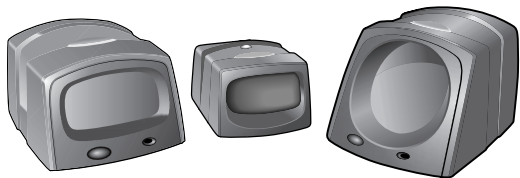


M i n i S c a n F a m i l y  
o f S c a n n e r s



**symbol**<sup>®</sup>

# MiniScan Family of Scanners

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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; 6,295,031; 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 new MiniScan family is the next generation of industrial fixed scanners. The scanners provide the quickest, easiest and most flexible integration of bar code scanning into all types of OEM devices. The MiniScan family offers high performance scan engines, along with a housing, exit window, decoder, and variety of interfaces (including USB) in a compact durable housing. All MiniScan products can be easily used as stand-alone fixed-mount or embedded scanner.

The following models are available:

- **MS-80x**  
MS-80x is a very small but powerful 1D fixed-mount scanner. It incorporates fuzzy logic performance in MiniScan's smallest housing to decode 1-D symbologies as well as RSS codes.
- **MS-90xHS**  
The MS-90xHS combines 200 scans per second and high performance 1D scanning in a small form factor. The high speed is optimized for the rapid reading of 1-D bar codes, quickly and accurately.
- **MS-320x**  
The MS-320x offers a high speed omni-di-

# MiniScan Family of Scanners

rectional scan pattern that reads bar codes quickly and accurately-minimizing the need for precise positioning of linear 1-D bar codes. The MS-320x scanner is also capable of reading RSS and 2-D bar codes such as PDF417, and composite codes.

- **MS-220x**

The MS-220x offers a high-speed "Smart" raster pattern optimized for 2-D bar-applications, and poorly printed 1-D codes. The high scan rate of 590 s/s ensures fast and reliable data on all 1-D and 2-D codes such as PDF417, Micro- PDF, and RSS.

- **MS-120xFZY**

The MS-120xFZY incorporates fuzzy logic for premium scanning performance on all types of 1-D and RSS codes including poorly printed and low contrast.

- **MS-120xWA**

The MS-120xWA features a broad 60° scan angle to accommodate large 1-D and RSS bar codes within an extremely close range.

## **Accessories**

- for power connection
  - 110V power supply, US,  
p/n 50-14000-008
  - 220V power supply, Europe,  
p/n 50-14000-009
  - 100V power supply, Asia,  
p/n 50-14000-010
- for data connection
  - Push button trigger and cable,  
p/n 25-04950-01
  - Female DB9 in straight connector to  
RS-232 host,  
p/n 25-58918-01
  - Female DB9 in right angle connector to  
RS-232 host,  
p/n 25-58919-01
  - Female DB9 in right angle connector to  
USB host (Type A connector),  
p/n 25-58923-01
  - Female DB9 in straight connector with  
trigger jack and beeper to USB (Type A  
connector),  
p/n 25-58925-01

# MiniScan Family of Scanners

- Female DB9 in straight connector to Synapse Adapter Cable (6 ft. straight), p/n 25-58921-01
- Photo sensor trigger and cable, p/n 25-13176-01
- other
  - Fixed mount stand, p/n 20-60136-01
  - Software Developer's Kit, p/n SW-60371-01.

## Connecting the MiniScan

MiniScan can be triggered either by a software trigger command, or by an external switch. If the MiniScan scanner came without a host cable, or if you are constructing an external triggering switch, consult the *MiniScan Integration Guide*.

To connect the MiniScan:

1. Plug the 9-pin D-connector with the end marked "TO SCANNER" into the MiniScan scanner.
2. If using an external switch and applicable host cable, plug trigger cable into the female stereo connector on the flying lead of the 9-pin D-connector.

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

3. Plug the output cable from the power supply into the receptacle on the end of connector near the host end of cable (USB and Synapse cables do not require a power supply).
4. Plug the host side connector into the appropriate port on your host terminal.
5. Check all connections to ensure they are secure.
6. Program the MiniScan. Triggering option bar codes begin on [page 6](#). Refer to the *MiniScan Integration Guide* for more information on selecting specific parameters.

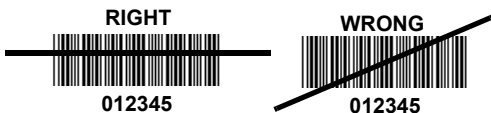
### Scanning

1. Ensure all connections are secure.
2. Once power is applied to the MiniScan scanner the LED lights a continuous red.
3. Ensure the bar code is within scanning range. Align the bar code and trigger the unit.
4. Upon successful decode, the scanner LED turns green.

## Aiming Tips

### Scan the Entire Symbol

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



2. Adjust the aim so that the thin, red laser beam covers the entire length of the bar code.
3. If the decode is successful, the green LED lights and the data is transmitted to the host. The scanner may also beep.

## Triggering Options

### Level Trigger

The laser is enabled and decode processing begins when the trigger line is activated. Decode processing continues until a good decode occurs, the trigger is released, or the Laser-On time expires. The laser is disabled once decode processing is complete. The next decode attempt



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

will not occur until the trigger line is released and then reactivated.



**Level**

## **Pulse Trigger**

The laser is enabled and decode processing begins when the trigger line is activated. Laser remains on and decode processing continues regardless of trigger line until a good decode occurs, or until the Laser-On time expires. The laser is disabled once decode processing is complete. The next decode attempt will not occur until the trigger line is released and then reactivated.



**Pulse**

## **Continuous**

The laser is enabled continuously and decode processing is continuously active. In this mode, the scanner can be configured to scan and transmit a bar code, and then not decode the same bar code for a set period of time (Time

# MiniScan Family of Scanners

Between Same Bar Code) and not decode ANY bar code for a period of time (Time Between Different Bar Codes). Consult the *MiniScan Integration Guide* for these bar codes. This allows the user to tailor the application to the rate at which bar codes are presented.



**Continuous**

## **Host Trigger**

The laser is enabled and decode processing begins in response to an SSI Start Decode message from the host. Refer to the *MiniScan Integration Guide* for more information. Decode processing continues until a good decode occurs, an SSI Stop Decode message is received, or the Laser-On time expires. The laser is disabled once decode processing is complete. The next decode attempt will not occur until the next Start Decode message is received.



**Host**

## Beeper Indications

The beeper indicates the scanner's status as follows:

<b>Beeper</b>	<b>Indication</b>
3 Beeps	Power up (or reset) has occurred (MS-220x and MS-320x models only).
1 Beep	A bar code is successfully decoded.
4 Beeps	Transmission error. Bar code data was not received by the host.
Fast warble	A programming parameter was entered successfully.

## LED Indicators

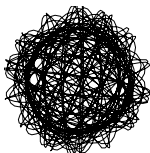
LED	Indication
Red	Scanner is on.
Green	A bar code is successfully decoded.

## Laser Patterns

Depending on the configuration, the MiniScan scanner can emit one of five laser patterns:

- **Omnidirectional Scan Pattern, (MS-220x, MS-320x)**

The scan pattern is a high speed rotating omni-directional scan pattern that provides very aggressive performance on 1-D bar codes because there are virtually no "holes" in the pattern. This ensures fast throughput at the point of activity and the ability to read 1-D symbols in 360° of rotation, eliminating the need to orient the bar code in the field of view.



- **Semi-omnidirectional Scan Pattern (MS-220x, MS-320x)**

The semi-omnidirectional pattern is an alternative to the full omni-directional pattern, that scans highly truncated 1-D and RSS bar codes. The bar code must be presented horizontally with no more than a 20° tilt.



- **Smart Raster Scan Pattern (MS-220x, MS-320x)**

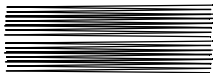
The MS-220x and MS-320x can create a single line which opens vertically to read PDF417 symbols using the Smart raster feature. This feature auto detects the type of bar code being scanned and adjusts its pattern accordingly. This provides optimal per-

# MiniScan Family of Scanners

formance on 1-D, PDF417, RSS, and Composite codes.

Stage 1:

Stage 2:



- **High Density Single Scan Line (MS-220x, MS-320x, MS-90xHS)**

The single scan line appears as a "mini" raster and scans multiple areas of 1-D codes to swiftly and accurately capture data on poorly printed and damaged bar codes. The single line is ideal for 1-D bar codes.

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- **Always Raster Pattern (MS-220x, MS-320x)**

The MS-220x and MS-320x can create a adjustable raster pattern of a programmed height. This pattern is best for PDF417 environments.



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

- **True Single Scan Line**

The MS-120x, MS-90x, and MS-80x are 1-D scanners, and as such emit a single scan line.

---

## Bar Codes

Following are some frequently used bar codes for some of the MiniScan scanners.



**Set All Defaults**



**Smart Raster**

M i n i S c a n F a m i l y  
o f S c a n n e r s



**Always Raster**



**Semi-omnidirectional Pattern**



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



**Slab Pattern**

## Troubleshooting

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Solutions</b>
No red LED or nothing happens when you attempt to scan.	No power to the scanner.	Check the system power. Confirm that the correct host interface cable is used.
		Power supply not plugged in.
		Check for loose cable connections.

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<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Solutions</b>
Scanner cannot read the bar code.	Interface/power cables are loose.	Check for loose cable connections.
	Scanner is not programmed for the correct bar code type.	Ensure the scanner is programmed to read the type of bar code to be scanned.  Try scanning other bar code(s) and other bar code types.
	Incorrect communication parameters.	Check that the communication parameters (baud rate, parity, stop bits, etc.) are set properly.
	Bar code symbol is unreadable.	Check the symbol to make sure it is not defaced. Try scanning similar symbols of the same code type.
	Inappropriately hot environment.	Remove the scanner from the hot environment, and allow it to cool down.
Laser activates, followed by a beep sequence.	Beeper is configured.	Refer to beeper indications for beeper indication descriptions.
Scanner configured to USB host and does not scan.	Incorrect trigger mode selected.	Unplug scanner from USB host. Present Continuous Scan Mode bar code and plug unit in. Upon power up the scanner will scan briefly, decode, and switch to continuous trigger mode.

## Regulatory Information

All Symbol devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Any changes or modifications to Symbol Technologies equipment, not expressly approved by Symbol Technologies, could void the user's authority to operate the equipment.



### Laser Devices

Symbol devices using lasers comply with US 21CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50 dated July 26, 2002, and IEC60825-

1:+A1:1997+A2:2001 The laser classification is marked on one of the labels on the device.

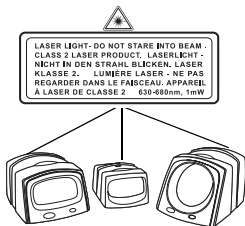
Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

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.

# MiniScan Family of Scanners

## Scanner Labeling



## Power Supply

**Note:** Use only a Symbol-approved power supply 50-14000-008, 50-14000-009, 50-14000-010 output rated 5.2Vdc and minimum 0.650A. The power supply is certified to EN60950 with SELV outputs.

**Hinweis:** Benutzen Sie nur eine Symbol Technologies genehmigt Stromversorgung 50-14000-008, 50-14000-009, 50-14000-010 in den Ausgabe: 5.2Vdc und minimum 0.650A. Die Stromversorgung ist bescheinigt nach EN60950 mit SELV Ausgaben.

# Quick Reference

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



**ENGLISH**  
CLASS 1  
CLASS 2

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

**HEBREW**

מוצר לייזר רמה 1 רמה 1  
אור לייזר רמה 2  
אין להביט אל תוך הזרם  
מוצר לייזר רמה 2

**DANISH / DANSK**

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

**ITALIAN / ITALIANO**

CLASSE 1 PRODOTTO AL LASER DI CLASSE 1  
CLASSE 2 LUCE LASER  
NON FISSARE IL RAGGIOPRODOTTO  
AL LASER DI CLASSE 2

**DUTCH / NEDERLANDS**

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

**NORWEGIAN / NORSK**

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

**FINNISH / SUOMI**

LUOKKA 1 LUOKKA 1 LASERTUOTE  
LUOKKA 2 LASERVALO  
ÄLÄ TUJOTA SÄDETTÄ  
LUOKKA 2 LASERTUOTE

**PORTUGUESE / PORTUGUÊS**

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

**FRENCH / FRANÇAIS**

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

**SPANISH / ESPAÑOL**

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

**GERMAN / DEUTCH**

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

**SWEDISH / SVENSKA**

KLASS 1 LASERPRODUKT KLASS 1  
KLASS 2 LASERLJUS STIRRA INTE MOT STRÅLEN  
LASERPRODUKT KLASS 2

## 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.

# M i n i S c a n F a m i l y o f S c a n n e r s

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.
- This device must be used with a properly shielded cable as specified in the product integration guide

## 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.

## Marking and European Economic Area (EEA)



### 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/>.

## Warranty

**(A) Warranty** Symbol Technologies (hereafter "Seller") hardware Products are warranted against defects in workmanship and materials for a period of twelve (12) months from the date of shipment, unless otherwise provided by Seller in writing, 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) Spare Parts** Spare parts (i.e. parts, components, or subassemblies sold by Seller for use in the service and maintenance of Products) are warranted against defects in workmanship and materials for a period of thirty (30) days from the date of shipment. Spare parts may be new or originate from returned units under the conditions set forth in subsection D below.

**(C) Repair of Symbol-branded hardware** For repairs on Symbol-branded hardware Products under this Agreement, including repairs covered by warranty, the repair services provided are warranted against defects in workmanship and materials on the repaired component of the Product for a period of thirty (30) days from the shipment date of the repaired Product, or until the end of the original warranty period, whichever is longer.

**(D) Product Service** 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. Customer is responsible for shipment to the Seller and assumes all costs and risks associated with this transportation; return shipment to the Customer will be at Seller's expense. Customer shall be responsible for return shipment charges for product returned where Seller determines there is no defect ("No Defect Found"), or for product returned that Seller determines is not eligible for warranty repair. 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.

**(E) Original Warranty Period** Except for the warranty applying solely to the repaired component arising from a repair service as provided in Section C above, the aforementioned provisions do not extend the original warranty period of any Product that had either been repaired or replaced by Seller.

**(F) Warranty Provisions** 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, use of parts or accessories not approved or supplied by Symbol, 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 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 HEREUNDER 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.

# 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 <sup>1</sup>	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 +1-954-255-2610 Outside US		
Europe/Mid-East Distributor Operations	Contact local distributor or call +44 208 945 7360		

<sup>1</sup>Customer support is available 24 hours a day, 7 days a week.



**72-58809-01**  
**Revision B — May 2003**

Symbol Technologies, Inc. One Symbol Plaza, Holtsville, N.Y. 11742-1300