# Honeywell

# IS4225 ScanGlove®

Laser Bar Code Scanner

# Installation and User's Guide

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# INTRODUCTION

The IS4225 ScanGlove® is a fully automatic single-line laser barcode scanner. The ScanGlove is designed to be used as a "hands-free" wearable scanner or a stationary desktop scanner.

Every ScanGlove is equipped with an object detection technology that allows the scanner to read bar codes automatically as the operator presents the bar code to the scanner. Additional features include; 52 scan lines a second, short, or long-range activation and two universal glove sizes with left and right-hand capabilities.

The IS4225 has built in decoding for applications that use a RS232, Keyboard Wedge, Stand Alone Keyboard, Light Pen Emulation, or USB interfaces. All models have Flash upgradeable firmware. For additional information on other system interfaces, please call a Customer Service Representative.

| SCANGLOVE MODEL NO. | INTERFACE |
|---------------------|-----------|
| IS4225-38 | USB Keyboard |
| IS4225-41D | RS232 with Breakaway Cable and DIN Connector |
| IS4225-47 | PC Keyboard Wedge and Stand Alone Keyboard |
| IS4225-81 | Full RS232 and Light Pen Emulation |

# SCANNER AND ACCESSORIES

| PART NUMBER | DESCRIPTION |
|-------------|-------------|
| IS4225 | IS4225 Laser Scanner |
| 00-02258 | Installation and User's Guide |
| 00-02544 | MetroSelect® Single-Line Configuration Guide |
| 45-45455 | Black Adjustable Glove |

If any item is missing or to order additional items, contact the dealer, distributor or contact a customer service representative.

# SCANNER INSTALLATION

1. Turn off power to the host system.

2. Connect the communication cable to the proper port on the host device.

3. Turn on power to the host system.

> When the IS4225 first receives power, the red LED will flash, the green LED will flash, and then the scanner will beep once.

> ⚠ See power source caution statement on page 7 of this manual.

> ⚠ To maintain compliance with federal regulations 21 CFR, Part 1040.10, section (f)(6) the scanner must be plugged into an electrical outlet with a switch accessible to the user or be powered by a host system containing a switch that will disable power to the scanner.

## SCANNER CONFIGURATION TO THE HOST SYSTEM

The IS4225 is shipped from the factory pre-configured to a set of default parameters. It may be necessary to change the default parameters to match the host system's requirements or to enable additional scanner functions. For a list of possible parameter settings, refer to the *Default Settings* section of this guide.

To modify the scanner's default parameters follow the steps below using the bar codes located in the MetroSelect Single-Line Configuration Guide (PN 00-02544).

1. Scan the ENTER CONFIGURATION MODE bar code to enter configuration mode. The scanner will beep three times.

2. Scan the bar code(s) for the desired parameter(s). The scanner will beep once.

3. Scan the EXIT CONFIGURATION MODE bar code to exit and save the new parameter settings. The scanner will beep three times.

> If during the configuration process, there is a need to return the scanner to the original factory settings, scan the recall defaults bar code in the MetroSelect Configuration Guide. All settings selected during that session or any previous sessions are discarded when you scan the recall defaults code.

The IS4225 with RS232 interface can also be configured using MetroSet®*2* which is a PC-based utility software and available for download at www.honeywellaidc.com. In addition, this interface can be configured using serial configuration mode. For details, refer to the MetroSelect® Single-Line Configuration Guide (PN 00-02544.)

*Figure 1. Scanner Parts*
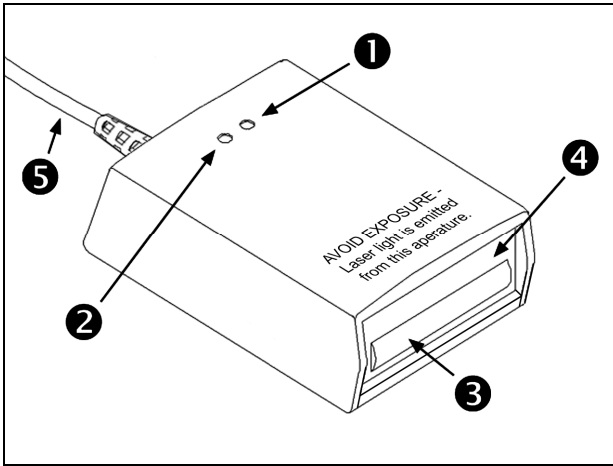
| Item No. | Description |
|---|---|
| ❶ | **Green LED**<br>When a bar code is read successfully, the green LED will flash. |
| ❷ | **Red LED**<br>When the red LED is illuminated, the laser is on. |
| ❸ | **Red Output Window (Laser Aperture)** |
| ❹ | **Object Detection Device**<br>If a specified time has elapsed without any scanning, the unit will enter a "standby" mode.  To reactivate the unit, place an object in front of the object detection field.  The red LED will turn on when the scanner is ready to scan. |
| ❺ | **Communication/Power Cable**<br>This cable's termination is application dependent. |

# VISUAL INDICATORS

There is a red and a green LED located on the top of the scanner.  When the scanner is on, the flashing or constant, illumination of the LEDs indicates the status of the current scan and the scanner.

**No Red LED**
Illumination of the LEDs will not occur if the scanner has remained dormant for a specified time and the scanner is not receiving power from the host.  To reactivate the unit, direct the output window up then down toward the object.

**Red Flash; Green Flash; Steady Red**
When the scanner *first* receives power, the red LED will flash, followed by the green LED, and then the unit will beep once.  The red LED will stay on after it flashes once.

**Steady Red**
When the laser is on, the red LED will be on.  This occurs when an object is detected in the scan field.  If the scanner cannot detect a bar code within approximately 2.5 seconds, the unit will go into standby mode then the red LED will shut off indicating that the laser is no longer on.

**Steady Red LED; Green Flash**
When the scanner successfully reads a bar code, the green LED will flash and the unit will beep once.  If the green LED does not flash or the scanner does not beep, then the bar code was *not* successfully read.

**Repetitive Red LED Flashing**
The red LED will flash repeatedly when the object detection device is detecting a stationary object in the scan field.  To eliminate this disturbance, direct the scan window toward a different location or remove the stationary object from the object detection field.

**Steady Green LED**
After a successful scan, the scanner transmits the data to the host device.  When the host is not ready to receive the information, the green LED will remain on until data can transmit.

## AUDIBLE INDICATORS

The scanner provides sounds to signal certain conditions.  To change the volume (four settings are available) or turn the beeper off, refer to *Scanner Operation: Beeper Options* in the MetroSelect Single-Line Configuration Guide (PN 00-02544).

**One Beep**

When the scanner *first* receives power, the red LED will flash, followed by the green LED, and then the scanner will beep once.  After the scanner performs this start-up sequence, the scanner is ready to scan.

When the scanner *successfully* reads a bar code, the green light will flash and the unit will beep once.  If the green LED does not flash or the scanner does not beep, then the bar code read is *not* successful.

**Razzberry Tone**

If, upon power up, the scanner emits a razzberry tone the scanner has failed diagnostics.

> The scanner can be configured to emit a razzberry tone when the timeout occurs during communication between the host and scanner. Refer to *Scanner Operation: Communication Timeout Options* in the MetroSelect Single-Line Guide.

**Three Beeps**

When entering configuration mode, the green LED will flash three times while the scanner simultaneously beeps three times.  When exiting configuration mode, the same visual and audible indications will occur.  After the sequence is completed, the red LED will turn off.

> The scanner can be programmed to emit three beeps when the timeout occurs during communication between the host and scanner. Refer to *Scanner Operation: Communication Timeout Options* in the MetroSelect Single-Line Guide.

# LABELS

Each IS4225 has a serial number label and a laser class label on the bottom of the unit.  These labels provide important information like; date and location of manufacture, model number, serial number, caution statements and laser class. There is also text molded into the top of the case near the window that says, "AVOID EXPOSURE - laser light emitted from this aperture".  The following Figure shows examples of these labels*.



Figure 2. Caution and Serial Number Labels*

*Labels not shown to scale.*
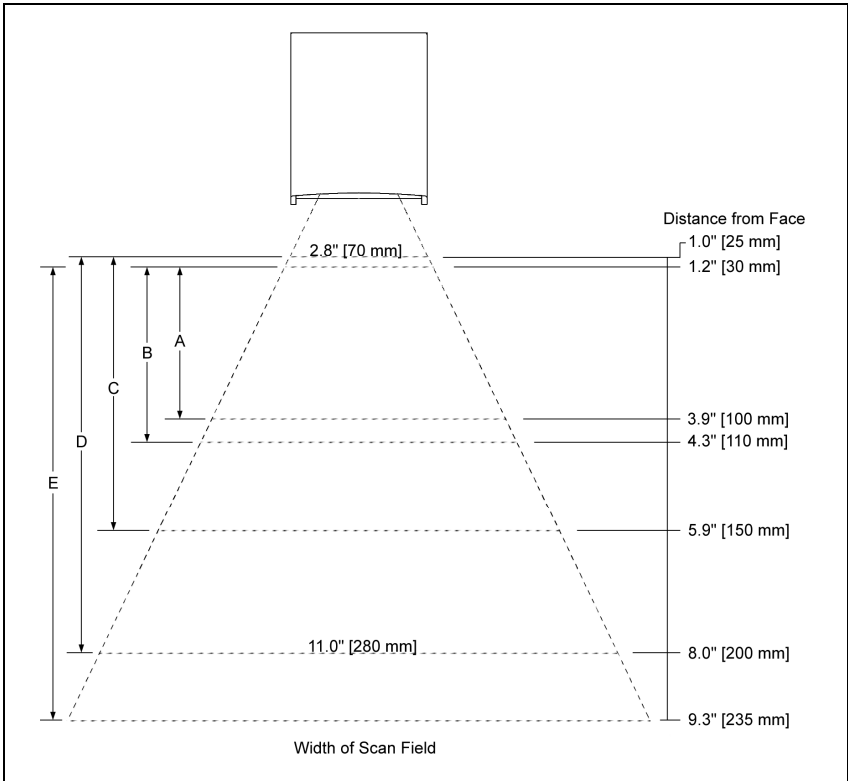
> ⚠ **Caution:**
> To maintain compliance with applicable standards, all circuits connected to the scanner must meet the requirements for SELV (Safety Extra Low Voltage) according to EN/IEC 60950-1.
>
> To maintain compliance with standard CSA-C22.2 No. 60950-1/UL 60950-1 and norm EN/IEC 60950-1, the power source should meet applicable performance requirements for a limited power source.

## MAINTENANCE

Smudges and dirt on the unit's window can interfere with the unit's performance. If the window requires cleaning, use only a mild glass cleaner containing no ammonia.  When cleaning the window, spray the cleaner onto a lint free, non-abrasive cleaning cloth then gently wipe the window clean.

Distance from Face
1.0" [25 mm]
1.2" [30 mm]

2.8" [70 mm]

3.9" [100 mm]
4.3" [110 mm]

5.9" [150 mm]

11.0" [280 mm]
8.0" [200 mm]

9.3" [235 mm]

Width of Scan Field

| Minimum Bar Code Element Width | | | | |
|---|---|---|---|---|
| Standard | | | | |
| A | B | C | D | E |
| mm | | | | |
| .17 | .19 | .25 | .33 | .53 |
| mil | | | | |
| 6.8 | 7.5 | 10.4 | 13 | 21 |

*Figure 3. Depth of Field*

*Specifications are subject to change without notice.*

# OBJECT DETECTION DEVICE

An object detection device located behind the window initiates the scanning process. The device is active as long as power is applied to the unit.  When the device detects an object, the green LED will flash.  When the laser decodes a bar code, the scanner transmits the data to the host system and emits a beep to show that decoding is complete.  The object detection range is configurable for two ranges.

- **Short Range Activation**

    The object detection device initiates the scan process if it senses an object anywhere from the face of the window out to approximately 4" to 7".


- **Long Range Activation**

    The object detection device initiates the scan process if it senses an object anywhere from the face of the window out to approximately 9" to 13".


*If the object is removed* from the field during the scanning process, the laser turns off and the scanner re-enters "standby" mode.  However, *if the object stays in the field*, the laser remains on for up to 2.5 seconds trying to detect another bar code.  If the scanner does not detect a bar code, the scanner re-enters "standby" mode.  To reactivate the scanning sequence, remove the object and present another.

*If the same symbol stays in the field after a successful scan*, the laser stays on for approximately 7.5 seconds and then turns off.  This prevents unintentional reads of the same bar code.  To read the same symbol more than once, remove the object from the scan field for approximately 1 second and then present the symbol again.
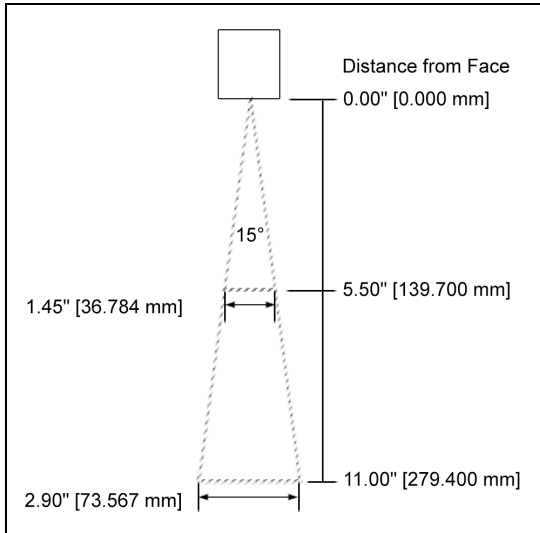
# OBJECT DETECTION DEVICE



*Figure 4. Object Detection Field*

Please note certain ambient light conditions may interfere with the object detection mechanism, resulting in false activation of the scanner.  To mitigate the problem, please try one of the following suggestions:

1. Avoid mounting the scanner directly facing the ambient light source.
2. Avoid mounting the scanner facing a light-colored or reflective surface.
3. Avoid mounting the scanner towards a surface at a distance close to the long range (9" – 11") of object detection
4. Configure the object detection range to short (4" – 7").

# SPECIFICATIONS

| | IS4225 SPECIFICATIONS |
|---|---|
| **OPERATIONAL** | |
| Light Source: | 650 nm ± 10nm VLD |
| Depth of Field: | 25 mm to 203 mm (1" to 8")  for .33 mm (13 mil) bar code |
| Width of Scan Field: | 70 mm (2.8") @  25mm (1.0"); 280 mm (11") @ 200 mm (8") |
| Scan Speed: | 52 scans lines per second |
| Scan Pattern: | Single scan line |
| Min Bar Width: | 0.173 mm (6.8 mil) |
| Decode Capability: | Autodiscriminates all standard bar codes; for other symbologies call a customer service representative |
| System Interfaces: | RS232, Light Pen Emulation, PC Keyboard Wedge, Stand Alone Keyboard, USB (low speed) |
| Print Contrast: | 35% minimum reflectance difference |
| Number of Characters Read: | Up to 80 data characters  (Maximum number will vary based on symbology and density) |
| Roll, Pitch, Skew: | 30°, 56°, 58° @ 100 mm distance |
| Sweep Angle: | 60° |
| Beeper Operation: | 3 tones or no beep |
| Indicators (LED): | red = laser on, ready to scan    green = good read, decoding |
| | |
| **MECHANICAL** | |
| Length x Width x Height: | 70 mm x 49 mm x 24 mm (2.75" x 1.94" x 0.94") |
| Weight: | 105 grams (3.7 oz.) |
| Cable Termination: | Application Dependent |
| | |
| **ELECTRICAL** | |
| Input Voltage: | 5VDC ± 0.25V |
| Power: | 0.75 W |
| Operating Current: | 135 mA |
| DC Transformers: | Class 2; 5VDC @ 300 mA |
| *For Regulatory Compliance information, see pages 20 – 22.* | |
| | |
| **ENVIRONMENTAL** | |
| Operating Temperature: | -20°C to 50°C (-4°F to 122°F) |
| Storage temperature: | -40°C to 70°C (-40°F to 158°F) |
| Humidity: | 5% to 95% relative humidity, non-condensing |
| Light Levels: | Up to 60,000 Lux (5,574 footcandles) |
| Shock: | Designed to withstand 1.2 m (4') drops |
| Contaminants: | Sealed to resist airborne particulate contaminants |
| Ventilation: | None required |

*Specifications are subject to change without notice.*

# DEFAULT SETTINGS

Many functions of the scanner can be "configured", that is enabled or disabled. The scanner is shipped from the factory configured to a set of default conditions. All factory default parameters have an asterisk ( * ) in the default column of the charts on the following pages . If an asterisk is not in the default column then the setting is off or disabled by default. Every interface does not support every parameter. If the interface supports a parameter listed in the charts on the following pages, a check mark (✓) will appear.

| Parameter | Default | RS232 | Light Pen | Keyboard Wedge | USB |
|---|---|---|---|---|---|
| Enter Configuration Mode, After Any Scan | * | ✓ | ✓ | ✓ | ✓ |
| Enter Configuration Mode, Only on First Scan | | ✓ | ✓ | ✓ | ✓ |
| Short Range Activation | | ✓ | ✓ | ✓ | ✓ |
| Long Range Activation | * | ✓ | ✓ | ✓ | ✓ |
| Normal Scan | * | ✓ | ✓ | ✓ | ✓ |
| Custom Scan | | ✓ | ✓ | ✓ | ✓ |
| DTR Activation | | ✓ | | | |
| DC2 Activation | | ✓ | | | |
| Address Based Activation | | ✓ | | | |
| "NOREAD" message Transmission | | ✓ | | | |
| Turn on Green LED during "NOREAD" Transmit | * | ✓ | | | |
| Same Symbol Re-scan | * | ✓ | ✓ | ✓ | ✓ |
| Green LED Identical Symbol Re-Scan Indicator | | ✓ | ✓ | ✓ | ✓ |
| 1 Vs 2 Scan Buffers | 1 | ✓ | ✓ | ✓ | ✓ |
| 2X Redundancy (MECCA) | | ✓ | ✓ | ✓ | ✓ |
| Double Border Requirement (Large Intercharacter Space Requirement) | | ✓ | ✓ | ✓ | ✓ |
| Alternate Beeper Tone 1 | | ✓ | ✓ | ✓ | ✓ |
| Alternate Beeper Tone 2 | * | ✓ | ✓ | ✓ | ✓ |
| Alternate Beeper Tone 3 | | ✓ | ✓ | ✓ | ✓ |
| No Beeper tone | | ✓ | ✓ | ✓ | ✓ |
| Two Second Timeout | | ✓ | | | |

# DEFAULT SETTINGS

| Parameter | Default | RS232 | Light Pen | Keyboard Wedge | USB |
|---|---|---|---|---|---|
| No Two Second Timeout | * | ✓ | | | |
| Razzberry Tone on Timeout | | ✓ | | | |
| No Tone on Timeout | * | ✓ | | | |
| Three Beeps on Timeout | | ✓ | | | |
| Beep Before Transmit | * | ✓ | | ✓ | ✓ |
| Beep After Transmit | | ✓ | | ✓ | ✓ |
| Baud Rate | 9600 | | | | |
| Parity | Space | ✓ | | | |
| 8 Data Bits | | ✓ | | | |
| 7 Data Bits | * | ✓ | | | |
| RTS/CTS | | ✓ | | | |
| Character RTS/CTS | * | ✓ | | | |
| Message RTS/CTS | | ✓ | | | |
| ACK/NAK | | ✓ | | | |
| XON/XOFF | * | ✓ | | | |
| No Intercharacter Delay | | ✓ | | ✓ | ✓ |
| 1 Millisecond Intercharacter Delay | | ✓ | | ✓ | ✓ |
| 5 Millisecond Intercharacter Delay | | ✓ | | | |
| 10 Millisecond Intercharacter Delay | | | | ✓ | ✓ |
| 25 Millisecond Intercharacter Delay | | ✓ | | | |
| 100 Millisecond Intercharacter Delay | | | | ✓ | ✓ |
| DTR Input | | ✓ | | | |
| DTR Scan Disable | | ✓ | | | |
| "DE" Disable Command | | ✓ | | | |
| LRC Calc+ Transmit RS232 | | ✓ | | | |
| Start LRC on first RS232 Byte | | ✓ | | | |
| Start LRC on Second RS232 Byte | * | ✓ | | | |
| Carriage Return | * | ✓ | | ✓ | ✓ |
| Line Feed | * | ✓ | | ✓ | ✓ |
| STX Prefix | | ✓ | | ✓ | ✓ |
| ETX Suffix | | ✓ | | ✓ | ✓ |
| Tab Prefix | | ✓ | | ✓ | ✓ |
| Tab Suffix | | ✓ | | ✓ | ✓ |

# DEFAULT SETTINGS

| Parameter | Default | RS232 | Light Pen | Keyboard Wedge | USB |
|---|:---:|:---:|:---:|:---:|:---:|
| Prefix ID for UPC/EAN | | ✓ | | ✓ | ✓ |
| Suffix ID for UPC/EAN | | ✓ | | ✓ | ✓ |
| Bars High | * | | ✓ | | |
| Spaces High | | | ✓ | | |
| Transmit as Scanned | * | | ✓ | | |
| Transmit as code 39 | | | ✓ | | |
| Poll Light Pen 5 volts | | | ✓ | | |
| No Poll Light Pen | * | | ✓ | | |
| Reverse Polarity Idle for Light Pen | | | ✓ | | |
| UPC | * | ✓ | ✓ | ✓ | ✓ |
| EAN | * | ✓ | ✓ | ✓ | ✓ |
| Full ASCII code 39 | | ✓ | ✓ | ✓ | ✓ |
| Code 39 | * | ✓ | ✓ | ✓ | ✓ |
| Codabar | | ✓ | ✓ | ✓ | ✓ |
| Code 128 | * | ✓ | ✓ | ✓ | ✓ |
| Code 93 | * | ✓ | ✓ | ✓ | ✓ |
| Code 11 | | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Enable | | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar ID "]e0" | * | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar App ID "01" | * | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Check Digit | * | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Expanded Enable | | ✓ | ✓ | ✓ | ✓ |
| Expanded ID "]e0" | * | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Limited Enable | | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Limited ID "]e0" | * | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Limited App ID "01" | * | ✓ | ✓ | ✓ | ✓ |
| GS1 DataBar Limited Check Digit | * | ✓ | ✓ | ✓ | ✓ |
| Interleaved 2 of 5 | * | ✓ | ✓ | ✓ | ✓ |
| Hong Kong Matrix 2 of 5 | | ✓ | ✓ | ✓ | ✓ |
| Airline 2 of 5 | | ✓ | ✓ | ✓ | ✓ |
| Minimum 1 Character Code Length | | ✓ | ✓ | ✓ | ✓ |
| Minimum 3 Character Code Length | * | ✓ | ✓ | ✓ | ✓ |
| Minimum 6 character Code Length | | ✓ | ✓ | ✓ | ✓ |

# DEFAULT SETTINGS

| Parameter | Default | RS232 | Light Pen | Keyboard Wedge | USB |
|---|---|---|---|---|---|
| Set Minimum Character Length | | ✓ | ✓ | ✓ | ✓ |
| Set Character Lock Length | | ✓ | ✓ | ✓ | ✓ |
| Transmit UPC-A Number Sys | * | ✓ | ✓ | ✓ | ✓ |
| UPC-A Check Digit Transmit | * | ✓ | ✓ | ✓ | ✓ |
| Convert UPC-A to EAN-13 | | ✓ | | ✓ | ✓ |
| Expand UPC-E | | ✓ | | ✓ | ✓ |
| UPC-E Check Digit Transmit | | ✓ | | ✓ | ✓ |
| UPC-E Leading 0 Transmit | | ✓ | | ✓ | ✓ |
| EAN-8 Check Digit Transmit | * | ✓ | ✓ | ✓ | ✓ |
| EAN-13 Check Digit Transmit | | ✓ | ✓ | ✓ | ✓ |
| Convert EAN-8 to EAN-13 | | ✓ | ✓ | ✓ | ✓ |
| "$" Prefix ID for UPC/EAN | | ✓ | ✓ | | |
| 2 Digit Supplements (Scan) | | ✓ | ✓ | ✓ | ✓ |
| 5 Digit Supplements (Scan) | | ✓ | ✓ | ✓ | ✓ |
| Bookland (Scan) | | ✓ | ✓ | ✓ | ✓ |
| Supplement Required | | ✓ | ✓ | ✓ | ✓ |
| Bookland to ISNB | | ✓ | ✓ | ✓ | ✓ |
| Transmit ISBN CD | | ✓ | ✓ | ✓ | ✓ |
| Mod 43 Check digit-Code 39 | | ✓ | ✓ | ✓ | ✓ |
| Transmit Mod 43 Check Digit Code 39 | * | ✓ | ✓ | ✓ | ✓ |
| Transmit Start/Stop-Code 39 | | ✓ | ✓ | ✓ | ✓ |
| CLSI Editing (Enable) | | ✓ | ✓ | ✓ | ✓ |
| ITF Check Digit | | ✓ | ✓ | ✓ | ✓ |
| Transmit Mod 10 ITF Check Digit | | ✓ | ✓ | ✓ | ✓ |
| 2 of 5 Symbol Lengths | Variable | ✓ | ✓ | ✓ | ✓ |
| ISBN Reformatting | | ✓ | | | |
| Coupon Code 128 | | ✓ | ✓ | ✓ | ✓ |
| ]C1 Transmit Coupon C128 | | ✓ | ✓ | ✓ | ✓ |
| Coupon 128 Group Separator | | ✓ | ✓ | ✓ | ✓ |
| Italian Pharmaceutical | | ✓ | ✓ | ✓ | ✓ |
| Codabar Start & Stop Class | | ✓ | ✓ | ✓ | ✓ |
| ITF Minimum Symbol Length Test | | ✓ | ✓ | ✓ | ✓ |
| Matrix 2 of 5 | | ✓ | ✓ | ✓ | ✓ |

# DEFAULT SETTINGS

| Parameter | Default | RS232 | Light Pen | Keyboard Wedge | USB |
|---|---|---|---|---|---|
| Matrix 2 of 5 Check Digit | | ✓ | ✓ | ✓ | ✓ |
| Hong Kong Matrix 2 of 5 | | ✓ | ✓ | ✓ | ✓ |
| MSI-Plessy Test of Check Digit | * | ✓ | ✓ | ✓ | ✓ |
| Enable MSI-Plessy Mod 10 Check Digit | | ✓ | ✓ | ✓ | ✓ |
| Enable MSI-Plessy Mod 10/10 Check Digit | | | | ✓ | ✓ |
| Transmit MSI-Plessy Check Digit | * | ✓ | ✓ | ✓ | ✓ |
| UK Plessy | | ✓ | ✓ | ✓ | ✓ |
| UK Plessey Check Digit | | ✓ | ✓ | ✓ | ✓ |
| UK Plessey Special Format | | ✓ | ✓ | ✓ | ✓ |
| A to X conversion (UK) | | ✓ | ✓ | ✓ | ✓ |
| Scan Count Test Mode | | ✓ | | ✓ | ✓ |
| Scanability Test Mode | | ✓ | | ✓ | ✓ |
| Normal Scan/Operating Test Mode | | ✓ | | ✓ | ✓ |
| Default to ScanPal Communication parameters Code ID | | | | | |
| Code ID | | | | ✓ | ✓ |
| Sanyo 635 ECR Protocol | | ✓ | | | |
| Post Software ID characters | | ✓ | | ✓ | ✓ |
| "Newcode" Mode A | | ✓ | | ✓ | ✓ |
| "Newcode" Mode B | | ✓ | | ✓ | ✓ |
| SNI Beetle Mode | | ✓ | | | |
| BIO DATA Mode | | ✓ | | | |
| Enable Sineko Mode | | ✓ | | | |
| Enable Caps Lock Mode (for MI951 external wedge) | | ✓ | | | |
| Rochford Thompson Mode | | ✓ | | ✓ | ✓ |
| RTS Counter Toggle | | ✓ | | | |
| Beep on BEL RS232 | | ✓ | | | |

# DEFAULT SETTINGS

| Parameter | Default | RS232 | Light Pen | Keyboard Wedge | USB |
|---|---|---|---|---|---|
| Retransmit of Same Code | | ✓ | | ✓ | ✓ |
| 1st Configurable Prefix ID | | ✓ | | ✓ | ✓ |
| 2nd Configurable Prefix ID | | ✓ | | ✓ | ✓ |
| 1st Configurable Suffix ID | | ✓ | | ✓ | ✓ |
| 2nd Configurable Suffix ID | | ✓ | | ✓ | ✓ |
| Clear all Configurable Prefixes and Suffixes | | ✓ | | ✓ | ✓ |
| SNI Beetle Mode | | ✓ | | ✓ | ✓ |
| AT Keyboard | * | | | ✓ | |
| Type XT Keyboard | | | | ✓ | |
| Type PS2 Keyboard | | | | ✓ | |
| USA Keyboard | * | | | ✓ | |
| Belgium Keyboard | | | | ✓ | |
| France Keyboard | | | | ✓ | |
| Germany Keyboard | | | | ✓ | |
| Spain Keyboard | | | | ✓ | |
| Italy Keyboard | | | | ✓ | |
| UK Keyboard | | | | ✓ | |
| IBM KDB4700 Financial Keyboard | | | | ✓ | |
| Alt Mode | | | | ✓ | |
| Auto Detection or Caps Lock | | | | ✓ | |
| User-Defined Caps Lock | | | | ✓ | |
| F0H Break Code Transmission | * | | | ✓ | |
| 800 Microsecond Delay-Enter Scan Code | * | | | ✓ | |
| 15 Millisecond Delay-Enter Scan Code | | | | ✓ | |
| 7-5 Millisecond delay-Enter Scan Code | | | | ✓ | |

# TROUBLESHOOTING GUIDE

The following guide is for reference purposes only.  Contact a customer service representative to preserve the limited warranty terms on page 24.

| SYMPTOMS | POSSIBLE CAUSE(S) | SOLUTION |
|---|---|---|
| No LEDs, beep and there is no visible laser | No Power is being supplied to the scanner | Make sure the cable is plugged into the host.  Check the host system's power cable, the outlet and power strip. |
| No LEDs, beep and there is no visible laser | No power is being supplied from the USB port. | The IS4225 requests 100mA from the USB port. If the USB port cannot supply this, a notification window will appear on the screen. |
| After scanning a bar code, the Red and Green LEDs are on, but no data is being transmitted to the host. | The scanner is not configured properly for communication with the host. | Re-configure the scanner using the appropriate codes for your scanner model. |

## Safety

### ITE Equipment
IEC 60950-1, EN 60950-1

### Laser

Laser Class 2: IEC 60825-1:1993+A1:1997+A2:2001
EN 60825-1:1994+A2:2001+A1:2002

### ⚠ Caution
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.  Under no circumstances should the customer attempt to service the laser scanner.  Never attempt to look at the laser beam, even if the scanner appears to be nonfunctional.  Never open the scanner in an attempt to look into the device.  Doing so could result in hazardous laser light exposure.  The use of optical instruments with the laser equipment will increase eye hazard.

### ⚠ Atención
La modificación de los procedimientos, o la utilización de controles o ajustes distintos de los especificados aquí, pueden provocar una luz de láser peligrosa.  Bajo ninguna circunstancia el usuario deberá realizar el mantenimiento del láser del escáner. Ni intentar mirar al haz del láser incluso cuando este no esté operativo.  Tampoco deberá abrir el escáner para examinar el aparato.  El hacerlo puede conllevar una exposición peligrosa a la luz de láser.  El uso de instrumentos ópticos con el equipo láser puede incrementar el riesgo para la vista.

### ⚠ Attention
L'emploi de commandes, réglages ou procédés autres que ceux décrits ici peut entraîner de graves irradiations.  Le client ne doit en aucun cas essayer d'entretenir lui-même le scanner ou le laser.  Ne regardez jamais directement le rayon laser, même si vous croyez que le scanner est inactif. N'ouvrez jamais le scanner pour regarder dans l'appareil. Ce faisant, vous vous exposez à une rayonnement laser qú êst hazardous. L'emploi d'appareils optiques avec cet équipement laser augmente le risque d'endommagement de la vision.

### ⚠ Achtung
Die Verwendung anderer als der hier beschriebenen Steuerungen, Einstellungen oder Verfahren kann eine gefährliche Laserstrahlung hervorrufen. Der Kunde sollte unter keinen Umständen versuchen, den Laser-Scanner selbst zu warten. Sehen Sie niemals in den Laserstrahl, selbst wenn Sie glauben, daß der Scanner nicht aktiv ist. Öffnen Sie niemals den Scanner, um in das Gerät hineinzusehen. Wenn Sie dies tun, können Sie sich einer gefährlichen Laserstrahlung aussetzen. Der Einsatz optischer Geräte mit dieser Laserausrüstung erhöht das Risiko einer Sehschädigung.

### ⚠ Attenzione
L'utilizzo di sistemi di controllo, di regolazioni o di procedimenti diversi da quelli descritti nel presente Manuale può provocare delle esposizioni a raggi laser rischiose. Il cliente non deve assolutamente tentare di riparare egli stesso lo scanner laser.  Non guardate mai il raggio laser, anche se credete che lo scanner non sia attivo. Non aprite mai lo scanner per guardare dentro l'apparecchio. Facendolo potete esporVi ad una esposizione laser rischiosa.  L'uso di apparecchi ottici, equipaggiati con raggi laser,  aumenta il rischio di danni alla vista..

# REGULATORY COMPLIANCE

## EMC

### Emissions
FCC Part 15, ICES-003, CISPR 22, EN 55022

### Immunity
CISPR 24, EN 55024

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Class A Devices

**The following is applicable when the scanner cable is greater in length than 3 meters (9.8 feet) when fully extended:**
**Les instructions ci-dessous s'appliquent aux cables de scanner dépassant 3 métres (9.8 pieds) de long en extension maximale:**
**Folgendes trifft zu, wenn das Scannerkabel länger als 3 Meter ist:**

This equipment has been tested and found to comply with 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 their own expense. Any unauthorized changes or modifications to this equipment could void the user's authority to operate this device.

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 that may cause undesired operation.

**Notice**
This Class A digital apparatus complies with Canadian ICES-003.

**Remarque**
Cet appareil numérique de classe A est conforme à la norme canadienne NMB-003.

**European Standard**

> Warning
> This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**Funkstöreigenschaften nach EN55022:1998**

> Warnung!
> Dies ist eine Einrichtung der Klasse A. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen. In diesem Fall kann vom Betreiber verlangt werden, angemessene Massnahmen durchzuführen.

**Standard Europeo**

> Attenzione
> Questo e' un prodotto di classe A. Se usato in vicinanza di residenze private potrebbe causare interferenze radio che potrebbero richiedere all'utilizzatore opportune misure.

> Attention
> Ce produit est de classe "A". Dans un environnement domestique, ce produit peut être la cause d'interférences radio. Dans ce cas l'utiliseteur peut être amené à predre les mesures adéquates.

# REGULATORY COMPLIANCE

## EMC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Class B Devices

**The following is applicable when the scanner cable is less than 3 meters (9.8 feet) in length when fully extended:**

**Les instructions ci-dessous s'appliquent aux cables de scanner ne dépassant pas 3 métres (9.8 pieds) de long en extension maximale:**

**Folgendes trifft zu, wenn das Scannerkabel kürzer als 3 Meter ist**:

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 that may cause undesired operation.

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.  These limits are designed to provide reasonable protection against harmful interference in a residential installation.  This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.  However, there is no guarantee that interference will not occur in a particular installation.  If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

**Notice**
This Class B digital apparatus complies with Canadian ICES-003.

**Remarque**
Cet appareil numérique de classe B est conforme à la norme canadienne NMB-003.

## PATENTS

For patent information, please refer to www.honeywellaidc.com/patents.

# LIMITED WARRANTY

Honeywell International Inc. ("HII") warrants its products and optional accessories to be free from defects in materials and workmanship and to conform to HII's published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any HII product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electro-static discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than HII or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by HII for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to HII factory or authorized service center for inspection. No product will be accepted by HII without a Return Materials Authorization, which may be obtained by contacting HII. In the event that the product is returned to HII or its authorized service center within the Warranty Period and HII determines to its satisfaction that the product is defective due to defects in materials or workmanship, HII, at its sole option, will either repair or replace the product without charge, except for return shipping to HII.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

HII'S RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT WITH NEW OR REFURBISHED PARTS. IN NO EVENT SHALL HII BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HII ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HII FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT EVEN WHEN HII MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof. Use of any peripherals not provided by the manufacturer may result in damage not covered by this warranty. This includes but is not limited to: cables, power supplies, cradles, and docking stations. HII extends these warranties only to the first end-users of the products. These warranties are non-transferable.

The duration of the limited warranty for the IS4225 is two (2) year(s). The accessories have a 90 day limited warranty from the date of manufacture.

# INDEX

## Technical Assistance

If you need assistance installing or troubleshooting your device, please call your distributor or the nearest technical support office:

**North America/Canada**
Telephone:  (800) 782-4263
*E-mail:  hsmnasupport@honeywell.com*

**Latin America**
Telephone:  (803) 835-8000
Telephone:  (800) 782-4263
*E-mail:  hsmlasupport@honeywell.com*

**Brazil**
Telephone: +55 (21) 3535-9100
Fax:  +55 (21) 3535-9105
*E-mail:  brsuporte@honeywell.com*

**Mexico**
Telephone:  (803) 835-8000
*E-mail:  hsmlasupport@honeywell.com*

**Europe, Middle East, and Africa**
Telephone:  +31 (0) 40 7999 393
Fax:  +31 (0) 40 2425 672
*E-mail:  hsmeurosupport@honeywell.com*

**Hong Kong**
Telephone:  +852-29536436
Fax:  +851-2511-3557
*E-mail:  aptechsupport@honeywell.com*

**Singapore**
Telephone:  +65-6842-7155
Fax:  +65-6842-7166
*E-mail:  aptechsupport@honeywell.com*

**China**
Telephone:  +86 800 828 2803
Fax:  +86-512-6762-2560
*E-mail:  aptechsupport@honeywell.com*

**Japan**
Telephone:  +81-3-3839-8511
Fax:  +81-3-3839-8519
*E-mail:  aptechsupport@honeywell.com*

***Online Technical Assistance***
You can also access technical assistance online at www.honeywellaidc.com.

## Product Service and Repair

Honeywell International Inc. provides service for all its products through service centers throughout the world. To obtain warranty or non-warranty service, contact the appropriate location below to obtain a Return Material Authorization number (RMA #) before returning the product.

**North America**
Telephone: (800) 782-4263
*E-mail: hsmnaservice@honeywell.com*

**Latin America**
Telephone: (803) 835-8000
Telephone: (800) 782-4263
Fax: (239) 263-9689
*E-mail: laservice@honeywell.com*

**Brazil**
Telephone: +55 (21) 3535-9100
Fax: +55 (21) 3535-9105
*E-mail: brservice@honeywell.com*

**Mexico**
Telephone: +52 (55) 5203-2100
Fax: +52 (55) 5531-3672
*E-mail: mxservice@honeywell.com*

**Europe, Middle East, and Africa**
Telephone: +31 (0) 40 2901 633
Fax: +31 (0) 40 2901 631
*E-mail: euroservice@honeywell.com*

**Hong Kong**
Telephone: +852-29536436
Fax: +851-2511-3557
*E-mail: apservice@honeywell.com*

**Singapore**
Telephone: +65-6842-7155
Fax: +65-6842-7166
*E-mail: apservice@honeywell.com*

**China**
Telephone: +86 800 828 2803
Fax: +86-512-6762-2560
*E-mail: apservice@honeywell.com*

**Japan**
Telephone: +81-3-3839-8511
Fax: +81-3-3839-8519
*E-mail: apservice@honeywell.com*

***Online Product Service and Repair Assistance***
You can also access product service and repair assistance online at www.honeywellaidc.com.