Heron™

D130 READERS

QUICK REFERENCE

820001201 (Rev A)

USING HERON™ SERIES READERS

Heron™ guns automatically scan barcodes **at a distance**. Simply aim and pull the trigger. Code scanning is performed along the center of the light bar emitted from the reading window. This bar must cover the entire code.
Successful scanning is obtained by tilting the scanner with respect to the barcode to avoid direct reflections which impair the reading performance, see the figure above.
Successful reading is signaled by an audible tone plus a good-read green spot.

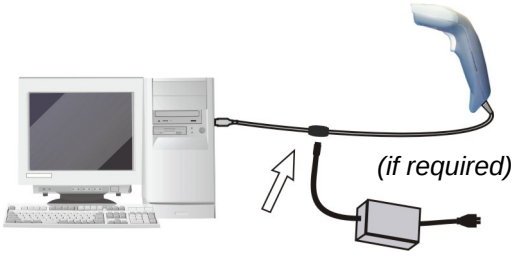
By correctly inserting the reader into the stand, it is immediately ready to automatically read any code present in its reading area without pressing the trigger. Furthermore, a green aiming light is continuously emitted to facilitate the positioning of the barcode to be read, see the figure above.
To guarantee single code reading, same code consecutive reading requires the code to be removed from the reading area (no decoding) before the reader will accept the same code.

CONNECTIONS

RS232

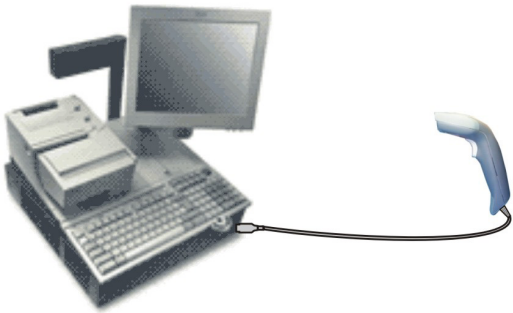
With the RS232 cable, this accessory device is intended to be supplied by a UL Listed or CSA Certified Direct Plug-in Power Unit marked "Class 2", rated 5 V, minimum 180 mA.

USB



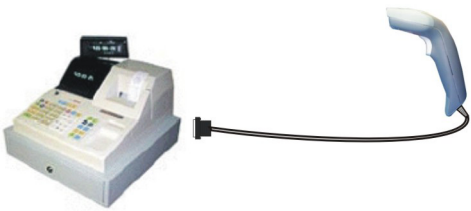
With the USB cable, this accessory device is intended to be supplied by a UL Listed or CSA Certified Power Unit marked "Class 2", or an LPS power source which supplies power directly to the reader.

IBM USB POS



With the USB cable, this accessory device is intended to be connected to a UL Listed or CSA Certified computer which supplies power directly to the reader.

PEN

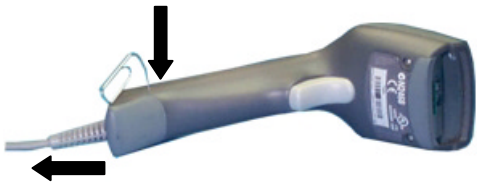


With the Pen Emulation cable, this accessory device is intended to be supplied by a UL Listed or CSA Certified Power Unit marked "Class 2", or an LPS power source which supplies power directly to the reader.

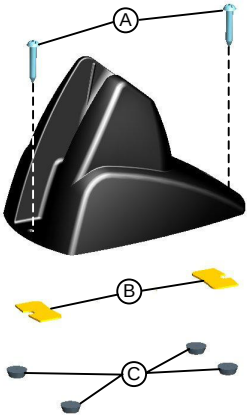
WEDGE

With the Wedge or PC Notebook cables, this accessory device is intended to be connected to either a UL or CSA Certified Listed Computer which supplies power directly to the reader or a UL Listed or CSA Certified Direct Plug-in Power Unit marked “Class 2”, rated 5 V, minimum 180 mA.

DISCONNECTING THE CABLE



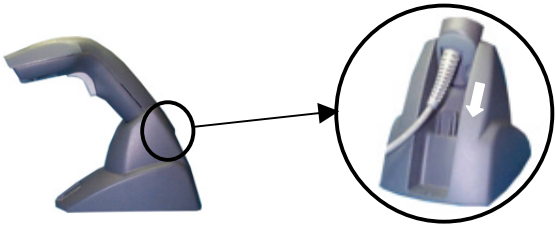
STAND INSTALLATION



The stand can be mounted by using self-tapping screws, double sided adhesive strips or rubber feet:

A) mount the stand directly to the surface using the self-tapping screws;
B) carefully clean the bottom surface of the stand and the table surface. Remove the protective plastic from one side of the adhesive strips and stick them on the stand bottom. Then, remove the plastic from the other side of the strips and affix the stand to the table;
C) carefully clean the bottom surface of the stand, remove the protective film from the rubber feet and stick them in the corresponding housing on the bottom surface. It is also possible to fix an optional metal plate.

INSERTION INTO STAND



Pair the reader to the stand paying attention to insert the handle into the stand clip (see figure above). Correct insertion will be signaled by a beep; then, the reader will be ready to read barcodes.

INTERFACE SELECTION

Follow the procedure to configure the interface required by your application

- USB Interface
- RS232 Interface
- Wedge Interface
- Pen Interface

USB INTERFACE CONFIGURATION

The USB interface is compatible with:

Windows 98 (and later)	IBM POS for Windows
Mac OS 8.0 (and later)	4690 Operating System

START-UP

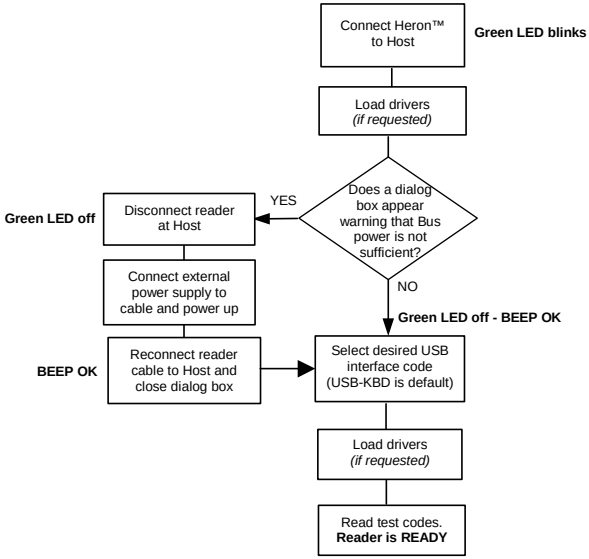
As with all USB devices, upon connection, the Host performs several checks by communicating with the Heron™. During this phase the green LED on the Heron™ reader blinks and normal operations are suspended. Two basic conditions must be met before Heron™ is ready to read codes, the correct USB driver must be loaded and sufficient power must be supplied to the reader.

For all systems, the correct USB driver for the default USB-KBD interface is included in the Host Operating System and will either be loaded automatically or will be suggested by the O.S. and should therefore be selected from the dialog box (the first time only).

If the Host supplies sufficient power to the reader, the start-up phase ends correctly, the green LED stops blinking and the reader emits the beep OK signal.

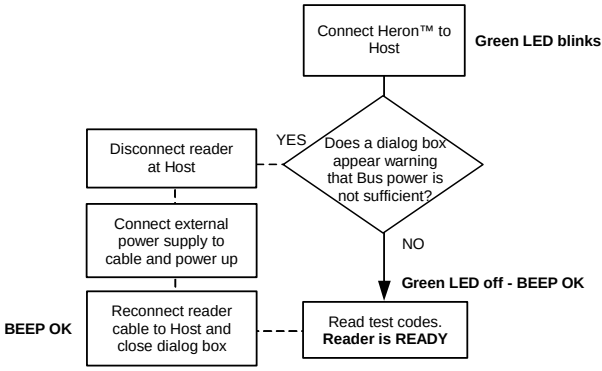
If the Host does not supply sufficient power to the reader, a dialog box will appear on the Host and the reader will be blocked (green LED continues blinking). In this case, disconnect the USB cable at the Host (green LED stops blinking), connect and power-up an external supply to USB cable then reconnect the USB cable to the Host and close the dialog box. The reader emits the beep OK signal. You can now read codes. At this point you can read the USB interface configuration code according to your application. Load drivers from the O.S. (if requested). When configuring the USB-COM interface, the relevant files and drivers must be installed from the USB Device Installation software which can be downloaded from the web page http://www.datalogic.com/services/support/. The reader is ready.

First Start-Up



Successive start-ups will automatically recognize the previously loaded drivers. If external power is used, verify that external power is already supplied.

Successive Start-Ups



USB INTERFACE SELECTION

USB-KBD

USB-COM*

USB-IBM-Table Top

USB-IBM-Hand Held

USB-KBD-ALT-MODE

USB-KBD-APPLE

* When configuring USB-COM, the relevant files and drivers must be installed from the USB Device Installation software which can be downloaded from the web page (see http://www.datalogic.com/services/support/).

USB KEYBOARD NATIONALITY

USB-KBD users should select one of the following KEYBOARD NATIONALITY codes.

Belge

Deutsch

English

Español

Français

Italiano

Svenskt

USB KEYBOARD NATIONALITY (Continued)

USA

Japanese

RS232 READER CONFIGURATION

Read the RESTORE DEFAULT code, then read the interface selection code for your application.

RESTORE DEFAULT

RS232

Standard

POS Systems

Nixdorf Mode A

Fujitsu

ICL Mode

WEDGE READER CONFIGURATION

Read the RESTORE DEFAULT code, then read the interface selection code for your application.

RESTORE DEFAULT

WEDGE

IBM AT or PS/2 PCs

IBM XT

PC Notebook

IBM SURE1

IBM Terminal 3153

WEDGE (continued)

IBM Terminals 31xx, 32xx, 34xx, 37xx:

To select the interface for these IBM Terminals, read the correct KEY TRANSMISSION code. Select the KEYBOARD TYPE if necessary (default = advanced keyboard).

KEY TRANSMISSION MODE

make-only keyboard

make-break keyboard

KEYBOARD TYPE

advanced keyboard

typewriter keyboard

The following interface selection allows barcodes sent to the PC to be interpreted correctly independently from the Keyboard Nationality used. **You do not need to make a Keyboard Nationality selection.**

(default = Num Lock Unchanged)
Make sure the Num Lock key on your keyboard is ON.

IBM AT - ALT mode

PC Notebook - ALT mode

WEDGE (continued)

Wyse Terminals

ANSI Keyboard

PC Keyboard

ASCII Keyboard

VT220 style Keyboard

Digital Terminals

VT2xx/VT3xx/VT4xx

APPLE

APPLE ADB Bus

WEDGE KEYBOARD NATIONALITY

Wedge users should select one of the following WEDGE KEYBOARD NATIONALITY codes.

Belge

Deutsch

English

Español

Français

Italiano

Svenskt

USA

The following Keyboard Nationality selection is only valid for IBM AT compatible PCs:

Japanese

PEN READER CONFIGURATION

Read the RESTORE DEFAULT code, then read the PEN interface selection code.

RESTORE DEFAULT

PEN

DEFAULT VALUES

USB DEFAULT SETTINGS

DATA FORMAT: code identifier disabled, no field adjustment, code length not transmitted, character replacement disabled.

USB KEYBOARD: USA keyboard, inter-character and inter-code delays disabled, control character emulation = ctrl+shift+key;

USB COM: no handshaking, delay disabled, rx timeout 5 sec., ack/nack disabled, FIFO enabled, serial trigger lock disabled;

Default Headers and Terminators for each USB mode:

- USB-KBD: no header, terminator = ENTER
- USB-KBD-ALT-MODE: no header, terminator = CR
- USB-COM: no header, terminator = CR-LF
- USB-IBM-TABLE TOP: not applicable
- USB-IBM-HAND HELD: not applicable

RS232 Standard DEFAULT SETTINGS

9600 baud, no parity, 8 data bits, 1 stop bit, no handshaking, delay disabled, rx timeout 5 sec., ack/nack disabled, FIFO enabled, serial trigger lock disabled;

DATA FORMAT: code identifier disabled, no field adjustment, code length not transmitted, *no header*, *terminator = CR-LF*, character replacement disabled

RS232 Nixdorf DEFAULT SETTINGS

9600 baud, parity odd, 8 data bits, 1 stop bit, handshaking hardware (RTS/CTS), delay disabled, rx timeout 9.9 sec., ack/nack disabled, FIFO enabled, serial trigger lock disabled;

RS232 Nixdorf DEFAULT SETTINGS

DATA FORMAT: code identifier enabled, no field adjustment, code length not transmitted, *no header*, *terminator = CR*, character replacement disabled

RS232 Fujitsu DEFAULT SETTINGS

9600 baud, no parity, 8 data bits, 1 stop bit, no handshaking, delay disabled, rx timeout 2 sec., ack/nack disabled, FIFO enabled, serial trigger lock disabled;

DATA FORMAT: code identifier enabled, no field adjustment, code length not transmitted, *no header*, *terminator = CR*, character replacement disabled

RS232 ICL DEFAULT SETTINGS

9600 baud, parity even, 8 data bits, 1 stop bit, handshaking RTS always on, delay disabled, rx timeout 9.9 sec., ack/nack disabled, FIFO enabled, serial trigger lock disabled;

DATA FORMAT: code identifier enabled, no field adjustment, code length not transmitted, *no header*, *terminator = CR*, character replacement disabled

WEDGE DEFAULT SETTINGS

USA keyboard, caps lock off, caps lock auto-recognition enabled, num lock unchanged, inter-character and inter-code delays disabled, control character emulation = ctrl+shift+key;

DATA FORMAT: code identifier disabled, no field adjustment, code length not transmitted, *no header*, *terminator = ENTER*, character replacement disabled

PEN EMULATION DEFAULT SETTINGS

interpret mode, conversion to code 39 disabled, output level normal, idle level normal, minimum output pulse 600 µs, overflow medium, inter-block delay disabled

POWER SAVE

scan rate max, standby disabled, sleep/USB suspended disabled

READING PARAMETERS

hardware trigger, trigger active level, no trigger timeout, Flash On = 1 sec, Flash Off = .6 sec, one read per cycle, safety time .5 sec, beeper intensity high, tone 2, beeper type monotone, beeper length short, good read spot duration medium, stand recognition beep enabled; automatic operation aiming light enabled

DECODING PARAMETERS

ink spread enabled, overflow control enabled, interdigit control enabled, Puzzle Solver™ disabled, decoding safety = one read

CODE SELECTION

Enabled codes

- EAN 8/EAN 13 / UPC A/UPC E without ADD ON
  check digit transmitted, no conversions
- Interleaved 2/5
  check digit control and transmission, variable length code; 4-99 characters
- Standard Code 39
  no check digit control, variable length code; 1-99 characters
- Code 128
  variable length code; 1-99 characters

Disabled codes:

EAN 128, ISBT128, Code 93, Codabar, pharmaceutical codes, MSI, Plessey, Telepen, Delta IBM, Code 11, Code 16K, Code 49, RSS Codes

ADVANCED FORMATTING PARAMETERS

concatenation disabled, no advanced formats defined

OPERATING TEST

Read the TEST codes below.

EAN-8

EAN-13

Code 39 (Normal)

Code 128

Interleaved 2 of 5

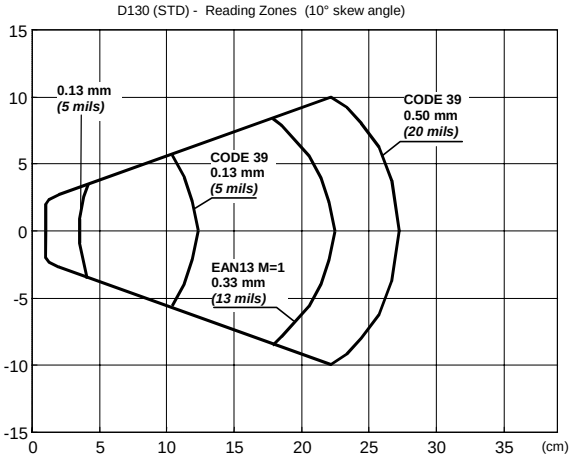
YOUR READER IS NOW READY TO READ BARCODES.
To change the defaults see the HHD II Software Configuration Manual, part number **90ACC1877**.

TECHNICAL FEATURES

Heron™ D130

Electrical Features	
Power Supply RS232 interface	 5 Vdc ± 5%
Consumption: Maximum Operating Sleep mode USB Suspend Mode	 180 mA @ 5 Vdc 155 mA @ 5 Vdc 120 µA @ 5 Vdc 350 µA @ 5 Vdc
Max. Scan Rate	256 scans/sec
Reading Indicators	LED, Good Read Spot, Beeper
Optical Features	
Sensor	CCD solid state (2048 pixels)
Illuminator Wavelength Max. LED Output Power	LED array 630 ~ 670 nm 0.31 mW
LED Safety Class	Class 1 EN 60825-1
Reading Field	see reading diagrams
Max. Resolution	0.10 mm (4 mils)
PCS	min. 15% (Datalogic Test Chart)
Environmental Features	
Working Temperature	0 °C to + 55 °C
Storage Temperature	-20 °C to + 70 °C
Humidity	90% non condensing
Drop Resistance	IEC 68-2-32 Test ED
ESD Protection	16 KV
Protection Class	IP30
Mechanical Features	
Weight (without cable)	about 160 g. (7 oz.)
Cable Length	2 m (6 ft. 6 in.)

READING DIAGRAM



WARRANTY

Datalogic warranties this product against defects in workmanship and materials, for a period of 5 years from the date of shipment, provided that the product is operated under normal and proper conditions.

Datalogic has the faculty to repair or replace the product, these provisions do not prolong the original warranty term.
The warranty does not apply to any product that has been subject to misuse, accidental damage, unauthorized repair or tampering.

LED CLASS

Class 1 LED product.

This product conforms to EN60825-1:2001.

SERVICES AND SUPPORT

Datalogic provides several services as well as technical support through its website. Log on to **www.datalogic.com/services** and click on the links indicated for further information including:

- **Datalogic Services - Warranty Extensions and Maintenance Agreements**
- **Downloads - Software Downloads, Manuals and Catalogues**
- **Contact Us - Listing of Datalogic Subsidiaries and Quality Partners**
- **Authorised Repair Centres**
- **Products >Hand-Held Readers >Software Tools - DL Sm@rtSet™**
  DL Sm@rtSet™ is a Windows-based utility program which allows device configuration using a PC. It provides RS232 interface configuration as well as configuration barcode printing.

PATENTS

This product is licensed by one or more of the following U.S. patents:

4,894,523; 5,021,642; and 6,158,661

This product is covered by one or more of the following patents:

U.S. patents 5,992,740; 6,305,606 B1; 6,631,846 B2; 6,517,003 B2; and 6,712,271 B2
European patents 851,378 B1; 895,175 B1; 962,880 B1; 997,760 B1; and 1,128,315 B1

Additional patents pending.

FCC COMPLIANCE

This device complies with 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 which may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

DATALOGIC S.p.A.,
Via Candini, 2
40012 - Lippo di Calderara
Bologna - Italy

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declare que el

HERON D1XX

e tutti i suoi modelli
and all its models
et tous ses modèles
und seine modelle
y todos sus modelos

sono conformi alle Direttive del Consiglio Europeo sottoelencate:
are in conformity with the requirements of the European Council Directives listed below:
sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous:
den nachstehenden angeführten Direktiven des Europäischen Rats:
cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:

89/336/EEC EMC Directive e **92/31/EEC, 93/68/EEC** emendamenti successivi
and further amendments
et ses successifs amendements
und späteren Abänderungen
y succesivas enmiendas

Basate sulle legislazioni degli Stati membri in relazione alla compatibilità elettromagnetica ed alla sicurezza dei prodotti.
On the approximation of the laws of Member States relating to electromagnetic compatibility and product safety.
Basée sur la législation des Etates membres relative à la compatibilité électromagnétique et à la sécurité des produits.
Über die Annäherung der Gesetze der Mitgliedsstaaten in bezug auf elektromagnetische Verträglichkeit und Produktsicherheit entsprechen.
Basado en la aproximación de las leyes de los Países Miembros respecto a la compatibilidad electromagnética y las Medidas de seguridad relativas al producto.

Questa dichiarazione è basata sulla conformità dei prodotti alle norme seguenti:
This declaration is based upon compliance of the products to the following standards:
Cette déclaration repose sur la conformité des produits aux normes suivantes:
Diese Erklärung basiert darauf, daß das Produkt den folgenden Normen entspricht:
Esta declaración se basa en el cumplimiento de los productos con la siguientes normas:

EN 55022, August 1994: LIMITS AND METHODS OF MEASUREMENTS OF RADIO DISTURBANCE OF INFORMATION TECHNOLOGY EQUIPMENT (ITE)

EN 50024, September 1998: INFORMATION TECHNOLOGY EQUIPMENT. IMMUNITY CHARACTERISTICS. LIMITS AND METHODS OF MEASUREMENTS

Ruggero Cacioppo

Lippo di Calderara, 06/02/2004

Ruggero Cacioppo
Quality Assurance Supervisor