

DigiMaster 18

Manual



Cautions

- 1). Please read the introduction first, then install and use this equipment.
- 2). Don't put IC on testing panel when turning on or shutting down the equipment and changing the executed apparatus lest that such operation will damage IC.
- 3). The light with the sign of "Busy"(yellow led) should be on when burning. Make sure that don't plug out IC of the socket or put the IC into the socket for the burning voltage on the socket will damage the IC. Only when the Busy LED is off and POWER(green)or ERROR(red)is on the operation will be permitted.
- 4). Read the false information first when problems come up during the procedure of burning. Make a second try only after finding out the problem and solving it.
- 5). The action that plug out the connect-line between programming machine and the USB access of the PC is prohibited when electric current still be on it. Don't mix up the connect-line of this machine with those of other machines with a different brand.
- 6). The software and hardware of our company's burning tool are protected by inner detective device. Any modification and copy is forbidden.
- 7). Contact with your retailer who can supply some comfortable service for you when you have any questions or problems with our products.

Chapter one Introduction

DigiMaster 18 is a programming machine with multifunction which can connect computer through the USB access. Apart from the ordinary functions, there are special models function:

1).Maintenance of the odometer: It is for correcting the mileage of the odometer (identify the data stored in the chip and analyze the data rule of them automatically). Repair the problem of the odometer & Coding the new odometer .

2).Universal Programmer: used when program and modify on the EEPROM with no more than 16 architraves.

3).Decoding Audio: this function module is designed for all kinds of audio with digital code. You can decode the original code when the original code is missed.

4).Restore the airbag: this function module is designed for restoring the data of the airbag after the traffic accident.

5).Computer decoding: used to read the immobilizer of VW/ Audi.

6).Signal generator: used to generate signal in different frequency of all kinds of sensors (photoelectricity sensor; magnetoelectricity sensor, hall sensor etc.), simulation test for the odograph and ECU.

Fool-proof operation

With graphical and induced operation user display, you can learn it even without the help of the manipulation manual. Just like WINDOWS, it supplies a lot of tips and on-line service. It can find out corresponding type automatically if only enter the type of manufacturer, so it is no need to waste any time in the list of products.

Omnipotent drive for the architrave

Every architrave is not only can supple with VCC, VPP or GND but also TTL high/low voltage, high-speed timepiece and three conditions. Thus, it can program on all DIP devices with no more than 16 architraves without adapter. So, it's not only can program on those DIP devices which exist in market at present but also can meet the need of the new device with no more than 16 architraves in the future.

The check function of inserting and contacting

DigiMaster 18 carry an inserting and contacting inspection on every parts of an apparatus which can prevent you from programming under the bad-contact and wrong position thus damage can be prevented.

Chapter Two Install

1).System Requirements

Memory: A minimum of 128 Mega free RAM.

Mass Storage: At least one CD drives and hard disk drives.

Display Adapter: At least one of VGA Adapter.

Monitor: Any monitor compatible with the above display adapter.

Operation System: WINDOWS 98/ME/2000/XP/2003

Standard USB port

2).Install hardware

Connecting the DigiMaster 18 and USB port then turn on the power of DigiMaster 18. Then install the USB drives before you use it.

3).Install software

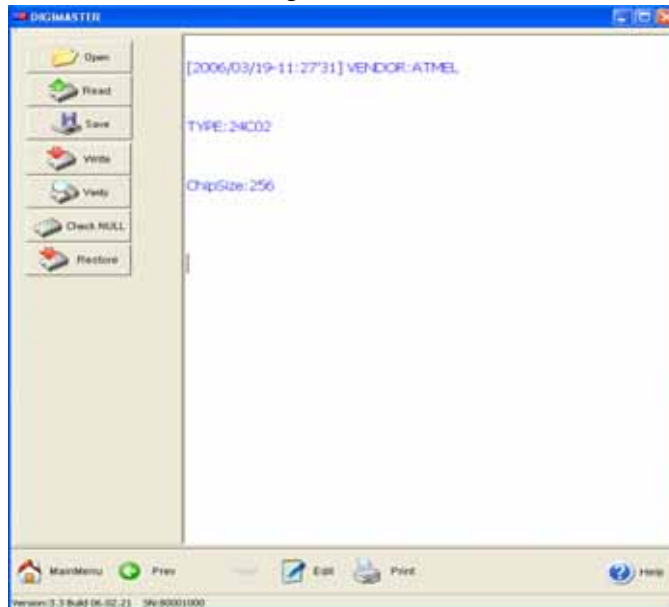
1. Insert the distribution CD into drive E: (“E” is CD driver)
2. Follow the instructions on screen.

Chapter Three Operate Instruction

Section One Use of programming

Can be used to program and modify for EEPROM.

- 1).Select the related manufacturer name and type match the IC, then click next step.
- 2).You will see the screen as following :



Function of the button is show on table 1:

Button	Description
Open	Open a file from your disk.
Read	Read the IC data.
Save	Save current data as a file.
Write	Send the data that in memorizer buffer area to IC.
Verify	Compare the data in memorizer with the actual data in IC.
Check NULL	Check whether data in the chip is the 0xFF
Restore	Resume the originality data that it has not been modified.
Main menu	Back to DM18 main screen
Back	Back to last step
Next	Forward to next step
Edit	Edit the data in read-write buffer (Display mode: Hex)
Print	Print current content that in buffer area.
Help	Open on-line help
Exit	Exit the software.

Key points for dismounting of IC by soldering

1).Soldering preparation

a.Selection of the iron

Iron must be grounded securely, can choose inner heating 20w iron or outer heating 25w iron if constant temperature iron is not available. The max power of inner heating iron is 25w and 30w for outer heating one.

b. Selection of flux

Rosin is one of the selection. It's not allowed to use flux paste which with strong causticity. The rosin must be replaced when it becomes carbonized black.

For solder it's a must to select imported solder wire with low melt point and contains flux inside.

2).Dismounting of IC

- a.**To dismount DIP IC:** use solder sucker or solder absorbing weave to remove all the solder on the pins of the IC. Don't try to pull off by force.
- b.**To dismount SOP IC:** applies ample of flux and solder on each pin, then heats the 2 rows of the pins alternately until the IC is free from the board and then remove the IC away from the board. Don't try to unclench the IC.
- c.Don't heat excessively in case of damage the IC.
- d.The IC on instrument is usually protected by lacquer coating. Before dismounting should heat the coat and then remove it with blade or tweezers.
- e. How to remove the lacquer coat from PCB or IC?

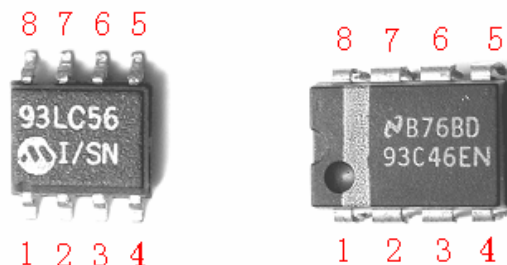
To remove the lacquer on PCB, uses an iron or hot blower to heat the lacquer up to 70–80 centigrade, then strips the coating with one slot screw driver, then start soldering when the coating is removed.

3).Soldering of IC

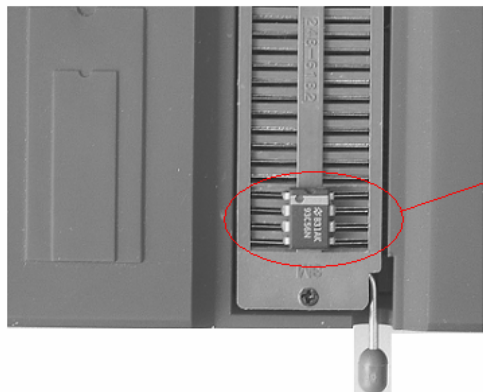
- a. Control soldering time not excessive in case of burn the IC.
- b. Iron will be oxidized under high temperature for a long time and it is liable not to attach the solder easily. Then rub the iron tip with wet cloth or sponge to clean it.
- c. The heat should be conducted by solder, it is helpless to place the iron tip on IC pin.
- d. Don't move the IC before the solder solidify.
- e. Firstly, solder the 2 pins which are on the diagonal to locate the IC, verify if the IC position properly, then solder the rests.

How to identify the pin on IC

- 1). If there is a notch on IC, then placement as the illustration, the pin at lowest left is pin 1, and the follows are pin 2, 3, 4, 5, 6, 7, 8 in anticlockwise.
- 2). If there is no notch but a spot on IC, then placement as the illustration, the pin near the spot is pin 1, and the follows are the same as the statement above.
- 3). If there is only text but no notch nor spot on IC, then placement as the illustration in the correct direction that you can read the text properly, the pin at lowest left is pin 1, and the follows are the same as the statement above.

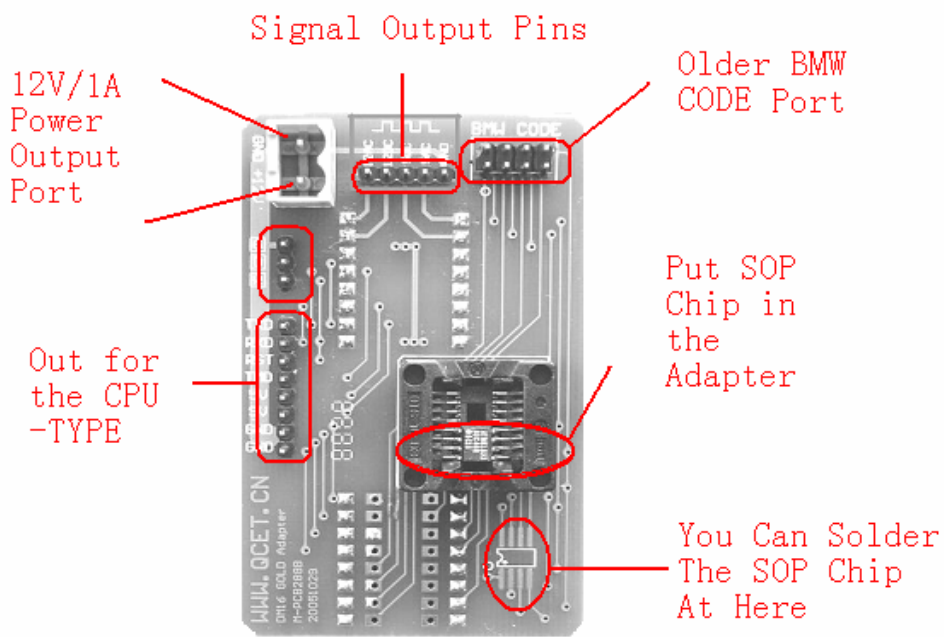


Pin 1 of the IC .



DIP Chip Pin1 Is Upwards.

DIP IC in the socket without the clamp.



SOP IC in the socket with the clamp.

IC Replace table

Original IC	Replacement	Remark
93C06	93C46	93C06 can not be replaced with 93C46
9314	93C46	9314 can not be replaced with 93C46
C46M6	93C46	
DD72	93CS66	DD72 can not be replaced with 93CS66
DD82	93CS66	DD82 can not be replaced with 93CS66
S220	93CS66	S220 can not be replaced with 93CS66
93C56	93C66	93C56 can not be replaced with 93C66
C56M6	93CS66	C56M6 can not be replaced with 93CS66
CS56	93CS66	CS56 can not be replaced with 93CS66
85C72	24C16	85C72 can not be replaced with 24C16
85C82	24C16	85C82 can not be replaced with 24C16
24C01	24C16	24C01 can not be replaced with 24C16
24C02	24C16	24C02 can not be replaced with 24C16
24C04	24C16	24C04 can not be replaced with 24C16
24C08	24C16	24C08 can not be replaced with 24C16
D6253	24C16 (or 24C01)	D6253 can not be replaced with 24C16
D6254	24C16 (or 24C01)	D6254 can not be replaced with 24C16
PDH001	X2444P (or X24C44)	
PDH004	X2444P (or X24C44)	
X24C01	NULL	X24C01 can not be replaced with 24C01

Section Two Odometer Maintain

It is for correcting the mileage of the odometer (Found the mileage in the chip auto, auto analyzed the mileage match the new vehicle). Repair the problem of the odometer & Coding the new odometer .

1). Operation Instruction

FACTORY SERIES

Select the related manufacturer name and series match the vehicle, if it has the image ,press the “Zoom In” to see the information of the odometer. then click next step.



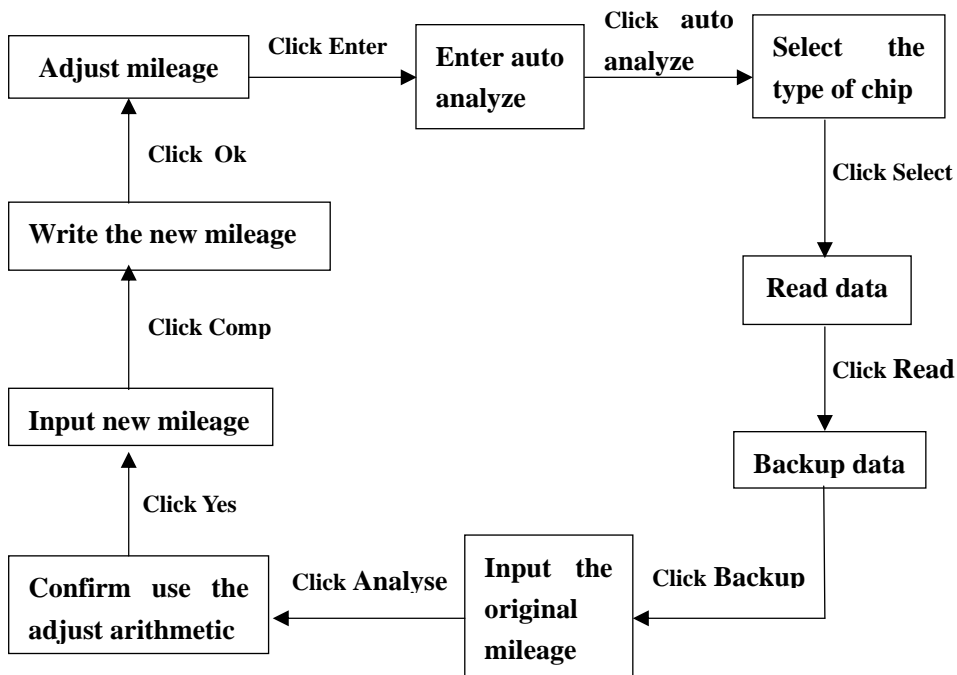
There is the function of the button in ODOFixer

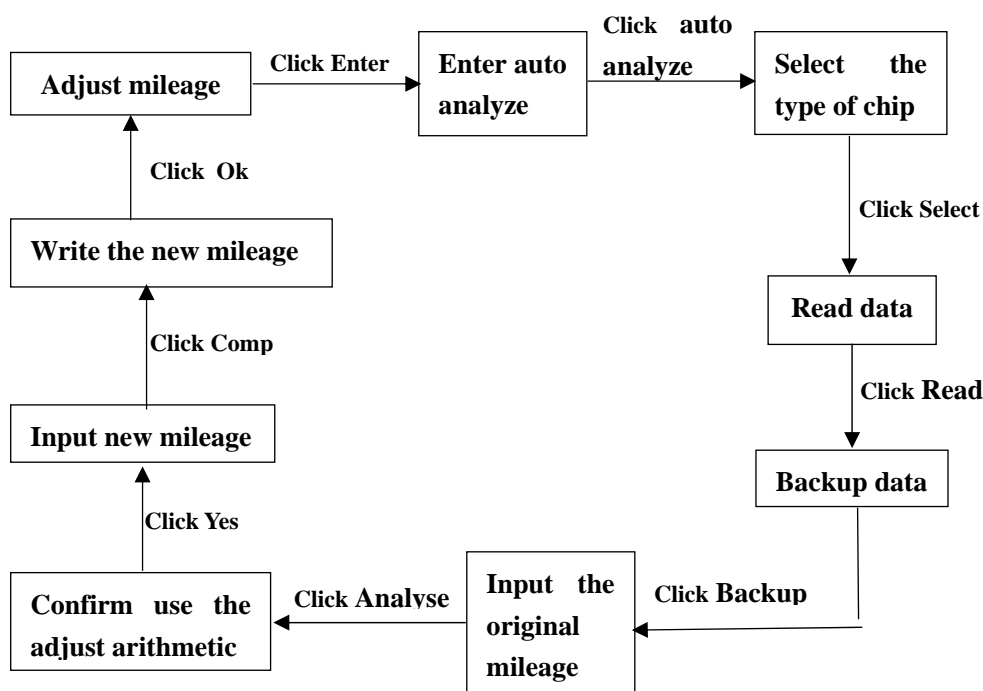
Button	Description
Setting data	Modify the mileage data.
Backup data	Save the content that in buffer area as a file.
Resume original data	Resume original data or initialize the data in new IC.
Next	Forward to next step
Back	Back to last step
Main menu	Back to DigiMaster main screen
Help	Open on-line help
Edit	Look over data
Select type in list	Select related types of the vehicle
Not list in table	This type of the vehicle not list in table, it will execute the auto verify function for odometer after you click this button.
Factory	The factory of the odometer.
Series	The vehicle types of the odometer.
Read	Read data from the IC
Record mileage	Auto analyze the mileage in the IC.
Input new mileage	Input the mileage you want.
Write	Modify the mileage in original IC.
Finish	Finish setting odometer.

2). Setting flow chart

(Note: CodeReader has the auto analyze data function, it will shows error when you select the wrong type, and can not go to next step.)

Routine operate flow chart



Auto analyze operate flow chart:**Operate prompt****1) confirm the original mileage**

If the DigiMaster read the mileage is different from the original mileage in your vehicle, please do not go to next step, you should back to the first step and check whether you selected the correct type for the vehicle.

2) Arithmetic error

When you see the prompt “Arithmetic error”, you should back to the first step and check whether you selected the correct type for the vehicle.

3) Change IC for adjusting odometer

If you need to use a new IC to adjust odometer, please change a new IC when you write the new data, and do the write data operation two times. (It means you write the data successfully on first time, then write one more time to confirm it.)

4) Two kinds of the mistake when correcting the odometer.

1. Error information occurs when writing the chip.

Maybe :Chip type is not match.

Putting chip into wrong position.

- 2 .Finish writing operation. But mileage isn't that you want or the odometer cannot work normally .

Maybe: Chip isn't soldering well.

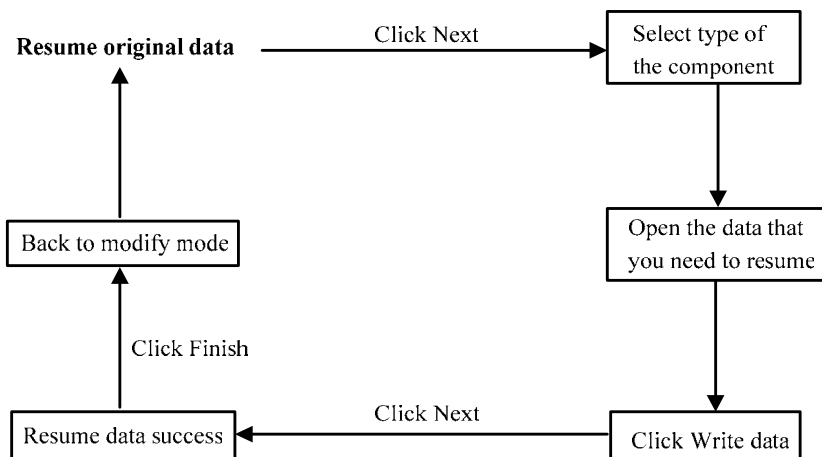
Type of odometer you select is wrong.

If occur any kinds of these mistake, please resume the original data of odometer first.

Four: Resume original data

This operation will apply to:

1. Lose the original data or exist errors after modified mileage.
2. Match mileage data for the new odometer.



Cation:

For the new car :If you can't find the car in the software. You can deal with it by yourself by "Auto Analyzed" or you can connect with the Supply Engineer by mail.

Oversea Supply Engineer : Derek Lin

Mail: qcet@hotmail.com

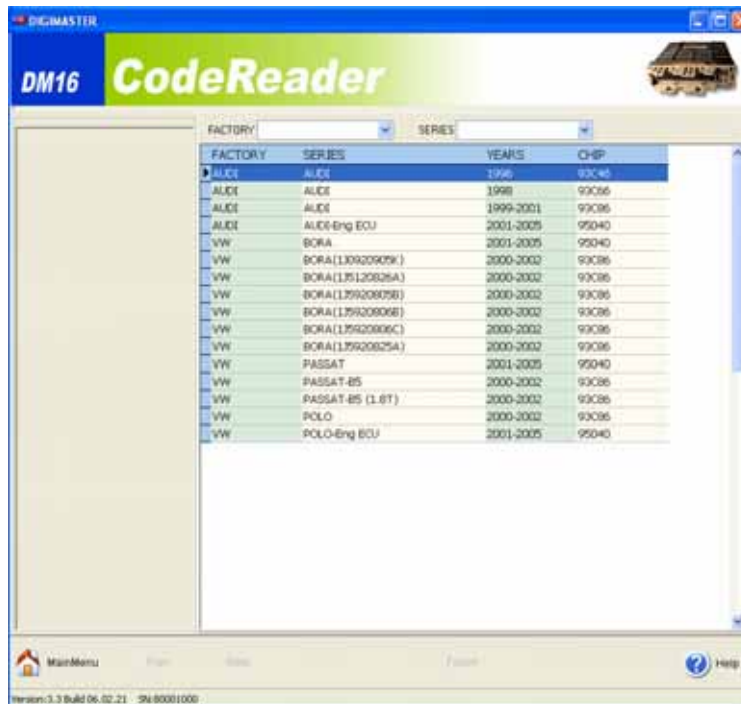
Sction Three Decoding Audio

This function module is designed for all kinds of audio with digital code. You can decode the original code when the audio can start on for the original code is missed.



- a. Select the module for audio decode
- b. In the decode mode then screen display the operation form
- c. User select car model and audio type, go to the next step
- d. Basic on the typing information by user, some of the models need manually decode, please follow the prompt of the system
- e. If the car model is belong to computer decode mode, i.e. has the memory chip, please remove the chip from the audio and put it in socket to modify password.
- f. When no prompt to input the login password after modifying, then rebuild the chip. Audio can runs automatically, without input password.
- g. When system prompt to input the password, screen display turn on password, after rebuilding the chip, then follow the operation of Audio password setting, input the password and turn on the Audio.

Section four immonitable decode



1).CodeReader operate prompt

The immobilizer password of VW/AUDI save in the EEPROM on the immobilizer unit. The new type immobilizer computer combine with the odometer, password and mileage data save in the same IC. So when you want to read the password, you must remove the IC and put it in programmer. Some of the car is save in the BSI, you can know the information from the software.

Enter immobilizer password read mode

Select manufacturer name and vehicle type

Click Next, click read immobilizer password button, then you can read the immobilizer code.

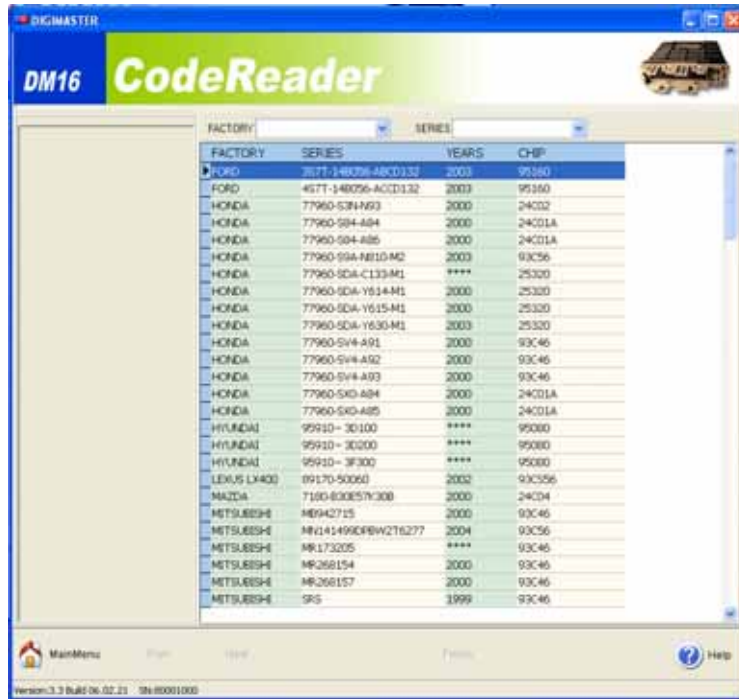
Note: a. You must work in related decode implement (such as VAG-COM, 1552 etc.) when you input immobilizer code.

b. If you can not input immobilizer code, please check whether you have already input wrong password more than three times or not. Turn on ignition switch, wait for 30 minutes or longer time, then try again.

Section Five Resume Airbag Data Operation

Resume airbag data can remove the error code in the airbag computer, and can resume the airbag original data after the airbag burst that decode implement can not deal with. At present, it can repair: Toyota,Honda,Nissan, etc.

You can download the data of new type vehicles from our company.



Operate prompts as below:

Remove the IC from your computer, put it in programmer.

Select the SRS module

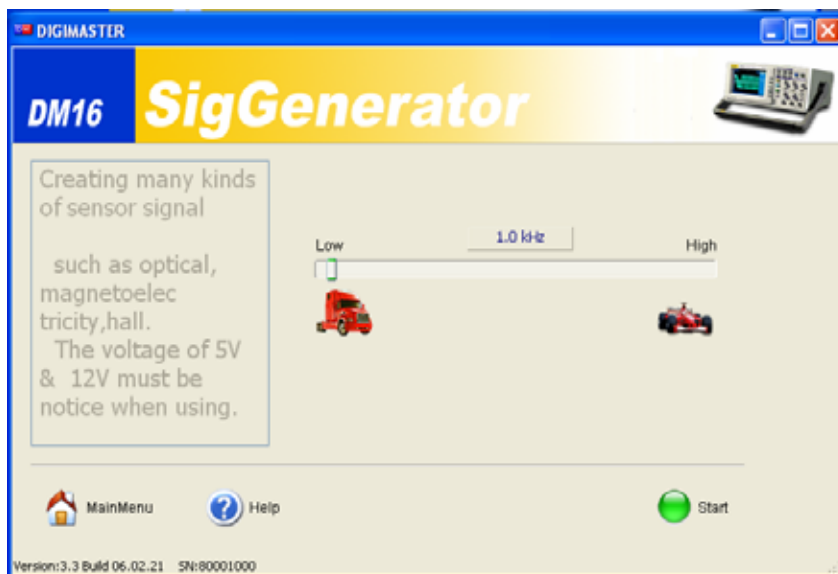
Select the vehicle type and computer type

Click Resume data and it's process

Succeed to resume data, finish operation.

Section five Signal generator

This signal generator can provide many kinds of sensors' frequency signal (photoelectricity sensor, magnetolectricity sensor, Hall sensor etc.) can process simulate test in meter of vehicle and ECU.



How to use signal generator :

Description:

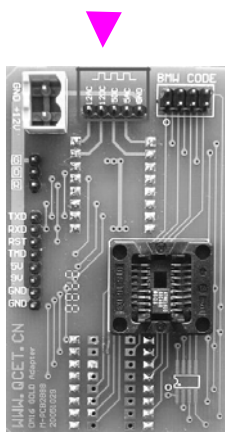
[Start] : After you click this button, programmer will provide corresponding frequency signal. If you click it again, it will stop.

[Main menu] : Back to CodeReader main screen.

[Help] : Open the on-line help.

[Frequency] : Drag the adjust pole to change the signal output frequency. You can see the actual output frequency on top of the screen.

Signal output juncture



Notice:

- 1).When use the module of signal generator, need to install signal output adapter and use appropriate signal output equipment.
- 2).Please pay attention to distinguish 5V and 12V output voltages and the type of signal. DC signal apply to analog photoelectricity and Hall sensor signal; AC signal apply to analog magnetolectricity sensor signal.