SUPERSEDES:  NONE

## HP 33120AFunction/Arbitrary Waveform Generator

**Serial Numbers:**       US36015500 / US36017189

### RS232 Communication Error for the HP 33120A

**To Be Performed By:** Test may performed by the customer, the part must be ordered and replaced by an HP Repair Specialist

**Parts Required:**

| Model | HP P/N | Description | Quantity |
|---|---|---|---|
| HP 33120A Std | 33120-89800 | Replacement Unit | 1 |
| HP 33120A Opt.001 | 33120-89801 | Replacement Unit | 1 |
| HP 33120A Std with Opt. 1BP | 33120-89802 | Replacement Unit | 1 |
| HP 33120A Opt.001 with Opt. 1BP | 33120-89803 | Replacement Unit | 1 |

*Continued*

DATE: July 1998

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ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

# MODIFICATION RECOMMENDED

| ACTION CATEGORY: | IMMEDIATELY ON SPECIFIED FAILURE AGREEABLE TIME | STANDARDS: LABOR 1.0 Hours | | | |
|---|---|---|---|---|---|
| LOCATION CATEGORY: | CUSTOMER INSTALLABLE ON-SITE HP LOCATION | SERVICE INVENTORY: | RETURN SCRAP SEE TEXT | USED PARTS: | RETURN SCRAP SEE TEXT |
| AVAILABILITY: | PRODUCT'S SUPPORT LIFE | HP RESPONSIBLE UNTIL:  July 2000 | | | |
| AUTHOR: REM | ENTITY: 0940 | ADDITIONAL INFORMATION: | | | |

**hp HEWLETT PACKARD**

**Situation:**

- Improper fabrication of a programmable IC has resulted in production of some products that will not communicate through the RS-232 interface. The only product feature affected by this fabrication defect is the RS232 communications interface. All attempts to communicate across the RS232 interface will result in one of the following errors:
  - No response on the front panel keys of the instrument   (no key clicks)
  - An error indication hardware and /or software
  - An instrument malfunction

**Solution / Action:**

Defective units can be identified by doing one of the following three tests:

1) Have a qualified service technician remove the rear bezel and cover and visually inspect the IC listed below:
   Inspection criteria:   The defective IC will have a yellow paper label with markings:
                   34401-88842
                   Rev 5

      Note:    This IC (U903) is located near the HPIB connector.  Component Locator Diagram may be found in the Product Service Guide, page 142.

2) This test uses front panel menu selections and a jumper between two pins on the RS232 connector .

   1. Setup your unit for RS232 communication, use the following keystrokes:
      1. Shift - Menu ON
      2. >,>,>,> to the "INPUT/OUTPUT" menu
      3. V, > to the "INTERFACE" menu
      4. V, > to the "RS232", ENTER

   2. Turn the unit off and place a small jumper between pin 2 and pin 4 of the RS232 connector (located on the back of the unit).

   3. Turn unit on. A defective IC will cause the unit to give you an error "625" and beep continuously.

   4. Good units will give an error "511" and only beep once.

3) This test requires the user to connect the unit to a Personal Computer with an RS232 cable (F1047-80002 or equiv.) and attempt to communicate using:

   - HP 34811A BenchLink Arb
   - Win 3.1 Terminal
   - Win95 Hyper Terminal

(Please refer to your HP 33120A User Guide, Chapter 4 Remote  Interface Reference, Section - RS232 Interface Configuration, for the proper configuration between your computer and the unit being tested.)

After you connect the unit to a PC with the proper RS232  cable and configure the interface, try sending "*IDN?" command.  If the unit has a defective IC there will be no response.  If you receive back the instruments identification string then the instrument does not have a defective IC.

Units that to meet the criteria listed below are defective.

Criteria:

- Within the listed serial number range
- One of the three tests has been performed and the results indicates a defective unit

Defective units are to be exchanged for a proper replacement unit
(See part number listed above).

Please return the defective unit directly to the factory using the enclosed prepaid shipper or to:

> Hewlett-Packard
> 815 14th Street S.W.
> Loveland, CO.  80537
> USA
> Attn: Instrument Repair Coordinator; MS DU402