S E R V I C E   N O T E

SUPERSEDES: 8116A-07

HP 8116A Pulse/Function Generator 50 MHz

Serial Numbers: 0000A00000 / 2901G11520

Solving EOI Problems

To Be Performed By: HP-Qualified Personnel

Situation:

Some customers have indicated that the HP-IB hangs up/front panel locks up when the HP 8116A is under HP-IB control and the used terminators are 'CRLF' and 'EOI'. The instrument is designed to operate with messages terminated by 'CRLF' or 'END'!

Solution/Action:

Use correct terminator and/or hardware change.

A) Correct terminator

It is recommended to use 'CRLF' as terminator! This is easily accomplished as HP Basic normally terminates a message with 'CRLF' (the default end-of-line sequence) only, e.g.:

OUTPUT 716;B$ Outputs a string followed by 'CRLF'. The 'EOI' line is not pulled.

Continued

DATE: 11 August 1992

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION AVAILABLE		

ACTION CATEGORY:	AGREEABLE TIME	■ PERFORMANCE ENHANCEMENT ☐ SERVICE/RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ■ HP LOCATION	AVAILABLE UNTIL:
AUTHOR: PW	ENTITY: B1000	ADDITIONAL INFORMATION:

(hp) HEWLETT PACKARD

However, if 'EOI' (end-or-identify) is to be used instead of 'CRLF', the statement
should be followed by 'END', e.g.:

OUTPUT 716;B$ END   Pulls the 'EOI' line during the last character B$,
                                    suppresses 'CRLF'.

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Caution

Boards are sensitive to electrostatic discharge (ESD). Please
use standard ESD precautions whenever the unit's covers are
removed!

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B) Hardware change Users of some non-HP versions of Basic may experience
   difficulty in terminating with 'CRLF' alone, 'EOI' cannot (easily) be turned
   off. If this is so, hardware changes have to be done.

   The following is a summation of the steps necessary depending of the instruments
   serial number.

   1. With the instrument switched OFF, unscrew and remove the four rear frame
      feet of the instrument.

   2. Unscrew and remove the cover top (MP18).

      Instruments with serial number 0000G00000 to 2520G05070, and
      instruments with serial number 0000A00000 to 2537Axxxxx

   3. Take the CPU Board A3 out of the instrument. Cut the track from U34 pin 14
      to U30 pin 25 (component side of A3). Solder a pull-up resistor (10K, 0757-
      0442) on the non-component side between U30 pin 25 and pin 20 (+5V).

      Instruments with serial number 2632G05071 to 2632G06295, and
      instruments with serial number 2708Axxxxx to 2816Axxxxx

   3. These instruments have the 'EOI' line cut and a 10 k pull- up resistor between
      pin 25 and pin 20 of U30.

      If customers need the 'EOI' line reconnected:

      Delete A3R23, R-FXD 10K, from U30 pin 25 to pin 20 (+5V). Connect U34 pin
      14 to U30 pin 25. Connect U34 pin 13 to A3J2 pin 25.

      Instruments with serial number 2752G06296 to 2901G11520, and
      instruments with serial number 2816Axxxxx to 3001Axxxxx

   3. Transfer the Jumper A3W3 (rear center of A3) from the factory-setting position
      "EOI" to position "3".

   4. Reassemble the cover top and the rear frame feet.

   5. Run the Performance Tests.