AK500 Key Programmer User Manual

Product Description:

AK-500 is a carefully designed multi-purpose vehicle intelligent programming system that can adapt to a very good variety of programming environments. This product is a high degree of intelligence to realize the automatic programming function. AK-500 is a specialized vehicle to meet the modern high-level computer

programming complex, high-efficiency and the development of a new generation of intelligent car computer programming system.

programming system.

Support models:

■ Mercedes-Benz: W220/W220 “Keyless Go” W208/W210/W220/W203/W215/W230/W209/W219/W211/W230/W215/ **W164/**

■ BMW1/3/5/6/7/8/ MPC(MPC555/556,MPC561/562,MPC563/564),external Flash(MB58BW016,29BL802C,AM29BDD160,S29CD016,DE28F800 etc.) and external EEPROM(M95xxx)

■ Volkswagen Audi:MPC(MPC555/556,MPC561/562,MPC563/564),external Flash(MB58BW016,29BL802C,AM29BDD160,S29CD016,DE28F800 etc.) and external EEPROM(M95xxx)

Features:

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■Match and support function “Keyless Go” of Benz Infrared Key;

■Support Benz Infrared keys lock and unlock for EIS+ESL+ESM, the leading technology all over the world;

■Support Directly reading EEPROM for BENZ DAS(1995-1998)via OBD, can to unlock DAS when you lost all keys and DAS is locked;

■Read and write the ESL of E/Class and C/Class via K_line, no need remove ESL;

■Support Benz ECU’s flash(29F400 and 29F800) and generate key data directly, no need Renew Flash and Programming ECU, the leading technology all over the world;

■No need to choose the MCU type of EIS. When load EIS file, recognise EIS file, and generate key file. If your MCU is HC705, software will automatically suggest “load next EIS file of HC705”

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■Powerful Motorola MCU programming function,Directly reading dumps of EEPROM(HC908) and Flash(HC912,HC9S12,HC9S12X)for motorola MCU, in support of the engine ECU of Benz, BMW, VW and Audi etc MPC(MPC555/556,MPC561/562,MPC563/564),external Flash(MB58BW016,29BL802C,AM29BDD160,S29CD016,DE28F800 etc.) and external EEPROM(M95xxx). An advanced tool of car ECU repair and programming, odometer adjustment and key programming as well.

Follow-up upgrade

■Benz(R or W220) shift module ISM and 722.9 gearbox ECU drive authority;

■upgrade ESM read and write EEPROM.

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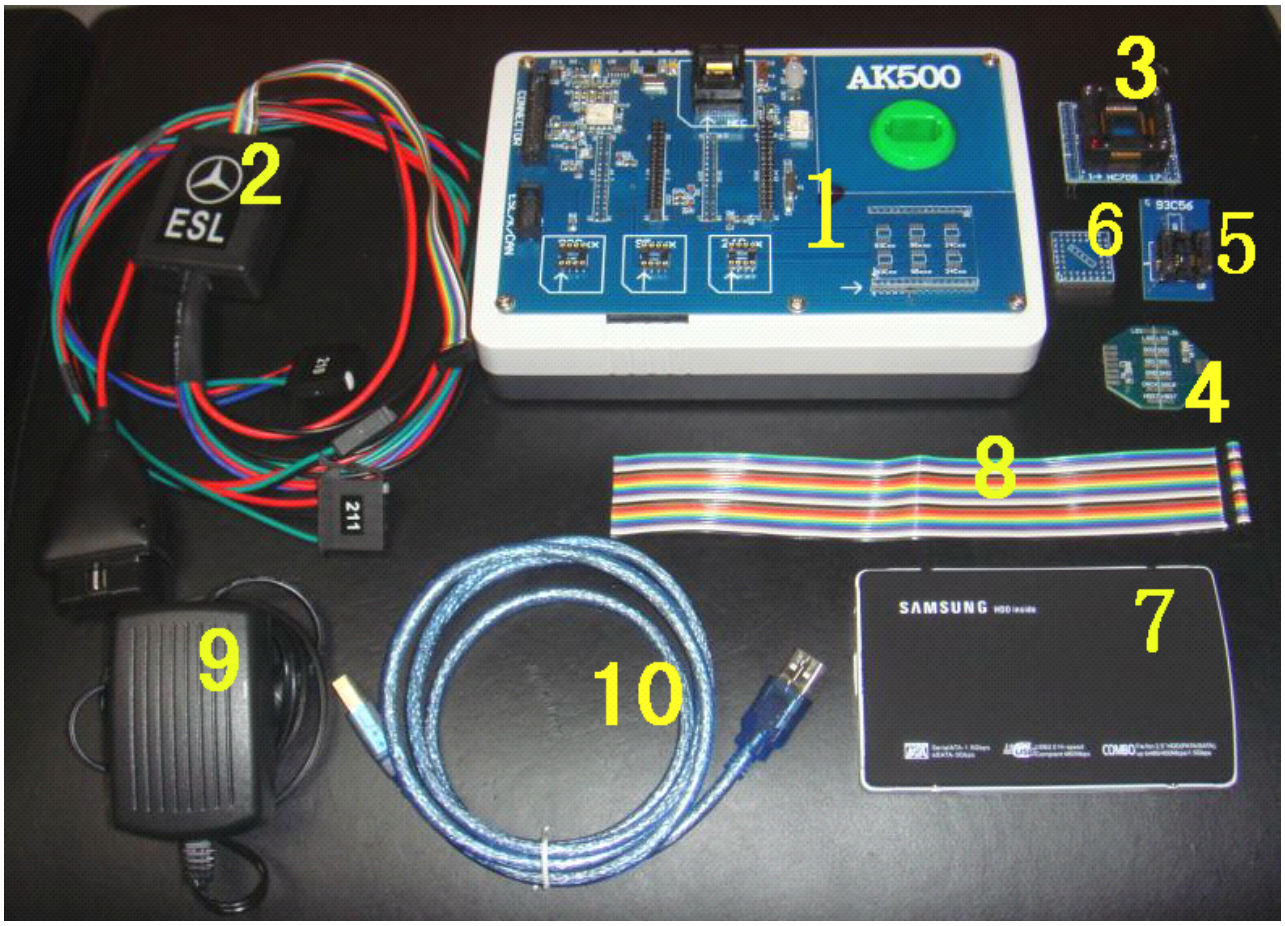


■AK500 standard (above)

1; AK500 Host (1PCS);

2; ESL cable (1PCS) (including ESL and power plug to connect with OBD plug);

3; HC705 MCU adapter (1PCS);

4; MPC / MCU connection adapter board (2PCS);

5; EEPROM adapter holder (1PCS);

6; Benz ME2.0-ECU 4E28B Block Adapter (1PCS)

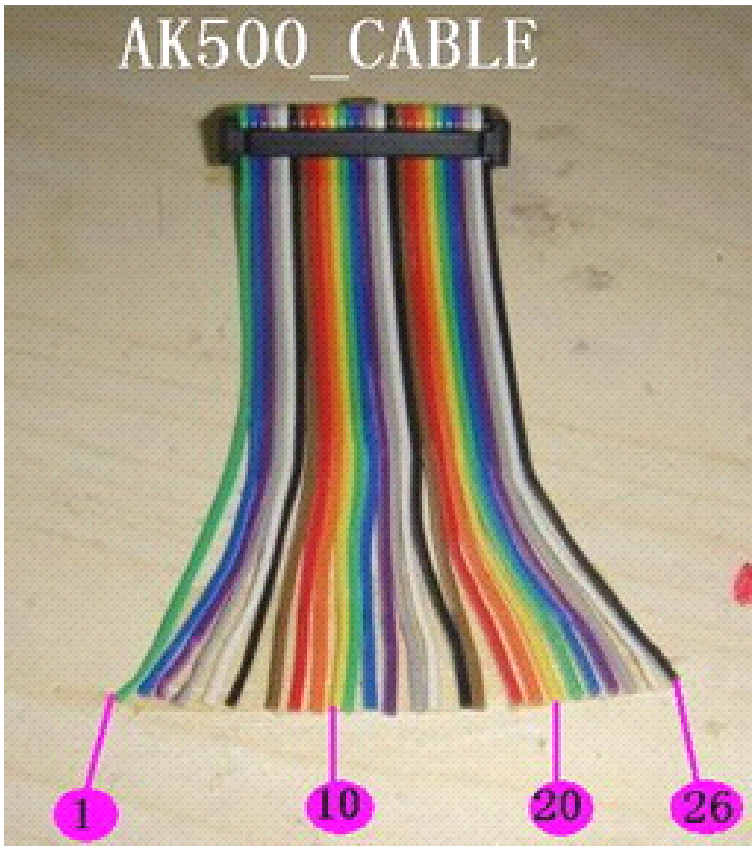
7; mobile hard disk 40G (1PCS) of (AK500 contains the database of installed software and ESL);

8; MCU / MPC cable (1PCS);

9; 12V/2A Switching Power Supply (1PCS);

10; USB communications cable (1PCS);

■AK500 cable definition:



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■AK500 software Description:

A. Motorola dedicated programmer;

B. Benz infrared key matching;

C. Benz EIS (electronic lock) FLASH data recovery;

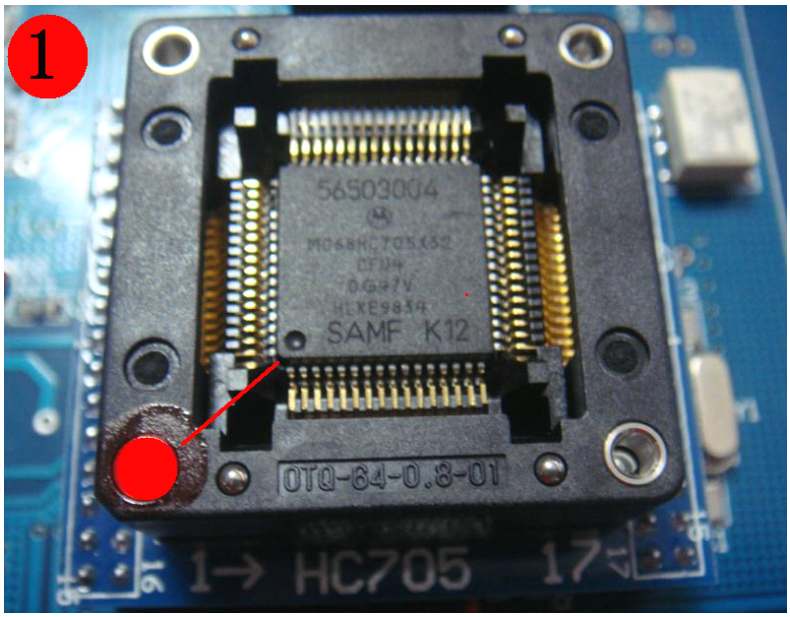
D. AK 500 hardware upgrades;

E. AK 500 instruction manual.

A. Motorola programmer operation-specific profile:

1. HC705: must be removed MCU, and the MCU on the adapter folder HC705 seat. Remember: pin1 (MCU on the dot)

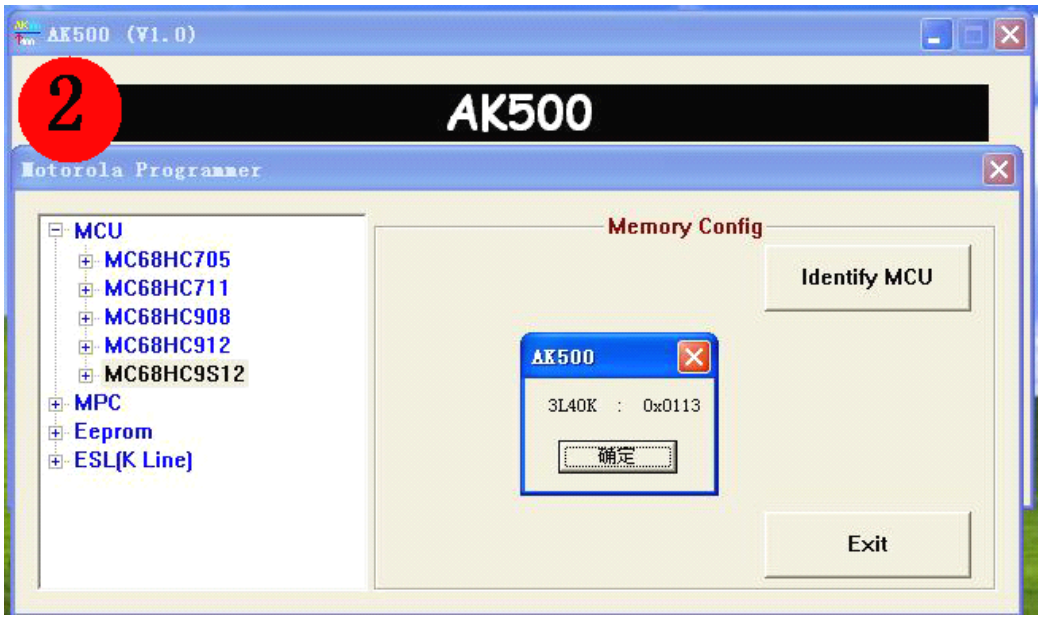
Block HC705 folder at the bottom left of the red dot (Figure 1):



2. HC908/HC912/HC9S12/MPC in the choice of specific models, etc., the point of "picture" to see the wiring diagram;

3. HC9S12x type of MCU, If you do not know the specific mask (such as 1L85D), can "identify MCU features, read the specific type of MCU, the MCU further mask options (HC912 type of MCU, the MCU did not ID, such as

"identify MCU", then the MCU ID is "FF FF") (Figure 2).



4. HC908 Series MCU: in accordance with the wiring diagram to support read and write EEPROM, a FLASH also supports reading and writing 2J74Y/4J74Y. 1J35D only allowed to deliver the ROM, can not write. (EIS's 1J35D chip can be used in place of 2J74Y or 4J74Y).

B. Benz infrared instrument matching the key-specific:

Open the "Benz IR Keymaker".

The first step: handling EIS

1. With "Read EIS" function, EEPROM read the EIS data and save it as a BIN format (Figure 3);

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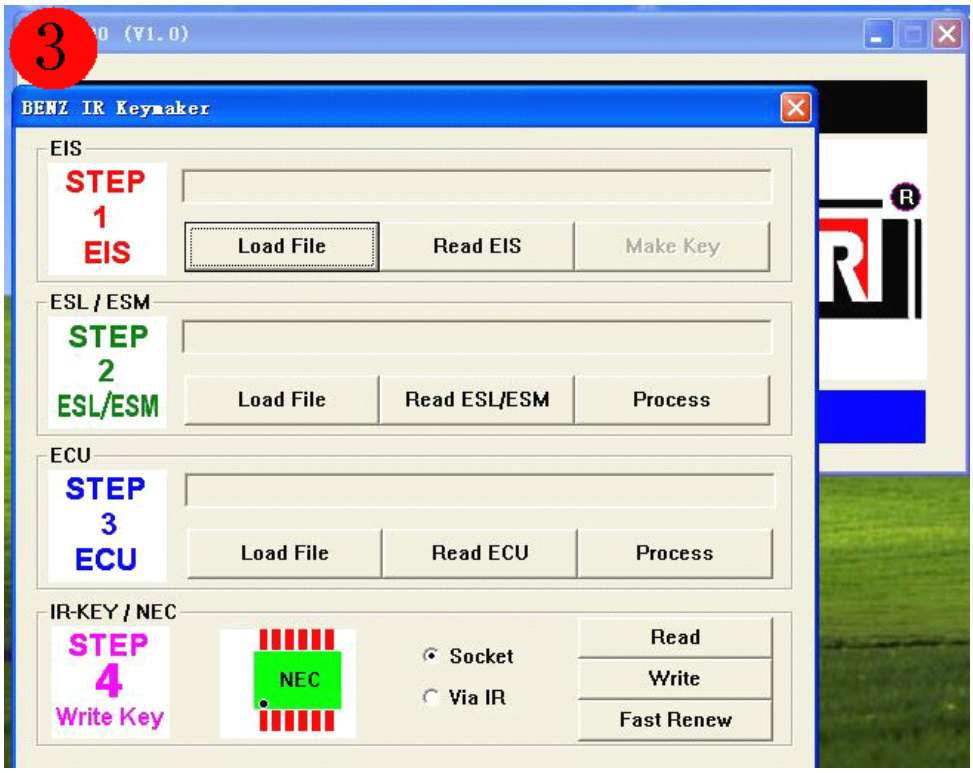


2. With "Make key" function, open the "EIS Process", we can see EIS information, Key end-of-life status and the use of the state, in the "New key" column to choose the key number needs to be done, and "Generate EIS new file + Generate new key file "(to generate new data and the key to the EIS data) to deal with function keys, the software automatically generates the new data as well as the Key of EIS data and stored in the original directory (Figure 4);

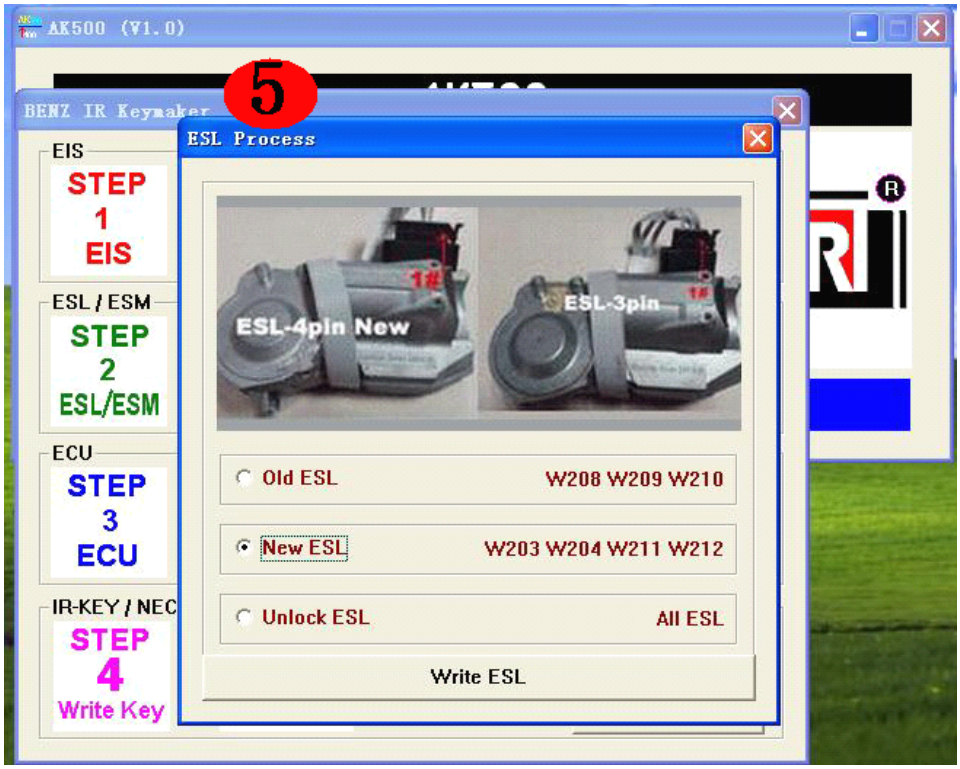
3. At this point, the software will go to the "programmer Motorola" interface to facilitate your new EIS data to write back to EIS.

The second step: to deal with ESL / ESM

With "Read ESL / ESM" function to read out the ESL (E or C Series ESL cable used) or ESM (W220, 93C56) The EEPROM data, the "Process" function after treatment, the new generation of ESL or ESM data, the use of ESL Connection Line or EEPROM programming feature to write back to the original ESL or ESM (write "NEW ESL", there is a need

to connect the hard disk AK500,

Because write "NEW ESL" documents the need for hard disk "AK500-BASE" of the database) (Figure 5);



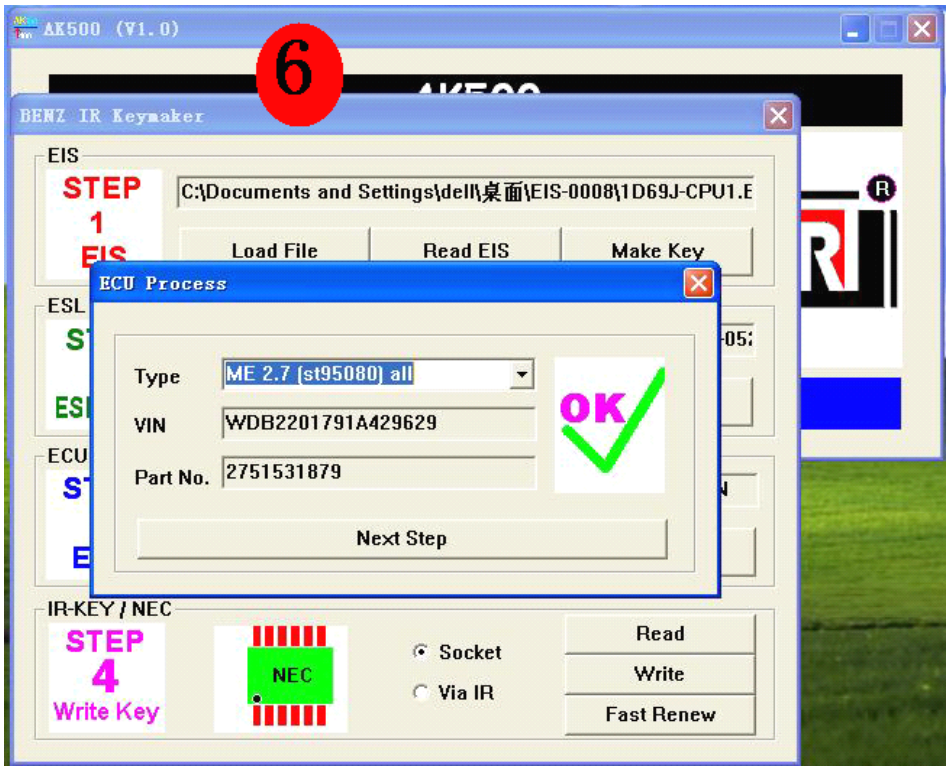
The third step: to deal with ECU:

1. AK500 only support general-purpose plug-in EEPROM, do not support plug-in FLASH (29F400 or 29F800 programmer must keep separate);

2. With "Read ECU" function to read out the ECU's EEPROM (save for the BIN format) or "Load file".

Generally 95P08/95080/24C02/24C04, etc.;

3. With "Process" function, the software will automatically search and display the type of EEPROM and its frame and parts (Figure 6);



4. With "Next Step" function of the ECU to generate new data and functions with EEPROM to write back.

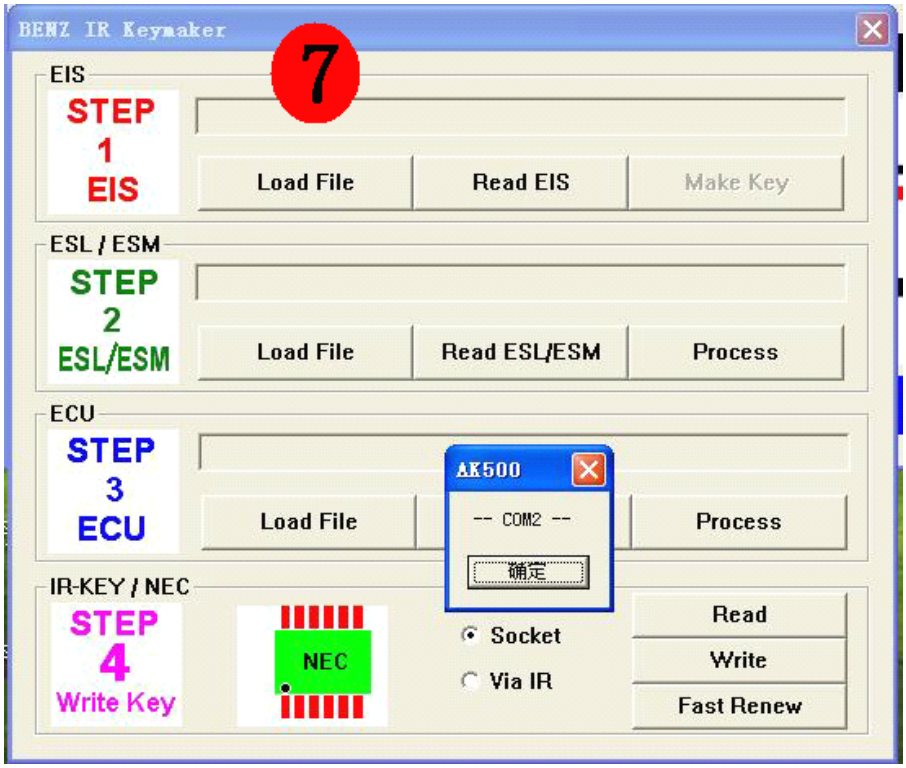
Step four: the key to match the Mercedes-Benz infrared;

From the "NEC Block adapter folder": (NEC chip can read

and write, but also air-brush NEC)

1. Welding infrared key NEC, the AK500 on "NEC adapter holder", with "Socket" for "Fast Renew" feature air-brush "NEC" ("Fast Renew" before, it is recommended to use "Read" features, read the information under the NEC to ensure that the NEC and reliable contact holder);

2. Brush and air is complete, use "Write" function, when the software will be prompted to AK500 use "COM" port (Figure 7);



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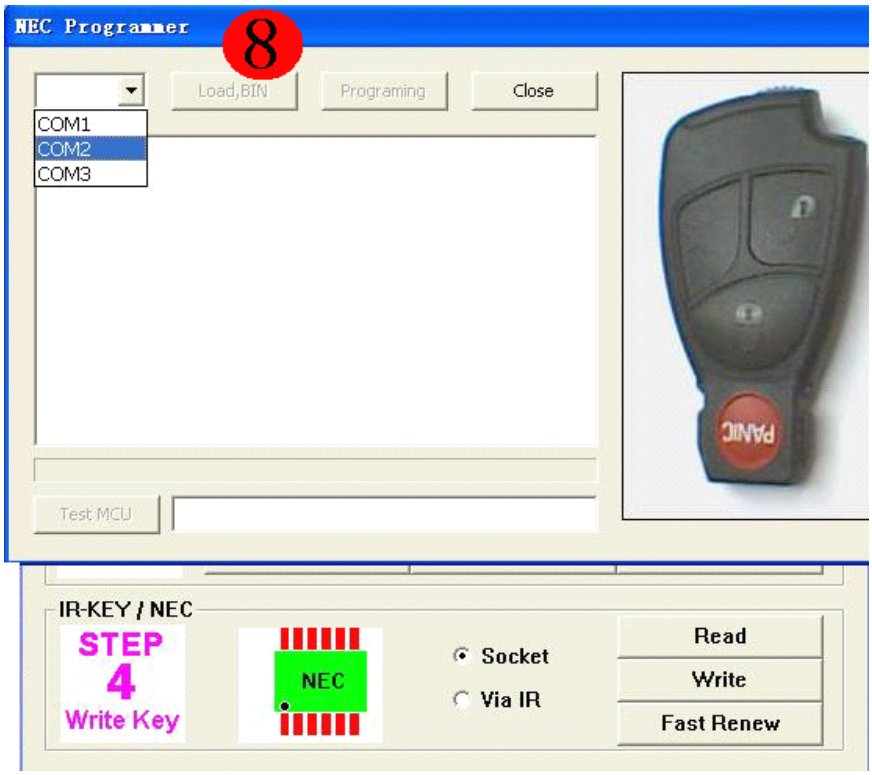
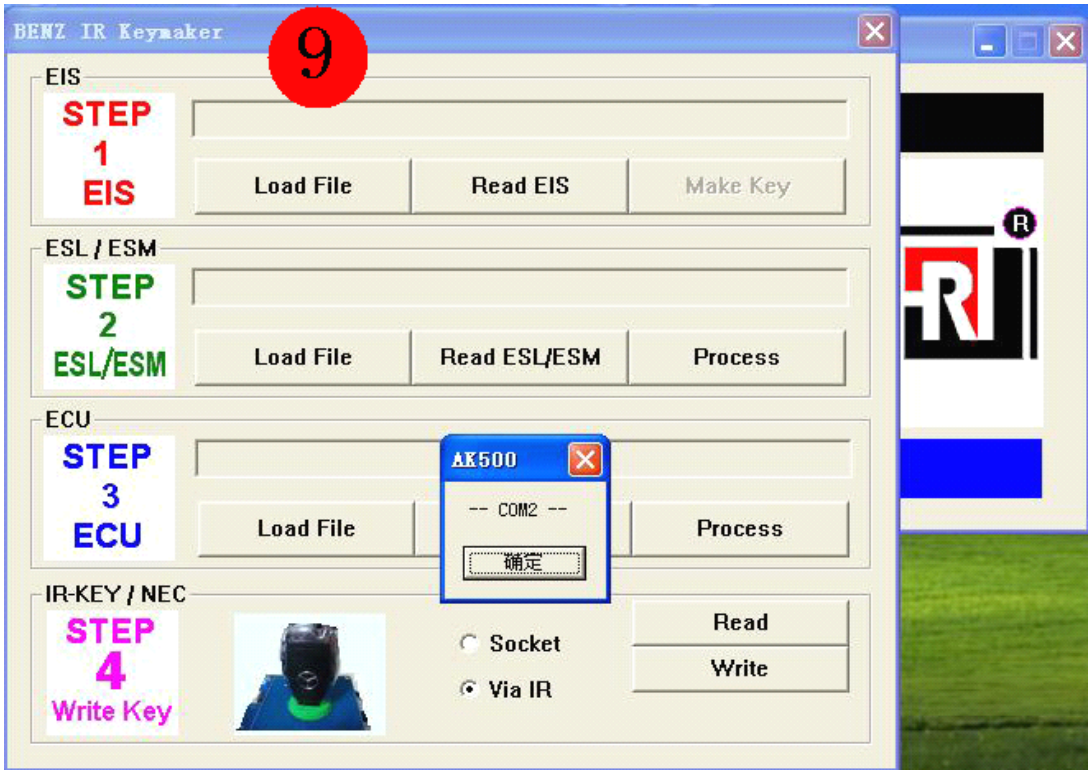
3. Select "COM2", after using "Load, BIN" the Key to open the need to write data, and "Programming" to write the new key (Figure 8).



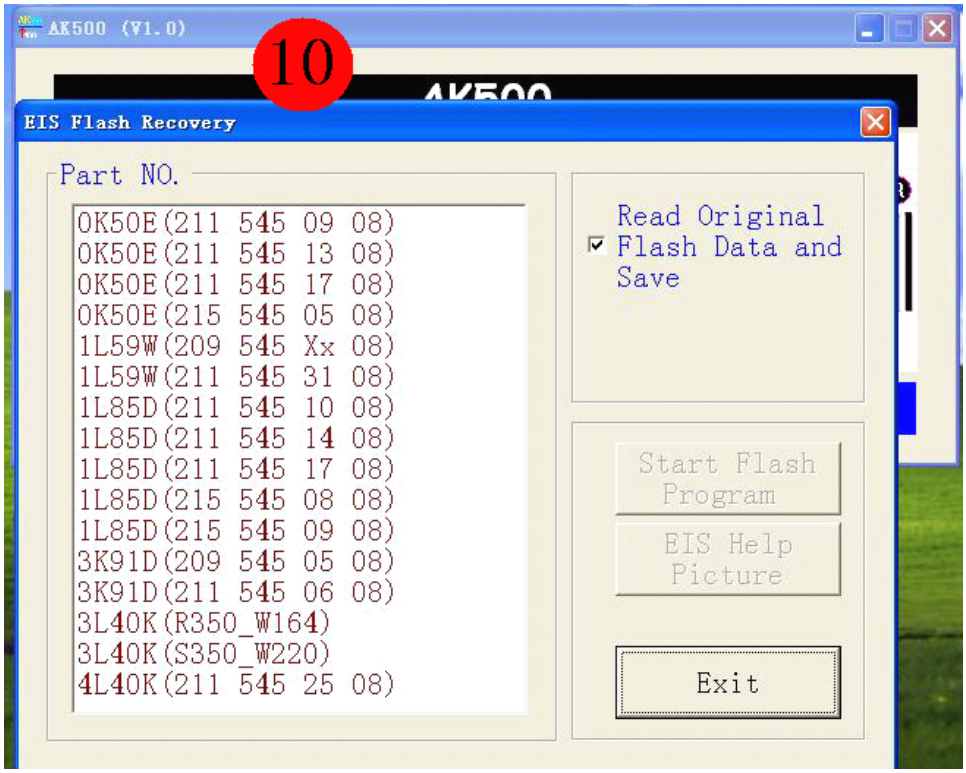
From the infra-red interface to read and write Key (can read and write Key, can not brush air NEC):

1. Select "Via IR" to enter the process with the other "Socket" feature the same (Figure 9).



C. Benz EIS to restore the FLASH:

Replacement of EIS when the MCU or MCU's FLASH incomplete or missing data, this feature can be used to read and write MCU's internal FLASH, ("Read original flash data and save" == read out and save the original data FLASH, optional function) (Figure 10).



D. AK500 hardware upgrade:

With "Firmware update" entry, with "Read ID" to read out the serial number AK500 and "Save ID", save it as a "TXT" format, and sent to manufacturers.

2. Open the "Update", the manufacturer sent the upgrade package downloaded in AK500.

E. AK500 operation manual:

Open the "AK500 Help", can read the operation manual AK500.

AK500 hardware profile (Figure 13):.

A. HC 705E6/HC711/HC908/HC912/HC9S12/MPC ports, such as reading and writing;

B. ESL / K-line/CANBUS ports;

C. Benz infrared adapter chip NEC key holder;

D. HC 705 adapter chip holder;

Block E. EEPROM adapter;

F. EEPROM plate welding;

G. Benz infrared jack key reading and writing;

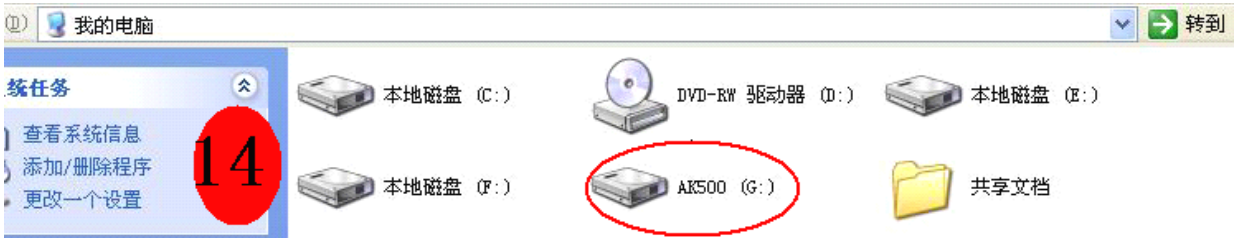
H. AK 500 Power Interface;

I. AK 500 of the USB interface;

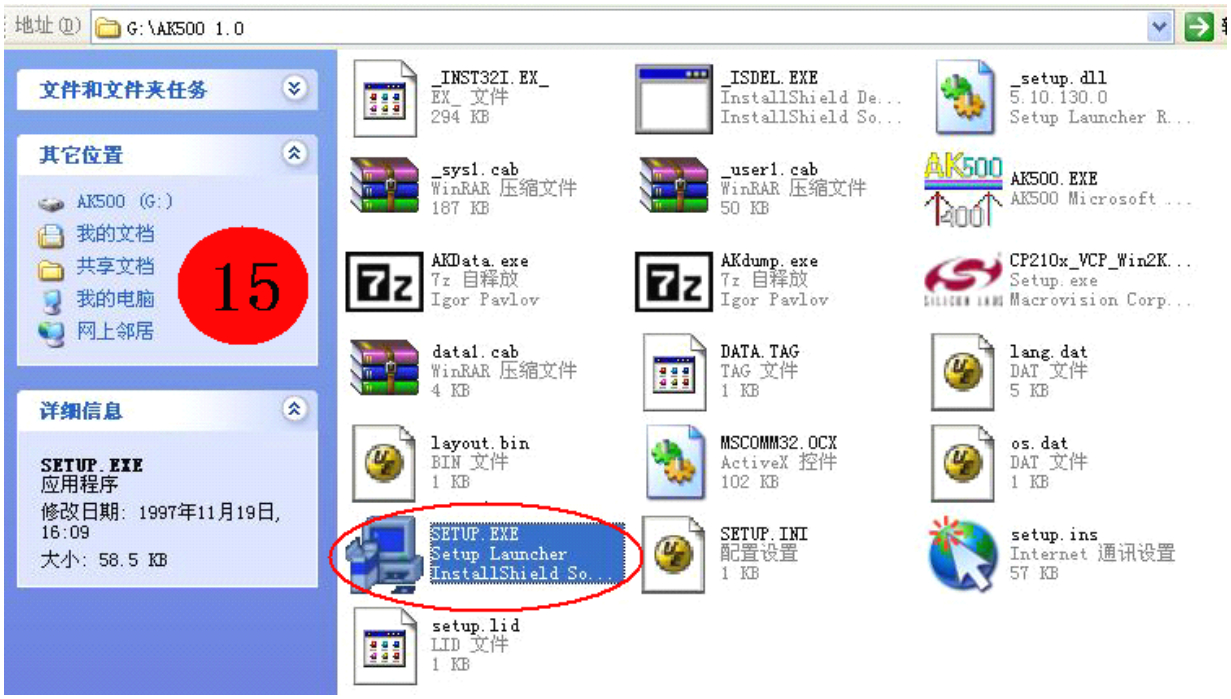
J. AK 500 power switch.

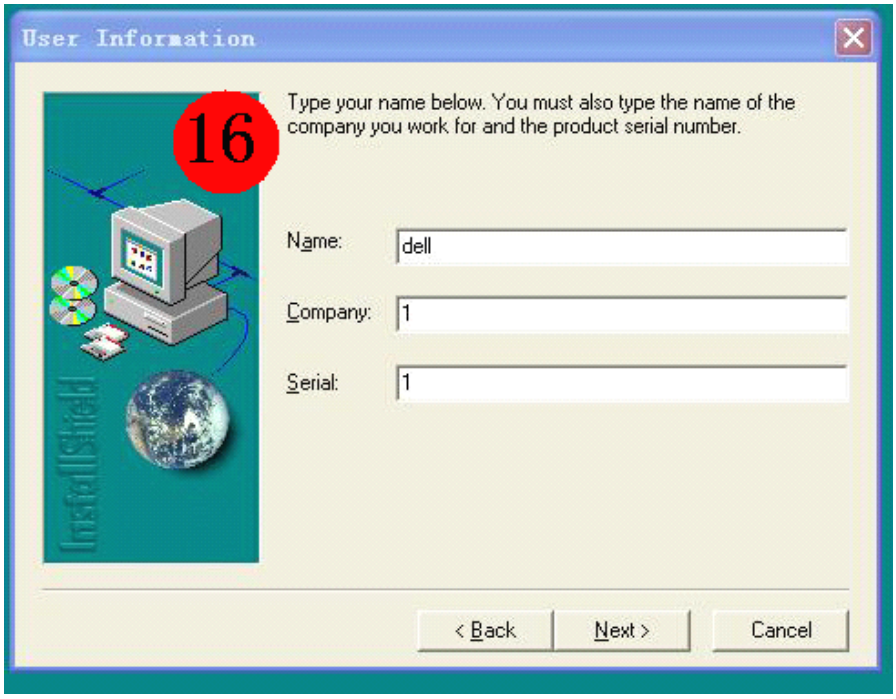
Software Installation:

1. AK500 to your hard disk through the USB line to connect to your PC computer (Figure 14);



2. AK500 open the hard drive, open the AK500 1.0, open the "Setup.Exe" installation (Figure 15-19);





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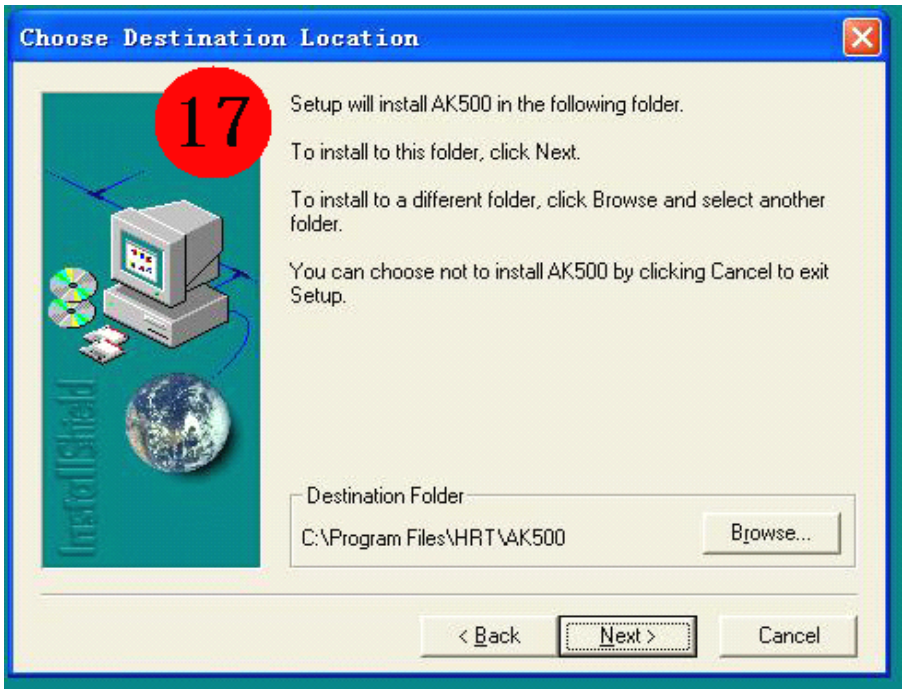
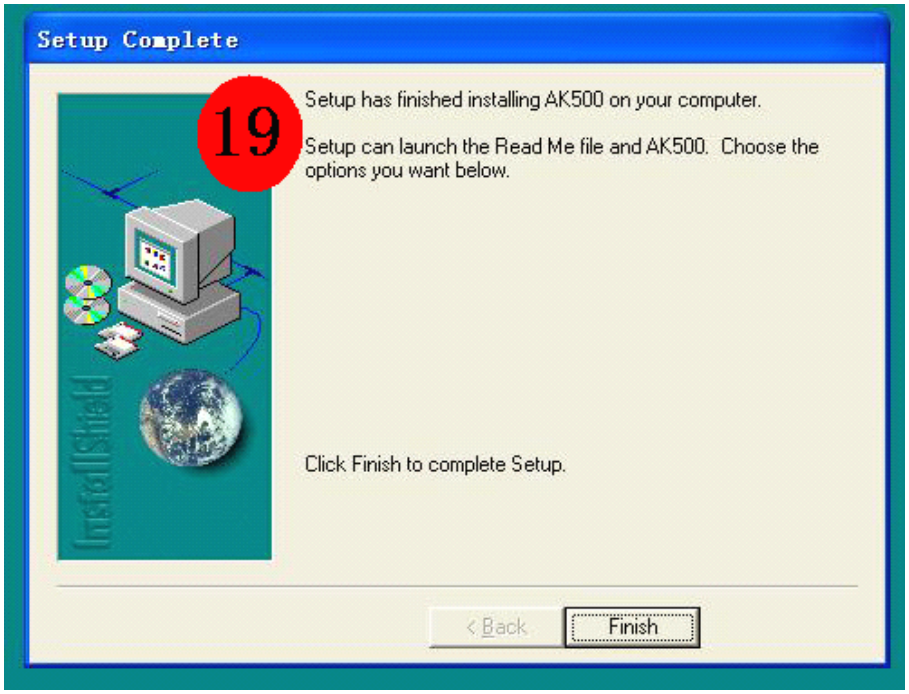
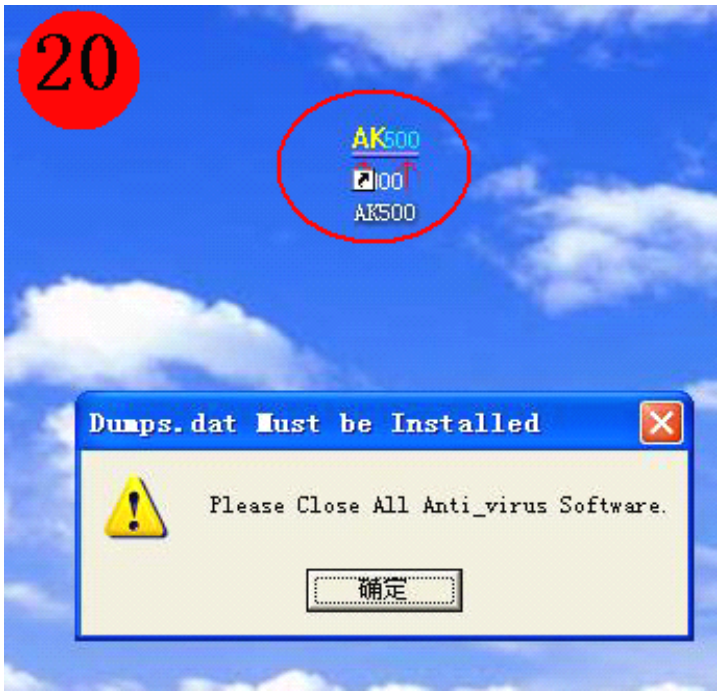




3. Appears on the desktop after installation "AK500" shortcut, double-click "AK500", will show "Please close all anti_virus software" (turn off all antivirus software) tips. (AK500 is not a virus, but NEC_Prog

procedures "Dump.Dat" would be mistaken to be killed virus) (Figure 20);



4. Shut down antivirus software, the computer screen will be prompted to "release the software disk directory to C," point "release" the next step until the installation has finished (Figure 21);

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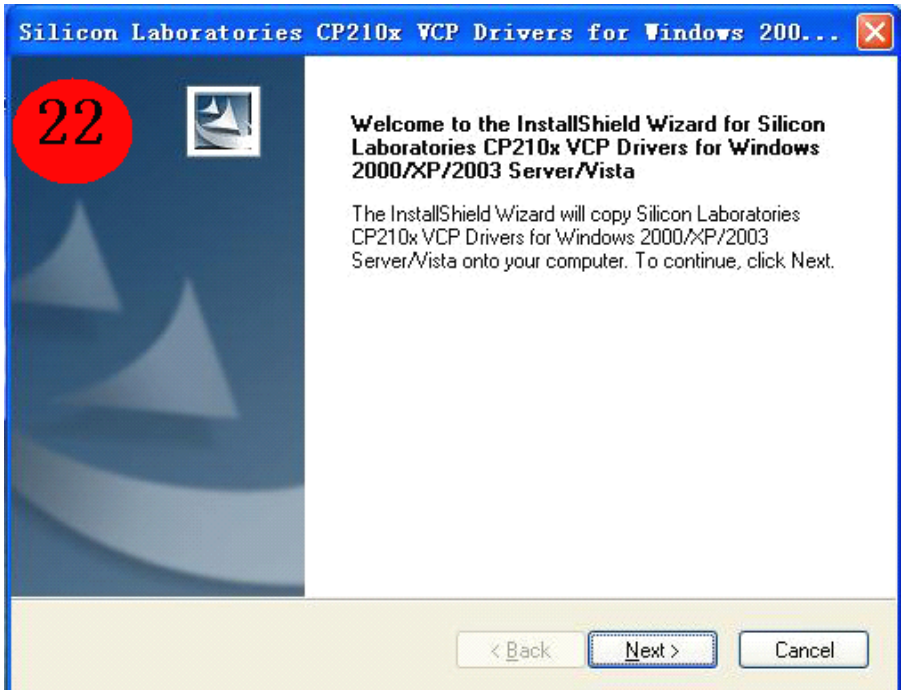
5. At this point, the computer screen will be prompted "to install USB driver", follow the prompts to install USB drivers (Figure 22);



6. After the installation is complete, the AK500 through the USB line to connect your PC computer. Right, "My Computer" - "Management" - "Device Manager" - "to amend COM" - "preservation" (must be changed in between the COM1-COM8 any COM port) (Figure 23);

7. AK500 test the connection is normal.

Important:

1; Do not try to open the instrument casing and circuit board, or else bear the

consequences.

2; this instrument is limited to legitimate the use of vehicle maintenance, shall not be moved to do it; and to comply with local laws and regulations, or else bear the consequences.