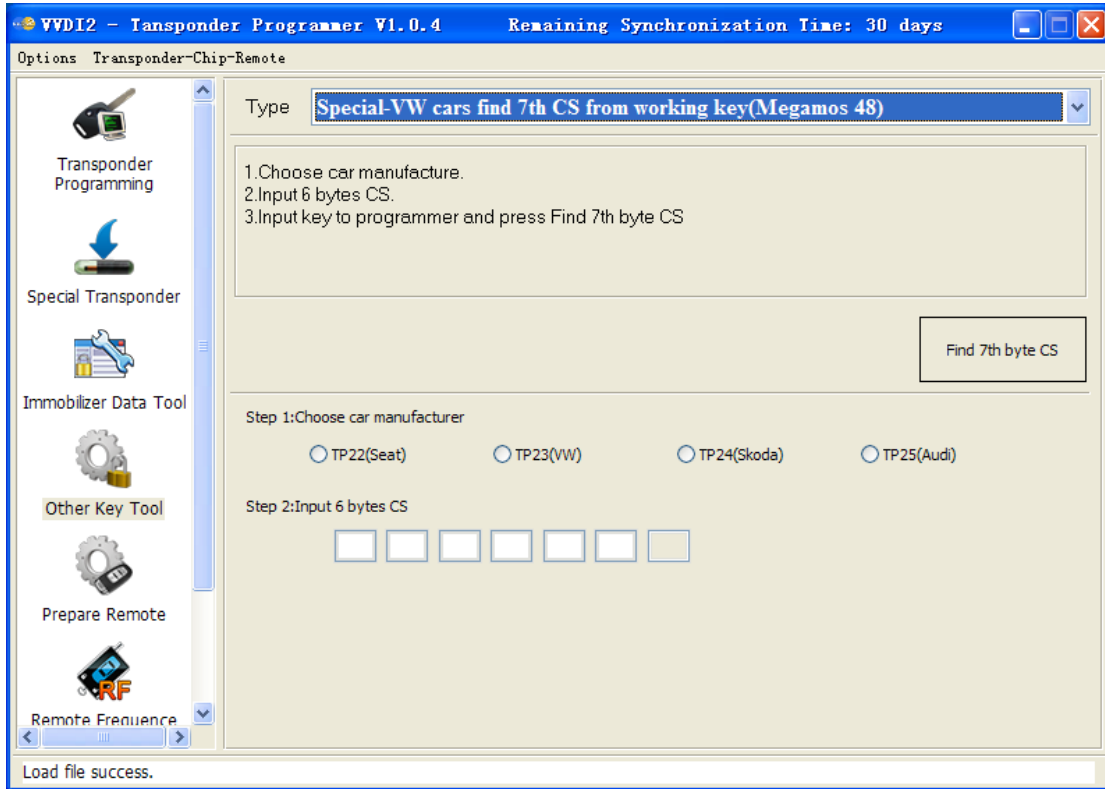
(PICTURE 7.3)



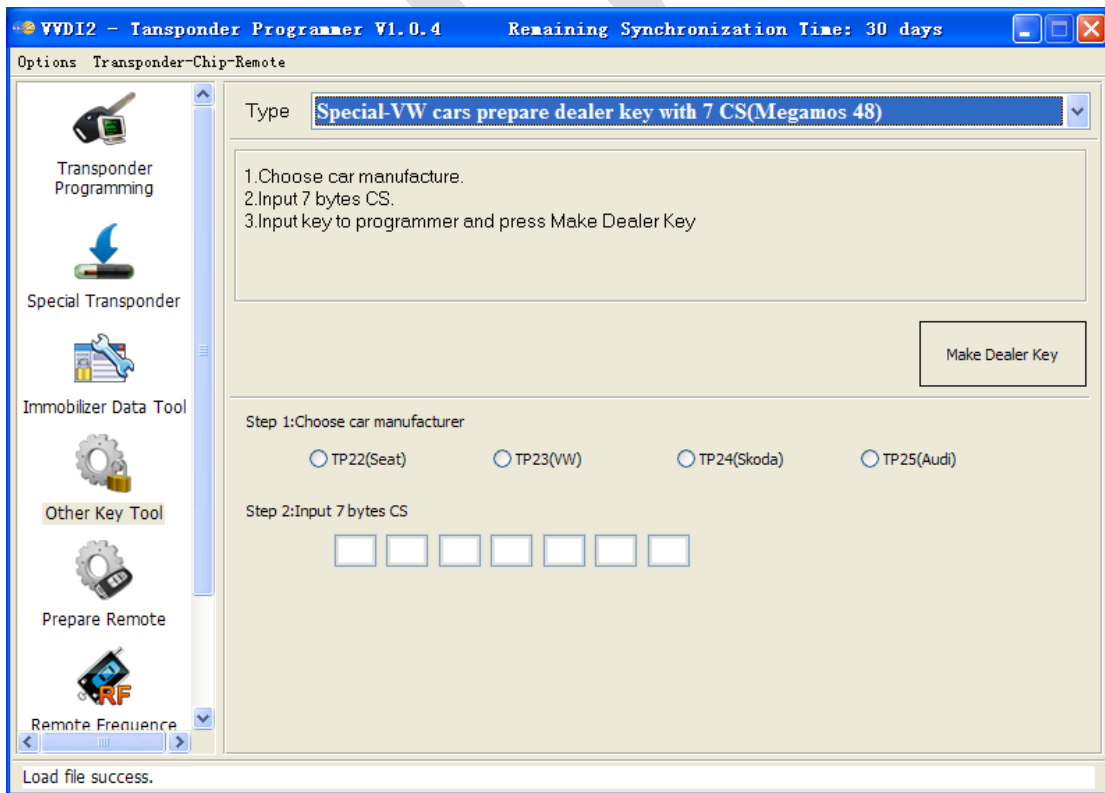
(PICTURE 7. 4)



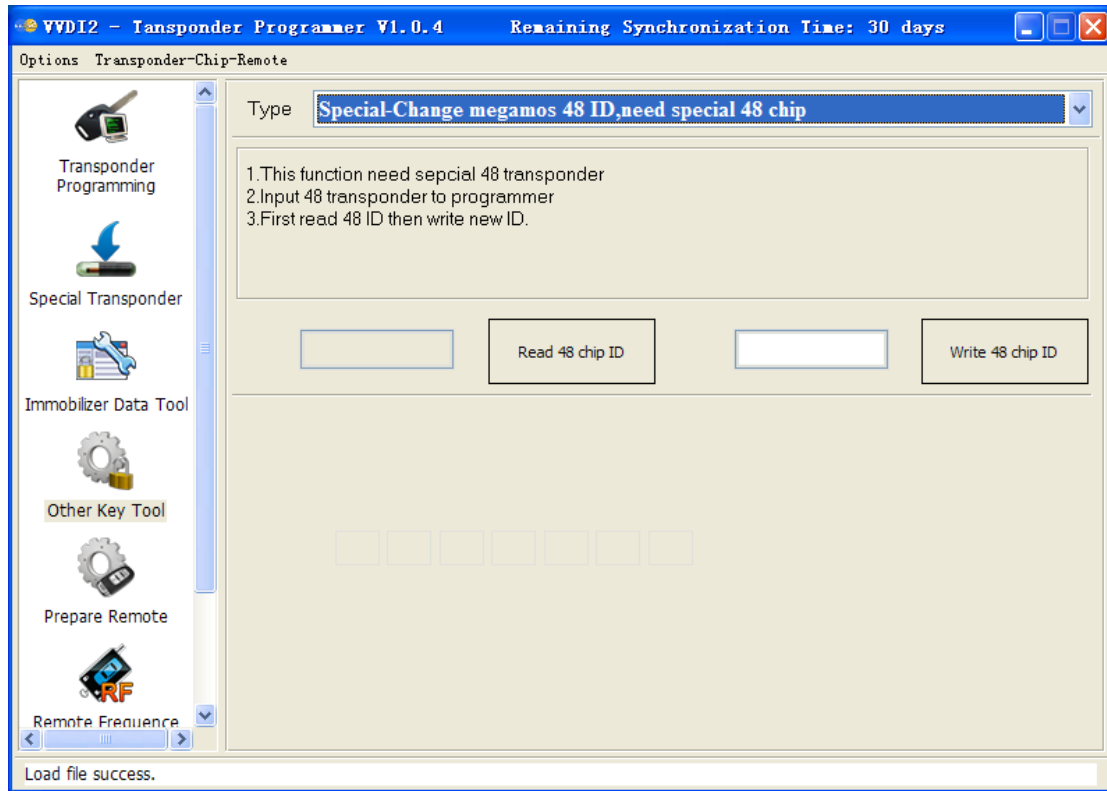
(PICTURE 7. 5)



(PICTURE 7.6)



(PICTURE 7.7)



(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



[\(PICTURE 8. 1\)](#)



(PICTURE 8.2)