Intermec

User's Guide

1545 Bar Code Laser Scanner

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P/N 057286-003

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Intermec

DECLARATION of CONFORMITY

Intermec hereby declares that the following product has been tested and found compliant with the below listed standards as required by the EMC Directive 89/336/EEC as amended by 92/31/EEC and by the Low Voltage Directive 73/23/EEC.

Product: Model 1545 Laser Scanner
Applicable Standards: EN 55022
EN 50082-1
EN 60950
EN 60825

Everett, June 23, 1995 Nijmegen, June 27, 1995

Terry Hudkins
Director of Engineering

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USA

• This device meets Class B limit requirements of CISPR 22.

SPECIFICATIONS

LASER PRODUCT
USA - CDRH Class II
International - IEC 825 Class 2

SAFETY APPROVALS

USE - UL Listed, UL 1950 1st Edition
Canada - CSA Certified C22.2 - 220/M1986
Europe - TUV Rheinland Licensed
EN 60 950 (IEC 950)
and DIN IEC 825

The 1545 Laser Scanner is UL Listed, CSA Certified and TUV licensed when used with Intermec's Models 944X, 946X, 9450, 951X, 954X, 955X, 956X, 957X, 971X, 972X, J2010X and J205X Readers. It is UL Listed for use with other readers, only when these readers are UL Listed with Class 2 outputs.

Patent Information

This scanner is the subject of patents applied for by Intermec. This scanner is also protected by one or more of the following U.S. patents and equivalent foreign patents:

4,334,301	4,387,297
4,409,470	4,593,186
4,760,248	4,816,660

Regulatory Statements

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 can cause undesired operation.

Federal Communications Commission Compliance

This equipment is intended for operation in a commercial environment, in compliance with the requirements for a Class A digital device, pursuant to Part 15 of the FCC Rules, and it must not be used in a residential environment; however, it has also been tested and found to comply with the more stringent requirements for a Class B device, pursuant to Part 15 of the FCC Rules. It generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instruction manual, it may cause interference to radio communications. If this equipment causes interference, the user will be required to correct the interference at the user's own expense.

Note: In order to maintain compliance with FCC Rules, the l/O cables that interconnect between the device and any peripheral (such as a printer, external modem, etc.) must be shielded and the cable shield grounded as specified by Intermec.

Caution: Changes or modifications not expressly approved by Intermec could void the user's authority to operate this equipment.

Industry Canada Compliance

This digital apparatus does not exceed the Class B limits for radio emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

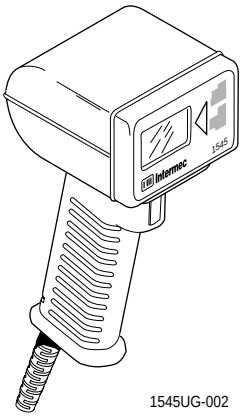
Cet appareil numérique n'émet pas de bruits radioéléctriques dépassant les limites applicables aux appareils numériques de Classe B préscrites dans le réglement sur le brouillage radioéléctrique édicté par Industrie Canada.

Additional EMI/RFI Compliance

- This device complies with the requirements of / Cet appreil en conformite avec / Dieses Gerät befolgt auf die Ausführungsbestimmungen des:

EN55022 (Class B limits) and EN50082-1.

Introduction



1545UG-002

The Intermec 1545 series laser scanners deliver quick, effortless bar code scanning and can read even marginal quality bar codes almost instantly. The scanners are reliable and can withstand demanding industrial applications. With their low power solid state visible laser diode, the 1545s are particularly appropriate for portable applications. A 1545 with a fully charged reader can be used for a full day of data collection.

1545E

General purpose scanner, 670 nm light.

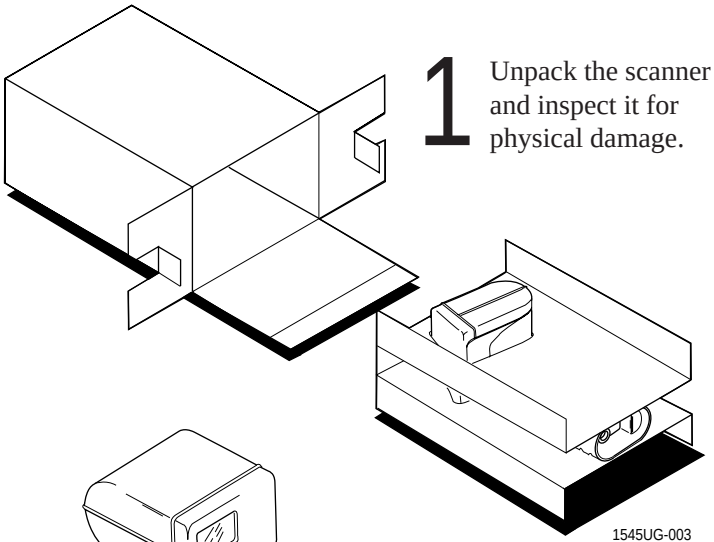
1545F

Has added capability of being compatible with specific third party readers, 670 nm light.

1545G

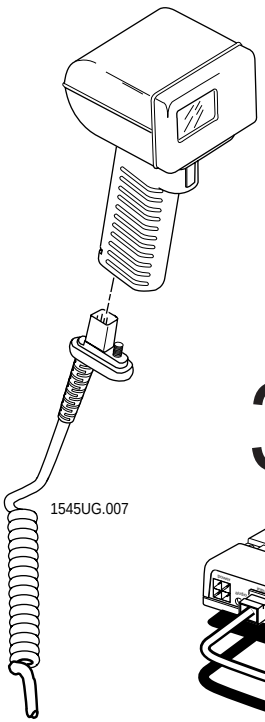
Same as 1545E, except its 650 nm light appears brighter.

Installation



1 Unpack the scanner and inspect it for physical damage.

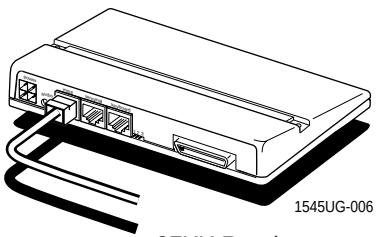
1545UG-003



2 Connect cable to scanner (cable sold separately).

1545UG.007

3 Connect cable to reader (scanner plug to reader socket).



1545UG-006

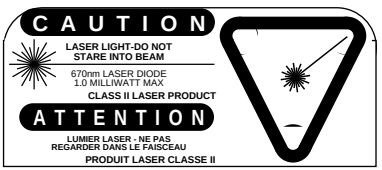
97XX Reader

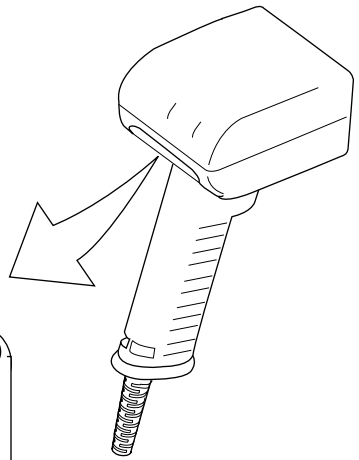
1545UG-020

Laser Safety Information

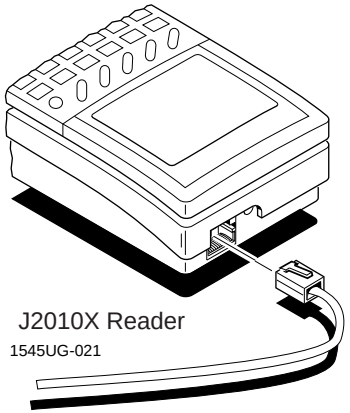
The following additional labels are provided with the 1545 when the product is used outside of the USA or Canada. One of these labels is intended to be placed over the existing label. See the 1545 Label Application Instruction Sheet for correct orientation and placement of the label.

Note: Laser light is emitted from the aperture window at the front of the unit.



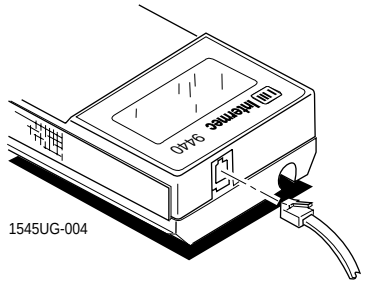


1545UG-019



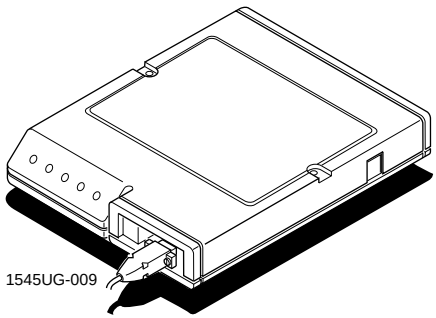
J2010X Reader

1545UG-021



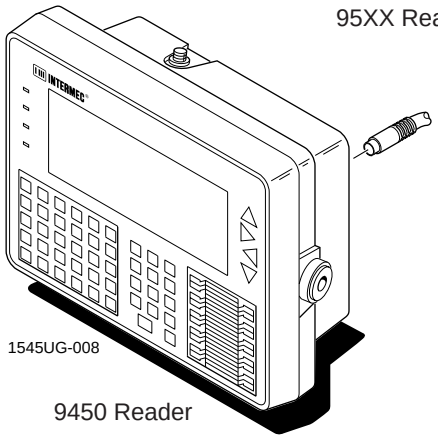
1545UG-004

944X Reader



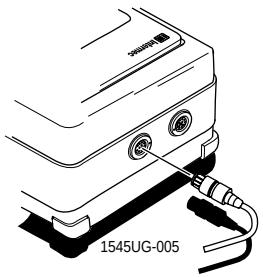
1545UG-009

95XX Reader



1545UG-008

9450 Reader

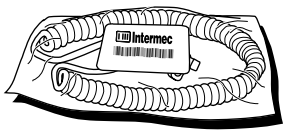


1545UG-005

946X Reader

Cables

The type of cable used with the 1545 Laser Scanner depends on the type of reader to which it is attached. Compatible Intermec readers include:



1545UG-010

944X Portable Readers
946X Portable Readers
9450 RF Vehicle Mount Readers
95XX Wedge/Network Readers
97XX Wedge Readers
J2010X Terminals

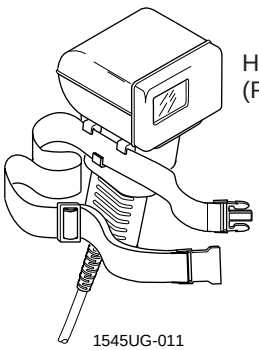
There are no connecting cables shipped with the scanner. These are purchased separately.

Cable Connections for the 1545 Laser Scanner

Reader	Length	Cable Connection	P/N
944X	5ft (1.24m)	6 Pin Modular	052900
944X	25ft (7.63m)	6 Pin Modular	052904
95XX	6ft (1.83m)	9 Pin D-Subminiature	052901
95XX	25ft (7.63m)	9 Pin D-Subminiature	052906
946X, 9450	6ft (1.83m)	11 Pin Sealed	052902
9450	15ft (3.72m)	11 Pin Sealed	055056
97XX	6ft (1.83m)	10 Pin Modular	054361
97XX	25ft (7.63m)	10 Pin Modular	054362
J2010X	6ft (1.83m)	10 Pin Modular	054361
J2010X	25ft (7.63m)	10 Pin Modular	054362
3rd Party	6ft (1.83m)	9 Pin D-Subminiature	*055097

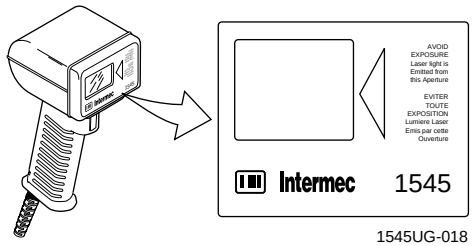
*1545F only

Accessories


1545UG-011

Holster and Belt
(Part Number 053175)

Laser Safety Information



1545UG-018

WARNING

Do not look directly into the window area or at a reflection of the laser beam while the laser is scanning. Long term exposure to the laser beam can damage your vision.

AVERTISSEMENT

Ne regardez pas directement la réflexion d'un rayon laser ou dans la fenêtre du laser lorsque celui-ci est en opération. Si vous regardez trop longtemps un rayon laser, cela peut endommager votre vision.

CAUTION

There are no user serviceable parts inside the 1545. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure of up to 2mW at 650 or 670 nm.

NOTE: There are no controls or adjustments provided for routine operation and maintenance of the 1545.

ATTENTION

La 1545 ne contient pas de pièces révisibles par l'utilisateure. L'emploi de commandes ou d'ajustements ou de performances des procédures autres que ceux précisés dans cette documentation pourrait avoir comme résultat l'exposition à l'irradiation laser nuisible de jusqu'à 2mW à 650 ou 670 nm.

NOTE: Vous ne disposez k'aucun controle ni reglage pour le fonctionnement et l'entetier courants du 1545.

Troubleshooting

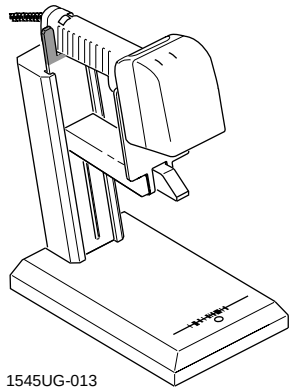
- For portable readers, a double beep after a successful read indicates that the reader batteries are low.
- Damage to the 1545 may result if these temperature ranges are exceeded:

  Operating Temperature:

  -4° to 122°F (-20° to 50°C)

  Storage Temperature:

  -40° to 158°F (-40° to 60°C)
- The scanner has built-in sensing circuitry that protects the laser diode from high temperatures. The green "READ" indicator light blinks if this circuitry has turned off the laser.
- If you have difficulty operating the scanner, determine if the problem originates with the bar code, the scanner, the cable, or the reader:
  1. Try scanning printed bar code that is known to be machine readable.
  2. Clean the scanner window. Use a dry, soft cloth, but do not use water, solvents, or cleaning agents; doing so will damage the scanner window. Follow the scanning tips described in this quick reference guide.
  3. Replace the cable with a cable known to be in good working condition.
  4. Refer to the troubleshooting section of the user manual for your reader.
- There are no user serviceable parts in the 1545 Laser Scanner. For information on the nearest repair depot, contact your local Intermec representative.

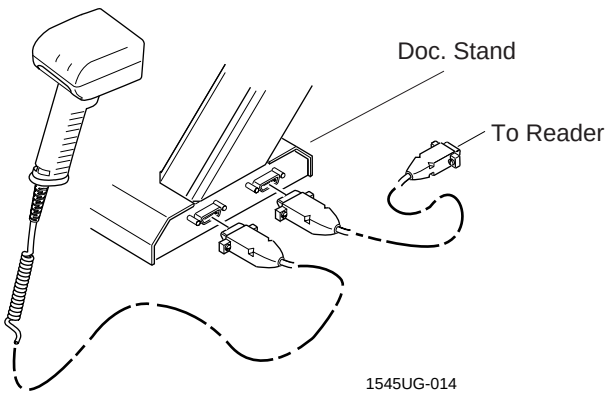


1545UG-013

Document Stand

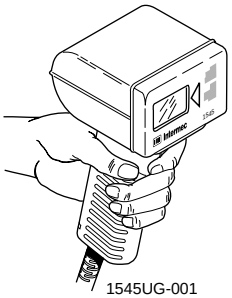
The document stand requires that two interface cables be purchased before use: one to connect it to the reader and another to connect it to the scanner.

Reader	Doc. Stand to Reader Cable P/N	Scanner to Doc. Stand Cable P/N
95XX	054866	052901
97XX	054867	052901



1545UG-014

Operation



1545UG-001

1. Switch on reader.
2. Aim scanner close to bar code and squeeze trigger.
3. When you get a successful read:
   - The laser beam turns off.
   - The reader beeps.
   - The green indicator light turns on (for wedge/network readers only).

The scan line must cross every bar and space on the symbol.

Range of Operation

The less dense the bar code, the greater the reading range of the scanner.

For each density of bar code there is an optimum reading distance. Start out close to the bar code and move back from there.

If you fail to get a quick read, try moving the scanner to a point where it is less sensitive to poorly printed or distorted bar code.

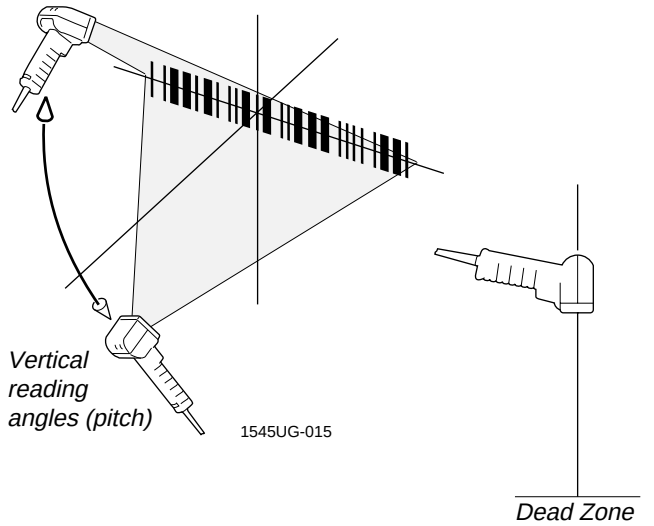
Maintenance

Water or grime on the window of the scanner will distort the laser beam and impair performance:

- Clean the scanner window using a dry, soft cloth. Do not use water, solvents or cleaning agents. Doing so will damage the scanner window.
- Operate and store in an environment of 0-95% relative humidity.
- DO NOT submerse the unit in water.
- DO NOT use a dry tissue to wipe the window.

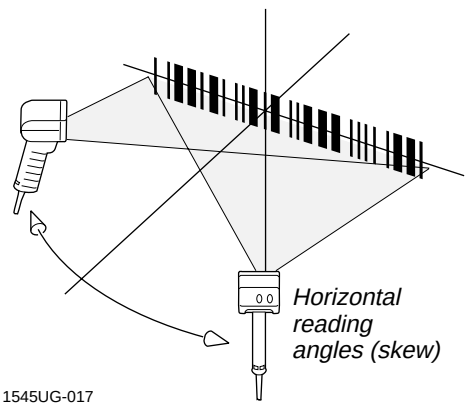
Angle of Operation

For a quick read, hold the scanner at a slight angle to the bar code.



1545UG-015

1545UG-016



1545UG-017