



Nanning Yanhua Electronics Co.Ltd

Nanning Auto Service Co.Ltd

ADM-300A

Instruction

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Important Statement:

This instruction is only available for reference for users. Nanning Auto Service Co., Ltd. reserves the right to change the product or product instruction without notice, reserves the right not to update this document to inform these changes.

I Product Introduction

1. Features

SMDSIII is applicable to Audio Decoding, Reading IMMO code, Airbag resetting, Odometer Adjusting, ECU Programming, Data programming and so on.

(1) **Web-base guide** :Give direction to operation. Easy operation and support full range vehicle type.

(2) **Memory rewriting**: Modify the data of software; the data of chip will be modified accordingly without any programming.

(3) **Universal Socket**: Solder different types chip to the same socket can read and program immediately. One socket is used for all the devices.

(4) **USB interface**: Plug and play is ten times of the speed parallel port.

(5) **Remote real-time control**: All the operation can be remote operated by factory to carry out easy distance training (need to contact with the factory before operation)

(6) **Hardware and software can be upgraded on internet.**

(7) **Authorization way:**

Permanent authorization: is a one-time buyout of existing model authorization

Renewal fee authorization: is a tokens deduction authorization. When original tokens in the device will be used up, user can pay for the tokens to recharge flexibly.

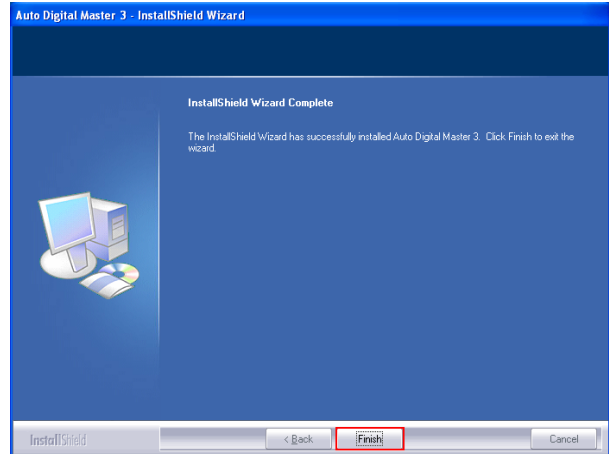
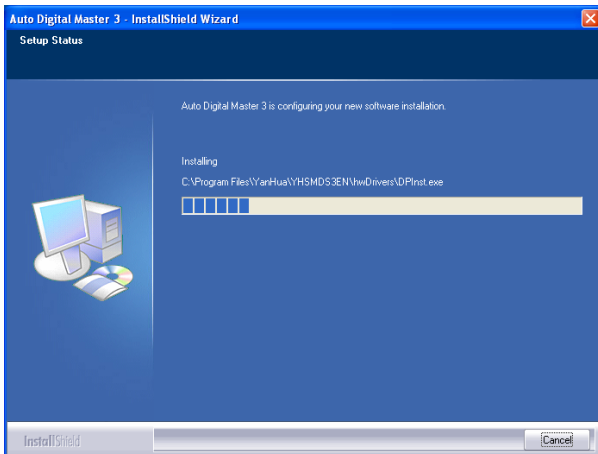
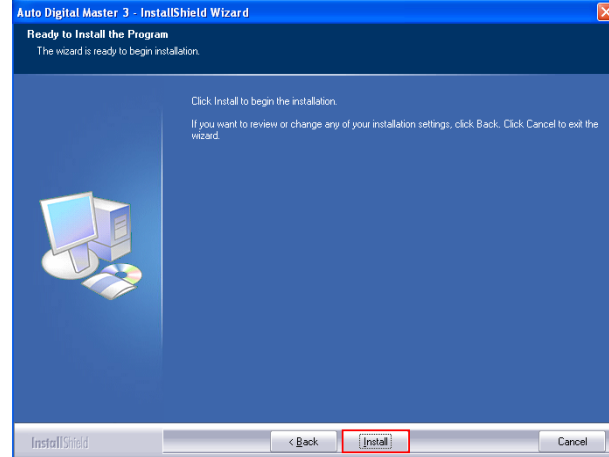
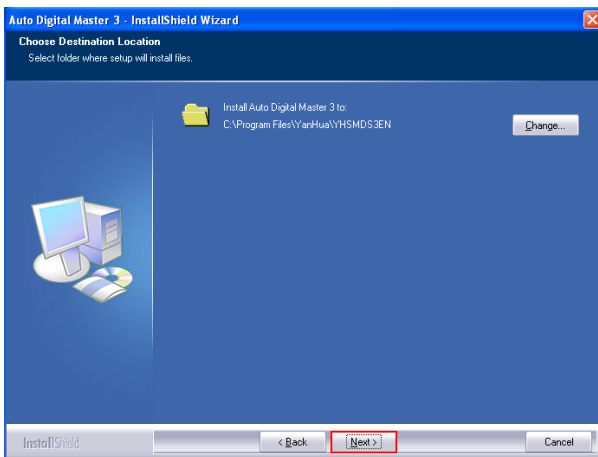
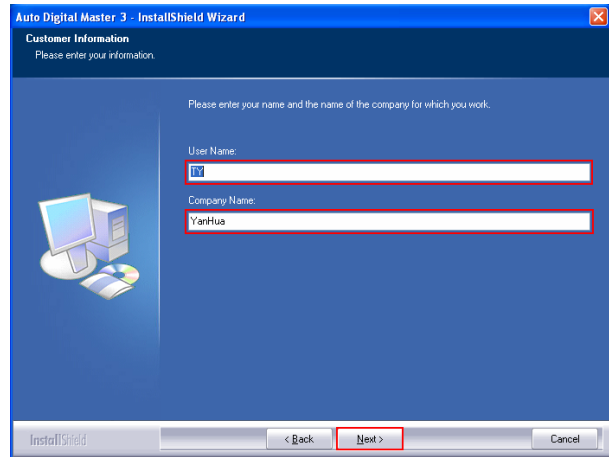
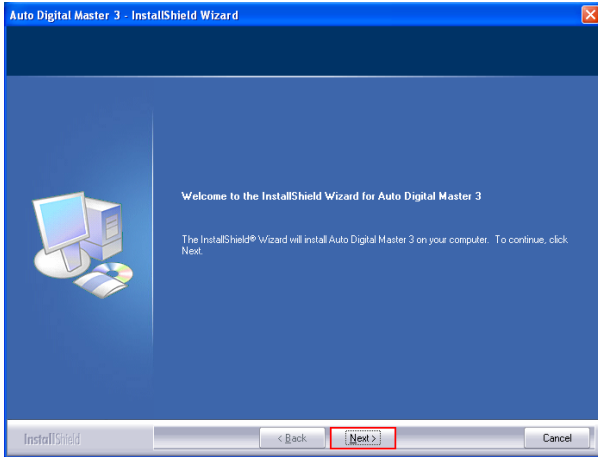
2. ADM-300A Device



II Software Installation

Operation steps:

Double click to install “ADM-300A-1.0-EN.exe”



You have completed the software installation , and the computer desktop displays

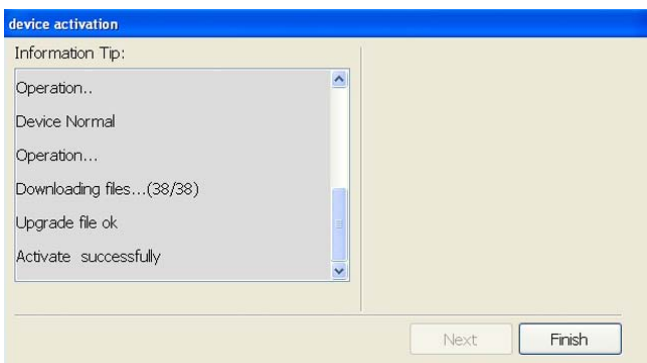
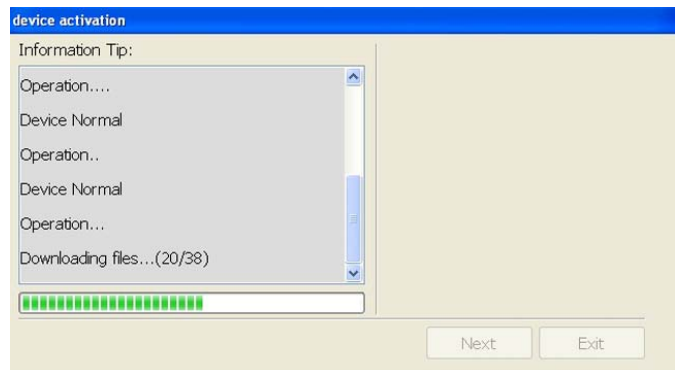
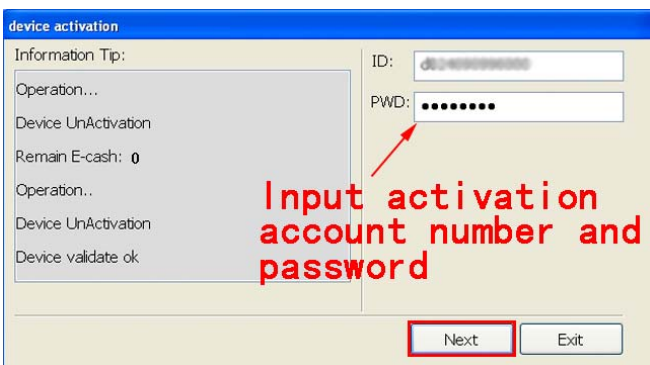
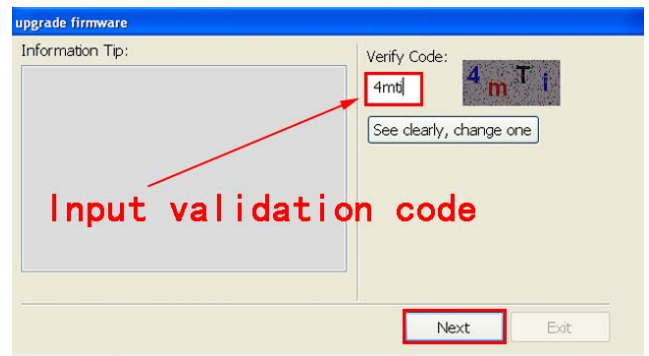


III Activation

Note: Make sure the computer has been online before doing product activation

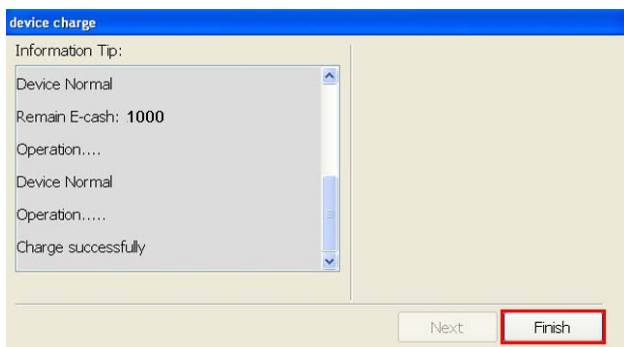
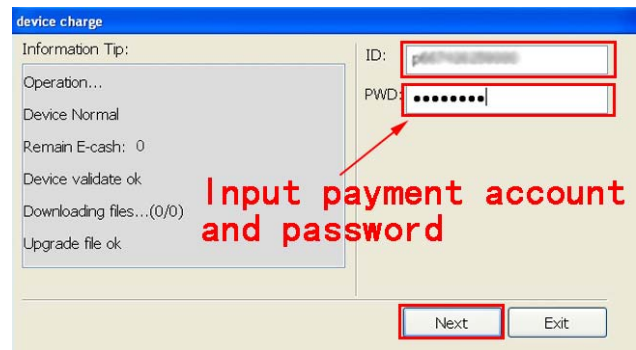
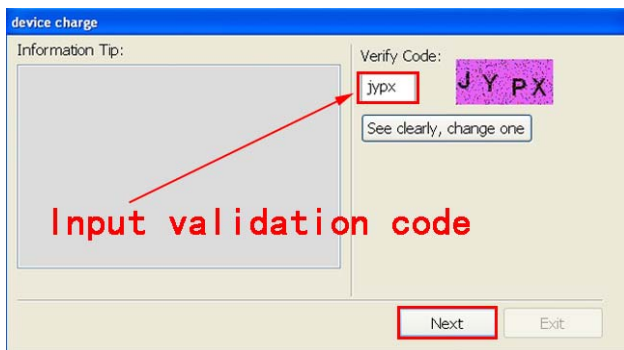
operation.

After finished the software installation, SMDS III is on power and connect with computer by USB line. Double click icon on the computer desktop; software will search for device running program automatically. Operate as the following figure.



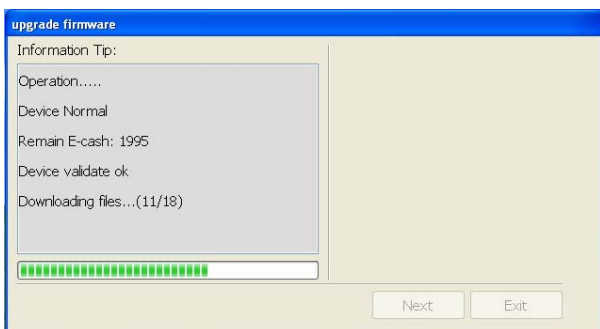
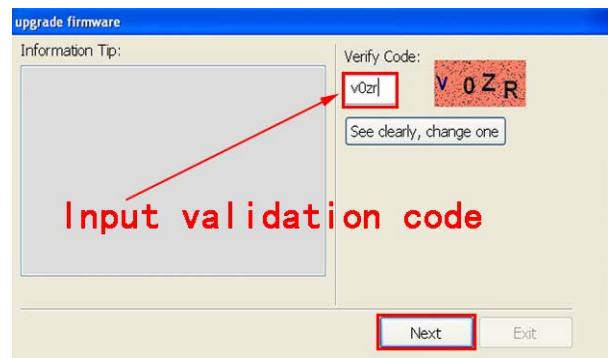
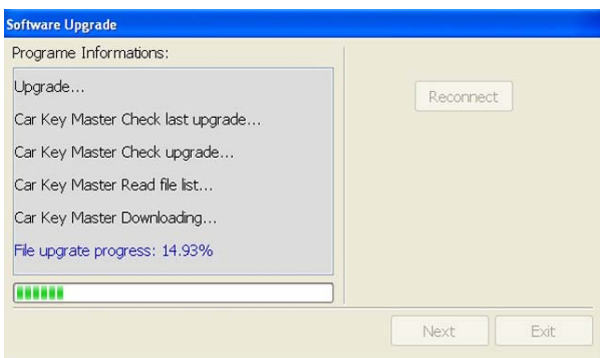
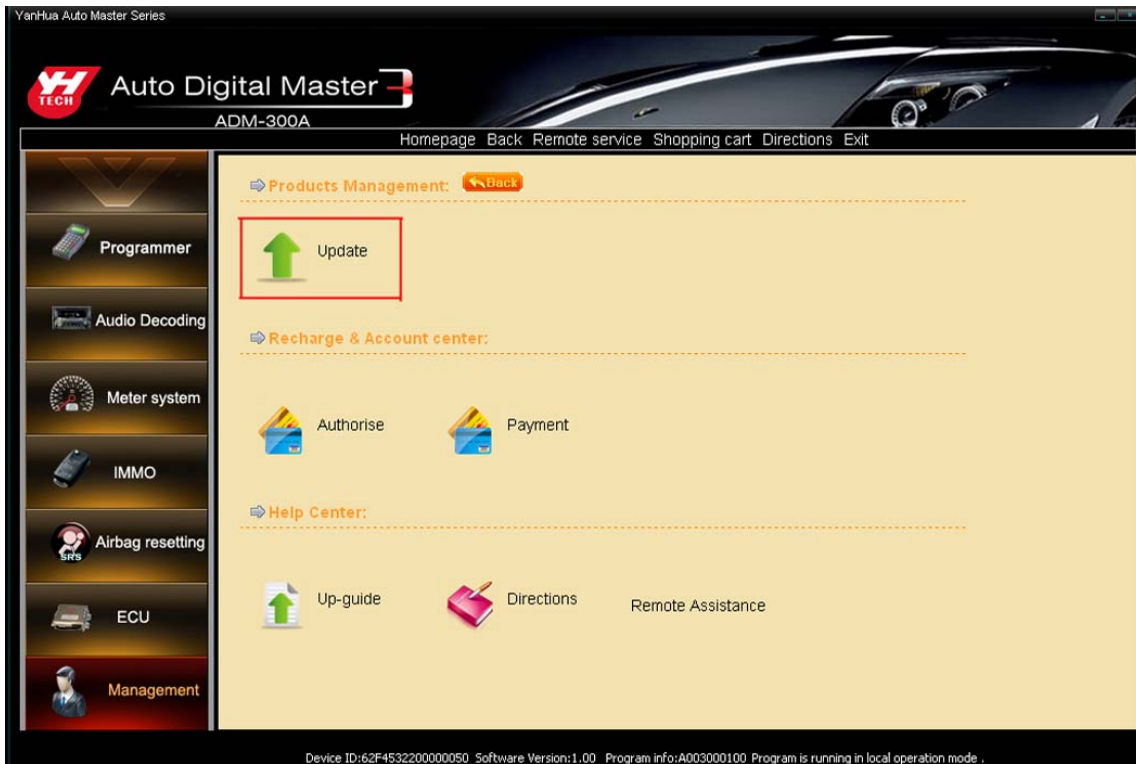
IV Payment

Note: Make sure the computer has been online before doing product payment operation.

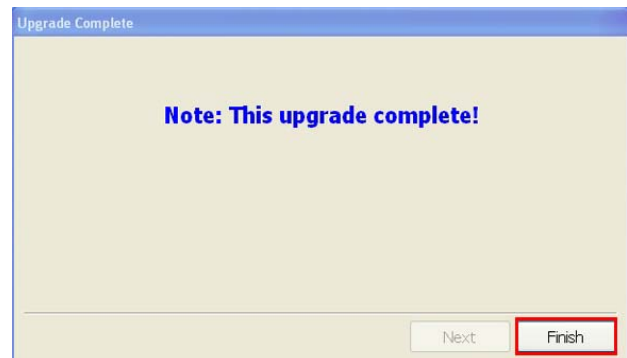
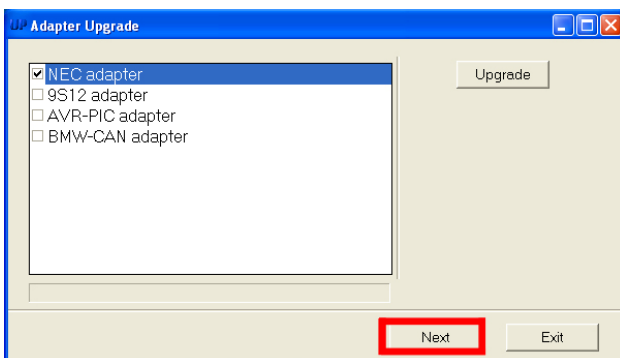
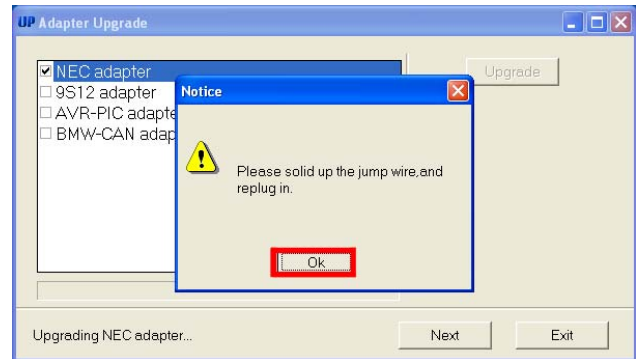
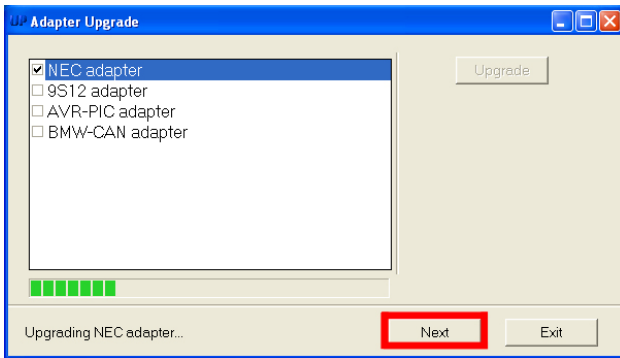
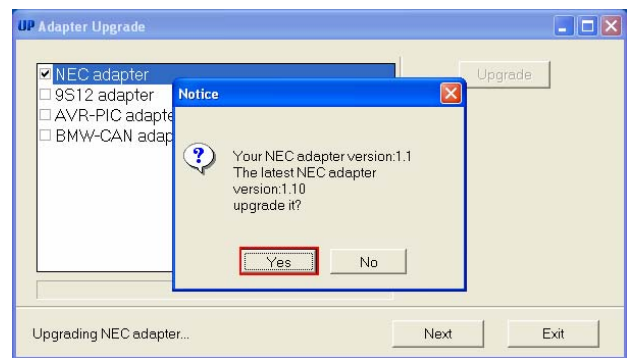
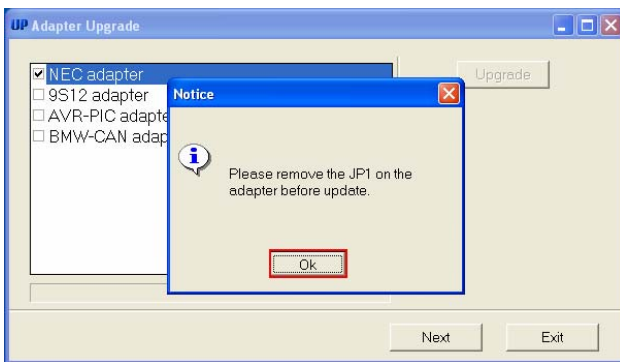
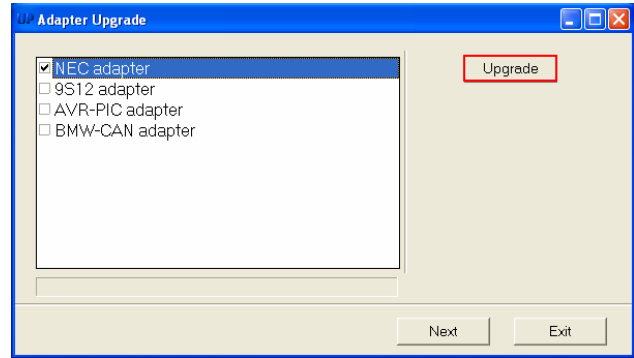
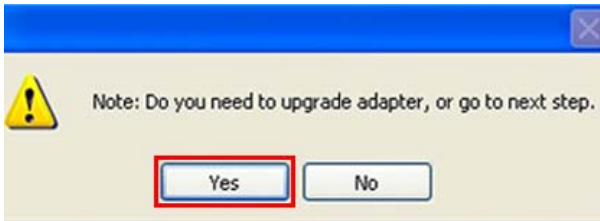


V Upgrade

Note: Make sure the computer has been online before doing product upgrade operation.



After the firmware upgrade completed there will pop up a dialog box and prompt whether you need to upgrade adapter, if yes, click "Yes" to upgrade adapter; If not, click "No" to cancel adapter upgrade.



VI Examples

1 . Programmer

Programmer is specializing in reading, displaying, saving and programming memory device. It can be used in common data adjusting, problems and troubleshooting of auto meter, engine ECU, airbag ECU, and compute program matching, audio decoding, SRS and so on. Different from other OEM tools that can only use in specific car models, the programmer can use in all kinds of cars when the area of memory data is found. Accompanied by more relevant function modules, such as audio decoding module, odometer adjusting module, IMMO code reader module, it will solve the technical problem quickly and accurately during car repairing process.

- (1) In the homepage, click "Programmer", you will see "IC Program" and "CPU Program". Take "IC Program" for example, please see the following picture.

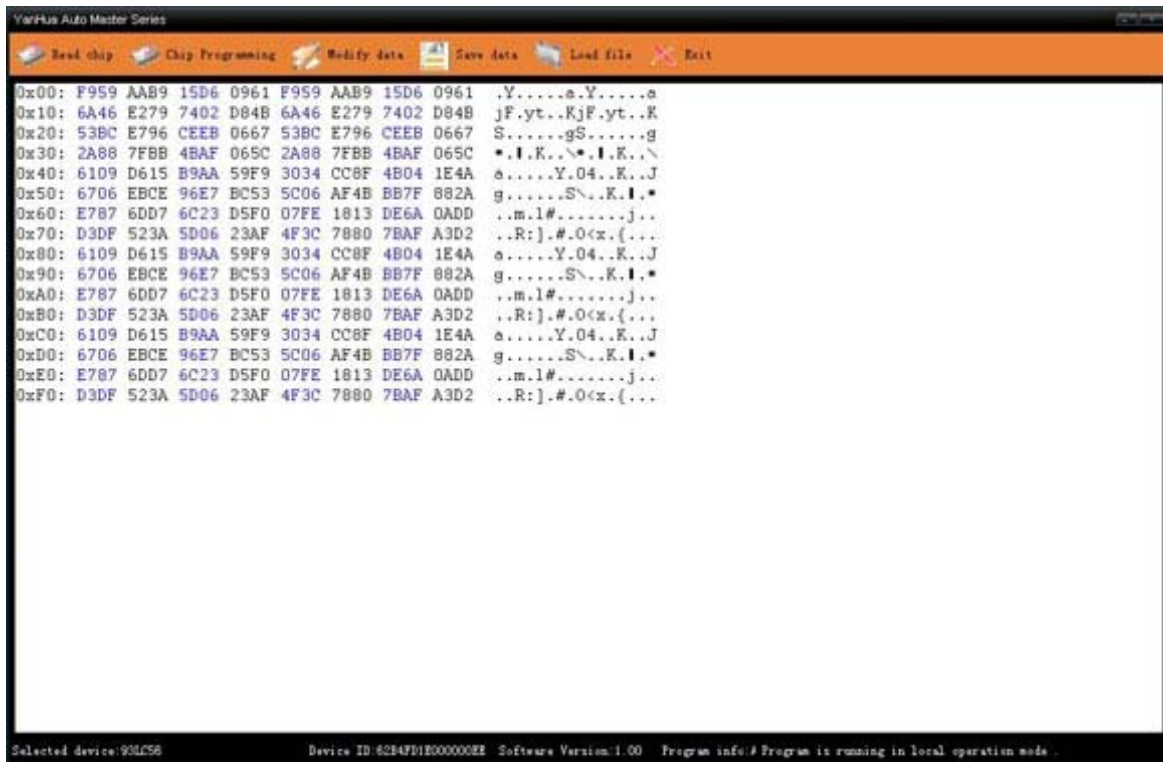


Button features Instruction:

"Home": go back to the first page of the system and reselect the function modules.

"Back": back to previous page.

- (2) Select 93LC56 , click it will start reading data. When complete reading, you will see window as follows.



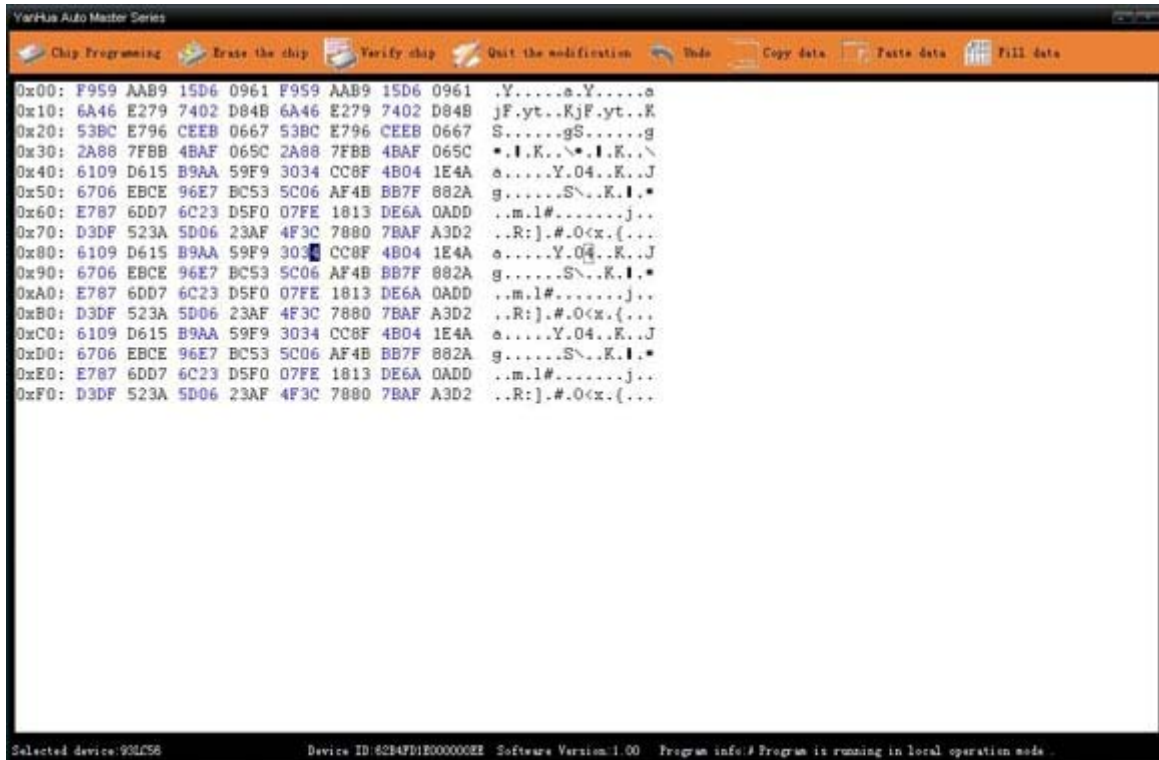
Button	Instruction
Read chip	Read the device data and display them in the memory data area.
Modify data	Memory data area turns into modifiable status.
Save data	Save the current data of the memory data area.
Load file	Open an initial data file and write the initial data into device.
Chip programming	You could write programmed data into the device.
Exit	Close memory data area and back to previous page to reselect device and others.

"Memory Data Manipulation" Menu command	Instruction
Select all	Select all the data in memory data area.
Go (Address)	Place the cursor jump to the specified address.

Note: Click on the top of this form of "memory data manipulation" menu will pop-up sub-menus, menu commands listed above.

(3) Modify data

Click "Modify Data", memory data area turn into modifiable status, shown as picture. Once a data is modified, it will write into the device immediately. It realize program when modifying.

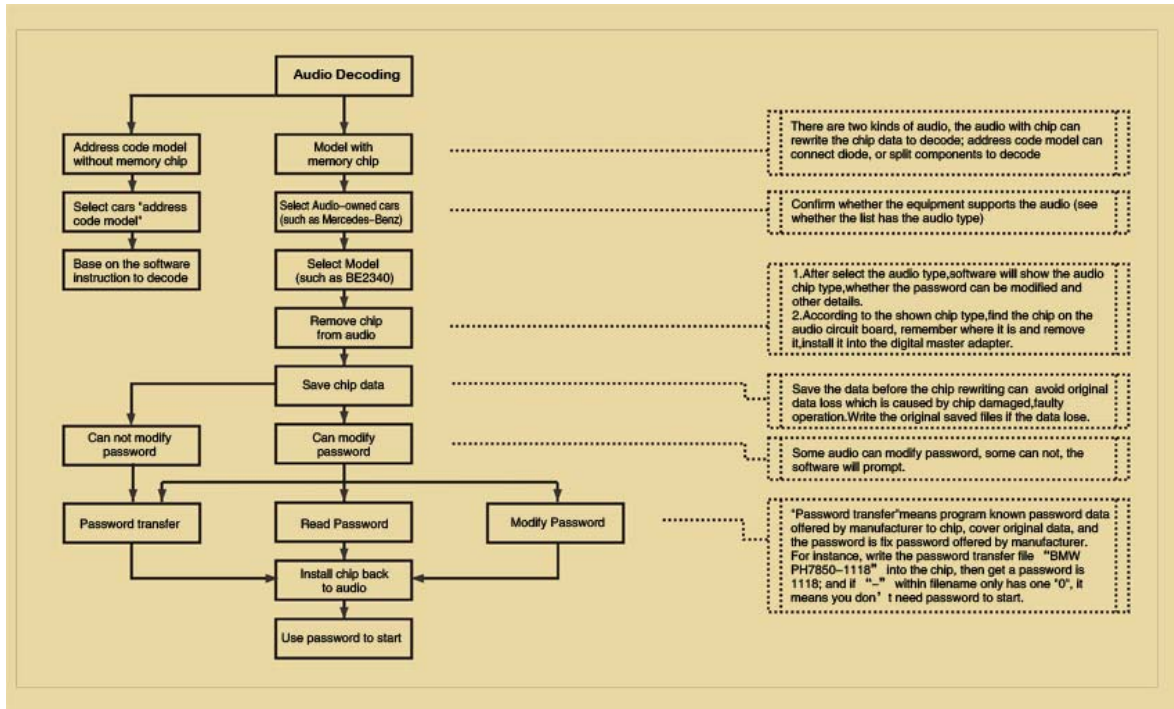


Button	Instruction
Eraser chip	Eraser the data of the chip. Use this operation must be careful, or some special chip will be damaged.
Verify chip	Read data of the chip and compare with the data of memory data area.
Undo	Cancel one or more (at most 20) done operation. If cannot do the undo function or no operation can be undone, this button cannot be used.
Exit modify	Memory data area turns into unmodified status. Such operation reset undo function which makes done operation cannot be undone. So, please consider the changes whether to restore to the original state when you exit.
Copy data	Drag the mouse to select the data you want to copy, and then click this button. Now your copied data will save in the computer temporarily. The operation of Paste Data can call out and put the data into the specific location.
Paste Data	First, you should operate "Copy Data", then move the cursor to where the data should be in, at last click this button to put the copied data in the place of the cursor.
Fill data	Fill some regular data into the specific location of the device.

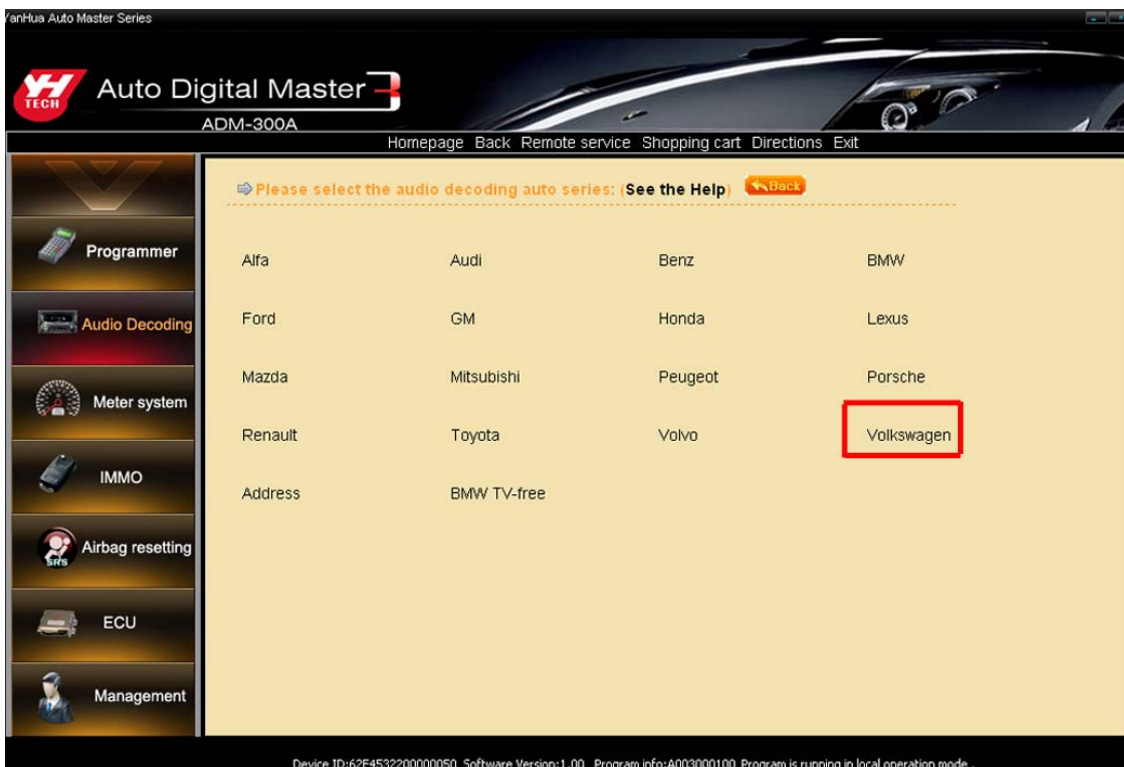
2. Audio Decoding

Main functions: get the audio code. The audio will activate IMMO system automatically when power off cause by battery damage or other reasons. You should input the code when power on again.

Steps are as follows:



- (1) Click "Audio Decoding" on the homepage, select the car model. For instance, picture as follow, click "VW".



Button features Instruction:

"Home": go back to the first page of the system and reselect the function modules.

"Back": back to previous page.

(2) When you get into the module of audio decoding and selected VW, select the audio model. For instance, click "Shanghai Passat B5VWZ6Z3Y1614621"



(3) Chip Disassembling & Soldering

① It will display the detail information of the audio when you select the model number, such as chip type, the code can be modified or not and so on.

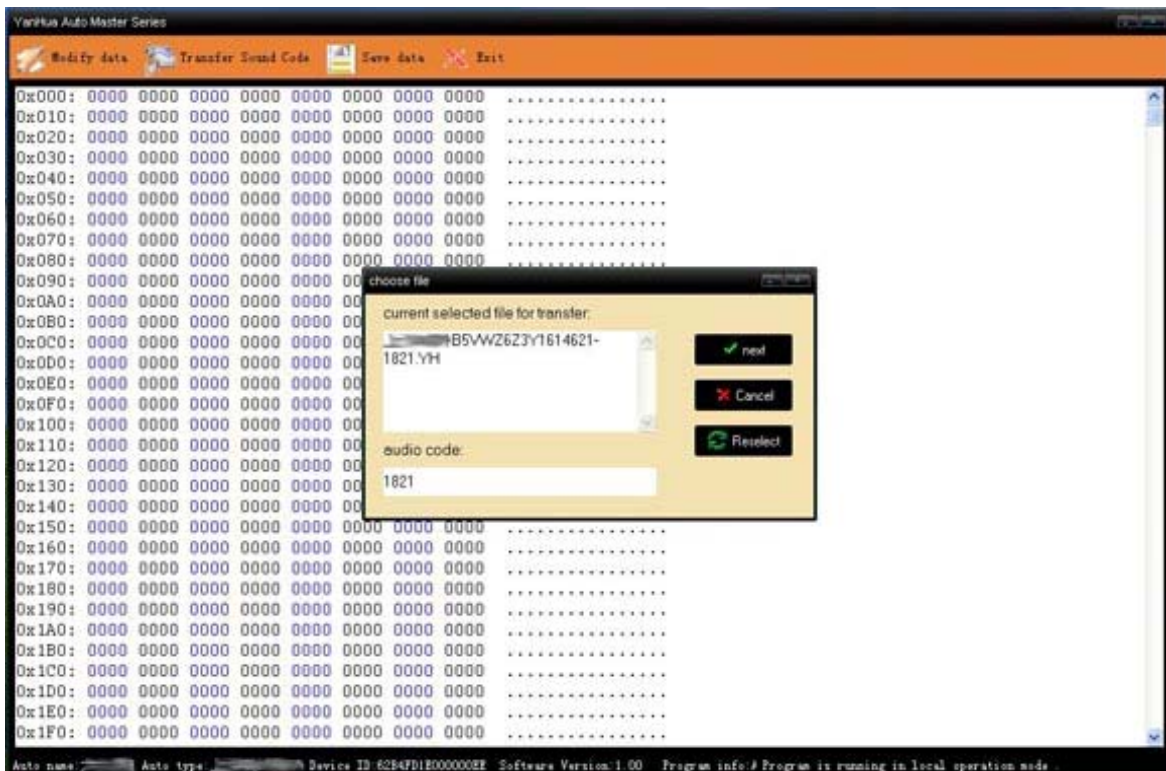
② Find out the relevant chip (for example 24C16) on the circuit board, remember its location before disassembling, and then solder it to the adapter.

③ Connect the adapter with the device by 25pin socket. Click "Local Operation" to read the device data.



(4) Acquire passwords

① If the audio code cannot be read and modified, first save the data, then prompt to select the file needed transfer. That is to write the known code into the chip, and the code is fixed. When program successfully, put the chip back to the audio. At last, unlock the audio with the code. For instance, write the code transfer file "Shanghai Passat B5VWZ6Z3Y1614621" into the chip, then get a code 1821; and if "-" within filename, it means you don't need code to unlock the audio when program.

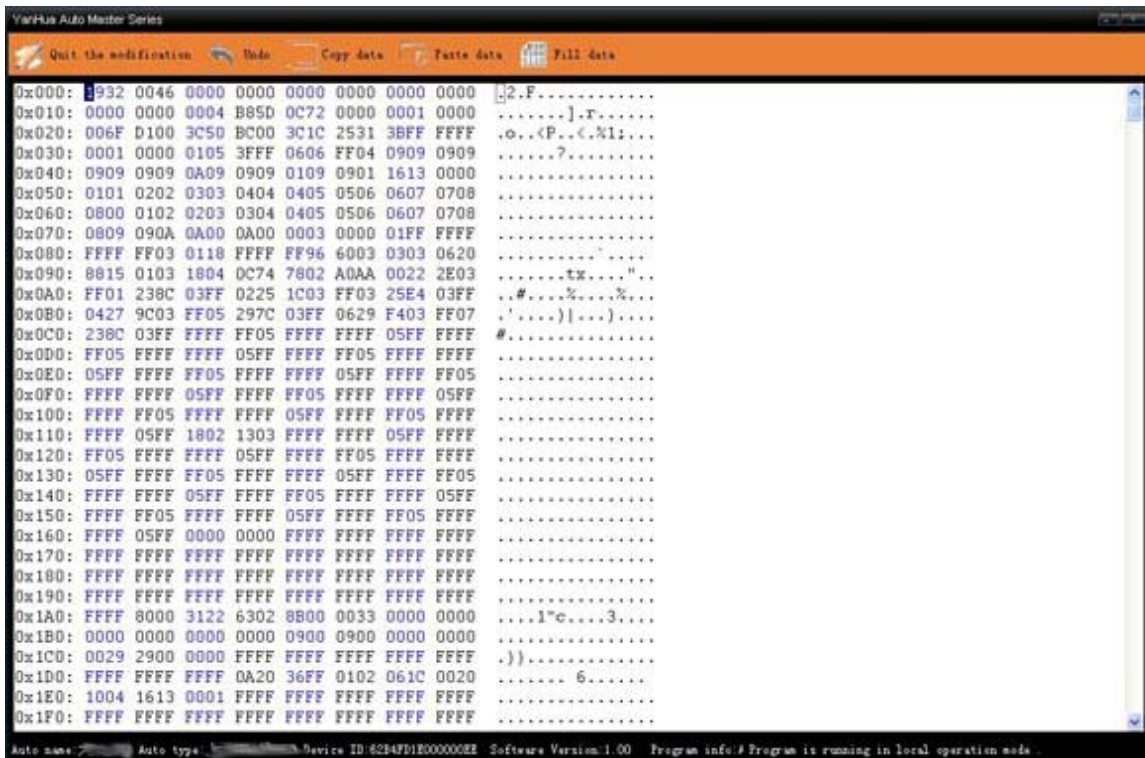


data when you click "Local Operation". ("Save" will automatically save to the default path: C:\Program Files\SMDS3\user data directory.), the software will read the code of such type audio automatically, and use this code to unlock the audio when put the chip back.

(5) Modify data

The audio unlock when you get the code. And if you don't want to modify the chip data you can skip this step when finishing audio decoding.

The memory data area will appear when finishing reading device data as follows pictures.

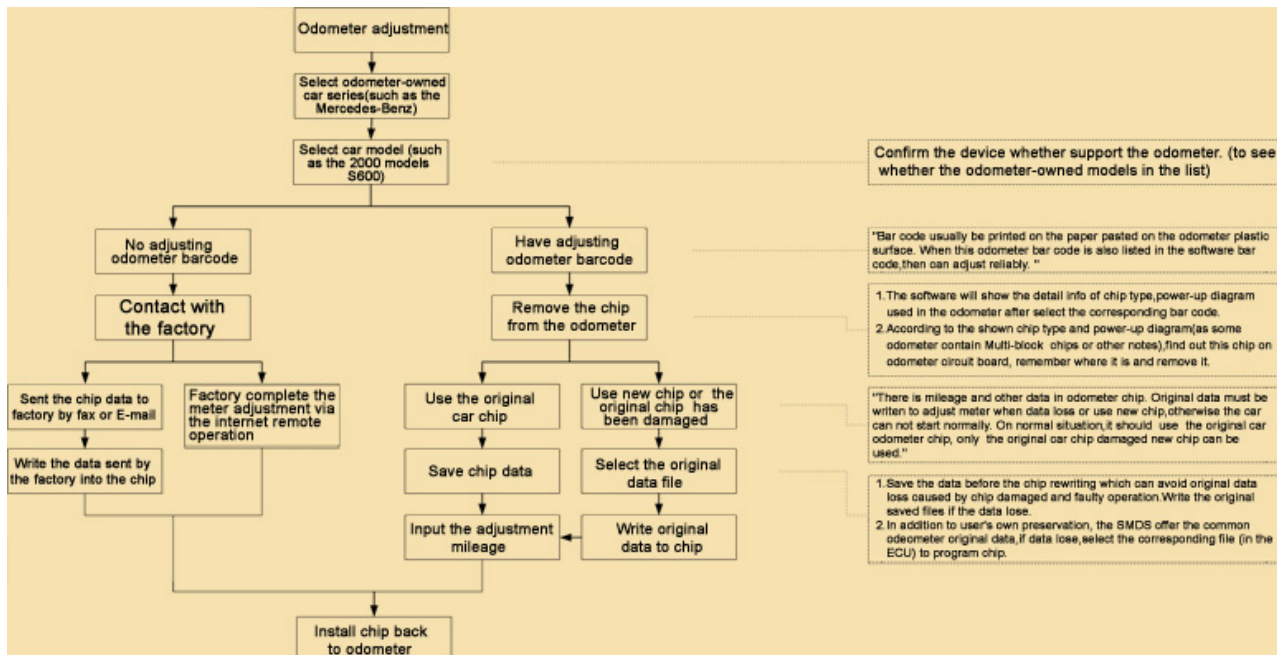


Button	Instruction
Modify data	The area of memory data can be modify when click this button.
Save data	Click this button and input the path and filename to save the current data in the memory data area.
Send data to factory	Save the data as a file and send to factory by email.
Read audio code	Read and display the audio code (only for audio that its code can be modified).
Modify audio code	Modify audio code (only for audio that its code can be modified)
Transfer audio code	Open the initial data file of the known audio code and write it into the device.
Exit memory data area	Click it means close the memory data area and back to the selected info browser window, then you can select other device or function.

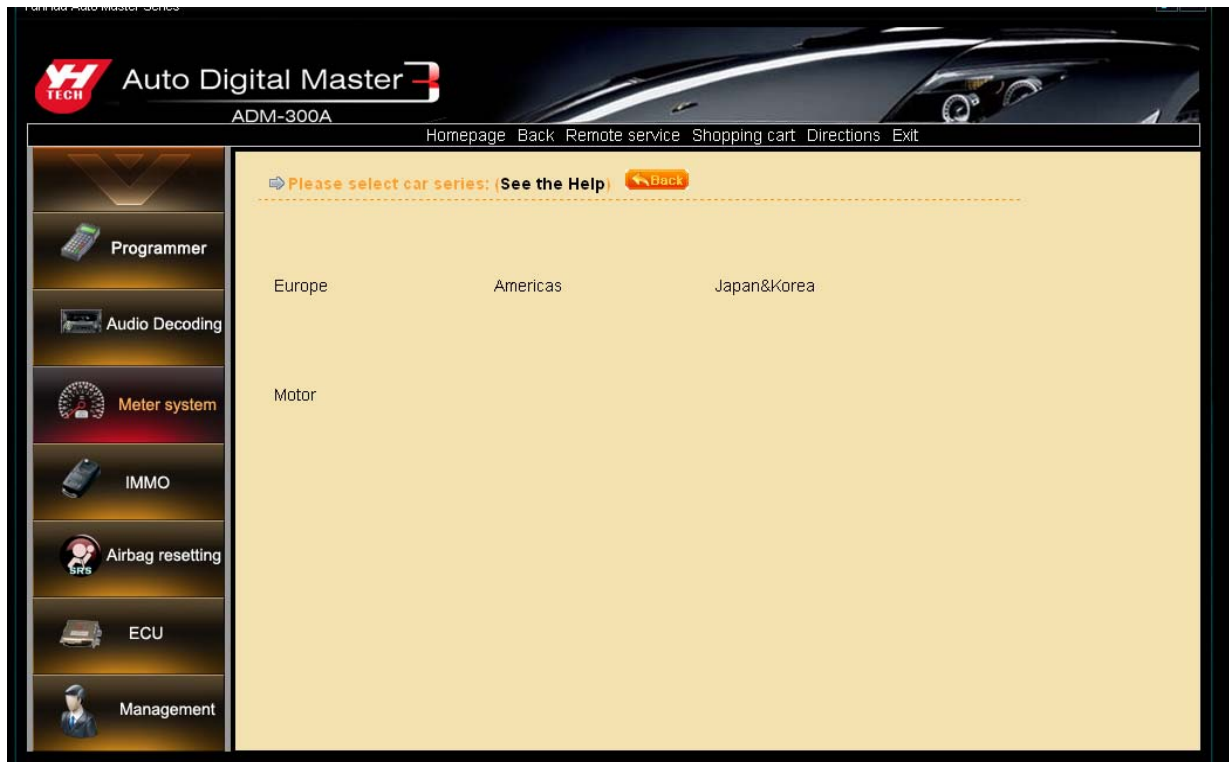
3 . Meter System

Main functions: Used for odometer adjustment

Adjustment steps as follows:



(1) Click the "Meter system" button on the home page, choose the odometer- owned cars, as: American cars.



Button features Instruction:

"Home": go back to the first page of the system and reselect the function modules.

"Back": back to previous page.

(2) This page is the odometer-owned cars, as: Click Chrysler to enter the corresponding model: Grand Cherokee. 300C. 300M. Now take an example to 300MK.



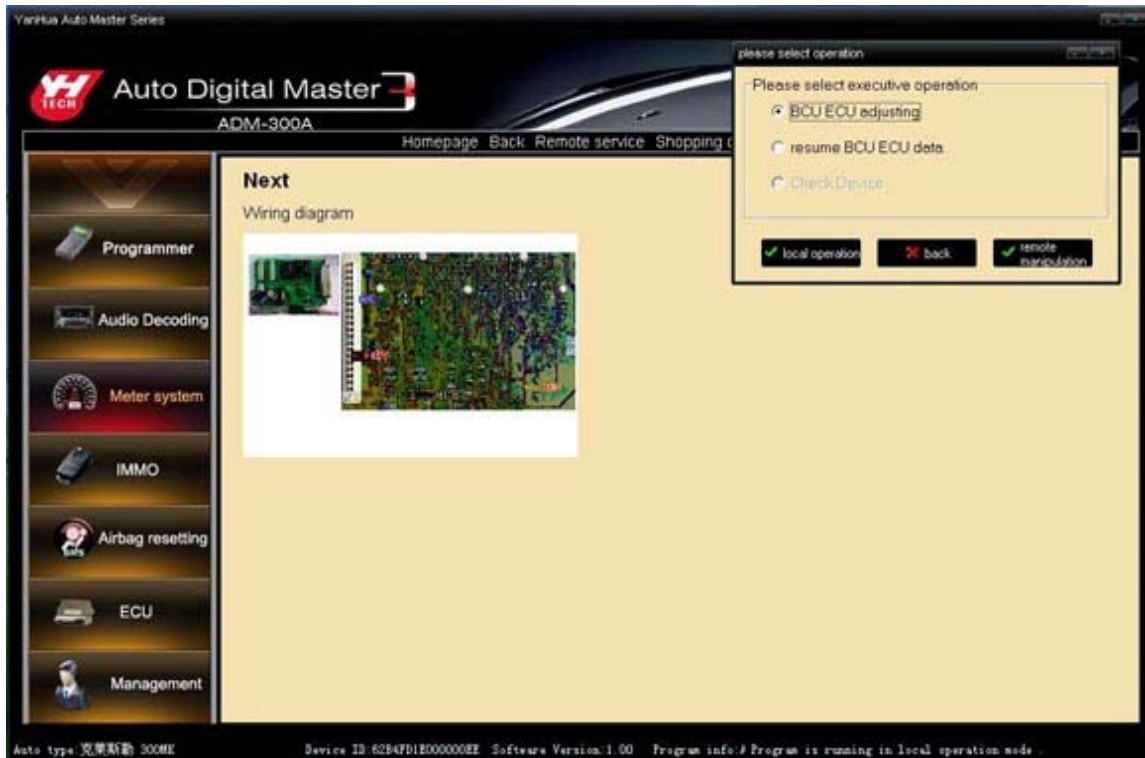
(3) Remove chip or welding cable

① It will show the detail information after choosing the corresponding model, as the chip model, power-map.

② A. Based on the chip model and power-map (Because some odometer chip

contains a multi-block, or there are other considerations) to find the chip on the odometer PCB, remember that direction then removed it, installed on universal adapter, If the original chips have been damaged or adjusted by the new chips please use the same model;

B. This is the Split-free chip, Please connect the cable refer to the wiring diagram from software, and then plug the ICP to the 25 pin socket of the SMDSIII.



③ Click "Local operation" on the upper right corner of the dialog box as the upper picture, the meter will read the device data immediately.

(4) Input mileage

① Click "yes" the device will save the data of chip automatically, and will point its name and location (The detail please looks at Page 12, 1.(3) Modify data).

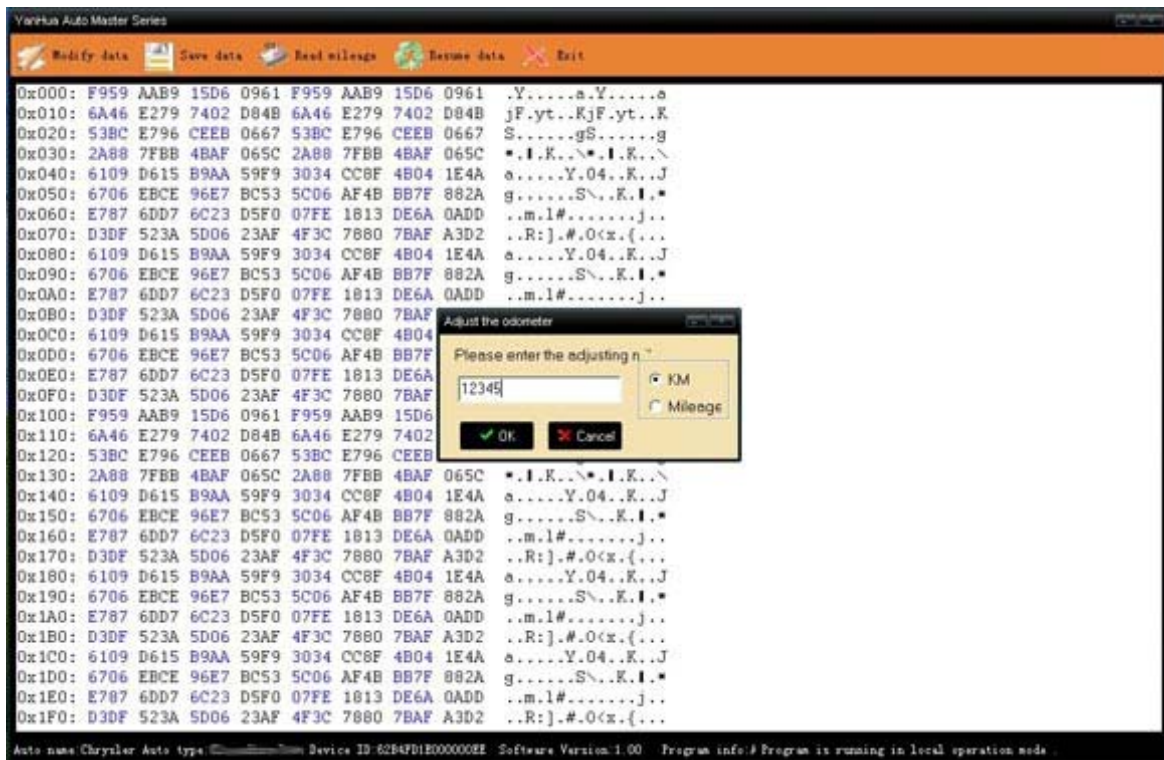
② The follow window means the original data of the chip have saved.

A. Input the mileage you want on the white box then click "yes".

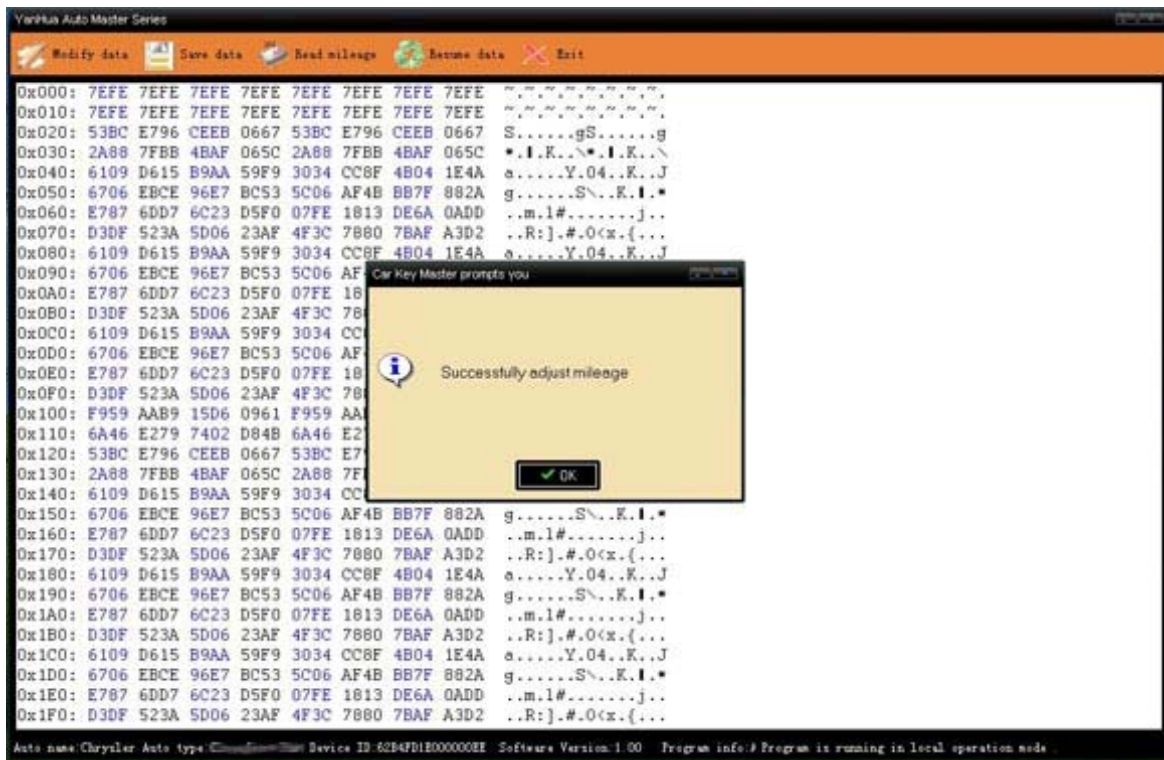
B. For there are not only mileage data on the odometer chip, so please write the original data on the new chip before adjust, then write the mileage.

a. Click the "cancel" as the follow picture, then click "restore the original data", choose the original data to write the chip, the device supply the most of cars original data, if there is not, please collecting, take out the chip in the odometer, read the data then save it.

b. Click the "Adjust mileage", input the mileage you wanted to adjust on the white box, then click "yes".



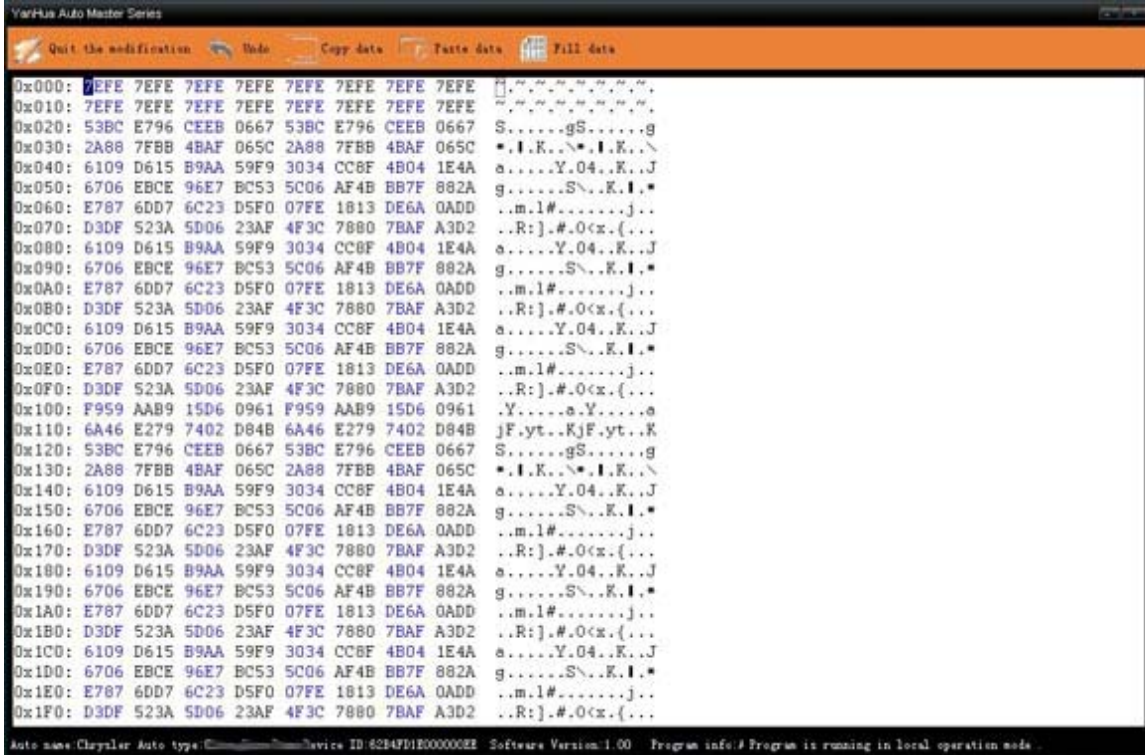
③ Quit after successful adjustment prompt, removed the welding line and then clean the circuit board. Load odometer back to car.



(5) Modify data

If no need to modify the inner data of the chip after successful adjustment, please take the chip back odometer to finish the operation, or you can skip this step.

① Click "modify data", the data of memory data area will change into editable state, modify the data by cursor directly.



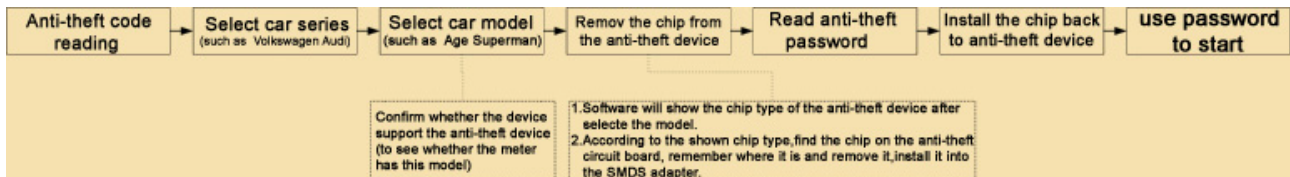
Button	Instruction
Modify data	Click the button, the memory data area will change into editable state.
Save data	Click the button to select the storage path and enter a file name to save the data of current memory data area.
Send the data back to factory	Save the content of memory data area to a file, and send it to factory by email.
Adjust the mileage	Input the mileage for adjustment.
Restore the original data	Open a known original data file of mileage and write it into the device.
Quit from the memory data area	Click the button means close the memory data area, and quit to the select information of browser window, reselect device or other function.

Note: Click "memory data operation" of the top of this form, it will show a sub-menu. Please refer to page 13 menu command instruction.

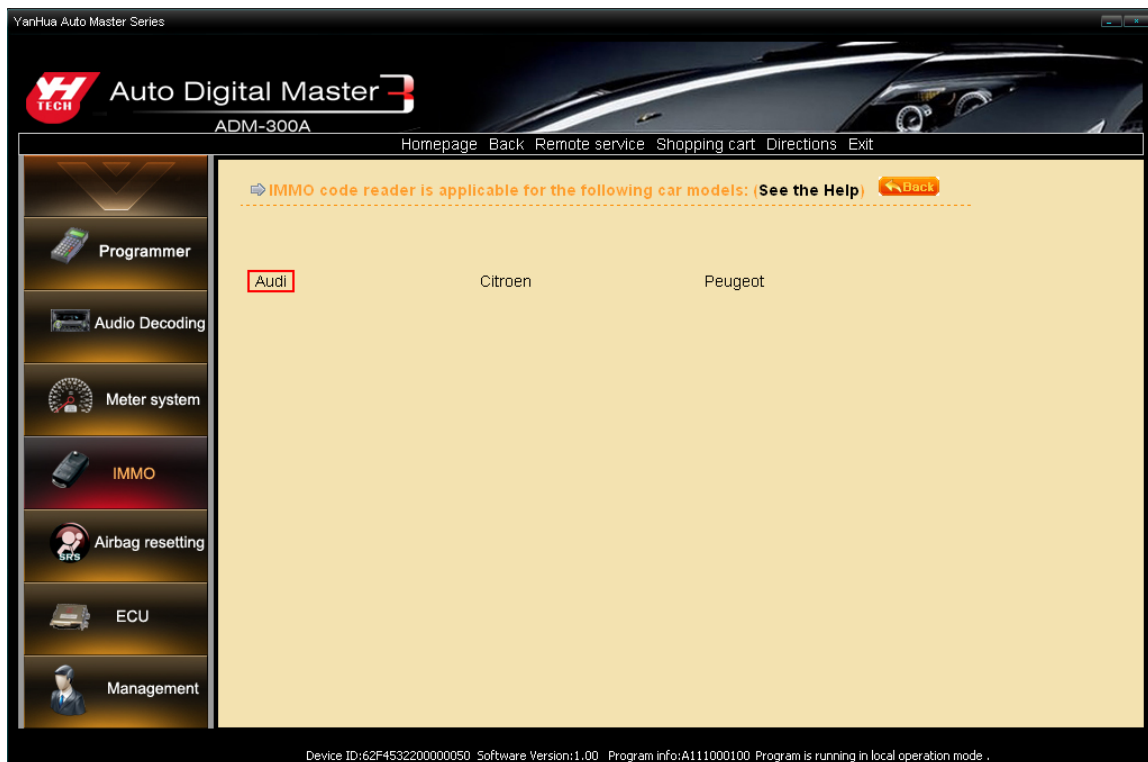
4. IMMO

Main functions: Quit read the IMMO code (Also known as the matching key code usually must be obtained from car manufacturers).

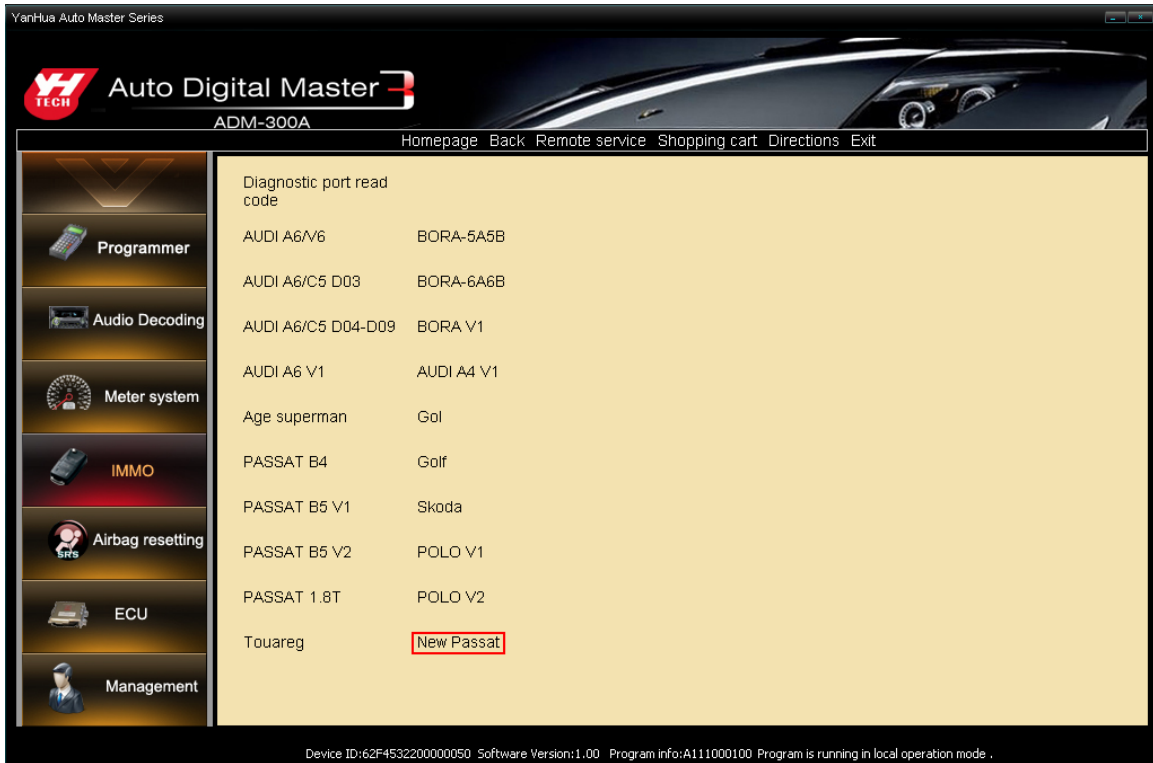
Steps are as follows:



(1) Click the "IMMO system" on the home page, select the IMMO-owned cars. Take an example as: Volkswagen Audi.



(2) Select the car model series of IMMO, as click New Passat.



(3) Remove chip

① It will show the chip model of IMMO device after selecting the car model.

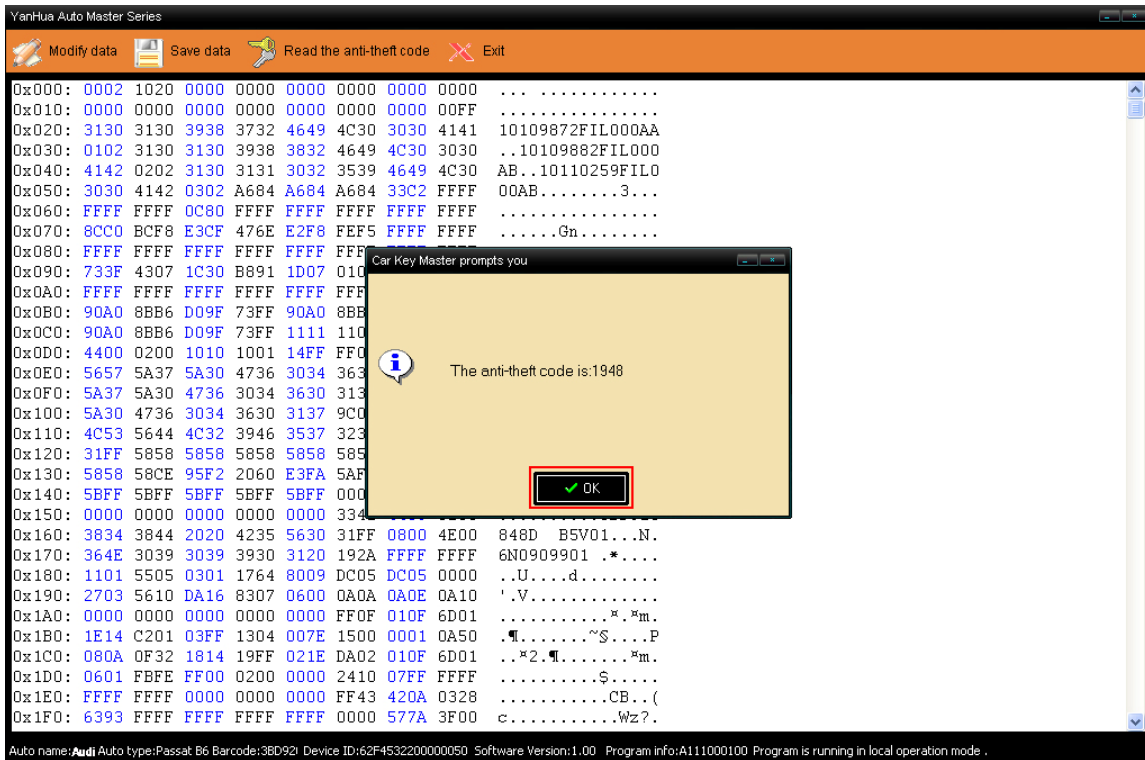
② find the chip (as 93C86) on the odometer PCB by the instruction, remember that direction then removed it, solder on adapter.

③ plug the adapter to the 25 pin socket of the SMDSIII. Click "Local operation" on the upper right corner's dialog box, it will read the device immediately data.



(4) Acquire the code

Click "Local operation", read the IMMO code automatically, it will show windows as follows:



Button	Instruction
Modify data	The area of memory data can be modify when click this button.
Save data	Click this button and input the path and filename to save the current data in the memory data area.
Send data to factory	Save the data as a file and send to factory by email.
Read IMMO code	Read the IMMO code of IMMO device which connect to the SMDSIII, and shows.
Exit memory data area	Click it means close the memory data area and back to the selected info browser window, then you can select other device or function.

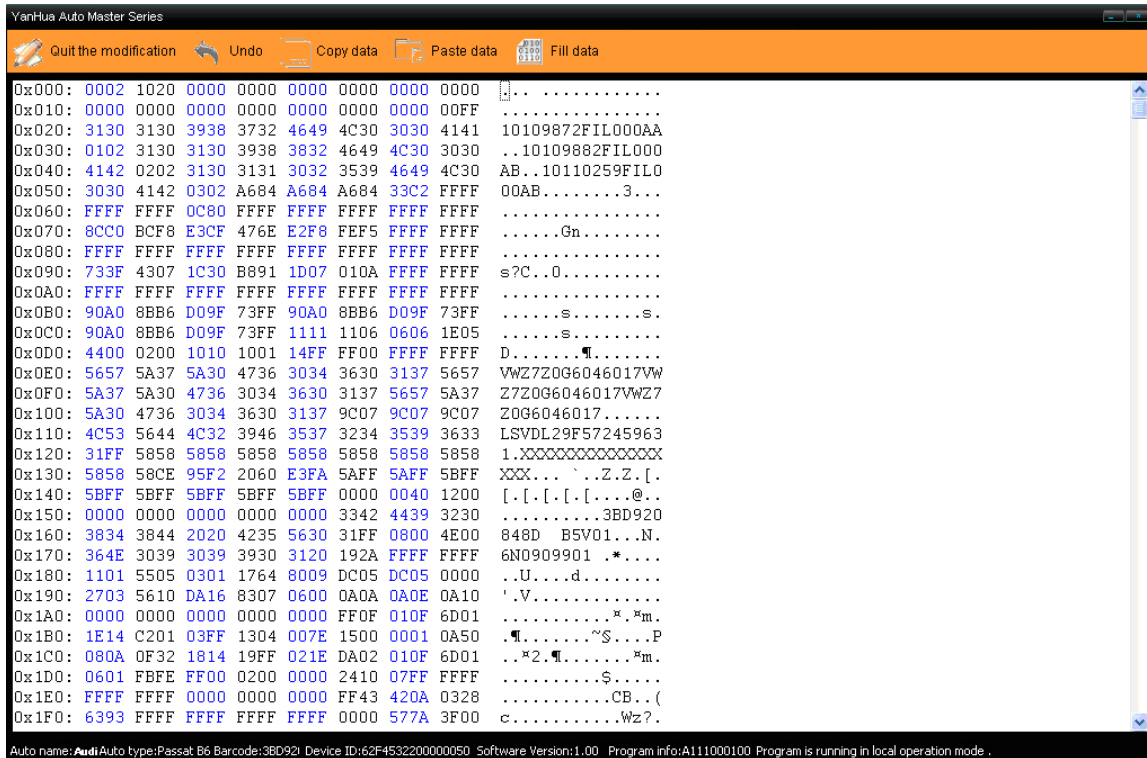
Note: Click "memory data operation" of the top of this form, it will show a sub-menu. Please refer to page 13 menu command instruction.

(5) Modify data

If no need to modify the inner data of the chip after successful reading code, please take the chip back IMMO to finish the operation or you can skip this step.

① Transfer it out of memory data area after reading password

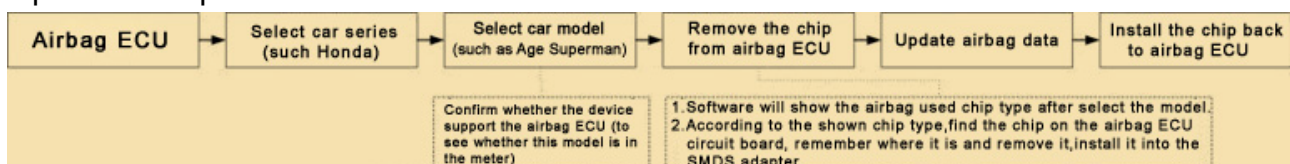
② Click "modify data", the data of memory data area will change into editable state, as the picture (The detail please looks at Page 12, 1.(3) Modify data).



5. Airbag Resetting

Main function: After the airbag exploded, the ECU will store the fault record to the memory chip of circuit board, it's no need to change the circuit board by writing the unexploded data if the airbag ECU is not damaged.

Operation steps as follows:



(1) Click the "Airbag ECU Data" on the home page, and select the model from airbag, as click Toyota.



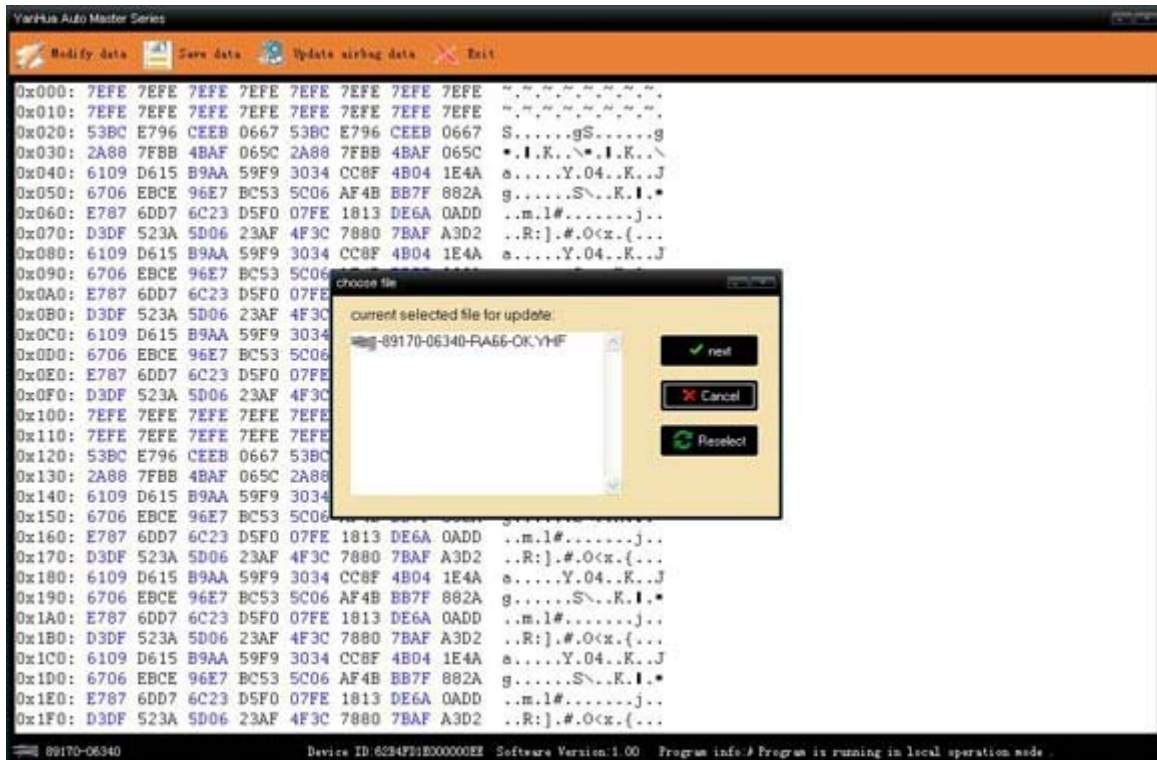
(2) Select the car model series of airbag, as select Toyota 89170-06340 RA66.



(3) Click "Local Operation" on the upper right corner of dialog box, the device will read the device data immediately.



(4) The device will save the data of chip automatically, and point to load the airbag data, select the corresponding data to write in the chip.



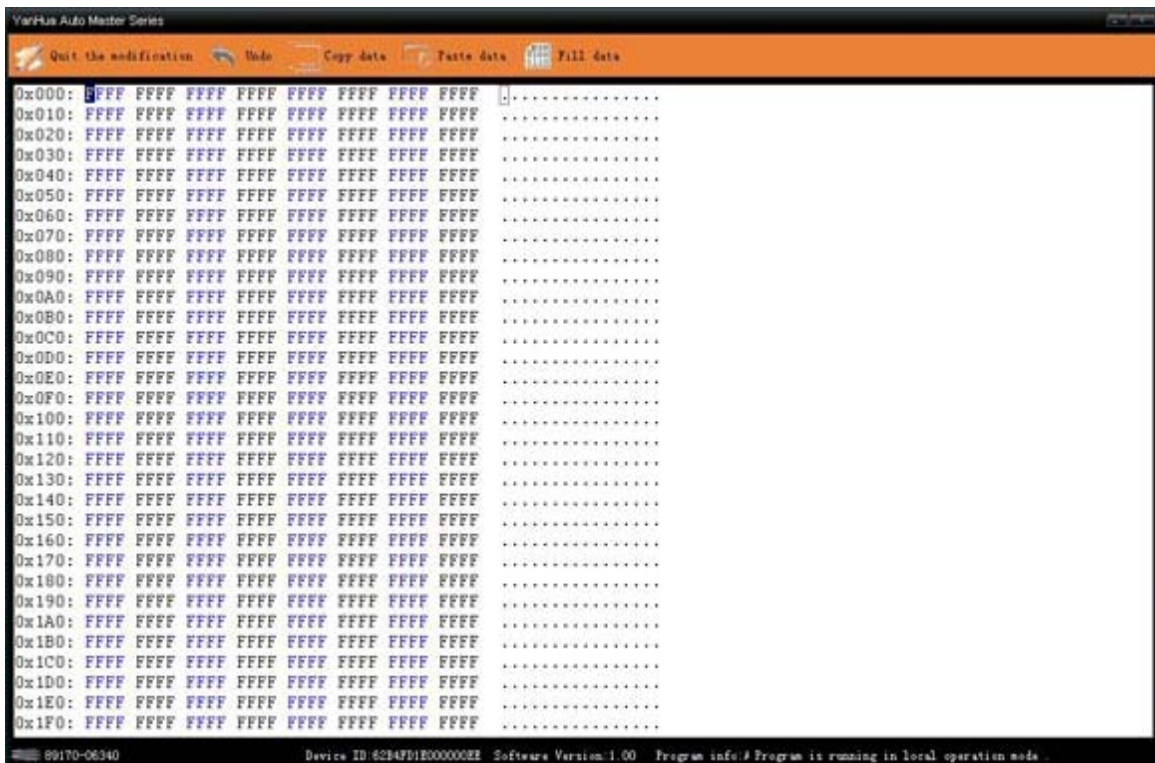
Button	Instruction
Modify data	The area of memory data can be modify when click this button.
Save data	Click this button and input the path and filename to save the current data in the memory data area.
Send data to factory	Save the data as a file and send to factory by email.
Update airbag data	Open an original airbag data file then write it to the device.
Exit memory data area	Click it means close the memory data area and back to the selected info browser window, then you can select other device or function.

Note: Click "memory data operation" of the top of this form, it will show a sub-menu. Please refer to page 13 menu command instruction.

(5) Modify data

If no need to modify the inner data of the chip after successful reading code, please take the chip back airbag computer to finish the operation or you can skip this step.

- ① Transfer it out of memory data area after writing data into chip.
- ② Click "modify data", the data of memory data area will change into editable state, as the picture(The detail please looks at Page 12, 1.(3) Modify data).



6 . Auto Computer Control Unit

Function: Repair vehicle ECU data. Following types of faults may be cause by ECU data, and this function will solve the problem. The faults as: Engine jitter, idle instability, lack of starting power, black smoke and so on.

The operation steps as follows:

- (1) Enter "vehicle ECU" module

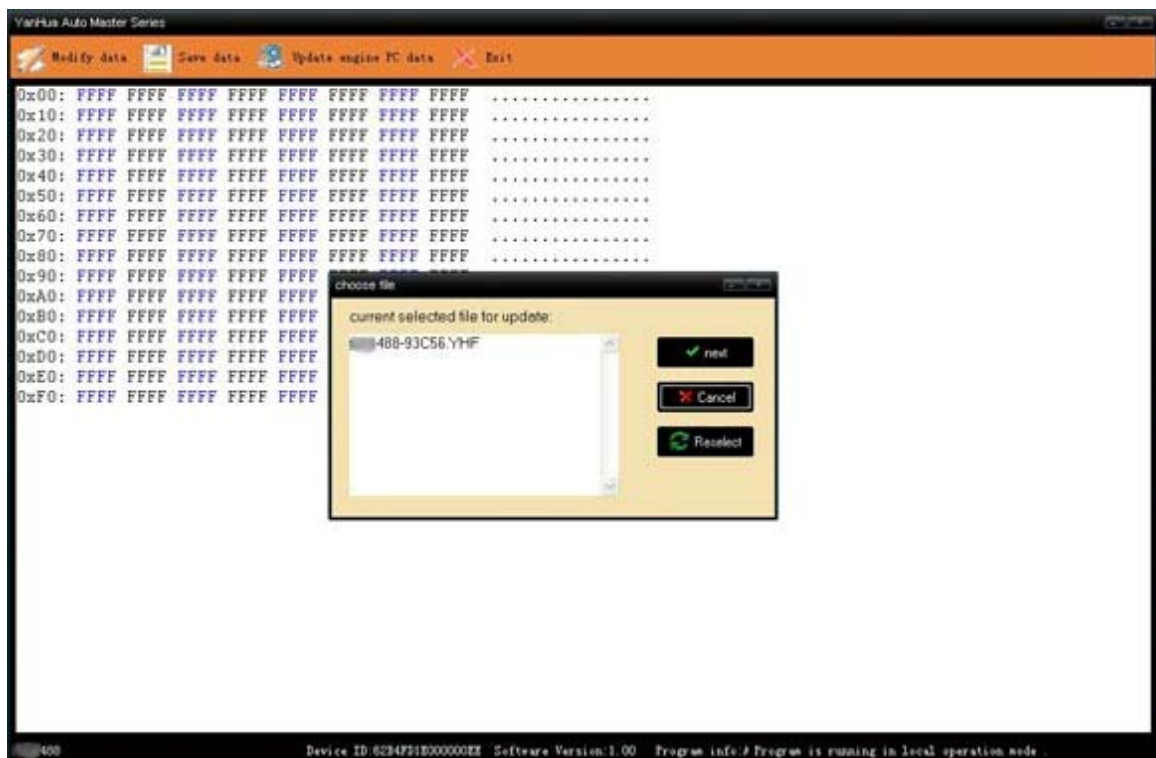


(2) Take "Hongqi 488" as an example, enter "Hongqi 488", connect the wire as the wiring diagram, and operate by the step from software instruction.

① Click "Next", enter the wiring diagram interface, then click "Local operation" connect the target board to read the data, save the data as the prompt.



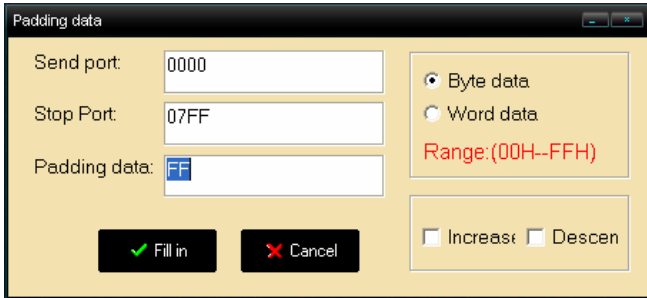
② As the picture, select "Next" will write the data from the software to this device; Select "cancel" back to the upper interface; select "Reselect" will show a selection dialog box for other selection.



7 . Data operation

7.1 Fill data

It is used to filling data to memory data. Like write data 52 on all the chips.



7.2 Transfer to the target address

Transfer the cursor position of memory data area:



(1) In the edit box (the default current cursor position is assumed to be: 0064), input the address (hex data).

(2) "Transfer" button can move the cursor to input location. Click "Cancel" exit the window.

Button	Instruction
Starting address	Starting address Written to memory data area is the location from which to start writing (hex data).
End address	End address Written to memory data area is the location from which to start writing (hex data)
Fill data	The data to be written (hex data)
Byte data	Click to select the round button on the left of the text, which means the filled data is byte form, its range is (00H --- FFH)
Character data	Click to select the round button on the left of the text, which means the filled data is byte form, its range is (00H --- FFH)
Increase progressively	Click to select the square button on the left side of the text, which means the filled data is increased one by filling one unit.
Decrease progressively	Click to select the square button on the left side of the text, which means the filled data is decreased one by filling one unit.
<p>For example: Fill the starting address "00", fill the end address "0F", the filled data is "00", and select the byte data and increase progressively form, then the written position info of memory data area is as follows</p> <p>The first line data can be shown From the written start address and end address, the filled data is as follows: 0x00: 0001 0203 0405 0607 0809 0A0B 0C0D 0E0F</p>	

VII Appendix

Appendix I : The ways of identifying the pin order

1). If the chip has nick, pin 1 is on the bottom left corner, and the number of Pins in Count-clockwise direction are 1, 2, 3, 4, 5, 6, 7, and 8.

2). If the chip has no nick, but "●", pin 1 is close to "●", and the identification of the others' number is the same as above.

3). If the chip has text only, from the text positive, pin 1 is on the bottom left corner, the identification of the others' number is the same as above.



Chip 93C56 outline diagram

Appendix II : Chip Disassembling & Soldering

1. Prepare for soldering

1) The choice of iron:

It should be connected with ground safely. When there is no constant temperature soldering iron, the 20W internal heat-type or 25W external heat-type soldering iron can be OK, but ensure that the former should not exceed 25W, and the latter does not exceed 30W.

2) The choice of flux:

Rosin is the best choice. Solder paste will never be allowed to use in soldering. You should change the rosin immediately when it turns to black.

3) The choice of solder wire:

The imported solder wire with low melting point and rosin is the only choice.

2. Chip disassembling

1) When unsoldering biserial & straight inserted chip, you can clean out the soldering tin on the pin by disordering gun or disordering wire, please don't draw hard.

2) When unsoldering patch or chip, melting more rosin on the two rows of pins, and heat them up until the chip loose completely, then remove it. Please don't pry hard.

3) Please do not heat the chip too long, or it will be damaged.

-
- 4) If there is protection paint on the chip, please heat it up with iron, and scratch gently with a blade or tweezers, then dismantle the chip.
 - 5) How to wipe off the protection paint on the circuit board or IC?
Before soldering, please heat the layer of protection paint with iron or hot air to 70-80 degrees Celsius, and then peel gently with a word screwdriver.

3. Chip Soldering

- 1) Please do not heat the chip too long, or it will be damaged.
- 2) The iron should be wiped with a damp cloth or soaking sponge to keep it clean ,because it won't be easy to disordering tin in a state of high-temperature oxidation for a long time.
- 3) The heat conduction should depend on the tin, and it does no good to soldering by the iron head-to-chip hard.
- 4) Don't move or shake the chip before the soldering solidified.
- 5) When soldering, you had better first solder the diagonally pins to fasten the chip, and then do other pins.

AppendixIII:

Instruction of using SMDS to adjust Lexus odometer 300,400

Note: It is a long time to adjust Lexus odometer. So you pay more attention to heat elimination. In very hot weather you must use fan to cool, or unplug several sockets. As long as the odometer display does not be affected, any method is OK. Or else the odometer will be damaged.

Steps of adjusting:

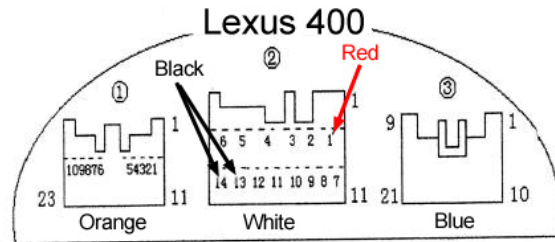
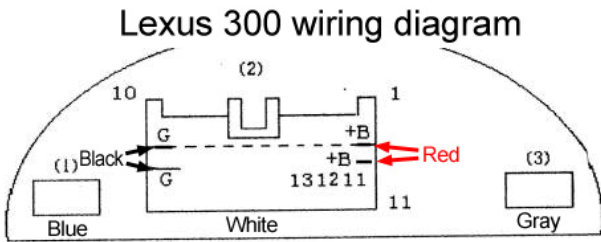
Step 1: Pin 11 of Chip 457C GND.

Step 2: Connect GND of adapter to GND of odometer. Then connect the adapter speed signal to odometer speed sensor input pin (Lexus 300 is white socket Pin 13, Lexus 400 is orange socket Pin 8).

Step 3: Connect to odometer power supply according to the instructions to see whether the odometer displays 0. If not, it is Pin 11 doesn't GND, just re-connect GND and then re-connect power supply)

Step 4: Running the SMDS software, and enter the speed signal generator to produce a speed signal, the frequency is 4500 Hz. Always the odometer starts from 0km. When it displays about 159-161 miles, disconnect Pin 11 of chip 457C and out of GND. At this time the odometer is automatically working, when it gets to the required km, just stop generating the speed signal.

Note: In normal state, Lexus odometer walks 4000 to 5000 km per hour.



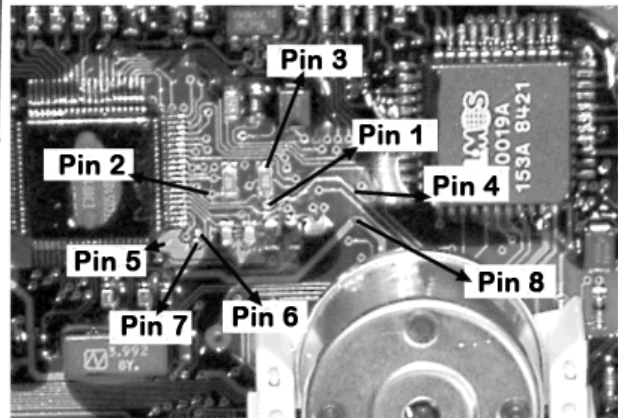
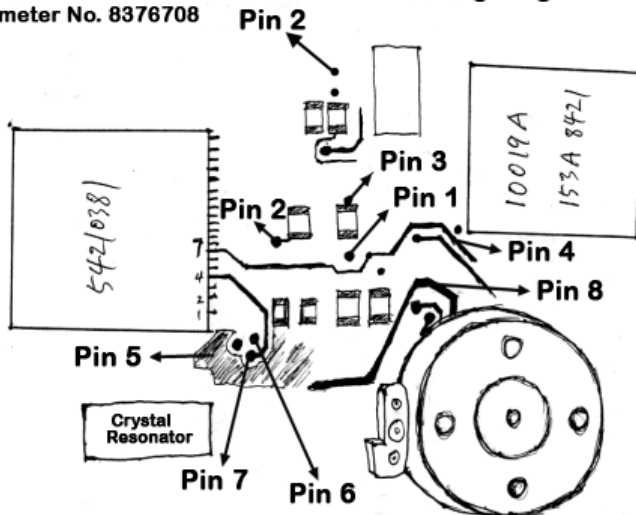
- ① Orange power socket "8" connect speed sensor
- ② White power socket "13" "14" connect power negative electrode (Black) and socket "1" connect power positive electrode (Red).

Appendix IV: Wiring diagram illustration

97-98 years, BMW 740,750,528,728 down-lead inspection diagram

this wiring diagram only applicable to ICP adapter

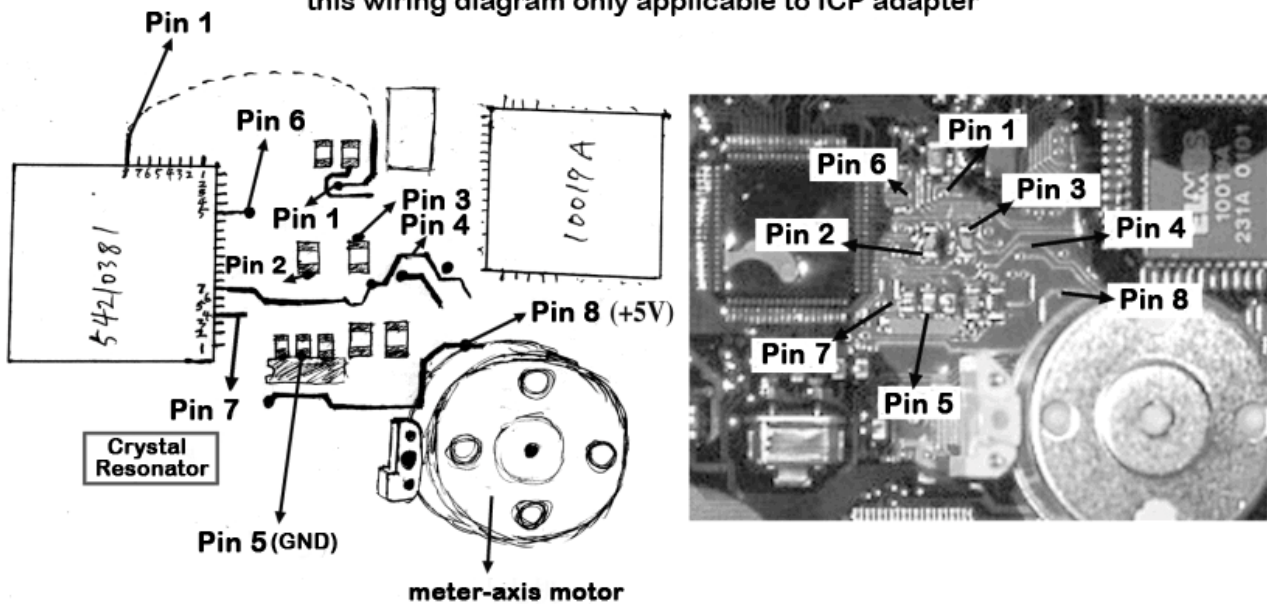
meter No. 8376708



Note: Before soldering wire, please heat the layer of protection paint with iron, and then peel gently with a word screwdriver.

99-2000 years BMW 728 down-lead inspection diagram

this wiring diagram only applicable to ICP adapter



Note: Before soldering wire, please heat the layer of protection paint with iron, and then peel gently with a word screwdriver.

Appendix V :

Table of replacement for acoustic memory chip and odometer

Original chip	Alternative chip	Remark
93C06	93C46	93C06 cannot replace 93C46
9314	93C46	9314 cannot replace 93C46
C46M6	93C46	
DD72	93CS66	DD72 cannot replace 93CS66
DD82	93CS66	DD82 cannot replace 93CS66
S130	93C46	
S220/SL221	93C56	S220 cannot replace 93CS66
S330	93C66	
S530	93C86	
93C56	93C66	93C56 cannot replace 93C66
C56M6	93CS66	C56M6 cannot replace 93CS66

L56R	93C56	
RA57	93C56	
RA66	93C66	
RA86	93C86	
CS56	93CS66	CS56 cannot replace 93CS66
85C72	24C16	85C72 cannot replace 24C16
85C82	24C16	85C82 cannot replace 24C16
24C01	24C16	24C01 cannot replace 24C16
24C02	24C16	24C02 cannot replace 24C16
24C04	24C16	24C04 cannot replace 24C16
24C08	24C16	24C08 cannot replace 24C16
D6253	24C16 (OR 24C01)	D6253 cannot replace 24C16
D6254	24C16 (OR 24C01)	D6254 cannot replace 24C16
PDH001	X2444P (OR	
PDH004	X2444 (OR X24C44)	
X24C01	none	X24C01 and 24C01 cannot be general
ST14771	25020	
68343	25020	
68558	25020	
95P08	95080	
0D080	35080	