VVDI-MB TOOL User Manual

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1. Document Declaration

Please view the following declaration carefully:

- VVDI MB TOOL User Manual can help you maintenance vehicles with VVDI MB TOOL device. Please DON'T used for illegal purpose, Please follow the national law
- VVDI MB TOOL User Manual is written by VVDI-MB, please DON'T used for commercial purposes without authorize
- VVDI MB TOOL User Manual can help you how to use VVDI MB TOOL software, please view carefully
- Any illegal use VVDI MB TOOL User Manual, illegal use VVDI MB TOOL device, The user should take all risks, the company does not assume any responsibility



2. Overview

2.1. Noun explanation

- Mercedes Benz: A car brand come from German, we simply use MB, BENZ instead
- EIS: Sometimes we call it EZS. The immobilizer system for MB cars
- ESL: Sometimes we call it ESL
- Chassis: Mainly use to distinguish car platform, the same platform will have same EIS type, example: W204, W216 etc.

2.2. VVDI – MB TOOL Hardware



- 1. VVDI-MB TOOL device
- 2. IR adaptor
- 3. USB cable
- 4. NEC adaptor 1
- 5. NEC adaptor 2
- 6. NEC adaptor base PCB
- 7. K Line in OBD line
- 8. OBD line





9. VVDI-MB NEC Key Adaptor (not standard component, need buy extra)

10. Connector for W164, W209, W211 without gateway (not standard component, need buy extra)

11. VVDI-MB W204 ESL adaptor (not standard component, need buy extra)

12. VVDI Mercedes Benz Simulator (not standard component, need buy extra)

13. VVDI Mercedes Benz five-in-one wiring harness (not standard component, need buy extra)

2.3. Mainly function

Read Write Key

- 1. Read key basic information
- **2.** Key with BE version, we can read password from key via IR directly. Of course, renew key, write new key file via IR is also supported
- 3. Support IR repair key, repair key not work via IR
- 4. NEC adaptor can read key password from NEC v51, v57 version
- 5. Support read/activate blank BGA (0CF4) key
- 6. Support read last HASH from key (Repair key)
- Support write and renew (NEC adaptor) NEC key versions following: v51, v57

v28, v35, v40



2021-06-01 Ver: 2.1 v03, v06, v08 (Keyless Go) v05, v07, v09 (Keyless Go) v59, v61 (Keyless Go)

EIS Tools

- 1. Support read EIS data via OBD and IR adaptor
- 2. Under OBD mode, we provide auto detect EIS type for CAN protocol and need to select EIS type manually for K protocol
- 3. Support read W164, W209, W211 EIS via OBD without gateway support
- 4. Support read old Motorola EIS (HC05, HC08, K-Line) password via IR directly
- 5. Support renew EIS, make 2nd hand EIS to new one (online)
- 6. Support replace EIS, you can write original EIS data to new EIS via IR
- 7. Support write new VIN
- 8. Support clear TP
- 9. Support disable key position
- 10. Support enable key position
- 11. Support personalize W204 ESL
- 12. Support test EIS, ESL, working key status
- 13. Support reading the frame number and EIS number of the K-line EIS(OBD communication needs to short-circuit the pin 7 and pin 1 of the vehicle OBD)
- 14. Support type:

```
W164 W251
W164,W251 2009-
W166, 197, 212, 218, 246
W169, 209, 211
W172, 204, 207, 212(old, with ESL)
W203, 463, 639 (K)
W202, 208, 210 (K)
W215, 220 (K)
W230 (K)
W216
W221
W639 2009-
W906
```

- Password Calculation: support working key and lost all key
 - 1. Password calculation can get the key password from working key and EIS(online)
 - 2. CAN protocol EIS all support password calculation (support BGA keys and other NEC keys)
 - 3. Data acquisition time depends on the key version.
 - 4. Calculate time in server: 30 seconds 1 minute
 - 5. Now VVDI-MB TOOL is the fastest tool for password calculation.
 - 6. Lost all key password calculation: Now we support calculate password for all FBS3 EIS while lost all keys



7. Fast collector support type ('FAST' after the option):

W172,W204, W207 W216 W164,W251 2009-W169,W209,W211 W202,W208,W210 W203,W463,W639 W639, 2009-W906 W221 W164,W251 W215,W220 W230 W230 (with ESL) W169 Type2

8. Add keys support type:

W164 W251

W164,W251 2009-W166, 197, 212, 218, 246 W169, 209, 211 W172, 204, 207, W212 (old, with ESL) W216 W221 W639 2009-W906 W202,W208,W210(FAST) W203,W463,W639(FAST)

IR read password, such as HC12(W209/W211), HC08 (W203/W215/W220/W230)Motorola EIS

- Prepare Key File
 - 1. Prepare key file means prepare the key file which you will write to new key(online)
 - 2. Prepare key file need about 20 seconds
 - 3. Support VVDI-MB type EIS data and old Motorola EEPROM dump
- ESL Tools
 - 1. Support read ESL data via OBD (K-Line)
 - 2. Support renew ESL, renew second hand ESL (online)
 - 3. Support replace ESL, you can write original ESL or EIS data to the new ESL
 - 4. Support write new VIN
 - 5. Support clear TP
 - 6. Support auto personalized ESL, no need renew EIS
 - 7. Support check ESL damage status
 - 8. Support repair W204 ESL NEC chip(fatal error: 0xAA) and Motorola ESL chip



- 9. Support renew VVDI-MB W204 emulator
- Renew ECU/Gearbox
 - 1. This function support renew, write VIN, personalization operation for module ECU, Gearbox, ISM etc.
- KM Repair

Support repair dashboard KM. Support the following type:

- 1. C(W204), GLK(X204), CLK(W207), E(W212), SLS(W197), CLS(W218)
- 2. R-Class(W251), GL(X164), ML(W164)
- 3. E-Class(W211), CLS(W219)
- 4. S-Class(W221), CL(216)
- 5. W166, W172, W246, W231
- 6. W205

Warning: This function is only used for mileage repair, please abide by local laws and regulations, and do not use it for illegal purposes

- Set key frequency/upgrade smart key
 - 1. Support specific manufacturer keys to change the key frequency through IR
 - 2. Support the smart key of a specific manufacturer to upgrade to the latest version of the server through IR
- Points system

Use the VVDI BE key to earn extra points. This point can not only redeem the point of the password calculation, but also can redeem functions and accessories.

Read/Write CGW(ZGW)

Support Read/Write gateway EEPROM and FLASH completely. Support following type:

- 1. A-Class (W169)
- 2. B-Class (W245)
- 3. C-Class (W204)
- 4. E-Class (W211)
- 5. E-Class (W212)
- 6. GLK (X204)
- 7. CLK (W207)
- 8. CLS (W218)
- 9. CLS (W219)
- 10. Maybach(W240)
- 11. SLK (R171)
- 12. SLR (R199)
- 13. SLS (R197)

- 14. GL (X164)
- 15. M-Class (W164)
- 16. R-Class (W251)
- 17. SMART
- 18. S-Class (W221)
- 19. CL (W216)
- FBS4 Disable key

This function is suitable for disabling the keys of W166, W205, W213, W218, W222 and W246 chassis

Important note: The disabled key can only be enabled online through the original diagnostics tools

Special Instructions (2021.05.01)

- 1. The newest cars after 2015 with FBS4 EIS don't support read data and password, we are still working on it.
- 2. Renew EIS and renew ESL are both require erase password. Now search erase password have 92% success rate. We are building a new server for erase password. It will support all erase password after new server has been finished.

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3.Options

3.1. Language

Please manual set user language after first run program

Support following languages:

- Chinese (Simplified)
- English
- Polish
- Spanish
- German

3.2. User Manual

Open user manual folder

3.3. Open Log

Open log folder

4. Read Write Key

Read Write Key support read key basic information, generate new working key, renew/write NEC key (Support Keyless Go). Read password of the BE key via IR directly, renew BE key, write new key file to the BE key.

NEC adaptor support read the password of the v51, v57 version key.

4.1. IR mode

Identification key: Support read key basic information, such as: SSID, counter, remain times, use times, key number, status, version, mark values etc.

BE key: Key version is BE, support read password and key EEPROM stored in BE key, in order to make a working key ,we can write new key file to the key , **renew used BE key and** etc.

If working key is BE version, you can read password from key directly, no need to read password from EIS.

NEC&BGA Keys: Write key file to new original NEC key or erased the key via IR.

Activate key: After you have wrote the new file to the new key, you need to active the new key before you insert the key to the car if the EIS is W210.

Write mark values: This function only support the BE key and the original NEC key to write the mark values via IR.

Copy key password: You can copy the password to clipboard after you have successfully read the key password.

Repair key via IR: When you identify the key, you can only read the SSID and the key's states, then you can repair this kind of key via IR.

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🔀 VVDI - MB TOOL V5.1	1.0 Remaining Sy	nchronization Time: 30 days	SN:MB0130565	59 🗖 🗖 💌
Options Special Function	on Other Function	Points System Synchroni:	ze device time Pro	ocess Wizard Update Online
	- Key Information -			Function
2	SSID	F648F672		Mode IR NEC Adaptor
Read Write Key	Counter	2F1F7C		Type BE key 🔹
	Remain times	196604		
	Use times	3		Identification key Diagram
EIS Tools	Key number	7		
200	Status	04FC Unuse	Activate key	Read BE key password
Password Calculation	Version	BE	Verify smart key	Caus Kau file
	Mark values	FFFFFFF730C	Write	Save Key file
	Key Password		Copy Paste	Load Key file
Prepare Key File	Key EEPROM			Load Key file
		00 00 00 00 00 00 00 00 00 00 00 00 00 0	00 00 00 00 00 00 00 00 00 00 00 00	Write
ESL Tools				
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	00 00 00 00	Renew (Repair key)
Renew ECU/Gearbox			00 00 00 00 00 00 00 00 00 00 00 00 00	Read blank BGA (0CF4) EIS data Repair key via IR
				100%
Reading data success.				

Renew: This function can renew the BE key, the original car key needs NEC adapter to wipe empty.

Key current HASH (Repair key): This function need to bring in the correct key password. It can read the last key track stored in key. With this data you can fix EIS errors.

Key current HASH	(Repair key)	X
Key 4	614AD01892D310A0 Copy	
Key Error: Erease EIS and w EIS Error: If have original EIS data, e If dont have original EIS da activate	rite EIS data again, key will work rase EIS and write original EIS data to activate key ata, you need write the above hash to the correct key track in EIS, then key will	

Read Blank BGA (0CF4) EIS data: Support read EIS data stored in blank BGA key. The blank BGA key has a complete set of EIS data. Write this data to NEW EIS, and after you have synchronized other module with EIS, you can activate the blank BGA key, even keyless Go.



Activate 0CF4 Key: Support change blank BGA key status from 0CF4 to 04FC, you can't read EIS data after you have active the remote.

4.2. NEC Adaptor mode

Renew/Write new key file via NEC adaptor

Support versions:

v51, v57

v28, v35, v40

v03, v06, v08 (Keyless Go)

v05, v07, v09 (Keyless Go)

v59, v61 (Keyless Go)

The above keys all with NEC chip (not BGA type). You need solder the NEC chip from key and place it to NEC adaptor

For NEC v51, v57 version, support read password from working key directly, no need read password from EIS

For all NEC types, you must use "Identification key" to read one time before renew/write key

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🔀 VVDI - MB TOOL V5.1	L.0 Remaining Sy	nchronization Ti	me: 27 days	SN:MB0130	05659		
Options Special Function	on Other Function	Points System	Synchroni	ze device time	Process Wiza	rd Update	e Online
	Key Information -				Function		
2	SSID	FD0863CB			Mode	© IR	NEC Adaptor
Read Write Key	Counter	2F1F7F			Type v	51, v57	•
	Remain times	196607					
and the second s	Use times	0			Identific	ation key	Diagram
EIS Tools	Key number	6					
130	Status	05FB	Unuse		Re	ad v51,v57	key password
Password Calculation	Version	51				Cours IV	£l=
	Mark values	980809090001				Save K	ey file
	Key Password			Сору		L and K	
Prepare Key File	Key EEPROM					Load K	ey file
a		00 00 00 00 00 00 00 00 00 00 00 00 00 0) 00 00 00) 00 00 00) 00 00 00	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Wri	te
ESL Tools)0 00 <mark>00</mark> 00 00)0 00 00 00 00) UU UU UU) OO OO OO				
)0 00 00 00 00)0 00 00 00 00			Rei	new	Key current HASH (Repair key)
Renew ECU/Gearbox					Read bl (0CF4)	ank BGA EIS data	Repair key via IR
							100%
Reading data success.							

The way to connect the NEC adaptor with the chip:

Read/Write key v	ia NEC adaptor				
		15	本:1 VERSION:1		
	ROM07.09 28.35.40.51.57		ERE B1 Attic # 03 06 07 00 9 28 33 40 51 57 DI MB TDOL		59 81 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
道配器底座 Ada	ptor base PCB 插槽2 Socket-2_	道配器1	Adaptor 1 CON2		184+B CONS-B
CON1: v51 版本时期 v51, v57, v28, v35, v40: v07, V09: v03, V06, V08: V59, v61:	开,其他钥匙版本短 适配器1,插针B连接插 适配器1,插针B连接插 适配器1,插针B连接插 适配器2,插针B连接插	接 譜1, CON2新开 糟1, CON2短接 譜2, CON2短接 槽2	CON1: Disconne v51, v57, v28, v35, v4 v07, v09: v03, v06, V08: V59, v61:	ect in v51 version, other v 0: Adaptor 1, CONS-B connect So Adaptor 1, CONS-B connect So Adaptor 1, CONS-B connect So Adaptor 2, CONS-B connect So	version connect ocket-1, CON2 disconnect ocket-1, CON2 connect ocket-2, CON2 connect ocket-2,
		Version 1	Version 2	Version 3	Next

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5.EIS Tools

EIS data is the data when the key is loaded.

VVDI MB TOOL support two modes to read EIS data: read by OBD and IR adaptor

🖉 VVDI - MB TOOL V5	.1.0 Remaining	Synchronization Tim	ne: 30 days			- • •
Options Special Funct	ion Other Functio	n Points System	Synchroni	ze device time Pr	ocess Wizard Updat	e Online
(o)	EIS Basic Inform	ation		Initialized	EIS Function Mode OB	D 🔘 IR
Read Write Key	EIS P/N			TP Cleared	Chassis	Allow user
	КМ	MCU		Personalized	Auto Detect (CA	AN) -
and the second	VIN		Write	Activated	Read E	steb 21
EIS Tools	EIS Key Informat	tion				15 0404
20	Key Pass.		Paste	Previous used key	Save E	IS data
1 ale	Erase Pass.		Get	Last used key		
Password Calculation	Special key				Load FIS data / Mot	orola EEPROM dump
			Used -	Disabled		
	Key 1				Write	ctch 215
Prepare Key File	Key 2				VVIICe E	LID UALA
1	Key 3				Popow ETS	Clear TR
	Key 4				Kellew LIS	
ESL Tools	Key 5				Disable Key	Enable Key
23	Key 6				Disable Key	LINDIC ICCY
	Key 7				Personalize W204	Test EIS status /
Renew ECU/Gearbox	Key 8				ESL	working key
						0%

This picture is read from W246 EIS

5.1. EIS type

Support types:

W164 W164 2009-W166, 197, 212, 218, 246 W169, 209, 211 W172, 204, 207, 212(old, with ESL) W203, 463, 639 (K) W202, 208, 210 (K) W215, 220 (K) W230 (K) W216 W221 W639 2009-W906



5.2. Functions

- Mode: Support OBD and IR adaptor read EIS. You need to connect OBD line to the car in OBD mode or the EIS, IR mode only need IR adaptor. In addition, support no gateway mode to read W164, W209 and W211 EIS via OBD (need an extra adaptor which need to be purchased separately).
- 2. Chassis: EIS type, support auto detect CAN protocol EIS under OBD mode, K line need to be manually selected.
- 3. Allow user: When you select this option, allow input key information, password, VIN manually
- 4. Read EIS data: Read basic information and key information from EIS. Attention: You can read password via IR directly, select IR mode, EIS is old Motorola type HC05, HC08 (K-Line)and so on, can be used for k line EIS model, support add key or lost all key, support some types of W209 and W211 EIS to read the password directly via OBD.
- 5. **Save EIS data**: Save the EIS data you have read. The data will be saved in two formats: VVDI-MB type and HC05 type.
- 6. Load EIS data/Motorola EEPROM dump: Load VVDI-MB type EIS data (Support to load the Motorola EEPROM type file).
- 7. Write EIS data: First you should read EIS or load EIS data. Second, write EIS data to new EIS. This function can use to replace EIS. Attention: Only support under IR mode, but you must make sure the OBD line has already connected to the EIS.
- 8. **Renew EIS**: Input the correct key password and erase password, renew 2nd hand EIS to a new one. Attention: Only support under IR mode.
- Clear TP: This function can clear transportation protection which is only works for the new EIS. Once the EIS activated, this option will be always selected even renew EIS. The EIS without transport protection closed doesn't support write data.
- 10. **Disable Key**: This function can disable the car key.

ect a key pos	sition where	you want to dis	able	
Position	Used	Disabled	Extra information	
🔘 Key 1				
🔘 Key 2			Previous used key	
🔘 Key 3				
🔘 Key 4				
🔘 Key 5				
🔘 Key 6				
🔘 Key 7			Last used key	
🔘 Key 8				
		CANCEL	Next]

11. Enable Key: This function can enable the key.

Please inpu After succe	t correct EIS data in the following editbox, pr ss performed this operation, all the key track	ress Enable Key k will be unlocked!
	Allow user	
SSID	F048F672	
Key Pass.	00000000000000000000000000000000000000	
Unlock Pass.	Get	
Special key	18538A072652F02D	Enable Key

12. Personalize W204 ESL: This function can synchronize key information from EIS to W204 ESL, this function is used for change W204 ESL. Before run this function, make sure "EIS status: Personalized selected, Activated not selected", "ESL status: Activated not selected". After success, ESL will have personalized selected. Open ignition with working key will activate ESL automatically. Attention: Only support

under OBD mode with chassis number select W172, 204, 207.

13. **Test EIS status/Working key:** This function can test EIS, ESL and working key status.

Test EIS status	/Wo	rking	key					x
EIS Status								_
Test EIS and I ON: key inser	ELV wo ted; 15	rking or R: ACC	not wit C, 15: ig	h work nition C	ing key)N; 50:	support engine		
	ON	H0	15R	15	50			_
Mech. status	V	V	V	V			Stop	
Can status								
Test working ke	Test working key							
1. Test workin 2. Require cor	ig key s inect O	tatus BD line	to car b	efore	test		Test working key	
Testing EIS								

Mech. status: Display the corresponding position of the key in the EIS.

Can status: The module communication verification status on the platform right now, the key is screwed to the corresponding position to detect the communication verification on the car, the key is inserted into the EIS and the normal display is 'ON'; 15R ; 50 is the checked status, and the key can normally start the car.

5.3. EIS Basic Information

SSID:	The identification ID in EIS, use to recognize key, something like key ID						
EIS P/N:	EIS part number, the front 3 characters is the main type, example: W164,						
	W166, W246 etc.						
KM:	KM stored in EIS.						
VIN:	VIN stored in EIS.						
Write VIN:	Under the OBD mode, we are support to write the VIN to the ESI which is						
	not been activated.						
Initialized:	Selected means EIS was already initialized. All EIS include new one with						
	selected status.						
TP Cleared:	Selected means transport protection was closed. You can't write data to EIS						
	without transport protection closed.						
Personalize	d: Selected means already written car information, insert working key will						
	activate EIS automatically.						
Activated:	Selected means this EIS already have working key. You can't write data						
	to EIS with activated status.						

5.4. EIS Key Information

Key Password: Key password is used for EIS to authenticate the working key. It is also the password you need when you want to generate a new key (IMPORTANT).

Paste key password: You can paste your password to here directly.

Erase Password: Renew activated EIS to un-activated status, make EIS allow write new data. Attention: Renew EIS not only need erase password but also

the key password.

Get erase password: First, you need to read the EIS data, then press button "Get" and then you can get erase password online

Special Key: A special key stored in EIS.

Previous used key: The previous used key in EIS, which had been used and is always different form the last key position.

- Last used key: The last used key in EIS. Example: insert working key with in follow order: 3, 3, 1 and 1, then the lasted used key is 1, the previous used key is 3.
- Key 1 Key 8: Key track (hash) for every key. Attention: key track is not a fixed value.When you insert a working key to EIS, its key track will changed. You can verify working key status though this method.

Key used: Selected means this position have a working key.

Key Disabled: Selected means this position was disabled, not accept any key. Now we don't support enable key

6. Password Calculation

6.1. Overview

Password calculation support working key mode and lost all key mode. Password calculation needs the points or token, for detailed rules, you can contact the technical support or the local dealer.

Password calculation –adding key: can get key password through EIS and working key (online).

CAN protocol EIS all support password calculation.

Support BGA keys and other NEC keys.

Support calculate password for NEC v51, v57 keys. No soldering, safe method. Data acquisition time depends on the key version and mating times.

Calculate time in server: 30 seconds – 1 minute.

Password calculation – lost all key (Fast acquisition adapter): Select the potion with FAST suffix in the chassis number. It needs to be used with a Mercedes-Benz power adapter (all-lost fast collector), and an external 12V 3A power supply is required, without additional power supply to the EIS

Support W164, W164 2009-, W209, W211, gateway simulation, OBD direct communication

W172, W204, W207 All key lost adding fast mode (collecting data 18 minutes)

W216, W2+5 2009-No need to plug and unplug the IR adapter (saving a lot of manpower, no need to plug and unplug 500 times)

W202/W208/W210, W203/W469/W639 (Kline) Adding is the same as the all key lost, fast acquisition adapter is needed(acquisition time 15-30minutes)

W169/W209/W211 All key lost collection time is about 15 minutes

W639 2009-/W906All key lost collection time is about 15 minutes

W164/W215 -2009 All key lost collection time is about 30 minutes

W230All key lost collection time is about 20 minutes to an hour

Password calculation-all key lost: now supports all FBS3 EISs without working key to collect the password.

Lost all keys data acquisition time depends on EIS type, it needs about 3.5 minutes to 3 hours.

W204, W207 all key lost data acquisition require about 2 hours and 10 minutes.

W216, W164 2009- lost all key data acquisition require about 2 hours.

W164,W251 (-2009) lost all keys data acquisition require about 20 minutes to 1.5 hours.

W221 all key lost data acquisition require about 20 about 1.5 hours.

W230 all key lost data acquisition require about 2-3 hours.



W215 all key lost data acquisition require about 2-3 hours.

Lost all keys calculate time in server: 30 seconds – 1 minute.

Z VVDI - MB TOOL V5.1	.0 Remaining Synchronization Time: 30 days SN:MB01305659	
Options Special Function	on Other Function Points System Synchronize device time Proce	ss Wizard Update Online
	Password Calculation Step 1: Select working key, communicate mode and chassis	Select this if lost all working key
Read Write Key	Attention: Connect IR adaptor to VVDI - MB TOOL	Mode 💿 OBD 💿 IR
	Step 2: Press "Data Acquisition" to start with following steps	Chassis
EIS Tools	 1. Connect device OBD line to car 2. Connect IR adaptor to VVDI-MB TOOL 3. Data acquisition 	100, 197, 212, 210, 240
110	 4. 50% percent complete 5. 100% percent complete 6. Save acquisition data 	Data Acquisition
Password Calculation	Step 3: Press "Upload Data" to send acquisition data	Upload Data
	Step 4: Pross "Query result" to not result	
Prepare Key File	Key Password 0000000000000 Copy Stop acquisition after success	Query result
	Time SSID Status	Filename
ESL Tools	10:44:02 Pwd: 0000000000000000 (Charge)	VM_NOKEY_F048F672_1.dat
Renew ECU/Gearbox		-
	-	100%
Key password was copy to	clipboard.	

6.2. Support type

•	Add I	key support	type				
	W16	4,W251					
	W16	4,W251 200)9-				
	W16	6, 197, 212,	218, 246				
	W16	9, 209, 211					
	W17	2, 204, 207,	212(old with	ESL)			
	W21	6					
	W22	1					
	W63	9 2009-					
	W90	6					
	W20	2,W208,W2	10(FAST)				
	W20	3,W463,W6	39(FAST)				
	IR	reading	password	(W209/W211	(CPU	HC12))	and
W203/V	V215/V	V220/W230	(CPU HC08))				

 Lost all key support the follow types, all key lost fast collection support type has FAST suffix in the option.
 W166, 197, 212, 218, 246



W212 (old with ESL) W172,W204, W207 W216 W164, W251 2009-W169,W209,W211 W202,W208,W210 W203,W463,W639 W639 2009-W906 W221 W164,W251 W164,W251 W215,W220 W230 W169 Type2

6.3. Functions

Select this if lost all working key: This option must be selected when all keys are lost

Mode: OBD and IR adaptor, mode use for communicate with EIS

Chassis: Select chassis number, you can detect it with auto detect in EIS Tools **Data Acquisition**: When adding or ticking all key lost collection, you need to pay attention to the operation prompts. Different types of EIS have different operation prompts.

Prompt to connect the OBD cable to the car, you can collect it on the car or on the platform.

Prompt warning: Please perform the collection process on the platform, you need to remove the EIS platform wiring to collect data.

Upload Data: Upload saved acquisition data to the server for calculating password. Attention: Once successfully calculate password for one SSID, the server will not accept calculate the acquisition data with same SSID in 2 hours. **After 2 hours later, acquisition data with same SSID upload to server will start with a new task.**

Query result: Query server calculation result. The password will fill in key password area automatically after success calculation. Use "Copy" to copy the password to clipboard.

Auto refresh: Program will auto **refresh** server result until there's no task for this device. You can start data acquisition once more while auto **refresh** starting.

Stop acquisition after success: If you are running data acquisition while auto **refresh** is running, program will stop the acquisition progress when it find correct password.

6.4. About query result status

Query result support query calculation result in 24 hours, others don't support Query result will display Time, SSID, Status, Filename (name when upload to server) Status has the following types:

- 1. Queuing: number x, require about y minutes, means your task need y minutes
- 2. Processing: requires 1 minutes, means your task need 1 minute to finish
- 3. Password: xxxxxxxxxx (Free), means success find password, "Free" show this task is calculated for free or this task already success calculated before
- 4. Discard: Once you success calculate the password, in 2 hours, the upload acquisition data with same SSID will discard
- 5. Already upload: means the server already have this file in queuing
- 6. Pay for password calculation before upload: means your device doesn't have authorize for calculation. Contact your dealer and pay for password calculation
- 7. Failed: means this task failed to get password, you can run data acquisition again. Failed task is always free

7. Prepare Key File

Prepare key file means prepare the key file which you will write to new key (online)

- Step 1: Load EIS file with password. The file can auto detected by VVDI-MB TOOL Support VVDI-MB type and old Motorola EEPROM dump file If the loaded EIS don't contain key password, paste your password with "Paste" After load file key position show blue means it is used After load file key position show green means it is unused After load file key position show gray means it is disabled
- Step 2: Press "Prepare Key File". This function need online, about 20 seconds It will prepare the key file after success find in server After prepare key file, key position show green means success After prepare key file, key position show red means failed

VVDI - MB TOOL V5.1	1.0 Remaining Synchronization	Time: 30 days			-	
Options Special Function	on Other Function Points System	m Synchroni:	ze device tin	ne Pro	ocess Wizard	Update Online
	Step 1	File type	Autodet	ect file	type	
Read Write Key	Load EIS file with	SSID				
	password	Password			Paste	
EIS Tools	Support motorola EEPROM dump	Key number	Key	y 1	•	
100		Key hash				Load EIS file
Password Calculation						
	Step 2 Select key position for	🗹 Select all	🗹 Key 1	0 0	✓ v051✓ v041	
	key file Select key file format		Key 3	- 100	▼ v011	Save key file at EIS folder automatically
			V Key 4	- 19		
ESL Tools	Press button "Prepare		Key 5	.0		
	Ney File		Key 6			
			📝 Key 7			Prepare Key File
Renew ECU/Gearbox			Key 8			T opare Ney File
						100%

After the selected key file is calculated and generated, the save box will pop up. Select the directory to save the generated key file.



8. ESL Tools

ESL Tools can read/write/renew ESL via OBD (K-Line). Adaptor also support

🔀 VVDI - MB TOOL V5.	1.0 Remaining Syr	nchronization Tin	ne: 30 days	SN:MB0130	5659		- • • X
Options Special Funct	ion Other Function	Points System	Synchron	ze device time	Process V	Vizard Update	e Online
	ESL Basic Informati	on		1	ESL	Function	
0	ESL P/N			🔲 Initialized	Mod	e 💿 OBD	O C Adaptor
Read Write Key	ESL S/N			TP Cleared	Cha	ssis	Allow user
	HW	SW		Personalized	W2	204, W207, W	212 -
	VIN		Write	C Activated		Road E	l data
EIS Tools	ESL Key Informatio	n —				Redu Es	
200	Key Pass.		Paste	SSID		Save ES	SL data
621	Erase Pass.		Get				
Password Calculation	Special key				_	Load ES	GL data
	Key 1					Load VVDI-	MB EIS data
Prepare Key File	Key 2						
	Key 3					Wr	ite
	Key 4				A	uto clear TP and	personalized
ESL Tools	Key 5						
	Кеу б				F	Renew ESL	Clear TP
	Key 7						W204 ESL
Renew ECU/Gearbox	Key 8				Cheo	CK ESL damage	Emulator
							100%

8.1. Functions

- 1. **Mode**: Now only support OBD (K-Line). If ESL was on car, you need connect the K-Line(find from device OBD head) to ESL separately
- 2. Chassis: ESL type
- 3. Allow user: If select this option, allow input key track, password, VIN manually
- 4. Read ESL data: Read basic information and key information from ESL
- 5. Save ESL data: Save the read ESL data
- 6. Load ESL data: Load ESL data read by VVDI-MB TOOL
- 7. Load VVDI-MB EIS data: Load VVDI-MB type EIS data
- 8. Write: Write the key information (shown in window) into the new ESL
- Auto clear TP and personalized: If you select this option, it will close transport protection and personalized ESL automatically while write data. Attention: Correct key password and EIS SSID should place with this option. With this option you can change W204 ESL without erase EIS.
- 10. **Renew ESL**: Input correct erase password, renew 2nd hand ESL to a new one
- 11. Check ESL damage: Most W204 ESL will damage with EIS status. You can test it
- 12. **Clear TP**: Close transport protection in new ESL. The ESL without transport protection closed doesn't support write data

- Check ESL damage: Fix the locked ESL to be a normal one (NEC chip fatal error: 0xAA). This function need to buy an extra NEC ESL adaptor, support W204 ESL and old Motorola ESL. You need to select Adaptor option in ESL window.
- 14. W204 ESL Emulator: Support match VVDI-MB ESL emulator, the emulator will finish all the W204 ESL function. Before you use emulator, please renew it first, then you can do personalize. The way to connect the ESL which is the same with original W204 ESL.

W204 ESL Emulator	—
Press Renew make the emulator to new one	Renew
Read crypto password stored in W204 ESL emulator Warning: This password is cyrpto data, it is not the key password	
	Read crypto password
_ 设置模拟器类型	
This function only support the MINI-ELV simulator, the older simulator with W204 ESL shell can change type with button on it1	Read config
© W204/W207/W212 ◎ W211 ◎ No setting	Write config

- 1. **Renew:** click Renew to make W204 ESL simulator or mini ESL simulator into a new state.
- Read crypto password: Read the key password in the W204 ESL simulator or mini ESL simulator (this password is encrypted, not the real password)

3. **Set the simulator type:** Switch the configuration information in the mini ELV simulator to adapt to W204/W207/W212 or the old W211 chassis

Read config: Read the chassis type set in the current ESL (only support mini ELV simulator)

Write config: Manually select W204/W207/W212 or W211 chassis type and write the corresponding configuration Setting information (only supports mini ELV emulator)

8.2. ESL Basic Information

- **ESL P/N**: ESL part number, the front 3 characters is the main type, example: W204 and so on. .
- ESL S/N: ESL serial number.
- HW: ESL hardware version.
- SW: ESL software version.
- VIN: VIN stored in ESL. Attention: only last 14 digits, without first three digits.

Write VIN: Support write VIN to ESL without activated status.

Initialized: Selected means ESL was already initialized.



TP Cleared: Sele	ected means TP was cleared. You can't write data to ESL without TP
clea	ared
Personalized:	Selected means already written car information, insert working key will activate ESL automatically
Activated:	Selected means this ESL already have working key. You can't write
data	to EIS with activated status

8.3. ESL Key Information

Key Password: Key password use for EIS to recognize working key. It is also stored in ESL

Paste key password: You can paste your password here directly

Erase Password: Renew activated ESL to new one

Get erase password: First read ESL, then press button "Get", get erase password online **Special Key**: A special key stored in ESL. Normally it is same with EIS special key

SSID: You can't read this from ESL. When you write ESL, need this value

Key 1 – Key 8: Key track (hash) for every key. Normally it is same with EIS key track

9. Renew ECU/Gearbox

This function support renew, write VIN, personalization operation for module ECU, Gearbox, ISM etc.

WVDI - MB TOOL V5.1	0 Remaining Synchror	ization Time: 30 days			- • •
Options Special Function	n Other Function Poin	ts System Synchronize	device time Process	Wizard Update Onl	line
	- Module Information		Func Mod	tion dule ECU	•
Read Write Key				Read	
EIS Tools				Save File	
1. S.				Load File	
Password Calculation			VIN		
				no Doco	Write
Prepare Key File				e F d55.	Get
a				Renew	
ESL Tools					
				Personalization	1
Renew ECU/Gearbox				Activate	
					100%

9.1. Functions

- 1. Module: Support ECU, Gearbox, ISM etc.
- 2. **Read:** Read key information, unit status and other diagnostic information. Require connect unit with CAN separately.
- 3. Save File...: Save the read data to file.
- 4. Load File...: Load the saved file.
- 5. Write VIN: Write VIN to unit.
- 6. Get Erase Pass.: Get erase password online after success read module information.
- 7. **Renew**: Input correct erase password, renew 2nd hand unit to a new one. Require connect unit with CAN separately.
- 8. **Personalization**: Personalize unit to new car. Requires module placed on car.
- 9. Activate: Only gearbox has this function. Support renew gearbox without erase password, see chapter 9.2.



9.2. Advanced Function

Support Read/Write gearbox special EEPROM. Support set unit status while write data. That means you can renew gearbox without erase password

Advanced function	
EEPROM	
47 45 41 52 42 4F 58 45 45 50 00 00 00 00 00 00	Read
5C 00 00 00 00 00 00 00 00 00 00 00 00 00	
30 7A 89 7C 91 E7 3F D4 BD 9C DD C6 27 A9 A3 02	Save File
54 17 1C BE 61 70 FA 8E C8 08 91 F3 93 BD 7B 22	
12 47 DA 77 3B 68 6A 41 17 B6 4E 73 A8 A1 14 EC	
55 41 54 E8 8A C9 1D 59 51 CD FC 3F 00 00 00 00	Load File
- Set unit status	Write
Personalized Activated	Exit

- 1. **Read:** Read module special EEPROM.
- 2. Save File...: Save the read EEPROM file.
- 3. Load File...: Load the saved EEPROM file.
- 4. Write: Write EEPROM to unit, it will set the selected status to module.
- Set unit status: Set unit status, you can set status to unit by write once.
 Set Activated: Will set Initialized, TP Cleared, Personalized, Activated status.
 Set Personalized: Will set Initialized, TP Cleared, and Personalized status; not set

Activated status.

Set TP Cleared: Will set Initialized, TP Cleared status; not set Personalized, Activated status.

Set Initialized: Will set Initialized status; not set Cleared, Personalized, Activated status.

10. KM Repair

This function support to repair the dashboard KM. (Menu -> Other Function -> Read and Write Dashboard)

Read/Write Dashboard		
Chassis C(W204), GLK(X204	4), CLK(W207), E(W212), SLS(W	/197), CLS(W218) •
MB Number	KM	Function
	© KM ⊘ Miles	Read
	KM	Write
	SSID	
		Clear DTCs
Special Note Warning: Repair KM only use to test or vehi legislation Attention: This type support block KM synch	de maintence, please follow the local ronization between EZS and dashboard	Read EEPROM
		100%

10.1. Support Type

- 1. C(W204), GLK(X204), CLK(W207), E(W212), SLS(W197), CLS(W218)
- 2. R-Class(W251), GL(X164), ML(W164)
- 3. E-Class(W211), CLS(W219)
- 4. S-Class(W221), CL(216)
- 5. W166, W172, W246, W231
- 6. W205
- W204, W207, W212...and S-Class (W221), CL (216): If you want block KM synchronization between EZS and dashboard, you need to backup CGW (Gateway) EEPROM and FLASH before write KM.
- For S-Class(W221), CL (216), block KM synchronization require update Gateway FLASH and EEPROM. You can provide the FLASH and EEPROM that you have. If you don't provide these files. We will use the FALSH and EEPROM from Gateway, only need some time to read it.
- ♦ W166, W172, W246, W231 and W205: these 2 types only support change KM in

dashboard. Doesn't support block KM synchronization between EZS and dashboard. You can install extra CAN filter yourself or erase EIS.

 Warning: This function is only used for KM repair, please follow the local legislation.

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11. Read/Write CGW(ZGW)

This function supports backing up the EEPROM and FLASH data form gateway.(Menu -> Other Function -> Read and Write CGW (ZGW))

Read/Write CGW(ZGW)		
MB Number	Type	Function Chassis
VIN		A-Class (W169) •
Read	29F400 FLASH 512K	
Write	© 29F800 FLASH 1M	Read
0000 00		[]
		Write
		Save File
		Load File
		Clear DTCs
		100%

11.1. Support Type

- 1. Type 1: A-Class (W169), B-Class (W245), GL (X164), E-Class (W211), ML (W164), CLS (W219), SLK, SLR, SMART
- 2. Type 2: C-Class (W204), CLK (W207), GLK (X204), E-Class (W212), SLS (W197), CLS (W218)
- 3. Type3: S-Class (W221), CL (W216)
- Type 1 is supported to read/write EEPROM and FLASH. FLASH have 2 options, one is 29F400 with 512K, another one is 29F800 with 1M. We can't detect the specify type via OBDII, so you need select the type manually. And type 1 is supported changing VIN.
- Type 2 is supported to read /write EEPROM, but for FALSH, is only supported to read.
- Type 3 is supported to read/write EEPROM and FALSH

11.2. Support Type

- 1. **Read:** The EEPROM type which are need to select manually in the read type; 29F400 FLASH 512K; 29F800 FLASH 1M data file.
- 2. Write: Write the currently read or loaded EEPROM or FLASH file into the gateway (the FLASH file of type 2 gateway does not support writing)
- 3. **Save file:** Save the EEPROM and Flash file read by the current gateway. Load file: load the gateway EEPROM and Flash file selected in the corresponding directory
- 4. Clear fault: Clear the current fault code in the gateway.
- 5. VIN (read): Read the frame number in the current gateway.
- 6. VIN (write): Write the frame number to the current gateway(only type 1 is supported)

12. Old Motorola Key

This function can read and write the old Motorola key which needs the NEC ESL adaptor(Menu-Other Function-Old Motorola Key)

Old Motorola Key	
Introduce: Soldering the old motorola key eeprom chip, put it to NEC ESL adaptor, then do read and write	Read
00 00 00 00 00 00 00 00 00 00 00 00 00	Save File
	Load File
00 00<	
	Write
Key Copy	Exit

12.1. Function introduction

The chip on the old Motorola key needs to be soldered down and placed on the NEC ESL adapter for reading and writing operations.

- 1. Read: Read the EEPROM and key password in the key chip.
- 2. Save File ...: Save the EEPROM data file read form the key chip.
- 3. Load File: load key chip EEPROM data file.
- 4. Write: write the loaded EEPROM data file to the current key.
- 5. Exit: exit the page.

13. Custom request

Support use the CAN commands for control unit communication. (Menu-Other Function-Custom Request)

Custome	er request		—
Туре	W164, 251	•	Connect
CAN Co	nfig parameters		
Act	ivate EIS		
		Send	Save
			*
			-

13.1. Function introduction

Recommended for professional users

- 1. Connect: manually select the corresponding EIS type connection for operation
- 2. Activate EIS: support to active the EIS via OBD.

3. **Send:** input a known CAN communication command and request to complete the function

4. Save: save the data which is sent and returned by the car into a file



14. OBD read EEPROM

This function is supported to read W202, W208, W210 and the CPU's EEPROM of the EIS via K-line. (Menu -> Other Function -> OBD read and write EEPROM)

Read/Write EEPROM via OBDII								
Type EZS - W202, W208, W210 EEPROM (HC05)								
Config param © CPU1 © CPU2	Key Password 0000000000000 Paste	Read						
0000	٥	Write						
		Save File						
		Load File						
		0%						

14.1. Function introduction

- 1. Read: read the CPU EEPROM of W202, W208, W210 EISs from OBD through K line
- 2. Write: write to the CPU EEPROM of the loaded W202, W208, W210 EISs via OBD
- 3. Save File ...: save the data file which is read form EEPROM
- 4. Load File ...: load the corresponding EEPROM file

15. EEPROM data processing tool

Supports repairing EEPROM data of W210/W220 geared computers (Menu -> Other Function -> EEPROM Data Processing Tool)

EEPROM dump tool					
Туре	W210/W220 ISM EEPROM - 93C56	•			
	00				
		Load File			
		Save File			
		Repair ISM with EIS data			

15.1. Function introduction

This function can repair the ISM data and the problem that the computer cannot be put in gear.

- 1. Load File: load the EEPROM data from the W210/W220 gear computer
- 2. Save File: save the repaired file and write it back to the computer board

3. **Repair ISM with EIS data:** load the original car EIS data, and fill the key information into the ISM EEPROM data; click OK to load the original car EIS file (VVDI-MB format file)



16. Set key frequency/upgrade smart key

Support specific manufacturer keys to change the key frequency through IR Support the smart key of a specific manufacturer to be upgraded to the latest version of the server through IR

(Menu -> Other Function -> Set Key frequency/Upgrade Smart Key)

Set key remote frequence/Update MB smart key							
Support change remote frequence via IR for some special keys							
	Read frequence						
© 315Mhz © 433Mhz © Resistance	Set frequence						
Update MB smart key Support update MB smart key to latest version from server	Update MB smart key						

16.1. Function introduction

1. **Read frequency:** Read the frequency set by the current key

2. Set frequency: Set the selected frequency to this key

3. **Upgrade MB smart key:** Put the key into the IR coil, click Upgrade Smart Key, a pop-up box will pop up to remind you that you need to manually select the version of the smart key to be upgraded, it is recommended to upgrade to the latest version first, if the key function is not working well, then try another version

17. FBS4 Disable key

This function is suitable for disabling the keys of W166, W205, W213, W218, W222, W246 chassis (Menu -> Other Function -> FBS4 Disable Key)

FBS4 Disable	key-W166/205/2	13/218/222/246		
Basic Informat	tion			Function
SSID				
EIS P/N				Read key information
VIN				
Previous user	1 key			Di al la Maria
Frevious used	a Key			Disable Key
Last used key				
Key Informatio	on			
Key number	Used	Disabled	Extra information	
Key 1	-	-	-	
Key 2	-	-	-	
Key 3	-	-	-	
Key 4		-	-	
Key 5		-	-	
Key 6	-	-	-	
Key 7	-		-	
Key 8	-	-	-	

17.1. Function introduction

1. **Read key information:** Read the current EIS SSID, EIS number, frame number, 8 sets of key tracks, the last key bit with the car key, and the penultimate key bit information with the car key

2. Last used key: the last working key which is recorded by the EIS

3. Previous used key: the penultimate working key which is recorded by the EIS

4. **Disable key:** Disable the key position, select the corresponding key position and click Disable Key

Important note: The disabled key can only be enabled online through the original diagnostics tools

18. Point system

Use the VVDI BE key to earn extra points. Using the points can not only redeem the calculation points of the password, but also redeem functions and accessories.

Points System	
BE Key Points You can get bonu BGA tokens, but a	is points by use VVDI BE key. With bonus points, you can not only exchange also exchange other functions and components!
Online verify BE key	Online check VVDI BE key status, whether it contains bonus points or not. This function only verify, you can use upload points move BE key bonus points to your device
Query points	
Upload points	Transfer VVDI BE key bonus points to your VVDI-MB device. After upload success, the BE key will not contain bonus points
Please wait	

18.1. Function introduction

1. **Online verify BE key:** check the status of VVDI BE key points online to see if you have points. This function does not affect the point's collection

2. Query points: query the total amount of points which has been collected

3. Upload points: collect the points of the VVDI BE key, and bind the points of the BE key to this device. After the collection is completed the key will not contain points.

to this device. After the collection is completed, the key will not contain points

19. Synchronize device time

Online synchronization, if the network is normal then the device will automatically synchronize, and the synchronization will fail when there is a problem with the network. After checking and replacing the network, you can manually click online synchronization.

🛣 VVDI - MB TOOL V5.1.0 Remaining Synchronization Time: 31 days SN:MB01305659 🗖 🗉 🖾							
Options Special Functi	ion Other Functi	on Points System	Synchroni	ze device time	Process Wizar	d Update	Online
	ESL Basic Inform	mation		I	ESL Func	tion ———	
	ESL P/N			Initialized	Mode	OBD	Adaptor
Read Write Key	ESL S/N			TP Cleared	Chassis		Allow user
	HW	SW		Personalized	W204,	W207, W2	
and the second	VIN		Write	C Activated		Read ES	L data
EIS Tools	ESL Key Inform	ation				Neda Eb	
50	Key Pass.		Paste	SSID		Save ES	L data
Password Calculatio Syn	nchronize wit	th server					data
							data
							EIS data
Prepare Key File			_				
- the -	Key 3					Writ	te
	Key 4				Auto o	lear TP and	personalized
ESL Tools	Key 5						
	Key 6				Renev	N ESL	Clear TP
	Key 7						W/204 ESI
Renew ECU/Gearbox	Key 8				Check ES	L damage	Emulator
100%							

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20. Guide

This function will provide the complete operation process of some commonly used functions, such as changing the EIS head, changing the ESL, etc. (under development, please pay attention to subsequent versions)

21. Update Online

21.1. Update Firmware

- Need to download the Upgrade Kit and connect the device to update with USB cable on the PC.
- Update firmware steps:
 - 1) Connect VVDI MB TOOL to PC with USB cable
 - 2) Open the Upgrade Kit to select the corresponding device option (VVDIMB), the latest firmware version is selected by default without having to manually select.

Options Special Fund	ction Other I	Function Points	System Sy	nchronize de	evice ti	me Process Wizard Update Onlin	e
	ESL Basic	Information —			_	Upgrade Kit	
0	ESL P/N				init	Update firmware	Adaptor
Read Write Key	ESL S/N				ТР	Update software	ow user 📃
m	HW	SW	_) er	Latest Update Information	-
And an other states]	History Update Information	
	VIN			Martol	1/1		

3) Click Find Device to identify the device serial number and current firmware version

	Upgrade Kit v1.7.4	_ ×
Khorse	** Repair	5 🙎 📮 Bonus point Binding Language
VVDIMB	v	ersion: 5.0.1 Update time: 2019/09/18
Note:		
*** 2 *** R		
New:	Reading device, please wait	
1. This 2. Fixed		
 3. Password cald 4. Password cald 4. Password cald 	sulation: Improvement for W169 password calculat: sulation: Improvement for the all key lost diagra	am
Select Device VVDIMB	Vpgrade Version 5.0.1	Find Device Upgrade
Device SN:	Firm	ware version:

4) If the device cannot be identified, it prompts that the device is not found, whether to install the driver, click to select the corresponding device driver to install, after installation, restart the computer and re-link to identify the device

	Upgrade Kit v1.7.4
Khorse	🛠 🧿 💁 🛱 Repair Bonus point Binding Language
VVDIMB	Version: 5.0.1 Update time: 2019/09/18
Note: **** 2019-09- *** Require ************************************	*** Select device not found, please try to replug device Try to install driver?(Restart the computer after installation)
 BENZ 1. This update 2. Fixed write, 3. Password calculation: Im 4. Password calculation: Im 	Yes No provement for W169 password calculation while all key lost provement for the all key lost diagram
Select Device VVDIMB	Upgrade Version 5.0.1 Find Device Upgrade
Device SN:	Firmware version:

5) Click Upgrade and wait for the upgrade to complete

	Upgrade Kit v1.7.4	_ ×
rse	🛠 👼 🔒 Repair Bonus point Binding	E4 Language
Contraction Contra	 Upgrade notes Use the USB cable to connect the device to the comput Don't trun off the software or unplug the USB cable of Check device connection status and check driver Download the latest software and data files Start upgrading software and data. Upgrade completed 	er turing the Upgrad version
VVDIME	Upgrade Version 5.0.1 Find Device	OK Vpgrade
	R R R R R R R R R R R R R R	With the source of the sour

6) If the software does not display the latest version number of the server or promptsa



network error when upgrading, please check the network connection or change another network.

7) Wait for the upgrade to complete (about 10 minutes, need to connect to the Internet), do not turn off the computer or unplug the USB cable during the upgrade process.

21.2. Update software

- This function require internet support
- Use "Menu ->Update Online->Update software" to obtain VVDI-MB TOOL latest software version, the software version require firmware version etc. Press Download Link will download the latest software
- If there's no display for software version, shutdown your firewall and antivirus programsand retry

Software Update		×			
Shorse	Latest software version				
	Soft version : V2.0.0 Require firmware : V2.0.0	2			
Automatic Key Cutting Machine 了解更多	Download Link 1				
Completed.					

21.3. Latest Update Information

- This function require internet support
- Use "Menu->Update Online->Latest Update Information" to obtain VVDI-MB TOOL latest update information

21.4. History Update Information

Use "Menu->Update Online->History Update Information" to obtain VVDI-MB TOOL



history update information

22. Case Description

22.1. W212 EIS, all key lost

1. Connect the device to the car, enter the EIS interface and click to **Read EIS data** and the device will automatically diagnose the EIS model

 \Box If W209 and W211 are displayed, the OBD can directly read the password without calculating the password

□ This example is the method of W212 EIS and under the all keys are lost situation

VVDI - MB TOOL V5.1	LO Remain	ing Synchronization Time:	30 days	SN:MB013056	59	
Options Special Function	on Other Fur	nction Points System S	ynchroni	ize device time Pr	ocess Wizard Upda	te Online
	EIS Basic Inf	formation	_	The sector of	EIS Function	-
	SSID	F048F672		Initialized	Mode OB	ID 🔘 IR
Read Write Key	EIS P/N	212 905 54 00		TP Cleared	Chassis	Allow user 📃
	КМ	0 MCU		Personalized	W166, 197, 212	, 218, 246 -
and the second s	VIN		Write	Activated	Read B	steb 213
EIS Tools	EIS Key Info	ormation				15 666
Sec.	Key Pass.	00000000000000000	Paste	Previous used key	Erro I	TE data
13-	Erase Pass.	00000000000000000	Get	Last used key	Save	EIS Gata
Password Calculation	Special key	18538A072652F02D	1	Key 7	Load EIS data / Mo	torola EEPROM dump
			- Used -	Disabled		
*	Key 1	96895D5D344D982D	V		Webs	ETC data
Prepare Key File	Key 2	C7492D188BAEB585	V		WING	EIS UALA
1.00	Key 3	9D2BBB4C217C6A06			Renew ETS	Clase TP
	Key 4	AB8540947A8325EC			Nellew ELD	
ESL Tools	Key 5	9F33AD6C70AA4F94			Disable Key	Enable Key
	Key 6	28C4AE6ABD288E52				LINDIN KOY
	Key 7	4CC40C5B229BA9F6	1		Personalize W204	Test EIS status /
Renew ECU/Gearbox	Key 8	7A7F38084B7A1B22			ESL	Working key
100%						
Reading data success EIS	5 is normal.					

2. Click **Save EIS data**, two files will be saved when saving, VVDI-MB format and HC05 format

 \hfile The file's name can be customized, but it is recommended to save it with the default name

Z Save As			×
④ ▼ ■ 桌面 >	 ✓ 4 授索 桌面 		٩
组织 ▼ 新建文件夹		₩= ▼	0
 ▲ 牧藏夹 ▲ 下載 ▲ 正式 ▲ 正式	は算机 系统文件夹		
 ▲ ○ 库 ● ● 砚坂 ▶ ● 図片 ▶ ● ② 文档 ▶ ● 音乐 			
. <u>От</u> прия			
File name: VVDIMB_EIS_OBD_F048F672.bin			•
Save as type: EEPROM (*.bin)			-
Hide Folders ■	Save	Cancel	

3. Enter the Password Calculation, collect data to calculate the key password

□ Check the 'Select this if lost all working key' on the upper right corner, select IR in the mode, and then manually select the number diagnosed on the EIS page

□ The bottom of the first step of the interface will prompt whether you need to operate on the platform after you select the chassis model, and if you are prompted to operate on the platform, you need to remove the EIS and the platform wiring to collect and calculate
 □ In this example, the W212 EIS loss collection does not require platform operation, and can be collected and calculated on the car

□ Follow the prompts to connect the IR adapter, click the 'Data Acquisition', and start to collect EIS data through the IR adapter

VVDI - MB TOOL V5.1.	0 Remaining Synchronization Time: 30 days SN:MB01305659	
Options Special Function	n Other Function Points System Synchronize device time Proce	ss Wizard Update Online
	Password Calculation Step 1: Select working key, communicate mode and chassis	Select this if lost all working key
Read Write Key	Attention: Connect IR adaptor to VVDI - MB TOOL	Mode OBD @ IR
	Step 2: Press "Data Acquisition" to start with following steps	Chassis
EIS Tools	 1. Connect device OBD line to car 2. Connect IR adaptor to VVDI-MB TOOL 3. Data acquisition 	W100, 197, 212, 218, 240 ¥
	 4. 50% percent complete 5. 100% percent complete 6. Save acquisition data 	Data Acquisition
Password Calculation	Step 3: Press "Upload Data" to send acquisition data	Upload Data
Prepare Key File	Step 4: Press "Query result" to get result Auto refresh Key Password Copy Stop acquisition after success	Query result
ESL Tools	You have 0 times for free calcula Free times restore at 00:00 You have 17 times for paid calcu	ation GMT+08 Jlation
		20%
Processing data acquisition	used time: 01 min 47 sec, left time: 06 min 54 sec	

 \Box The collection is complete, save the collected data, it is recommended to use the default file name



□ Click Upload Data to upload the saved collected data to the server for calculation

VVDI - MB TOOL V5.1.0	Remaining Synchronization Time: 30 days SN:MB01305659	
Options Special Function	Other Function Points System Synchronize device time Proce	ss Wizard Update Online
	Password Calculation Step 1: Select working key, communicate mode and chassis	Select this if lost all working key
Read Write Key	Attention: Connect IR adaptor to VVDI - MB TOOL	Mode OBD @ IR
	Step 2: Press "Data Acquisition" to start with following steps	Chassis
EIS Tools	 1. Connect device OBD line to car 2. Connect IR adaptor to VVDI-MB TOOL 3. Data acquisition 4. 56% parced Attention 	w100, 197, 212, 210, 240
	4. 30% perce 5. 100% perce 6. Save acquis	Data Acquisition
	Step 3: Press "Uploa	Upload Data
Prepare Key File	Step 4: Press "Query 确定 refresh □ uisition □	Query result
	arter Success	
ESL Tools	You have 0 times for free calcula Free times restore at 00:00 You have 17 times for paid calcu	ation GMT+08 ulation
Renew ECU/Gearbox		Ŧ
		100%
Upload success!		

□ Click **Query result** to query the server results, you can select **Auto refresh**, the software will automatically refresh the server results, it takes about 1 minute

🔀 VVDI - MB TOOL V5.1.0	Remaining Synchronization Time: 30 days SN:MB01305659	
Options Special Function	Other Function Points System Synchronize device time Proces	ss Wizard Update Online
	Password Calculation Step 1: Select working key, communicate mode and chassis	Select this if lost all working key
Read Write Key	Attention: Connect IR adaptor to VVDI - MB TOOL	Mode 💿 OBD 💿 IR
	Step 2: Press "Data Acquisition" to start with following steps	Chassis
EIS Tools	 1. Connect device OBD line to car 2. Connect IR adaptor to VVDI-MB TOOL 3. Data acquisition 	W166, 197, 212, 218, 246 -
100 A	 4. 50% percent complete 5. 100% percent complete 6. Save acquisition data 	Data Acquisition
Password Calculation		
	Step 3: Press "Upload Data" to send acquisition data	Upload Data
Prepare Key File	Step 4: Press "Query result" to get result Auto refresh Key Password 0000000000000 Copy Stop acquisition Other particular to get result	Query result
	alter success	
ESL Tools	Time SSID Status 10:44:02 Pwd: 000000000000000000000000000000000000	Filename VM_NOKEY_F048F672_1.dat
Renew ECU/Gearbox		-
		100%
Find correct password! Don't	t require data acquisition, use the password in key password area	

☐ After the calculation is successful, the password is automatically displayed in the key password area, click **Copy** to copy the password to the clipboard



VVDI - MB TOOL V5.1.0	0 Remaining Synchronization Time: 30 days SN:MB01305659	
Options Special Function	n Other Function Points System Synchronize device time Proce	ss Wizard Update Online
	Password Calculation Step 1: Select working key, communicate mode and chassis	Select this if lost all working key
Read Write Key	Attention: Connect IR adaptor to VVDI - MB TOOL	Mode 💿 OBD 💿 IR
	Step 2: Press "Data Acquisition" to start with following steps	Chassis
EIS Tools	 1. Connect device OBD line to car 2. Connect IR adaptor to VVDI-MB TOOL 3. Data acquisition 	W166, 197, 212, 218, 246 -
1 (O)	 4. 50% percent complete 5. 100% percent complete 6. Save acquisition data 	Data Acquisition
Password Calculation	Step 3: Press "Upload Data" to send acquisition data	Upload Data
Prepare Key File	Step 4: Press "Query result" to get result Auto refresh Key Password 000000000000000 Copy Stop acquisition after success after success	Query result
ESL Tools	Time SSID Status 10:44:02 Pwd: 000000000000000000000000000000000000	Filename VM_NOKEY_F048F672_1.dat
Renew ECU/Gearbox		~
		100%
Key password was copy to	clipboard.	

4. Save EIS data with password

Enter the **EIS Tools** interface again

 $\hfill\square$ Re-read the EIS data

Use **Paste** to paste the password into the key password area

□ Then click again the 'save EIS data' button to save the EIS data with key code

Options Special Func	tion Other Fur	nction Points System S	ynchroni	ze device time Pro	ocess Wizard Upd	ate Online	
	EIS Basic Inf	formation		I	EIS Function		
2	SSID	F048F672		🗹 Initialized	Mode OC	OBD 🔘 IR	
Read Write Key	EIS P/N	212 905 54 00		TP Cleared	Chassis	Allow user	
	КМ	0 MCU]	Personalized	W166, 197, 21	2, 218, 246	
	VIN		Write	Activated	Read	EIS data	
EIS Tools	EIS Key Info	rmation					
2003	Key Pass.	00000000000000000	Paste	Previous used key			
A B	Erase Pass.	000000000000000000000000000000000000000	Get	Last used key	5896		
assword Calculation	Special key	18538A072652F02D]	Key 7	Load EIS data / Motorob EEDROM		
			- Used -	Disabled			
	Key 1	96895D5D344D982D	V		14/272		
Prepare Key File	Key 2	C7492D188BAEB585	V		VVILE	ET2 OUG	
(H - 3	Key 3	9D2BBB4C217C6A06			Ropow ETC	Clear TD	
	Key 4	AB8540947A8325EC			Kellew Et3	Clear IP	
ESL Tools	Key 5	9F33AD6C70AA4F94			Disable Key	Enable Key	
1 JUN 0	Key 6	28C4AE6ABD288E52				Lindble Key	
	Key 7	4CC40C5B229BA9F6	V		Personalize W204	Test EIS status /	
tenew ECU/Gearbox	Key 8	7A7F38084B7A1B22			ESL	Working key	
						100	

5. Enter to **Prepare Key File**

- $\hfill\square$ Click to load EIS (EIS) file to Load EIS file with key password
- $\hfill\square$ The loaded file address is displayed below the software
- \Box The software automatically determines that the loading type is HC05 format
- \Box Display information such as SSID and key password in the file

VVDI - MB TOOL V5.:	1.0 Remaining Synchronization	Time: 30 days	SN:MB013	305659		- • •
Options Special Functi	on Other Function Points Syste	m Synchroniz	ze device time	Process V	Vizard	Update Online
	Step 1	File type	HC05	type	1	
Read Write Key	Load EIS file with	SSID	F048	F672		
	password	Password	00000000	00000000	Paste	
EIS Tools	EEPROM dump	Key number	Key I	l ·	•	
		Key hash	96895D5D	344D982D		Load EIS file
Password Calculation						
	Step 2	Select all	Key 1	•	v051	
Prepare Key File	Select key position for key file		V Key 2 Key 3	•	v041	Save key file at EIS
	Select key file format		🔽 Key 4	•	VUII	folder automatically
ESL Tools	Press button "Prepare Key File"		Key 5	•		₹
	-		Key 6	•		
Renew ECU/Gearbox			Key 8	•		Prepare Key File
						100%
C:\Users\duankaiyi\Deskto	p\EIS OBD F048F672.bin					

□ Select the location and format of the key to be generated, click to **Prepare Key file** (requires online)

🜌 VVDI - MB TOOI	L V5.1.0 Remaining Synchronization	Time: 30 days			
Options Special F	unction Other Function Points Syste	m Synchroniz	e device time Process I	Wizard Upd	ate Online
	Step 1	File type	HC05 type		
Read Write Key	Load EIS file with	SSID	F048F672		
	password	Password	000000000000000000	Paste	
EIS Tools	Support motorola EEPROM dump	Key number	Key 1	•	
139	Prepare Key File				Load EIS file
Password Calculatio	Calculating, require 30 second	nds, query	after 5		
	seconds(cannot be cancel	iea)			_
Prepare Key File					
and the second s	key file Select key file format		🗹 Key 3 🛛 🔍	v011	Save key file at EIS folder automatically
@ "B	Select key me format		📝 Key 4 🛛 😐		
ESL Tools	Press button "Prepare Key File"		🗹 Key 5 🛛 😑		
	Rey File		🗹 Key 6 🛛 😑		
			🗹 Key 7 🛛 😐	P	repare Key File
Renew ECU/Gearbox	K		🗹 Key 8 🛛 💿		
					100%
C:\Users\duankaiyi\D	esktop\EIS_OBD_F048F672.bin				

 $\hfill\square$ After the server search is successful, select the location to save the key file. Click save directly

VVDI - MB TOOL V5.1 Options Special Function	L0 Remaining Synchronizat on Other Function Points S	tion Time: 30 days ystem Synchronize	device time	Process Wizard	D D 🖾 Update Online
Select position to sa	we key file	X	HC05 ty	уре	
名称		修改日期	F048F6	672	
S ConfigClient.dll		2020/7/30 11: 2020/7/30 11: [□]	000000000	000000 Paste	E.
6 ftd2xx.dll		2020/7/30 11:	Key 1	-	I
log.txt		2021/5/21 10: 2021/5/21 10:	96895D5D34	14D982D	Load EIS file
MB_Language.dll		2020/7/30 11: -			
File name: Press Save	drectly	Save	🛛 Key 1 🛛 🌑	▼v051	
Save as type: Key File(".")	•	Cancel	🛛 Key 2 🛛 🌒	▼v041	
	Select key file format		🛛 Key 3 🔹 🖉	√ v011	Save key file at EIS folder automatically
ESL Tools	Press button "Prepa Key File"	re	🗹 Key 5 🗧		
		1	🗹 Key 7 🛛 🍯		Prepare Key File
Renew ECU/Gearbox			🗸 Key 8 🛛 🧧		
					100%

6. Enter the **Read write key**. Prepare a new key.

 $\hfill\square$ We need to generate a BE key

 \Box Put the new BE key into the IR antenna of the device, select IR as the communication method, and select the BE key as the type

Click to Identification key

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🛃 VVDI - MB TOOL V5.:	1.0 Remaining Sy	nchronization Time: 30 days		
Options Special Functi	on Other Function	Points System Synchroni	ze device time	Process Wizard Update Online
	- Key Information -			- Function
0	SSID			Mode IR NEC Adaptor
Read Write Key	Counter			Type BE key 👻
	Remain times			
	Use times	٥		Identification key Diagram
EIS Tools	Key number	1		
Contraction of the second	Status	04FC Unuse	Activate key	Read BE key password
Password Calculation	Version	BE	Verify smart key	
	Mark values	FFFFFFF730C	Write	Save key file
	Key Password		Copy Paste	
Prepare Key File	Key EEPROM			Load Key file
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	00 00 00 00 00 00 00 00 00 00 00 00	Write
ESL Tools				
		00 00 00 00 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00	Renew (Repair key)
Renew ECU/Gearbox		00 00 00 00 00 00 00 00 00 00 00 00 00 0	00 00 00 00 00 00 00 00 00 00 00 00 00	Read blank BGA (0CF4) EIS data Repair key via IR
				100%
Reading data success.				

Load key file, select the 7th key position

 \Box Click the **write** option

☐ After writing, click on the **Identification key**, it is already in a state of preparation for activation

7. Insert the key into the EIS again, and the EIS starts to learn the key

 \Box The red light on the key will light up once and then go out, indicating that the key learning is complete

 $\hfill\square$ Read the EIS data again, you will find that the Key 7 position has been used and selected

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🛃 VVDI - MB TOOL V5.1	.0 Remain	ing Synchronization Time:	30 days			
Options Special Function	on Other Fu	nction Points System S	nchroni	ze device time Pro	ocess Wizard Upda	te Online
	- EIS Basic Inf	formation		·	EIS Function	
2	SSID	F048F672		🗹 Initialized	Mode O	3D 🔘 IR
Read Write Key	EIS P/N	212 905 54 00]	TP Cleared	Chassis	Allow user
	КМ	0 MCU]	Personalized	W166, 197, 212	, 218, 246 🔹
	VIN	1	Write	Activated	Road	etch 2I3
EIS Tools	EIS Key Info	ormation				
in the second	Key Pass.	000000000000000000000000000000000000000	Paste	Previous used key	Carter 1	
135	Erase Pass.	000000000000000000000000000000000000000	Get	Last used key	Save	
Password Calculation	Special key	18538A072652F02D]	Key 7	Load EIS data / Mo	torola EEPROM dump
			Used -	Disabled		
	Key 1	96895D5D344D982D	V		Write	FIS data
Prepare Key File	Key 2	C7492D188BAEB585	V		VVIICO	210 0300
1	Key 3	9D2BBB4C217C6A06			Renew FTS	Clear TP
	Key 4	AB8540947A8325EC			INCITE W ELD	
ESL Tools	Key 5	9F33AD6C70AA4F94			Disable Key	Enable Key
123	Key 6	28C4AE6ABD288E52				Enable Key
	Key 7	4CC40C5B229BA9F6	V		Personalize W204	Test EIS status /
Renew ECU/Gearbox	Key 8	7A7F38084B7A1B22			ESL	vvorking key
100%						
Reading data success EIS	is normal.					

□ Read the BE key again, the key status has been used.

📸 VVDI - MB TOOL V5.1.0 Remaining Synchronization Time: 30 days . 💼 📼 📧					
Options Special Function	on Other Function	Points System Synchroniz	ze device time	Process Wizard Update C	Dnline
	Key Information –			- Function	
2	SSID	F648F672		Mode IR	NEC Adaptor
Read Write Key	Counter	2F1F7C		Type BE key	-
	Remain times	196604			
	Use times	3		Identification key	Diagram
EIS Tools	Key number	7			
200	Status	04FC Unuse	Activate key	Read BE key p	assword
Password Calculation	Version	BE	Verify smart key		file
	Mark values	FFFFFFF730C	Write	Save Key	The
	Key Password		Copy Paste	Load Key	file
Prepare Key File	Key EEPROM				THE
a		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Write	
ESL Tools			00 00 00 00		
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	00 00 00 00 00 00 00 00 00 00 00 00 00	Renew	ey current HASH (Repair key)
Renew ECU/Gearbox				Read blank BGA (0CF4) EIS data	Repair key via IR
					100%
Reading data success.					

8. Completed.

 \leq

22.2. W246 EIS with BGA (79) keys, add new key via OBD

- 1. Insert the original working key into the device IR reader, Press "**Identification key**" to check the working key version
 - If the key is BE version, you can read password via IR, no need to calculate the password
 - If the key is v51,or v57 version, you can read password via NEC adaptor, or you can use password calculation
 - In this example the key's version is 79, belong to BGA key. We use password calculation function in order to get the password

Options Special Function Process Wizard Update Online Key Information]
Key Information Function	
SSID 08BB90B3 Mode O IR O NE	C Adaptor
Read Write Key Counter 240E36 Type Identification key	*
Remain times 149302	
Use times 47305 Identification key	
EIS Tools Key number 1	
Status 14EC Used Read BE key passwo	rd
Password Calculation 79	
Mark values \$30A240101FF Save Key file	
Key Password Copy	
Prepare Key File	
Write	
Renew	
Renew ECU/Gearbox	
	100%
Paading data success	100%

- 2. Connect the device to the car via OBD cable. Select **OBD** mode, select AutoDetect (CAN)chassis
 - Press Read EIS data. Chassis will turn to specify item after success read
 - Follow steps 1->2->3->4 in picture and save EIS data
 - It will save 2 files, VVDI-MB format and HC05 format
 - There's default file name when you are saving the EIS data. Suggest you use that name and do not change it.

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😿 VVDI – 💵 TOOL V	72.0.0	Remaining Synchron	nizati	on Time: 28 day	75			
Options Special Function Process Wizard Update Online								
	EIS Basic Ir	nformation	_	- 4 4	EIS Function			
2	SSID	08BB90B3		🗹 Initialized	Mode 💿 OBD	○ IR		
Read Write Key	EIS P/N	246 905 99 00]	TP Cleared	Chassis	Allow user		
	КМ	12800]	Persona Ded	W166, 197, 212, 218,	246 🗸		
and the	VIN		Write	Activated	Read EIS dat			
EIS Tools	EIS Key In	formation						
20C	Key Pass.	000000000000000000000000000000000000000	Paste	Previous used key	Save ETS dat			
13	Erase Pass.	00000000000000000	Get	Last used key	Save EIS dat	a		
Password Calculation	Special key	413492478C280525]	Key 1	Load EIS dat	-		
			- Used -	Disabled		a		
	Key 1	F304BB4F2DEF65E1			Write EIC dat			
Prepare Key File	Key 2	556A97B69480572D			VVILLE ETS Da	ld		
10.00	Key 3	61B570A285381EF6			Ropour ETC			
	Key 4	30E3243E4DF17B58			Kellew Elo			
ESL Tools	Key 5	D108719486687467			Close TD			
	Key 6	FB48A71F765C03F8						
	Key 7	AFA76BD53342DA8E			Personalize W/204	4 ESI		
Renew ECU/Gearbox	Key 8	7BEFC8C44BD8DEEE						
<u>'</u>						100%		
Reading data success.								

Save As						? 🛛
Save jn:	🚞 W246		~ (3 🦻	• 📰 🕈	
My Recent Documents						
Desktop						
My Documents						
My Computer	File <u>n</u> ame:	VVDIMB_EIS_OBD_08BB90B3	}		*	<u>S</u> ave
S	Save as <u>t</u> ype:	EEPROM ([*] .bin)			~	Cancel
My Network						

59

Save As						? 🔀
Save in:	🚞 W246		~	G 🦻	🕫 📂	-
My Recent Documents	VVDIMB_EIS_O	BD_088B90B3				
Desktop						
My Documents						
My Computer	File name:	EIS_OBD_08BBS	90B3		~	Save
My Network	Save as type:	EEPROM (*.bin)			~	Cancel

- 3. Enter **Password Calculation**, you can calculate key password in this option
 - Select OBD mode, chassis select W166, 197, 212, 218, 246
 - Press "Data Acquisition", progress with following steps
 - Insert "working key" to "EIS" before press OK; only insert working key to EIS, don't switch ignition ON

7 VVDI - MB TOOL V2.0.0	0 Remaining Synchronization Time: 28 days		×
Options Special Function Pro	cess Wizard Update Online		
	Password Calculation Step 1: Select communicate mode and chassis	Mode OBD IR Chassis	-
Read Write Key	Attention: Connect device OBD line to car	W166, 197, 212, 218, 246 🗸	
	Step 2: Press "Data Acquisition" to start with following steps		
EIS Tools	 I. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car 3. Data acquisition 		
1.00°	 4. Insert working key to ignition, waiting 30 seconds 5. Insert working key to device IR reader, wait end 6. Save acquisition data 	Data Acquisition	
Password Calculation	Attention Step 3: Press "Uploa	Upload Data	
Prepare Key File	Step 4: Press "Quer	Query result	;]
0	Key Password		
ESL Tools			
Renew ECU/Gearbox			~
		0	%

- Waiting 15 seconds
- Insert "working key" to "Device IR Reader" before press OK; take off working key from EIS and insert to device IR Reader, then press OK

🜌 VVDI - MB TOOL V2.0.	.0 Remaining Synchronization Time: 28 days	
Options Special Function Pr	rocess Wizard Update Online	
	Password Calculation Mode OBD IR Step 1: Select communicate mode and chassis Chassis Chassis	
Read Write Key	Attention: Connect device OBD line to car W166, 197, 212, 218, 246	~
EIS Tools	Step 2: Press "Data Acquisition" to start with following steps I. Insert working key to ignition, waiting 15 seconds I. Insert working key to device IR reader, verify key and car J. Data acquisition I. Insert working key to ignition, waiting 30 seconds I. Insert working key to device IR reader, wait end I. Insert working key to device IR reader, wait end S. Save acquisition data	
Password Calculation Prepare Key File	Step 3: Press "Upl Attention Ioad Data Step 4: Press "Que Insert "working key" to "Device IR Reader" before press OK Ioad Data Key Password OK Ioad Data	
ESL Tools		
Renew ECU/Gearbox		~
Prepare to verify EIS and w	vorking key) 0%

 Data acquisition progress, just wait it to finish. The left time will show on the bottom

🜌 VVDI - MB TOOL V2.0.	.0 Remaining Synchronization Time: 28 days	X
Options Special Function Pr	rocess Wizard Update Online	
	Password Calculation	
	Step 1: Select communicate mode and chassis	-
Read Write Key	Attention: Connect device OBD line to car W166, 197, 212, 218, 246	
	Step 2: Press "Data Acquisition" to start with following steps	-
EIS Tools	 1. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car 3. Data acquisition 	
199	4. Insert working key to ignition, waiting 30 seconds 5. Insert working key to device IR reader, wait end 6. Save acquisition data	
Password Calculation		- -
	Step 3: Press "Upload Data" to send acquistion data Upload Data	
Prepare Key File	Step 4: Press "Query result" to get result Auto reflash Ouery result]
and the second s	COPY after success	
ESL Tools		^
Renew ECU/Gearbox		~
·	ر ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲: ۲	1%
Processing data acquistion	used time: 02 min 30 sec, left time: 01 min 09 sec	

 After 100%, Insert "working key" to "EIS" before press OK; only insert working key to EIS, don't switch ignition ON



7 VVDI - MB TOOL V2.0.	0.0 Remaining Synchronization Time: 28 days	
Options Special Function Pro	rocess Wizard Update Online	
	Password Calculation Mode OB Step 1: Select communicate mode and chassis Chassis	
Read Write Key	Attention: Connect device OBD line to car W166, 197, 212	2, 218, 246 🗸
	Step 2: Press "Data Acquisition" to start with following steps	
EIS Tools	 1. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car 3. Data acquisition 	
	 4. Insert working key to ignition, waiting 30 seconds 5. Insert working key to device IR reader, wait end 6. Save acquistion data 	juisition
Password Calculation	Step 3: Press "Up Attention Upload	l Data
Prepare Key File	Step 4: Press "Qu	result
a	Key Password	
ESL Tools		
Renew ECU/Gearbox		~
		100%
Processing data acquistion	used time: 03 min 36 sec, left time: 00 min 00 sec	

- Waiting 30 seconds
- Insert "working key" to "Device IR Reader" before press OK; take off working key from EIS and insert to device IR Reader, then press OK

🜌 VVDI - MB TOOL V2.0	.0 Remaining Synchronization Time: 28 days
Options Special Function P	rocess Wizard Update Online
	Password Calculation Mode OBD IR Step 1: Select communicate mode and chassis Chassis Chassis
Read Write Key	Attention: Connect device OBD line to car W166, 197, 212, 218, 246
EIS Tools	Step 2: Press "Data Acquisition" to start with following steps 1. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car 3. Data acquisition 4. Insert working key to ignition, waiting 30 seconds 5. Insert working key to device IR reader, wait end 6. Save acquisition data
Password Calculation Prepare Key File	Step 3: Press Attention Upload Data Step 4: Press Insert "working key" to "Device IR Reader" before press OK Other press OK Key Password OK Other press OK
ESL Tools	
Renew ECU/Gearbox	
Waiting finish	100%

After save acquisition data you will get next window. Please keep the default



7 VVDI - MB TOOL V2.0.	0 Remaining Synchronization Time: 28 days
Options Special Function Pro	ocess Wizard Update Online
	Password Calculation Step 1: Select communicate mode and chassis Mode OBD IR Chassis
Read Write Key	Attention: Connect device OBD line to car W166, 197, 212, 218, 246 🗸
EIS Tools EIS Tools Password Calculation	Step 2: Press "Data Acquisition" to start with following steps 1. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car 3. Data acquisition 4. Least working key to device IR reader, verify key and car 3. Data acquisition 4. Least working key to device IR reader, verify key and car 3. Data acquisition 4. Least working key to device IR reader, verify key and car 3. Data acquisition 4. Least working key to device IR reader, verify key and car 3. Data acquisition 4. Least working key to device IR reader, verify key and car 3. Data acquisition 4. Least working key to device IR reader, verify key and car 5. Step 3 0K Step 4
ESL Tools	Key Password Copy Stop acquisite after success
Acquistion finished, upload t	the saved data with "Upload Data" for password

file name when save acquisition data

Press Upload Data to upload saved acquisition data to the server

🜌 VVDI - MB TOOL	. V2.0.0 Ren	naining Synchro	nization Time: 28 days			
Options Special Funct	tion Process Wizar	rd Update Online				
	Passwor	d Calculation —			Mode O os	
	Open				? 🛛	
Read Write Key	Look in:	🗀 W246		🔽 🕝 🏚 🛛	≫	218, 246 👻
EIS Tools	My Recent	C VM_OBD_0888	9083_1			
Password Calculation	Desktop					isition
Prepare Key File	∭ My Documents					Data
a 12	My Computer					
ESL Tools		File name:	VM_*_08BB90B3_*.dat		V Open	
	My Network	Files of type:	config (*.dat) Open as read-only		✓ Cancel	
Renew ECU/Gearbo	x					~
						100%
						100 %

Press Query result to get result, you can select "Auto reflash", it will query server result automatically, it need about 1 minute

😿 VVDI – 💵 TOOL V2	2. 0. 0		
Options Special Function	. Process Wizard Update Online		
	Password Calculation Step 1: Select communicate mode and chassis Chassis	⊙ OBD ○ IR	
Read Write Key	Attention: Connect device OBD line to car W166, 19	97, 212, 218, 246	-
EIS Tools	Step 2: Press "Data Acquisition" to start with following steps 1. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car 3. Data acquisition 3. Data acquisition		=
	 4. Insert working key to ignition, waiting 30 seconds 5. Insert working key to device IR reader, wait end 6. Save acquisition data 	ata Acquisition	
Password Calculation	Step 3: Press "Upload Data" to send acquistion data	Upload Data	
Prepare Key File	Step 4: Press "Query result" to get result Auto reflash Key Password Copy Stop acquisite after success	Query result	
ESL Tools	Time SSID Status File 01:19:07 - 08BB90B3 - Processing: require about 1 minutes - VM_OBD_0	ename 08BB90B3_1.dat	
Renew ECU/Gearbox			~
		(0%

After calculate success, key password will display at key password area automatically, press "Copy" copy the password to clipboard

🜌 VVDI - MB TOOL V2.0.0 Remaining Synchronization Time: 28 days	X
Options Special Function Process Wizard Update Online	
Password Calculation Mode Opp Or	_
Step 1: Select communicate mode and chassis	-
Read Write Key Attention: Connect device OBD line to car W166, 197, 212, 218, 246	
Step 2: Press "Data Acquisition" to start with following steps	
1. Insert working key to ignition, waiting 15 seconds 2. Insert working key to device IR reader, verify key and car	
3. Data acquisition	_
A. Insert working key to ignition, waiting 30 seconds 5. Insert working key to device IR reader, wait end Data Acquisition 6. Save acquisition data	
Password Calculation	-
Step 3: Press "Upload Data" to send acquistion data Upload Data	
Prepare Key File Step 4: Press "Query result" to get result Auto reflash Query result Vex Pacswort 20162200 CD09E1D75 Stop acquisite Query result]
after success	
Time SSID Status Filename ESL Tools 01:19:07 - 088B90B3 - Password:8016380CD08E1D75 (Free) - VM_OBD_088B90B3_1.dat	
Renew ECU/Gearbox	~
	00%
Eind correct nassword! Don't require data acquistion. Use the nassword in key nassword area	076

- 4. Save EIS data with password
 - Enter **EIS Tools**interface again
 - Read EIS data
 - Use "Paste" paste the password to key password area
 - Then save EIS data again
 - ♦ Steps: 1->2->3

🜌 WVDI - IB TOOL W	2.0.0	Remaining Synchron	nizati	on Time: 28 day	7S			×
Options Special Function	on Process W	izard Update Online						
	- EIS Basic In	formation			EIS Function	on —		
0	SSID	08BB90B3		Initialized	Mode	💿 OBD	◯ IR	
Read Write Key	EIS P/N	246 905 99 00]	✓ TP Cleared	Chassis		Allow user	
_	КМ	12800		Personalized	W166, 1	97, 212, 218,	246 🗸	
	VIN		Write	Activated		Read EIS dat	a	ןן
EIS Tools	EIS Key Inf	ormation						
io at	Key Pass.	8016380CD08E1D75	Paste	Brovious sed key		Cause ETC date		ןן
134	Erase Pass.	000000000000000000000000000000000000000	Get	Last used key		Save EIS dat	d	
Password Calculation	Special key	413492478C280525]	Key 1		Load FIS dat	а	1
			Used -	Disabled]
	Key 1	F304BB4F2DEF65E1				Weite ETC det		ןן
Prepare Key File	Key 2	556A97B69480572D				AAUGE ET2 09	.d	
100	Key 3	61B570A285381EF6				Ponow EIS		ון
	Key 4	30E3243E4DF17B58				IVENEW ET3		
ESL Tools	Key 5	D108719486687467				Clear TD		ןן
	Key 6	FB48A71F765C03F8				Clear TP		
	Key 7	AFA76BD53342DA8E			р	ersonalize W204	4 ESI	[
Renew ECU/Gearbox	Key 8	7BEFC8C44BD8DEEE						
100%								%
Key password was paste s	uccessfully.							

- 5. Enter Prepare Key File
 - Press Load EIS file to load EIS data with password
 - The file path will be shown at bottom
 - VVDI-MB TOOL will auto detect load file type, here is VVDI-MB format
 - It will show the information of the SSID and password.

VVDI – MB TOOL User Manual

😿 VVDI – 💵 TOOL V	2.0.0 Remaining Syn	chronizati	on Time: 28	da y s	
Options Special Functio	n Process Wizard Update Online				
e.	Step 1	File type	VVDI-MB	type	
Read Write Key	Load EIS file with	SSID	08BB90	B3	
	password	Password	8016380CD0	8E1D75 Paste	
EIS Tools	Support motorola	Key number	Key 1	~	
and the second sec	P	Key hash	F304BB4F2D	EF65E1	Load EIS file
Password Calculation					
Prepare Key File	Step 2 Select key position for key file	Select all	✓ Key 1 ● ✓ Key 2 ●	✓ v051 ✓ v041	
a	Select key file format		✓ Key 4 ●	✓ v011	
ESL Tools	Press button "Prepare		🗹 Key 5 🛛 🔵		
	Key File"		🗹 Key 6 🛛 🕚		
			🗹 Key 7 👘 🔴		Prepare Key File
Renew ECU/Gearbox			🗹 Key 8 🛛 🕚		
					100%
C:\W246\VVDIMB_EIS_OB	D_08BB90B3_pass.bin				

- Select key position and format for key file, Press Prepare Key File (need to be online)
- After server find success, select where you want to save the key file, press save directly

Select postio	on to save key file			? 🔀
Save in: ն	W246	*	G 🦻	⊳ 🖽
EIS_OBD_(EIS_OBD_(VM_OBD_0 VVDIMB_EI VVDIMB_EI	08889083 08889083_pass 8889083_1 (S_OBD_08889083 (S_OBD_08889083_pass			
File name:	Press Save directly		~	Save
Save as type:	Key File(*.*)		~	Cancel

- 6. Enter Read Write Key. If you want Keyless Go, please select NEC adaptor
 - We make a new BE key.
 - Input BE key to device IR reader, select IR mode and BE key
 - Press Identification key
 - Load Key file, we load key 4 position
 - Press Write



• Otopo:	1222021.	~0				
🜌 VVDI – IB TOOL V	2.0.0 Ren	maining Synchronization Time: 28 days				
Options Special Function	n Process Wizard	Vpdate Online				
	- Key Information - SSID	1 ← Function I ← Nec Adap	tor			
Read Write Key	Counter	2 Type BE key	~			
	Remain times Use times	3 Identification key				
EIS Tools	Key number		_			
	Status	21DF Unuse Read BE key password				
Password Calculation	Mark values	FFFFFFF730C Write Save Key file				
	Key Password	Сору	_			
Prepare Key File	Key EEPROM	0C D0 8E 1D 75 0B BB 90 B3 41 A0 87				
a E	E6 86 CC 19 4 F5 06 E7 81 4 4A 9B 02 AE 3	A7 32 35 4E 5B 7E 16 CD 16 56 52 1F A9 D4 F9 02 16 54 8E EC DF B3 7 FB 1C 2E 80 CE 5A 3D 51 01 8C 73 6 2F				
ESL Tools	3F 8E E1 85 (79 F0 2E 1F /	06 DD AA 2E 72 1E D9 31 8B 8B D0 F3 AA 65 71 92 36 43 46 28 BA 7C 5B 5A	_			
	D2 90 0E 5C 1 FF FF FF 58 7 FF FF FF FF 1	EB 0D D6 78 02 7F FF				
Kellew ECO/Gearbox		FF FF FF FF 73 OC FF FF FF 04 FC				
100%						
C:\W246\key4_0BBB90B3_	_051.bin					

 Press Identification key again after you have wrote key file. You can see the key has beenactivated successfully

🜌 VVDI – IB TOOL V	2.0.0 Rem	aining Synchronization Time: 28 days	
Options Special Functio	n Process Wizard	Vpdate Online	
	– Key Information – SSID	0BBB90B3 Function	IR ONEC Adaptor
Read Write Key	Counter	2F1F7C Type	BE key
	Remain times	196604	Identification key
FIG Tools	Use times	3	Identification key
EIS TOOLS	Key number	4	
	Status	04FC Unuse	Read BE key password
Password Calculation	Version	BE	Save Key file
	Key Password		
Prepare Key File	Key EEPROM		Lond Very file
	01 80 16 38 0 E6 86 CC 19 A	C D0 8E 1D 75 0B BB 90 B3 41 A0 87	Load Key file
@	F5 06 E7 81 A 4A 9B 02 AE 1	9 D4 F9 02 16 54 8E EC DF B3 87 FB C 2E 80 CE 5A 3D 51 01 8C 73 16 2F	Write
ESL Tools	3F 8E E1 85 0 79 F0 2E 1F A	6 DD AA 2E 72 1E D9 31 8B 8B D0 F3 A 65 71 92 36 43 46 28 BA 7C 5B 5A	
	D2 90 0E 5C E FF FF FF 58 7	B 0D D6 78 02 7F FF FF FF FF FF FF FF B F1 4D 3E 24 E3 30 7F FF 00 00 02	Renew
Renew ECU/Gearbox	FF FF FF FF FF F 01 01 01 01 F	F FF FF FF F9 24 A8 B2 0B BB 90 B3	
			100%
Reading data success.			

◆ Steps:1->2->3->4->5

7. Insert new key to EIS, the EIS will learn the new key

- First the red light will turn ON , then turn OFF, it means the key learns success
- Read EIS data once more, you can find key 4 was selected

🜌 VVDI – IB TOOL V	72.0.0	Remaining Synchron	nizati	on Time: 28 day	7S			
Options Special Function Process Wizard Update Online								
	EIS Basic Information —				EIS Function			
<u> </u>	SSID	08BB90B3		✓ Initialized	Mode	OBD	○ IR	
Read Write Key	EIS P/N	246 905 99 00]	✓ TP Cleared	Chassis		Allow user	
<u> </u>	КМ	12800]	Personalized	W166, 1	97, 212, 218,	246 🗸	
	VIN		Write	Activated		Read EIS dat		
EIS Tools	EIS Key Inf	ormation						
io at	Key Pass.	000000000000000000000000000000000000000	Paste	Previous used key		Cours ETC data		
	Erase Pass.	000000000000000000000000000000000000000	Get	Last used key		Save EIS dat	a	
Password Calculation	Special key	413492478C280525		Key 4		Load EIS dat	a	
			Used -	Disabled		2000 210 000		
	Key 1	F304BB4F2DEF65E1						
Prepare Key File	Key 2	556A97B69480572D				white ETP dat	.d	
1	Key 3	61B570A285381EF6				Renew FIS		
	Key 4	BA28464336927165				Nonew Lto		
ESL Tools	Key 5	D108719486687467				Cloar TD		
	Key 6	FB48A71F765C03F8				Clear TP		
	Key 7	AFA76BD53342DA8E			D	ersonalize W204		
Renew ECU/Gearbox	Key 8	7BEFC8C44BD8DEEE				G100110112C 17720-	LUL	
Reading data success.								

8. Completed.