Intermec

Quick Reference Guide

1551B Decoding Laser Scanner

P/N 065542-003

Intermec Technologies Corporation
6001 36th Avenue West
P.O. Box 4280
Everett, WA 98203-9280

U.S. service and technical support: 1-800-755-5505
U.S. media supplies ordering information: 1-800-227-9947

Canadian service and technical support: 1-800-688-7043
Canadian media supplies ordering information: 1-800-268-6936

Outside U.S. and Canada: Contact your local Intermec service supplier.

Contents

Overview of the 1551B Laser Scanner

The Intermec 1551B Laser Scanner delivers quick, effortless bar code scanning. You can use each type of scanner with a portable terminal in Wand Emulation mode, but it is also designed to collect data for a specific type of terminal as listed in this table.

Scanner	Terminal
1551B0200	Compatible with DEC VT220/320/420 and devices equipped with an RS-232 PC serial port or terminal serial port.
1551B0202	A long-range optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551B0200.
1551B0204	A high-visibility optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551B0200.
1551B0205	A high-density optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551B0200.
1551B0300	Compatible with these terminals: • IBM 4683/4684/4693/4694 Compatible with these terminals with optical coupled interface adapter (OCIA) hardware: • NCR 1255, 2126/2127, 2123/7058, 2152*/2153*, 2950* • NCR 2552, 7050/7051/7052/7053
1551B0700	Keyboard wedge interface for use with these personal computers: • IBM PC XT/AT or PS/2 Mod 30/50/60/80 compatible • IBM 3151, 317X/318X/319X, 347X • IBM Thinkpad • Apple MAC ADB • Zenith CruisePAD • Laptops

Colors and Configurations (continued)

Scanner	Terminal
1551B0702	A long-range optics scanner with keyboard interface for use with the same personal computers as the 1551B0700.
1551B0704	A high-visibility optics scanner with keyboard interface for use with the same personal computers as the 1551B0700.
1551B0705	A high-density optics scanner with keyboard interface for use with the same personal computers as the 1551B0700.

* *Requires an external power supply. See the footnote on page 6 for part numbers.*

Terminals are continually being added to this list. Consequently, some of the most recent additions may not be shown here. Contact your local Intermec representative for a current list.

Unpacking the 1551B Laser Scanner

Your 1551B laser scanner was thoroughly tested and inspected before it was shipped from the factory. The shipping box contains the laser scanner and this document.

Note: *You must order the appropriate interface cables separately. See "Ordering Cables" later in this guide for help. For help configuring your scanner, you may also need to order a* 1551B Decoding Laser Scanner User's Manual *(Part No. 066104) or find the manual on the internet at www.intermec.com/manuals/1551b/1551.htm.*

If any of these items are missing or damaged, please contact your local Intermec representative. Retain the shipping box in case you need to ship the scanner.

Understanding the Scanner Features

Please acquaint yourself with these important parts of the scanner before continuing.

Light

The light indicates the status of the scanner.

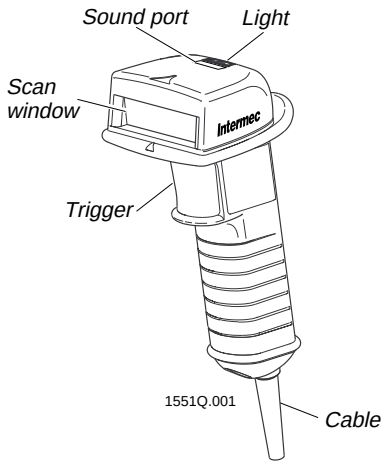
Color	Description
Yellow	The device is scanning.
Green	The bar code has been successfully scanned.
None	The device is not scanning.

Beeps

The scanner emits these beeps to indicate either a successful scan or a situation that requires your attention.

Beep	Description
One medium beep	A bar code has been read successfully and you may scan another.
Two beeps (High Low)	A command bar code has been scanned.
Two medium beeps	The scanner has been turned on.
Three medium beeps	Indicates an error. See "Troubleshooting the 1551B Laser Scanner" later in this guide.

1551B Laser Scanner Features



Electrical Rating

The 1551B laser scanner electrical ratings are ⎓ 4,5 to 12V; 215 mA.

Ordering Cables

To order a cable, contact your local Intermec representative. Use this table to determine which cable to order.

1551B020X Reader/Terminal	Cable Connector	Length	Part No.
DEC VT220/320/420	8 Pin Modular	6′ (1.83m)	064039-050
Intermec 944X, 9430, 95XX	RJ11 Modular	6′ (1.83m)	064039-011
Intermec 9465/9450	11 Pin Fisher	6′ (1.83m)	064039-046
Intermec J2010, JG2010, 97XX, T242X	10 Pin Modular	6′ (1.83m)	064039-012
RS-232 DCE*	25 Pin D-Sub	6′ (1.83m)	064039-001
RS-232 DCE*	25 Pin D-Sub	25′ (7.71m)	064039-049
RS-232 DCE**	9 Socket D-Sub	6′ (1.83m)	064602-001

1551B020X (*continued*)

Reader/Terminal	Cable Connector	Length	Part No.
RS-232 DCE*	25 Socket D-Sub	6′ (1.83m)	064039-002
RS-232 DCE**	9 Pin D-Sub	6′ (1.83m)	064039-039
RS-232 DCE*	9 Socket D-Sub	6′ (1.83m)	064039-042
RS-232 DCE*	9 Pin D-Sub	6′ (1.83m)	064039-043
RS-232 DCE**	9 Socket D-Sub	20′ (6.10m)	064039-044
RS-232 DTE*	25 Pin D-Sub	6′ (1.83m)	064039-003
RS-232 DTE*	25 Socket D-Sub	6′ (1.83m)	064039-004
RS-232 DTE**	9 Socket D-Sub	6′ (1.83m)	064039-040
RS-232 DTE**	9 Pin D-Sub	6′ (1.83m)	064039-041
RS-232 DTE**	9 Socket D-Sub	20′ (6.10m)	064039-045
MaxiLAN CX, DX*	9 Socket D-Sub	6′ (1.83m)	064039-042
1551B0300			
IBM 4683 Port 9A/9B, 4684, 4693, 4694	4 Position SDL	6′ (1.83m)	064039-005
IBM 4683 Port 5B	8 Position SDL	6′ (1.83m)	604039-013
Intermec 944X, 9430, 95XX	RJ11 Modular	6′ (1.83m)	064039-021
Intermec J2010, JG2010, 97XX, T242X	10 Pin Modular	6′ (1.83m)	064039-022
NCR 1255	Mod IV 12 Position	6′ (1.83m)	064039-014
NCR 2123	10 Pos JAE	6′ (1.83m)	064039-015
NCR 2126	10 Pos Socket Strp	6′ (1.83m)	064039-016
NCR 2127	15 Pos JAE	6′ (1.83m)	064039-017
NCR 2152*/53*/ 2552/2950*	Mod IV Connector	6′ (1.83m)	064039-018
NCR 7050/51	9 Pin D-Sub	6′ (1.83m)	064039-019
NCR 7052/53	10 Pin Modular	6′ (1.83m)	064039-020
NCR 7058	10 Pos JAE	6′ (1.83m)	064039-015
1551B070X			
ADI 1496	Y 5 Pin DIN	6′ (1.83m)	064039-008
Apple Mac ADB	Y 4 Pin Mini-DIN	6′ (1.83m)	064039-024
Bull BDS-7 (HDS-7)	Y 5 Pin DIN	6′ (1.83m)	064039-008

1551B070X (*continued*)

Reader/Terminal	Cable Connector	Length	Part No.
DEC VT510/520	Y 6 Pin Mini-DIN	6′ (1.83m)	064039-006
Esprit 200, 400	Y 6 Pin Mini-DIN	6′ (1.83m)	064039-006
Falco 5220	Y 5 Pin DIN	6′ (1.83m)	064039-008
IBM 3151, 347X	Y 8 Pin Modular	6′ (1.83m)	064039-007
IBM 317X, 318X, 319X	5 position DIN	6′ (1.83m)	064039-030
IBM ThinkPad	6 Pin Mini-DIN	6′ (1.83m)	064039-025
Intermec 944X, 9430, 95XX	RJ11 Modular	6′ (1.83m)	064039-011
Intermec 9465/9450	11 Pin Fisher	6′ (1.83m)	064039-046
Intermec J2010, JG2010, 97XX, T242X	10 Pin Modular	6′ (1.83m)	064039-012
Laptops, PS2 style	6 Pin Mini-DIN	6′ (1.83m)	064039-053
Laptops, PS2 style	6 Pin Mini-DIN	12′ (3.65m)	064039-054
Lee Data IIS	Y 5 Pin DIN	6′ (1.83m)	064039-008
Mac Power Book Laptop	4 Pin Mini-DIN	6′ (1.83m)	064039-048
PC XT/AT	Y 5 Pin DIN	6′ (1.83m)	064039-008
PC XT/AT	Y 5 Pin DIN	15′ (4.57m)	064039-037
PC XT/AT Single end	5 Pin DIN	6′ (1.83m)	064039-035
PC XT/AT Single end	5 Pin DIN	12′ (3.65m)	064039-036
PS2 30/50/60/80	Y 6 Pin Mini-DIN	6′ (1.83m)	064039-006
PS2 30/50/60/80	Y 6 Pin Mini-DIN	15′ (4.57m)	064039-038
RS-232 DTE**	9 Socket D-Sub	15′ (4.57m)	064039-051
Siemens 9758	Y 5 Pin DIN	6′ (1.83m)	064039-008
Telex 88 Key, 102 Key, 122 Key	Y 5 Pin DIN	6′ (1.83m)	064039-008
Wyse*	Y 4 Pin Modular	6′ (1.83m)	064039-052
Zenith CruisePAD	6 Pin Mini-DIN	6′ (1.83m)	064039-032

** Requires one of these external power supplies:*

∼100V, 50/60 Hz	*Part No. 043230*
∼120V, 60 Hz (North American plug)	*Part No. 047793*
∼240V, 50 Hz (United Kingdom plug)	*Part No. 047794*
∼230V, 50 Hz (Euro plug)	*Part No. 047795*
∼PS/2 Mouse Cable, Power Pick-Up	*Part No. 590451*

***Power on pin 9; no power supply required.*

Connecting the 1551B Laser Scanner

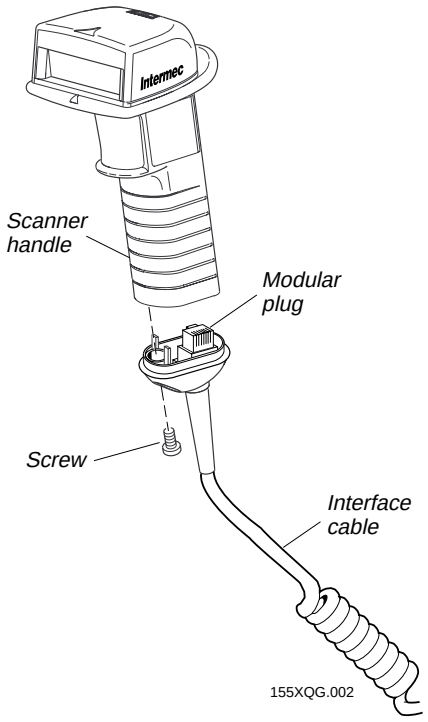
You can connect the 1551B scanner to these Intermec products:

- 944X Portable Terminals
- 95XX Network Terminals
- TRAKKER® Antares™ 242X Terminals
- 97XX Wedge Readers
- JANUS™ 2010 Terminals (J2010 and JG2010)

To connect the scanner

1. Turn off the reader/terminal.
2. Connect the modular plug on the interface cable into the bottom of the scanner handle.
3. Tighten the screw using a medium-sized, straight-slot screwdriver to secure the plug in the scanner handle.
4. Connect the other end of the cable to the reader/terminal.

   If you are using a power supply, connect the power supply to a power outlet and the reader/terminal plug.



Note: *The cable connector plug for the reader/terminal will vary according to the cable ordered.*

For more help installing, configuring, and programming your scanner, refer to the *1551B Decoding Laser Scanner User's Manual* (Part No. 066104) or find the manual on the internet at www.intermec.com/manuals/1551b/1551.htm.

Operating the 1551B Laser Scanner

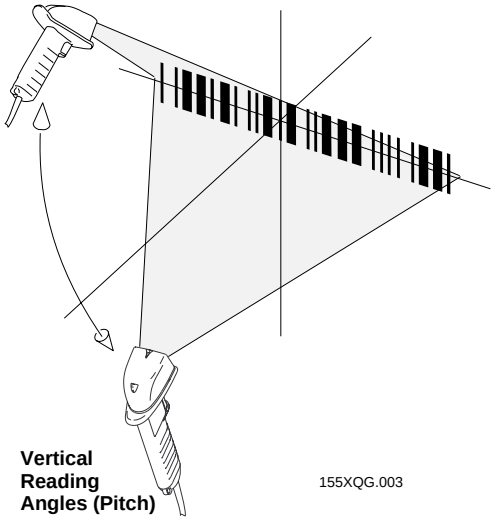
You can use the scanner for hand-held or hands-free scanning.

Hand-Held Scanning

Before you start scanning, make sure the power to the reader/terminal is on and all cable connections are secure.

To scan bar codes

1. Aim the scanner at a slight angle or pitch to the bar code and press the trigger. To help you center the laser beam on the correct bar code, the scanners with long-range or high-visibility optics have a marker beam that will appear before scanning when you pull the trigger.



Vertical Reading Angles (Pitch)

155XQG.003

2. Adjust the scanner distance to the bar code and the position of the laser beam to make sure every bar and space is scanned.

155XQRG.006

3. When you get a successful read the laser beam turns off, the scanner beeps once, and the light turns green.

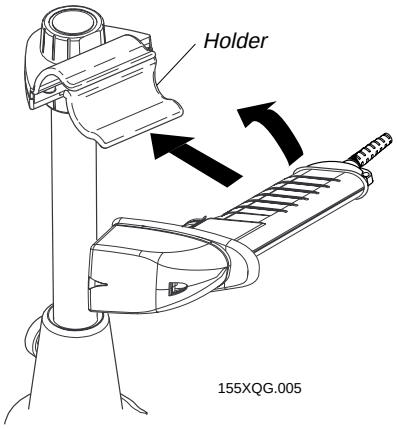
Hands-Free Scanning

You can use your 1551B laser scanner with a scanner stand for hands-free scanning. To order a scanner stand, see "Accessories for the Scanner" later in this guide.

Note: *If your scanner stand does not have a small magnet in the holder, you need to upgrade your stand using upgrade kit part number 066799.*

To use the scanner stand

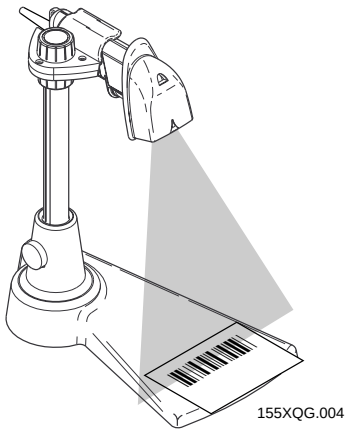
1. Place the scanner handle on the bottom ledge of the holder and then rotate the handle in the holder until it locks into place.
2. Align the scanner and adjust the column height so that the pulsating laser beam covers the entire label on the base of the stand.



155XQG.005

3. Make sure the scanner is on and the cable is secure and then place a bar code right-side up over the label on the base of the stand.

   When you get a successful read the laser beam turns off, the scanner beeps once, and the light turns green.



If you remove the scanner from the stand, it will immediately reset to hand-held scanning. You can scan bar codes by pressing the trigger.

Configuring the Marker Beam

This section explains how to configure the marker beam on long-range and high-visibility scanners. Scan one of the following bar codes to turn off the marker beam, set it to appear for 500 milliseconds, or set it to appear for 1.25 seconds. The default setting is 500 milliseconds.

Off

500 milliseconds

1.25 seconds

Configuring for Selected Terminals

The next instructions are for configuring the scanner to work with selected popular terminals or computers.

If you have a DEC VT510/520, you can plug and play by scanning one of these bar codes:

DEC VT 510/520 with PC/AT style keyboard

DEC VT510/520 with LK 411 keyboard

To configure a scanner to use with selected terminals

1. Scan this bar code. Program Terminal Interface

2. Locate your terminal or computer from this list and scan the two ID number bar codes representing your terminal.

Terminal/Computer	First ID Number	Second ID Number
Apple Mac ADB	4	9
DEC VT220/ 320/420 (1551B02XX only)	0	4
IBM PC/AT, IBM PS/2 Model 50/60/80	0	3
IBM PC/XT	0	1
IBM PS2 Model 25/303/57	0	2

Terminal ID Numbers (continued)

Terminal/Computer	First ID Number	Second ID Number
IBM ThinkPad	9	7
RS-232 terminals	0	0

Note: *Additional terminal ID numbers are available in the* 1551B Decoding Laser Scanner User's Manual *(Part No. 066104). You can also find the manual on the internet at www.intermec.com/manuals/1551b/1551.htm.*

To configure a scanner for a laptop or pen-based terminal

1. Scan this bar code.

Emulate External Keyboard

2. (Optional) If your laptop has an integrated keyboard, scan this bar code to keep the keyboard from becoming permanently disabled.

Automatic Direct Connect

Troubleshooting the 1551B Laser Scanner

This table lists common scanner problems and their solutions.

Symptom	Solution
System is "jammed" and scanner will not operate.	The scanner could not process the information. Turn off the power to the terminal and then turn it on. The scanner will retain its configuration.
Scanner cannot read certain bar codes.	The scanner was not set up to read this type of bar code, or the bar code is damaged, covered up, or poor quality. Scan another bar code on a similar item. If it scans, clean the bar code giving you trouble. If you are still unable to scan, make sure the bar code you are scanning is enabled (see the *1551B Decoding Laser Scanner User's Manual*, Part No. 066104, to enable bar codes).
Scanner does not read bar codes quickly and sometimes requires multiple scans.	Clean the window with a cotton cloth moistened with an ammonia or water solution. Dry with a soft cotton cloth or allow to air dry. Make sure the bar code is free of dirt and grime. Then scan at a slight angle or pitch to the bar code (see "Operating the 1551B Laser Scanner" earlier in this guide). Try adjusting the scanning distance. Disable all bar code symbologies except for the bar code being scanned.
Scanner does not read the correct uppercase or lowercase letter, or number and symbol.	If you use the Caps Lock on your terminal, you must enable the Caps Lock command for the scanner to read and correctly decode bar code labels with uppercase letters. If you use the Shift key on your terminal, you must enable the Shift Lock command for the scanner to read and correctly decode bar code labels with symbols (for example: !#$%)

Troubleshooting (continued)

Symptom	Solution
Scanner does not read "shiny" bar codes.	Scan at a slight angle or pitch to the bar code (see "Operating the 1551B Laser Scanner" earlier in this guide).
Scanner emits three beeps.	The scanner does not recognize the programming code scanned. Make sure you are scanning the correct programming bar code and try again.
Scanner does not emit a beam and does not operate.	The scanner is not receiving power. Make sure you are using the correct cable and that it is plugged in and the terminal is on. Replace damaged cables. Make sure the scanner has been correctly configured for your reader/terminal.

If you continue to encounter problems with your scanner, contact your local Intermec representative.

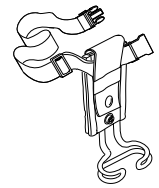
Maintaining the 1551B Laser Scanner

Water or grime on the window of the scanner will distort the laser beam and impair performance. Moving from one temperature extreme to another causes condensation to form on the optical surfaces and also affects scanner performance.

- Clean the window with a cotton cloth moistened with an ammonia or water solution. Dry with a soft cotton cloth or allow to air dry.
- Do **not** use a dry tissue to wipe the window. This causes small scratches on the window that will gradually effect performance.
- Do **not** immerse the unit in water.
- Operate and store in an environment with 0% to 95% relative humidity.
- Operate in temperatures within -22° to 122° F (-30° to 50° C) and store in temperatures within -40° to 158° F (-40° to 70° C).

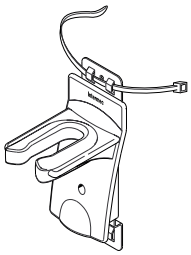
Accessories for the Scanner

These accessories are available for your 1551B scanner. To order an accessory or the *1551B Decoding Laser Scanner User's Manual* (Part No. 066104), call your local Intermec representative.



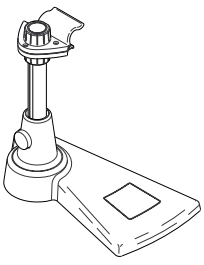
Holster and Belt
Part No. 063793
You can store your scanner on you when it is not in use. The holster can be used with the belt provided or with any regular belt.

Wall-Mount Scanner Holder
Part No. 063909
The wall-mount is a convenient way to store your scanner when it is not in use.



Vehicle-Mount Scanner Holder
Part No. 063910
You can attach the vehicle-mount to a post or surface of a vehicle with tie-wraps and double-stick tape.

Desk-Mount Scanner Holder
Part No. 063812
The desk-mount is a convenient way to store your scanner on your desk.



Scanner Stand
Part No. 063799
If you have an auto-trigger scanner, you can use the scanner stand for hands-free scanning.

Note: *If your scanner stand does not have a small magnet in the holder, you need to upgrade your stand using upgrade kit part number 066799.*

Regulatory Statements for Users in Canada and the United States

These regulatory statements apply to the 1551 laser scanner.

Industry Canada Compliance

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Classe B respecte routes les exigences du règlement sur le matérial du Canada.

Federal Communications Commission Compliance

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.

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 I/O cables that interconnect between the device and any peripheral (such as a reader, etc.) must be as specified by Intermec.*

Laser Compliance and Precaution

The 1551 laser scanner complies with the following standards for laser safety:

CDRH - Class II Laser Product (CFR 21 Subpart J)

This product has a maximum output of 1 mW at 630-680 nm.

Warning
There are no user serviceable parts inside this laser scanner. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure of up to 1 mW at 630-680 nm.

Avertissement
Cette scanneur à laser 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 1 mW à 630-680 nm.

***Note**: There are no controls or adjustments provided for routine operation or maintenance of the 1551.*

***Remarque:** Aucun appareil de contrôle ou d'ajustement n'est fourni pour les opérations de routine ou de maintenance de l'appareil 1551.*

Agency Approvals

The 1551 is UL Listed (UL 1950/C22.2 No. 950) and TÜV GS licensed (EN 60950 and EN 60825-1) for safety when powered by a host system or by an external Intermec power supply. UL and TÜV have approved the following power supplies for use with the 1551:

UL approved:
Catalog Number - 043230 (Part Number 043230) - ∼100V, 50/60 Hz

Catalog Number - 047793 (Part Number 047793) - ∼120V, 60 Hz

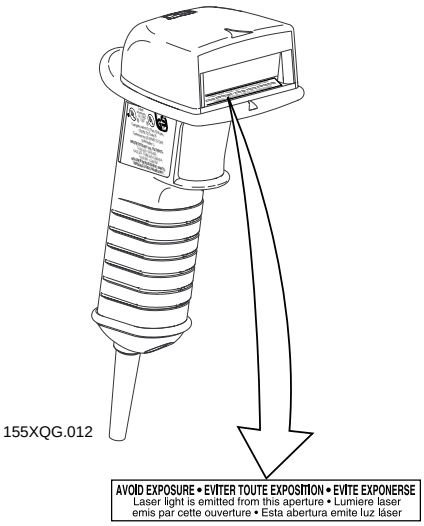
TÜV approved:
Catalog Number - 047795 (Part Number FW 3299) - ~230V, 50 Hz

For 240V applications:
Catalog Number - 047794 (Part Number 5014UK) - ~240V, 50 Hz

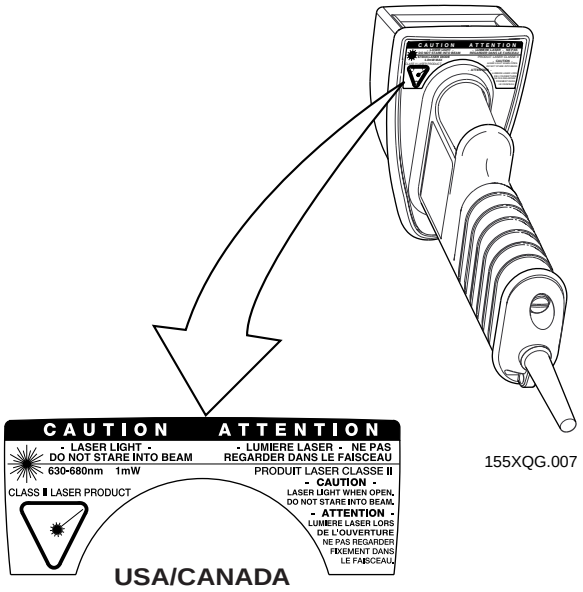
If the 1551 is powered by a host system the output to the 1551 must be limited to ⎓ 14,75V at 1 A.

Scanner Laser Labels

These labels provide important laser safety information.



Scanner Laser Labels (continued)



Regulatory Statements For Users Outside of Canada and the United States

These regulatory statements apply to the 1551 laser scanner.

European Union Compliance

CE

This product complies with EN 55022, EN 50082-1, EN 60950, and EN 60825-1 as required by the EMC Directive 89/336/EEC as amended by 92/31/EEC and by the Low Voltage Directive 73/23/EEC as amended by 93/68/EEC.

Agency Approvals

The 1551 is UL Listed (UL 1950/C22.2 No. 950) and TÜV GS licensed (EN 60950 and EN 60825-1) for safety when powered by a host system or by an external Intermec power supply. UL and TÜV have approved the following power supplies for use with the 1551:

UL approved:
Catalog Number - 043230 (Part Number 043230) - ∼100V, 50/60 Hz

Catalog Number - 047793 (Part Number 047793) - ∼120V, 60 Hz

TÜV approved:
Catalog Number - 047795 (Part Number FW 3299) - ∼230V, 50 Hz

For 240V applications:
Catalog Number - 047794 (Part Number 5014UK) - ∼240V, 50 Hz

If the 1551 is powered by a host system the output to the 1551 must be limited to ⎓ 14,75V at 1 A.

Additional EMI/RFI Compliance

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

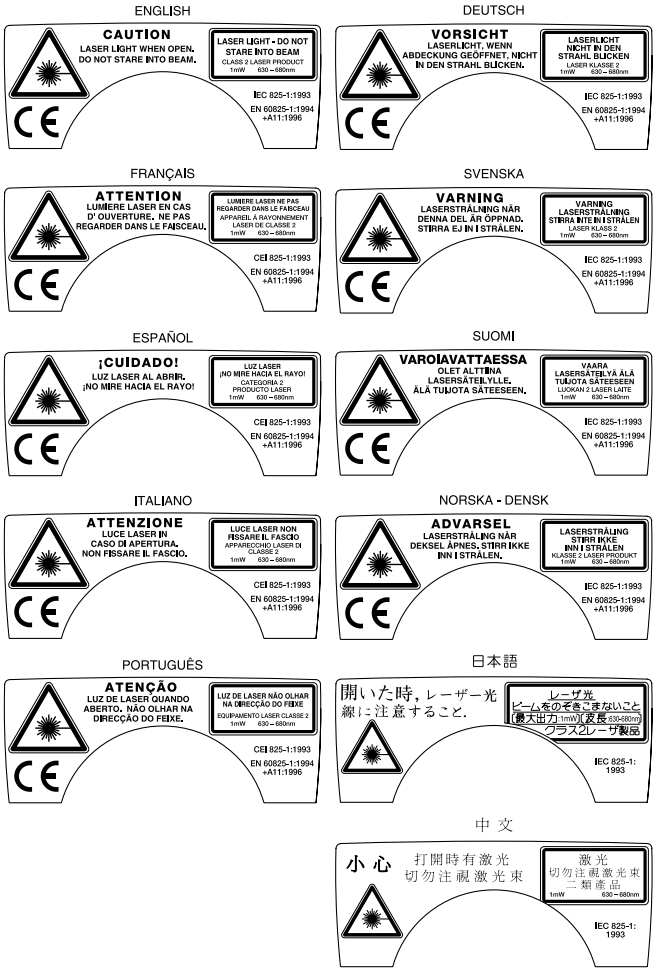
1551 Laser Compliance and Precaution

The 1551 laser scanner complies with the following standards for laser safety:

IEC 825-1 / EN 60825-1 - Class 2 Laser Product (1 mW, 630-680 nm)

The 1551 is provided with one of the labels illustrated later in this guide. If the appropriate label is not installed, locate the sheet of labels that was shipped with your 1551 and place the appropriate label over the existing label.

Laser Safety Labels



155XQG.015

Patents

The 1551B decoding laser scanner is covered by one or more of these U.S. Patents:

4,360,798; 4,369,361; 4,387,297; 4,460,120; 4,496,831; 4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805; 4,736,095; 4,758,717; 4,816,660; 4,845,350; 4,896,026; 4,897,532; 4,923,281; 4,933,538; 4,992,717; 5,015,833; 5,017,765; 5,021,641; 5,029,183; 5,047,617; 5,103,461; 5,113,445; 5,140,144; 5,142,550; 5,149,950; 5,157,687; 5,168,148; 5,168,149; 5,180,904; 5,229,591; 5,230,088; 5,235,167; 5,243,655; 5,247,162; 5,250,791; 5,250,792; 5,262,627; 5,280,163; 5,280,164; 5,280,498; 5,304,786; 5,304,788; 5,321,246; 5,377,361; 5,367,151; 5,373,148; 5,378,882; 5,396,053; 5,396,055; 5,399,846; 5,408,081; 5,410,139; 5,410,140; 5,412,198; 5,418,812; 5,420,411; 5,436,440; 5,444,231; 5,449,891; 5,449,893; 5,468,949; 5,479,000; 5,479,002; 5,479,441; 5,504,322; 5,528,621; 5,532,469; 5,543,610; 5,545,889; 5,552,592; 5,578,810; 5,589,680; 5,612,531

Other U.S. and foreign patents pending.