



LS 4000 Scanner Series with Adaptive Logic

A Higher Level of Performance, Comfort and Value
in Retail and Commercial Bar Code Scanning

LS 4004i/5i
Available with
1-D & PDF417
Capabilities



'96 INDUSTRIAL DESIGN EXCELLENCE AWARDS



The Benchmark in Hand-Held Laser Scanners: Nothing Else Measures Up to the LS 4000 Series



At the point of sale, Symbol's LS 4000 will help you speed through retail transactions for greater productivity and happier customers.

For superior bar code scanning performance and maximum user comfort at a highly attractive price, the LS 4000 Scanner Series from Symbol Technologies establishes an award-winning standard of excellence.

The LS 4000 Scanner Series continues the leadership legacy of Symbol's best-selling hand-held laser scanners. Symbol's in-depth capabilities for innovation, design and advanced technology set the LS 4000 apart from anything else on the market.

Feels Different, Looks Different – Is Different

The LS 4000 Scanner Series brings high performance and ergonomic design to scanning products. The handle is ergonomically contoured and shaped to fit hands of all sizes and the unit is light and easy to use. The patented two-finger trigger is specially designed to reduce finger fatigue, while providing superior sensory feedback.

The LS 4000 Scanner Series not only feels different, it looks different. You'll see at a glance that Symbol designed the LS 4000 to be more rugged while adding features to enhance operability:

- ▶ A rubber overmolded canopy guards the top of the scanner while front bumpers provide added protection to the scan window.
- ▶ A removable rubber cable boot guards the bottom of the scanner's handle and provides superior cable strain relief.
- ▶ Sound vents in the side direct the scanner's audible signals in the direction of the user so they can be heard above background noise – even in loud environments.

More Innovation for More Performance

The LS 4000 Scanner Series incorporates an exciting signal processing technology called "Adaptive Logic." This technology enables damaged or poorly printed bar codes to be read, thereby

increasing accuracy and speeding customer throughput.

In addition, flash programming capability allows you to update or reconfigure the scanner system or applications in the field – no physical chip change is required. LS 4000 Scanner Series also offers built-in Advanced Data Formatting (ADF), a Symbol innovation that gives you the capability to modify the bar code data string before sending it on to the host computer. This enhances compatibility between bar coded data and the applications software, letting you program the scanner rather than modifying the application.

The LS 4000 Scanner Series also offers Symbol's exclusive Synapse "smart" cables for connection to many different hosts without the need for a separate interface controller. You simply change the cable and your scanner is compatible with every major retail and industrial host computer.

Of course, the LS 4000 Scanner Series includes scan engines designed around Symbol's patented Mylar® scan element.* The frictionless Mylar scan element makes the LS 4000 Scanner Series remarkably long-lasting because it completely eliminates engine wear. It also provides another benefit – lower power usage, because no energy is expended overcoming friction.

Versatility: The Mark of a Top Performer

Symbol's LS 4000 Scanner Series moves with equal ease from the sales floor to the factory floor. That's because they have the built-in flexibility to perform well in widely differing environments.

They're ideal for point-of-sale scanning, price markdowns and verification, and in-store inventory management in a wide variety of retail segments: mass merchandise, specialty retail, department stores, warehouse clubs and food and grocery stores.

The LS 4000 Scanner Series is also at home in commercial segments, such as light warehouse and manufacturing applications. In these environments, they perform a number of functions, including: backroom shipping and receiving, assembly line material tracking, process tracking, document tracking, and inventory management.

These scanners are also productive workers in office automation and healthcare applications. In the latter, they perform patient tracking and clinical control duties, among other functions.

Accessories for Enhanced Convenience

Symbol's IntelliStand gives the LS 4000 Scanner Series the flexibility of hands-free or hand-held scanning operation. The IntelliStand is ideal for food, drug and general merchandise point-of-purchase duty. Also available is the Multi-Mount Holder for safe and convenient placement of the LS 4000 on a counter or wall (see back).

Cordless Model Gives You Room to Move

A cordless version, the LS 4071, gives workers the added mobility and flexibility of bar code scanning without cable restrictions. It's ideal for scanning items that are too heavy or bulky to place on the checkstand.

Using low-power radio frequency transmission, the LS 4071 operates up to 10 feet/3 meters from its



recharging cradle/base station, which communicates with your host computer through Synapse cables or direct connection.



The LS 4071 in its cradle/base station.

Class-Leading Performance
With the introduction of the LS 4004i/5i scanner, Symbol Technologies continues to build on the legacy of the LS 4000 Scanner Series – bringing higher performance to an already superior ergonomic design. Not only is the LS 4004i/5i an excellent 1-D scanner, it's also an entry-level PDF417 scanner as well! The scanner reads PDF417 symbols containing 300 or fewer data characters, 7.5 mil or larger, with a minimum 3:1 aspect ratio – perfect for applications with relatively small amounts of data such as courtesy cards, coupons, and small-item markings.

You get all the advantages of the LS 4000 plus:

- ▶ Excellent 1-D performance and “entry level” PDF417 capability
- ▶ Over twice the scan rate of the standard LS 4000 (nominal 100 scans/second)
- ▶ High-visibility 650 nm laser diode for better viewing in high ambient light situations

The LS 4000 Scanner Series: Outstanding performance, ergonomics and value from Symbol Technologies, the leader in bar code-driven data management systems, with millions of scanners and terminals installed worldwide.

Adjust the height and position of your LS 4000 Scanner Series for maximum flexibility at the point of sale with Symbol's versatile IntelliStand.

Feature	Benefit
Four models to meet specific needs	The LS 4004 includes RS 232/Synapse “smart cable” interface; the LS 4005 includes IBM 46XX/Synapse “smart cable” interface; the LS 4000 is an undecoded version; the LS 4071 cordless model has a working range of 10 feet/3 meters.
Adaptive Logic	Provides superior scanning performance on poor quality bar codes and extended working ranges on all bar codes from contact to 45"/114 cm.
Superior ergonomic design with unique 2-finger trigger	Provides the best possible user comfort, even over extended periods of use. Design permits triggering by index or middle fingers to make scanning easier. Handle shape is comfortable for hands of all sizes.
Flash memory	Retains system and application software; facilitates easy updating in the field.
Mylar scan element with limited lifetime warranty	Ultimate reliability for years of trouble-free operation.
Synapse “smart cable” interface	Provides connectivity to virtually every type of host by simply changing a cable.
Advanced Data Formatting (ADF)	Provides users with the flexibility to modify scanned data before sending it on to the host computer.
Cordless operation (LS 4071 model only)	Reduces cable maintenance costs; improves scanning productivity, flexibility and convenience.
Combined 100 scans/sec 1-D scan rate and “entry level” PDF417 capability (LS 4004i/5i only)	Versatile decode capability enables adoption of occasional PDF applications, such as age verification, courtesy card, etc.



The LS 4071 cordless scanner is ideal for scanning items too heavy or bulky to place on the checkstand.

LS 4000 Scanner Series Accessories and Specification Highlights



IntelliStand



Counter Holder

Put the LS 4000 in Symbol's IntelliStand and it becomes an easy-to-use presentation scanner. Placing the scanner in the IntelliStand turns it on; there's no need to trigger the scanner for operation. Remove the scanner from the IntelliStand and it once again becomes a hand-held bar code scanner.

The Multi-Mount Holder adapts to countertop or wall mount use. Easily installed, the wall mount version requires no space at the retail POS counter.

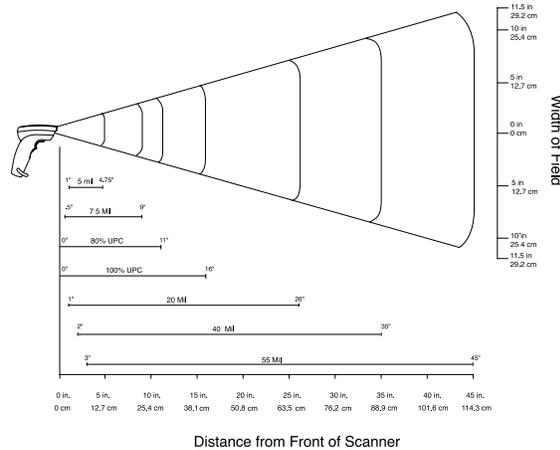
Performance Characteristics	
Light Source:	LS 4000: 675 nm laser diode; LS 4004i/5i: 650 nm laser diode
Scan Rate:	LS 4000 35±5 scans/sec (bi-directional); LS 4004i/5i 100 scans/sec (nominal)
Roll (Skew):	± 25°
Pitch:	± 55°
Yaw:	± 55°
Print Contrast:	25% minimum reflectance
Decode Capability:	(Decoded versions, varies by model and host) UPC/EAN, UPC/EAN with supplementals, Code 39 Full ASCII, Code 128, Codabar, Interleaved 2 of 5, Discrete 2 of 5, MSI/Plessey, (PDF417 for LS 4004i/5i)
Interface Type:	(Varies by model) IBM 4680/4690, Wand Emulation, RS-232-C, OCR, OCIA, Fujitsu, ICL, NCR, Nixdorf, Omron, TEC, Sharp, Casio, POS and Computer Keyboard Wedges from IBM, DEC, Telex, NCR, WYSE, HP and other manufacturers
Electrical:	Complies with UL, CSA and VDE; conforms to FCC Class A and Class B limits
Voltage:	(Varies by model) 4.5 to 14 V
Operating Current:	95 mA (undecoded); additional current for decoded versions varies by model
Laser Class:	(Varies by model) CDRH Class II, BSI 4803 Class I, IEC 825 Class 2, IEC 825 Class 1
Weight:	LS 4000 unencoded (without cable): approximately 5.75 oz./163 gm; LS 4000 decoded (without cable): approximately 5.98 oz./169 gm



User Environment	
Ambient Light:	Immune to normal artificial indoor and natural outdoor (direct sunlight) lighting conditions
Operating Temperature:	32° to 104°F (0° to 40°C)
Storage Temperature:	-40° to 140°F (-40° to 60°C)
Humidity:	5% to 95% (noncondensing)
Durability:	Withstands multiple 5-ft./1.5 m drops to concrete



*The Mylar scan element consists of a Mylar strip, frame, mirror assembly and magnet. The entire unit carries Symbol's standard warranty. All Symbol warranties apply to the original owner and do not cover repair due to misuse or physical abuse. Standard warranty and warranty service information are described on the warranty card enclosed with each product or can be obtained directly from Symbol. Contact Symbol for details.



Specifications are subject to change without notice. Mylar® is a registered trademark of the DuPont Company.

For system, product or services availability and specific information within your country, please contact your local Symbol Technologies office or Certified Business Partner.



Symbol Technologies, Inc.
Corporate Headquarters
 One Symbol Plaza
 Holtsville, NY 11742-1300
 TEL: 1-800-722-6234/1-516-738-2400
 FAX: 1-516-738-5990

For North America and Latin America
Symbol Technologies
The Americas
 One Symbol Plaza,
 Holtsville, NY 11742-1300
 TEL: 1-800-722-6234/1-516-738-2400
 FAX: 1-516-738-5990

For Europe, Middle East and Africa
Symbol Technologies
EMEA Division
 Symbol Place, Widdersley Triangle
 Berkshire, England RG41 5TP
 TEL: 44-118-9457000
 FAX: 44-118-9457500

Symbol World Wide Web Internet Site
 For a complete list of Symbol subsidiaries and Symbol Business Partners worldwide contact us at:
<http://www.symbol.com>
 E-mail: webmaster@symbol.com



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For Asia Pacific
Symbol Technologies Asia Inc.
(Singapore Branch)
 Asia Pacific Division
 230 Victoria Street #04-05
 Bugis Junction Office Tower
 Singapore 188024
 TEL: 65-337-6588/FAX: 65-337-6488

