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# Scantech Nexus N-3030

## Bar code laser scanner





# **User's Manual**

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**Scantech Nexus N-3030**

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## **Limited Warranty**

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Scantech-ID BV reserves the right to revise this manual, and to make changes in the contents without obligation to notify any person or entity of the revision or change. A serial number appears on the product. Make sure that this official registration number has not been removed. It should be used whenever servicing by Scantech-ID BV or an authorized Scantech dealer is necessary.

## **Important**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to EN55022, and 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 user's manual, may cause harmful interference to radio communications. Operation of the 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. Any unauthorized changes or modifications to this equipment could void the user's authority to operate this equipment.

*For CE-countries:*

- The Nexus is in conformity with the CE standards. Please note that a Scantech CE-marked power supply unit should be used to conform to these standards.

*For USA & Canada*

- To be used with UL listed and CSA certified computers/POS systems.
- A utiliser avec des ordinateurs/systèmes POS registrés UL/certifiés CSA.
- This scanner should only be powered by a UL listed or CUL Certified Power Supply having limited power source of Class 2 outputs, rated +5.2 Vdc / minimum 0,64 A, minimum 40 °C or the scanner should be directly powered by a UL listed and CSA certified computer/POS system, having limited power source of Class 2 outputs, rated 8 Vdc / minimum 0,55 A, minimum 40 °C.

## **Radio and television interference**

Operation of this equipment in a residential area can cause interference with radio or television reception. This 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:

- Re-orientate the receiving antenna
- Relocate the devices with respect to the receiver
- Move the device away from the receiver
- Plug the device into a different outlet in order to have the device and receiver on different branch circuits

If necessary, the user should consult the manufacturer, an authorized Scantech dealer or experienced radio/television technician for additional suggestions. The booklet "How to Identify and Resolve Radio-TV Interference Problems", prepared by the Federal Communications Commission, can be of help. It can be obtained from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004000003454.

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# Preface

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The Nexus N-3030 is a new presentation laser scanner which allows handsfree bar code scanning, based on proven Scantech-ID technologies which form the basis of all our omni-directional scanners. Bar code labels are read by presenting the labels towards the scanner. Scanning labels with the Nexus N-3030 hardly requires any arm movement. As a result only little free space on the counter top is necessary.

The Nexus can either be fixed on a counter surface or on a flexible stand. The flexible stand allows you to direct the scan pattern in a way that is optimal for your application.

The Nexus N-3030 reads all popular bar code symbologies. An important feature of the Nexus N-3030 is its programmable sleep mode. If the scanner is not used within a programmable period of time, the scanner switches off automatically. The scanner can be re-activated by pressing the switch on top of the scanner.

The Nexus N-3030 is available in two versions. Each version features a specific multiple interface for communication with the host system. The multiple interface versions are: RS232C/OCIA and IBM RS485/Keyboard Wedge/USB versions.

This manual contains two chapters and three appendices. The first chapter describes the Nexus and its general features. The description for installation can be found in the second chapter. Precisely follow the instructions for the installation of the scanner. Default settings can be changed with the bar code labels from the Configuration Guide that came with the scanner.

Appendix A gives the pin definition for the Data ports of the scanner. The pin definition may be required when you want to make a new cable for communication with the POS/computer. Technical specifications of the Nexus N-3030 can be found in Appendix B. Refer to Appendix C for troubleshooting if the scanner is not working properly.

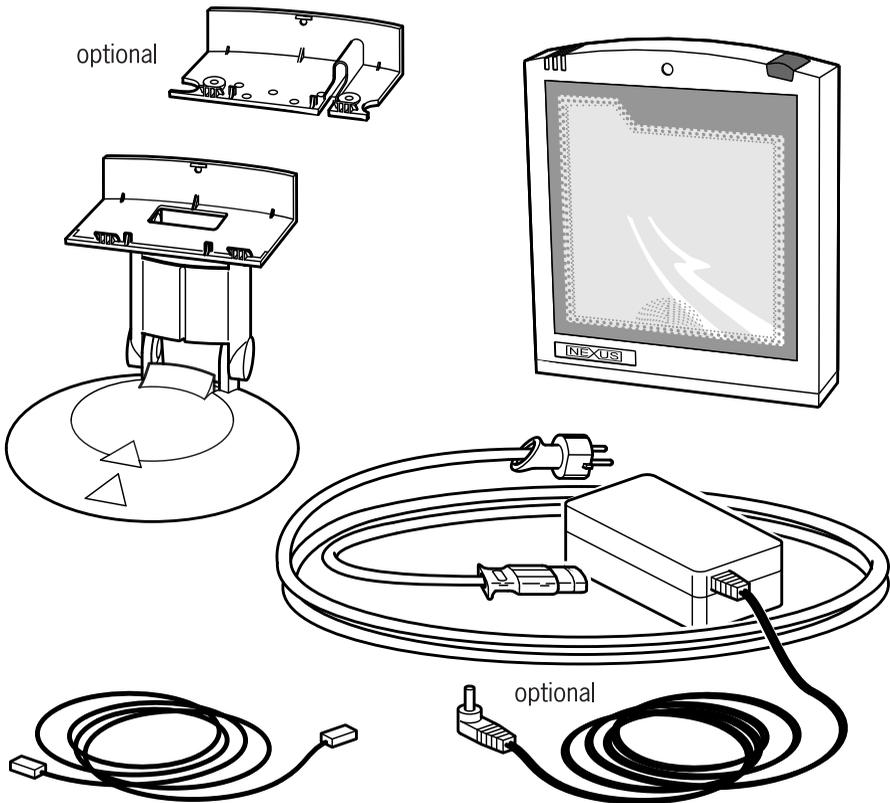


# **Chapter 1 The Nexus N-3030**

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## 1.1 UNPACKING THE NEXUS N-3030

Remove the scanner and its accessories from the box and packing material. Refer to the packing list to make sure you have received all the items ordered. Visually inspect the scanner and accessories for any evidence of physical damage. Refer to the upper figure on page 5 to locate the interface label and make sure that the scanner interface corresponds with the host system interface. Immediately contact your supplier if anything appears to be damaged, or if the supported interface does not correspond with the host system interface.



The specific parts of the Nexus N-3030 are:

- Sleep mode button**
- When a sleep mode time-out is programmed, the scanner can be re-activated by pressing this switch. The sleep mode feature is programmable with the menu labels from the Configuration guide.

**NOTE:** The default value for the sleep mode time-out is set to 30 minutes. When the scanner is in sleep mode, the LED is intermittently flashing red.

- LED**
- A red LED indicates that the scanner is ready to read a bar code. A green LED indicates a good read.

- Good read buzzer**
- The buzzer is heard whenever data has been read correctly. The frequency and volume can be adjusted

Optional parts & accessories:

- Flexible scanner stand**
- The rotary and flexible stand allows you to direct the scan pattern in a way that is optimal for your application (a mounting kit with screws and tapes is included).

- End cover**
- This part serves to fix the scanner to the counter or to the stand.

- Interface cable**
- One of various types of cable to connect to your host computer / POS system.

- Power supply**
- If your scanner is not directly powered (optional)

- Mains cable**
- To connect your power supply (optional)

- User's manual**
- This manual in print

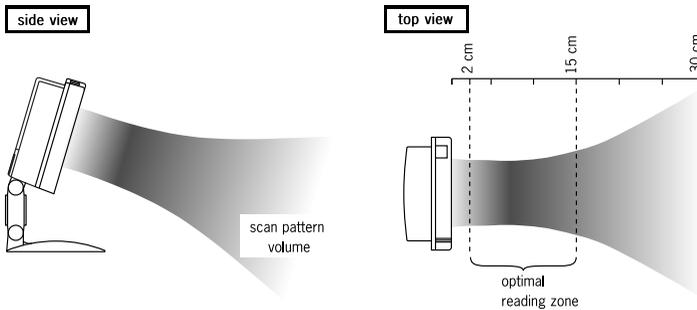
- Configuration guide**
- Booklet containing barcodes for configuration of your scanner

## 1.2 SCANNING BAR CODES WITH THE NEXUS N-3030

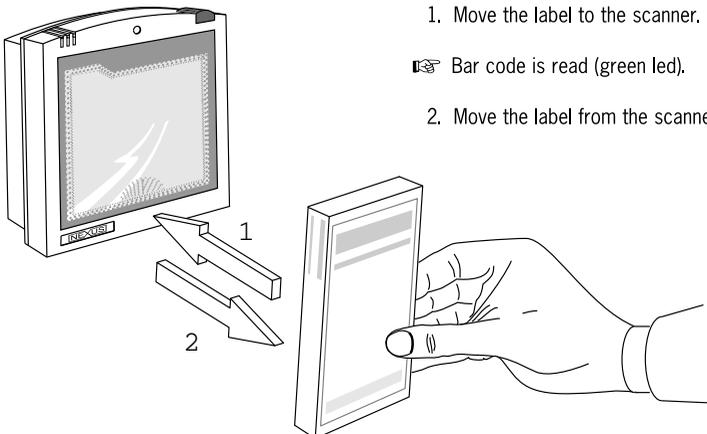
The Nexus N-3030 is an omni-directional presentation scanner featuring a 7 directional scan field with a 24 lines scan pattern. Bar code labels can easily be read by presenting them to the scanner.

The scanner's scan volume is illustrated in the figure below. The optimal reading zone lies between 2 and 15 cm from the scanner window, but bar codes can be read up to 30 cm (11.8 in.) from the scanner window.

If a scanner with flexible stand is purchased, the stand allows you to direct the optimal reading zone in a way that suits your application most.



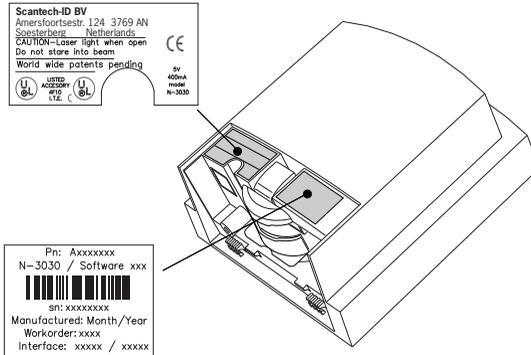
Scanning a bar code label with a presentation scanner is very simple: present the product's bar code label to the scanner as illustrated in the figure below.



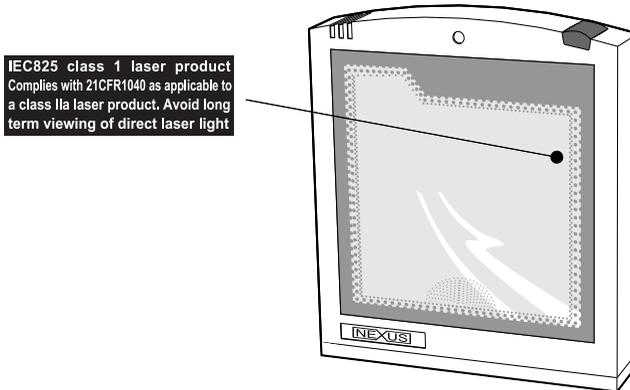
1. Move the label to the scanner.
- ➡ Bar code is read (green led).
2. Move the label from the scanner.

### 1.3 SCANNER LABELLING

Two labels are present on the housing of the Nexus N-3030 as indicated in the figure below (for IBM validated scanners these two labels are also present at the exterior of the scanner). Two labels are also visible through the scanner window. All labels are attached by the manufacturer and should not be removed.



The scanner's serial number is found underneath the bar code label as depicted in the figure above. This official registration number is strictly related to the device. The supplier may ask for this number when the scanner needs servicing.



## **Laser safety**

### **German:**

Der Strichcode-Scanner N-3030 entspricht den Sicherheitsvorschriften nach IEC 825-1 (1993) für ein Laserprodukt der Klasse I. Er entspricht auch U.S. 21CFR1040, anwendbar auf ein Laserprodukt der Klasse IIa. Vermeiden Sie langzeitiges Hineinblicken in direktes Laserlicht.

### **Dutch:**

De N-3030 scanner voldoet aan de veiligheidsnormen IEC 825-1 (1993) voor een Klasse I laserproduct. Tevens voldoet de scanner aan U.S. 21CFR1040, van toepassing op een Klasse IIa laserproduct. Vermijd langdurig kijken in direct laserlicht.

### **French:**

Le scanner N-3030 est conforme aux normes de sécurité IEC 825-1 (1993) s'appliquant à un produit laser de la classe I. Il est également conforme à la U.S. 21CFR1040 telle qu'elle s'applique à un produit laser de la classe IIa. Eviter de rester exposé longtemps à la lumière directe du laser.

### **Danish:**

N-3030 skanneren er i overensstemmelse med sikkerhedsstandarden IEC 825-1 (1993) for laserprodukter i klasse I. Den er også i overensstemmelse med U.S. 21CFR1040, der gælder for laserprodukter i klasse IIa. Undgå at se direkte på laserlys i længere perioder.

### **Finnish:**

N-3030-skanneri täyttää luokan I lasertuotteelle IEC 825-1:ssä (1993) asetetut turvavaatimukset. Se täyttää myös U.S. 21CFR1040:ssa asetetut vaatimukset siltä osin kuin ne koskevat luokan IIa lasertuotetta. Vältä pitkäaikaista suoraan laservaloon katsomista.

### **Swedish:**

Avsökaren N-3030 uppfyller säkerhetsnormen IEC 825-1 (1993) för laserprodukter av klass 1. Den uppfyller dessutom U.S. 21CFR1040 som gäller för laserprodukter av klass IIa. Undvik att titta i direkt laserljus under längre perioder.

### **Norwegian:**

N-3030 skanneren er i samsvar med sikkerhetsstandarden IEC 825-1 (1993) for laserprodukter i klasse I. Den er også i samvar med U.S. 21CFR1040 for laserprodukter i klasse IIa. Unngå å se langvarig på direkte laserlys.

### **Italian:**

Lo scanner N-3030 è conforme alle norme di sicurezza IEC 825-1 (1993) relative ad un prodotto laser di Classe I. È inoltre conforme alla norma U.S. 21CFR1040 relativa ad un prodotto laser di Classe IIa. Evitare l'esposizione prolungata all'emissione diretta di luce laser.

### **Portuguese:**

O scanner N-3030 está conforme as normas de segurança IEC 825-1 (1993) para a Classe 1 dos produtos laser. Também está conforme a norma U.S. 21CFR1040 aplicada nos produtos laser da Classe IIa. Evite expor os olhos directa e prolongadamente aos raios laser.

**Spanish:**

El scanner N-3030 reúne las normas de seguridad IEC 825-1 (1993) para un producto láser de Clase 1. Y también reúne las normas U.S. 21CFR1040 que se aplican a un producto láser de Clase IIa. Se debe evitar mirar muy fijo en luz láser directa.

**English:**

The N-3030 scanner complies with safety standard IEC 825-1 (1993) for a Class I laser product. It also complies with U.S. 21CFR1040 as applicable to a Class IIa laser product. Avoid long term viewing of direct laser light.

**Optical:**

The use of optical instruments with this product will increase eye hazard. Optical instruments include binoculars, microscopes and magnifying glasses but do not include eye glasses worn by the user.

**Radiant Energy:**

The N-3030 uses a low-power laser diode operating at 630...670 nm in an opto-mechanical scanner resulting in less than 0.6 mW peak output power. Laser light observed at 13 cm (5.1 in.) above the window through a 7 mm (0.28 in.) aperture and averaged over 1000 seconds is less than 3.9  $\mu$ W per CDRH Class IIa specification. Do not attempt to remove the protective housing of the scanner, as unscanned laser light with a peak output up to 0.8 mW could be accessible inside.

**Laser Light Viewer:**

The scanner window is the only aperture through which laser light may be observed on this product. A failure of the scanner motor, while the laser diode continues to emit a laser beam, may cause emission levels to exceed those for safe operation. The scanner has safeguards to prevent this occurrence. If, however, a stationary laser beam is emitted, the failing scanner should be disconnected from its power source immediately.

**Adjustments:**

Do not attempt any adjustments to or alteration of this product. Do not remove the scanner's protective housing. There are no user-serviceable parts inside.

**CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.**

## **1.4 MAINTAINING THE SCANNER**

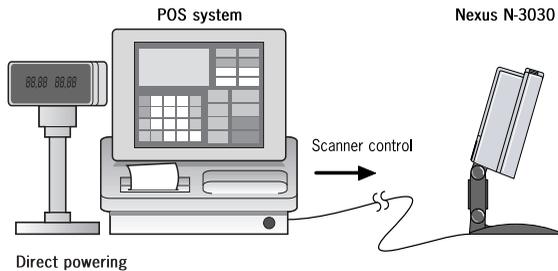
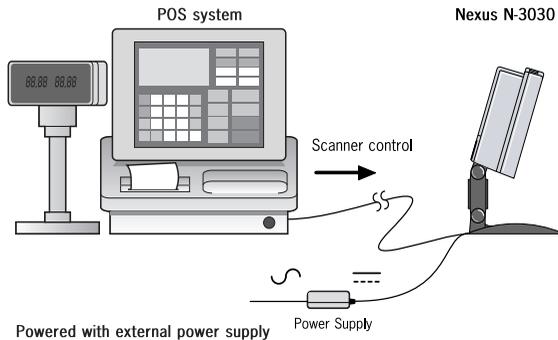
The Nexus N-3030 scanner requires little maintenance. Only occasional cleaning of the scanner window is necessary to remove dirt and fingerprints. Cleaning can be performed during operation with a non-abrasive glass spray cleaner and a soft lint-free cloth.

## 1.5 CONTROLLING THE SCANNER FROM THE POS SYSTEM

The Nexus N-3030 can be controlled from the POS system via the RS232C interface. Control is achieved by transmitting the following single byte commands to the scanner. In the Scantech default setting the following commands are available (more details upon request):

ASCII code	Function	byte is also called:
05 Hex	power-up re-initialization	ENQ or <Ctrl-E>
0E Hex	enable (cancels disable)	Shift Out or <Ctrl-N>
0F Hex	Disable	Shift In or <Ctrl-O>
12 Hex	sleep	DC2 or <Ctrl-R>
14 Hex	wake (cancels sleep)	DC4 or <Ctrl-T>

When the scanner is disabled, the motor of the scanner will stay on until the scanner goes into sleep mode.





## **Chapter 2 Installing the Nexus N-3030**

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Depending on the way you want to use the Nexus N-3030, the scanner can be installed in two different ways: fixed on a counter surface or on a flexible stand. Instructions for installation on a counter surface are given in Section 2.1. Instructions for installation on the flexible stand are given in Section 2.2.

Due to many POS systems on the market, a large number of communication cables is available. Make sure that you have the right cable to connect the scanner to your POS or computer.

### **NOTE**

The scanner and the host system must be switched off before starting the installation of the scanner. By following this precaution you prevent any electrical damage.

You are advised to install the scanner in an air circulated place out of direct sunlight

## **2.1 CONNECTING THE SCANNER**

Before you connect any cables to the scanner, check whether you should guide them through the foot or counter surface!

The Nexus N-3030 is available in two different interface versions:

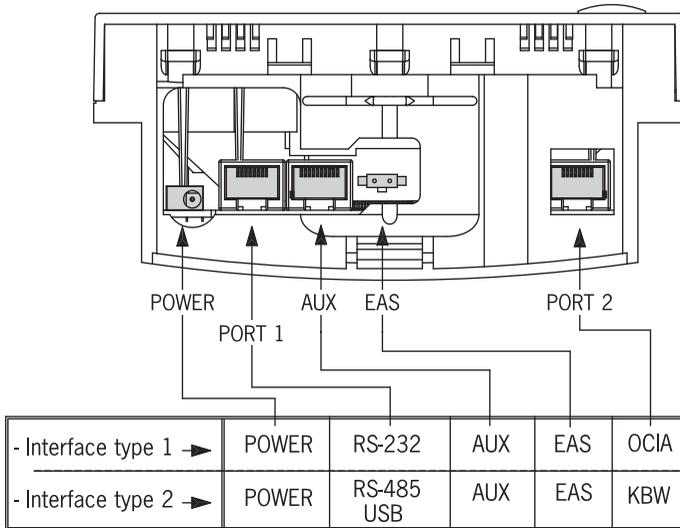
- Dual interface: RS232 and OCIA
- Triple interface: RS485, Keyboard Wedge (KBW) and USB/USB plus power.

Each version also provides:

- Auxiliary port for additional scanner
- EAS connector
- Power connector

If you use “direct powering”, power is supplied by the host and you do not need to connect an external power supply to the Power Input entry.

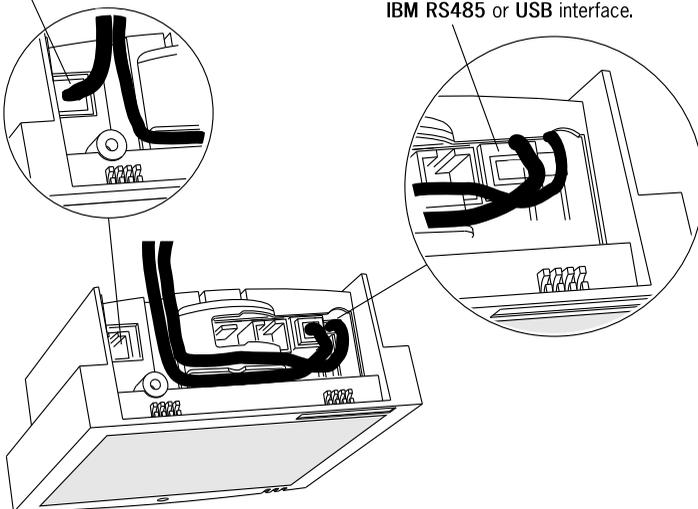
Use the illustration below to see where to connect your cable(s) to the scanner. Check whether you have to use Port 1 or Port 2 for your type of data-interface.



Before closing the end cover later on (see mounting instructions in chapter 2.2 and 2.3) guide the cables through the scanner as shown in the illustration below.

**Data port 2.** Connect the communication cable to this port if the host system features the **OCIA** or **KBW** interface.

**Data port 1.** Connect the communication cable to this port if the host system features the **RS232C**, **IBM RS485** or **USB** interface.



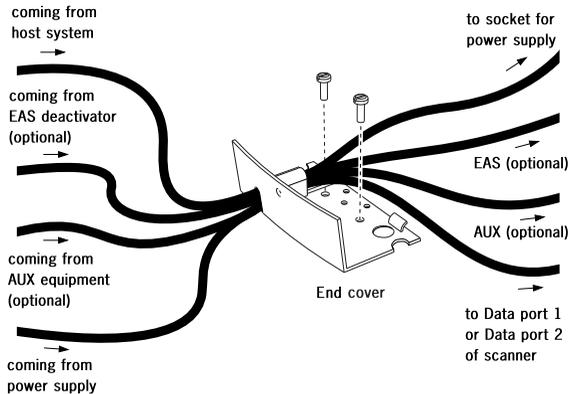
**IMPORTANT**

- If the host system is an IBM 4683/4684 POS, the scanner with IBM RS-485 interface should be connected to PORT 17 of the host only.
- If the host system is an IBM 4693/4694 POS, the scanner with IBM RS-485 interface should be connected to PORT 9E of the host only.

**2.2 INSTALLING THE SCANNER ON A COUNTER SURFACE**

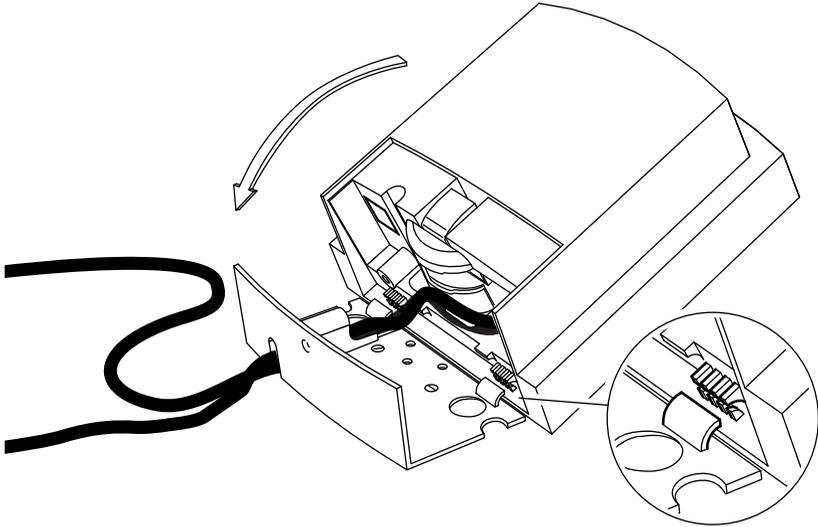
To install the scanner without the flexible scanner stand, follow the instructions below.

1. Remove the two rubber feet from the end cover. Lead the communication cable and power supply cable through the slit. Fasten the end cover to the surface with two screws as illustrated in the figure.

**NOTE**

- You can use the end cover as a template to mark the places for the mounting holes at the counter surface and drill two holes.
- If you do not want to drill holes in the counter top, the scanner can be installed without fixing it to the surface. In this case the rubber feet will prevent the scanner from sliding.

2. Position the scanner as indicated in the figure below and rotate the scanner around the cover. Make sure that connectors and cables are placed as indicated in the figures, to allow easy attachment of the scanner to the end cover. Press the scanner until a "click" is heard.



3. Plug the remote ends of all cables into the appropriate connections of your host POS-system.
4. If you are using an external power supply, power on the scanner by connecting the IEC power cord to the AC/DC power supply and plugging the AC power cord into an AC power outlet. Switch on the host system.

### **IMPORTANT**

To activate Data port 2 (OCIA or KBW interface) scan the following codes from the Configuration Guide:

1. **open** the scanner Programming Mode by scanning code 1.1
2. **return to factory default settings** by scanning code 1.3

Once the scanner is installed, you can start scanning bar code labels. If you want to change the default settings of the scanner, proceed to the Configuration Guide which came with the scanner.

## 2.3 INSTALLING THE SCANNER USING THE FLEXIBLE SCANNER STAND

To install the scanner on the flexible scanner stand, lead the cables through the stand to be connected to the scanner. Furthermore the stand should be fastened to the counter top. Finally, the scanner should be fastened to the stand.

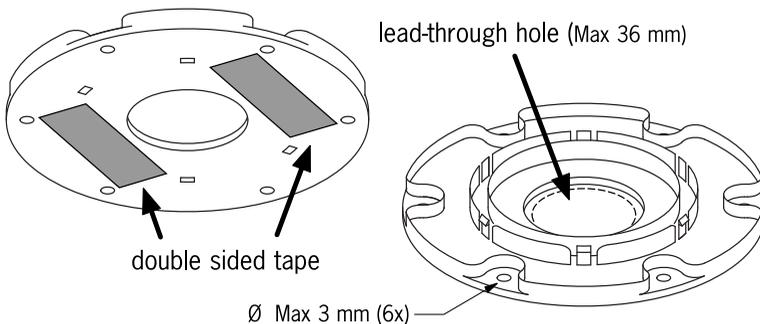
You are advised to precisely follow the next steps:

1. Remove the cover disk (center cap) from the stand and remove the bottom plate from the stand.
2. Place the bottom plate on the counter and mark the places for the mounting holes on the counter top and mark the hole to lead the cables through.
3. Drill the mounting holes and the lead-through hole.

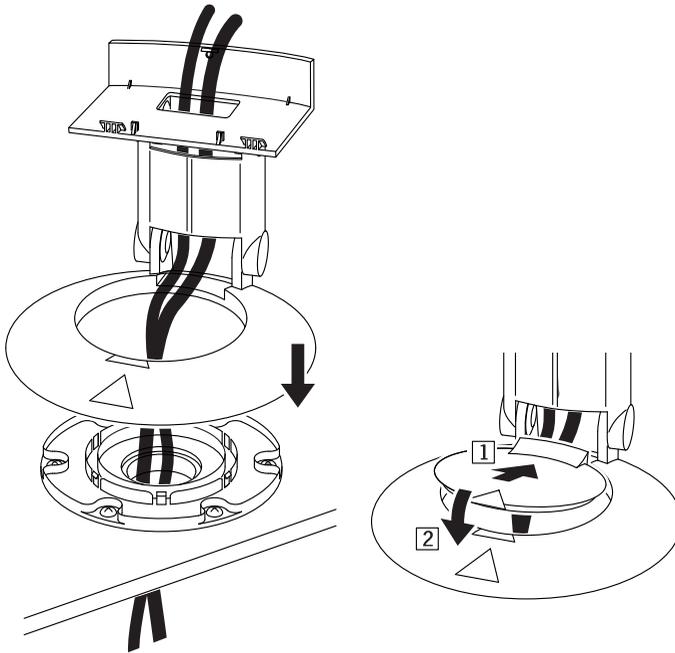
### NOTE

If you prefer not to drill in your counter, you can mount the stand using the provided double-sided tape and have the cables leave the foot at the rear, just above the circular basis.

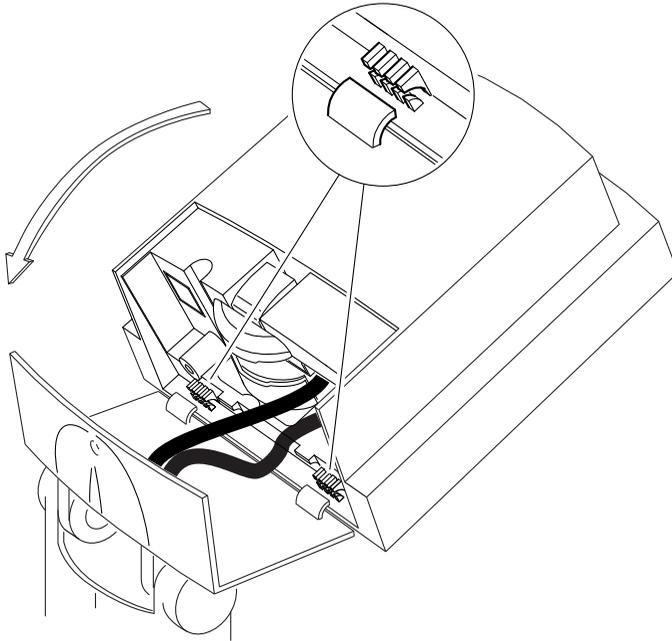
4. Fix the bottom plate on the counter top using the screws or tape from the mounting kit.



5. Lead the cables from the bottom upwards through the hole in the counter, through the bottom plate and through the scanner stand.



6. Click the stand on the bottom plate.
7. Connect the cables to the scanner. Refer (for the data cable in particular) to chapter 2.1 for the correct connections.
8. Place the scanner onto the flexible stand and rotate the scanner as indicated in the figure. Make sure that connectors and cables are properly placed to allow easy attachment. Press the scanner until a "click" is heard.



9. Click the cover disk on the foot of the stand.
10. Connect the data cable to the host.  
(For IBM POS systems, see note in chapter 2.1)
11. Place the scanner in the desired angle.  
In case you have an external power supply, connect the IEC power cord to the AC/DC power supply and plug the AC power cord into an AC power outlet.
12. Switch on the host system

### **IMPORTANT**

To activate Data port 2 (**OCIA** or **KBW** interface) scan the following codes from the Configuration Guide:

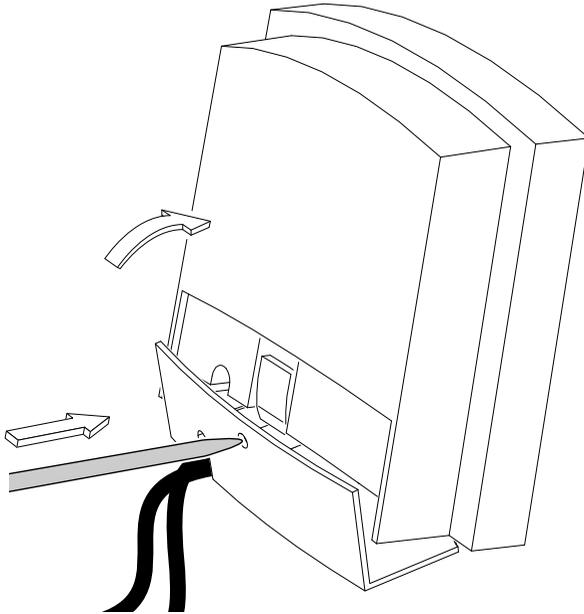
1. **open** the scanner Programming Mode by scanning code 1.1
2. **return to factory default settings** by scanning code 1.3

Once the scanner is installed, you can start scanning bar code labels. If you want to change the default settings of the scanner, proceed to the Configuration Guide which came with the scanner.

## 2.4 REMOVING THE SCANNER FROM THE END COVER

To remove the scanner from the end cover, that is either attached on the counter or on the scanner stand:

1. Locate the small hole at the end cover of the scanner.
2. Remove the end cover by pressing it with the tip of a stick as indicated in the figure.



# **Appendices**

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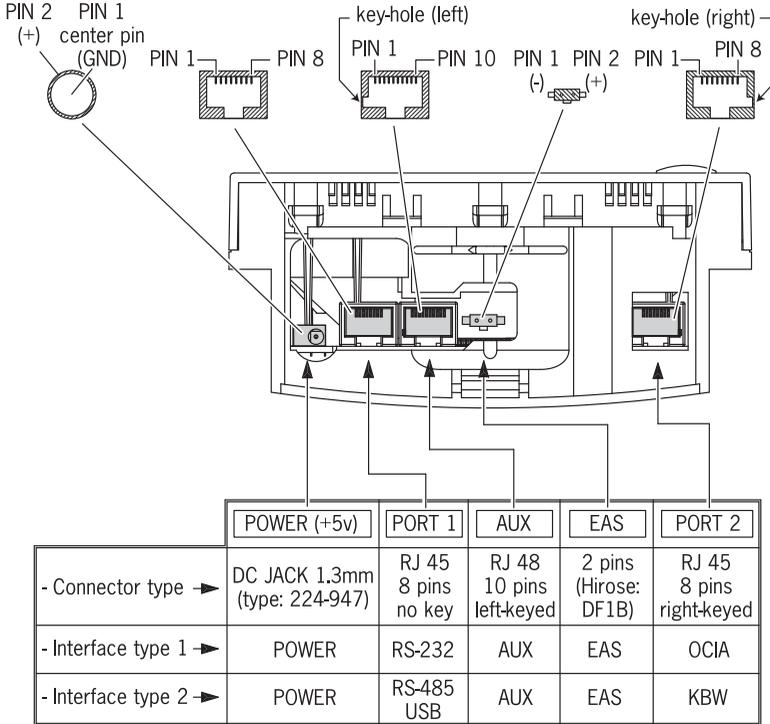
**A. Connector types and pin definitions**

**B. Technical Specifications**

**C. Troubleshooting**

## A CONNECTOR TYPES AND PIN DEFINITIONS

There are two multiple interface versions of the Nexus available: RS232C/OCIA and IBM RS485/Keyboard Wedge/USB. The various pin definitions for the applicable Data port are given on page 20 and 21. The connector to be used for the port is indicated below.



### IMPORTANT

To activate Data port 2 (**OCIA** or **KBW** interface), follow this sequence:

1. Plug in the appropriate interface cable and then power up the scanner.
2. Scan the following codes from the Configuration Guide:
  - **Open** the scanner Programming Mode by scanning code 1.1
  - **Return** to factory default settings by scanning code 1.3

**Pin definition for dual interface version RS232C / OCIA**

<b>RS232C interface Data port 1</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	CTS	input
2	RXD	input
3	TXD	output
4	RTS	output
5	GND	-
6	DC-power	input
7	Do not connect	(reserved)
8	Do not connect	(reserved)

<b>OCIA interface Data port 2</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	IFID 1	input
2	DATA	output
3	DATA-RTN	output
4	CLK-IN	input
5	GND	-
6	CLK-IN-RTN	input
7	RESET	input
8	RESET-RTN	input

Note: Connect pin 1 to 3

**Pin definition for triple interface version RS485 / KBW / USB**

<b>RS485 interface Data port 1</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	Do not connect	-
2	IO-A	input/output
3	IO-B	input/output
4	Do not connect	-
5	GND	-
6	DC-POWER	input
7	Do not connect	(reserved)
8	Do not connect	(reserved)

<b>USB interface Data port 1</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	D+	input/output
2	Do not connect	-
3	Do not connect	-
4	D-	input/output
5	GND	-
6	DC-POWER	Input 8-16V
7	Do not connect	(reserved)
8	IFID2	input

Note: for standard USB connection (with additional power supply) connect pin 6 to pin 8 only.

<b>KBW interface Data port 2</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	IFID 1	input
2	KB-DATA	output
3	KB-CLK	output
4	PC-DATA	input
5	PC-GND	-
6	PC-CLK	input
7	PC-5V	input
8	IFID 2	input

Note: connect pin 1 to 8

Pin definition for all scanner versions:

<b>AUX Port Aux</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	+5 VDC	output
2	CTS	input
3	RXD	input
4	(reserved)	-
5	RTS	output
6	GND	-
7	(reserved)	-
8	(reserved)	-
9	(reserved)	-
10	(reserved)	-

<b>EAS</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	(-)	-
2	(+)	-

<b>POWER</b>		
<b>Pin</b>	<b>Description</b>	<b>Direction</b>
1	GND	-
2	(+)	input

## B TECHNICAL SPECIFICATIONS

<b>Electrical</b>	
Power supply voltage	100 – 240 V ac 50/60 Hz (adapter)
DC input to scanner	5.2 V dc 450 mA (at dc-jack) or 8 – 16 V dc 3 Watt (direct power)
Interfaces	Depending on scanner version: RS232 and OCIA or RS485, KBW and USB/USB plus power
<b>Optical</b>	
Light source	Visible laser diode (630 - 670 nm)
Depth of field	300 mm
Scan pattern	7 directions scan field, 24 lines scan pattern
Scan rate	2480 scans / second
<b>Decoding</b>	
Bar code types	EAN/UPC/JAN + Add-on, code 32 (Ital. Pharmacode) Code 128, EAN 128, Code 39 (+ full ASCII), Codabar, Interleaved 2/5
<b>Physical</b>	
Weight	500 g
Weight with stand	675 g
Dimensions	H x W x D : 146 x 135 x 61 mm : 5.75 x 5.35 x 2.40 inch
Dimensions with stand	H x W x D : 215-237 x 135 x 135 mm : 8.47 – 9.34 x 5.35 x 5.31 inch

<b>Environmental</b>	
Operating temperature	0° C ~ 40° C
Humidity	20% ~ 95% RH (non-condensing)
<b>Safety</b>	
Laser safety	IEC 825-1 (1993) Class I, U.S. CDRH: 21CFR1040 Class II a
Electrical safety	EN 60950 second edition UL1950, c-UL (according CSA22.2.950)
Flammability rate	94V-0
<b>EM Compatibility</b>	
Radio and TV interference	EN 55022 Class B (1998) + A1 (2000), FCC part 15 Class A (1992)
Harmonic current emissions	EN 61000-3-2 (1995) + A1 (1998) + A2 (1998)
EM-immunity	EMC Directive 89/336/EEC EN 55024 (1998) + A1 (2001)

## C TROUBLESHOOTING

This section contains information on solving problems you may encounter when using the scanner. If troubles occur, take a moment to read the information in this section. However, before referring to the diagnostic tips make sure that the scanner is installed as described in Chapter 2 and that all cables are properly connected.

Problem	Diagnostic Tips
The scanner is on but a bar code cannot be read. The LED is red.	<ul style="list-style-type: none"> <li>▪ The scanner window is dirty. Clean the scanner window as described in the Maintenance section.</li> <li>▪ The presented bar code type is not enabled. Select the bar code type with the Configuration Guide.</li> <li>▪ The scanner is disabled by the host. Refer to Section 1.5.</li> <li>▪ The bar code type you presented to the scanner is not supported by the Nexus.</li> </ul>
The scanner is on, but the motor is not rotating. A bar code cannot be read. The LED is intermittently flashing red.	<ul style="list-style-type: none"> <li>▪ The scanner is in sleep mode. Press the switch on top of the scanner to reactivate the scanner (or use the wake protocol. Refer to section 1.5).</li> </ul>
The LED is alternating red/green	<ul style="list-style-type: none"> <li>▪ Mirror motor is defective and must be replaced (Authorized personnel only).</li> </ul>
The LED is alternating red/green and beeps are heard.	<ul style="list-style-type: none"> <li>▪ Possible failure of the scanning safeguard circuit. Immediately disconnect the scanner from its power source. Contact your supplier.</li> </ul>
The scanner does not accept more than two or three bar codes	<ul style="list-style-type: none"> <li>▪ There is no proper handshaking with the host system. Switch the host system on and check connection and communication settings.</li> </ul>

Problem	Diagnostic Tips
The LED is orange.	<ul style="list-style-type: none"> <li>▪ The laser is not functioning. The laser is defective. Contact your supplier.</li> </ul>
The LED is blinking orange.	<ul style="list-style-type: none"> <li>▪ The ambient temperature is too high. Make sure the scanner has enough air ventilation and is not placed in direct sunlight.</li> </ul>
The LED remains green	<ul style="list-style-type: none"> <li>▪ The scanner is continuously seeing a bar code. Remove all bar code labels from the scan volume of the scanner and try again.</li> <li>▪ The scanner cannot send the data to the host system. There is no proper handshaking between the scanner and the host. Scanner buffer is full. Make sure that all cables are connected and your host system is ready to receive data.</li> </ul>
A bar code is read by the scanner but not accepted by the host system.	<ul style="list-style-type: none"> <li>▪ The communication cable is not connected to the serial port of your host system. Refer to the manual of your host system to locate the serial port.</li> <li>▪ The communication settings of the host and scanner do not match. Ensure that the setting value for both devices are the same. For proper adjustment values see the Configuration Guide.</li> <li>▪ The communication cable does not suit your host system. Contact your supplier for the correct communication cable.</li> <li>▪ The data format is not supported by the software running on the host system.</li> </ul>

Problem	Diagnostic Tips
<p>USB is not working</p>	<ul style="list-style-type: none"> <li>▪ Unless you use USB plus power, you need a separate power connection to the scanner like the external power supply.</li> <li>▪ Restart the scanner by temporarily disconnecting the power. This may help the POS system to detect the scanner. The very first time the PC might install some general drivers, possibly from your computer setup CD.</li> <li>▪ In case of KB emulation you can select various 'keyboard languages' or the universal 'Alt-input-method'.</li> <li>▪ In a windows environment verify with the device manager that a HID (Human Interface Device) is installed for the scanner.</li> <li>▪ Check that scanner and POS-system or Computer both expect the same USB protocol (KB emulation, RS-232 emulation or IBM POS protocol). See Configuration Manual for setup codes and reset (re-power) the scanner after making any changes.</li> </ul>





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