
Hewlett-Packard KeyWand Bar Code Reader

Technical Data

HBKW-1000 Series

Features

- Works with IBM Compatible Computers
- Automatically Recognizes Mode and Code Set for Most PC Models
- Operates with or without a Keyboard Attached
- Powered from the PC
- Low Current Draw
- Automatically Discriminates 9 Bar Code Symbolologies
- International Language Support
- Visual/Audible Feedback
- Programmable via Bar Code Menus
- Message Editing
- Rugged Polycarbonate Case
- Sapphire Tip
- 15 KV ESD Case Isolation
- 25 KV ESD Immunity
- Manufacturing - ISO 9002 Certified
- One Year Warranty

Description

The Hewlett-Packard Programmable KeyWand Reader is an intelligent peripheral designed to easily add bar code reading capability to personal computers via the keyboard port. Power is



provided by the PC, and the KeyWand Reader can operate with or without the keyboard attached. The KeyWand Reader is transparent to the application since data appears as keyboard input. Installing a KeyWand Reader does not require hardware or software modifications. The KeyWand Reader is also compatible with 17 keyboard languages.

All scanning, decoding, and I/O electronics are self-contained within the compact KeyWand

Reader. The HBKW-1000 Series acknowledges a good scan with a flashing LED and/or by accessing the PC's internal beeper.

The KeyWand Reader automatically discriminates 9 standard bar code symbolologies. A Message Editing feature allows the scanned data to be edited or reformatted prior to transmitting to the host. Bar code type identification, label length checking, and a check character verification are options that, when enabled, ensure a high level of data integrity.

Configuration parameters are stored in non-volatile memory so the KeyWand Reader retains the configuration when power is turned off. The KeyWand Reader autodiscriminates the PC type to which it is connected and whether or not Caps Lock is enabled.

IBM Compatible Computers

HP Vectra
IBM PC and Compatibles

Bar Code Symbolologies

Code 39 Standard or Extended
Int. 2 of 5 Code 128
UPC A, E EAN 8, 13
Codabar Code 11
MSI Code Code 93

International Language Support

The HP KeyWand Reader is menu programmable for 17 languages.

US English Finnish
UK English French Canadian
French Latin American
German Norwegian
Italian Portuguese
Spanish Swedish
Dutch Swiss French
Belgian Swiss German
(Flemish) Danish

Visual/Audible Feedback

The HP KeyWand Reader employs the most flexible, programmable acknowledgment of a good scan to the user. The Visual Feedback LED is positioned close to the tip of the wand which makes it easy for the user to see. This is useful in noisy environments or where silence is required. For situations that require an audible acknowledgment, a TSR program stored and uploaded from the KeyWand Reader allows the user to program the pitch and duration of the PC beeper tone.

Programming via Bar Code Menus

The KeyWand Reader can be configured by scanning special bar code labels. This allows decoding, message editing,

keyboard language, and other options to be tailored to a specific application. The reader can display its current configuration on the computer screen. See sample (below).

Applications

- **Manufacturing**
 - Work-in-Process
 - Inventory Control
 - Shipping and Receiving
 - Warehousing and Distribution
- **Retail POS**
- **Library Circulation**
- **Office Automation**
 - Document Tracking
- **Health Industry**
 - Medication Dispensation
 - Blood banks
- **Transportation**
 - Waybill Tracking

Configuration Display

Version 14.3

CONFIGURATION DISPLAY

CODE

READ

CHECK

CHAR

LENGTH

CODE ID

(c) Hewlett-Packard 1986-1992

OTHER CONFIG. SETTINGS

Code 39

[yes]

[no]

yes

[1]

[32]

[a]

Extended: [no]

Int. 2/5

[yes]

[no]

yes

[4]

[32]

[b]

Length: [variable]

Codabar

[yes]

[no]

no

[1]

[32]

[d]

Include start/stop: [yes]

Code 128

[yes]

yes

no

[1]

[32]

[e]

Code 11

[yes]

[1]

yes

[2]

[32]

[f]

MSI Code

[yes]

yes

yes

[3]

[32]

[g]

Code 93

[yes]

yes

no

[1]

[32]

[h]

UPC/EAN

[yes]

yes

yes

fixed

[c]

[+ none]

E: [0]

[EAN: [yes] ID chars: [off]]

MESSAGE COMPONENTS

Ctrl character = ^ + letter

<<nn>> = Extended Key Index

Header: [<<61>>]

Trailer: [*M]

No-read: [<<61>><<61>>]

KEYCODES

OPERATOR FEEDBACK

MISCELLANEOUS

Key Delay: [1] ms

Ready Signal: [on]

[U.S. English]

Menu Scan Responses: [on]

Code Set: [auto]->2

Good Read LED: [flashes]

ALT Sequence: [off]

[Wedge] (using keyboard)

No-read recognition: [off]

Family: [auto]->PC/AT,PS/2

Ctrl Chars: [ASCII]

All items within the square box

All items within the square brackets [] are configurable.

Specifications

Scan Speed 7.6 - 127 cm/s
(3 to 50 in/s)
Tilt Angle 5 to 40°
Minimum Contrast 45%
Light Wavelength:
HBKW-10XX 655 nm
HBKW-12XX 655 nm
HBKW-14XX 820 nm
Resolution:
HBKW-10XX 0.33 mm
(0.013 in)
HBKW-12XX 0.19 mm
(0.0075 in)
HBKW-14XX 0.13 mm
(0.005 in)
Wand Diameter... 23 mm (0.9 in)
Wand length..... 160 mm (6.3 in)
Weight 165 g (5.9 oz)
Color Gray
Case Polycarbonate
Tip Sapphire

Environmental

Temperature:

Operating:
-20°C to +70°C (-4°F to
+158°F)

Storage:

-40°C to +70°C (-40°F to
+158°F)

Humidity (Non-condensing):
95% at +40°C (+104°F) max
(non-condensing)

Ambient Light:

100 K lux (max)

Rain:

MIL-STD-810, Method 506,
Procedure II

Dust:

MIL-STD-810, Method 510

Shock:

Ten drops to sealed concrete
(random orientation) from
1.2 m (4 ft)

Typical Current Draw

Idle 10 mA
Operating..... 20 mA
LED Enable..... +11 mA

FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Model	FCC Identification
HBKW-1000 Series	FCC ID: B94KDRZ

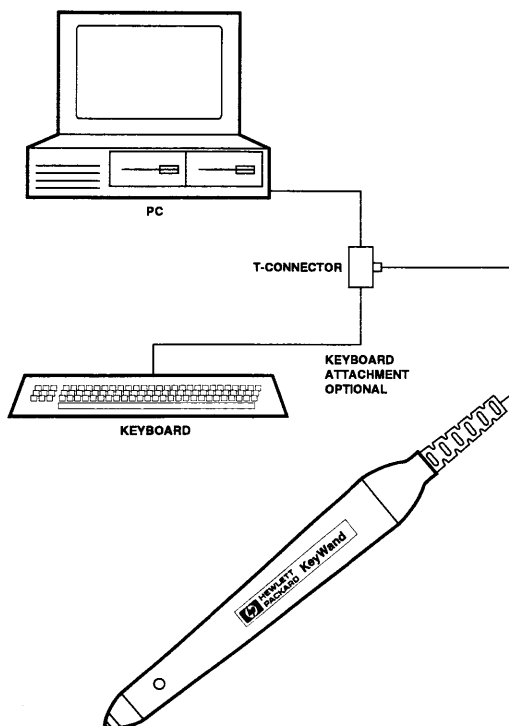
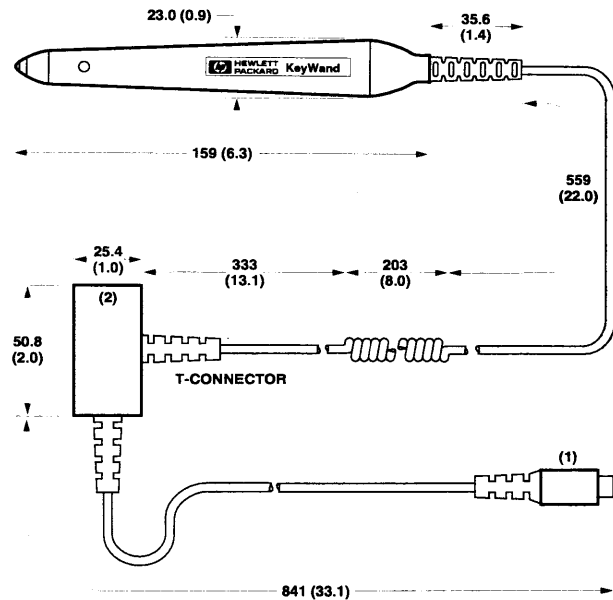


Figure 1. Systems Configuration.



NOMINAL DIMENSIONS IN MILLIMETERS (INCHES)

HBKW-1010/1210/1410 (1) MALE 5-PIN DIN CONNECTOR
(2) FEMALE 5-PIN DIN SOCKET

HBKW-1020/1220/1420 (1) MALE 6-PIN MINI DIN CONNECTOR
(2) FEMALE 6-PIN MINI DIN SOCKET

Figure 2. Wand Configuration.

Hewlett-Packard KeyWand Bar Code Reader

Technical Data

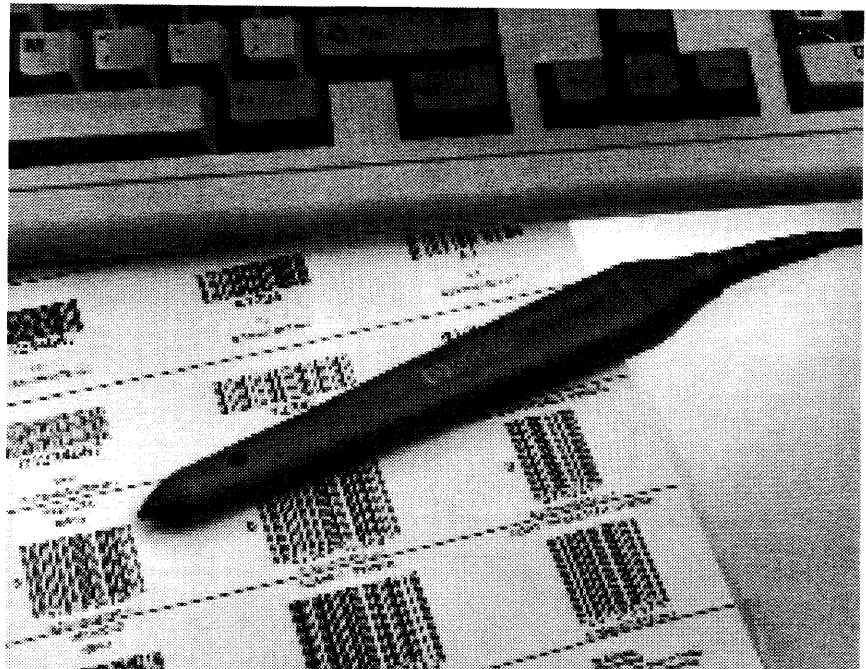
HBKW-1000 Series

Features

- Works with IBM Compatible Computers
- Automatically Recognizes Mode and Code Set for Most PC Models
- Operates with or without a Keyboard Attached
- Powered from the PC
- Low Current Draw
- Automatically Discriminates 9 Bar Code Symbolologies
- International Language Support
- Visual/Audible Feedback
- Programmable via Bar Code Menus
- Message Editing
- Rugged Polycarbonate Case
- Sapphire Tip
- 15 KV ESD Case Isolation
- 25 KV ESD Immunity
- Manufacturing - ISO 9002 Certified
- One Year Warranty

Description

The Hewlett-Packard Programmable KeyWand Reader is an intelligent peripheral designed to easily add bar code reading capability to personal computers via the keyboard port. Power is



provided by the PC, and the KeyWand Reader can operate with or without the keyboard attached. The KeyWand Reader is transparent to the application since data appears as keyboard input. Installing a KeyWand Reader does not require hardware or software modifications. The KeyWand Reader is also compatible with 17 keyboard languages.

All scanning, decoding, and I/O electronics are self-contained within the compact KeyWand

Reader. The HBCW-1000 Series acknowledges a good scan with a flashing LED and/or by accessing the PC's internal beeper.

The KeyWand Reader automatically discriminates 9 standard bar code symbolologies. A Message Editing feature allows the scanned data to be edited or reformatted prior to transmitting to the host. Bar code type identification, label length checking, and a check character verification are options that, when enabled, ensure a high level of data integrity.