

INPA User' s manual

Chapter 1 Product introduction

1. INPA description:

- * Support of all ECU use cases in Engineering, Test, Production and After Sales
- * Specification of ECU's diagnostic data
- * Reading and clearing error memory
- * FLASH data uploading and downloading
- * Reading measurement value
- * Input/output control
- * Calibration of single ECU variables
- * Coding of ECU variables
- * CAN (controller Area Network) bus mode emulation
- * Integrated solutions for on-board/off-board
- * Fast and simple configuration of GUI and communication data instead of programming
- * Customer specific protocols supported
- * Long term application by supporting widespread ASAM standards
- * Language is English and German

2. INPA Hardware and Software Configuration:

No.	Specification	Quantity
1.	Main unit (Include data analyzer)	1
2.	Notebook Power line (110V-240V)	1
3.	20-PIN Connector	1
4.	16-PIN Connector	1
5.	INPA Software (version 5.0)	1

3. INPA Models covered:

- 1 series E87
- 3 series E30 E36 E46 E90

5 series E34 E39 E60 E61
6 series E63 E64
7 series E32 E38 E65 E66
8 series E31 E52
Mini R50 R52 R53
X series E53 E83
Rolls Royce
Z series E85 E52.

4. Notice of using INPA:

- 1) Before using this equipment, keep the battery of notebook fully charged to avoid battery broken. Don't charge the battery while diagnosing. Before charging, discharge the battery. You may knock down the battery and connect the power line during long time diagnosing. To make sure the battery life.
- 2) While testing, to make sure the diagnostic lines well connected.
- 3) Be sure to start diagnosing after all icons on bottom right of screen displayed regularly.
- 4) After finished diagnosing, back the screen to the main interface, then shut down the key and pull out the connector.
- 5) Don't cut the power or connector during test.
- 6) Don't touch the high temperature components in carriage during test.

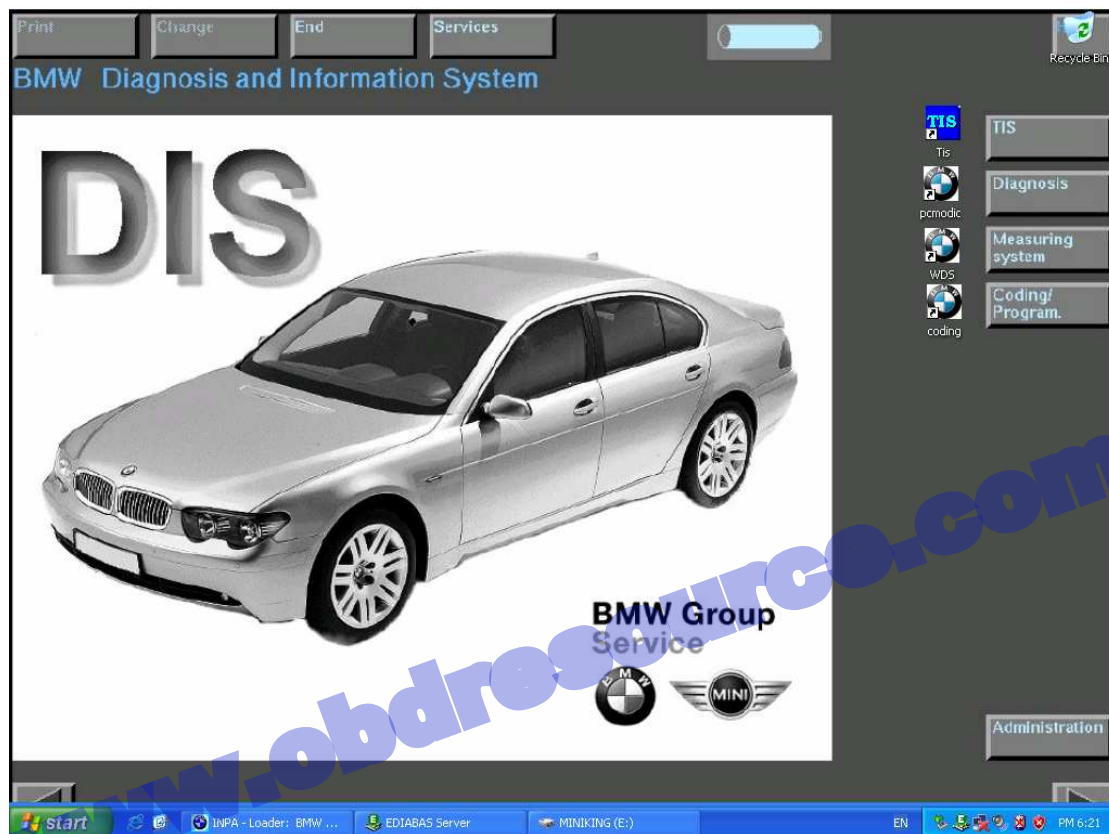
www.obdresource.com

Chapter 2 Operation Instruction

BMW INPA Engineer diagnosing equipment has the powerful function which can do programming and diagnosing of both latest and old BMW serials car, such as E39, E60, E65, and the communication speed much faster than GT-1. It only

needs 6 seconds to scan out all trouble codes of the car which has CANBUS gateway communication, such as E60,E65, and 5 seconds for old car coding, such as E39. Moreover, it can not only test MINI, Rolls Royces car, but also rewrite the data of BMW computer board.

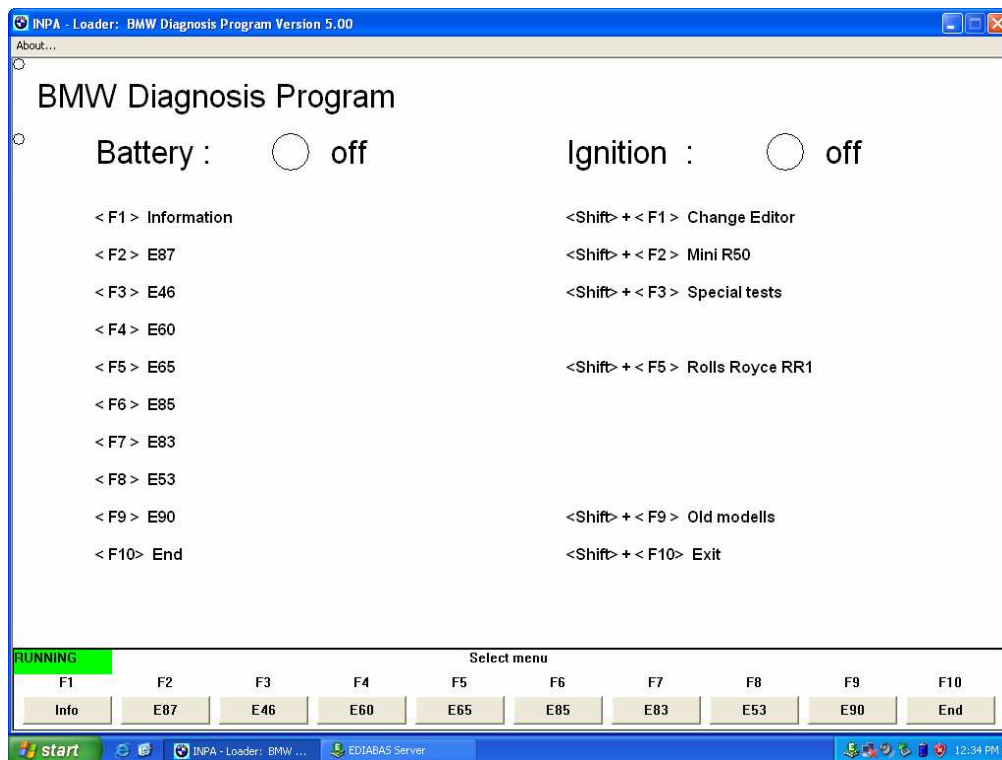
1. The brief of BMW E60 diagnosing screen as following:



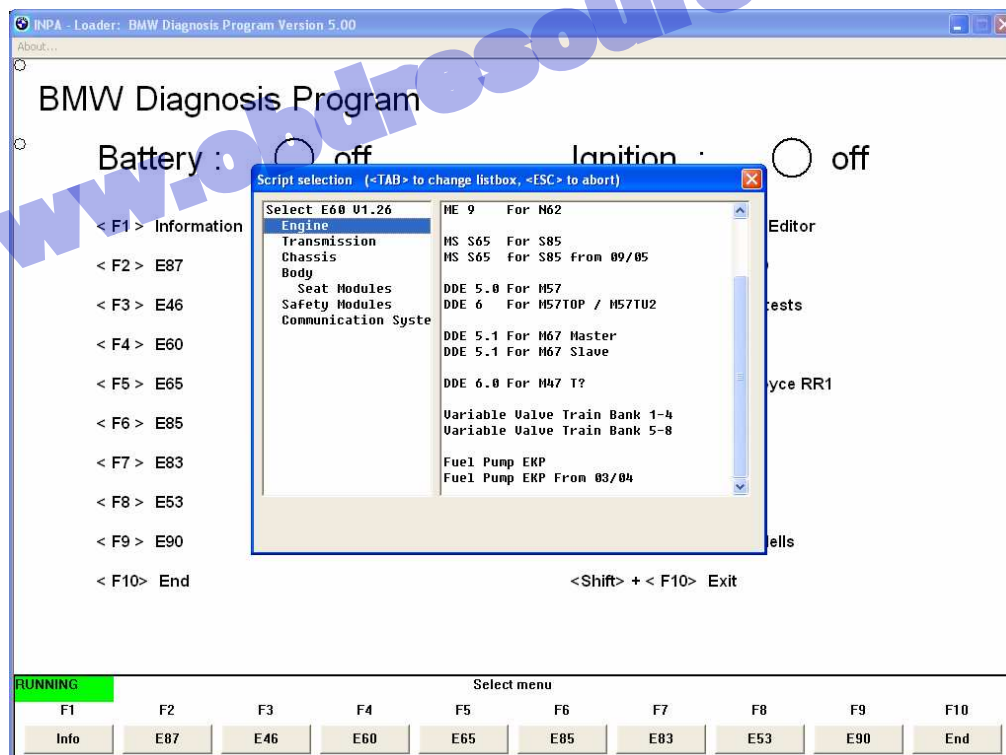
1). Above screen displayed after open the main unit, then, enter the pcmodic start diagnosing.

2). Click F4 when the vehicle models screen shown up, enter E60.

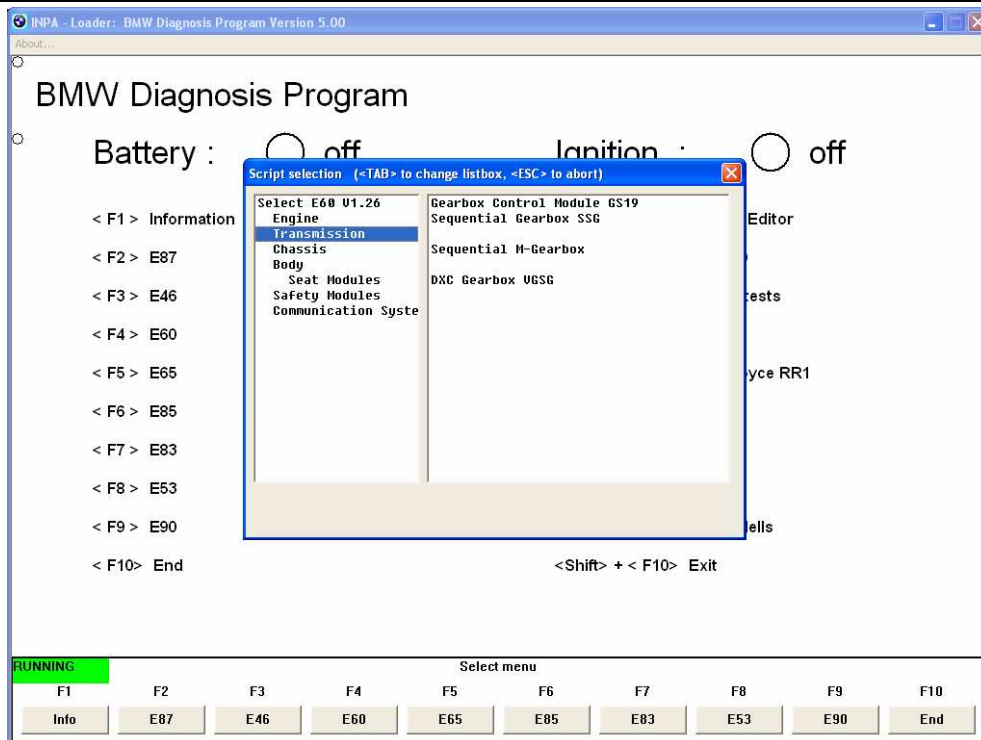
Note: Latest BMW models, such as E60、E65、E90、E87, etc, each can be entered by click. For the old car, such as E38、E39、E53,etc, long press SHIF and F9 to select the vehicle models for diagnosing.



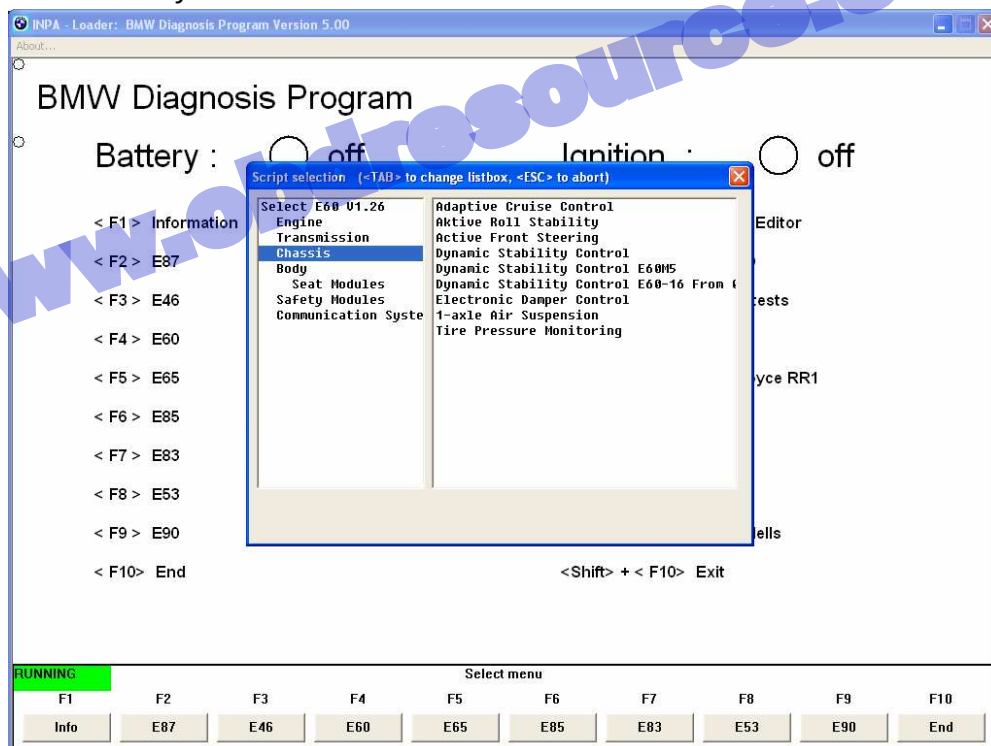
3). Select “Engine”, all engine models shown up, then, select the one which you need to test. If not available, it might be selected engine not matched with the tested car.



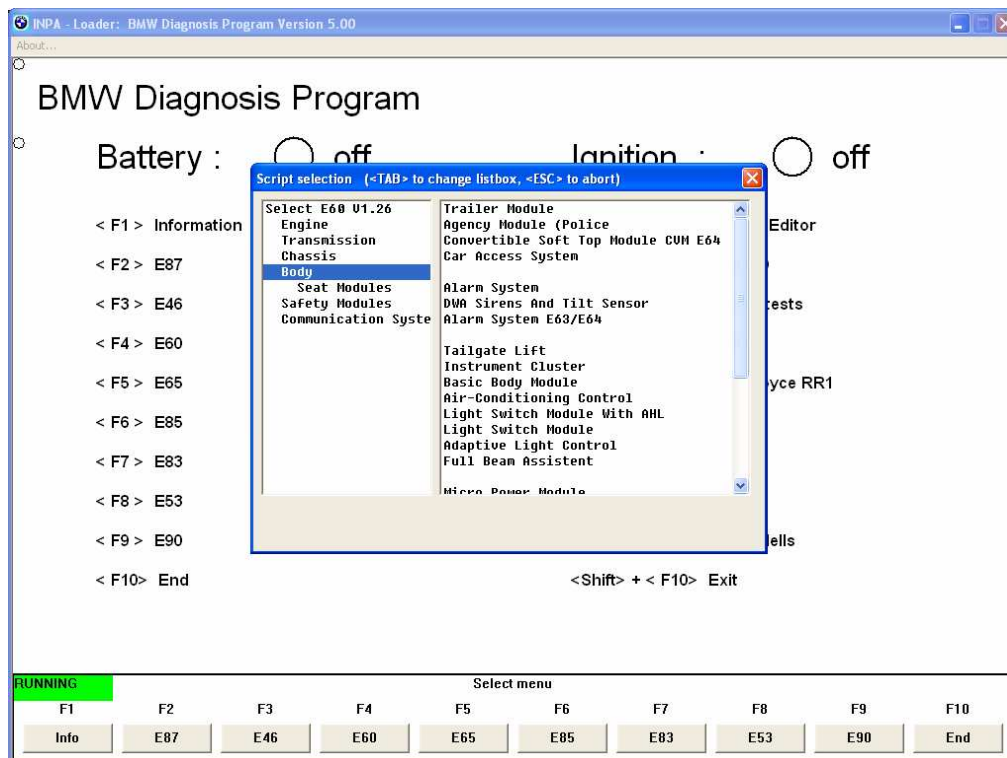
4). Select “Transmission” to enter the selection interface, then click the matched transmission model.



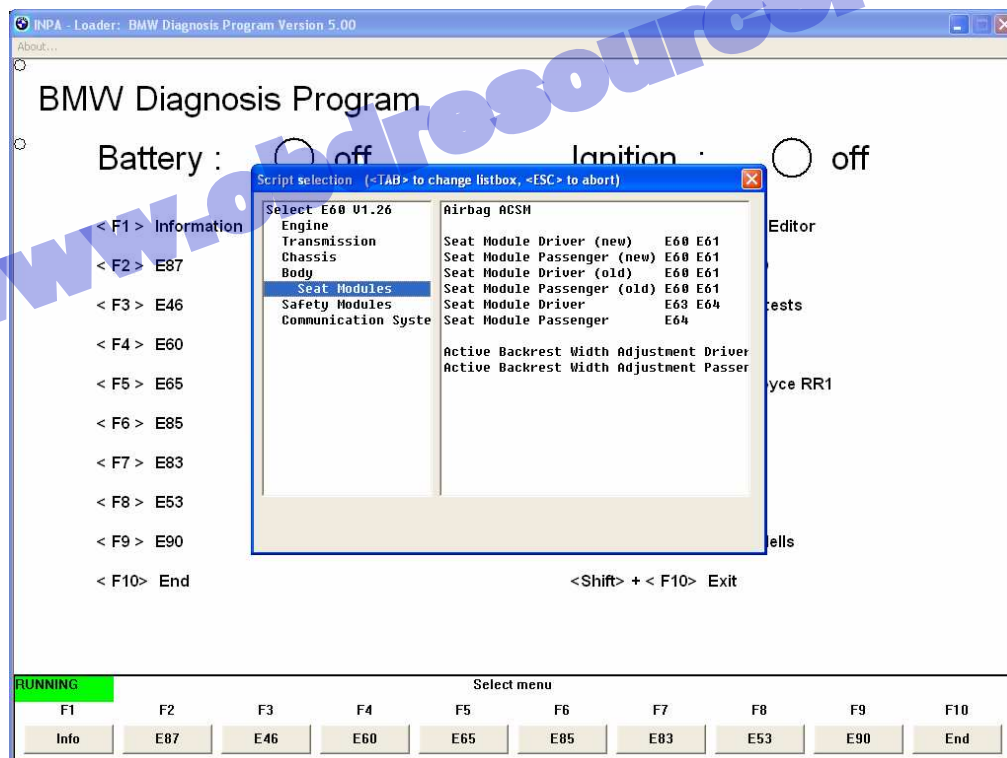
5). Select “Chassis” to enter chassis selection interface, then click the relative control system.



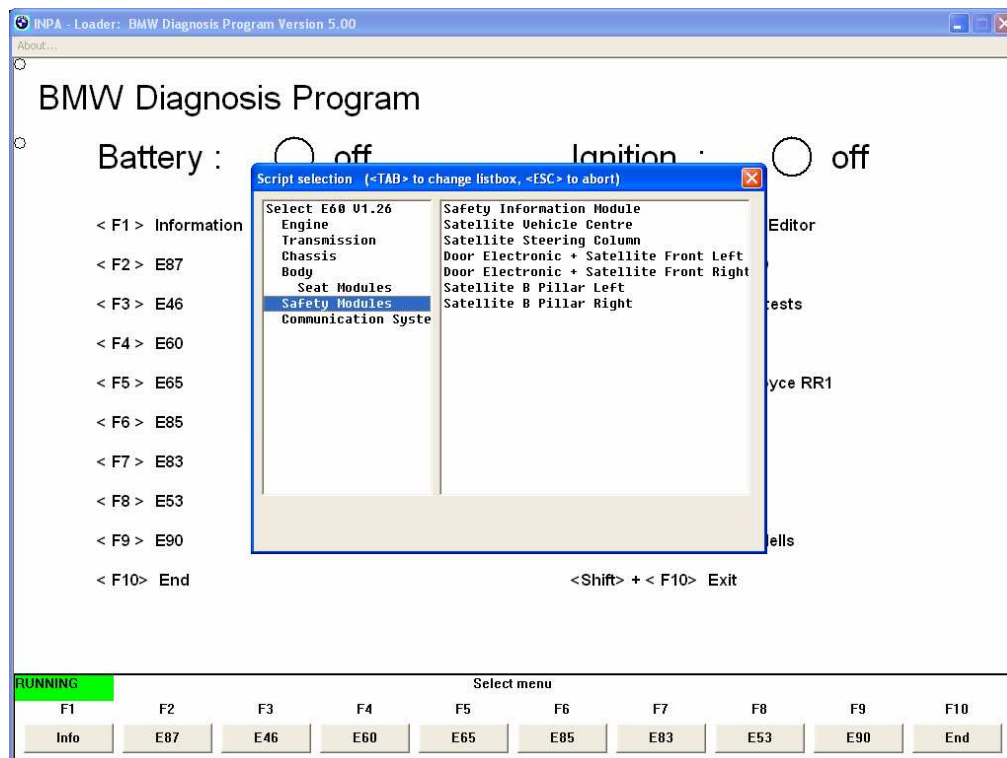
6). Select “Body” to enter body selection interface, then, click the relative body control system.



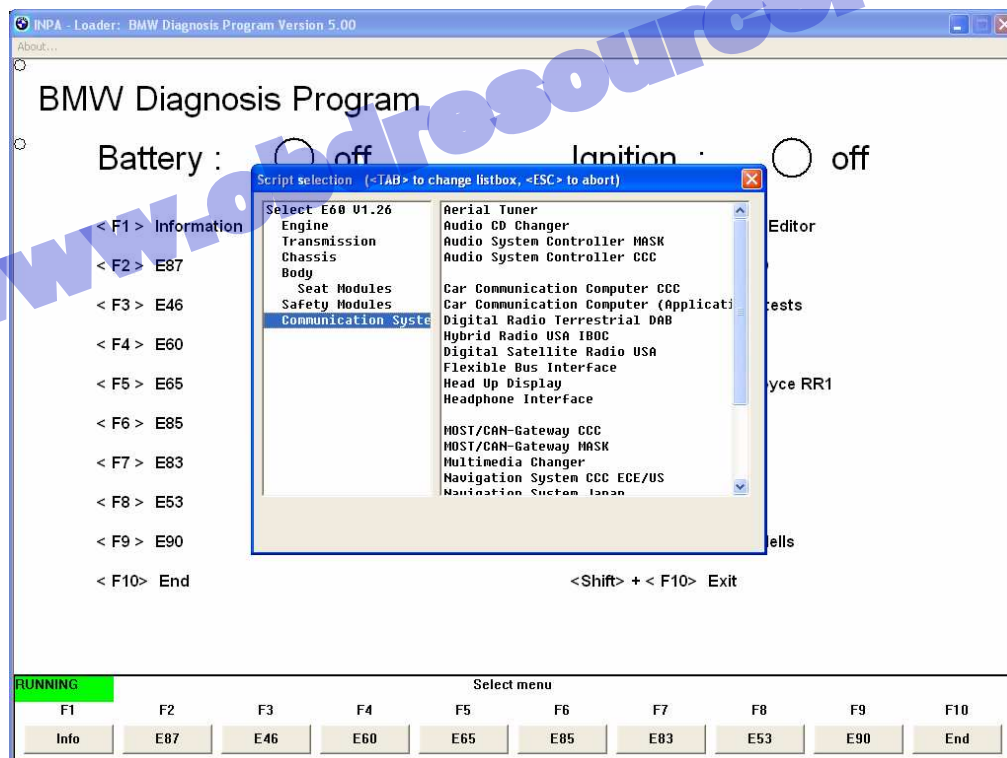
7). Select "Seat Modules":



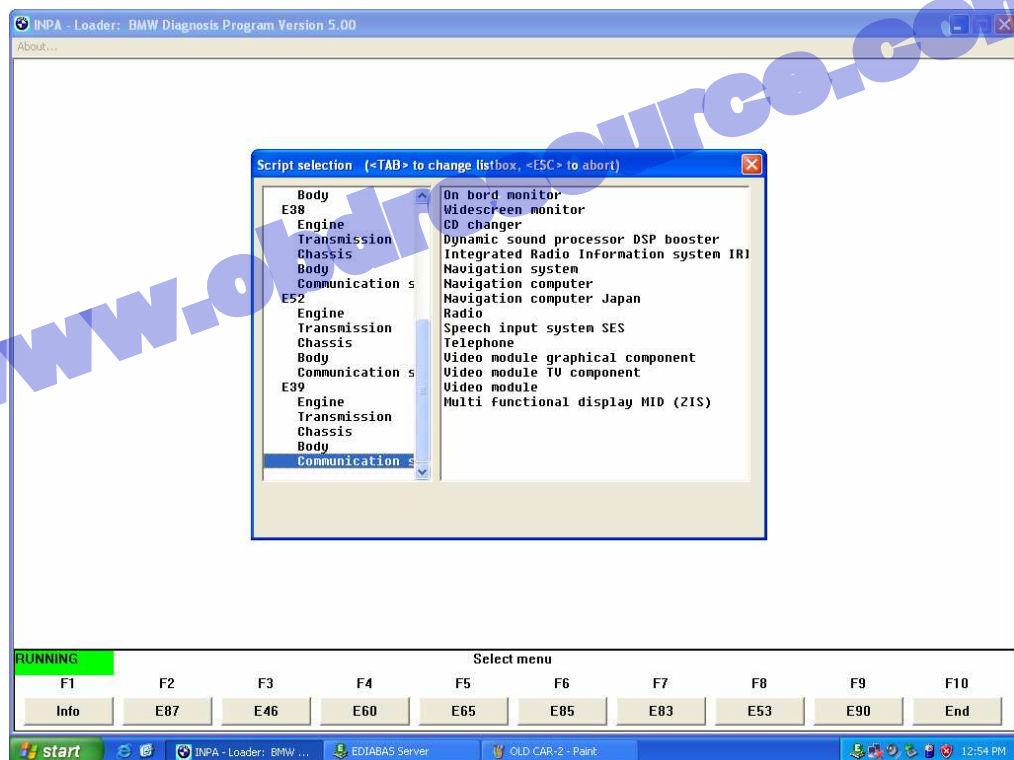
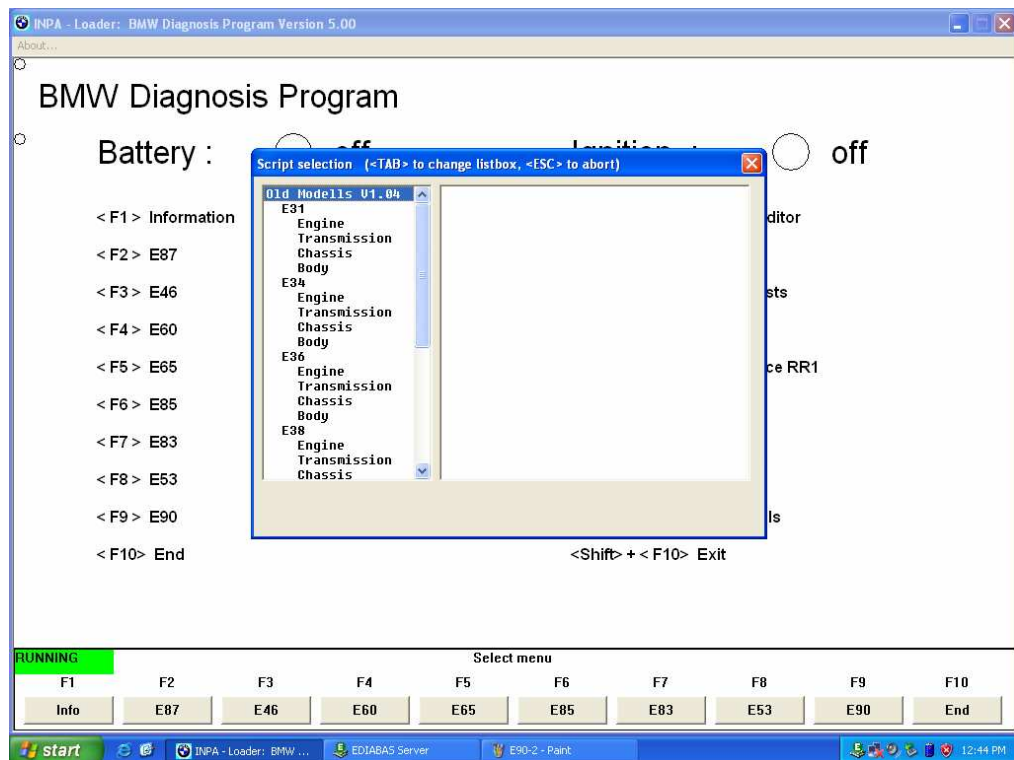
8). Select "Safety modules" to enter it:

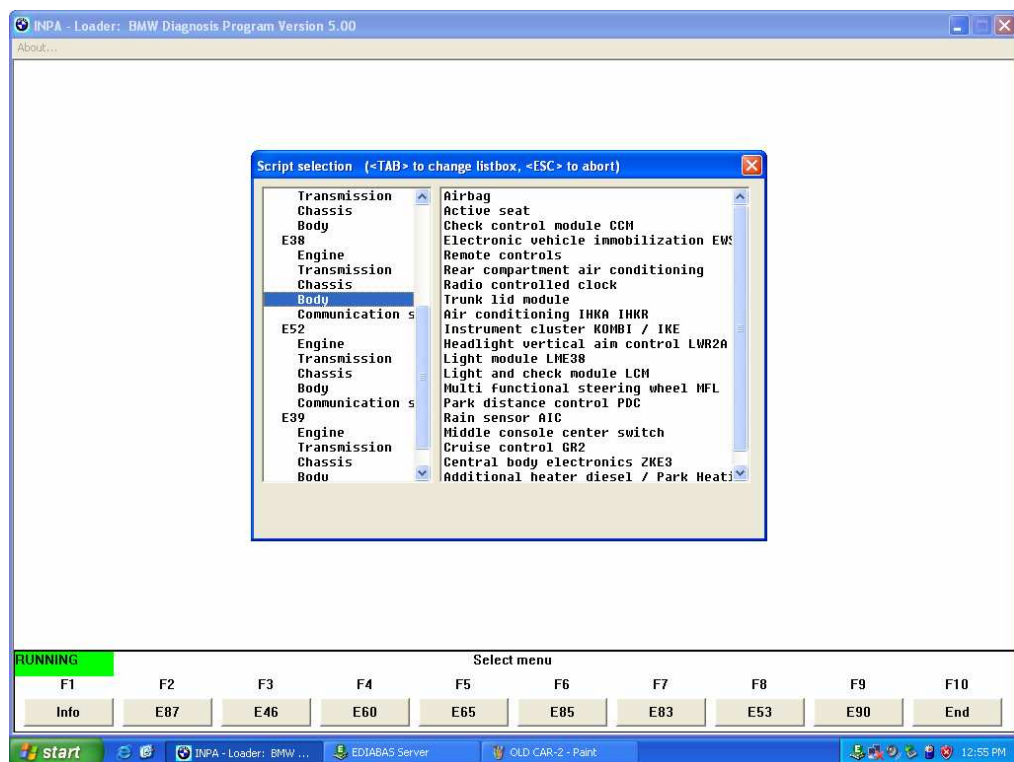


9). Select "Communication System":



2. Screen shots of Old model cars.



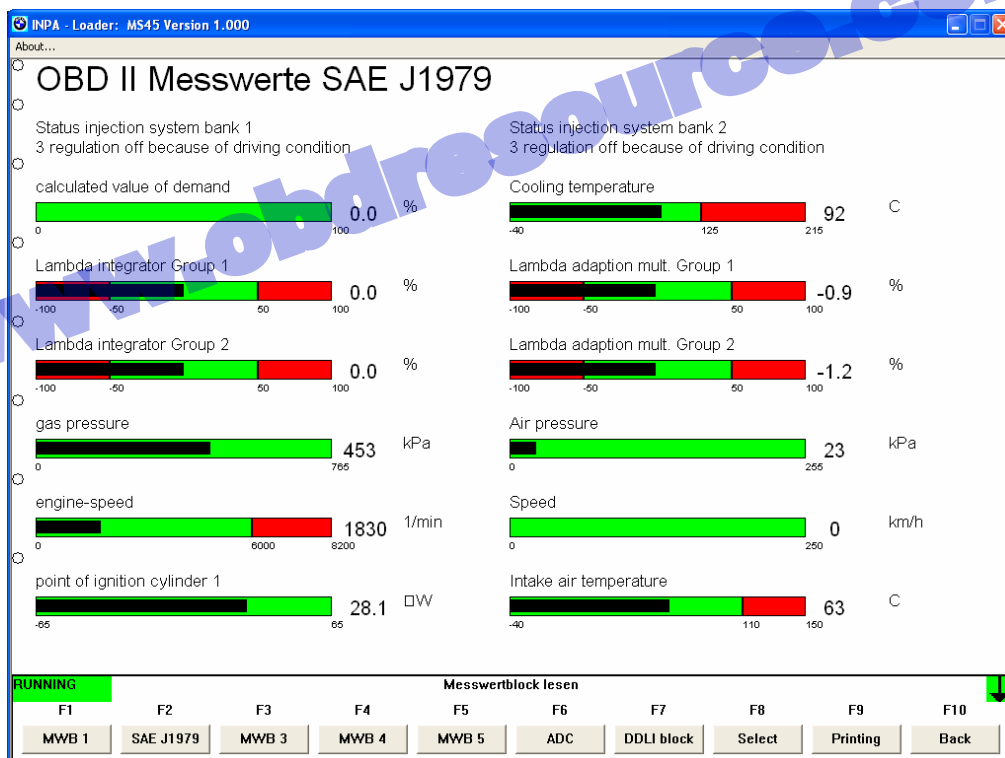
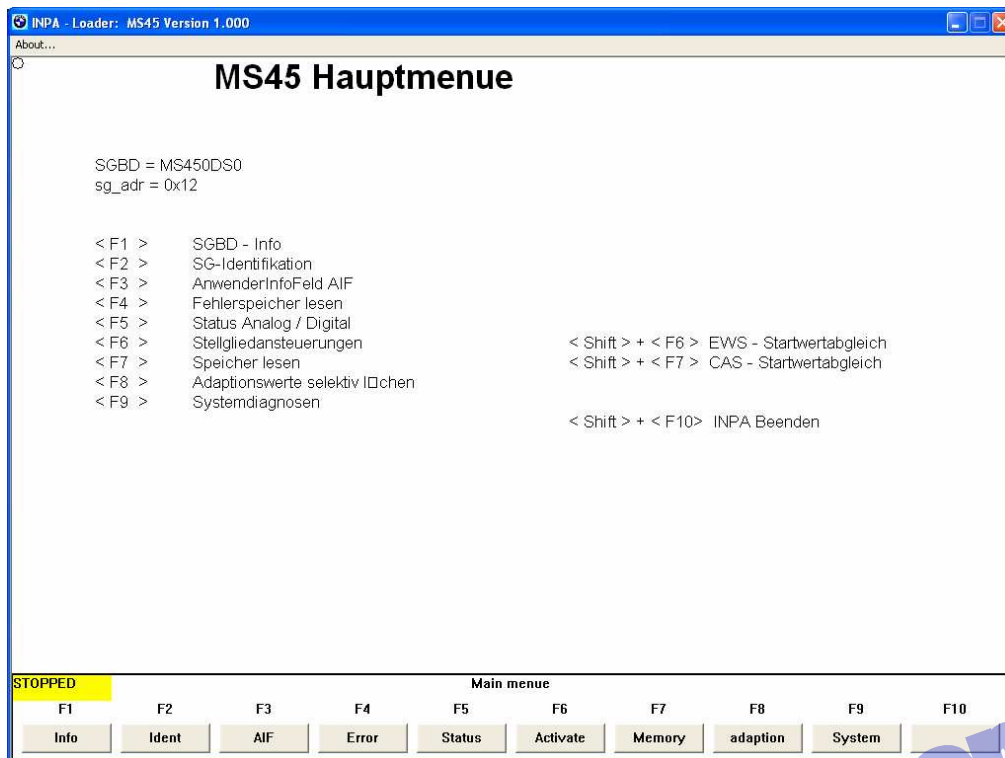


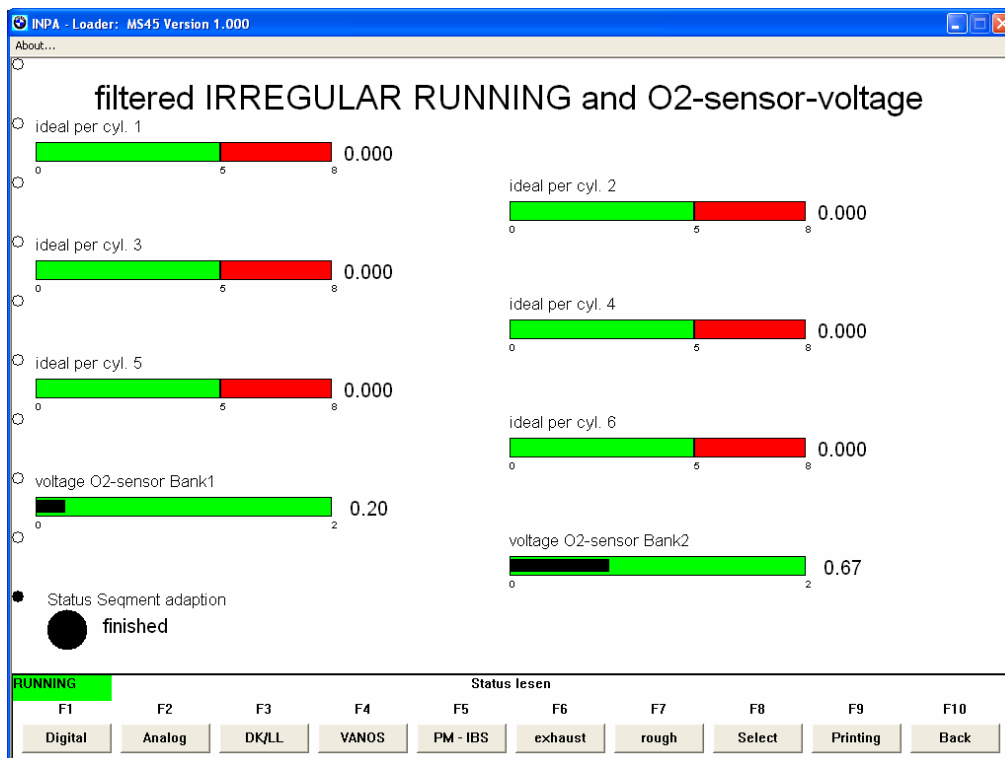
Electromechanical Parking Brake

3. Take M54 engine of Serial E60 as sample to introduce it.

Notice: After selected E60, click the engine, there must be lots of engine

system, the old 530 must be M54 engine, the latest 530 must be N52 engine.





INPA - Loader: MS45 Version 1.000

About...

Stellgliedansteuerung

< F1 > Einspritzventile
 < F2 > E-LÖter
 < F3 > Sekundärluftsystem Pumpe/Ventil
 < F4 > VANOS Einlass / Auslass
 < F5 > TankEntlÖtungsVentil TEV
 < F6 > KennfeldKÖlung KFK
 < F7 > ElektrischeKraftstoffpumpe EKP
 < F8 > Lambdasondenheizungen
 < F9 > Gesteuerte LuftFÖrderung GLF
 < F10 > Zurück

< Shift > + < F1 > Startrelais
 < Shift > + < F2 > Klima-KÖmpressorRELais KOREL
 < Shift > + < F3 > E-Box LÖter
 < Shift > + < F4 > AbGasKlappe AGK
 < Shift > + < F5 > DMTL Pumpe/Ventil/Heizung
 < Shift > + < F6 > variable Sauganlage VIMDISA
 < Shift > + < F7 > LeerLauf Steller
 < Shift > + < F8 > MIL
 < Shift > + < F9 > FGR Lampe
 < Shift > + < F10 > INPA beenden

STOPPED

Stellgliedansteuerungen

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
EV	E-LÖter	SLS	VANOS	TEV	KFK	EKP	Lambda	GLF	Back

INPA - Loader: MS45 Version 1.000

About...

Fehlerspeicher Detail als HEX-Dump

=====

☐ Fehler 1 (4) **2742 mis-fire cylinder 1**
Fehler_Daten: 57 04 27 42 82 04 03 01
 01 0F 09 E3 09 23 AA 67
 00 00 00 00 00 00 00 00
 00 00

☐ Fehler 2 (4) **2743 mis-fire cylinder 5**
Fehler_Daten: 57 04 27 43 82 04 03 05
 01 0F 09 E3 09 23 AA 67
 00 00 00 00 00 00 00 00
 00 00

☐ Fehler 3 (4) **274E mis-fire on several cylinders**
Fehler_Daten: 57 04 27 4E 02 04 03 00
 01 0E 09 E3 5D 2F 89 00
 00 00 00 00 00 00 00 00
 00 00

☐ Fehler 4 (4) **2745 mis-fire cylinder 6**
Fehler_Daten: 57 04 27 45 A2 14 03 06
 0E 28 0A 0A 0B 22 8E 67
 0A 0A 0A 65 94 4C 0A 0F
 06 1A

☐ EndOfList

RUNNING MS45 output error memory

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
shortly	Detail	Freeze Frame	Hex-Dump	Clear	to memory ->	Comment	needle printer	Printing	Back

INPA - Loader: MS45 Version 1.000

About...

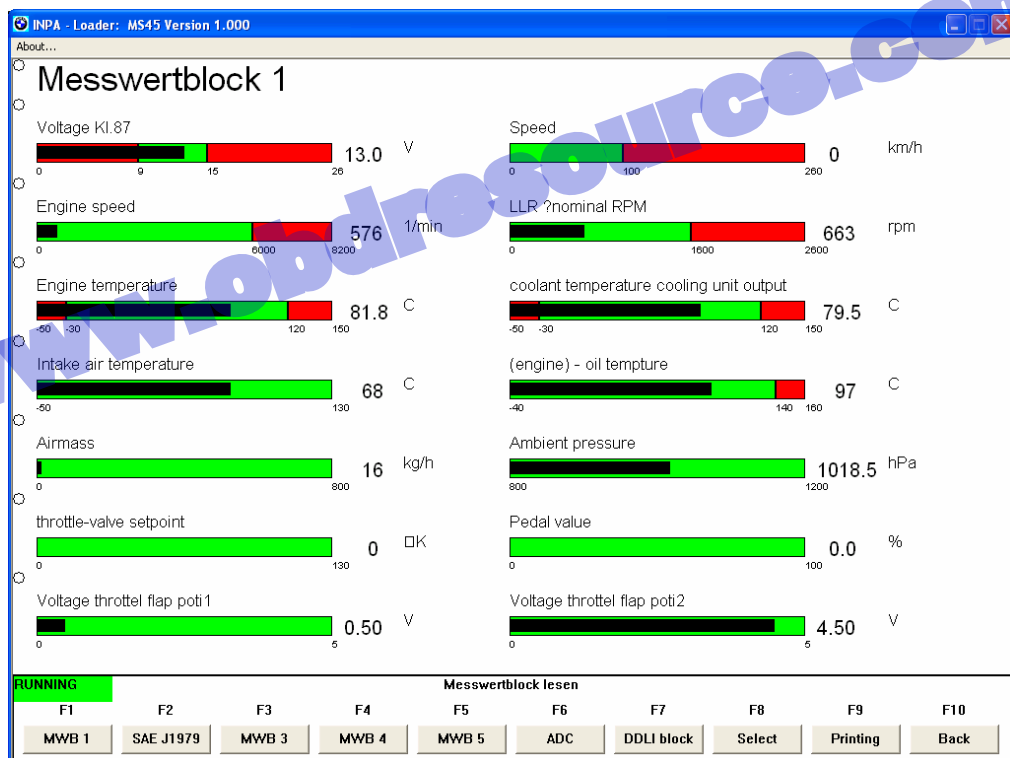
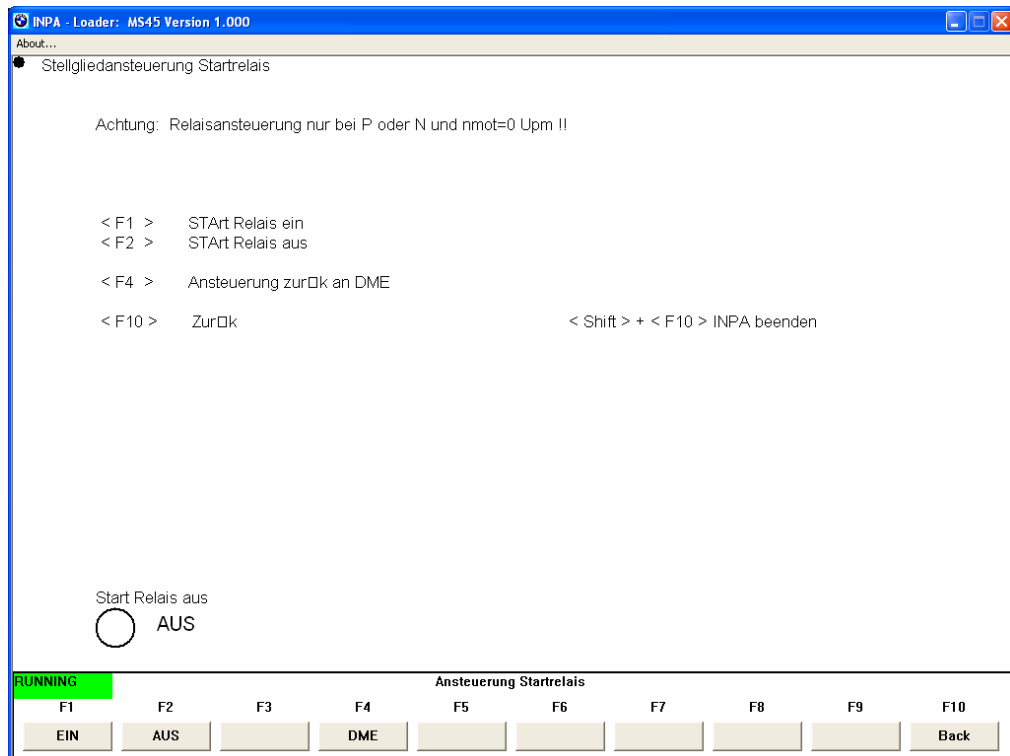
MS45 Ansteuern Einspritzventil

< F1 > Einspritzventil Zylinder 1 < Shift > + < F1 > Drehzahl 300 1/min
 < F2 > Einspritzventil Zylinder 2 < Shift > + < F2 > Drehzahl 600 1/min
 < F3 > Einspritzventil Zylinder 3 < Shift > + < F3 > Drehzahl 2400 1/min
 < F4 > Einspritzventil Zylinder 4 < Shift > + < F4 > Drehzahl 6000 1/min
 < F5 > Einspritzventil Zylinder 5 < Shift > + < F5 > Einschaltdauer 0,5 ms
 < F6 > Einspritzventil Zylinder 6 < Shift > + < F6 > Einschaltdauer 1 ms
 < F8 > Zurück an DME < Shift > + < F7 > Einschaltdauer 2 ms
 < Shift > + < F8 > Einschaltdauer 4 ms
 < F10 > Zurück

Voreingestellt: Einschaltdauer: 2 ms, Drehzahl: 60 1/min

STOPPED Auswahl Einspritzventil

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
EV1	EV2	EV3	EV4	EV5	EV6		DME		Back



INPA - Loader: MS45 Version 1.000

About...

Monitor function and readiness flag

MONITOR - misfire monitoring - READINESS
☒ Monitor ein ☐ ja

MONITOR - fuel system monitoring - READINESS
☒ Monitor ein ☐ ja

MONITOR - Parts monitoring - READINESS
☒ Monitor ein ☒ nein

=====

MONITOR - Catalyst monitoring - READINESS
☒ Monitor ein ☐ ja

MONITOR - Catalyst Heating - READINESS
☐ Monitor aus ☐ ja

MONITOR - Lambda monitoring - READINESS
☒ Monitor ein ☐ ja

MONITOR - LambdaHeating monitoring - READINESS
☒ Monitor ein ☐ ja

MONITOR - AGR monitoring - READINESS
☐ Monitor aus ☐ ja

MONITOR - secondary air pump monitoring - READINESS
☐ Monitor aus ☐ ja

MONITOR - tank-venting monitoring - READINESS
☐ Monitor aus ☐ ja

MONITOR - Air conditioning monitoring - READINESS
☐ Monitor aus ☐ ja

RUNNING

digital menu

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Switch	FGR	regulation	OBD-status	Varianten			Clear		Back

INPA - Loader: MS45 Version 1.000

About...

filtered IRREGULAR RUNNING and O2-sensor-voltage

ideal per cyl. 1
☐ 0 ☒ 5 ☐ 8 0.000

ideal per cyl. 2
☐ 0 ☒ 5 ☐ 8 0.000

ideal per cyl. 3
☐ 0 ☒ 5 ☐ 8 !11.694

ideal per cyl. 4
☐ 0 ☒ 5 ☐ 8 0.000

ideal per cyl. 5
☐ 0 ☒ 5 ☐ 8 0.000

ideal per cyl. 6
☐ 0 ☒ 5 ☐ 8 0.000

voltage O2-sensor Bank1
☐ 0 ☒ 2 0.02

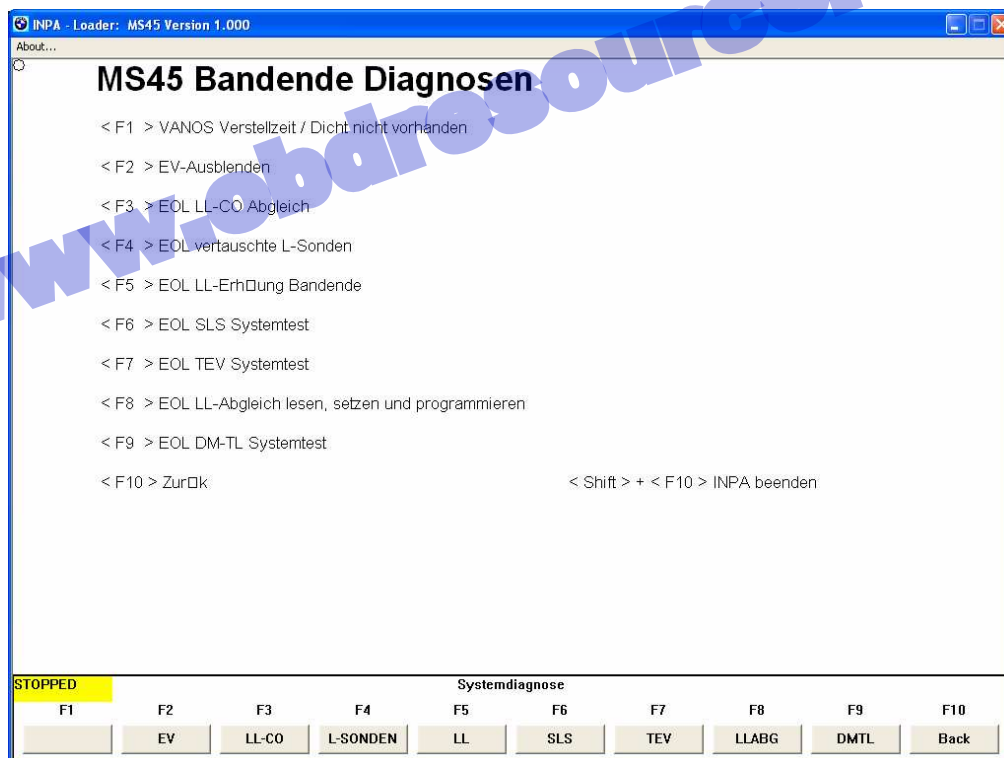
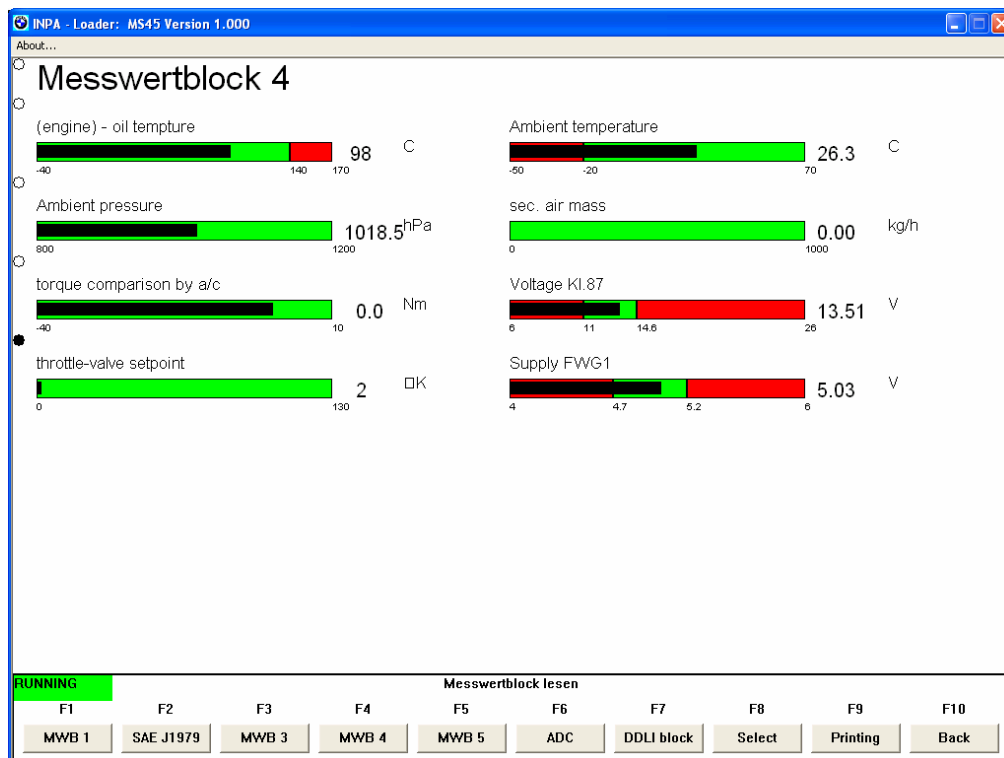
voltage O2-sensor Bank2
☐ 0 ☒ 2 0.06

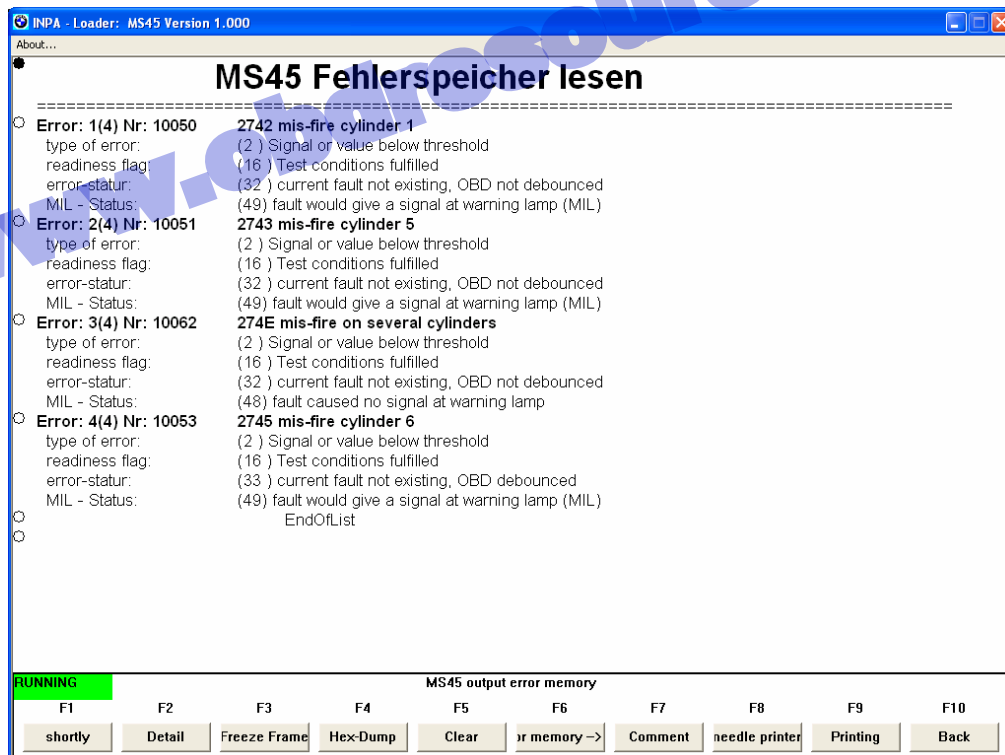
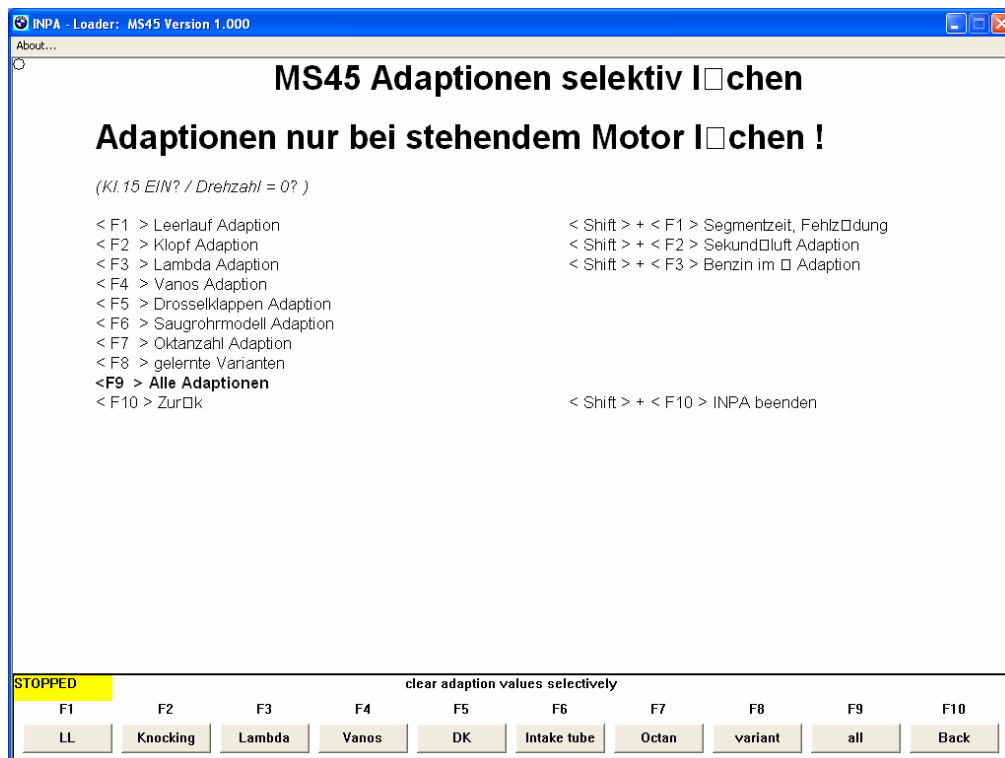
Status Segment adaption
☒ finished

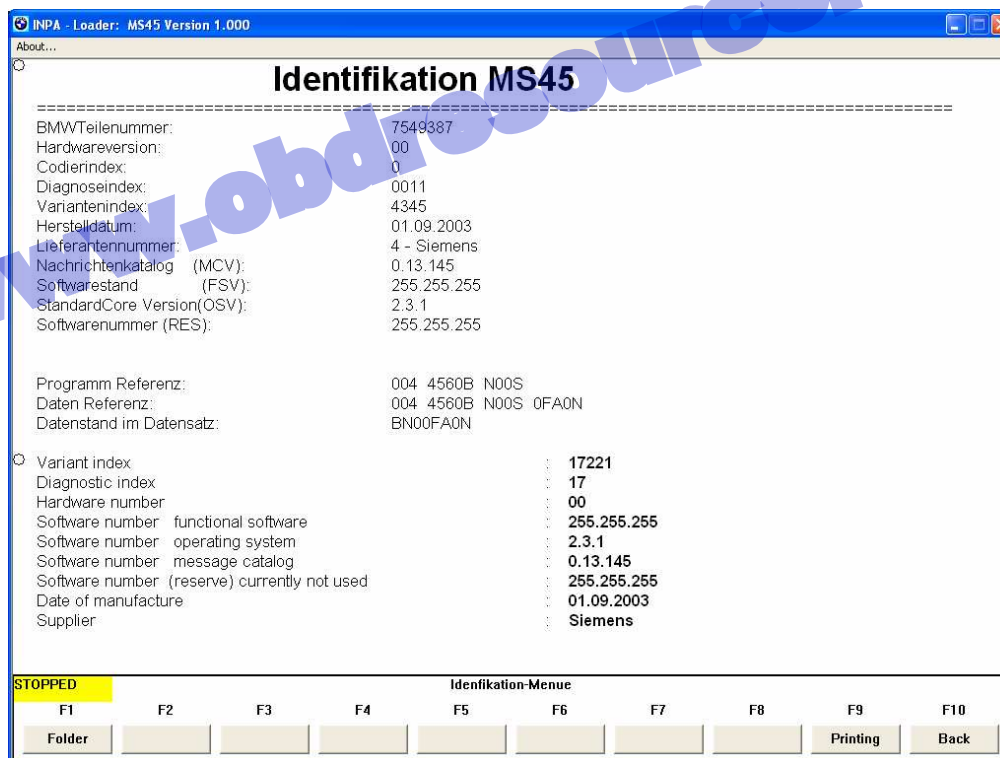
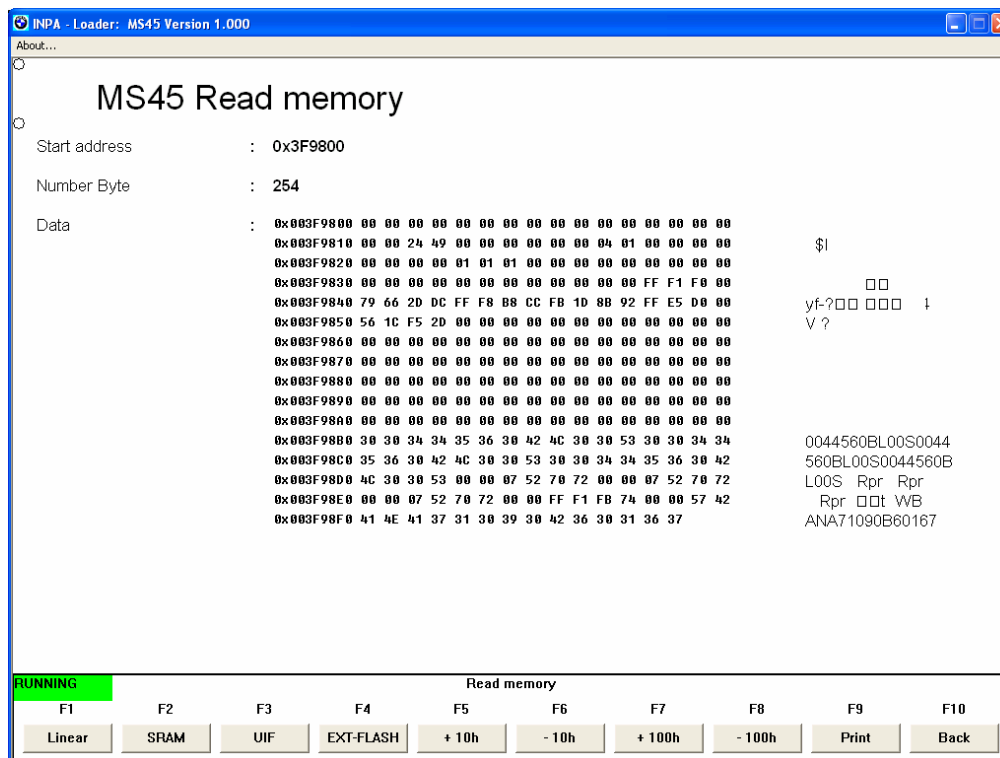
RUNNING

Status lesen

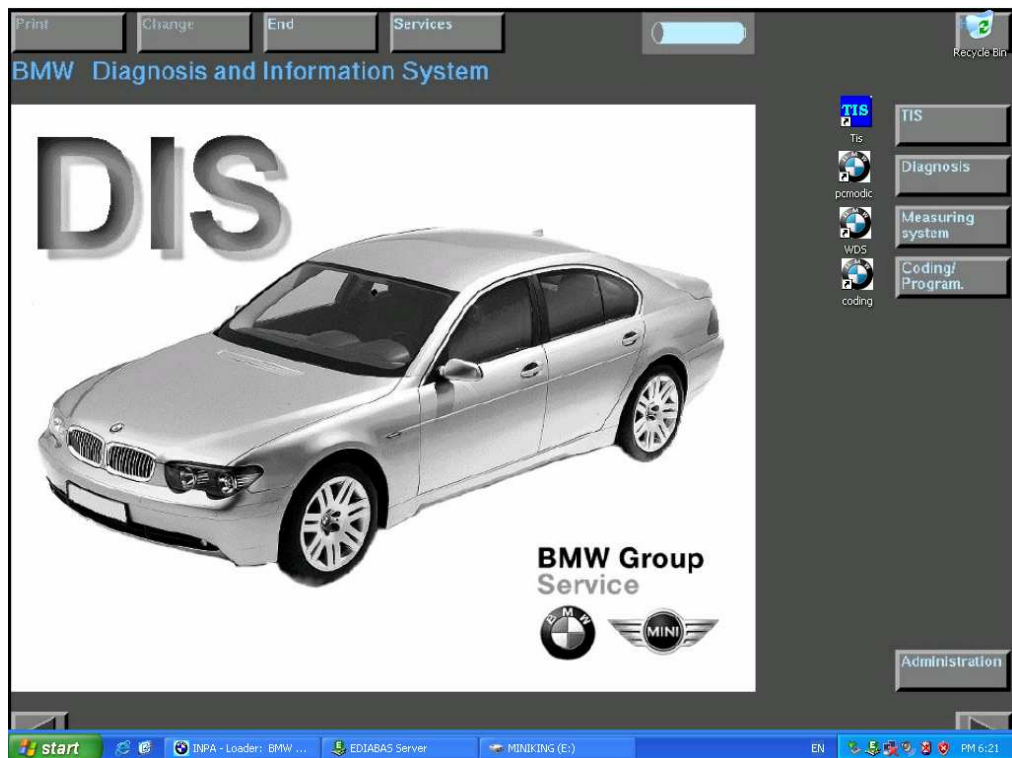
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Digital	Analog	DK/LL	VANOS	PM - IBS	exhaust	rough	Select	Printing	Back





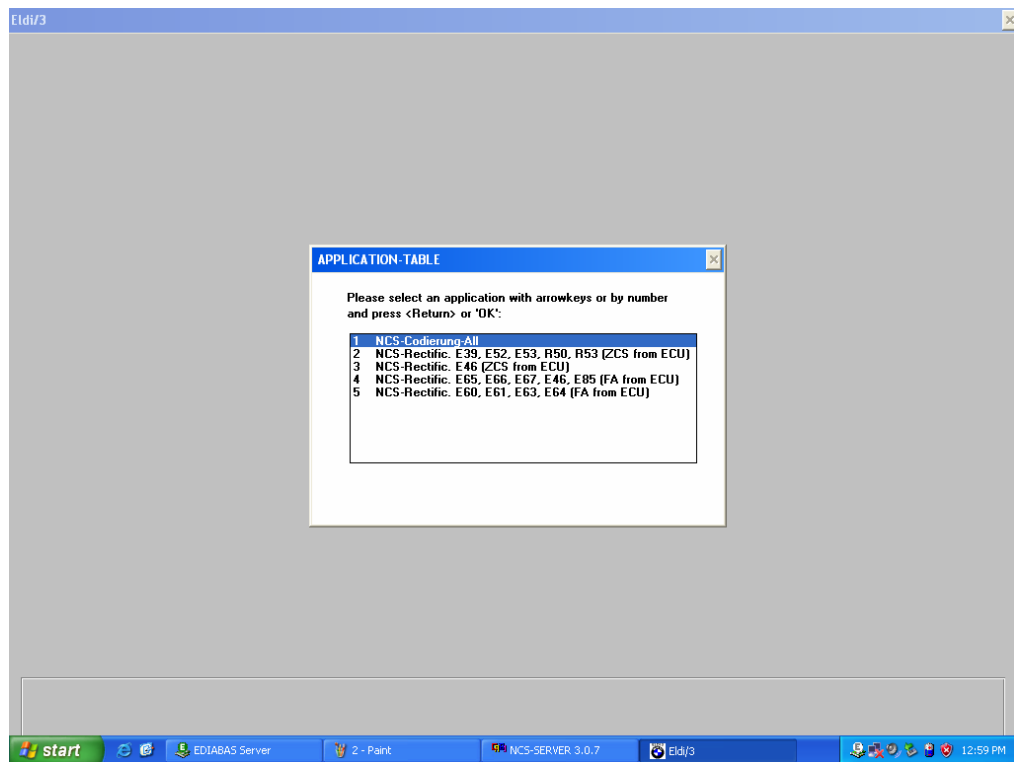


4. Short introduction of coding and programming:



- 1). Click the Coding of the main page to enter the coding and programming interface.





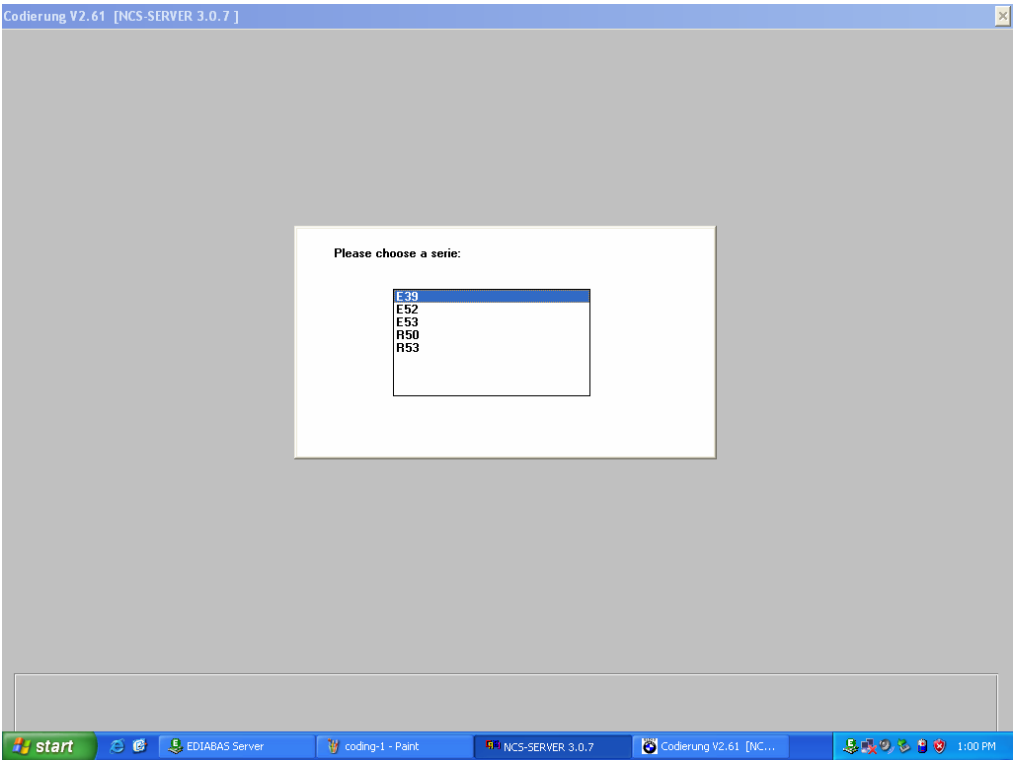
Above is the car model selection interface of the coding and programming car.

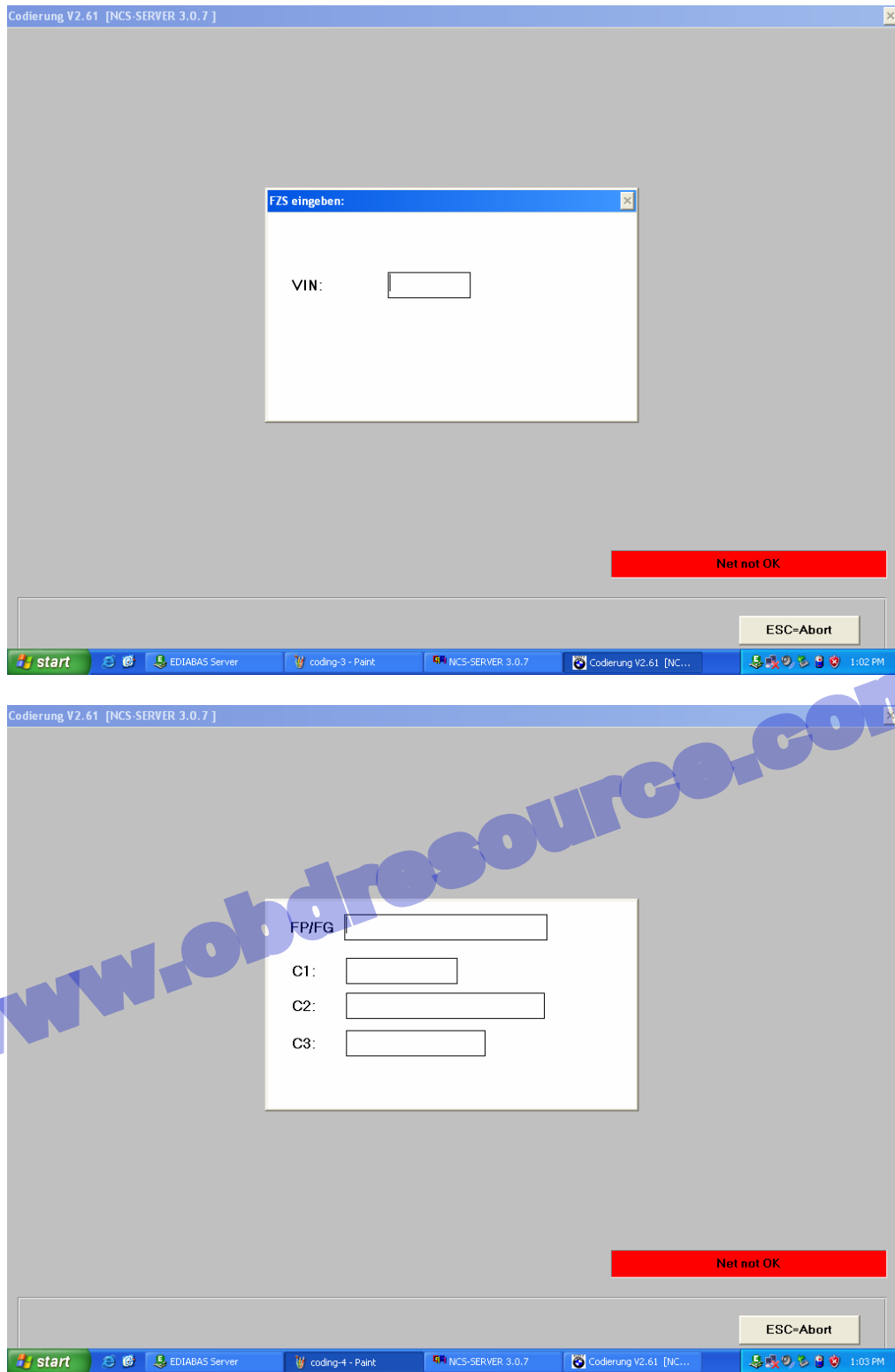
The first item is non-distinguish the car model, it needs to enter the serial numbers of the chassis, engine and transmission, etc.

The second item is the programming of E39, E53 and other old model cars, after selected the car model, then select the module which one need to program, open the key, and press enter.

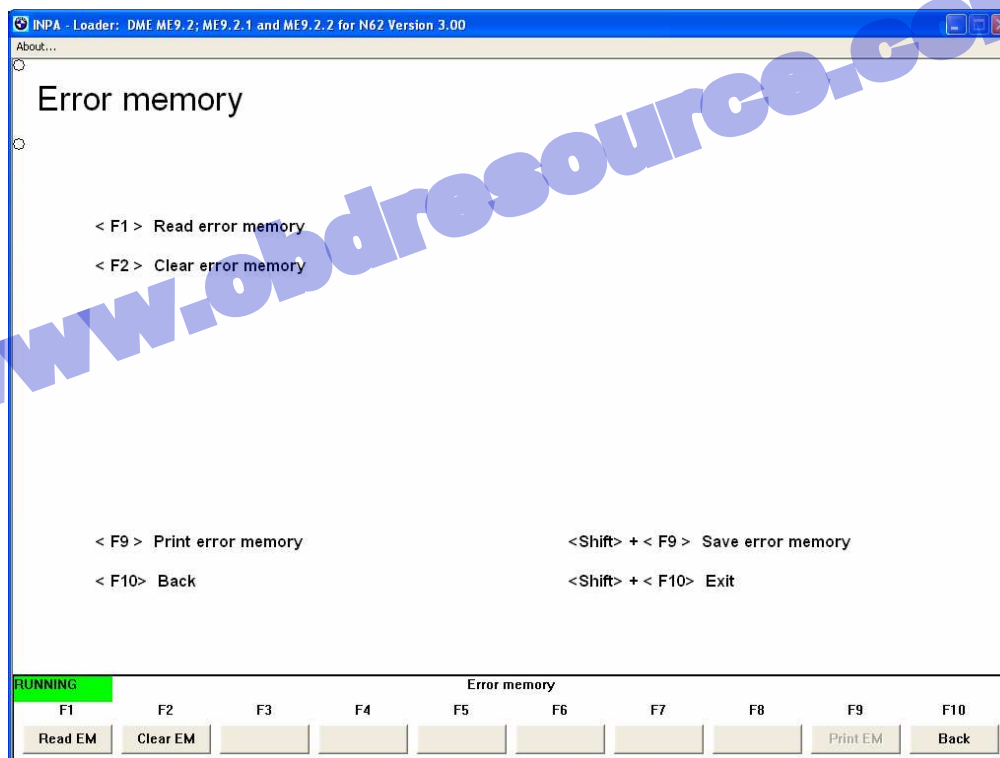
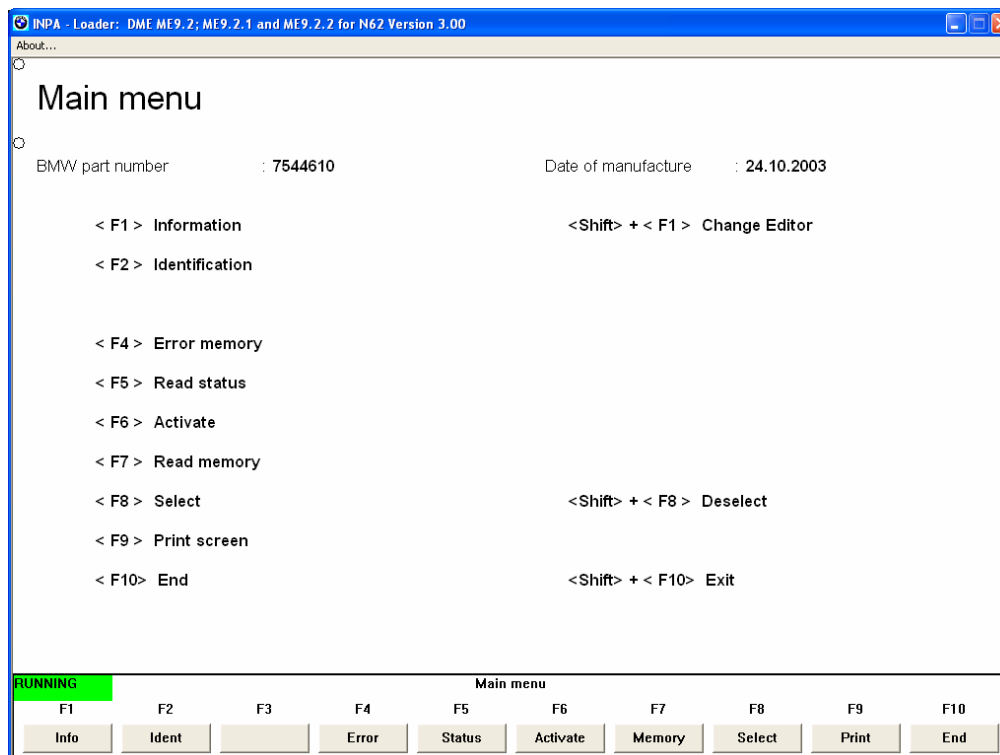
The second and third items can do programming directly.

For the forth and fifth items need to enter the relative serial number. Cars model such as E60, E65.





Chapter 3 Screen shots of E65 Diagnosing



INPA - Loader: DME ME9.2; ME9.2.1 and ME9.2.2 for N62 Version 3.00

About...

digital value 1: status of functions

Status idle speed	Status full load	condition park/neutral	condition EWS OK
☒ ON	☐ OFF	☒ ON	☐ OFF
O2-sensor after catalyst Bank1	O2-sensor after catalyst Bank2	O2-sensor in front of catalyst Bank1	O2-sensor in front of catalyst Bank2
☒ ON	☒ ON	☒ ON	☒ ON
O2-sensors regulation Bank1	O2-sensors regulation Bank2	condition kick-down	tank-venting heavy loaded
☒ ON	☒ ON	☐ OFF	☐ OFF
condition power reduction			
☐ OFF			

RUNNING Read status

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Digital 1	Digital 2	Analog 1	Analog 2	Analog 3	fast	READINESS	Select	Print	back

INPA - Loader: DME ME9.2; ME9.2.1 and ME9.2.2 for N62 Version 3.00

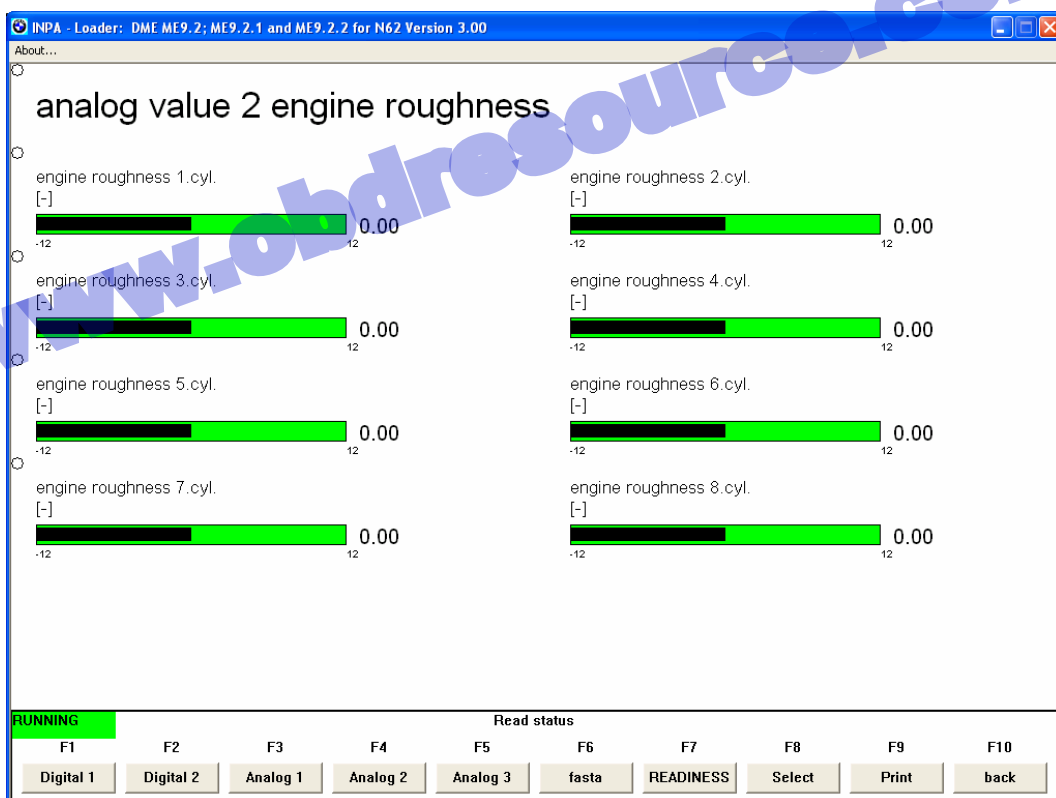
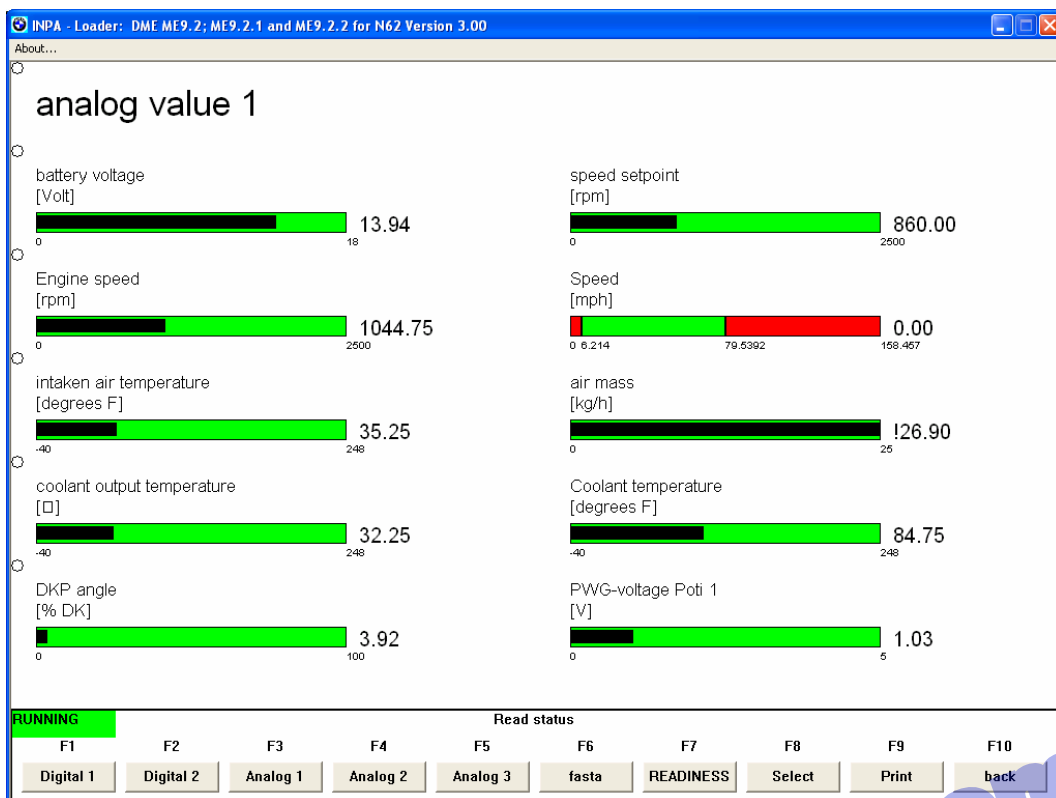
About...

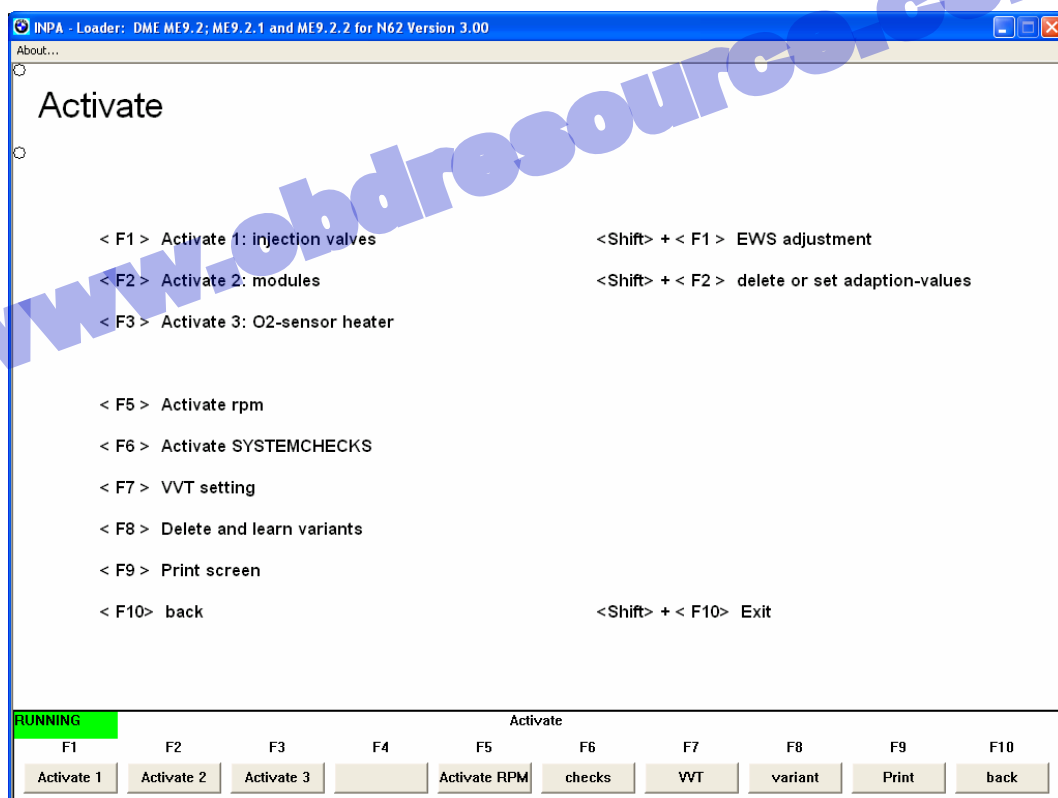
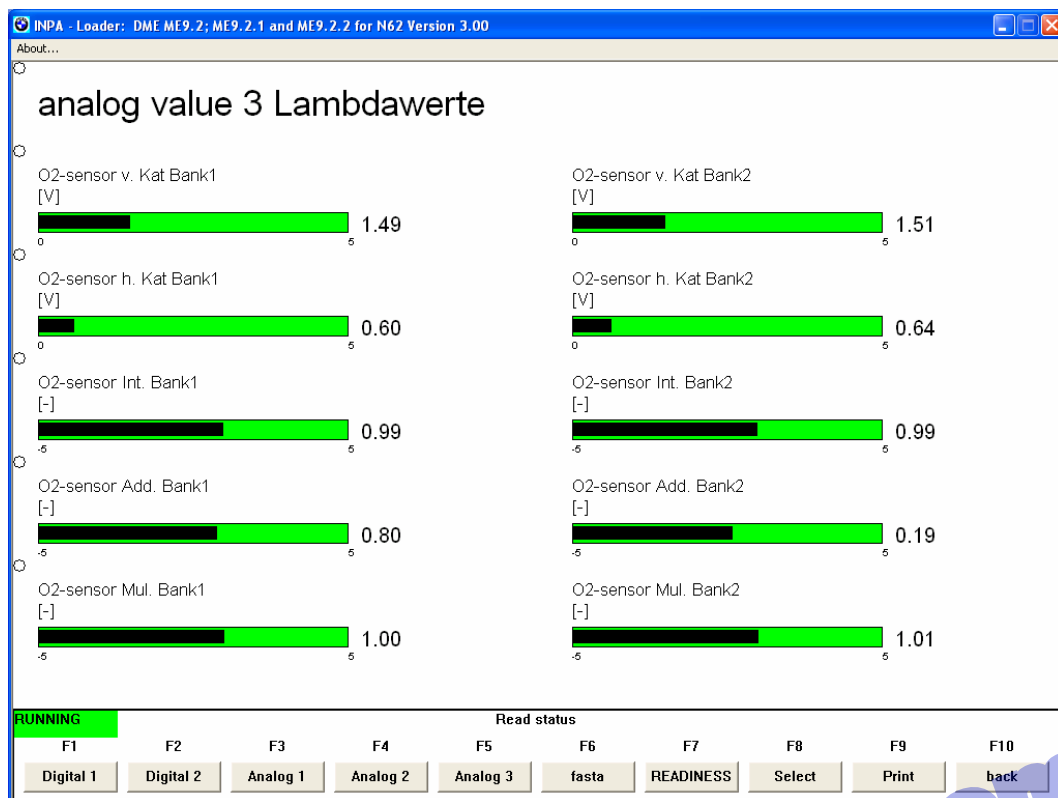
digital value 2: status of switches

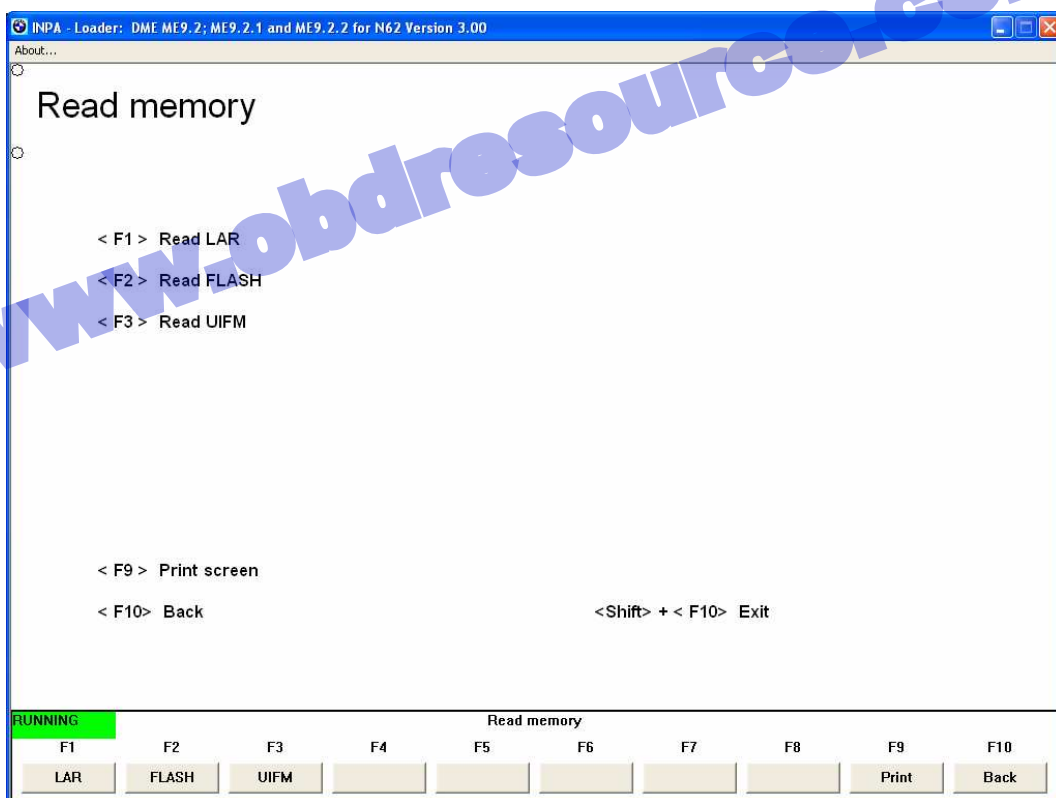
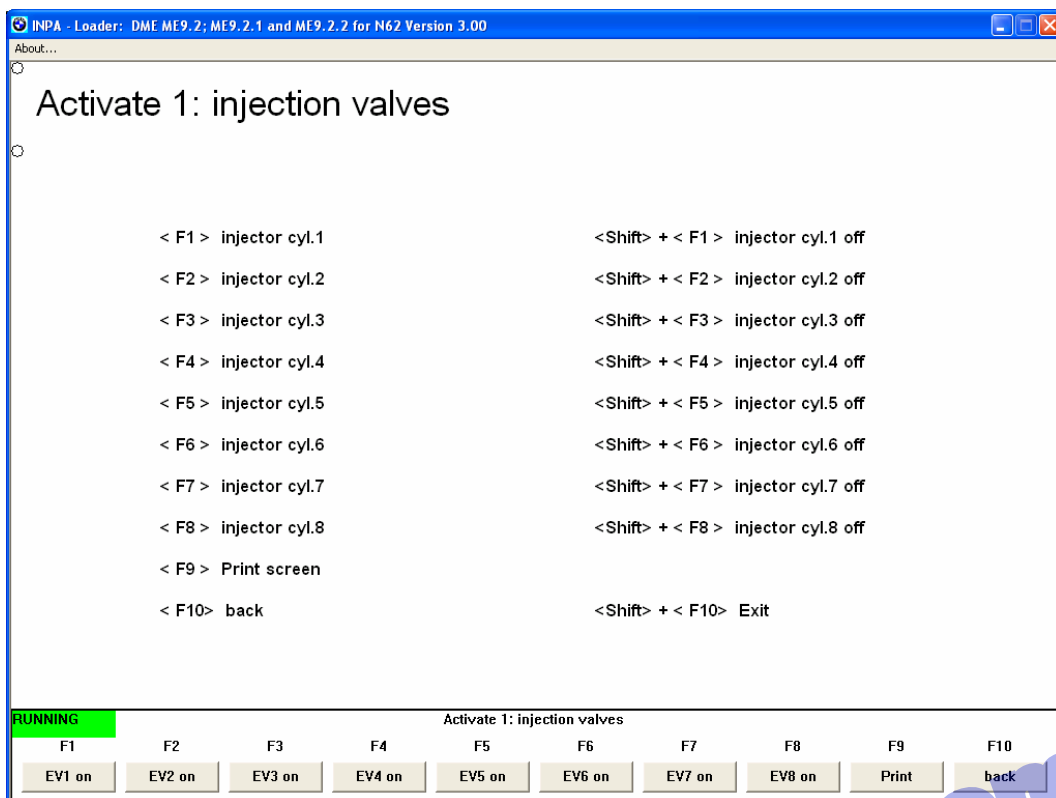
Status Brake lights switch	Status BL-test-switch	Input Kl. 15
☐ OFF	☐ OFF	☒ ON
Input Air conditioning compressor	Status clutch	Status ESTART
☒ ON	☐ OFF	☐ OFF

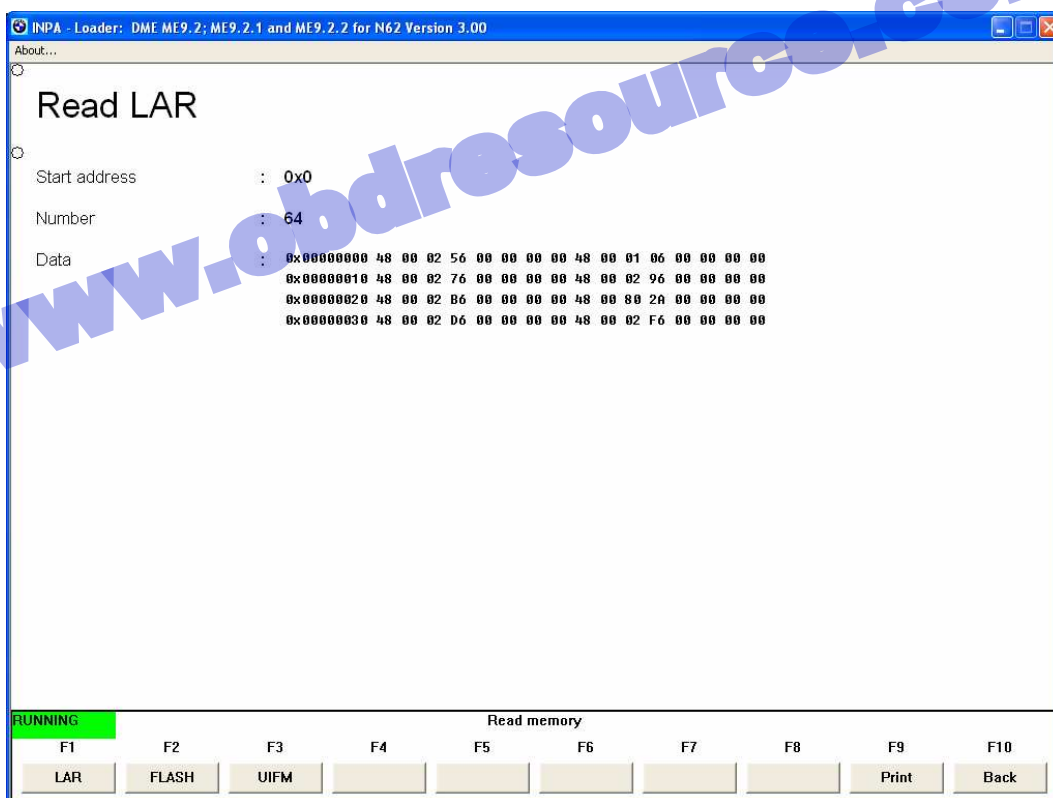
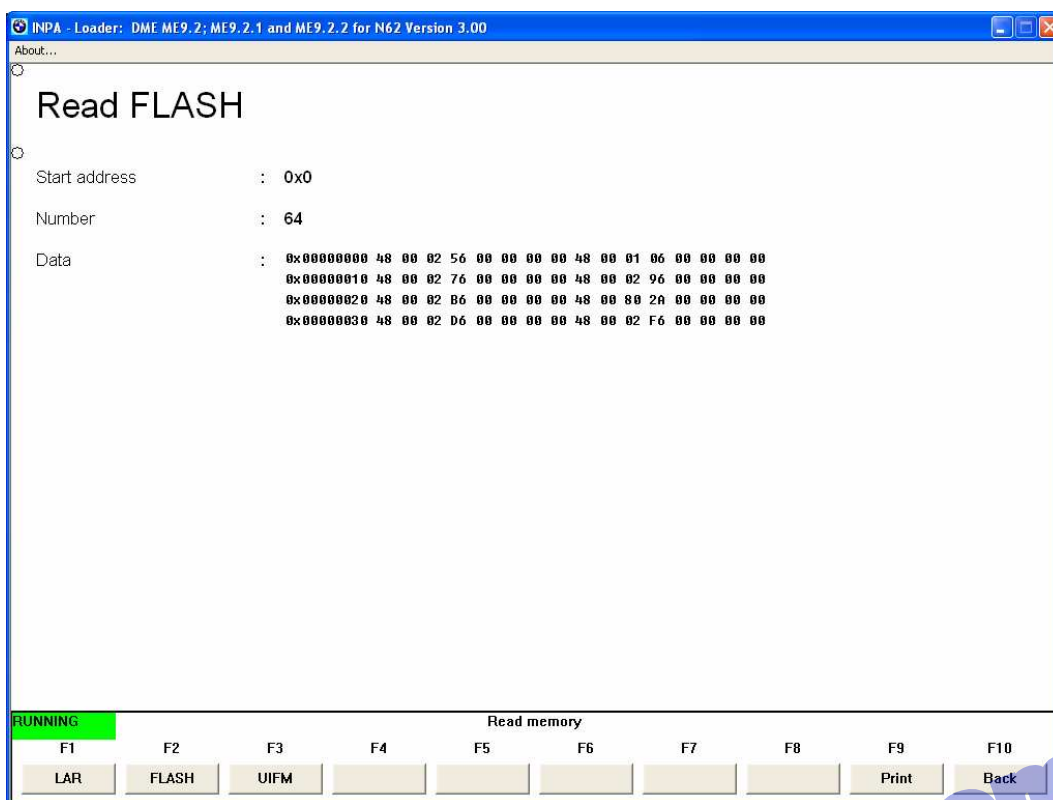
RUNNING Read status

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Digital 1	Digital 2	Analog 1	Analog 2	Analog 3	fast	READINESS	Select	Print	back









INPA - Loader: DME ME9.2; ME9.2.1 and ME9.2.2 for N62 Version 3.00

About...

Read UIFM

Start address : 0x0

Number : 64

Data :

```
0x00000000 40 44 50 39 31 34 32 37 20 03 11 17 00 00 07 53
0x00000010 69 02 00 00 07 53 69 03 00 00 07 50 81 78 01 23
0x00000020 21 34 32 33 32 34 00 30 30 38 37 32 35 30 44 35
0x00000030 31 30 42 57 42 41 47 4E 36 31 30 30 30 FF FF FF
```

RUNNING

Read memory

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10

LAR FLASH UIFM Print Back

 **Change Editor** Version 1.05

BMW AG TP-423

17/10/2006 10:37:51 AM

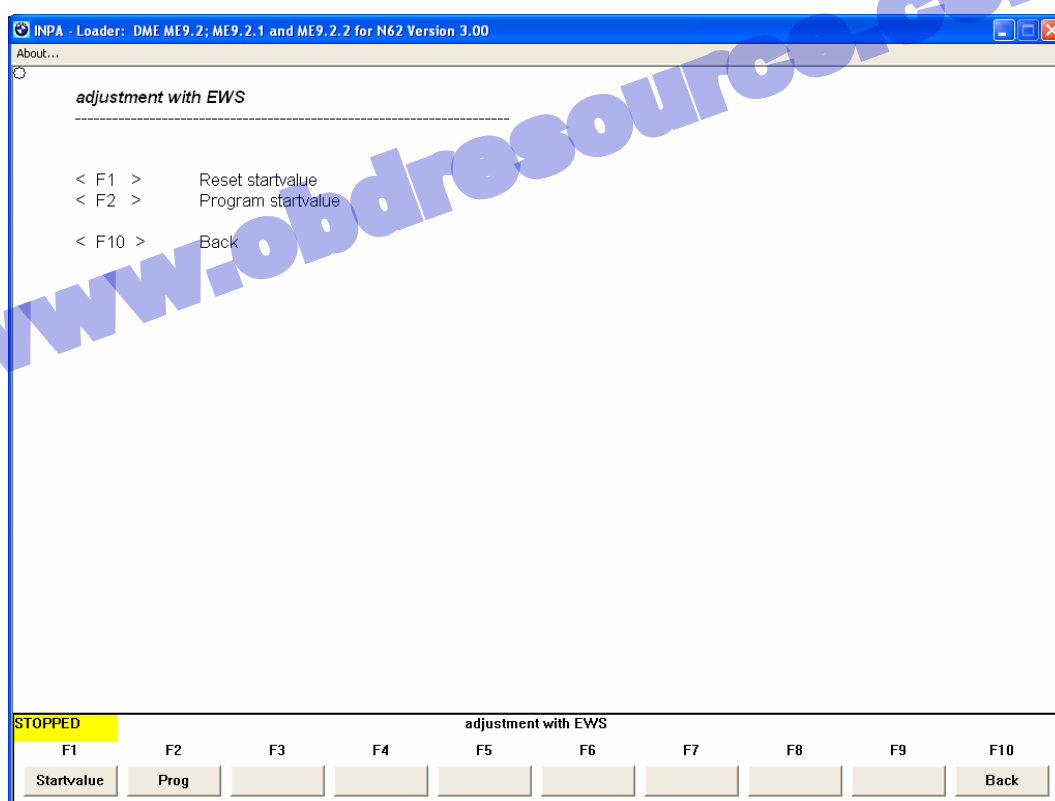
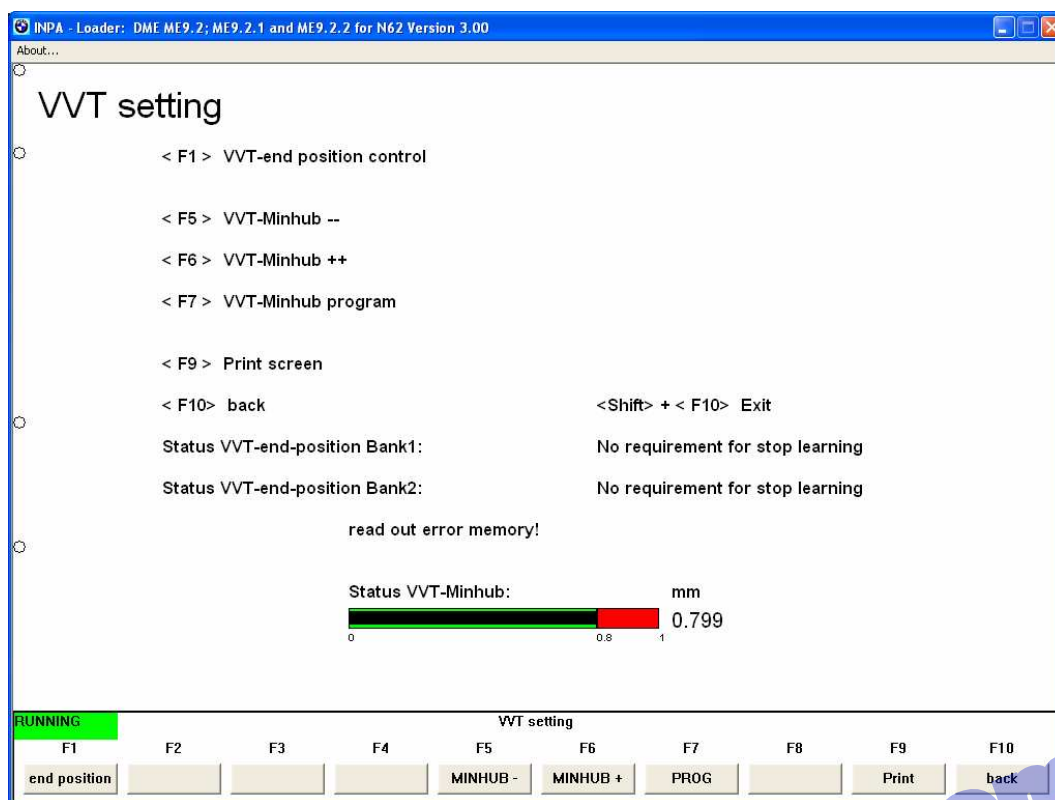
INPA DME ME9.2 Version ME9.2.1 and I

SGBD 3.000 Version ME9N62: ME:

Name Department Phone

Error message or improvement request

OK Print Cancel



Notice: Using this function must be carefully, through this function can reset the Anti-theft system, and lock the computer of Engine that might cause the engine misfire, and make the trouble codes stored inside the Engine ECU. But it can active the system through reprogram the Anti-theft system under the situation

of system without any trouble.

