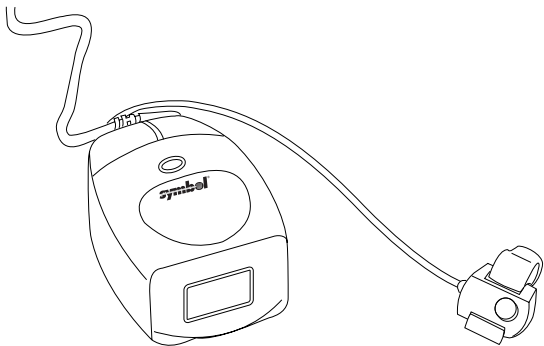


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symbol[®]

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Symbol Technologies, Inc.
One Symbol Plaza
Holtsville, N.Y. 11742-1300
<http://www.symbol.com>

Patents

This product is covered by one or more of the following U.S. and foreign Patents:

U.S. Patent No. 4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805; 4,736,095;
4,758,717; 4,760,248; 4,806,742; 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; 5,130,520; 5,140,144; 5,142,550; 5,149,950; 5,157,687; 5,168,148; 5,168,149;
5,180,904; 5,216,232; 5,229,591; 5,230,088; 5,235,167; 5,243,655; 5,247,162; 5,250,791;
5,250,792; 5,260,553; 5,262,627; 5,262,628; 5,266,787; 5,278,398; 5,280,162; 5,280,163;
5,280,164; 5,280,498; 5,304,786; 5,304,788; 5,306,900; 5,324,924; 5,337,361; 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;
5,471,042; 5,478,998; 5,479,000; 5,479,002; 5,479,441; 5,504,322; 5,519,577; 5,528,621;
5,532,469; 5,543,610; 5,545,889; 5,552,592; 5,557,093; 5,578,810; 5,581,070; 5,589,679;
5,589,680; 5,608,202; 5,612,531; 5,619,028; 5,627,359; 5,637,852; 5,664,229; 5,668,803;
5,675,139; 5,693,929; 5,698,835; 5,705,800; 5,714,746; 5,723,851; 5,734,152; 5,734,153;
5,742,043; 5,745,794; 5,754,587; 5,762,516; 5,763,863; 5,767,500; 5,789,728; 5,789,731;
5,808,287; 5,811,785; 5,811,787; 5,815,811; 5,821,519; 5,821,520; 5,823,812; 5,828,050;
5,848,064; 5,850,078; 5,861,615; 5,874,720; 5,875,415; 5,900,617; 5,902,989; 5,907,146;
5,912,450; 5,914,478; 5,917,173; 5,920,059; 5,923,025; 5,929,420; 5,945,658; 5,945,659;
5,946,194; 5,959,285; 6,002,918; 6,021,947; 6,029,894; 6,031,830; 6,036,098; 6,047,892;
6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297; 6,082,621; 6,084,528; 6,088,482;
6,092,725; 6,101,483; 6,102,293; 6,104,620; 6,114,712; 6,115,678; 6,119,944; 6,123,265;
6,131,814; 6,138,180; 6,142,379; 6,172,478; 6,176,428; 6,178,426; 6,186,400; 6,188,681;
6,209,788; 6,209,789; 6,216,951; 6,220,514; 6,243,447; 6,244,513; 6,247,647; 6,308,061;
6,250,551; 6,295,413; 6,308,061; 6,308,892; 6,321,990; 6,328,213; 6,330,244; 6,336,587;
6,340,114; 6,340,115; 6,340,119; 6,348,773; 6,380,949; 6,394,355; D305,885; D341,584;
D344,501; D359,483; D362,453; D363,700; D363,918; D370,478; D383,124; D391,250;
D405,077; D406,581; D414,171; D414,172; D418,500; D419,548; D423,468; D424,035;
D430,158; D430,159; D431,562; D436,104.

Invention No. 55,358; 62,539; 69,060; 69,187, NI-068564 (Taiwan); No. 1,601,796;
1,907,875; 1,955,269 (Japan); European Patent 367,299; 414,281; 367,300; 367,298; UK
2,072,832; France 81/03938; Italy 1,138,713
rev. 06/02

Introduction

The WS 1200 is a modular, wearable laser scanner that provides the operator with unencumbered bar code scanning capability. The scanner can be used with Symbol's WSS 1000 wearable scanning system, or with other host computer systems.

The operator wears the WS 1200 scanner on the back of the hand and uses a thumb-activated trigger to operate the scanner. The scanner connects through an interface cable to the WWC 1000, and passes the decoded data to the wrist computer. Power for the WS 1200 is provided by the WWC 1000 wrist computer, or other host.

About This Guide

This guide provides information for:

- identifying the parts of the scanner
- assembling the WS 1200 scanner
- installing the WS 1200 as part of the WSS 1000 on the operator's hand
- operating the scanner
- cleaning the scanner and mount
- troubleshooting.

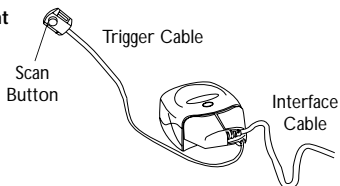
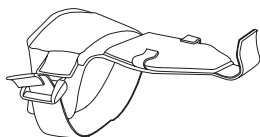
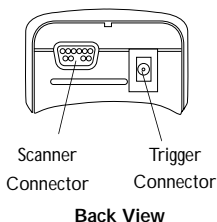
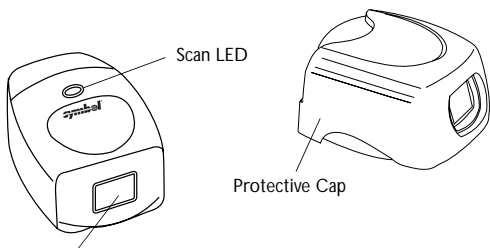
Shipping Contents

Verify that you received the following items in the shipping container:

- WS 1200 scanner with protective cap
- WS 1200 scanner mount
- trigger cable
- trigger mount.

Q u i c k R e f e r e n c e

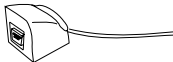
Parts of the WS 1200



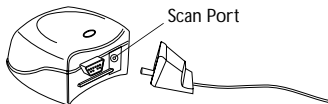
Assembling the WSS 1000 System with the WS 1200

The WS 1200's mount can be used by both right- and left-handed users.

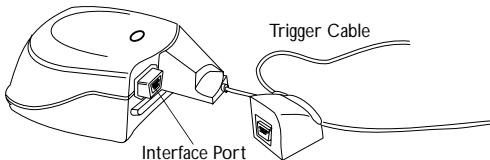
Note: Verify that the WSS 1000 has the correct data cable, shown right, for use with the WS 1200 scanner.



1. Assemble the WWC 1000 wrist computer in the mount as directed in the *WSS 1000 Quick Reference Guide*.
2. Plug the trigger cable in the scan port on the back of the scanner.

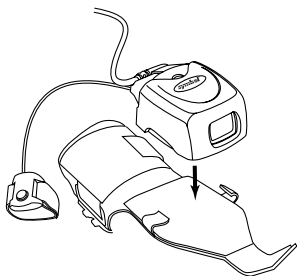


3. Plug the data cable from the WWC 1000 in the interface port on the back of the WS 1200 scanner. The data cable connector is molded to fit next to the trigger cable connector.

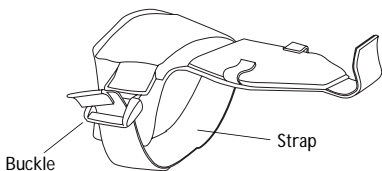


Q u i c k R e f e r e n c e

4. Place the WS 1200 on top of the mount, securing with the velcro.



5. Slip the WS 1200 mount's strap through the buckle as shown below to create a loose loop.

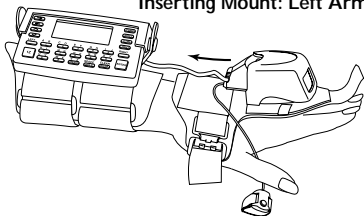


6. Slide the wrist unit on your right or left arm as directed in the *WSS 1000 Quick Reference Guide*.

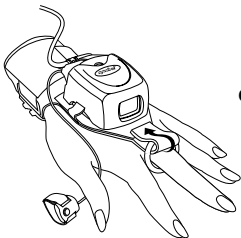


7. Insert your hand through the scanner mount.

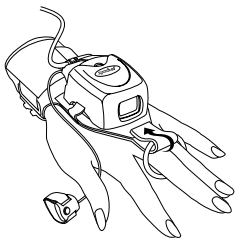
Inserting Mount: Left Arm Shown



8. Slide an appropriately sized o-ring onto your middle finger or both your middle and ring fingers, and secure using the strap at the front of the mount.



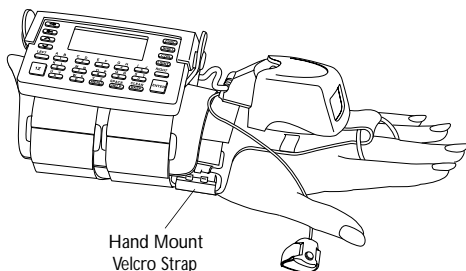
Or



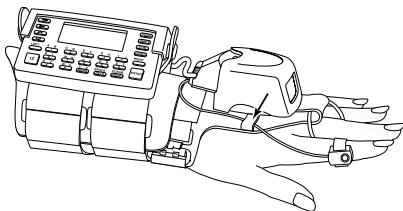
9. Pull the hand strap snug, then use the velcro to secure the strap. Place the lip on the front of the terminal

Q u i c k R e f e r e n c e

mount over the velcro area on the scanner mount to secure the two units together.



10. Wrap the trigger cable around the side of the scanner, next to your index finger, and secure using the velcro loop on the side of the mount.
11. Slide the trigger mount on your index finger, with the button positioned next to your thumb, and adjust the velcro strap.



Operating the WS 1200 Scanner

The long range version of the WS 1200 scanner uses an optional aiming dot to assist you in directing the scan beam. If Single Trigger Aim Mode is enabled by the software:

1. Power the WSS 1000 system and scanner on by pressing the trigger or the wrist computer's power button.
2. Press and hold the trigger while aiming the dot at the bar code.
3. Release the trigger. The dot expands to a beam that covers the length of the bar code.



Aiming Dot

If the decode is successful, the scan LED flashes green and the WWC 1000



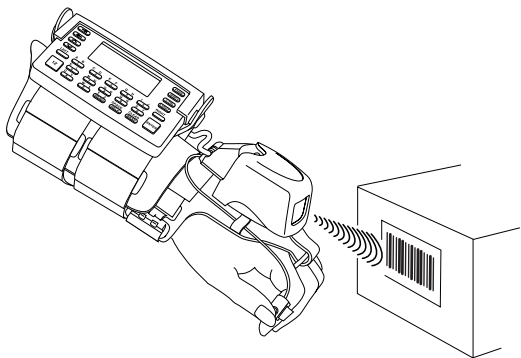
Dot Expanding to Beam

screen displays the code. The WWC 1000 may also beep, depending on the application software installed.

When using the standard version of the WS 1200, or if Single Trigger Aim Mode is disabled, only the scan beam appears upon trigger pull. When a bar code is decoded, the scan LED flashes green and the WWC 1000 screen displays the code. The WWC 1000 may also beep, depending on the application software installed.

Scanning Tips

- For wider bar codes, hold the scanner farther away from the symbol.
- The optimal scanning distance varies with bar code density. Practice to determine what distances to work within.
- Position the scanner at an angle to the bar code. If the scanner is perpendicular to the bar code being scanned, light can bounce back into the scanner's exit window and prevent a successful decode.



Cleaning

Wipe the scanner window periodically with a lens tissue or other material suitable for cleaning optical material, such as eyeglasses.

Caution: Do not pour, spray, or spill any liquid on the scanner.

Periodically hand wash the WS 1200's mount in warm water with a mild detergent and air dry.

Troubleshooting

Symptom	Probable Cause	Action
Scanner does not come on	Cables are not secure.	Verify that the data cable connection and trigger cable connection are secure.
	Power is not applied to scanner.	Power for the scanner is provided by the WWC 1000 (or other terminal host). Verify that the terminal has a charged battery installed.
Scanner does not decode a bar code	Bar code is unreadable.	Verify that the bar code is not defective, i.e., smudged or broken.
	Scan window is dirty.	Clean scan window with a lens tissue. Tissues for eyeglasses work well. Do not use tissues coated with lotion.
	Symbology is not enabled.	See your system administrator.

Ergonomic Recommendations

Caution: In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

Regulatory Information

Radio Frequency Interference Requirements



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential

installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which 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.

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



Statement of Compliance

Symbol Technologies, Inc., hereby declares that this device is in compliance with all the applicable Directives, 89/336/EEC, 73/23/EEC. A Declaration of Conformity may be obtained from <http://www2.symbol.com/doc/>



Laser Devices

Symbol devices using lasers comply with US 21CFR1040.10, and IEC825-1:1993, EN60825-1:1994+A11:1996. The laser classification is marked on one of the labels on the device.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

Caution: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

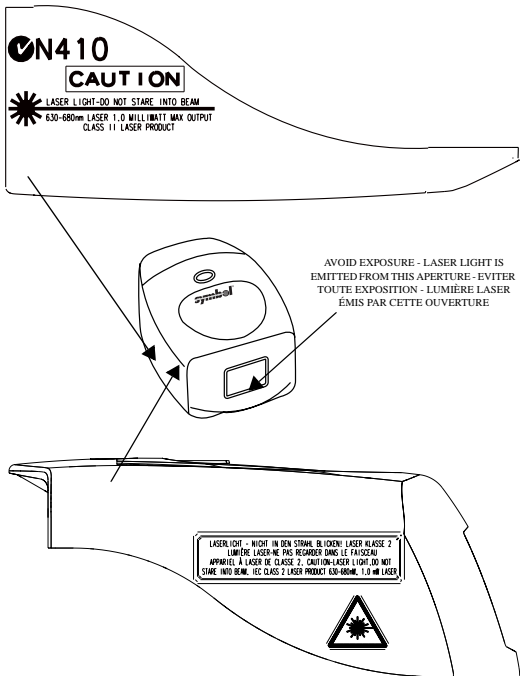
DANGER - LASER LIGHT WHEN OPEN. AVOID DIRECT EYE EXPOSURE.

ATTENTION - LUMIÈRE LASER EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU

VORSICHT - LASERLICHT, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN

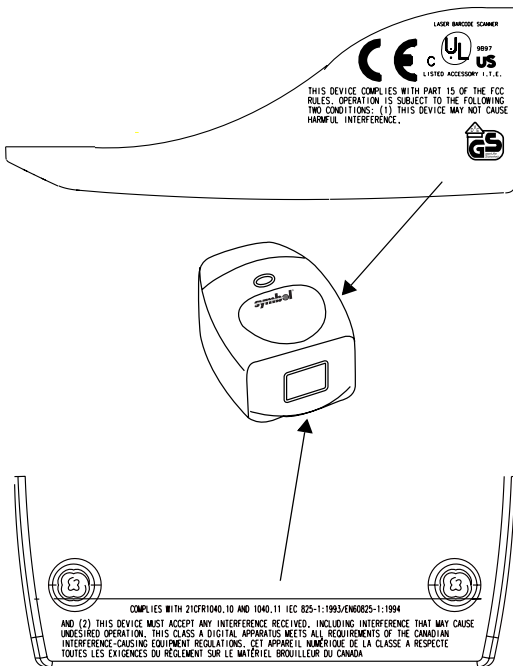
W S 1 2 0 0 S c a n n e r

Scanner Labeling



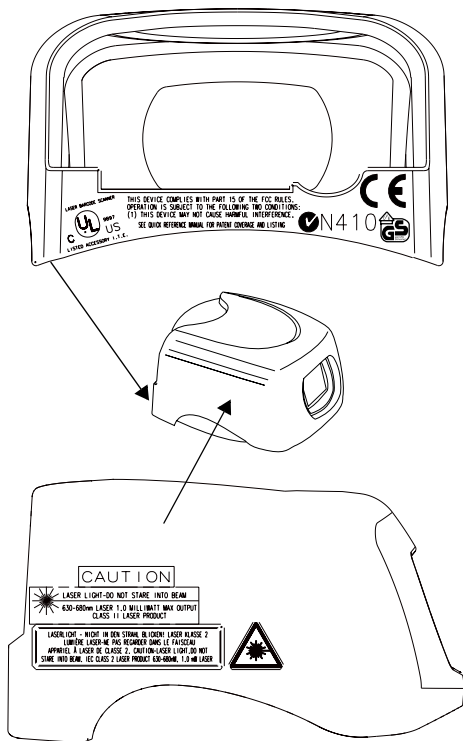
Q u i c k R e f e r e n c e

Scanner Labeling (Continued)



W S 1 2 0 0 S c a n n e r

Protective Housing (Cap) Labeling



Q u i c k R e f e r e n c e

In accordance with Clause 5, IEC 825 and EN60825, the following information is provided to the user:



HEBREW

ENGLISH

CLASS 1
CLASS 2

CLASS 1 LASER PRODUCT
LASER LIGHT
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT

מוצר לייזר רמה 1

רמה 1

אור לייזר
אין להביט אל תוך הזרם
מוצר לייזר רמה 2

רמה 2

DANISH / DANSK

KLASSE 1
KLASSE 2

ITALIAN / ITALIANO

KLASSE 1 LASERPRODUKT
LASERLYF
SE IKKE IND I STRÅLEN
KLASSE 2 LASERPRODUKT

CLASSE 1
CLASSE 2

PRODOTTO AL LASER DI CLASSE 1
LUCE LASER
NON FISSARE IL RAGGIO/PRODOTTO
AL LASER DI CLASSE 2

DUTCH / NEDERLANDS

KLASSE 1
KLASSE 2

KLASSE-1 LASERPRODUKT
LASERLICHT
NIET IN STRAAL STAREN
KLASSE-2 LASERPRODUKT

NORWEGIAN / NORSK

KLASSE 1
KLASSE 2

LASERPRODUKT, KLASSE 1
LASERLYS IKKE STIRR INN I LYSSTRÅLEN
LASERPRODUKT, KLASSE 2

FINNISH / SUOMI

LUOKKA 1
LUOKKA 2

LUOKKA 1 LASERTUOTE
LASERVALO
ÄLÄ TUIJOTA SÄDETTÄ
LUOKKA 2 LASERTUOTE

PORTUGUESE / PORTUGUÊS

CLASSE 1
CLASSE 2

PRODUTO LASER DA CLASSE 1
LUZ DE LASER NÃO FIXAR O RAIO LUMINOSO
PRODUTO LASER DA CLASSE 2

FRENCH / FRANÇAIS

CLASSE 1
CLASSE 2

PRODUIT LASER DE CLASSE 1
LUMIERE LASER
NE PAS REGARDER LE RAYON FIXEMENT
PRODUIT LASER DE CLASSE 2

SPANISH / ESPAÑOL

CLASE 1
CLASE 2

PRODUCTO LASER DE LA CLASE 1
LUZ LASER
NO MIRE FIJAMENTE EL HAZ
PRODUCTO LASER DE LA CLASE 2

GERMAN / DEUTCH

KLASSE 1
KLASSE 2

LASERPRODUKT DER KLASSE 1
LASERSTRAHLEN
NICHT DIREKT IN DEN LASERSTRAHL SCHAUEN
LASERPRODUKT DER KLASSE 2

SWEDISH / SVENSKA

KLASS 1
KLASS 2

LASERPRODUKT KLASS 1
LASERLJUS STIRRA INTE MOT STRÅLEN
LASERPRODUKT KLASS 2



Warranty

(A) Seller's hardware Products are warranted against defects in workmanship and materials for a period of twelve (12) months from the date of shipment, provided the Product remains unmodified and is operated under normal and proper conditions. Warranty provisions and durations on software, integrated installed systems, Product modified or designed to meet specific customer specifications ("Custom Products"), remanufactured products, and reconditioned or upgraded products, shall be as provided in the applicable Product specification in effect at the time of purchase or in the accompanying software license. (B) Products may be serviced or manufactured with parts, components, or subassemblies that originate from returned products and that have been tested as meeting applicable specifications for equivalent new material and Products. The sole obligation of Seller for defective hardware Products is limited to repair or replacement (at Seller's option) on a "return to service depot" basis with prior Seller authorization. Shipment to and from Seller will be at Seller's expense, unless no defect is found. No charge will be made to Buyer for replacement parts for warranty repairs. Seller is not responsible for any damage to or loss of any software programs, data or removable data storage media, or the restoration or reinstallation of any software programs or data other than the software, if any, installed by Seller during manufacture of the Product. The aforementioned provisions do not extend the original warranty period of any Product that had either been repaired or replaced by Seller. (C) The above warranty provisions shall not apply to any Product (i) which has been repaired, tampered with, altered or modified, except by Seller's authorized service personnel; (ii) in which the defects or damage to the Product result from normal wear and tear, misuse, negligence, improper storage, water or other liquids, battery leakage or failure to perform operator handling and scheduled maintenance instructions supplied by Seller; (iii) which has been subjected to unusual physical or electrical stress, abuse, or accident, or forces or exposure beyond normal use within the specified operational and environmental parameters set forth in the applicable Product specification; nor

Q u i c k R e f e r e n c e

shall the above warranty provisions apply to any expendable or consumable items, such as batteries, supplied with the Product. EXCEPT FOR THE WARRANTY OF TITLE AND THE EXPRESS WARRANTIES STATED ABOVE, SELLER DISCLAIMS ALL WARRANTIES ON PRODUCTS FURNISHED HERUNDER INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD. SOME STATES OR COUNTRIES DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS. IN SUCH STATES OR COUNTRIES, FOR SUCH PRODUCTS, SOME EXCLUSIONS OR LIMITATIONS OF THIS LIMITED WARRANTY MAY NOT APPLY. The stated express warranties are in lieu of all obligations or liabilities on the part of Seller for damages, including but not limited to, special, indirect or consequential damages arising out of or in connection with the use or performance of the Product or service. Seller's liability for damages to Buyer or others resulting from the use of any Product or service furnished hereunder shall in no way exceed the purchase price of said Product or the fair market value of said service, except in instances of injury to persons or property.

W S 1 2 0 0 S c a n n e r

Q u i c k R e f e r e n c e

Service Information

Before you use the unit, it must be configured to operate in your facility's network and run your applications.

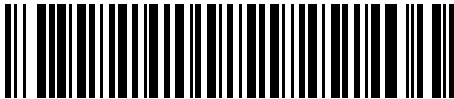
If you have a problem running your unit or using your equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Symbol Support Center:

United States ¹	1-800-653-5350 1-631-738-2400	Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific	+65-6796-9600
Australia	1-800-672-906	Austria/Österreich	1-505-5794-0
Denmark/Danmark	7020-1718	Finland/Suomi	9 5407 580
France	01-40-96-52-21	Germany/ Deutschland	6074-49020
Italy/Italia	2-484441	Mexico/México	5-520-1835
Netherlands/ Nederland	315-271700	Norway/Norge	+47 2232 4375
South Africa	11-8095311	Spain/España	91 324 40 00 Inside Spain
Sweden/Sverige	84452900		+34 91 324 40 00 Outside Spain
Latin America Sales Support	1-800-347-0178 Inside US +1-561-483-1275 Outside US		
Europe/Mid-East Distributor Operations	Contact local distributor or call +44 118 945 7360		

¹Customer support is available 24 hours a day, 7 days a week.

For the latest version of this guide go to:

<http://www.symbol.com/manuals>.



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Revision A — November 2002