iCarsoft®

User's Manual

For BMM V2.0 / MB V2.0 / VAWS V2.0 / POR V2.0 /VOLV2.0 / OP V2.0 / LR V2.0 / US V2.0 / FR V2.0 / JP V2.0 / FA V2.0 / KR V2.0 / CRV2.0 (1+4) / B800 V2.0 / L600 V2.0 / M900 V2.0 / W500 V2.0 / V200 V2.0 / P700V2.0/ U300 V2.0

Multi-system Car Diagnostic Tool Series

iCarsoft Technology Inc.

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Contents

Inhalt

Inhoud

iCarsoft ®

User's Manual

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1. Product Descriptions

① BACK BUTTON -- Returns to previous menu.
② UP BUTTON -- Moves cursor up for selection.
③ LEFT BUTTON -- Moves cursor left for selection.
④ RIGHT BUTTON -- Moves cursor right for selection.
⑤ DOWN BUTTON -- Moves cursor down for selection.
⑥ ENTER BUTTON -- Confirms a selection (or action) from a menu list.
⑦ HELP BUTTON -- Shows help information for test results or user operation.
⑧ F1 FUNCTION BUTTON -- In case of special use.
⑨ F2 FUNCTION BUTTON -- In case of special use.
⑩ OBDII CONNECTOR -- Connects the scan tool to the vehicle's Data Link Connector via OBDII Cable.

⑪ STORAGE CARD SLOT -- Holds the system of the scan tool.
⑫ Data Cable CONNECTOR -- Connects the scan tool for power supply and update the software if needed.

2. Specifications
   1) Display: 4.0″ TFT LCD, With 480*320 Pixels
   2) Operation Temperature: 0°C ~ 50°C
   3) Storage Temperature: -20°C ~ 70°C
   4) Operating Voltage: 9 ~ 18V
   5) Operating Current: 150mA@12V (Typical)
   6) Power Consumption: 1.8W (Typical)
   7) Dimension: 206*104.1*32.6 mm (L x W x H)
   8) Weight: 312g

3. Accessories Included
   1) User's Manual -- Instructions on tool operations.
   2) Data Cable -- Allows easy update via a PC and an internet connection.
   3) OBD Main Cable -- Connects tools with Vehicles to use.
   4) Storage Card -- Download Vehicle program.

4. Product Features
   1) iCarsoft Multi-system Car Diagnostic Tool V2.0 Series can do it all-reads and clears trouble codes on all the systems such as engine, transmission, ABS and airbag etc.
   2) Support OBDII/EOBD Ten Modes of Operation.
   3) Read Live Data.
   4) Full ECU Diagnosis.
   5) Applies to the single Brand of all Models equipped with OBDII-16 DLC.
   6) Easy To Use with Silicone Keys.
   7) Oil Light/Service Reset: Support service lamp reset.
   8) Electronic Parking Brake (EPB) system maintenance, deactivates and reactivates the EPB system for replacement and initialization.
   9) Battery Management System (BMS), registers new battery to the BMS while battery replacement.
   10) Diesel Particulate Filter (DPF) regeneration control system, requests the DPF regeneration process while DPF blockage and turn off the DPF indicator.
   11) Electronic Throttle Control system(ETC), relearns the throttle valve control value while clear or replace the throttle valve.
   12) SAS: Steering Angle Sensor (SAS) calibration, calibrates the steering wheel to straight ahead, or recalibrates SAS while steering part replacement.
   13) The Print Data function allows you printing out diagnostic data recorded by the scan tool or customized test reports.
   14) Battery test allows you getting the voltage of battery with OBD port by the scan tool when the engine starts.
   15) DTC Library to lookup when user is operating this tool.
   16) Upgrade Via PC.
   17) Multi-language: English, German, Dutch, Spanish, French.

5. Vehicle Coverage
   iCarsoft Multi-system Car Diagnostic Tool V2.0 Series is a Professional and powerful vehicle fault diagnosis tool developed by iCarsoft Technology Inc. With a 4.0" TFT LCD and unique diagnostic software, it features full ECU diagnosis of single vehicle brand and test modes mainly include: CANBUS, ISO9141, KWP2000, and J1850 etc. It enables technicians to accurately diagnose complex problems. CR2.0 is Multiple Choice of Vehicle Brands.
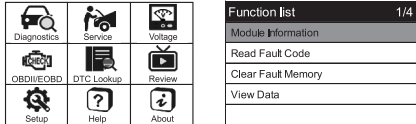
6. Operation
   NOTE: Welcome to using icarsoft's scan tool, you should do something before using the scan tool.
   ● At first, you should please check production list such as scan tool and accessories already when you open the package, read the user's manual and connect the OBD II cable to scan tool.
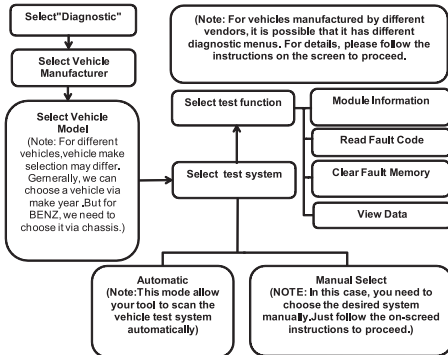
- There are two ways to provide power the scan tool, one way is using data cable external 5V power adapter or USB port, another way is using OBD II Cable connection to the vehicle's Data Link Connector.
- Don't open the scan tool in a rainy environment or In the absence of training, Don't soak the scan tool as the keypad and port are not waterproof, also no solvents such as alcohol are allowed to clean the keypad or display.
- You can set the Language, Unit of Measure and Buzzer your wanted when the scan tool connected power.
- Make sure the ignition is ON when you connected the scan tool already.

6.1 Diagnose
This function is specially designed to diagnose electronic control system of single vehicle model connected the scan tool already.

Function list	1/4
Module Information	
Read Fault Code	
Clear Fault Memory	
View Data	

Diagnostics / Service / Voltage / OBDII/EOBD / DTC Lookup / Review / Setup / Help / About

Refer to the flowchart illustrated as below diagnose a vehicle:

Select"Diagnostic" → Select Vehicle Manufacturer → Select Vehicle Model (Note: For different vehicles,vehicle make selection may differ. Gernerally, we can choose a vehicle via make year .But for BENZ, we need to choose it via chassis.)

(Note: For vehicles manufactured by different vendors, it is possible that it has different diagnostic menus. For details, please follow the instructions on the screen to proceed.

Select test function → Module Information / Read Fault Code / Clear Fault Memory / View Data

Select test system

Automatic (Note:This mode allow your tool to scan the vehicle test system automatically)

Manual Select (NOTE: In this case, you need to choose the desired system manually.Just follow the on-screed instructions to proceed.)

Select one particular system and press OK, a function menu will appear, the function menu options vary slightly for different vehicles. The function menu may include:

Read Module Information -- Read full electronic system module information, such as VIN, part number, version, supplier, production date of ECU. Also you can save these data by press [Record].

Read fault code -- Read full electronic system module fault code, show state and description of fault code. Also you can save these data by press [Record].

Erase fault code -- Erase full electronic system module fault code and diagnostic related freeze frame information.

View live data -- Read full electronic system module live data by text value or waveform. Also you can save these data by press [Record].

6.2 Services Function
iCarsoft's V2.0 Multi-system Car Diagnostic Tool Series provide Oil Reset, EPB, BMS , DPF , ETC , SAS functions for most modern vehicles on the road today. Select Service function from Main menu to access the six special functions.

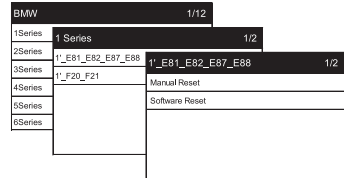Oil Reset / EPB / BMS / DPF / ETC / SAS
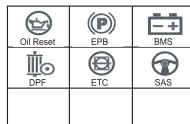
6.2.1 Oil Reset
Select Oil Reset icon in the Main Screen and wait for the vehicle manufacturer screen. Choose the correct vehicle make.
Different vehicles maybe have different methods to do the oil maintenance. generally, oil change is required whenever oil lamp is on and the recommended maintenance period is reached. The Oil Reset function can reset the maintenance period and distance and turn off the lamp when you really change the oil.

Manual Reset:
In this manner, the scan tool will not communicate with the vehicle being tested. To finish this procedure, please follow these steps (take BMW as a sample):
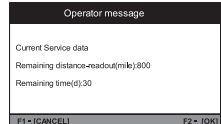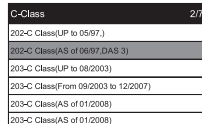1) Select oil reset function in main screen, Select BMW from the vehicle make screen and press OK.

BMW	1/12
1Series	
2Series	
3Series	
4Series	
5Series	
6Series	

1 Series	1/2
1'_E81_E82_E87_E88	
1'_F20_F21	

1'_E81_E82_E87_E88	1/2
Manual Reset	
Software Reset	

2) Select the right options for your vehicle step by step according to each screen that appears until the vehicle information is identified.
3) After entering the vehicle information, the scan tool will display a manual reset message, press OK to continue.
4) Follow the instructions to reset the service manually.
5) Press OK to exit.

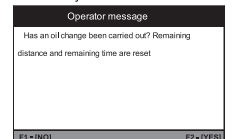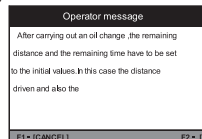| Operator message |
| --- |
| 1. Ensure the dashboard displays correct time before resetting the service intervals; |
| 2. Turn ignition switch to ON. close vehicle doors; |
| 3. Press Odometer reset button button for about 10s, until the screen displays the first service item; |
| 4. press odometer reset button to disaplay next service item and select corresponding service item; |
| 5.While resetting service intervals for the |
| F2 ▪ [OK] |

Software Reset:
In this manner, the scan tool will communicate with the vehicle being tested, If there is a linking error, please refer to Product Troubleshooting for details (take Benz as a sample).
1) Select oil reset function in main screen, Select Benz from the vehicle make screen and press OK.
2) Select the right options for your vehicle step by step according to each screen that appears until the vehicle information is identified.

C-Class	2/7
202-C Class(UP to 05/97,)	
202-C Class(AS of 06/97,DAS 3)	
203-C Class(UP to 08/2003)	
203-C Class(From 09/2003 to 12/2007)	
203-C Class(AS of 01/2008)	
203-C Class(AS of 01/2008)	

Operator message
Current Service data
Remaining distance-readout(mile):800
Remaining time(d):30
F1 ▪ [CANCEL]   F2 ▪ [OK]

3) Follow the instructions to reset the service manually.

Operator message
After carrying out an oil change ,the remaining distance and the remaining time have to be set to the initial values.In this case the distance driven and also the
F1 ▪ [CANCEL]   F2 ▪ [OK]

Operator message
Has an oil change been carried out? Remaining distance and remaining time are reset
F1 ▪ [NO]   F2 ▪ [YES]

4) When screen display Service Status has been done, press OK to exit.

Operator message
Service Status:Done
Current Service data
Remaining distance-readout(mile):16000
Remaining time(d):365
F2 ▪ [OK]
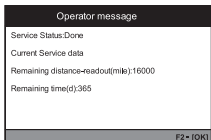
6.2.2 EPB

Electronic Parking Brake (EPB) system maintenance, deactivates and reactivates the EPB system for replacement and initialization (Take BMW as a sample).

1) Select the EPB option from Service function icon, and select right options for your vehicle step by step according to each screen that appears until the vehicle information is identified.

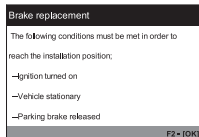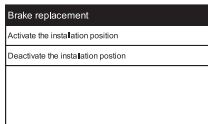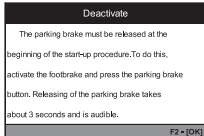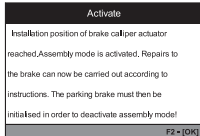| BMW	1/2
Smart Scan	
Manual Select	
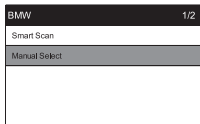
2) You can select the Smart Scan easy to operation for EPB services, when the operation is successfully complete, it appears successful information, and then you should press OK to exit.

3) Also you can select the Manual Select mode for operation, and select right options for your vehicle step by step according to each screen that appears until the vehicle information is identified, it appears " Brake replacement " message on

Brake replacement
Activate the installation position
Deactivate the installation position

Brake replacement
The following conditions must be met in order to
reach the installation position;
–Ignition turned on
–Vehicle stationary
–Parking brake released
F2 ▪ [OK]

4) After active the activate step, press OK and active the deactivate step.

Activate
Installation position of brake caliper actuator
reached,Assembly mode is activated, Repairs to
the brake can now be carried out according to
instructions. The parking brake must then be
initialsed in order to deactivate assembly mode!
F2 ▪ [OK]

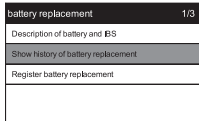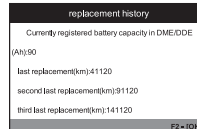| Deactivate |
|---|
| The parking brake must be released at the |
| beginning of the start-up procedure.To do this, |
| activate the footbrake and press the parking brake |
| button. Releasing of the parking brake takes |
| about 3 seconds and is audible. |
| F2 ▪ [OK] |

5) Press OK to exit.

6.2.3 BMS

Battery Management System(BMS), registers new battery to the BMS while battery replacement(Take BMW as a sample).the screen, make sure the following condition is already and press OK to continue.

1) Select the BMS option from Service function icon, and select right options for your vehicle step by step according to each screen that appears until the vehicle information is identified.

battery replacement	1/3
Description of battery and IBS	
Show history of battery replacement	
Register battery replacement	

2) You can review the history of battery replacement if you wanted.

replacement history
Currently registered battery capacity in DME/DDE
(Ah):90
last replacement(km):41120
second last replacement(km):91120
third last replacement(km):141120
F2 ▪ [OK]

3) And then you operate the register the battery after you replace the new battery into the old one. Make sure the following condition is already and press OK to continue.

4) Press OK to exit

replacement history
The battery replacement was registered successfully in the DME/DDE. The following is now entered in the DME/DDE.
last replacement(km): 0
second last replacement(km):91120
third last replacement(km):141120
F2 ▪ [OK]

6.2.4 DPF

Diesel Particulate Filter (DPF) regeneration control system, requests the DPF regeneration process while DPF blockage and turn off the DPF indicator (Take BMW as a sample).

1) Select the DPF option from Service function icon, and select right options for vehicle step by step according to each screen that appears until the vehicle information is identified.
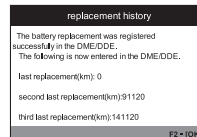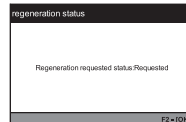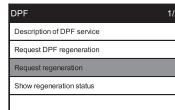
DPF	1/2
Description of DPF service	
Request DPF regeneration	
Request regeneration	
Show regeneration status	

regeneration status
Regeneration requested status:Requested
F2 ▪ [OK]

2) After review the description of DPF service. Select the Request regeneration to continue.
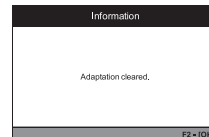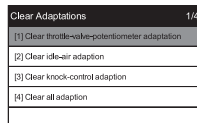
3) If operation is successful, it appears regeneration status when you click the status item, Press OK to exit

regeneration status	1/3
since the last regeneration took place	
Distance(km)	51
Time(days:hh:mm:ss)	0,1:11:20
	F2 ▪ [OK]
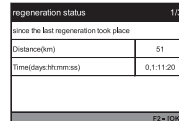
6.2.5 ETC

Electronic Throttle Control system(ETC), relearns the throttle valve control value while clear or replace the throttle valve(Take BMW as a sample).

1) Select the ETC option from Service function icon, and select right options for your vehicle step by step according to each screen that appears until the vehicle information is identified.

Clear Adaptations	1/4
[1] Clear throttle-valve-potentiometer adaptation	
[2] Clear idle-air adaption	
[3] Clear knock-control adaption	
[4] Clear all adaption	

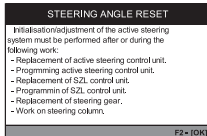| Information |
|---|
| Adaptation cleared. |
| F2 ▪ [OK] |

2) If operation is successful, it appears information on the screen, Press OK to exit.

6.2.6 SAS

SAS: Steering Angle Sensor (SAS) calibration, calibrates the steering wheel to straight ahead, or recalibrates SAS while steering part replacement(Take BMW as a sample).

1) Select the SAS option from Service function icon, and select right options for your vehicle step by step according to each screen that appears until the vehicle information is identified.
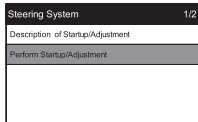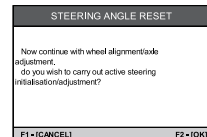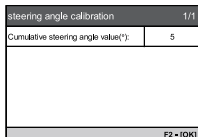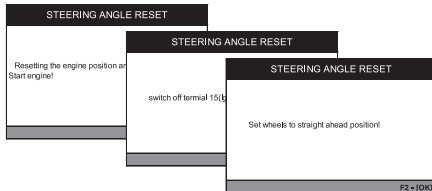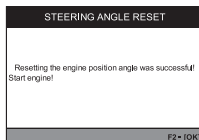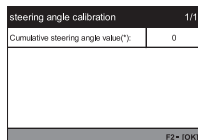
Steering System	1/2
Description of Startup/Adjustment	
Perform Startup/Adjustment	

STEERING ANGLE RESET
Initialisation/adjustment of the active steering system must be performed during the following work: - Replacement of active steering control unit. - Progrmming active steering control unit. - Replacement of SZL control unit. - Programmin of SZL control unit. - Replacement of steering gear. - Work on steering column.
F2 = [OK]

2) Then the screen will appear error value just like 5 or others, press F2 button to continue, the screen make sure the following condition is already and press OK to continue.

steering angle calibration	1/1
Cumulative steering angle value(*):	5
F2 = [OK]	

STEERING ANGLE RESET
Now continue with wheel alignment/axle adjustment, do you wish to carry out active steering initialisation/adjustment?
F1 = [CANCEL]   F2 = [OK]

3) And select right options for your vehicle step by step according to each screen.

STEERING ANGLE RESET
Resetting the engine position an Start engine!

STEERING ANGLE RESET
switch off termial 15(b

STEERING ANGLE RESET
Set wheels to straight ahead position!
F2 = [OK]

4) If operation is successful, it appears the right steering angle value as below, Press OK to exit.

steering angle calibration	1/1
Cumulative steering angle value(*):	0
F2 = [OK]	

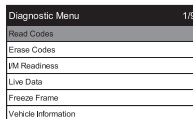| STEERING ANGLE RESET |
|---|
| Resetting the engine position angle was successful!
Start engine! |
| F2 = [OK] |

6.3 Battery Voltage Test

On battery voltage page, it shows the voltage of Data Link Connector (DLC), which is approximately the vehicle battery's status. Especially, it can observe the voltage while engine start.

| Wave	12.58V
Max:12.66V	
Min:8.61V	
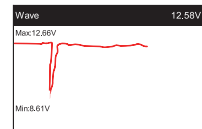
6.4 OBDII/ EOBD

Use cursor button to select the OBDII/EOBD icon from the main screen, press ENTER. On Monitor Overview, press ENTER to the Diagnostic Menu. It supports all 10 modes of OBDII/EOBD, such as read current fault code, read pending fault code, read permanent fault code, erase fault code, read live data, read freeze frame, read vehicle information, read IM readiness, read oxygen sensor data, read on-board monitor data and trigger evaporation system leakage test.

Diagnostics	Service	Voltage
OBDII/EOBD	DTC Lookup	Review
Setup	Help	About

Diagnostic Menu	1/9
Read Codes	
Erase Codes	
IM Readiness	
Live Data	
Freeze Frame	
Vehicle Information	

Monitor Overview	
MIL Status	OFF
Codes Found	0
Monitor Completed	5
Monitor Not Completed	2
Monitor Not Supported	0
Ignition Type	Spark
Protocol Type	CAN

6.5 DTC Lookup

Use cursor button to select the DTC Lookup icon from the main screen, press ENTER. Press LEFT/RIGHT button to move the highlight bar to different position. Press UP/DOWN button to alter the value, and press ENTER button, the screen will display definition of the DTC.

| Code Lookup	
P 0 0 0 0	
▲	Left
▼	Right
▲▼	Change Digit
⏎	Confirm
⏎	Exit
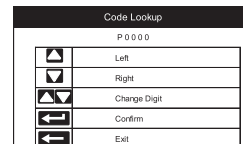
6.6 Review and Report

Use the cursor button to select the Review icon from the main screen, press ENTER to review data. The saved data also can be uploaded to PC by data cable and create report document on PC.

Review	1/8
CAS [Car Access System]	
DME-DDE[Digital Motor-Diesel Electronics]	
EKPS [Fuel Pump Control]	
VTG [Transfer Case]	
DSC [Dynamic Stability Control]	

6.7 Setup
6.7.1 Language

Use cursor button to select Setup icon on the main screen, press ENTER. Select Language and press ENTER to set the language.

Tool Setup	1/6
Language	
Unit of Measure	
Buzzer	
LOG	
Clear Data	
Factory Data Reset	
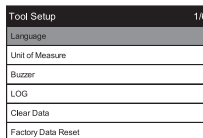
| Language	1/5
English	
Français	
Español	
Deutsch	
Nederlands	

6.7.2 Unit of Measure
On Tool Setup, use DOWN button to select Unit of Measure and press ENTER, where you can choose Metric or Imperial.

6.7.3 Buzzer
On Tool Setup, use DOWN button to select Buzzer and press ENTER, where you can turn the buzzer ON or OFF.

6.8 Help
Use cursor button to select Help icon on the main screen, press ENTER.

Help	1/1
OBDII/EOBD	
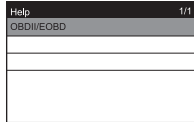
6.9 About
Use cursor button to select About icon on the main screen, press ENTER. On the Tool Information page, there are software version, hardware version and product serial number.

Tool Information	
Software Version:	V1.01
Hardware Version:	V1.00
Serial Number:	
Icarsoft Technology Inc.	
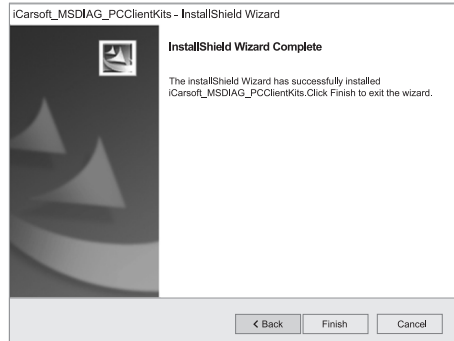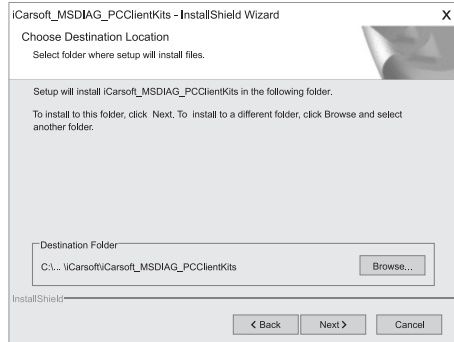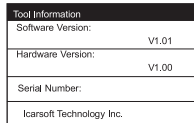
7.Warranty
7.1 Limited One Year Warranty
iCarsoft warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one year from the data of the original purchase, subject to the following terms and conditions:
1) The sole responsibility of iCarsoft under the warranty is limited to either the repair or, at the option of iCarsoft, replacement of the Diagnostic Tool at no charge with Proof of Purchase. The sales receipt may be used for this purpose.
2) 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.
3) iCarsoft shall not be liable for any incidental or consequential damages arising from the use,misuse, or mounting of the Diagnostic Tool. Some states don't allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

7.2 Service Procedures
If you have any questions, please contact your local store, distributor or visit our website www.icarsoftech.de. If it becomes necessary to return the Diagnostic Tool for repair, contact your local distributor for more information.

8. Software Update & Data Print
Software Update allows you to update the scanner's software through a PC/laptop (With Windows Operation System). Pls prepare a computer that can access to the Internet and connect the scanner to the computer via data cable. And then install the iCarsoft MSDIAG_PCCClientKits and run it.
The data print function allows you to print out the DTC data, Module Information, Live Data and VIN recorded by the scanner when connecting the scanner to a PC /laptop with data cable supplied.

NOTE: The Software Update and Data Print functions share with the same application which named iCarsoft MSDIAG_PCCClientKits.

8.1. Update Procedures:
1) Download the iCarsoft_MSDIAG_PCCClientKits.exe package from http://www.icarsoftech.de or from your dealer.
2) Run the installation package, just click [Next] button all the way, and finish the installation.

iCarsoft_MSDIAG_PCClientKits - InstallShield Wizard

Choose Destination Location
Select folder where setup will install files.

Setup will install iCarsoft_MSDIAG_PCClientKits in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder
C:\... \iCarsoft\iCarsoft_MSDIAG_PCClientKits   Browse...

InstallShield
< Back   Next >   Cancel

iCarsoft_MSDIAG_PCClientKits - InstallShield Wizard

InstallShield Wizard Complete

The installShield Wizard has successfully installed iCarsoft_MSDIAG_PCClientKits.Click Finish to exit the wizard.

< Back   Finish   Cancel

3) Connect PC/Laptop
Connect the scanner to PC via data cable (If you have a TF card reader, you can also update via TF card reader), PC will recognize one more removable U-disc.
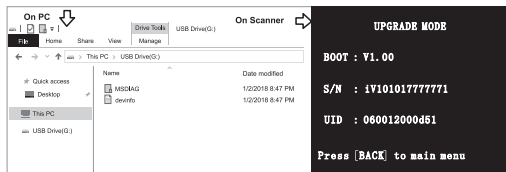
4) Start application Run the application iCarsoft_ MSDIAG_PCClientKits on your PC, the application will recognize the scanner by SN.