

# HP 2933A Factory Data Printer



The HP 2933A 136-column printer offers fast, high-quality printing for data capture applications. Bar code and large character generation are standard. Simplicity of operation, graphics, and long-distance interface options allow the 2933A to meet the remote and distributed printing needs of manufacturing systems.

## Bar Code Generation

The 2933A automatically generates bar codes for your routing sheets, part labels, and inventory lists in any of several common code types. In addition to Intermec Code 39, Industrial 2 of 5, Matrix 2 of 5, and Interleaved 2 of 5, you may generate your own codes with application programs. The printer also prints the alphanumeric equivalent of the bar code, so you are less likely to have errors in attaching pre-printed labels to parts or documents.

## Paper Handling

You can produce labels, wide spread sheets, or multipart forms as you require. The adjustable tractors add the convenience of continuous forms of widths up to 400 mm (15.75"). The straight paper path assures smooth movement of multipart forms of up to six parts.

The paper-saving last-form tearoff feature and practical front forms loading assure paper handling convenience and efficiency for all your printing applications.

### Features:

- 200 cps, 9 x 12 matrix printing
- Automatic bar code and large character generation
- Last-form tearoff
- Straight paper path
- Front paper loading
- Adjustable tractor-feed mechanism
- OCR A and B font accessories

### Benefits and Advantages:

Provides high-quality printing for documents, labels and lists.  
Easily incorporated into your data capture application programs.  
Saves paper — no need to waste a blank sheet to remove your printout.  
Paper and multipart forms advance reliably.  
Allows you to load or change paper quickly and conveniently.  
Accommodates a variety of paper sizes.  
Allows you to print efficient machine-readable information that your customers can also read.

### Applications

- Factory Data Printer

The 2933A, featuring automatic bar code and large character generation, offers printing capabilities and long-distance interfaces that meet many of the distributed printing needs of data capture applications.

### Print Sample

LARGE CHARACTERS  
UP TO 28 X MAGNIFICATION

BAR CODE



**HP Computer Museum**  
**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**

## Specifications

### PRINT SPEED

200 characters per second  
Bidirectional, optimized path

### CHARACTER STRUCTURE

9x12 character cell

### CHARACTER SETS

HP Roman8 character set includes

128 USASCII  
(upper/lower case and control codes)

96 Roman Extension

(French, Spanish, German, Italian, United Kingdom, Norwegian/Danish, Swedish/Finnish, JASCII)

ISO 7-bit languages

Kana8 character set

128 JASCII

96 Katakana

64 Line Drawing

64 Math Symbols

Large Characters (up to 28X magnification)

### BAR CODE PRINTING

Code types

InterMec Code 39\*, Industrial 2 of 5, Matrix 2 of 5, Interleaved 2 of 5, internally-generated. User-definable codes may be generated by user program. Bar code printing is designed to be compatible with HP readers. For compatibility with other readers check with your sales representative.

Throughput

650 labels per hour maximum for a 10-character Code 39\* alphanumeric bar code label 0.6 inches high, printed with the default density of 3.4 characters per inch.

Paper type

OCR quality single part fanfold paper with uniform thickness, opacity, and reflectivity. Paper should have a smooth, non-gloss surface finish. Recommend 20# minimum, white, matte finish computer stock.\*\*

### GRAPHICS

90 x 90 dots per inch dot addressable raster graphics

### PRINTING FORMAT

Print pitch (characters per inch)

16.36—Compressed

10.0—Normal

5.0—Expanded

Large character generation

Line length (characters per line)

223—Compressed

136—Normal

68—Expanded

Variable line spacing (lines per inch)

1, 2, 3, 4, 6, 8, or 12

### FORMS HANDLING

Forms tractors

Last-form tearoff

(requires one inch top margin)

16 Channel vertical forms control

Programmable page and text length, margins and tabs

Automatic perforation skip

### FORMS REQUIREMENTS

Paper widths (edge to edge)

Maximum width: 400mm (15.75")

Minimum width: 57mm (2.25")

Paper weights

Single part: 15 to 100 pound (56-380 gm./sq. meter)

Multipart: 12 pound (46 gm./sq. meter), up to six total

copies; 8 pound carbons (30 gm./sq. meter); .51 mm

(.020") maximum pack thickness.

### CONTROLS AND INDICATORS

Power on indicator

Paper out indicator

On line indicator/key

Modem indicator

Line and page advance keys

### POWER REQUIREMENTS

Input voltage

100, 120, 220, 240 volts AC (+5%, -10%) selectable

from rear panel; 47.5-66Hz

Power consumption

120 VA maximum non-printing

300 VA maximum printing

### INTERFACES

RS-232C V.24 Full Duplex (standard; see ordering information for additional options)

Serial Protocol

ENQ/ACK, X-on/X-off and printer busy

2K character buffer

Bell 103 and 212 type modem support

Receive rates selectable up to 19200 baud

Parity

25 Pin EIA RS-232C connector

### ENVIRONMENTAL CONDITIONS

Temperature, free space ambient

0° to 55°C (32° to 131°F) operating

-40° to 75°C (-40° to 167°F) non-operating

Humidity

Top paper exit: 10% to 90% RH (non-condensing)

Rear paper exit: 10% to 70% RH (non-condensing)

Acoustics (per ISO DP7779 standard)

Sound power level—L<sub>WA</sub>: 73dB(A)

Sound pressure level—L<sub>PA</sub>: 63dB(A) (@ 1 meter

bystander position)

### PHYSICAL SPECIFICATIONS

365mm (14.37") D x 600mm (23.85") W x

185mm (7.28") H

20.4 kg (45 lbs.) net weight

### PRODUCT CERTIFICATIONS

UL, CSA, IEC Compliance. FCC Class B certified per

FCC Rules, Part 15, subpart J, when used with a

Class B computing device.

### PRINTING DUTY CYCLE

No duty cycle limitations.

\*Code 39 is a trademark of Interface Mechanisms, Inc.

\*\* All forms and card stock should be tested for satisfactory feeding, registration, print quality, and readability.

## Ordering Information

### HP 2933A PRINTER

Standard unit includes

RS-232C V.24 Interface, ribbon, all supported character sets, power cord, owners manual.

Power supply voltage is user-configurable to 100, 120, 220, or 240 V.

Interface Options

Interface options replace the standard interface. Only one option can be ordered. Except for option #033, 034, and 039, no cable is provided; it must be ordered separately.

Option Number

Interface

#033 Multipoint Synchronous (1st terminal).  
#034 Multipoint Synchronous (Nth terminal). Cable included.  
#035 RS-422  
#039 DSN/Data Link. Cable included.  
#042 Centronics-type Parallel  
#046 HP-IB

## Supplies and Accessories

Most supplies can be ordered via the HP Computer Users Catalog. For immediate price and availability information, in the U.S. dial, toll free, 800-538-8787. In California, Alaska, and Hawaii, call 408-738-4133; in West Germany, 07031-142829 or 223133; in the United Kingdom, 0734-792868 or 792959; in The Netherlands, 020-470639.

92171G Paper catcher  
For table top.  
92214P Printer stand  
Includes cabinet, paper catcher and casters.  
92154B Print head  
Customer-installable print head has average life of 200 million characters.  
92155L Three ribbon pack  
Each ribbon cartridge provides an average life of 10 million characters.  
92188G OCRA Character style cartridge††  
92188T OCRB Character style cartridge††

## Interface and Cable Requirements

| SYSTEM SERIES/MODEL                              | PRINTER INTERFACE | CABLE  |
|--|-------------------|--|
| Series 80  | HP-IB             | Included with 82937A HP-IB interface on host   |
| Series 100                                       | HP-IB*<br>RS-232C | 10833A, B, C or D†<br>13242G                   |
| Series 200<br>Models 16, 26, 36                  | HP-IB             | 10833A, B, C, or D†                            |
| HP 250**   | HP-IB<br>RS-232C  | 10833A, B, C, or D†<br>8120-3258               |
| HP 1000<br>A Series                              | HP-IB*            | Included with 12009A HP-IB interface with host |
| E, & F Series                                    | RS-232C           | 92219G   |
| HP3000**   | RS-232C<br>RS-422 | 92219G<br>13242P                               |
| HP 9000  | HP-IB             | 10833A, B, C, D†                               |
| HP 262X Terminals<br>All Models<br>2625A & 2628A | RS-232C<br>HP-IB* | 13242G<br>10833A, B, C, D†                     |
| HP 264X Terminals<br>2645A<br>2647F/A, 2648A     | RS-232C<br>HP-IB  | 13232G<br>10833A, B, C, D†                     |

\* Recommended interface.

\*\* Semi-restricted mode: user cannot access the following features over data communication line: RESET, ON-LINE/OFF LINE, SELF TEST, PAGE LENGTH, PROGRAMMABLE VFC, IDENTIFY REQUEST, PRIMARY STATUS, & MODE STATUS.

\*\*\* Supported on B.06.00 release of HP250 operating system.

† B, C, or D cables vary by length.

†† Compatibility of OCR characters with reading equipment should be tested.

For more information, call your local HP Sales Office or Regional Office: East (301) 948-6370 • Midwest (312) 255-9800 • South (404) 955-1500 • West (213) 877-1281. Or write to Hewlett-Packard: U.S.A. - 1820 Embarcadero Road, Palo Alto, CA 94303. Europe: P.O. Box 999, 1180 AZ Amstelveen, The Netherlands. Canada: 6877 Goreway Drive, Mississauga, L4V 1M8, Ontario. Japan: YHP Ltd., Ohashi 29-21 Takaido-Higashi 3-chome, Suginami-ku, Tokyo 168.

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