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1. Safety Precautions and Warnings

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

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



2. General Information

Thank you for choosing BMW Multi Tool.

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

X-Horse Electronics, 2011

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3. Hardware Overview

3.1.Tool Description



ITEM	Description
6	OBD II CONNECTOR
	Connects the tool to the vehicle's Data Link connector (DLC).
9	Dongle
	USB dongle.
Ø	USB CONNECTOR
Ð	Connects the tool to the PC/Laptop through USB Cable.
	Programmer
4	Program keys.
A	Programmer Female Pin
Ð	Connects programmer to device.
A	Programmer Male Pin
U	Connects programmer to device.

3.2. Specifications

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



3.3. System Requirements

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

PC/Laptop Minimum Specification



4. Software Overview

4.1. Overview

BMW Multi Tool includes forth parts, hardware device, dongle, programmer, software. Before running software you must connect dongle and hardware device to computer.



4.2. Function

Main window follows:

SEV Multi Too	ol ¥1.2	
Tool File Make Key	Help	
Protocal Type	Auto Detect 🔹	Connect
CAS identification	Auto Detect	
	OBDII KWP-E6X, E7X, E9X, E81, E82, E87, E89	
Haruware	KWP-CAN bus 100Kbps	
Addr: 0000 He:	KWP-CAN bus 500Kbps	Save to File
	Write EEPROM KM Read KM Old KM Write KM New KM Synchronization Codes CAS code-DME: CAS code-EGS: Synch DME-CAS Key Lear	Load From File KM Read Code Write Code Synch CAS-ELV
Choose auto detect BN	MW protocal	

i. Menu

Tool: you can choose language here, support "English" and "Chinese
Simplified" Restart software to apply your settings.
File Make Key: you can prepare dealer key with EWS and CAS EEPROM dump.
Help: Device update. You can get your device and dongle id version and update it.



ii. Protocal type:

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

🕲 B IV H ulti Tool VI.	2	
Tool File Make Key Help Protocal Type KW	P-CAN bus 100Kbps	Connect
CAS identification BMW Number 922	VIN VIN Operating 3,3,0	Production date 2010.03:16 Function 2.5.7
Addr: 0000 Hex: 00 Addr 00000 00	Dec: 0 Bin: 0000000 Ascii: . Hex Ascii	EEPROM Read EEPROM Write EEPROM KM Read KM Old KM Write KM Write KM New KM Synchronization Codes CAS code-DME: Read Code CAS code-EGS: Write Code Synch DME-CAS Synch CAS-ELV Key Learn

- iii. EEPROM Function: Read EEPROM, Write EEPROM, Save File, Load File...
 - 1. You should backup the CAS EEPROM before prepare dealer key. After succeed read EEPROM, please save it as back file. This step is very important.
 - 2. Now can't read the whole EEPROM for cas3 system. But the main section is contained. It should be saved. When you read CAS EEPROM, it will give tips as follow(Press ok to continue):

🕙 BEV Hulti Tool V1.2	×
Tool File Make Key Help Protocal Type KWP-CAN bus 100Kbps	Connect
CAS identification BMW Number 922 Hardware C4 Operating 3.3.0	Production date 2010.03.16 Function 2.5.7
Addr: 0000 Hex: 00 Dec: 0 Bin: 0000000 Ascii: . Addr Hex Ascii 0000 00 <t< th=""><th>EEPROM Read EEPROM Save to File Write EEPROM Load From File KM Read KM Old KM KM</th></t<>	EEPROM Read EEPROM Save to File Write EEPROM Load From File KM Read KM Old KM KM
Tips Current EEPROM is not the whole EEPROM. Please read and save it th 确定	KM Read Code
	CAS code-EGS: Write Code Synch DME-CAS Synch CAS-ELV
Try BMW protocalsuccess.	Key Learn



3. After success read it, you will get:

🏵 BEU	Hult	i I	001	1 7	1.2											
Tool Fi	le Ma	ke H	Key	Help	p											
Protoca	al Typ	e		K	WP	-C	AN	bu	is 1	00]	Kbj	ps			Conne	ct
- CAS ide	entific	atior	i —													1
BMW N	lumbe	r	921						VIN	J					Production date 2010.03.16	5
Hardwa	ro		CA.		_	-			On	oroti	na		220		Euroction 2.5.7	
naiuwa	iie		64						Op	erau	ng		3,3,0		Pulletion 2.3.7	
Addr:	000	10	Her	R: D	11	Dec	D : -	17	Bi	n :	000	0100	01 Ascii: .		EEPROM	
Addr	1					He	BX						Ascii		Read EEPROM Save to Fil	e
0000	11	11	4C	38	A6	FF	FF	FF	FF	FF	FF	FF	. L8¦ÿÿÿÿÿÿÿ	^		\equiv
0000	FF	FF	FF FF	FF	00	00	00	00	F.F.	FF	FF FF	F.F.	<u> </u>		Write EEPROM Load From I	File
0018	11 11	77 77	77 77	77 77	77 77	11 77	77 77	77 77	77 77	11 71	77 77	77 77	<u> </u>	5		
0030	FF	FF	FF	FF	FF	FF	FF	FF	00	00	00	00	VVVVVVVV			_
003C	00	FF	FF	FF	FF	09	FF	FF	FF	FF	FF	FF			Read KM Old KM	KM
0048	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>			
0054	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		Write KM New KM	KM
0060	PP	FF	55 90	FF 00	03	5D 50	92	00	00	5D 50	90	00	yyyy.jtjt.			-
0078	00 77	TT	90 77	00 FF	00 77	םם דד	 ТТ	םם דד	11 ТТ	03	BF	11 ТТ	·] • · · y y y y y y y		Synchronization Codes	
0084	00	00	00	00	0A	FF	FF	FF	FF	FF	FF	FF			CAS code-DME: Read C	ode
0090	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>			
009C	6A	E9	AO	06	02	00	10	02	18	00	00	\mathbf{BF}	jé			
00A8	00	00	00	00	00	00	00	00	00	00	00	00	AAAA21112111		CAS code-EGS:	oue
0084	E4	F F 6 1	FF	FF	90	AD 0.0	64	61	90	AD	70	11	ayyy11			
0000	95	01	64	61	40	1F	04	00	64	61	70 9F	0F	Ida@ dal		Synch DME-CAS Synch CAS-E	LV
00D8	9E	0E	05	61	6E	12	9E	0E	61	FF	6E	12	L. an. L.aÿn.			
00E4	9E	0E	61	FF	00	00	9E	0E	53	14	64	61	I.aÿI.S.da			
OOFO	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		Key Learn	
			11(11)												L	
Reading o	lata si	UCCE	ess.													

4. Write EEPROM function is only support CAS1, CAS2 system. Doesn't support write to cas3 system.



iv. Odometer: Support read and change KM stored in CAS system. Don't support to change KM in instrument. If you want to change the KM display in instrument. You should change KM in CAS system first. Then modify the KM in instrument manually. Read KM :

BLU Cool Fi	luli le Ma	ti ike H	looi (ey	l V Help	1.2										2
Protoca	al Typ	e		K	WP	-C	AN	bu	is 1	00]	Kbj	ps			Connect
CAS ide	entific	atior	1												
BMW N	lumbe	er	921						VIN	J		1		1	Production date 2010.03.16
r texations						-			~			1			
Hardwa	are		<u>C4</u>						Op	erati	ng	1	3,3,0		Function 2.5.7
Addr:	000	00	Her	c: 1	11	Dec	30	17	B	n:	000	0100	01 Ascii:		EEPROM
Addr	1					He	3X						Ascii		Read EEPROM Save to File
0000	11	11	4C	38	A 6	FF	FF	FF	FF	FF	FF	FF	. L8 ÿÿÿÿÿÿÿ	^	
000C	FF	FF	FF	FF	00	00	00	00	FF	FF	FF	FF	ÿÿÿÿÿÿÿÿÿ		Write EEPROM
0018	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		
0024	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		KM
0030	FF	FF	FF	FF	FF	FF	FF	FF	00	00	00	00	<u> </u>		attan attan
003C	00	FF	FF	FF	FF	09	FF	FF	FF	FF	FF	FF	· УУУУУ · УУУУУУУ		
0048	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	уууууууууууу		
0054	FF	rr FF	FF	FF	FF 02	FF	PP	PP 00	PP 00	FF	PP	PP 00			Write KM New KM KM
0000	00	FF 5D	90	00	03	되고	72 55	50	50	되고	90 FF	00	yyyy.jtjt.		
0000	11	FF	33	11	77	구구	ਸੂਬ	11	귀국	03	BF	귀국	·] • · · y y y y y y y y	1	-Synchronization Codes
0084	00	00	00	00	0A	FF	FF	FF	FF	FF	FF	FF			CAS code-DME: Read Code
0090	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	~~~~~~		
009C	6A	E9	AO	06	02	00	10	02	18	00	00	BF	jé		
8400	00	00	00	00	00	00	00	00	00	00	00	00	Statement was added at a service		CAS code-EGS: Write Code
00B4	E4	FF	FF	FF	9C	AD	00	00	9C	AD	00	00	äÿÿÿ∣∣		
0000	64	61	FF	FF	00	00	64	61	FF	FF	78	11	daÿÿdaÿÿx.		Synch DME-CAS Synch CAS-ELV
00CC	9E	0E	64	61	40	1F	00	00	64	61	9F	0E	I.da@daI.		
00D8	9E	OE	05	61	6E	12	9E	OE	61	FF	6E	12	anayn.		r
UUE4	9E	0E	61 EE	FF	00	00	9E	0E EE	53	14	64 EE	61 EE	∎.ay∎.S.da		Key Learn
UTU	FF	ff	FF	FF	FF	FF	FF	FF	FF	ff	FF	FF	<u> </u>	Y	NCy Learn
				9											
ead odo	mete	r su	cess	5.											

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



rotoca	al Type		K	WP	-C/	AN	bus	10	0K1	ps				~	Conne	ct
AS ide	entificat	ion –	-													
MW N	lumber	92						VIN					Production	n date	2010.03.16	
lardwa	are	C4						Opera	ating		3.3.0		Function		2,5,7	
ddr:	00B8	He	x: 9	ЭС	Dec	: 1	56	Bin	: 10	011:	LOO Ascii:		EEPROM			
ddr					He	X					Ascii	-	Read EEPROM		Save to Fil	e
000	11 1	1 4C	38	A6	FF	FF	FF H	FF F	F FE	FFF	L8 ÿÿÿÿÿÿÿ	^				
018	FF F	r rr F FF	FF	FF	FF	FF :	FF H	FFF	r ri F FB	FF			Write EEPROM		Load From F	File,
024	FF F	F FF	FF	FF	FF	FF	FF H	FF F	F FF	F FF	<u> </u>		KM	* *		
030	FF F	F FF F	FF FF	FF	FF	FF FF	FF (FF I	000 ਸੁਸ਼	00 0 מים ח	00 (17 5	<u> </u>		Read KM	Old KM	44444	
048	FF F	F FF	FF	FF	FF	FF	FF H	FFF	F FE	FFF	<u> </u>		TAGAGE ISTOC	Clarket		
054	FF F	F FF	FF	FF	FF	FF	FF H	FFF	F FE	FFF	<u> </u>		Write KM	New KM	1000	
060	PF F	F FF	FF 00	03	5D 88	92 EE		טע 5 די די	ם 90 ה הי	J UU 7 88	yyyy.][][.	-		-		
078	Tips														-	
084 090 09C 0A8 0B4 0C0	Thi Do	s ope: you w	ratio: ant t	n wii o com	ll or ntinu	վյ c 1e?	hange	KM :	in CA 是(S syt	em. You can modify the	:kmi:	n instrument man	ually.	Write C	iodi iod
000	9E 0	E 64	61	40 6 F	1F 12	00 95	00 B	4 b	1 9E E 6T	UE	I.da@daI.					- 2
0E4 0F0	9E 0 9E 0 FF F	E 61 F FF	FF FF	00 FF	00 FF	9E FF	OE 9 FF F	53 1 FF F	4 64 F FE	61 F FF	∎aÿ∎.S.da ÿÿÿÿÿÿÿÿÿÿÿÿÿ			Key Learr	1	

🅙 BEV	Lult	i i	looi	L V	1.2	ų A									
Tool Fi	le Ma	ke l	Key	Help	,										
Protoca	l Typ	e		K	WP	-C	AN	bu	IS 1	00]	Kb	ps			Connect
– CAS ide	ntific	atior	1	i											
BMW N	umbe	ario. ar	923		_				VIN	l		[1	Production date 2010 03 16
			-		-							-			2010/00/10
Hardwa	re		C4						Op	erati	ng		3.3.0		Function 2.5.7
Addr:	002	20	Her	e: I	FF	Dec	o: 1	255	B	n :	11	1111	11 Ascii:ÿ		EEPROM
Addr	1					He	эx						Ascii	11	Read EEPROM Save to File
0000	11	11	4C	38	Α6	FF	FF	FF	FF	FF	FF	FF	L8¦ÿÿÿÿÿÿÿ	~ L	
000C	FF	FF	FF	FF	00	00	00	00	FF	FF	FF	FF	ÿÿÿÿÿÿÿÿ		
0018	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		
0024	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>	E	KM
0030	FF	FF	FF	FF	FF	FF	FF	FF	00	00	00	00	<u> </u>	10	a line attract adda
003C	00	FF	FF	FF	FF	09	FF	FF	FF	FF	FF	FF			Read KM Old KM 44444 KM
0048	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>	Ì	
0054	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		Write KM New KM 1000 KM
0060	PP	FF	PP	PP	03	50	92	00	00	5D	90	00	yyyy.jtjt.		
0050	00	5D	90	00	00	FF	FF	FF	FF	PP 00	PP	FF	·] • · · УУУУУУ У		Synchronization Codes
0078	FF	00	00	00	C L	rr rr	rr rr	rr rr	F F F F	03	DF	rr rr	yyyyyyyyy.cy		CAR and DME
0004	00 ਜੁਜੂ	00 नन	00 नन	00 ਜੁਜੂ	E E	도도	чч Т	 FF	모모	모모	모모			8	CAS CODE-DIME:
0090	64	F9	20	06	02	00	10	02	18	00	00	BF	14 1		
0048	00	00	00	00	00	00	00	00	00	00	00	00	10		CAS code-EGS: Write Code
00B4	E4	FF	FF	FF	90	AD	00	00	90	AD	00	00	avvv		
0000	64	61	FF	FF	00	00	64	61	FF	FF	78	11	davvdavvx.	1	
00CC	9E	0E	64	61	40	1F	00	00	64	61	9F	0E	.da@da .		SYNCH DME-CAS
00D8	9E	0E	05	61	6E	12	9E	0E	61	FF	6E	12	↓an.↓.aÿn.	L	
00E4	9E	0E	61	FF	00	00	9E	0E	53	14	64	61	.aÿ .S.da		
OOFO	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>		Key Learn
														<u> </u>	
Writing da	ata su	ICCe:	ss.												
	_	-		-		-				-	-				

- v. Synchronization Codes:
 - 1、CAS3 code-DME 、CAS3code-EGS: Read and write DME and EGS code stored in CAS3 system.
 - 2. Synchronize DME and CAS— this function will be useful while prepare dealer key or any other operation which cause can't start the engine.
 - 3、 Synchronize CAS and ELV this function can help clear wheel errors.

rotoca	al Typ	e		K	WP	P-C.	AN	bu	s 1	001	Kbj	ps				Connect
AS ide	entifica	ation	1			_			10.000	2		r		2001		
MM N	lumbe	r	9						VIN	J				2	Production date 2010.	.03.16
ardwa	are		C4						Ор	eratii	ng		3.3.0		Function 2,5.7	S
ddr:	005	D	Hez	s : 1	FF	Dec		255	Bi	n:	11:	1111	11 Ascii: V		EEPROM	
ddr	1					He	æ						Ascii		Read EEPROM Save	o to File
000	11	11	4C	38	A6	FF	FF	FF	FF	FF	FF	FF	L8 ÿÿÿÿÿÿÿÿ	^		, со насти
00C	FF	FF	FF	FF	00	00	00	00	FF	FF	FF	FF	ÿÿÿÿÿÿÿÿ		Write EEPROM	From Eilo
018	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>			
024	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>	T	KM	
030	FF	FF	FF	FF	FF	FF	FF	FF	00	00	00	00	<u> </u>			14
03C	00	FF	FF	FF	FF	09	FF	FF	FF	FF	FF	FF	·			14
048	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	<u> </u>			
054	FF	F F F F	F F F F	F F F F	02	FF	FF	FF	FF	FF	6 F F	FF	<u> </u>		Write KM New KM 1000	1
060	00	50	90	00	0.0	ਜੁਰ	72	77	77	TT	70	77	yyyy.j∎j∎.]∎ υυυυυυυ	4	Conductive Codes	
078	FF	FF	ਜੁਤ	33	77	ਜੁਤ	FF	FF	FF	03	BF	FF		1	-Synchronization Lodes	
084	00	00	00	00	0A	FF	FF	FF	FF	FF	FF	FF	0000000		CAS code-DME: 4C38	Read Code
090	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	******			
09C	6A	E9	AO	06	02	00	10	02	18	00	00	BF	jé		[4444]	
0A8	00	00	00	00	00	00	00	00	00	00	00	00	And a first of the second state of the		CAS code-EGS:	Vrite Cod
DB4	E4	FF	FF	FF	9C	AD	00	00	9C	AD	00	00	äÿÿÿ∣∣			
0C0	64	61	FF	FF	00	00	64	61	FF	FF	78	11	daÿÿdaÿÿx.		Synch DME-CAS Synch	CAS-ELV
DCC	9E	0E	64	61	40	1F	00	00	64	61	9F	0E	【.da@da】.			
DD8	9E	0E	05	61	6E	12	9E	0E	61	FF	6E	12	【an.【.aÿn.	1	r .	
UE4	9E	UE	61	FF	00	00	9E	OE	53	14	64	61	∎.aÿ∎.S.da		Koylosen	
UFU	FF	FF	E.E.	F.F.	F.F.	F.F.	F.F.	F.F.	E.E.	F.F.	FF	FF	AAAAAAAAAAAAA		Key Learri	

vi. Key Learn

Key Learn											X
General info	oder			S remote cost	rol frequencia:	1		Current ka	w in ignikie	n cwitch	ici
	ode:			is remote cond	roinrequency:			Current Ke	ey in ignicio	n switten	15;
Number	TD		High		Immobilizer	Low	Hiab	CEG PSW	Info	CRC	Type
KeyID1											
O KeyID2						1					
O KeyID3]									
OKeyID4		1									
OKeyID5											
◯ KeyID6]									
◯ KeyID7]									
◯ KeyID8											
◯ KeyID9]									
OKeyID10]									
			2							<u> </u>	
Get Ke	y Info		Save K	ey Info	Make Dea	ler Key		Enable Key		(Elear DTC
White P			Lood K	au Info	466			Dicable Key		Ch	ar Shadau
Write K	59 IIIO		LUAU K			εγ		Disable Key			

Function introduction:

- 1. Get Key Info: With this function you can get the key cutting, remote frequency, and key data.
- 2. Save Key Info: Save the read key info.
- 3. Load Key Info: Load the saved key info. To see the key data and prepare for write key info.
- 4. Write Key Info: Write the loaded key info into CAS system.
- 5. Make Dealer Key: You can prepare dealer key after you get key info successfully. Also you should choose the key position.
- 6. Add key: Add the new dealer key into CAS system. Some CAS system needs this step to start the engine.
- 7. Enable Key: Insert a working key, choose the key position which you want to disable. The key position can't be same with the key in ignition.
- 8. Disable Key: Insert a working key, choose the key position which you want to enable. The key position can't be same with the key in ignition.
- 9. Clear DTC: Before prepare dealer key and after it you can use this function to clear DTC.
- 10. Clear Shadow: Before prepare dealer key and after it you can use this function to clear Shadow.

vii. File Make Key

SEV Multi Tool V	. 2	
Tool File Make Key Hel		
Prot EWS1	VP-CAN bus 100Kbps	
EWS2		
BMV EWS4	VIN	Production date 2010.03.16
Harc CAS1 (OK50E)	Operating 3,3,0	Function 2.5.7
Add CAS2 (2K79X)	F Dec: 255 Bin: 11111111 Ascii: 9	EEPROM
Add CAS3 (0L01Y)	Hex Ascii	Read EEPROM Save to File
000 CAS4 (1115Y)	A6 FF FF FF FF FF FF FF L8 yyyyyyy 🔼	
000 0018 FF FF FF FF	DO DO DO DO FF FF FF FF yyyyyyyy 🔤	Write EEPROM Load From File
0024 FF FF FF FF	FF FF FF FF FF FF FF FF yyyyyyyyyyy	-KM
0030 FF FF FF FF	FF FF FF FF 00 00 00 00 ÿÿÿÿÿÿÿ	
003C UU FF FF FF	FF U9 FF FF FF FF FF FF FF .yyyy.yyyyyy	
0054 FF FF FF FF	FF FF FF FF FF FF FF FF yyyyyyyyyyy	Write KM Now KM 1000 KM
0060 FF FF FF FF	03 5D 92 00 00 5D 90 00 ÿÿÿÿ.]I]I.	
006C 00 5D 90 00	00 FF FF FF FF FF FF FF .]Ⅰÿÿÿÿÿÿÿ	Synchronization Codes
	NA FE FE FE FE FE FE FE FE UUUUUUU	CAS code DME: 4C38 Read Code
0090 FF FF FF FF	FF FF FF FF FF FF FF FF yyyyyyyyyyy	CAS CODE-DINE: 1999
009C 6A E9 A0 06	02 00 10 02 18 00 00 BF jé	
00A8 00 00 00 00	00 00 00 00 00 00 00 00	CAS code-EGS:
UUB4 E4 FF FF FF	9C AD UU UU 9C AD UU UU ayyy	
00CC 9E 0E 64 61	40 1F 00 00 64 61 9F 0E da@da .	Synch DME-CAS Synch CAS-ELV
00D8 9E 0E 05 61	6E 12 9E 0E 61 FF 6E 12 an. .aÿn.	
00E4 9E 0E 61 FF	00 00 9E 0E 53 14 64 61 ┃.aÿ┃.S.da	
00F0 FF FF FF FF	FF FF FF FF FF FF FF FF ÿÿÿÿÿÿÿÿÿÿÿ	Key Learn
DTC clear success.		

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





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

BEW CAS3-	+ (OL15Y)) EEPROM dump maker dea	ler key			×
Key position	Key ID	Кеу Туре	Key position	Key ID	Кеу Туре	
OKeyID1	311E7396	PCF 7953 remote key	OKeyID6	FFFFFFFF	Unknown	
OKeyID2	D3237396	PCF 7953 remote key	OKeyID7	FFFFFFF	Unknown	
OKeyID3	FFFFFFF	Unknown	OKeyID8	FFFFFFF	Unknown	
KeyID4	FFFFFFF	Unknown	O KeyID9	FFFFFFF	Unknown	
⊖KeyID5	FFFFFFF	Unknown	OKeyID10	FFFFFFF	Unknown	
				Make Dealer	Key	1
						J



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

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

For some CA3+ type you need to write back the new dump file into car.



4. CAS3 encrypt data, only OBDII prepare make key is support for CAS3 encrypt data.





viii. Device Update

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

[14:57:32] BMW Multi Tool support function: 1.Read/Write CAS EEPROM 2.Change Km stored in CAS sytem 3.Make dealer key and add key to car 4.Synchronize DME and CAS 5.Synchronize CAS and ELV 6.Read DME and EGS code stored in CAS sytem	Device Info Device Update
1	Exit

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

2.Change Km stored in CAS sytem 3.Make dealer key and add key to car 4.Synchronize DME and CAS 5.Synchronize CAS and ELV 6.Read DME and EGS code stored in CAS sytem		e Info
[14:27:27] Getting dongle info, please wait		
[14:27:36] Dongle 5N :DB000010000	Dester	
[14:27:50] Dongle version:1.1		update
[14:27:50] Get device info, please wait		
[14:27:55] Get device info success.		
[14:27:55] Device SN :MB200010		
[14:27:55] Device Version:1.0.1	v	310



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





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Process to prepare dealer key:

- 1. On main window choose "Connect" to auto detect the current car protocol and get the CAS info.
- 2. On main window choose "Read EEPROM" to read the CAS EEPROM file and save it.
- 3. On main window choose "Key Learn" button to get key learn window.
- 4. On Key Learn window choose "Get Key Info" to get the key info stored in CAS system.(picture 2).
- 5. Choose "Save Key Info" button to save the read key info for backup.
- 6. Check the connection between programmer and device. Keep connection while make key process.
- 7. Put new blank key into the center of programmer.
- 8. Choose the position where you want to suit the key.
- 9. Press "Make Dealer Key" to prepare dealer key. After succeed you will get (picture 3)

"Key make okay and locked. Please use it start the car. If can't start engine, use "Add Key" function add the new dealer key to CAS system." Once can start the engine, go to step 13.

- 10. Put the new dealer key into programmer. Use "Add Key" function to add the key to CAS system. After that you will get (picture 4):"New dealer key success written to CAS system. You can start engine with the new key now. If can't please use the original working key first."
- 11. Please return to main widow and use function "Synch DME-CAS" to synchronize DME (ECU) with CAS.
- 12. Use "Synch CAS-ELV" to clear wheel errors.
- 13. Enter to key learn window use "Clear DTC" and "Clear Shadow" function clear all error sin CAS system.

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



Picture 1:

Key cutting c	ode: 🧧		CA	S remote contr	ol frequency:	315Mhz		Current ka	ey in ignitio	n switch	is: No Key
Key position Number KeyID1	Remote ID	control Low	High	RND/FBD	Immobilizer ID	Low	High	CFG PSW	Info	CRC	Туре
KeyID2											
KeyID4		Tips The	dealer kev is l	key shoule 1 keyless, ple:	oe taken away ase move it o	from ignit ut of car.	ion sw:	itch.			
KeyID6 KeyID7		Pre:	ss [°] "OK"	to continue.	福定						
KeyID6 KeyID7 KeyID8 KeyID9 KeyID10		Pre	ss [°] 0K"	to continue.]					
KeyID6 KeyID7 KeyID8 KeyID9 KeyID10	/ Info	Pre	ss [°] "OK"	to continue.	确定	ler Key		Enable Key			Clear DTC



Picture 2:

Key cutting c	ode:		CA	S remote contr	ol frequency:	315Mhz		Current key	in ignition	switch	is: No Key
Key position	Remote	control			Immobilizer						
Number	ID	Low	High	RND/FBD	ID	Low	High	CFG PSW	Info	CRC	Туре
KeyID1	C979	7891304A	6EC9	2E520B31	70A5AB97	6F	3715	C8 D25595	004B00	1E	PCF 7945 remot
◯KeyID2	SE2A	FD6D94AF	D48C	643E1D66	036F6A97	9D1	B6FA	C8 69587A	004B00	6B	PCF 7945 remot
◯ KeyID3	4CD0	89995983	19D3	08A8F0EF	E5A58516	Ala	D698	OE ADA836	002800	4C	PCF 7936 transp
◯KeyID4	6F10	E8122696	30CF	24602665	1FB6B516	846	F8F1	08 D433AC	002800	A3	PCF 7936 transp
KeyID5	7D22	1FC3BBE9	Tips							14	PCF 7936 transp
KeyID6	3BEE	4C42D7D1	Plea	se use "Save	Kev Info" to	save the	original	l key inform	ation.	E4	Unknown
0.0000000000000000000000000000000000000					Contraction of the second second				the second se	and the second second	31 <u></u>
KeyID7	58BC	7E74EEEA			(minimum)	确定				71	Unknown
○KeyID7 ○KeyID8	58BC BF56	7E74EEEA 828D34A1				确定				71 68	Unknown Unknown
KeyID7 KeyID8 KeyID9	58BC BF56 8055	7E74EEEA 828D34A1 6E06DAE2	DSEC	73325755	FFFFFFF	确定	DBA1	C8 C5AEF4	007608	71 68 3C	Unknown Unknown Unknown
 KeyID7 KeyID8 KeyID9 KeyID10 	588C 8F56 8055 86DA	7E74EEEA 828D34A1 6E06DAE2 35137491	D8EC D9ED	73325755 CB618D0B	FFFFFFF	确定	DBA1	C8 C5AEF4 C8 941D15	007608	71 68 3C 65	Unknown Unknown Unknown Unknown
KeyID7 KeyID8 KeyID9 KeyID10	S8BC BF56 8055 86DA y Info	7E74EEEA 828D34A1 6E06DAE2 35137491	D8EC D9ED Save Ke	73325755 CB618D0B ey Info	FFFFFFFF FFFFFFFF Make Deal	确定 BET HAD er Key	08A1	C8 C5AEF4 C8 941D15 Enable Key	007608) 71 68 3C 85	Unknown Unknown Unknown Unknown



Picture 3:

General info Key cutting c	ode:	-	CA	S remote contro	ol frequency:	315Mhz		Current key	' in ignition	switch	is: No Key
Key position	Remote	e control			Immobilizer						
Number	ID	Low	High	RND/FBD	ID	Low	High	CFG PSW	Info	CRC	Туре
◯ KeyID1	C979	7891304A	6EC9	2E520B31	70A5A897	6F	3715	C8 D25595	004800	1E	PCF 7945 remot
OKeyID2	SE2A	FD6D94AF	D48C	643E1D66	036F6A97	90	B6FA	C8 695B7A	004B00	6B	PCF 7945 remot
OKeyID3	4CD0	89995983	19D3	08A8F0EF	ESASB516	A1	D698	OE ADA836	002800	4C	PCF 7936 transp
OKeyID4	6F10	E8122696	30CF	24602665	1FB68516	84	F8F1	08 D433AC	002800	A3	PCF 7936 transp
CKeyID5	7D22	1FC3BBE9	F721	B387FD40	E5A5B516	60	5E90	08 B12E96	002800	14	PCF 7936 transp
⊙ KeyID6	3BFF	4G42D7D1	9D8C	03BC7A77	FFFFFFF	2954000	705D	C8 48F534	007608	E4	Unknown
KeyID7	III	ps								71	Unknown
CKeyID8	K	ey make oks	y and	locked. Plea	se use it sta	rt the car	i			68	Unknown
⊖KeyID9		r can not s	start e	ngine. use .	Add Ney Tunc	tion add t.	ne deale	er Key to LA	o system.	3C	Unknown
OKeyID10	Ē				确定					85	Unknown
Get Ke	y Info		Save Ke	ey Info	Make Deal	er Key		Enable Key		(Clear DTC
10		1			-				1	-	



Picture 4:

key cutting a	:ode:		45 remote contri	or rrequency:	010MIL2		Current key	In Ignition :	SWIECH	IS: IND KOY
ey position	-Remote contr	rol		Immobilizer						
Number	ID Low	High	RND/FBD	ID	Low	High	CFG PSW	Info	CRC	Туре
KeyID1	C979 7891	1304A 6EC9	2E520B31	70A5AB97	6F	3715	C8 D25595	004800	IE	PCF 7945 remol
KeyID2	SE2A FD6	D94AF D48C	643E1D66	036F6A97	9D 1000	B6FA	C8 69587A	004800	6B	PCF 7945 remot
2" "	Land Looor		loosocorr]		1 440	Incon			4C	PCF 7936 trans
Tips								<u> </u>	A3	PCF 7936 trans
Make d	lealer key su	ccess writte	n to CAS sys	tem. TS such all.	11.				14	PCF 7936 trans
You	on stort ong	ina with the	DOW FOT DOW	IT CODT DIG						
You c	an start eng	ine with the	new key now.	. if cant pie	se use cill	e of igins	L WORKING K	ey IIIst.	E4	Unknown
You c	an start eng	ine with the	new Key now.	确定	se use ch	e origins	u working k	ey IIIst.	E4 71	Unknown Unknown
You c	BF56 8280	D34A1 B352	BF995B43	确定 FFFFFFFFF] FC I	E 51DE	C8 7DE830	007608	E4 71 68	Unknown Unknown Unknown
You o KeyID8 KeyID9	BF56 8280 8055 6606	D34A1 B352 DAE2 D8EC	BF995B43	· If cant ple 确定		E 51DE	C8 7DE830 C8 C5AEF4	007608	E4 71 68 3C	Unknown Unknown Unknown Unknown
You o KeyID8 KeyID9 KeyID10	BF56 8280 8055 6E06 86DA 3513	034A1 8352 60AE2 08EC 87491 09ED	BF995B43 73325755 CB618D0B	确定 所FFFFFFFF FFFFFFFFF FFFFFFFFF] F(1) BE (1) [4/1	E 51DE B D6A1 B A99C	C8 7DE830 C8 C5AEF4 C8 941D15	007608	E4 71 68 3C 85	Unknown Unknown Unknown Unknown

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



5. Troubleshooting

5.1. "Device not connected" Error



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



6. Warranty and Service

6.1. Limited One Year Warranty

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

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

6.2. Service Procedures

If you have any questions, please contact us online.

