Quick Reference Guide

Sabre 1551C Decoding Laser Scanner

Intermec

A UNOVA Company

Contents

Overview of the Sabre 1551C Laser Scanner

The Sabre 1551C 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
1551C0200	Compatible with DEC VT220/320/420 and devices equipped with an RS-232 PC serial port or terminal serial port.
1551C0201	An advanced long-range optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551C0200.
1551C0202	A long-range optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551C0200.
1551C0204	A high-visibility optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551C0200.
1551C0205	A high-density optics scanner with RS-232 PC or terminal serial ports that is compatible with the same devices as the 1551C0200.
1551C0700	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
- TTL RS232

Scanner	Terminal
1551C0702	A long-range optics scanner with keyboard interface for use with the same personal computers as the 1551C0700.

Configurations (continued)

Scanner	Terminal
1551C0704	A high-visibility optics scanner with keyboard interface for use with the same personal computers as the 1551C0700.
1551C0705	A high-density optics scanner with keyboard interface for use with the same personal computers as the 1551C0700.

* Requires an external power supply. See the footnote on page 11 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 Sabre 1551C Laser Scanner

Your Sabre 1551C 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: Unless you have ordered a kit, you must order the appropriate interface cables separately. For help, see "Ordering Cables" later in this guide. For help configuring your scanner, you may also need to order a Sabre 1551C Decoding Laser Scanner User's Manual *(Part No. 066104) or find the manual on the internet at www.intermec.com.*

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.

Sabre 1551C Laser Scanner Features

Sound port   Light

Scan
window

Intermec

Trigger

1551Q.001   Cable
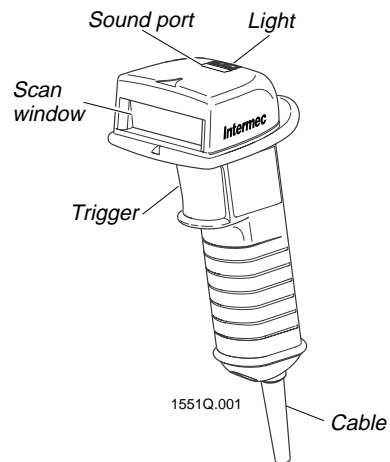
Beeps

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. For help, see "Troubleshooting" later in this guide.

Electrical Rating

The Sabre 1551C 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.

1551C020X Reader/Terminal	Cable Connector	Length	Part No.
DEC VT220/320/420	8 Pin Modular	6 ft (1.83m)	068414-050
Intermec 944X, 9430, 95XX	RJ11 Modular	6 ft (1.83m)	068414-011
Intermec 9465/9450, J2050, JG2050	11 Pin Fisher	6 ft (1.83m)	068414-046
Intermec J2010, JG2010, 97XX, T242X, T246X, T248X, 5020	10 Pin Modular	6 ft (1.83m)	068414-012

1551C020X *(cont.)* Reader/Terminal	Cable Connector	Length	Part No.
Intermec J2010, JG2010, 97XX, T242X, T246X, T248X, 5020	10 Pin Modular	25 ft (1.83m)	068414-055
T2455	10 Pin Modular	6 ft (1.83m)	068414-056
T2455	10 Pin Modular	25 ft (7.63m)	068414-057
MaxiLAN CX, MaxiLAN DX, MicroBAR NX, MaxiBAR, T1700, 5900, 6540 and other manufacturer reader/terminal	9 Pin Squeeze D-Sub	6 ft (1.83m)	068414-063
T241X	16 Pin Amp	6 ft (1.83m)	068414-060
RS-232 DCE*	25 Pin Male D-Sub	6 ft (1.83m)	068414-001
RS-232 DCE*	25 Pin Male D-Sub	25 ft (7.71m)	068414-049
RS-232 DTE, 6400, 6550, 5055**	9 Pin Female D-Sub	6 ft (1.83m)	068426
RS-232 DCE*	25 Pin Female D-Sub	6 ft (1.83m)	068414-002
RS-232 DCE**	9 Pin Male D-Sub	6 ft (1.83m)	068414-039
RS-232 DCE*	9 Pin Female D-Sub	6 ft (1.83m)	068414-042
RS-232 DCE*	9 Pin Male D-Sub	6 ft (1.83m)	068414-043
RS-232 DTE**	9 Pin Female D-Sub	20 ft (6.10m)	068414-044
RS-232 DTE*	25 Pin Male D-Sub	6 ft (1.83m)	068414-003
RS-232 DTE*	25 Pin Female D-Sub	6 ft (1.83m)	068414-004

Ordering Cables (continued)

1551C020X (cont.) Reader/Terminal	Cable Connector	Length	Part No.
RS-232 DCE**	9 Pin Female D-Sub	6 ft (1.83m)	068414-040
RS-232 DTE**	9 Pin Male D-Sub	6 ft (1.83m)	068414-041
RS-232 DTE, 6400, 6550, 5055**	9 Pin Female D-Sub	20 ft (6.10m)	068414-045
RS-232 DCE, 6400, 6550, 5055**	9 Pin Female D-Sub	15 ft (4.60m)	068414-051
MaxiLAN CX, DX, 6540*	9 Pin Female D-Sub	6 ft (1.83m)	068414-042

1551C070X

Apple Mac ADB	Y 4 Pin Mini-DIN	6 ft (1.83m)	068414-024
DEC VT510/520, PS/2 30/50-80	Y 6 Pin Mini-DIN	6 ft (1.83m)	068414-006
Esprit 200, 400	Y 6 Pin Mini-DIN	6 ft (1.83m)	068414-006
IBM 3151, 347X	Y 8 Pin Modular	6 ft (1.83m)	068414-007
IBM 317X, 318X, 319X	5 position DIN	6 ft (1.83m)	068414-030
IBM ThinkPad	6 Pin Mini-DIN	6 ft (1.83m)	068414-025
Intermec 944X, 9430, 95XX	RJ11 Modular	6 ft (1.83m)	068414-011
Intermec 9465/9450, J2050, JG2050	11 Pin Fisher	6 ft (1.83m)	068414-046
Intermec J2010, JG2010, 97XX, T242X, T248X, 5020	10 Pin Modular	6 ft (1.83m)	068414-012
Intermec J2010, JG2010, 97XX, T242X, T248X, T246X, 5020	10 Pin Modular	25 ft (1.83m)	068414-055

| 1551C070X *(cont.)* Reader/Terminal	Cable Connector	Length	Part No.
T2455	10 Pin Modular	6 ft (1.83m)	068414-056
T2455	10 Pin Modular	25 (7.63m)	068414-057
MaxiLAN CX, MaxiLAN DX, MicroBAR NX, MaxiBAR, T1700, 5900, 6540 and other manufacturer reader/terminal	9 Pin Squeeze D-Sub	6 ft (1.83m)	068414-063
Laptops, PS2 style	6 Pin Mini-DIN	6 ft (1.83m)	068414-053
Laptops, PS2 style	6 Pin Mini-DIN	12 ft (3.65m)	068414-054
Mac Power Book Laptop	4 Pin Mini-DIN	6 ft (1.83m)	068414-048
PC XT/AT	Y 5 Pin DIN	6 ft (1.83m)	068414-061
PC XT/AT	Y 5 Pin DIN	15 ft (4.57m)	068414-062
PC XT/AT Single end	5 Pin DIN	6 ft (1.83m)	068414-035
PC XT/AT Single end	5 Pin DIN	12 ft (3.65m)	068414-036
PS2 30/50/60/80	Y 6 Pin Mini-DIN	6 ft (1.83m)	068414-006
PS2 30/50/60/80	Y 6 Pin Mini-DIN	15 ft (4.57m)	068414-038
Wyse*	Y 4 Pin Modular	6 ft (1.83m)	068414-052
Zenith CruisePAD	6 Pin Mini-DIN	6 ft (1.83m)	068414-032
TTL RS232	Use appropriate 1551C02XX Cable		

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 (European plug)*   *Part No. 047795*
∼ *PS/2 Mouse Cable, Power Pick-Up*   *Part No. 590451*
***Power on pin 9; no power supply required.*

Connecting the 1551C Laser Scanner

You can connect the Sabre 1551C scanner to many Intermec products. For a complete list, see "Ordering Cables" earlier in this guide.
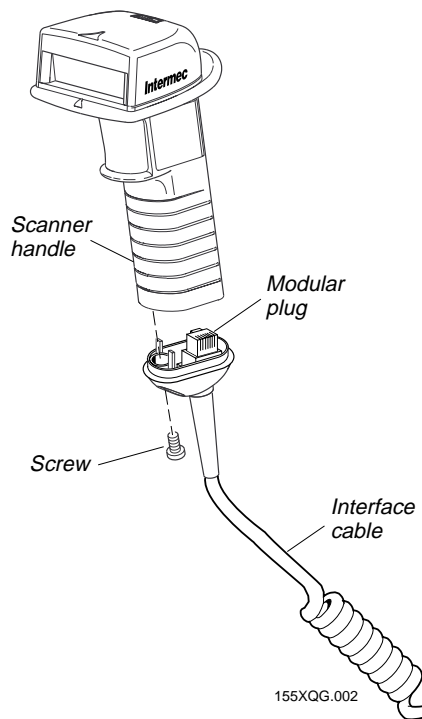
To connect the scanner

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.

Scanner handle

Modular plug

Screw

Interface cable

155XQG.002

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 *Sabre 1551C Decoding Laser Scanner User's Manual* (Part No. 066104) or find the manual on the internet at www.intermec.com.

Operating the Sabre 1551C 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
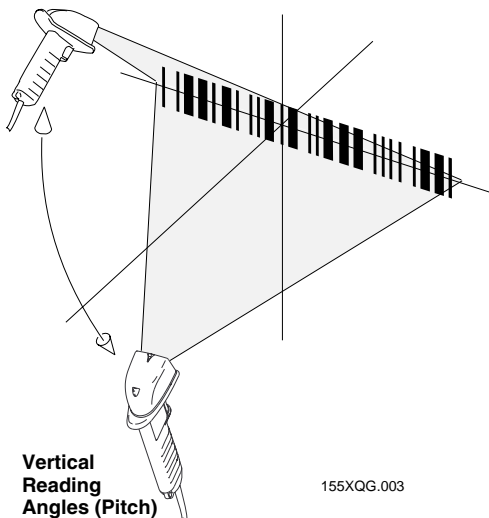
2. Adjust the scanner distance to the bar code and the position of the laser beam to make sure every bar and space is scanned.
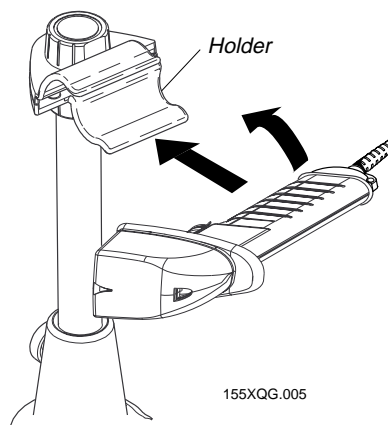
INCORRECT   CORRECT

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 Sabre 1551C 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.

Holder

155XQG.005

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.

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.

155XQG.004
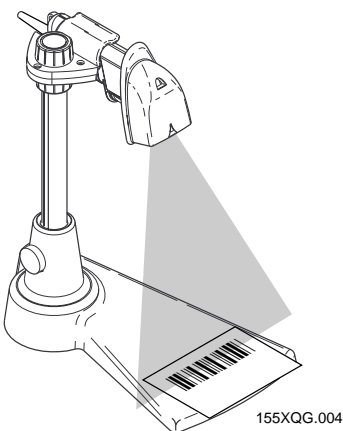
Configuring the Marker Beam

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.

Marker Beam Off

Marker Beam On for 500 milliseconds

Marker Beam On for 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
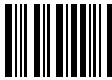**PC/AT style keyboard**

DEC VT510/520 with
LK 411 keyboard

To configure a scanner for use with selected terminals

1. Scan this bar code.

    Program Terminal Interface

2. Locate your terminal or computer from this next list and scan the two ID number bar codes representing your terminal.
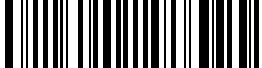
Terminal/Computer	First ID Number	Second ID Number
Apple Mac ADB	 4	 9
DEC VT220/ **320/420** (1551C02XX only)	 0	 4
IBM PC/AT, **IBM PS/2 Model** **50/60/80**	 0	 3
IBM PC/XT	 0	 1

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Terminal/Computer ID Numbers (continued)

Terminal/Computer	First ID Number	Second ID Number
IBM PS2 Model 25/303/57	‖‖‖‖‖‖‖ 0	‖‖‖‖‖‖‖ 2
IBM ThinkPad	‖‖‖‖‖‖‖ 9	‖‖‖‖‖‖‖ 7
RS-232 terminals	‖‖‖‖‖‖‖ 0	‖‖‖‖‖‖‖ 0

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

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

1. Scan this bar code.

   Automatic Direct Connect

   ‖‖‖‖‖‖‖‖‖‖‖

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

   Emulate External Keyboard

   ‖‖‖‖‖‖‖‖‖‖‖

Troubleshooting

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. For help, see the *Sabre 1551C 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. For help, see "Operating the Sabre 1551C Laser Scanner" earlier in this guide.
	Try adjusting the scanning distance.
	Disable all bar code symbologies except for the bar code being scanned.

Symptom	Solution
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: !#$%).
Scanner does not read "shiny" bar codes.	Scan at a slight angle or pitch to the bar code. For help, see "Operating the Sabre 1551C 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 Sabre 1551C 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 affect performance.

- Do **not** immerse the unit in water.

- Operate and store in an environment with 0% to 95% relative humidity.

- Operate in temperatures within -30° to 50° C (-22° to 122° F) and store in temperatures within -40° to 70°C (-40° to 158° F).

Accessories for the Scanner

These accessories are available for your Sabre 1551C scanner. To order an accessory or the *Sabre 1551C Decoding Laser Scanner User's Manual* (Part No. 066104), call your local Intermec representative.
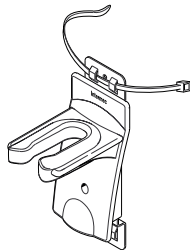
Accessories for the Scanner (continued)
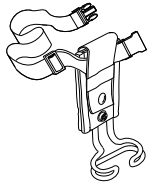
Holster and Belt
Part No. 068174
You can store your scanner on you when it is not
in use. The holster can be used with the belt
provided or with any regular belt.

Wall-Mount Scanner Holder
Part No. 068176
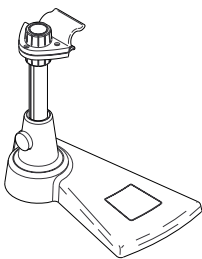The wall-mount is a convenient way to store your
scanner when it is not in use.

Vehicle-Mount Scanner Holder
Part No. 068175
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. 068483
The desk-mount is a convenient way to store your
scanner on your desk.

Scanner Stand
Part No. 068484
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.*

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) - $\sim$100V, 50/60 Hz

Catalog Number - 047793 (Part Number 047793) - $\sim$ 120V, 60 Hz

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

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

If the 1551 is powered by a host system, the output to the 1551 must be limited to $\overline{}$ 14,75V at 1 A.

Patents

The 1551C 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.