

Operating Instructions

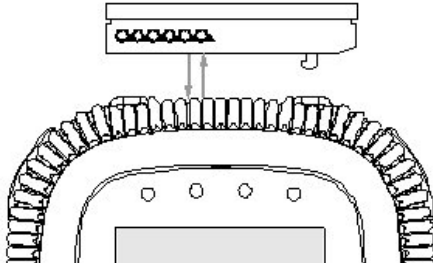
Metriso 2000 - Test Kit



Installation

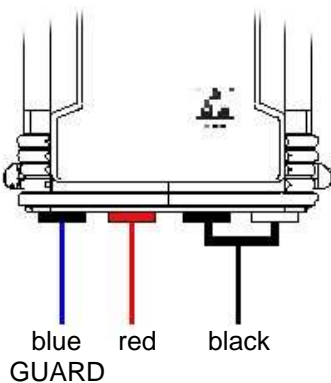
■ Assembling the T/F-adapter

Insert the batteries into the T/F-adapter. Connect the temperature-humidity adapter to the instrument IR interface.



■ Connecting the cables

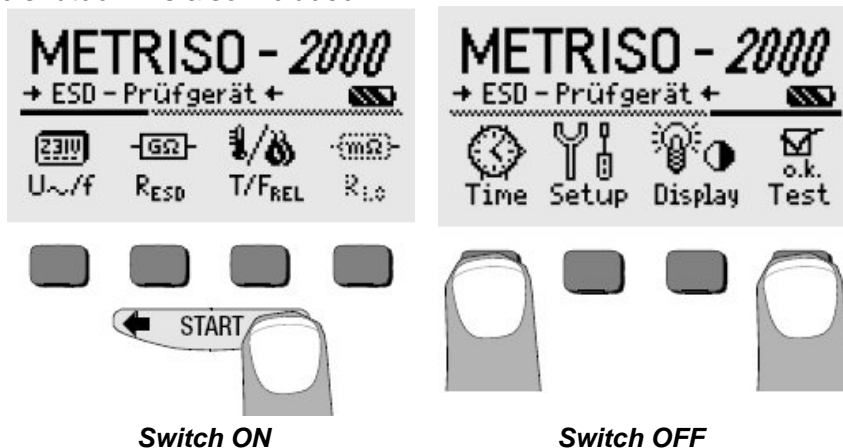
Connect the red cable to the instrument's red marked socket. Connect the black, shielded test cable with the double plug to the "black & white" COM/SHIELD socket.



■ Switch ON / OFF

Press any button to switch on the instrument.

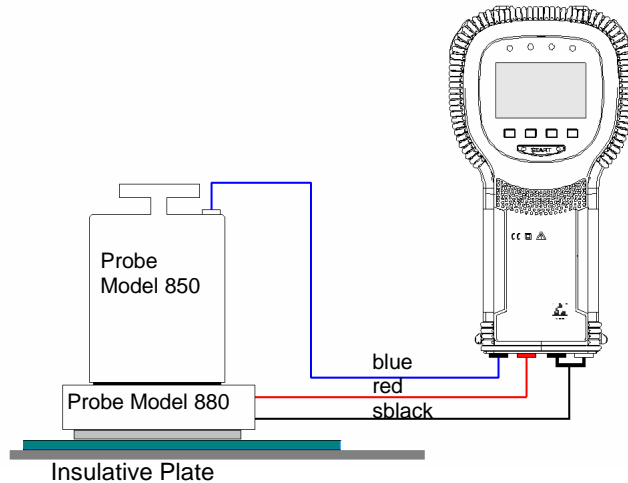
The instrument can be switched off by pressing simultaneously the two outermost buttons. Automatic shutdown is also included.



Measuring

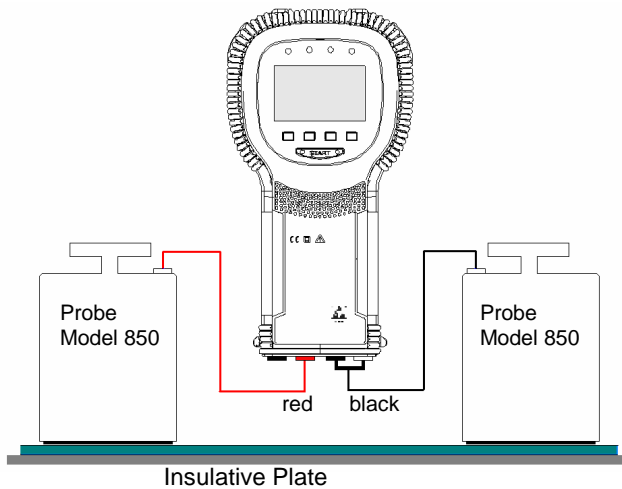
Select the R_{ESD} menu and a test voltage of $U = 10\text{ V}$. If a value of less than $100\text{ k}\Omega$ is displayed, the displayed value is the result. If $R > 100\text{ k}\Omega$ is displayed, the test voltage must be changed to 100 volts. The displayed value then, is the result.

■ Surface Resistance R_s



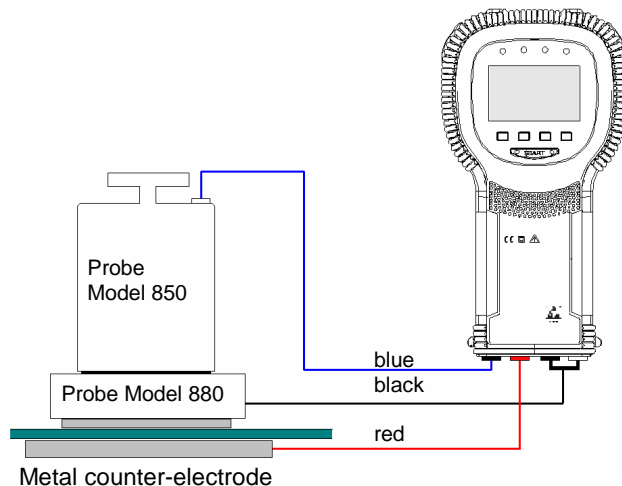
Standard:
DIN EN 61340-2-3

■ Surface Resistance R_{PP}



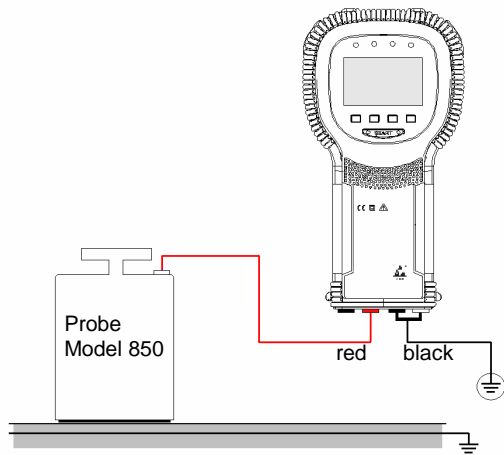
Standard:
DIN EN 61340-2-3

■ Volume Resistance R_v



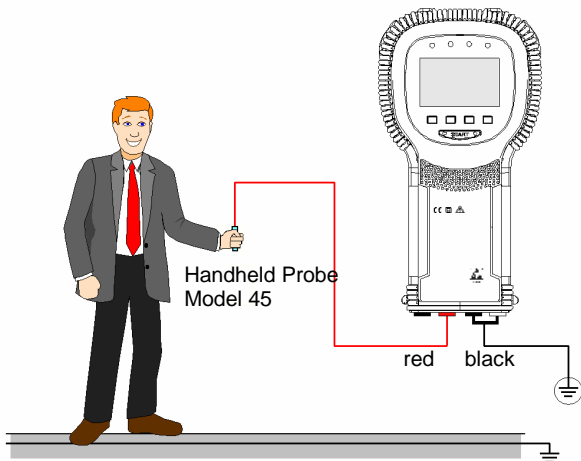
Standard:
DIN EN 61340-2-3

■ Resistance to Ground R_E or R_G

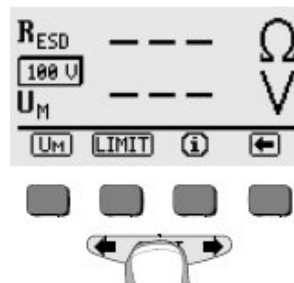


Standard:
DIN EN 61340-4-1
DIN EN 61340-2-3

■ Resistance through a Person to Ground $R_{ESystem}$ or $R_{GSystem}$



Standard:
DIN EN 61340-4-5

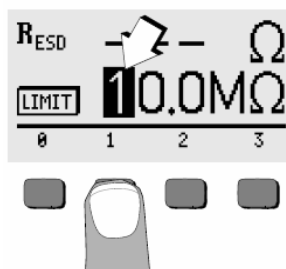
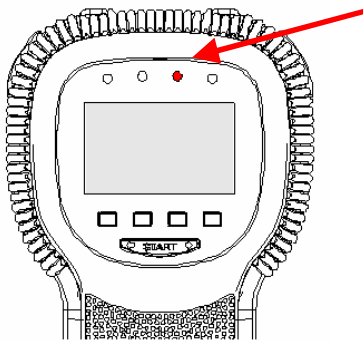


Values
 $T\Omega \gg 10^{12}$
 $G\Omega \gg 10^9$
 $M\Omega \gg 10^6$
 $k\Omega \gg 10^3$

Current voltage with load

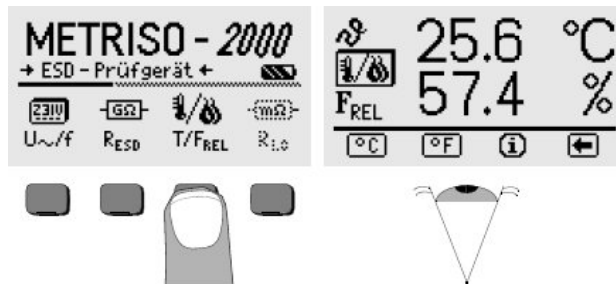
■ Limit-LED

A limit value can be selected for the R_{ESD} resistance with the LIMIT key. If the test value exceeds the selected limit value, the red LIMIT LED is lit.



■ Measuring Temperature and Humidity

Press the T/F_{REL} key. The adapter is activated via the interface. Select the desired temperature unit °C or °F, with the corresponding key. Temperature and humidity are directly displayed. The measured values are updated every 5 seconds.



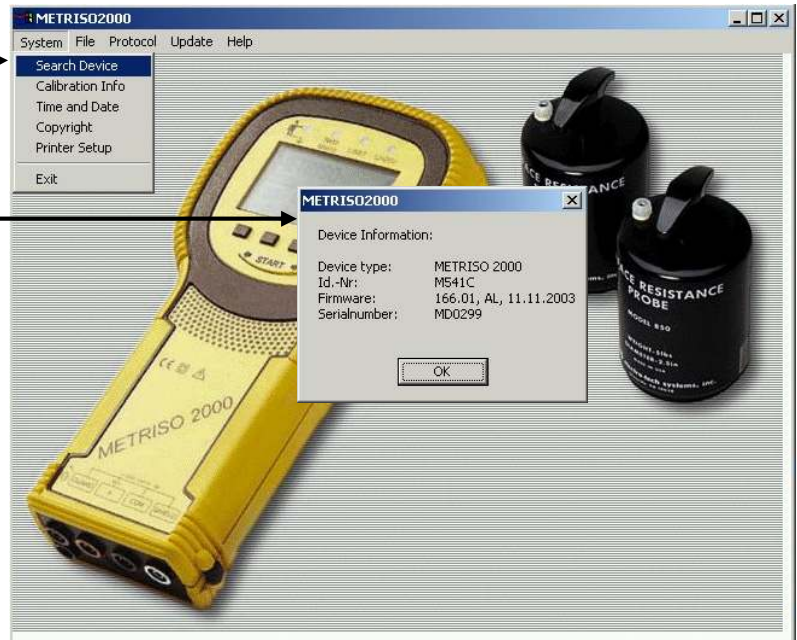
Software Instructions

For communication, the test instrument Metriso 2000 must be switched on and must be connected via the "IrDa-Adapter" to the USB interface of your PC.

■ Search Device and Test Connection

Select **System** - Search Device

This information will appear if a device is found.



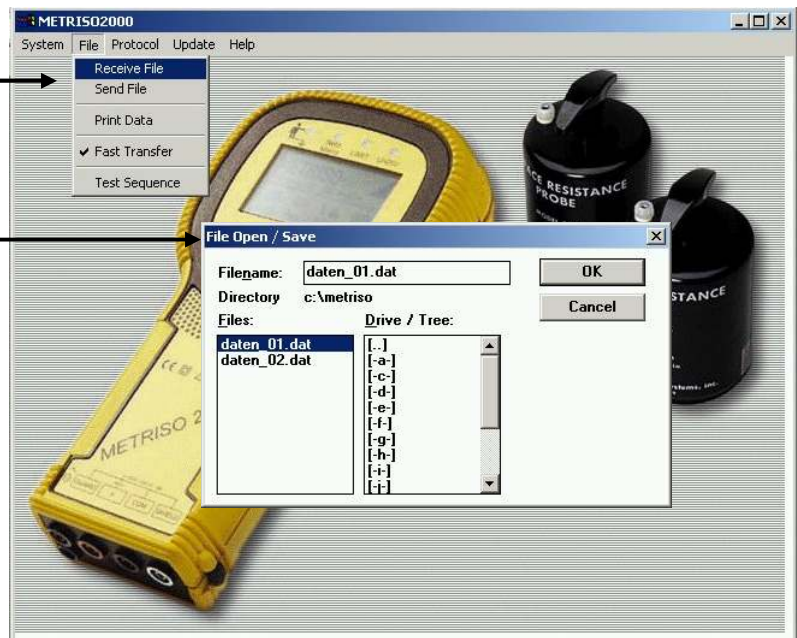
■ Receive File

Select **File** - Receive File

In the next dialog box you are asked to select a favorite folder and to enter a filename, for example ("daten_01.dat").

After data transfer these files are created in the selected folder:

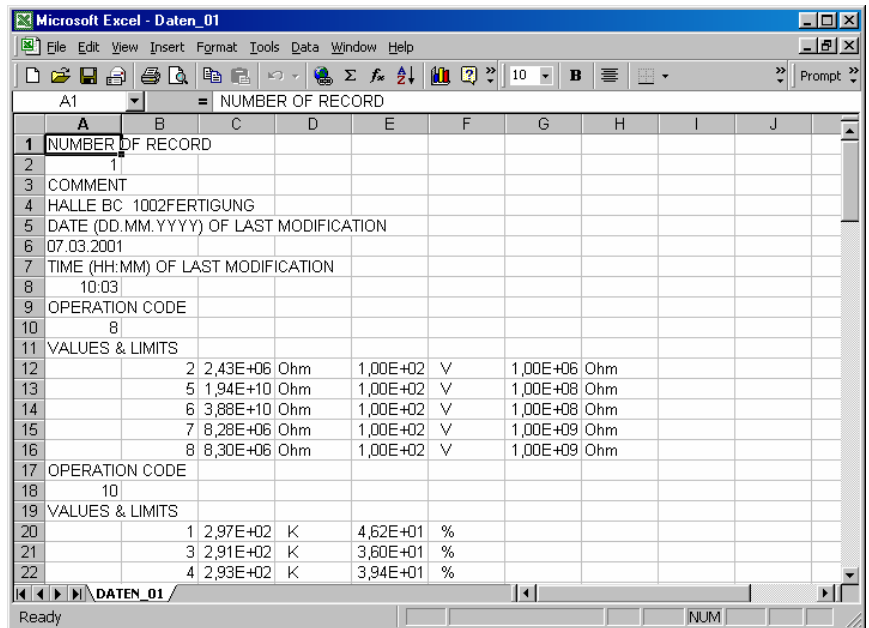
- daten_01.dat
- daten_01.tab
- daten_01.csv



Data Import into Excel

Open the stored file "daten_01.csv" located in the selected directory with MICROSOFT® Excel. Select ";" for separation of the data fields.

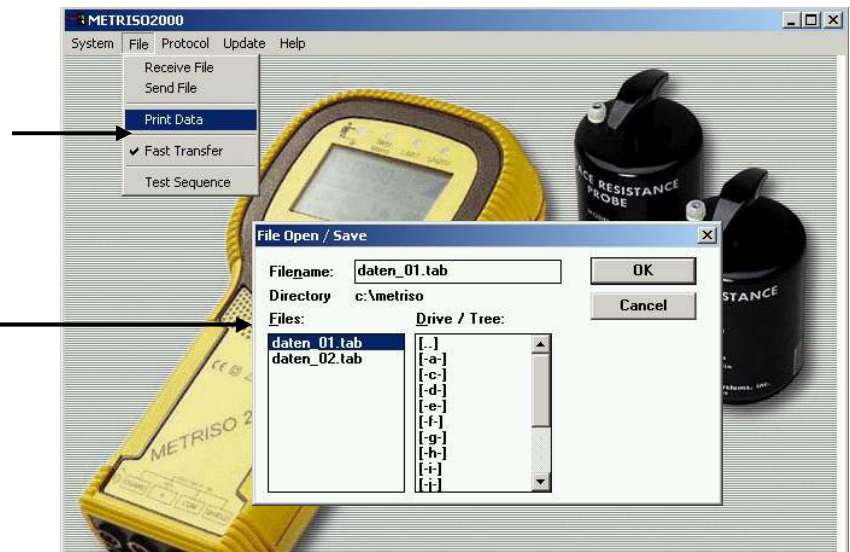
The data can now be formatted with the standard Excel functions.



Print Data into Selected Form

Select **File - Print Data**

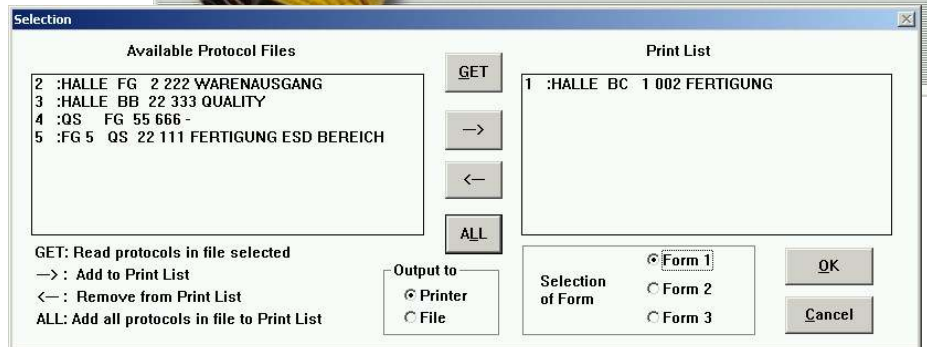
Select the previously stored file "daten_01.tab"



Press the "GET" Button to list all available protocols.

Select a form and the output device with the specified checkboxes for example "Form 1, Printer"

Press → to add a protocol to the print list.



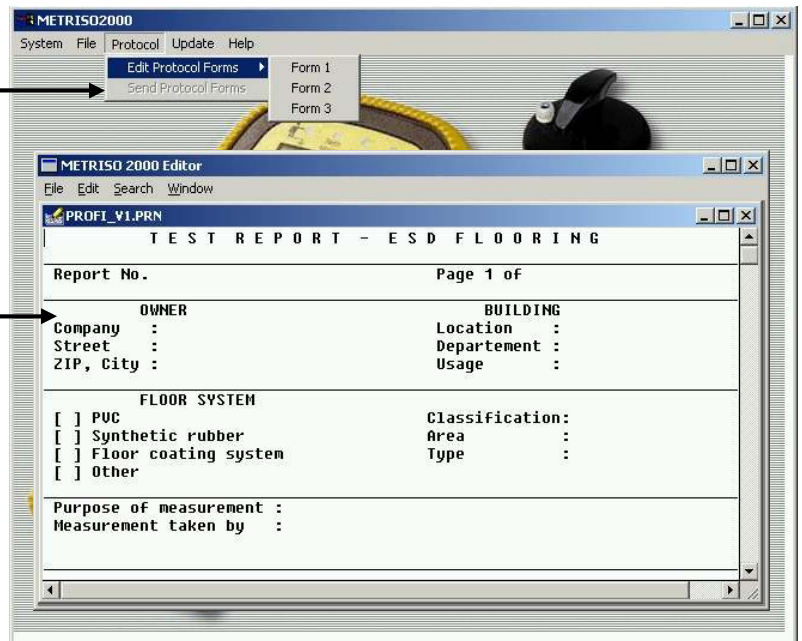
Edit protocol forms

Select - **Protocol - Edit Protocol Forms - Form 1**

The **Winprofi Editor** let you adapt the forms for your requirements.

With "@", marked places are replaced with variables during printout.

There are 3 different forms which can be used.



Update firmware and language

! Before updating please read the instructions in the help file.

Select **Update - Language or Program**.

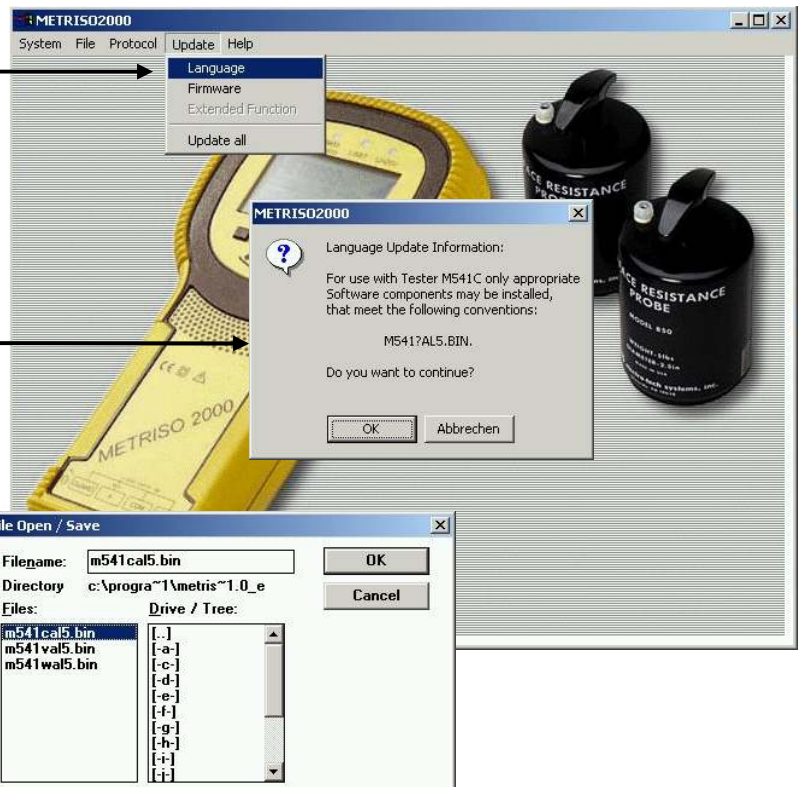
! Caution !

Only the filenames listed here are valid to be selected in the next dialog.

DO NOT USE OTHER FILES!

Select the appropriate file in the list box and **do not interrupt** the data upload.

m541cal5.bin = Language Deutsch
m541wal5.bin = Language English
m541val5.bin = Language French

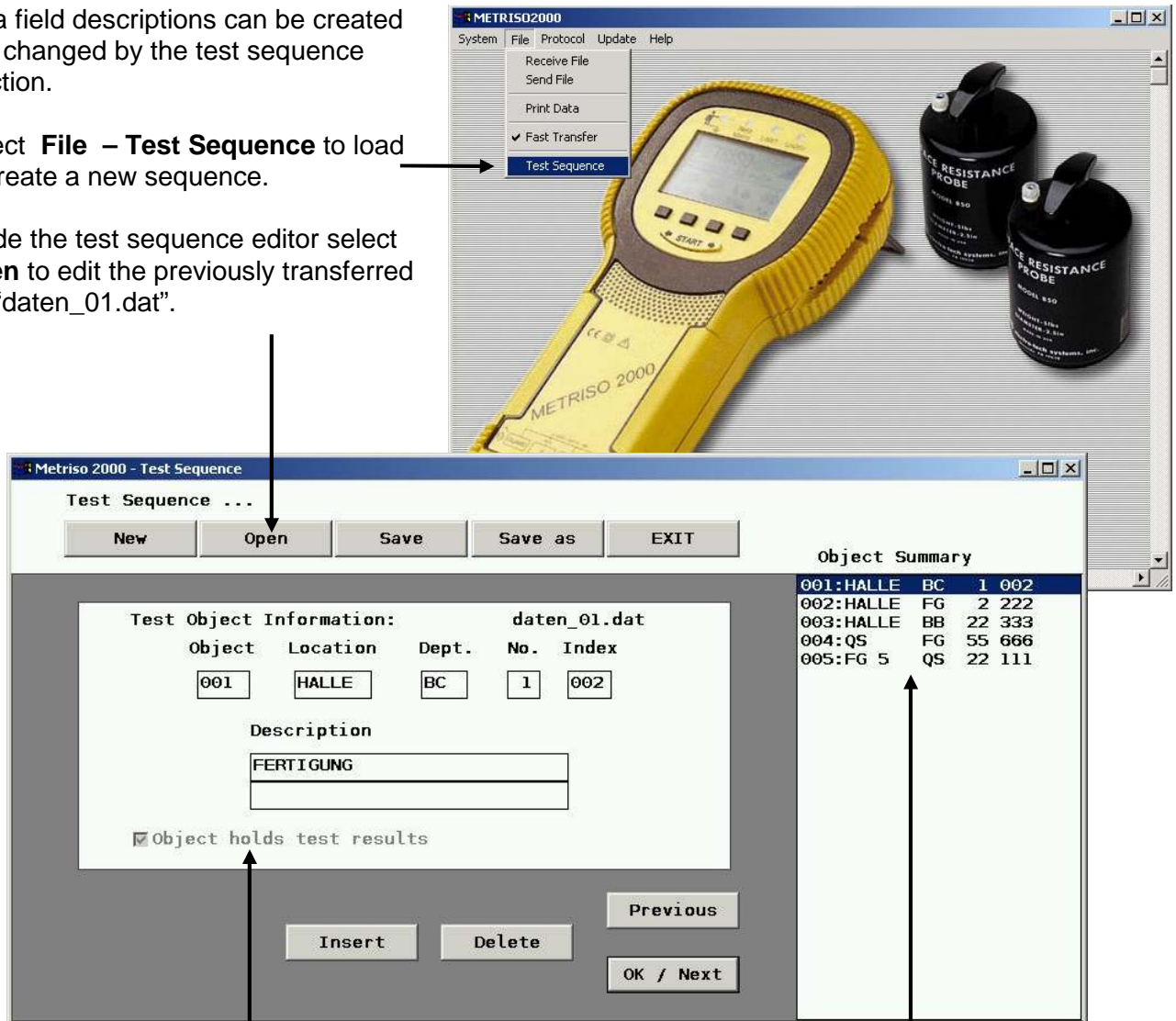


■ Test sequence (data filed description)

Data field descriptions can be created and changed by the test sequence function.

Select **File – Test Sequence** to load or create a new sequence.

Inside the test sequence editor select **Open** to edit the previously transferred file "daten_01.dat".



The Object Summary list box on the right displays a selection list of already stored test objects. Select an entry to edit it.

After selection, the fields are filled with the data. Adapt the content of these fields to your needs and press the **OK / Next** button to save. Pressing **Insert** will insert a new record; **Delete** will remove the current object.

Detailed function description can be found in the software help-file.