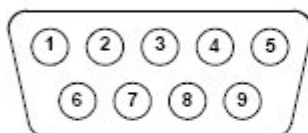


ELECTRICAL CONNECTIONS

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

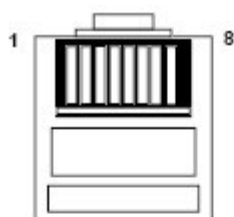


- | | |
|-------------------|-----------------|
| 1 - Not connected | 5 - TRIGGER |
| 2 - SCAN | 6 - BEEPER/LED |
| 3 - Not connected | 7 - VIDEO |
| 4 - GND | 8 - ILLUMINATOR |
| | 9 - +VCC |

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



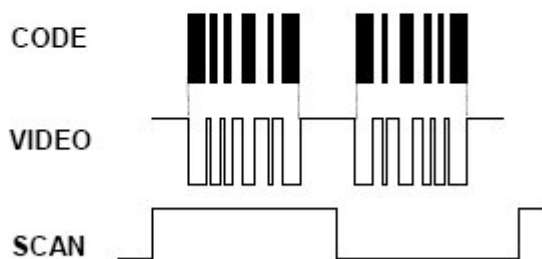
- | | |
|-------------------|-------------------|
| 1 - TRIGGER | 5 - BEEPER/LED |
| 2 - ILLUMINATOR | 6 - Not connected |
| 3 - Not connected | 7 - +VCC |
| 4 - VIDEO | 8 - GND |

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