Connecting the 34401A to a PC using Agilent Connection Expert

1. Install the Agilent IO Libraries on your PC and connect a GPIB cable between the PC and the 34401A.
2. Select the PC's GPIB interface and select 'Add Instrument' from the Connection Expert menu bar.
3. From the PC's taskbar, click the Agilent IO Control icon and select 'Agilent Connection Expert' from the menu.
4. Select the PCI's GPIB interface and select 'Add Instrument' from the Connection Expert menu bar.
5. Use the 'Options' tab to increase the timeout period for commands with execution times > 5 ms (e.g. "*STB?").

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.
- Do not install substitute parts or perform any unauthorized modification to the product. Return the product to Agilent Technologies or a designated repair center for service to ensure that safety features are maintained.
- WARNING
  - A WARNING 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 personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.
- 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 Summary' section in the Agilent 34401A User's Guide.
- 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.
- 4-wire Resistance or Temperature
- 4-wire Voltage
- AC or DC Current
- AC or DC Voltage
- AC or DC Measurement Category
- IEC Measurement Category 0 allows 200V DC maximum output. Category III allows 300V DC maximum output. Category III allows 400V DC maximum output. Category IV allows 600V DC maximum output.

NOTE TO PRINTER:

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(See folding diagram at right)

NOTE TO PRINTER:

This is FACE "E" (short face, folds inside)

(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 rear panel and remote terminal selected.

4. Setting the Range and Resolution

- The measurement range is unique to the selected function. The range is set using the following keys:

400.9985 VDC

- Selects between auto-range and manual range.
- Manually decreases the range.
- Manually increases the range.

Example: display indicating 10 volt range 4 digit resolution.

5. Math Operations

- Selected math operations are available from the 34401A front panel using the keys:

Example: Period function selected.

- Selects parameter list and scrolls through parameters.
- Selects menu command list and scrolls through commands.
- Enables menu (if off) and recalls the last command displayed when the menu was exited.
- Enables the front panel menu.
- Enables auto-triggering (default) and issues a single trigger to the 34401A each time the key is pressed.
- Manually decreases the range.
- Manually increases the range.

Example: maximum value indicated with math operation sequence.

6. Triggering

- Measurements are triggered from the front panel using the following keys:

- Disables auto-triggering (default) and issues a single trigger to the 34401A.

- Auto triggers and sets the delay mode (above).
- Hold: displays the measurement after three consecutive readings within the sensitivity band (Trigger menu: READ HOLD).

Example: number of reading samples increased to 5.

NOTE TO PRINTER: This is FACE "B" (See folding diagram on page 1)

NOTE TO PRINTER: This is FACE "C" (See folding diagram on page 1)