

INPA Tutorial Quickstart **Setup & Using Functional Jobs**

I. Procedure: Setup Hardware, Windows 10 OS:

AFTER Downloading & Installing Software: Set to Com Port 1, Latency 1

- 1) Attach K+DCAN Cable to computer USB Port (but NOT OBD II Socket)
- 2) Open Control Panel & Select Device Manager
- 3) In Device Manager, Select “Ports (COM & LPT)” which ONLY appears if Cable connected
- 4) DoubleClick USB Serial Port & select Port Settings Tab & click “Advanced” box
- 5) Set Com Port # = “COM1” & set Latency Timer (msec) = “1”
- 6) If your Cable has a slide switch on the Large Connector which attaches to the OBD II Socket, check to make sure it is in correct position. For example, BimmerGeeks Pro cable, proper position is to right as you hold pins UP with switch facing you. This is a pin bridge, and correct switch position varies between models.

NOTE: Check these settings if you can't connect to a module, or have program STOP a function after a screen has opened, or if only part of a screen opens or displays.

II. Functional Jobs:

A. Primary Uses, F2, Identification, and F4, Fault Memory, ALL Modules:

F2, Identification: provides identification of EACH of the ~ 20 modules in your vehicle (some more, some less, depending upon optional equipment) including SGBD ID Code for module. Recommended that you SAVE that screen for future reference.

F4, Fault Memory, All Modules: provides a quick readout of status of Fault Memory of each Module, listing any Fault Code found in any module; stating No error registered (Kein Fehler eingetragen), if NONE for that Module. This is ONLY the code, NO Fault Code Definition.

B. Procedure to Display F2 or F4 Screens:

- 1) At INPA opening screen, Select E90 (E91/E92/E93) Function key varies between Versions;
- 2) Script Selection Box appears, with Left & Right Listboxes;
- 3) “Select E90 V1.xx” highlighted in Left Listbox at open; Press Tab to move to Right Listbox;
- 4) Press Cursor Down Arrow to Highlight “Functional Jobs” in Right Listbox; Press Enter;
- 5) Functional Jobs Menu, Press < F2 > Identification or < F4 > Fault Memory (Fehlerspeicher);

C. Saving Screens; Uses & Procedure:

You will almost certainly find that you want to save an INPA screen: (1) to have a historical record of faults, (2) to be able to post a screen on a Forum, (3) to translate it, or even (4) to keep some or all screens you open in a folder named for that Module, so you have a reference for what INPA can do or show you related to that Module. ONE WAY to do that (there are others):

- 1) Have a photo editor (such as “Paint” – Windows Accessory) open & running in background BEFORE you open INPA;
- 2) Open INPA screen to be Saved; press Shft+PrtSc to “print screen”/save it in temp memory;
- 3) Alt+Tab to navigate to Paint; Ctrl+V to paste screenprint to Paint;

- 4) SaveAs jpg file format in Folder/Subfolder of your choice, with helpful descriptive name.
- 5) In Paint, press Ctrl+N to clear screen to be ready for NEW "Paste & SaveAs.

Example of Filename & Folder Format: I do a "Functional Jobs" check for Fault Codes in ALL Modules ~ every 3 months. To maintain an historical record of Faults (or hopefully Lack Thereof ;-)) I SAVE the screen each time in a Subfolder "Functional Jobs" where the other subfolders are named for each Module, such as DME, EGS, FRM, etc. When I last saved a screenprint of Fault Memory, ALL modules, on June 5, 2019, I gave it a FileName: 190606 FS1 or FS2 (two pages due to short screen). That yymmdd first name results in automatic sorting by date, and the FS1 stands for Fehlerspeicher1 or 1st page of Fault Memory. NOTE: I have Fluid Wear Faults in BOTH EGS & VGSG.

Whatever works for YOU, but keeping records of stuff is important, and how you keep them becomes MORE important the More Stuff you keep. One of the BIGGEST advantages of a computer-based software vs. Carly or such is the ability to EASILY & Quickly save a copy of a screen. INPA automatically saves some screens in temporary txt files in the "BIN" folder which you can retrieve BEFORE they get overwritten, but since electronic file storage is cheap these days, it really becomes what is quicker & easier, and the jpg file works for bar graphs & other graphics in F5 (Status) screens (See Below).

III. Connecting to Modules:

A. Why Connect to a Single Module?

Functional Jobs – a Starting Point ONLY: There are NO Fault Code DEFINITIONS, Freeze Frame Data or Fault Details, PLUS there is a LOT more to INPA than just Fault Codes (summarized below). There's NOT much diagnostic information in a 4-character code that means NOTHING without a definition.

So you have to connect to a single Module: to find out what is going on NOW, or has gone on in the past, and to be able to see Parameters or PIDs (Inputs to that Module in Real Time), or to do "Activations" or tests of Outputs from the Module to a Motor or other component.

B. What Information is Available when you Connect to a Single Module?

1. F1: Information about Module; F2: Identification of the Module:

Press F1 & F2: at Main Menu for any Module and see/Save data about that module from Part#, Name of Supplier, Variant Information, etc. Suggest Saving F1 & F2 screens as reference for each module in your vehicle.

2. F4: Fehlerspeicher; Fault Memory & Memory History:

- ❑ **Fault Codes:** both in P-code format & in BMW FC format
- ❑ **Fault Code DEFINITIONS:** often in German requiring translation
- ❑ **Fault Code Details:** such as whether or not the fault is currently present or would light a warning lamp; the mileage/km at which the fault code was saved; other conditions such as Voltage or Temperature when fault was saved; the type of signal fault (high/low/none), etc.
- ❑ **Freeze Frame Data:** in DME faults you will see a snapshot of Parameters at the moment the fault code was saved, such as Engine Temp, RPM, Load, System Voltage, etc.

- ❑ **Historyspeicher or Memory History in DME:** where Fault Codes that happened years ago and were cleared are still recorded, along with mileage/km when saved, and other details
- ❑ **Faults that do NOT light a warning lamp:** such as Oil Wear Faults in Transmission or Transfer Case. Actually, these appear in Functional Jobs but without Definition or Details

3. F5: Status; Parameters; Live Data; Inputs to Modules from Sensors/Switches:

4. F6: Activations (Steuern); Test/Activate Module Outputs & Attached Motors:

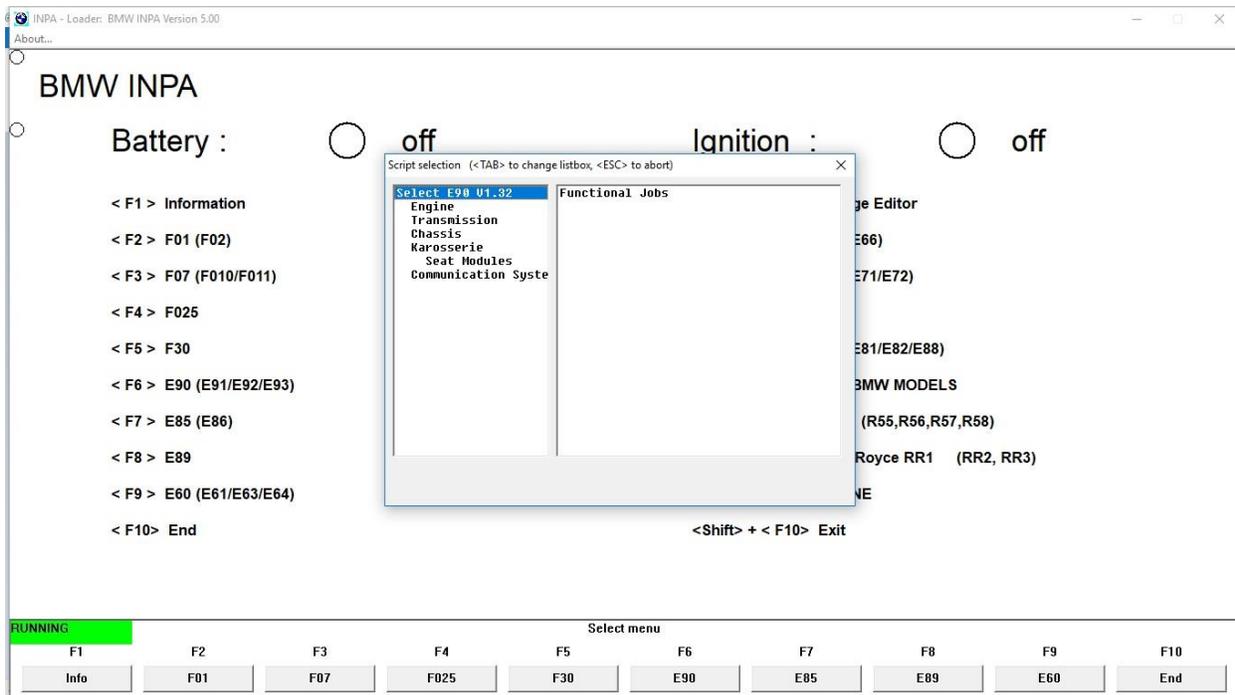
Examples of F5 & F6 functions for Each Module will be provided, beginning with DME & IHKA Modules. WATCH THIS SPACE ☺

IV. Functional Jobs Screens, Example Screens for my 2007 328xi:

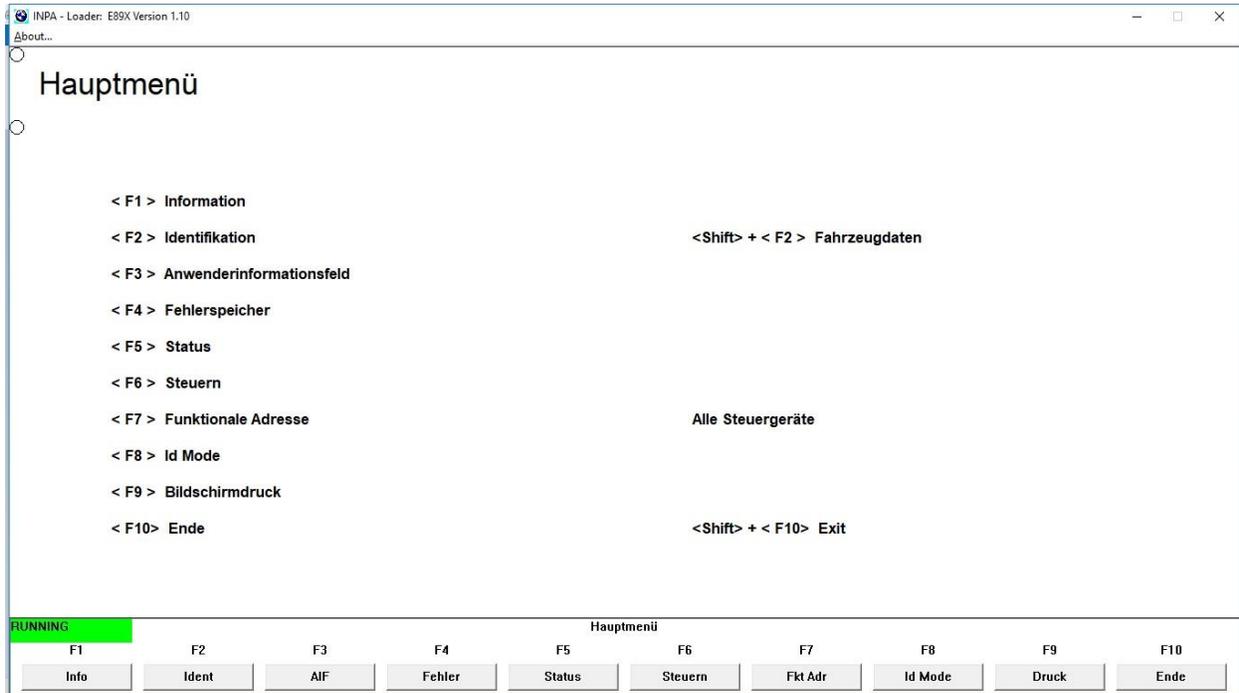
Screens will vary depending upon Equipment/Modules/Variants/Options on YOUR vehicle

A. Functional Jobs Main Menu: How to Select:

Screen below appears when E90 selected; press Tab & Down (scroll) Arrow; Press Enter

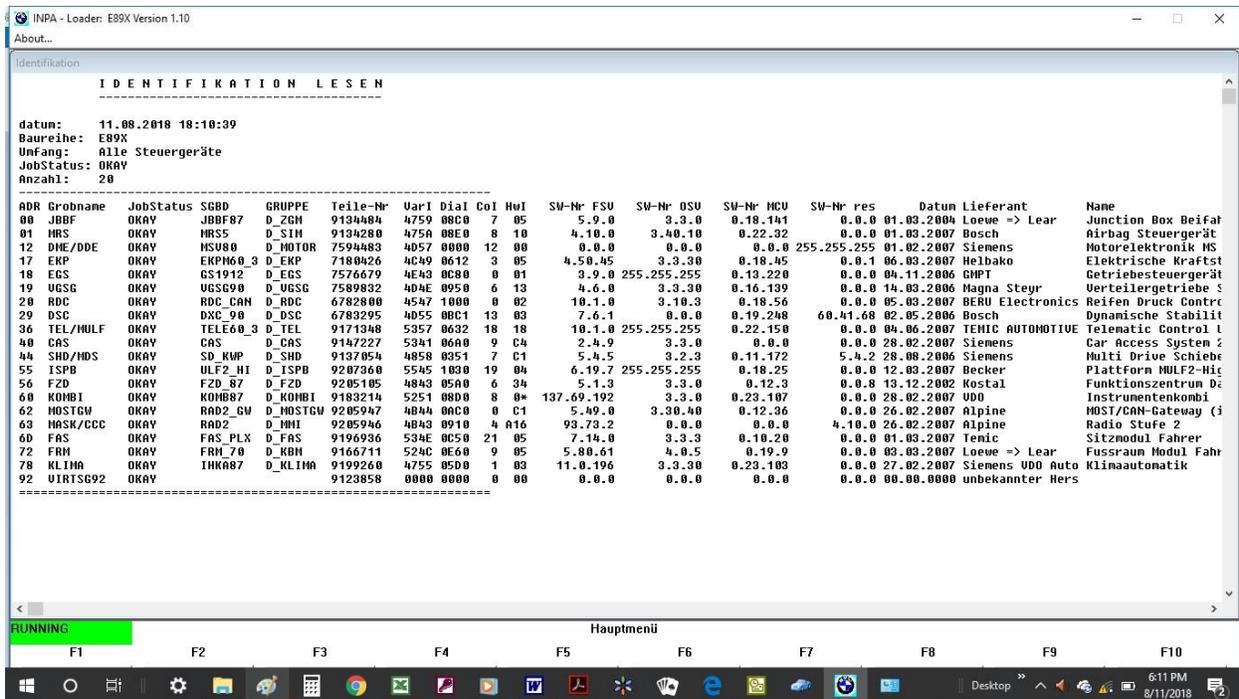


B. Functional Jobs, Main Menu (Hauptmenü):



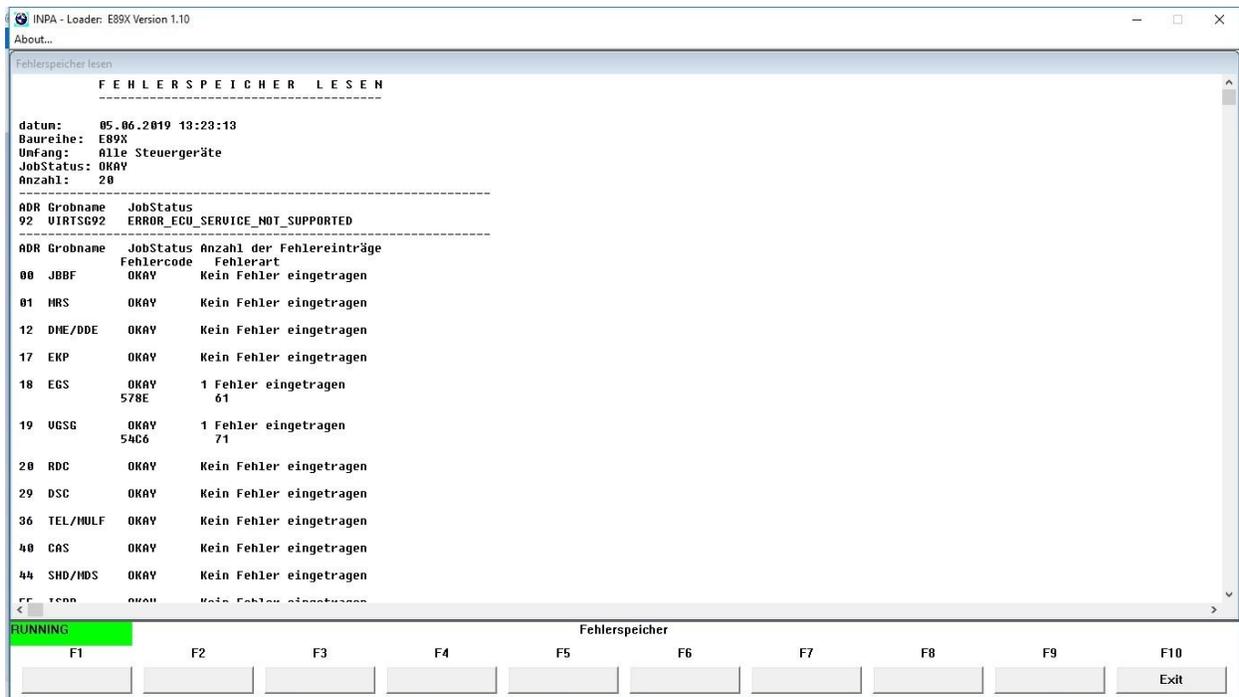
C. Functional Jobs / F2, Identification, Identifying ALL Modules in Vehicle:

Suggest save & use as reference; NOTE "SGBD" Module Variant, 4th Column



D. Functional Jobs / F4 / F1, Fault Memory, ALL Modules (page 1 of 2):

Kein Fehler eingetragen = No error entered = what you WANT to see 😊



V. Appendix:

A. Google Translate, German to English:

<https://translate.google.com/#view=home&op=translate&sl=de&tl=en>

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