Connecting the 34401A to a PC using Agilent Connection Expert

Agilent Connection Expert (ACE) is an Agilent IO Libraries utility that configures the IO interface between the 34401A and your PC. The IO Libraries are contained on the Agilent Automation-Ready CD or may be downloaded from the Agilent Developer Network website at http://adn.tm.agilent.com.

1. From the PC toolbar, click the Agilent IO Control icon and select "Agilent Connection Expert" from the menu.
2. Select the PC’s GPIB interface and select "Add Instrument" from the Connection Expert menu bar.
3. Select the GPIB interface and then select the 34401A GPIB address (factory setting = 22).
4. To verify the IO connection, open "Interactive IO" and send the *IDN? command to the 34401A by selecting "Send & Read".
5. Use the "Options" tab to increase the timeout period for commands with execution times > 5 ms (e.g. "TST7").

Quick Start Tutorial

Safety Summary

Do not defeat power cord safety ground feature. Plug in to a grounded (earthed) outlet. Do not use product in any manner not specified by the manufacturer.

CAUTION

A CAUTION notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

Symbols

Earth Ground

Chassis Ground

Risk of electric shock

Refer to manual for additional safety information.

ADDITIONAL SAFETY INFORMATION

For further information, refer to the "Safety Notices" section in the Agilent 34401A User’s Guide.

Connect the Test Leads to the Input Terminals.

Connect the Power Cord.

Adjust the Carry Handle.

Connect the PC to your PC and connect a GPIB cable between the PC and the 34401A.

WARNING

Main Power and Test Input Disconnect: Unplug product from wall outlet, remove power cord, and remove all probes from all terminals before servicing. Only qualified, service-trained personnel should remove the cover from the instrument.

Line and Current Protection Fuses: To continue protection against fire, replace the line fuse and the current-protection fuse only with fuses of the specified type and rating.

Front/Rear Switch: Do not change the position of the Front/Rear switch on the front panel while signals are present on either the front or rear set of terminals. Switching while high voltages or currents are present may cause instrument damage and lead to the risk of electric shock.

ICC Measurement Category B. The HI and LO input terminals may be connected to mains under IEC Measurement Category II overvoltage conditions for measurement of line voltages up to 300 VAC. To avoid the danger of electric shock, do not connect the inputs to mains for line voltages above 300 VAC. Connect to mains only at an outlet or in a device connected to such an outlet, on a branch circuit protected by a circuit breaker. See "Safety Notices" in the User’s Guide for further information.

Protection Limits: To avoid instrument damage and the risk of electric shock, do not exceed any of the protection limits indicated on the terminal panel and defined in the User’s Guide.

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(See folding diagram at right)
2. Power, Input Terminal Selection, and Local Control

- turns the 34401A on and off. A self-test occurs during the power-on sequence.
- selects the front or rear panel terminals as the input to the 34401A.
- transfers instrument control from the computer (remote) to the front panel (local).

Example: display indicating remote operation and rear panel terminals selected.

4. Setting the Range and Resolution

- selects between auto-range and manual range.
- manually decreases the range.
- manually increases the range.

Example: display indicating 10 volt range, 4 digit resolution.

34401A Power-on and Reset States

- enables auto-triggering (default) and issues a single trigger to the 34401A each time the key is pressed.
- selects 4 digit resolution.
- selects 5 digit resolution.
- selects 6 digit resolution.

For increased measurement speed, select 4 digits. For increased accuracy, select 6 digits.

6. Triggering

- disables auto-triggering (default) and issues a single trigger to the 34401A each time the key is pressed.
- selects 4 digit resolution.
- selects 5 digit resolution.
- selects 6 digit resolution.

Example: display indicating 10 volt range, 4 digit resolution.

6. Triggering

- disables auto-triggering (default) and issues a single trigger to the 34401A each time the key is pressed.
- selects 4 digit resolution.
- selects 5 digit resolution.
- selects 6 digit resolution.

Example: display indicating 10 volt range, 4 digit resolution.

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NOTE TO PRINTER:
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