Using a non-standard printer with the Sentinel I-21/B-21/F-21/C-20

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OVERVIEW

The Sentinel series of leak test instruments has the ability to send the results of each test to a printer (typically) or other compatible device (such as a computer or PLC) immediately after each test. This bulletin documents the hardware and protocol issues involved. The printer can pause the transmission of data (by telling the Sentinel instrument that it is not ready), but keep in mind that the Sentinel instrument has a very small output buffer.

For information regarding the continuous logging of test results to a personal computer, please request Applications Bulletin #104.

DISCUSSION

The RS232 port on the Sentinel instrument is designed to transmit a fixed format test result packet at the conclusion of each test to a dumb serial printer.

Hardware:

Serial printer, DB9 to DB9 printer cable (available from CTS or most computer stores).

Instrument Settings:

Select “Comm/Printer or RS485 Network/Each Test” (“MENU/Ser Port/Each Test” for the Sentinel C20) from the keypad.

Printer Settings (typically dip switch selected):

9600 baud
8 data bits
no parity
1 stop bit

Cincinnati Test Systems, Inc.
Member of *TASI* - A Total Automated Solutions Inc. Company
5555 Dry Fork Road, Village of Cleves, OH 45002 • Tel. 513-367-6699 • Fax 513-367-5426
Website: www.cincinnati-test.com • E-mail: sales@cincinnati-test.com

Hard Wiring

Because the Sentinel instrument is talking to a serial printer, only three wires of the serial cable are actually carrying information. They are:

Data (pin 2)
Ground (pin 5)
Not Busy (pin 8)

If you are making your own cable, make sure that the Data output from the Sentinel instrument connects to the Data input of your printer. This is typically pin 3.

B. B./G.G.
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