

# DA-II

## RS232 – Centronics Printer Adapter

### 1 Applications

The DA-II printer adapter (Z745M) allows for the use of commercially available printers together with test instruments which are not equipped with an appropriate parallel printer port, and thus makes on-site print out of test reports possible.

The only prerequisite is that the test instrument or printer module has been designed for direct report generation. The following instruments fulfill this condition:

- SECUTEST®... as from manufacturing status 8/99
- PROFITEST®PSI-E, PSI-TE and PSI-BC

Report printing procedures are described in the operating instructions for each of these instruments.

#### 1.1 Notes Concerning Operation of the DA-II at PROFITEST®PSI-E, PSI-TE and PSI-BC Modules

- As soon as the DA-II has been connected to a PSI module, all print-outs are automatically routed to the connected printer via the DA-II. No further adjustments are required at the PSI module.
- After the DA-II has been connected to the PSI module, it is supplied with power from the PSI. The service life of the battery in the PSI is thus reduced. Disconnect the DA-II from the PSI when not in use, in order to prolong battery service life.
- Data from both the PROFITEST®0100S and PROFITEST®0100S-II test instruments can be recorded with the PSI module, and printed with the DA-II.
- Hard copies generated via the DA-II are automatically printed out in the language which has been selected at the PROFITEST®0100S or PROFITEST®0100S-II.

### 2 Safety Features and Precautions

The DA-II printer adapter may only be operated in combination with instruments whose serial interfaces are electrically isolated from the measuring circuit, and all circuits which may conduct mains power. The safety of the operator and the adapter are only assured under these conditions.

Please read the operating instructions included with your test instrument carefully before use, and observe all points included therein.

### 3 Connection

The DA-II printer adapter is connected in the same way as any common printer cable.

No separate power supply is required because the adapter is powered via the serial port at the test instrument.

Proceed as follows in order to connect your test instrument to a printer via the DA-II printer adapter:

- Switch the test instrument and the printer off.
- Insert the Centronics plug at the DA-II into the Centronics socket at the printer and the 9 pin Sub-D plug at the other end of the adapter into the socket at the test instrument.
- Turn the printer on first, and then the test instrument.

The printer and the test instrument are now ready for use and printing can be started.

### 4 Possible Problems During Use

The DA-II printer adapter has been designed to function flawlessly with almost all types of common printers. Nevertheless, problems may occur in isolated cases due to the multitude of commercially available printers. This chapter addresses problems of this nature.

#### The printer is unable to print vowel mutations (ä, ö, ü etc.), special characters and frame symbols.

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| Cause    | The printer has not been set up to respond to the character set which is utilized by the test instrument. As a rule, an IBM PC compatible character set (PC-8) is required.   |
| Solution | Use the DIP switches or menu function included with your printer to select the correct character set. If your printer is not equipped with either of these options, configuration can only be performed by means of a control sequence included in the test report itself. Refer to the handbook included with your printer, or contact your hardware dealer or manufacturer. |

#### The printer prints only one or several characters and then stops. The test instrument generates a time-out or an error message.

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| Cause    | Your printer has been set up for high-speed Centronics or bidirectional communications (ECP, EPP). These options are frequently available with high quality office printers. |
| Solution | Select the standard Centronics and unidirectional communications options at your printer.  |

#### The printer does not respond at all when the test instrument attempts to print a report. The test instrument or the printer generates an error message.

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|----------|---|
| Cause    | <ul style="list-style-type: none"> <li>• The printer is not switched on, is off-line or is out of paper.</li> <li>• The plugs have not been securely inserted into the sockets at the printer or the test instrument.</li> <li>• The DA-II was incorrectly initialized when the test instrument and the printer were switched on.</li> <li>• Your printer is equipped with postscript emulation.</li> </ul> |
| Solution | Set up the printer such that it is ready to print and deactivate postscript emulation if required. Make sure that the printer and the test instrument have been properly connected, and switch the test instrument off and back on again if necessary.  |

#### Note

If problems should occur after connecting the SECUTEST®... to a printer with the DA-II, try reconnecting the devices using the following sequence.

1. Switch the test instrument off.
2. Connect the DA-II to the test instrument.
3. Switch the test instrument and the printer on.
4. Connect the DA-II to the printer.

**The printer does not respond at all when the test instrument attempts to print a report. Communications are jammed.**

- Cause** Your printer's interface does not comply with the characteristic values shown below, i.e. one or more of its connector pins has either no function, or a non-standard function.
- Solution** Use another printer. In cases of doubt, contact your hardware dealer or manufacturer, or our product support team.

**The printer does not respond at all when the test instrument attempts to print a report, although the test instrument appears to transmit data properly.**

- Cause** Your printer is not equipped with integrated "printer intelligence". These are usually low-cost laser or ink-jet printers which only function together with a special Windows printing system, and are known as GDI printers (graphic device interface). Communications via the DA-II are not possible with printers of this type because they require a driver which encompasses a wide variety of functions.
- Solution** Use another printer. In cases of doubt, contact your hardware dealer or manufacturer, or our product support team.

**No problems have been experienced to date with the following, widely used individual printers and printer series:**

<b>BROTHER</b>	All non-GDI printers
<b>CANON</b>	All bubble jet printers
<b>CITIZEN</b>	All matrix printers
<b>EPSON</b>	All matrix, ink-jet and laser printers
<b>FUJITSU</b>	All matrix printers
<b>Hewlett-Packard</b>	LaserJet series II and III, DeskJet and PaintJet series
<b>IBM</b>	All PC matrix and laser printers
<b>KYOCERA</b>	All laser printers
<b>Mannesmann</b>	
<b>Tally</b>	All matrix printer with Centronics interface
<b>NEC</b>	All Pinwriter matrix printers
<b>OKIDATA</b>	All matrix printers, series OL xxx LED printers and laser printers except for OKIPAGE 4W
<b>PANASONIC</b>	All non-GDI matrix and laser printers
<b>SEIKO</b>	All matrix printers
<b>STAR</b>	All matrix printers

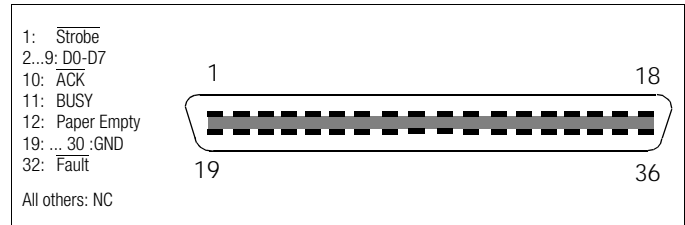
*No guarantee is made for the completeness or correctness of this list.*

## 5 Technical Data

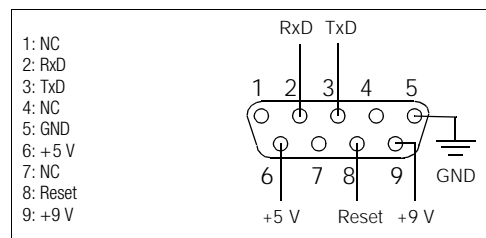
### Electrical Data

Operating Voltage	8 ... 15 V DC at pin 9 (+) and pin 5 (-) or 5 V DC $\pm 25\%$ at pin 6 (+) and pin 5 (-)
Power Consumption	20 mA
Input Buffer	94 bytes, FIFO

<b>Parallel Interface</b>	36 pin standard Centronics 8 bit parallel
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<b>Serial Interface</b>	9 pin male, 9600 baud, no start bit, 8 data bits, 1 stop bit
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### Electromagnetic Compatibility

Interference Emission	EN 61 326-1
Interference Immunity	EN 61 326/A1

### Mechanical Design

Protection	IP 20
Cable Length	1.5 m
Weight	150 gr.

All product and manufacturer designations used in these operating instructions are the registered trade marks of the respective manufacturers.