
Scantech Pollux P-4010
Bar code laser scanner



User's manual

Scantech Pollux P-4010

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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 Pollux 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. This scanner should only be powered by a UL Listed/CSA Certified power supply having Limited Power Source or Class2 outputs, rated + 5 V dc/0.75A, + 12 V dc/1A, -12 V dc/0.05A and minimum 40 degrees Celcius operating environment.
- À utiliser avec des ordinateurs/systèmes POS enregistrés UL/certifiés CSA.

Radio and television interference

Operation of this equipment in a residential area can cause interference to 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 device 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

The Pollux P-4010 is an innovative, high performance food retail scanner, combining unequalled performances with enormous installation flexibility. It has a unique four-directional sealed optical assembly, allowing it to be turned inside the fixed scanner housing. This new benchmark for vertical supermarket and hypermarket scanning ensures an ergonomic and user-friendly implementation wherever it is installed. The Pollux is also one of the flattest scanners available today, making installation at the check-out even easier.

The dense scan pattern of the Pollux guarantees excellent omni-directional bar code reading and the new Scantium decoder chip gives the scanner unrivalled multi-decoding power. An important feature of the Pollux is the Goldrush polygon technology. Evaporated gold on the polygon makes it ultra light, giving longer motor life and faster 'wake-up' times from the energy saving sleep mode. Two versions of the Pollux are available, one unit has RS232C and OCIA interfaces and the other has IBM RS485 and Keyboard Wedge interfaces. An auxiliary port for connecting another Scantech scanner is standard.

This manual contains three chapters and three appendices. The first chapter describes the Pollux and its general features.

Instructions for the installation are described 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.

The third chapter describes all possible mounting options.

Appendix A shows all connectors of the scanner. Technical specifications of the Pollux can be found in Appendix B. Refer to Appendix C for troubleshooting if the scanner is not working properly.

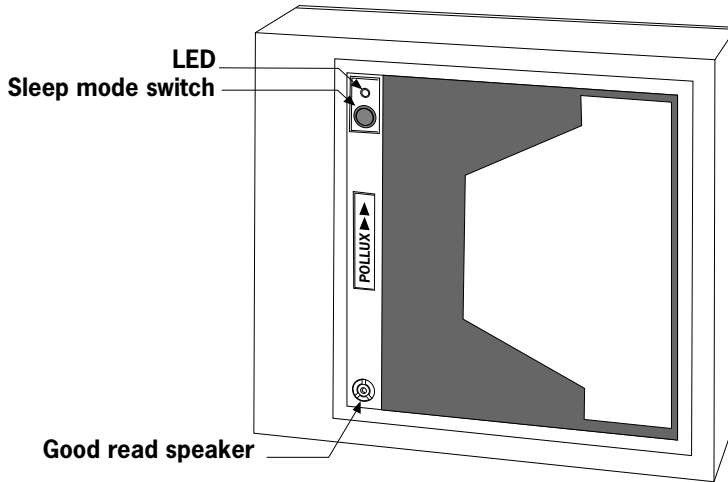
Chapter 1

The Pollux P-4010

1.1 UNPACKING THE POLLUX P-4010

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 figure on page 6 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 various parts of the Pollux P-4010 are:

THE POLLUX P-4010



The various parts of the Pollux P-4010 are:

Sleep mode switch - 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.

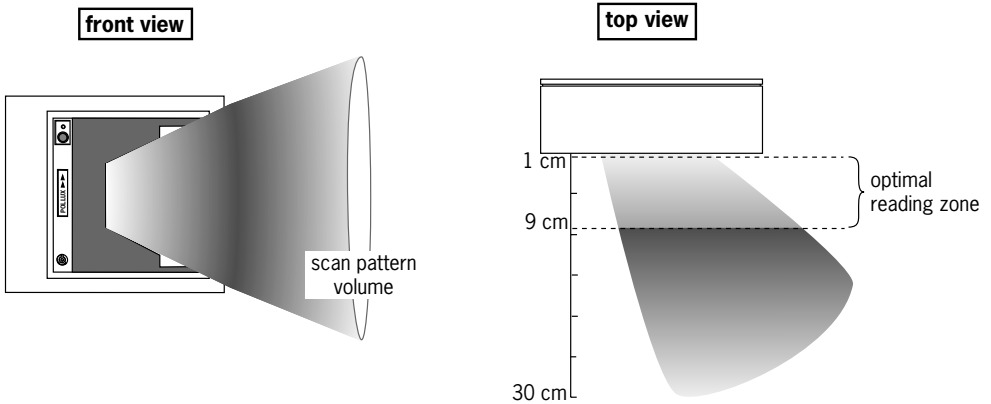
LED - A red LED indicates that the scanner is ready to read a bar code. A green LED indicates a good read.

Good read speaker - The speaker is heard whenever data has been read correctly. The frequency and volume can be adjusted with the menu labels from the Configuration Guide.

1.2 SCANNING BAR CODES WITH THE POLLUX P-4010

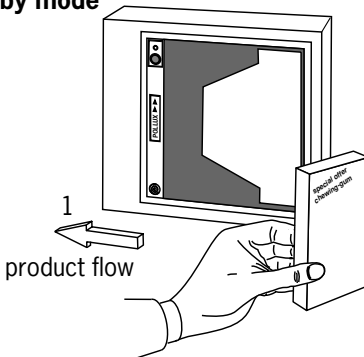
The Pollux P-4010 is an omni-directional scanner featuring a 5 directional scan field with a 20 lines scan pattern. The scanner's scan volume is illustrated in the figure below. The optimal reading zone lies between 1 and 9 cm from the scanner window, but bar codes can be read up to 30 cm (11.8 in.) from the scanner window. The scanner can be used in either fly by or presentation mode.

Fly by mode:



Scanning a bar code label in fly by mode is very simple: pass the product's bar code label along the scanner as illustrated in the figure below.

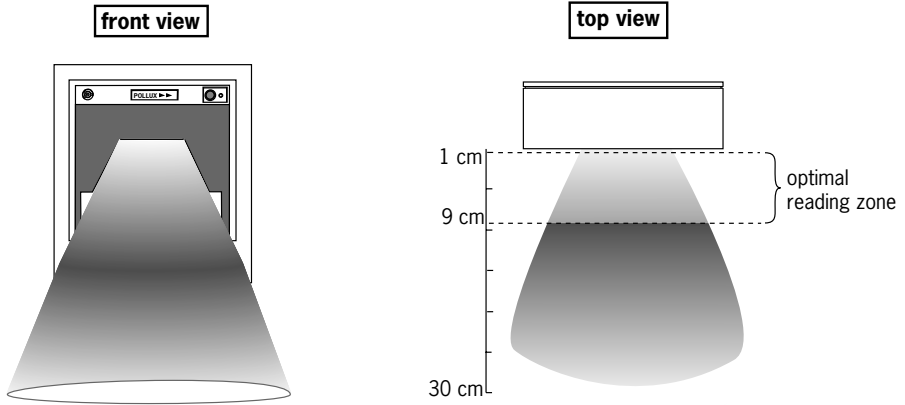
scanner in fly by mode



1. Pass the label along the scanner.

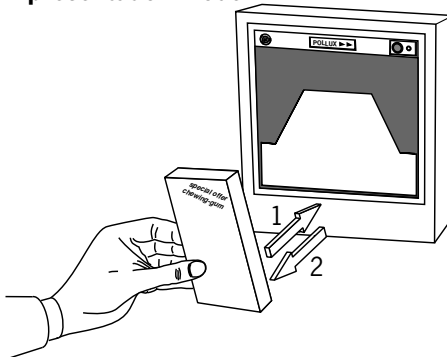
➡ Bar code is read (green led).

Presentation mode:



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

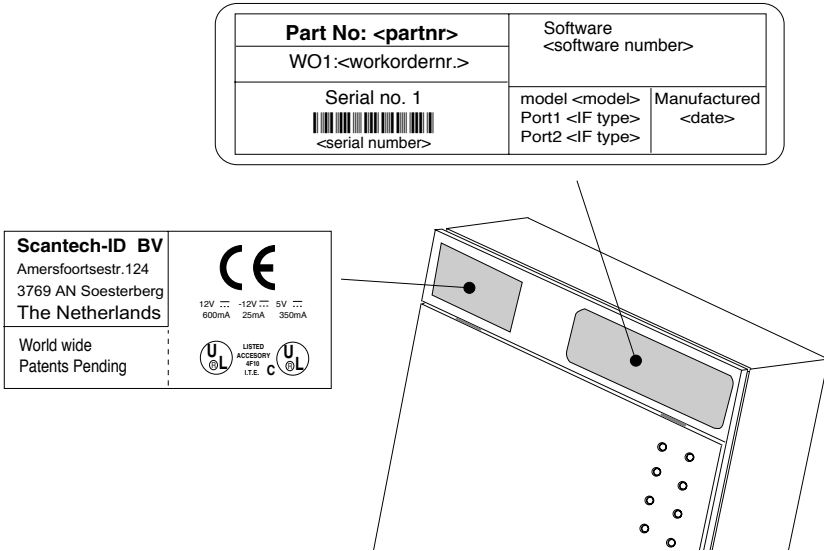
scanner in presentation mode



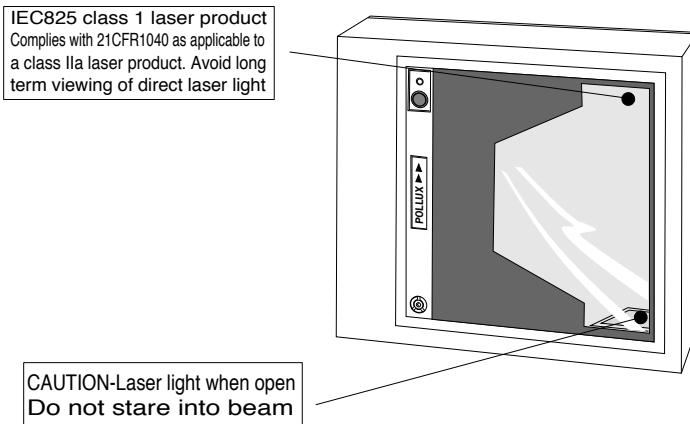
1. Move the label to the scanner.
- ➡ Bar code is read (green led).
2. Move the label from the scanner.

1.3 SCANNER LABELLING

Two labels are present on the housing of the Pollux P-4010 as indicated in the figure below. 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

English:

The P-4010 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.

German:

Der Strichcode-Scanner P-4010 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 P-4010 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 P-4010 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:

P-4010 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:

P-4010 -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 P-4010 uppfyller säkerhetsnormen IEC 825-1 (1993) för laserprodukter av klass I. Den uppfyller dessutom U.S. 21CFR1040 som gäller för laserprodukter av klass IIa. Undvik att titta i direkt laserljus under längre perioder.

Norwegian:

P-4010 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 P-4010 è conforme alle norme di sicurezza IEC 825-1 (1993) relative ad un prodotto laser di Classe 1. 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 P-4010 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 P-4010 reúne las normas de seguridad IEC 825-1 (1993) para un producto laser de Clase 1. Y también reúne las normas U.S. 21CFR1040 que se aplican a un producto laser de Clase IIa. Se debe evitar mirar muy fijo en luz láserica directa.

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 P-4010 uses a low-power laser diode operating at 675 nm in an opto-mechanical scanner resulting in less than 0.5 mW peak output power. Laser light observed at 3,5 cm (1.38 in.) above the window through a 7 mm (0.28 in.) aperture and averaged over 1000 seconds is less than 3.9 μ 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 0.7 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

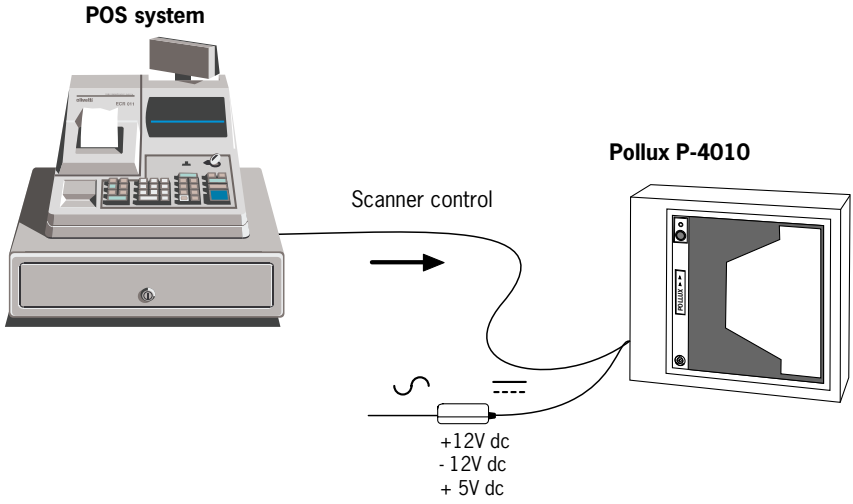
The Pollux P-4010 scanner requires little maintenance. Only occasional cleaning of the scanner window is necessary to remove dirt and fingerprints. Cleaning can be performed during operation with a non-abrasive glass spray cleaner and a soft lint-free cloth.

1.5 CONTROLLING THE SCANNER FROM THE POS SYSTEM

The Pollux P-4010 can be controlled from the POS system via the RS232C interface. Controlling 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.

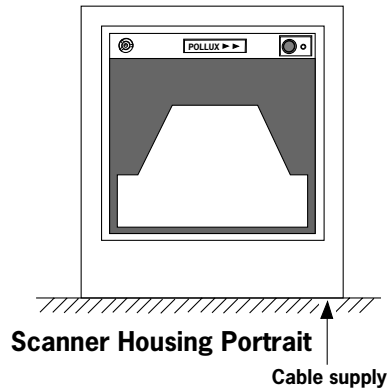
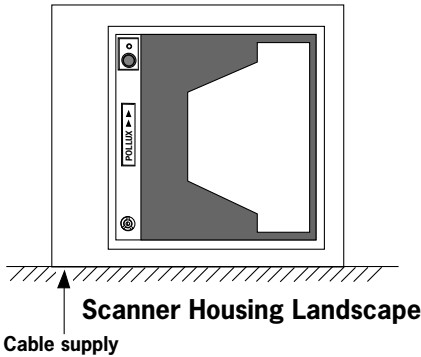


Chapter 2

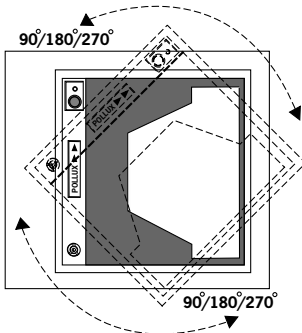
Installing the Pollux P-4010

Depending on the way you want to use the Pollux P-4010, the scanner can be installed fixed on a counter surface or sunk into the counter surface.

The Pollux can be installed in two different ways, scanner housing **Landscape** or scanner housing **Portrait** (see the illustrations below). Refer to chapter 3 for the various mounting options of the Pollux.



Independent from the installation you can direct the scan pattern in a way that suits your application most, thanks to the four directional optical assembly. For turning the optical assembly please refer to the Pollux Service Manual (authorized personnel only).



The turning of the optical assembly.

Note: The orientation of the scanner's optical assembly is factory assembled according to your preference!

IMPORTANT

- To make the instructions in this manual as clear as possible, the starting point for all instructions is the landscape scanner housing setup.

Instructions for installation on a counter surface are given in Section 2.1.

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.

NOTES

- 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 INSTALLING THE SCANNER ON A COUNTER SURFACE

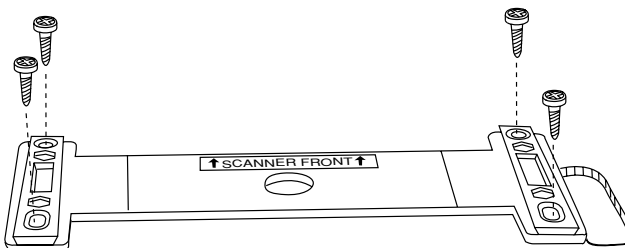
Follow these steps to mount the scanner in a fixed counter surface position:

1. Locate the optimal scanner position on the counter surface. Pay attention to the product flow, distance to the counter edge and convenience for the operator.
2. Use the enclosed templates of the vertical mount to mark the places for the mounting holes at the counter surface and also the hole for the cable supply. You can also choose to lead the cables away on the counter surface by removing an insert in the back cover of the scanner.

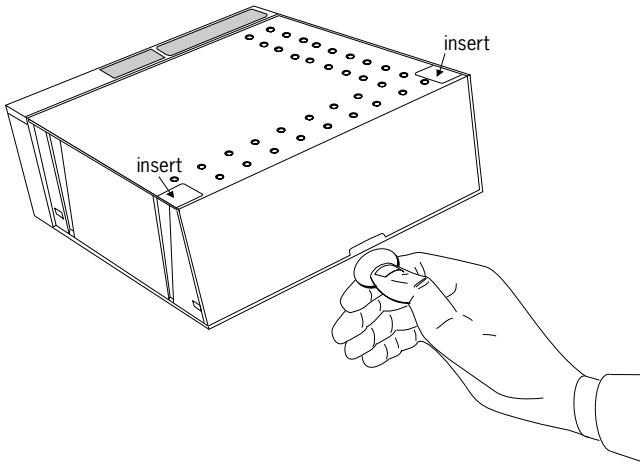
Note:

- Use template A for installing the scanner housing landscape.
- Use template B for installing the scanner housing portrait.

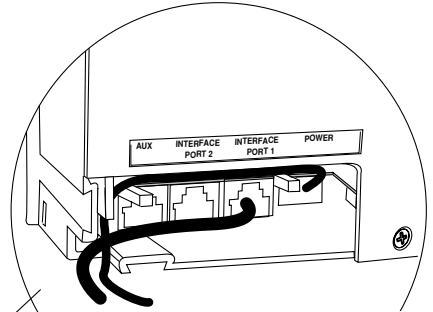
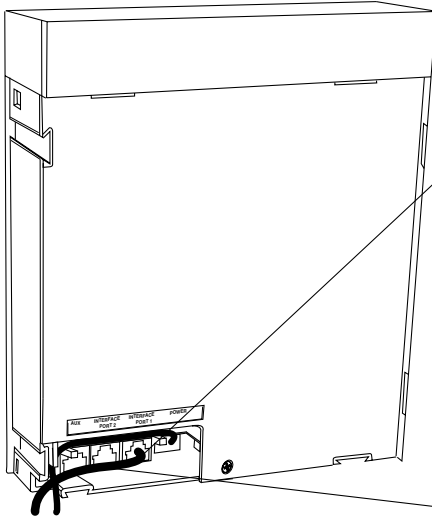
3. Fasten the vertical mount to the surface with four screws (or four nuts and bolts) as illustrated in the figure.



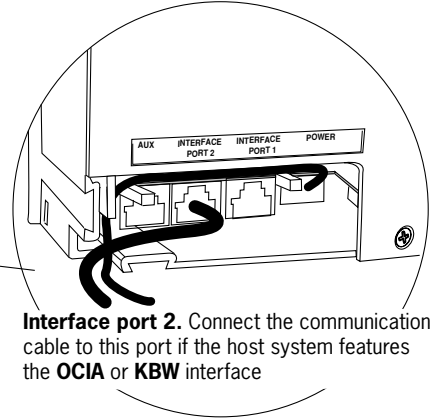
4. Locate the small hole at the back cover of the scanner. Remove the back cover by pressing it with a coin as indicated in the figure.



5. Lead the power supply cable and communication cable through the hole in the counter.
6. Plug the communication cable with the 8 pin modular jack into Data port 1 if the host system features the RS232C or IBM RS485 interface, or into Data port 2 if the host system features the OCIA or KBW interface. Plug the other connector of the cable into the appropriate serial port of your POS or computer. Connect the Scantech universal power supply unit to the power supply port. Lead the cables through the scanner as illustrated in the figure on the next page.

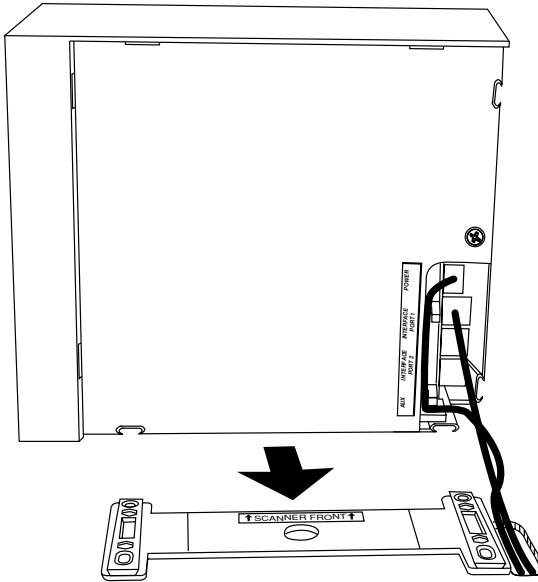


Interface port 1. Connect the communication cable to this port if the host system features the **RS232C** or **IBM RS 485** interface



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

7. Place the scanner on the vertical mount as illustrated in the figure.



8. Reposition the back cover of the scanner.
9. 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), 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

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.

Chapter 3

Mounting options Pollux P-4010

The ability to turn the optical assembly of the Pollux provides a large number of mounting options. This chapter will help you find the best mounting option for your application. (For information on turning the optical assembly, please refer to the Pollux Service Manual. Authorized personnel only).

The Pollux P-4010 can be installed:

- fixed on a counter surface or
- sunk into the counter surface.

Your choice depends on the way you intend to use the scanner.

The following pages illustrate which mounting options are available.

To install the Pollux in flyby mode for scanning from Right to Left, please refer to Section 3.1

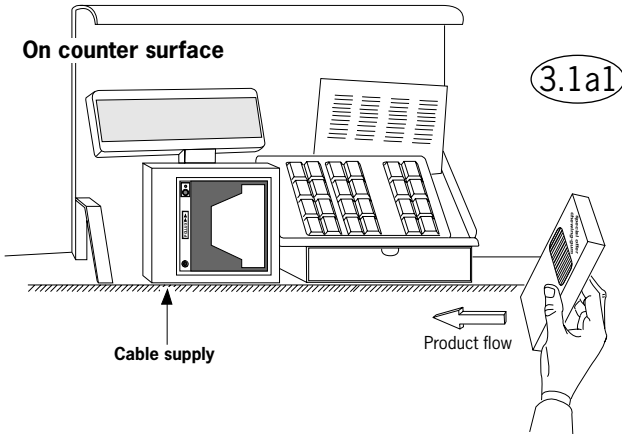
To install the Pollux in flyby mode for scanning from Left to Right, please refer to Section 3.2

To install the Pollux in presentation mode, please refer to Section 3.3

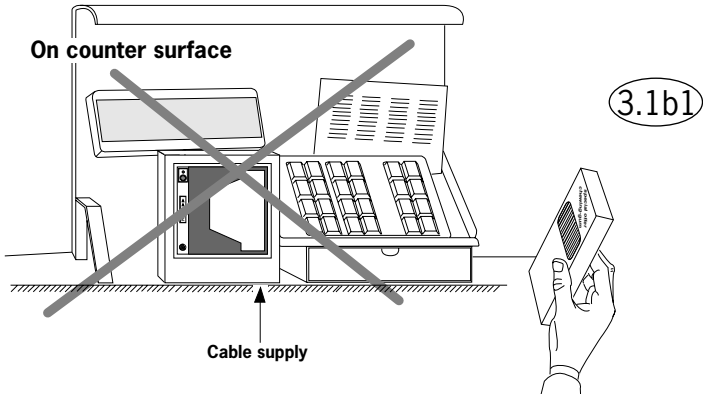
3.1 FLYBY MODE SCANNING: RIGHT TO LEFT

To scan from Right to Left, install the scanner housing by:
a. landscape orientation or
b. portrait orientation.

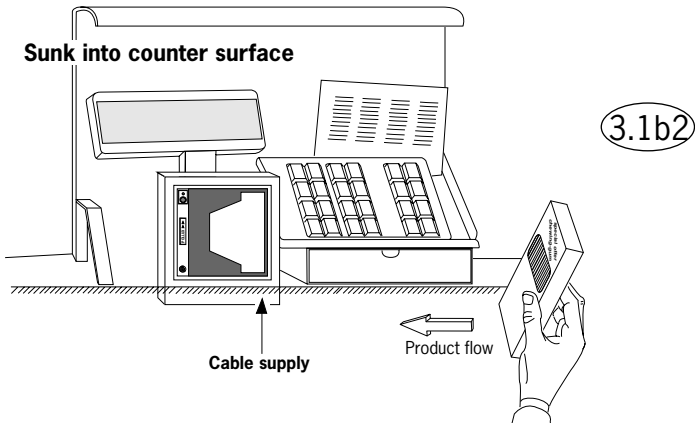
a. Scanning from Right to Left, scanner housing landscape orientation



b. Scanning from Right to Left, scanner housing portrait orientation



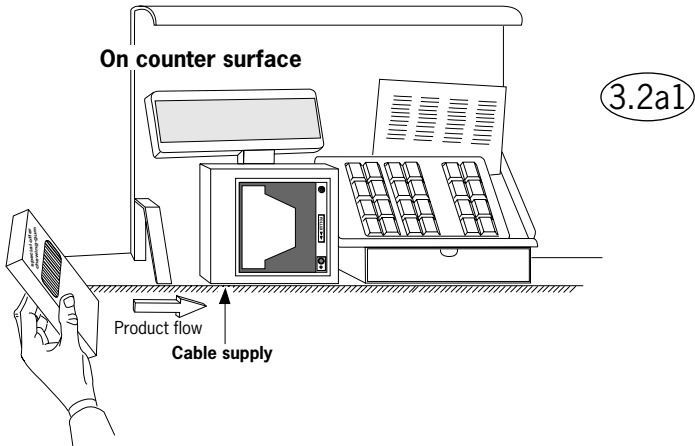
Not recommended. The need to lift the products being scanned increases.



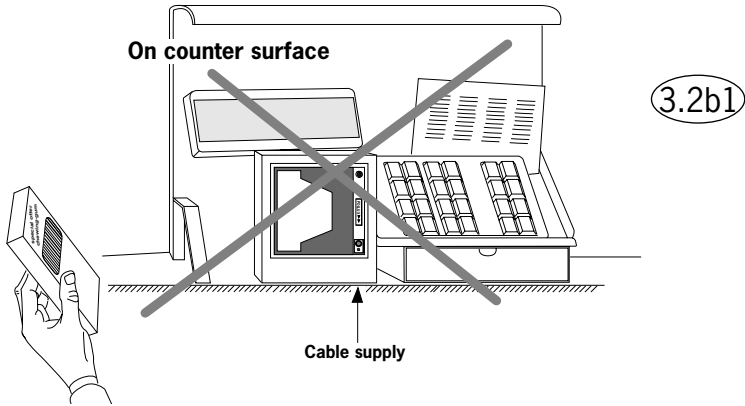
3.2 FLYBY MODE SCANNING: LEFT TO RIGHT

To scan from Left to Right, install the scanner housing by:
a. landscape orientation or
b. portrait orientation.

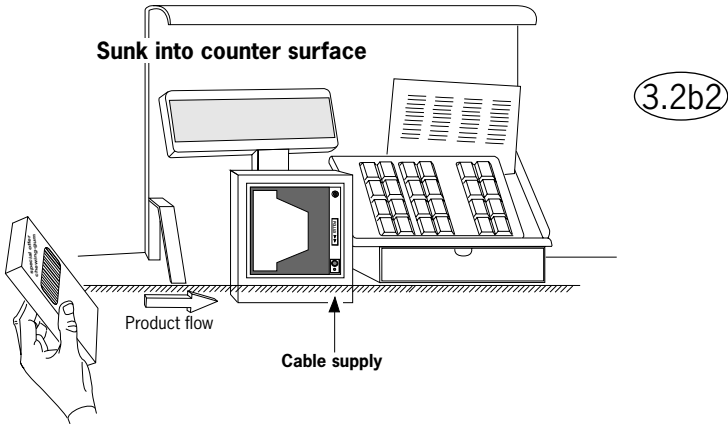
a. Scanning from Left to Right, scanner housing landscape orientation



b. Scanning from Left to Right, scanner housing portrait orientation



Not recommended. The need to lift the products being scanned increases.

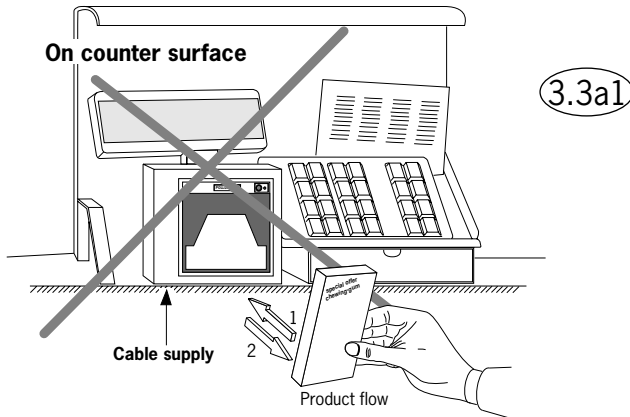


3.3 PRESENTATION MODE SCANNING

To scan in presentation mode, install the scanner housing by:

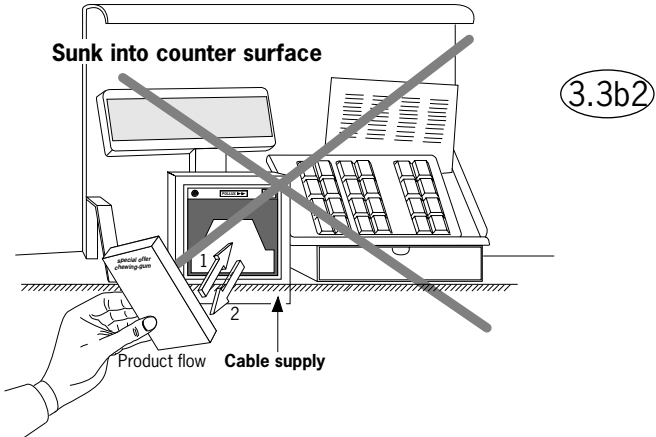
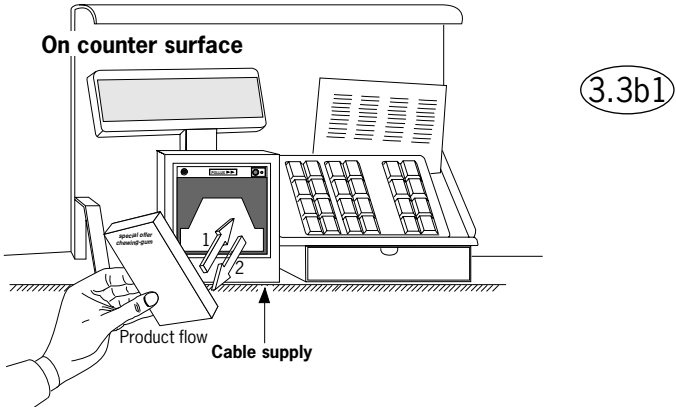
- a. landscape orientation or
- b. portrait orientation.

a. Scanning in presentation mode, scanner housing landscape orientation



Not recommended. Due to a minimized scan pattern.

b. Scanning in presentation mode, scanner housing portrait orientation



Not recommended. Due to a minimized scan pattern.

Appendices

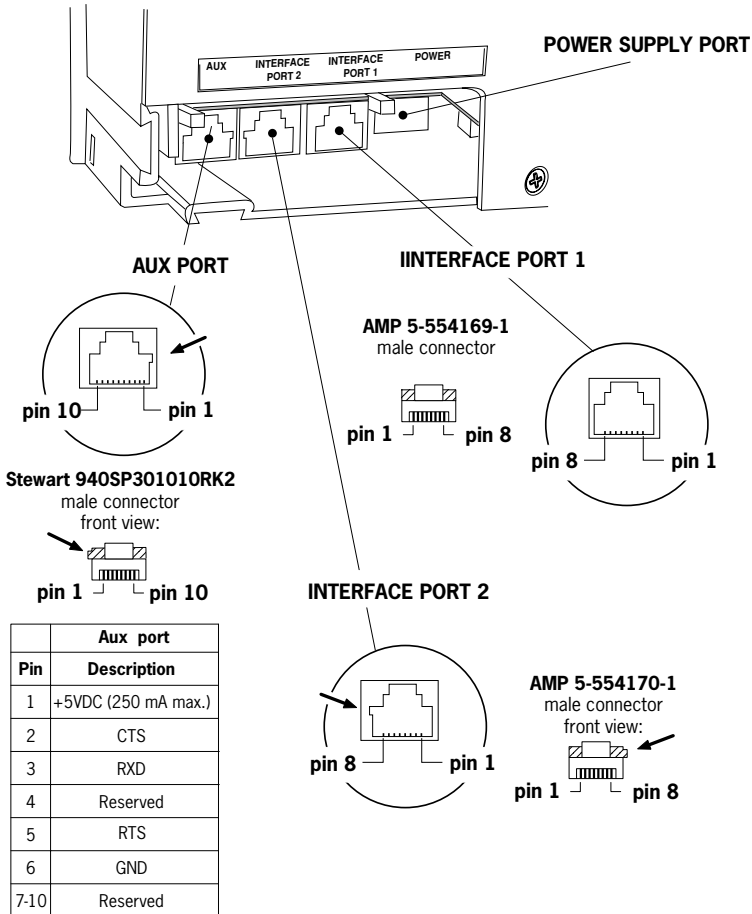
A. Connector types and pin definitions

B. Technical Specifications

C. Troubleshooting

A. CONNECTOR TYPES AND PIN DEFINITIONS

There are two dual interface versions of the Pollux available: RS232C/OCIA and IBM RS485/Keyboard Wedge. The various pin definitions for the applicable Data port are given on page 31. 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

| RS232C interface Data port 1 | | |
|---------------------------------|-------------|-----------|
| Pin | Description | Direction |
| 1 | CTS | input |
| 2 | RXD | input |
| 3 | TXD | output |
| 4 | RTS | output |
| 5 | GND | - |
| 6 | Not Con. | - |
| 7 | Reserved | |
| 8 | | |

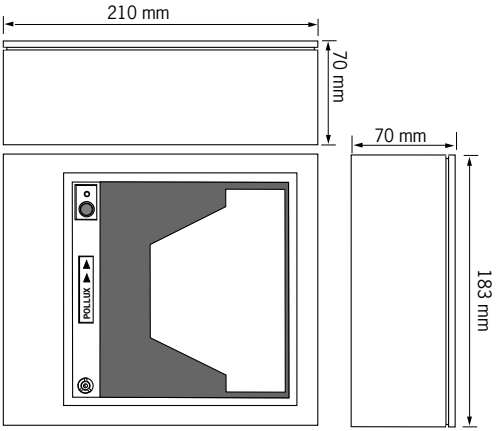
| OCIA interface Data port 2 | | |
|-------------------------------|--------------|-----------|
| Pin | Description | Direction |
| 1 | IFID | input |
| 2 | DATA | output |
| 3 | DATA RTN | output |
| 4 | CLOCK IN | input |
| 5 | GND | - |
| 6 | CLOCK IN RTN | input |
| 7 | RESET | input |
| 8 | RESET RTN | input |

Pin definition for dual interface version IBM RS485-Keyboard Wedge

| IBM RS485 interface Data port 1 | | |
|------------------------------------|-------------|--------------|
| Pin | Description | Direction |
| 1 | Not Con. | - |
| 2 | IO-A | input/output |
| 3 | IO-B | input/output |
| 4 | Not Con. | - |
| 5 | GND | - |
| 6 | Not Con. | - |
| 7 | Reserved | |
| 8 | | |

| KBW interface Data port 2 | | |
|------------------------------|-------------|-----------|
| Pin | Description | Direction |
| 1 | IFID1 | 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 | IFID2 | input |

B. TECHNICAL SPECIFICATIONS

| Electrical | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Power supply voltage | 100 - 250 V ac, 50/60 Hz |
| DC input to scanner | + 12 V dc, 600 mA |
| | - 12 V dc, 75 mA |
| | + 5 V dc, 350 mA |
| Interfaces | Depending on scanner version |
| | Interface port 1: RS232 or IBM RS485 |
| | Interface port 2: OCIA or KBW |
| Auxiliary port | Secondary scanner (250 mA max.) |
| Optical | |
| Light source | Visible laser diode (650 nm) |
| Depth of field | 300 mm |
| Scan pattern | 5 directions scan field, 20 lines scan pattern |
| Scan rate | 2000 scans / second |
| Decoding | |
| Bar code types | EAN/UPC/JAN + Add-on |
| | Code 128, EAN 128, Code 39, Code 32, Codabar, ITF |
| Physical | |
| Weight | 1,2 kg |
| Dimensions | L x W x D: 183 x 210 x 70 mm |
| | : 7.2 x 8.25 x 2.75 inch |
|  <p>The technical drawing illustrates the scanner's dimensions from three perspectives. The top view shows a rectangular shape with a width of 210 mm and a depth of 70 mm. The front view shows a rectangular shape with a height of 183 mm and a width of 70 mm. The side view shows a rectangular shape with a height of 183 mm and a depth of 70 mm. The drawing also includes a detailed view of the scanner's front panel, showing a control panel with a power button, a directional pad, and a 'PULL' button, and a large rectangular opening for the scanner's lens.</p> | |

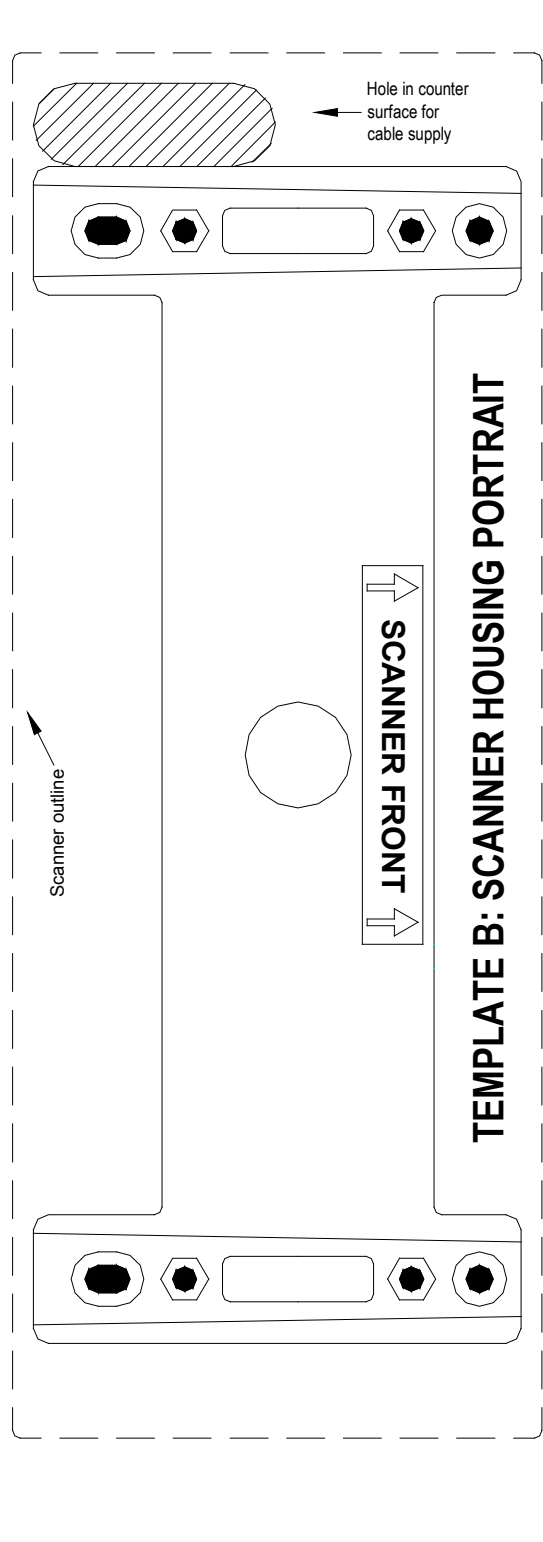
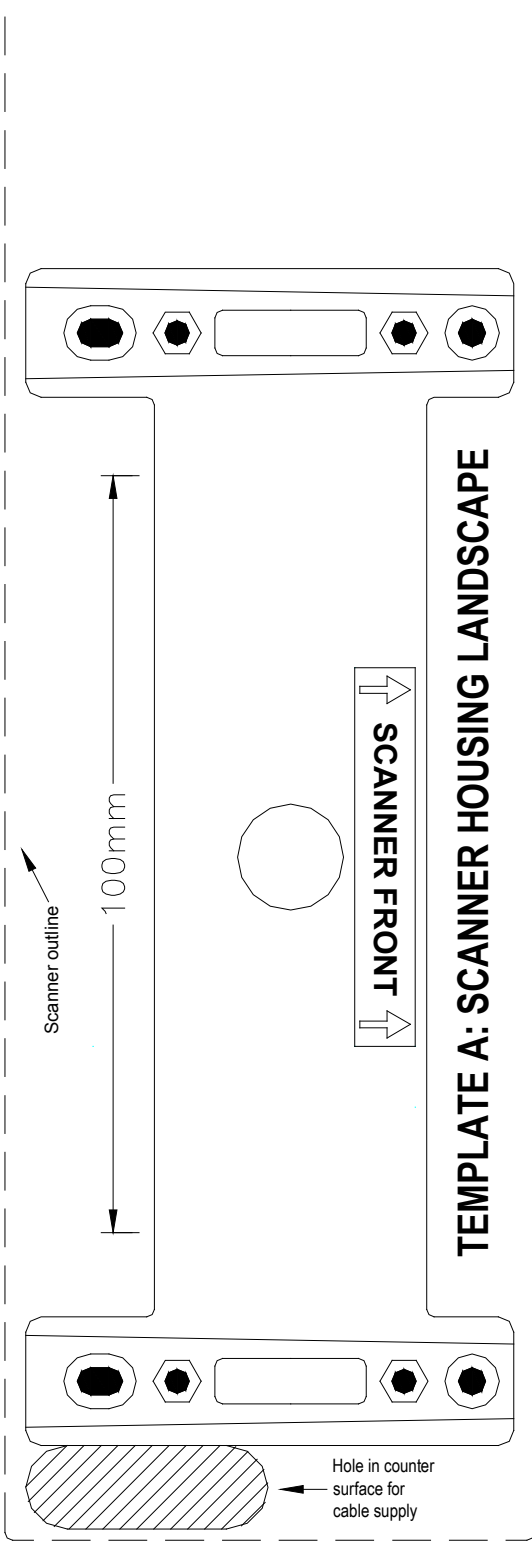
| Environmental | |
|-------------------------------|---------------------------------------------------------|
| Operating temperature | 0° C ~ 40° C |
| Humidity | 0% ~ 95% RH (non-condensing) |
| Safety | |
| Laser safety | IEC 825-1 (1993) Class I, U.S. 21CFR1040 Class IIa |
| Electrical safety | EN 60950 second edition |
| | UL1950 (third edition), c-UL (according CSA22.2.950-95) |
| Flammability rate | 94V-0 |
| EM Compatibility | |
| Radio and TV interference | EN 55022 Class B (1994), FCC part 15 Class A (1992) |
| Harmonic current emissions | EN 61000-3-2 (1995) |
| EM-immunity | EN 50082-1 (1992) based on: |
| ElectroStatic Discharge (ESD) | IEC 801-2 (1991) |
| Radio frequency immunity | IEC 801-3 (1984) / ENV 50140 (1993) |
| Electrical fast transient | IEC 801-4 (1988) |

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 |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The scanner is on but a bar code cannot be read. The LED is red.</p> | <ul style="list-style-type: none"> ■ The scanner window is dirty. Clean the scanner window as described in the Maintenance section. ■ The presented bar code type is not enabled. Select the bar code type with the Configuration Guide. ■ The scanner is disabled by the host. Refer to Section 1.5. ■ The bar code type you presented to the scanner is not supported by the Pollux. ■ The scanner is in Slave Mode. Press the Sleep Mode button for at least 3 seconds to enter Programming Mode and Return to Default by scanning code "1.3" out of "Configuration Guide" booklet. |
| <p>The scanner is on, but the motor is not rotating. A bar code cannot be read. The LED is intermittently flashing red.</p> | <ul style="list-style-type: none"> ■ 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). |
| <p>The LED is alternating red/green.</p> | <ul style="list-style-type: none"> ■ Mirror motor is defective and must be replaced (Authorized personnel only). |
| <p>The LED is alternating red/green and beeps are heard.</p> | <ul style="list-style-type: none"> ■ Possible failure of the scanning safeguard circuit. Immediately disconnect the scanner from its power source. Contact your supplier. |
| <p>The scanner does not accept more than two or three bar codes.</p> | <ul style="list-style-type: none"> ■ There is no proper handshaking with the host system. Switch the host system on and check connection and communication settings. |
| <p>The LED is red and green.</p> | <ul style="list-style-type: none"> ■ The laser is not functioning. The laser is defect. Contact your supplier. |
| <p>The LED is blinking red and green.</p> | <ul style="list-style-type: none"> ■ The ambient temperature is too high. Make sure the scanner has enough air ventilation and is not placed in direct sunlight. |

| Problem | Diagnostic Tips |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The LED remains green.</p> | <ul style="list-style-type: none"> ■ The scanner is continuously seeing a bar code. Remove all bar code labels from the scan volume of the scanner and try again. ■ 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. |
| <p>A bar code is read by the scanner but not accepted by the host system.</p> | <ul style="list-style-type: none"> ■ 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. ■ 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. ■ The communication cable does not suit your host system. Contact your supplier for the correct communication cable. ■ The data format is not supported by the software running on the host system. |



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