Heron™

D140 READERS

QUICK REFERENCE

GUIDA RAPIDA

GUIDE RAPIDE

KURZANLEITUNG

GUÍA RÁPIDA

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USING HERON™ SERIES READERS

UK

Heron™ readers automatically scan barcodes **at a distance**. Simply aim and pull the trigger. Code scanning is performed along the light bar emitted from the reading window. This bar must cross 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.

I

Le pistole Heron™ leggono i codici a barre **a distanza**: è sufficiente mirare sul codice e premere il grilletto. La lettura avviene sulla banda luminosa che deve attraversare interamente il codice da leggere. Le condizioni ottimali per la lettura si ottengono inclinando lo scanner rispetto al codice, così da evitare riflessioni dirette, che potrebbero compromettere le prestazioni di lettura (vedere la figura qui sopra).

F

Les pistolets Heron™ lisent les codes **à distance**. Il suffit de viser le code et d'appuyer sur la gâchette. Le code est lu par le faisceau sortant de la fenêtre de lecture de l'appareil. Ce faisceau doit traverser le code à barres à lire de part en part.
Pour des prestations optimales inclinez la douchette par rapport au code à lire, afin d'éviter des réflexions directes qui pourraient compromettre la performance de lecture (voir figure ci-dessus).

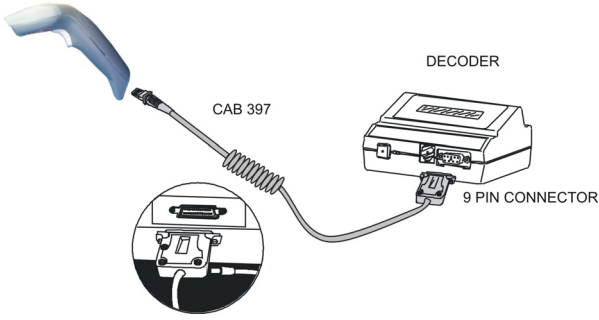
D

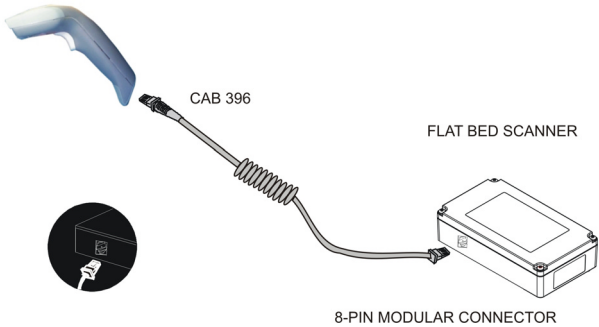
Die Heron™ Lesepistolen lesen Strichcodes **berührungslos**. Es genügt auf den Code zu zielen und die Taste zu drücken. Der Code wird mittels eines Lichtbands gelesen, die das Gerät durch das Lesefenster verläßt und den gesamten Code durchqueren muss.
Ein optimales Leseergebnis wird erreicht, wenn der Benutzer den Scanner bzgl. dem Code etwas neigt, um eine direkte Reflexion zu vermeiden, wie im Bild oben gezeigt wird.

E

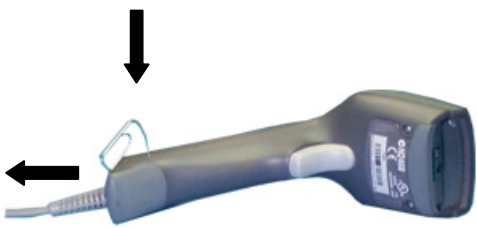
Los lectores Heron™ capturan automáticamente códigos de barras **a distancia**: sólo hay que encuadrar el código y apretar el gatillo. La lectura se realiza sobre el rayo de luz emitida por la ventana de lectura que debe atravesar el código de parte a parte.
Las condiciones óptimas para la lectura se obtienen inclinando el escáner respecto al código de barras para evitar los reflejos directos de luz que podrían perjudicar el rendimiento de lectura (ver figura arriba).

CONNECTIONS

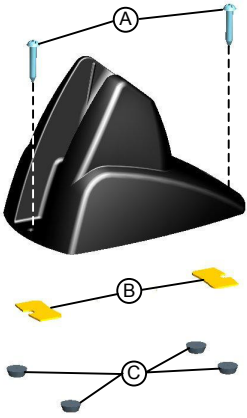




DISCONNECTING THE CABLE



STAND INSTALLATION



UK

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.

I

Lo stand può essere montato utilizzando le viti autofilettanti, le strisce adesive oppure i piedini di gomma:

A) montare lo stand direttamente sulla superficie utilizzando le viti autofilettanti;
B) pulire accuratamente la superficie inferiore della base dello stand e la superficie d'appoggio. Togliere la plastica protettiva da un lato di ogni striscia e attaccare entrambe le strisce alla base dello stand. Rimuovere la plastica protettiva dall'altro lato delle strisce adesive e attaccare lo stand alla superficie d'appoggio;
C) Pulire accuratamente la superficie inferiore della base dello stand, quindi togliere la pellicola protettiva dai piedini e attaccarli all'interno delle apposite sedi nella base di plastica. Inoltre, è possibile fissare un base metallica opzionale.

F

Pour le montage du support il est possible également d'utiliser des vis filetées, des bandes adhésives ou des petits patins en caoutchouc:

A) utiliser des vis filetées pour le montage sur la surface d'appui;
B) nettoyer soigneusement la surface inférieure du support et la surface d'appui. Retirer le plastique protecteur de l'une des faces des bandes et la coller sur la surface inférieure du support. Retirer le plastique protecteur sur l'autre face adhésive et coller le support sur la surface d'appui ;
C) nettoyer soigneusement la surface inférieure du support. Retirer la pellicule protectrice des patins et coller les patins dans les logements correspondants situés sur la surface inférieure du support. Il est possible aussi de fixer une plaque métallique en option.

D

Der Halter kann mittels der selbstschneidenden Schrauben, der Klebstreifen oder mittels der Gummifüßchen befestigt werden:

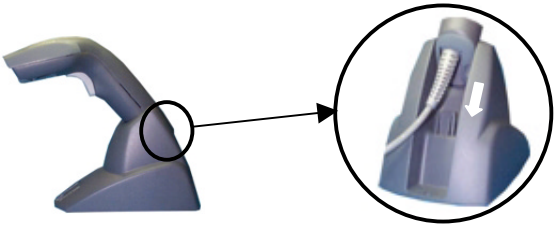
A) für eine permanente Installation verwenden Sie die zwei selbstschneidenden Schrauben.
B) die untere Seite des Halters und die Ablagefläche sorgfältig reinigen. Die Schutzschicht von einer Seite jedes Klebstreifens entfernen und beide Klebstreifen auf den Halters kleben. Die Schutzschicht von der anderen Seite der Klebstreifen entfernen und den Halter auf der Ablagefläche befestigen.
C) die untere Seite des Halters und die Ablagefläche sorgfältig reinigen um die Füßchen auf die Sitzen des Halters zu kleben. Man kann auch eine optionale Metallunterlage befestigen.

E

El soporte puede ser montado a través de tornillos auto-bloqueantes (A), tiras adhesivas de doble cara (B) o pies de goma (C)):

A) Montar el soporte directamente sobre la superficie utilizando los tornillos auto-bloqueantes;
B) Limpiar con cuidado la superficie inferior del soporte y la superficie de la mesa. Quitar el plástico de protección de una de las caras de las tiras adhesivas y pegarla a la superficie inferior del soporte. Luego quitar el plástico de la otra cara de la tira adhesiva y posicionar el soporte en la posición deseada sobre la mesa;
C) Limpiar con cuidado la superficie inferior del soporte, quitar el plástico de protección de los pies de goma e insertarlos en las posiciones correspondientes en la superficie inferior del soporte. Es posible también fijar una placa de metal opcional.

INSERTION INTO STAND

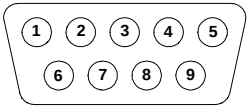


UK	Pair the reader to the stand paying attention to insert the handle into the stand clip (see figure above).
I	Posizionare la pistola nello stand assicurandosi che il manico sia inserito nel fermo dello stand stesso (vedi figura sopra).
F	Placer le pistolet dans le support en faisant attention d'introduire la poignée dans le crochet du support (voir figure ci-dessus).
D	Positionieren Sie die Pistole im Halter und stecken Sie den Griff in die Öffnung Haken des Halters (siehe Bild oben).
E	Poner el lector en su soporte insertando la empuñadura en el clip del soporte (ver figura arriba).

ELECTRICAL CONNECTIONS

The Heron™ D140 scanner can be used with CAB 397 (coiled cable and 9-pin male connector) for direct connection to the DATAPLUS and DLD series decoders.

CAB 397

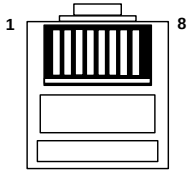


1 - Not connected
2 - SCAN
3 - Not connected
4 - GND
5 - TRIGGER
6 - BEEPER/LED
7 - VIDEO
8 - ILLUMINATOR
9 - +VCC

9-pin male connector

The Heron™ D140 scanner can be used with CAB 396 (coiled cable and 8-pin modular connector) for direct connection to PSC Inc. flat bed scanners.

CAB 396



1 - TRIGGER
2 - ILLUMINATOR
3 - Not connected
4 - VIDEO
5 - BEEPER/LED
6 - Not connected
7 - +VCC
8 - GND

8-pin modular connector

A definition of the terms used to identify the pins is as follows:

SCAN This scanner "open collector" output signal is used to synchronize the decoding logic with the scanner. Each transition of this signal from low-to-high or high-to-low corresponds to the start of a scan. The signal is a square wave with 36 Hz default frequency (see the following figure Video and Scan signals).

GND Supply ground and signal reference.

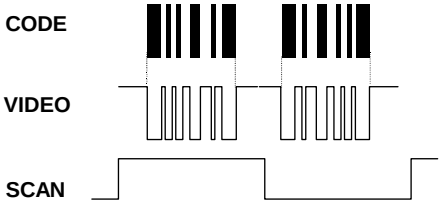
TRIGGER This output is connected to GND when the trigger is pressed and is left floating when the trigger is released.

BEEPER/LED This scanner input drives the decoding LED, the Good Read Spot and the beeper in the scanner. The LED and Good Read Spot turn on when a positive current is applied to the pin. The beeper sound is obtained pulsating this current at a frequency of about 2 kHz. The maximum voltage that can be applied to this input is 5 Vdc.

VIDEO This "open collector" scanner output is electrically identical to the barcode. It supplies a series of pulses the length of which are proportional to the width of the elements within the barcode read. Video polarity is programmable. By default a low output level corresponds to a bar. The frequency of the pulses depends on the density of the code, the distance from code and the programmed output scan frequency (see the following figure Video and Scan signals).

ILLUMINATOR A positive voltage (5 Vdc) is applied to this input by the decoder when the decoding logic senses the trigger is pressed; this causes the activation of the illuminator and CCD.

+VCC This input must be connected to the positive pin of the supply voltage (5 Vdc ± 5%). When the ILLUMINATOR pin is positive, all the current necessary to power the scanner flows through +VCC.



Video and scan signals

BEEPER FUNCTIONING

Heron™ Reader Start-Up

Beeper[1]	Meaning
L L L L	Parameters loaded correctly
H H H H long tones	Parameter loading error, reading or writing in the non-volatile memory
H L H L	Hardware error in EEPROM
OFF	No beeper performed when illuminator line is kept high at power on.

Heron™ Reader Configuration

Beeper[1]	Meaning
H H H H	Correct entry in Configuration mode
L	Good read of a command
L L L	Command read error
L H H H H	Exit from Configuration mode

[1] Only the Beeper Intensity command can modify these signals.

RESTORE DEFAULT

UK	Follow the procedure to restore default.
I	Seguire la procedura per ripristinare i default.
F	Suivez dans l'ordre les étapes pour restaurer la configuration par défaut.
D	Folgen Sie den Anweisungen um die Werkseinstellung wider herzustellen.
E	Seguir el procedimiento indicado para restaurar los parámetros de fábrica.

1. **Set to Interpret Mode**

2. **Restore Default**

3. **Set to Transparent Mode**

OPTIONAL CONFIGURATION PARAMETERS

UK	To configure the reader with the optional parameters, follow the procedure (5 steps). In step 3 select only the parameters relative to your application.
I	Seguire la procedura per configurare il lettore con i parametri opzionali (5 passi). All'interno del passo 3 selezionare solamente i parametri relativi alla propria applicazione.
F	Suivez dans l'ordre les étapes décrites pour configurer le pistolet avec les paramètres optionnels (5 points). Au point 3 vous ne devez sélectionner que les paramètres relatifs à votre application.
D	Folgen Sie den Anweisungen um die optionalen Parameter der Pistole zu konfigurieren (5 Punkte). Im Punkt 3 wählen Sie nur die Parameter, die Ihrer gewünschte Anwendung entsprechen.
E	Para configurar el lector con los parámetros opcionales, seguir el procedimiento indicado (5 pasos). En el paso 3 seleccionar sólo los parámetros relativos a la aplicación que se desee realizar.

◆ = default value

1. **Set to Interpret Mode**

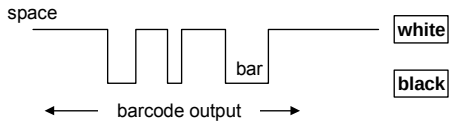
2. **Enter Configuration**

3. **Video Polarity**

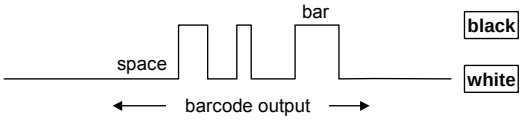
Inverted

Normal ◆

Video Polarity **Normal**:



Video Polarity **Inverted**:



Scan Rate

18 scan/sec

36 scan/sec ◆

72 scan/sec

144 scan/sec

Beeper Intensity

Beeper Off

Low Intensity

Medium Intensity

High Intensity ◆

Beeper Tone

Tone 1

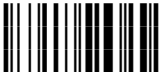
Tone 2 ◆

Tone 3

Tone 4

Beeper Length

Long



Short ◆

Beeper Type

Monotone ◆

Bitonal

4. **Exit Configuration**

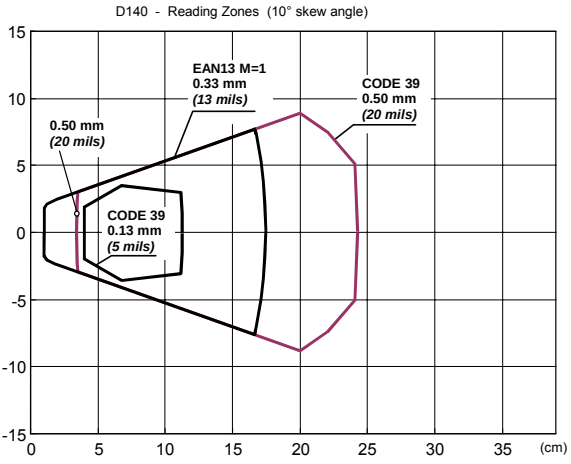
5. **Set to Transparent Mode**

TECHNICAL FEATURES

Heron™ D140

Electrical Features	
Power supply	5 Vdc ± 5%
Consumption Operating Stand by	 180 mA @ 5 Vdc 50 mA @ 5 Vdc
CCD Scan Rate	256 scans/sec
Max output scan rate	144 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 diagram
Max. Resolution	0.12 mm (5 mils)
PCS	min. 15% (Datalogic Test Chart)
Environmental Features	
Working Temperature	0 °C to + 40 °C
Storage Temperature	-20 °C to + 60 °C
Humidity	90% non condensing
Drop resistance (on concrete)	IEC 68-2-32 Test ED 1.8 m
Protection Class	IP30
Mechanical Features	
Weight (without cable)	about 165 g (5.8 oz.)
Cable length (CAB 397 – fully extended) (CAB 396 – fully extended)	 2.60 m (8 ft. 5 in.) 3.00 m (9 ft. 9 in.)

READING DIAGRAM



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.

LED CLASS

UK Class 1 LED product

I Apparecchio LED classe 1

F Appareil à LED de classe 1

D LED Klasse 1

E Clase de LED 1

This product conforms to EN60825-1:2001.

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.

WARRANTY

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Datalogic has the faculty to repair or replace the product, these provisions do not prolong the original warranty term.
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La garantía no será valida si el producto ha sufrido abusos, daños accidentales, reparaciones no autorizadas o ha sido falsificado.

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F Datalogic fournit différents services et une aide technique en ligne. Connectez-vous sur **www.datalogic.com/services** et cliquez sur le lien indiqué pour obtenir des informations complémentaires sur:

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- **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.

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

CE

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bescheinigt, daß das Gerät
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:
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sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous:
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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
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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

Lippo di Calderara, 06/02/2004

Ruggero Cacioppo
Quality Assurance Laboratory Manager