

QRG
P 3 7 0 / 4 7 0
R a d i o S c a n n e r



Preliminary
symbol[®]



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<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.4,360,798; 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; 5,130,520
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; 5,262,628; 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; 5,321,246; 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; 5,578,810; 5,581,070; 5,589,679; 5,589,680; 5,608,202; 5,612,531;
5,619,028; 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; 5,745,794; 5,754,587; 5,762,516;
5,763,863; 5,767,500; 5,789,728; 5,808,287; 5,811,785; 5,811,787; 5,815,811;
5,821,519; 5,821,520; 5,823,812; 5,828,050; 5,850,078; 5,861,615; 5,874,720;
5,875,415; D305,885; D341,584; D344,501; D359,483; D362,453; D363,700;
D363,918; D370,478; D383,124; D391,250; D405,077; D406,581.

Invention No. 55,358; 62,539; 69,060; 69,187 (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. 4/99

Preliminary

Introduction

The Phaser P 370/470 Radio Frequency (RF) scanner brings new flexibility and economy to data capture and data management in retail operations. The RF scanner has an integrated keypad and display, communicates with a base station and is battery-powered. This provides advanced point-of-sale scanning and also allows the scanner to be used for other in-store tasks such as delivery, inventory, pricing, and even gift registry. There are two versions available:

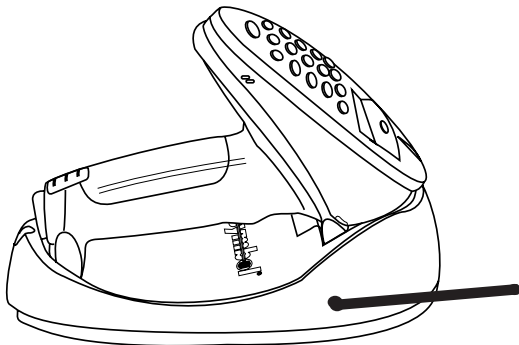
- P 470: the RF retail version
- P 370: the RF industrial version

This *Quick Reference Guide* provides basic instruction on the set up and use of the scanner. Unless otherwise noted, the term Phaser refers to both versions of the scanner.

Charge the Battery

Before its first use, the battery must be charged. After the base/charger has been connected, insert the scanner into the base/charger. To charge the scanner, place it front-side down into the base/charger. Make sure that the contacts in the bottom of the scanner match up with the metal contacts.

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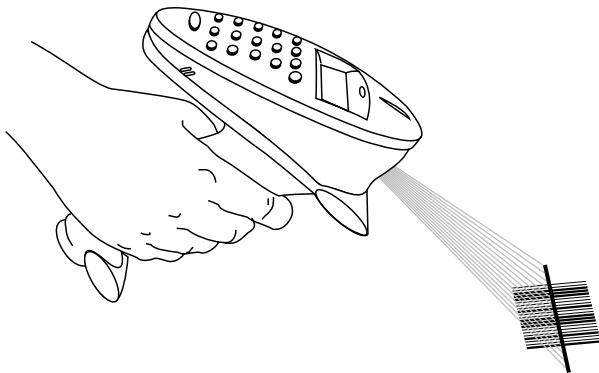
A full charge takes up to 4 hours, you may need less time depending upon the remaining charge in the battery. The LED light on the bottom of the cradle becomes solid to alert you when the battery has been recharged.

Scanning with the Phaser

For POS operation, the scanner ships with a default application that is ready-to-use right out of the box. Otherwise, consult the *Phaser Series Scanner Product Reference Guide* (p/n 72-33495-xx) for programming instructions. If you need assistance, contact your local supplier or Symbol Support Center.

1. Ensure the battery is charged.
2. Make sure the bar code is in the correct scanning range. Aim and press the trigger. When the scanner has read the symbol:
 - You hear a beep.
 - The LED above the screen turns green.
 - The red laser turns off.

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Keyboard Entry

Instead of scanning a bar code, you can enter the bar code's data using the keypad on the top of the scanner. To enter numeric characters, press the number key on the keypad.

To enter alpha characters, press the Mode key once to put the scanner in Alpha Mode. Press the numeric key with the letter you want above it - once for the first letter, quickly twice for the second letter, or quickly three times for the third letter.

To return to numeric mode, press the Mode key again.

The * key is a special key that can be programmed for custom specific operations. Ask your system administrator for more information.

Host Communications

With some terminal types, the Phaser is unable to answer host terminal polls until the appropriate host type is selected. This may result in an error message generated by the host computer. Contact your System Administrator for assistance.

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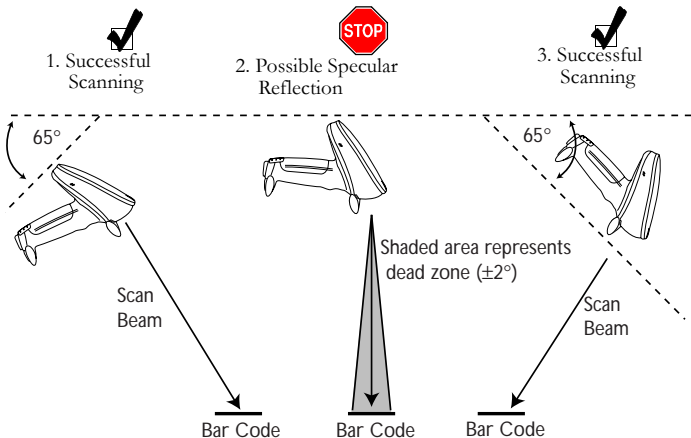


Aiming

Hold at an angle

Do not hold the scanner directly over the bar code. Laser light reflecting *directly* back into the scanner from the bar code is known as specular reflection. This strong light can “blind” the scanner and make decoding difficult. The area where specular reflection occurs is known as a “dead zone”.

You can tilt the scanner up to 65° forward or back and achieve a successful decode. Simple practice quickly shows what tolerances to work within.



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Scan the entire symbol

- The scan beam must cross every bar and space on the symbol (as in the left bar code below).
- The larger the symbol, the farther away you should hold the scanner.
- Hold the scanner closer for symbols with bars that are close together.



Pair Scanner with Base/Charger

The wireless “connection” between the scanner and base/charger is the low power radio transmission through RF transceivers in the both the scanner and base/charger. The actual communication consists of bidirectional message packets. However, the scanner and base/charger must be paired for this communication to work between the two devices.

To pair the scanner with the base/charger:

- Scan the **PAIRING** bar code below or the one on the base/charger.



PAIRING

- Insert the scanner into the base/charger’s cradle. You have 15 seconds to do this, or there will be error beeps (4 beeps = unsuccessful pairing or base not powered). Note that you cannot

scan data until this linking is complete.

- At that time, through the scanner's contact shoe, there is an exchange of information (addressing, RF channels, etc.) between the scanner and the base/charger's cradle. This occurs in less than a second.
- After the exchange is complete, the scanner and base/charger are paired. Successful pairing is indicated by a warble beep; failure, or unsuccessful link, is indicated by a **Lo Lo Lo Lo** beep.

Set Host Type

Each Interface Cable Assembly defaults to a given host. Below is a list of the assemblies and their corresponding default hosts. If you wish to change the type of host, find and scan the proper bar code on the following pages.

Cable Assy.	Default
IK-0100, -0101	IBM 4683/93 Port 5B; 4683/84 Port 17
IK-1005, -1006	ICL 9505, 9507, 9518; 9520 OCIA
IK-0200	IBM 3683, 3684 Kybd Wedge
IK-0300	IBM 3653 Kybd Wedge
IK-0400	IBM PC/AT, Telex Memorex Kybd Wedges
IK-0401	IBM PS/2 - 30, 50, 55SX, 60, 70, 80
IK-0402, -0403	NCR 7052 Wedge; Fujitsu 9000 Wedge
IK-0406, -0409	IBM 3161/319X; IBM 3151, 347X Wedges
IK-0413	Wyse 50 Wedge
IK-0500	NCR 2152 Tel Kybd Wedge
IK-0600	NCR 2151 Tel Kybd Wedge
IK-0700	NCR 280 Kybd Wedge
IK-0800 — 0803	Standard RS-232C
IK-0900	Fujitsu 9000 OCR
IK-0901	Fujitsu 7770, 7880, 7990, 8770 OCR
IK-0902	IBM 3653, 3683/3684 OCR
IK-1001, -1002	NCR 2152, 2257, 2950; 215X, 7050 OCIA
IK-1003, -1004	Nixdorf 8812 OCIA; NCR 2126-1120 OCIA

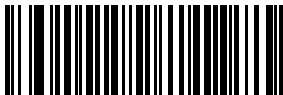
Q u i c k R e f e r e n c e

IK-1100	IBM 4683/93 Port 9B
IK-1200, -1201	IBM 3178; IBM 3278 Wedges
IK-1300	Wyse 60, 85, 150, 160, 185 Wedges
IK-1301	HP 7000/XX, 239X Wedges
IK-1400	DEC VT 2XX/3XX/4XX Wedges
IK-1500, -1501	Dual RS-232C

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In some cases, two bar codes may correspond to one interface type; this happens when different software revisions exist for the same host type. If there are two bar codes for your host type, try the first bar code; if that does not work, then try the second one.



Single Port RS-232



Dual Port RS-232

Four Options for Dual Port RS-232 Follow

For IK-1500, Port 1 = Male, TxD on Pin 2; Port 2 = Female, TxD on Pin 3.
For IK-1501, Port 1 = Male, TxD on Pin 3; Port 2 = Female, TxD on Pin 2.



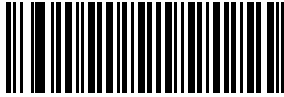
Dual Port RS-232: Transmit and Receive from Port 1



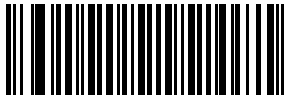
Dual Port RS-232: Transmit to Ports 1 and 2 — Receive from Port 1

D **r** **e** **m** **i** **n** **a** **r** **y** **,**

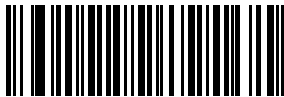
Q u i c k R e f e r e n c e



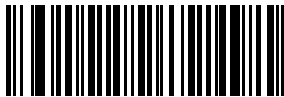
Dual Port RS-232: Transmit and Receive from Port 2



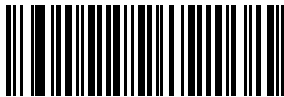
Dual Port RS-232: Transmit to Ports 1 and 2 — Receive from Port 2



IBM PC/AT, IBM PS2-50/55SX/60/70/80 and Clones



IBM PC/XT And Clones



IBM PS2-30 and Clones



IBM 3653 Keyboard Wedge

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IBM 3683/3684 Calc 35 Keyboard Wedge



IBM 3683/3684 Calc 48 Keyboard Wedge



IBM 3683/3684 Calc 116 Keyboard Wedge



IBM 3683/3684 Tel 35 Keyboard Wedge



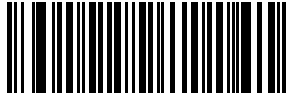
IBM 3683/3684 Tel 48 Keyboard Wedge



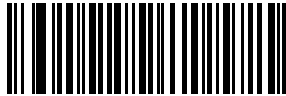
IBM 3683/3684 Tel 116 Keyboard Wedge

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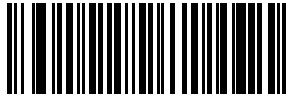
Q u i c k R e f e r e n c e



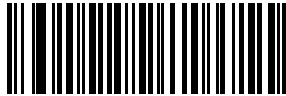
NCR 2151 (Tel) Keyboard Wedge



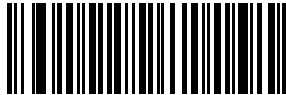
NCR 2151 (Calc) Keyboard Wedge



NCR 2152 (Tel) Keyboard Wedge



NCR 2152 (Calc) Keyboard Wedge



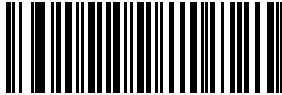
NCR 280 Keyboard Wedge



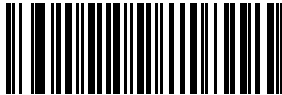
NCR 255/2152/2154/2155, NCR 2126-1120
NCR 2157/2257/7050, NCR "S" 7052 OCIA



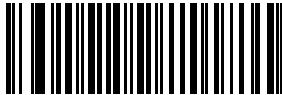
NCR 7052 Keyboard Wedge



NCR "F" 7052 OCIA



NCR "S" 2950 OCIA



Nixdorf 8812 OCIA



ICL 9505/9507/9518/9520 OCIA



Spectra Physics OCIA

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IBM 4683/4684 Port 5B 4693



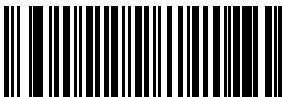
IBM 4683/4684 Port 9B 4693



IBM 4683/4684 Port 17



IBM 3653/3683/3684 OCR

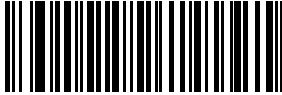


Fujitsu 7770/7880/7990/ 8770/9000 OCR

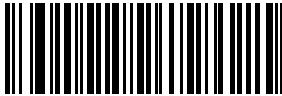


HP 239X

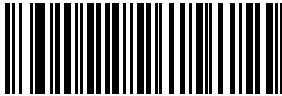
Pre-Inventory



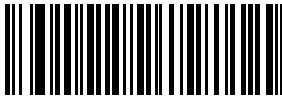
HP 700-9X



DEC VT 2XX/3XX/4XX



DEC 420 (Later Software Revision)



IBM 3178



IBM 3278



IBM 319X/347X/348X Telex Memorex 122

Proprietary

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



IBM 3151/316X



IBM 3179/3180



IBM 3180 (Later Software Revision)



Telex Memorex 88

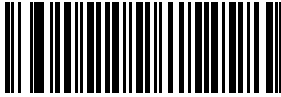


Wyse 50 (ASCII Keybd)

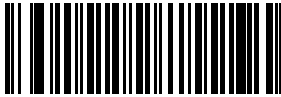


Wyse 60/30/160 (ASCII Keybd)

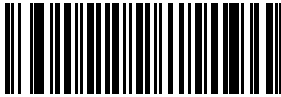
Pre-**Primary**



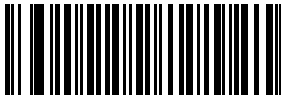
Wyse 60/160 (PC Keybd)



Wyse 60/150 (ANSI 101 Keybd)



Wyse 85/150+/185/160 (ANSI 105 Keybd)



HP 2392 (Later Software Revision)

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Program Default Parameters

Scanning the SET DEFAULTS bar code returns all parameters to the values listed in the Default Table, which appears at the end of this guide.



SET DEFAULTS

Other customized programming must be performed through bar codes available in the *P 370/470 Product Reference Guide* or *Advanced Programmer's Guide*.

With this set, you are ready to scan bar codes.

Set Transmission Frequency (Optional)

The scanner and base can communicate on a number of different channel frequencies, which varies by country. In most countries, there are 80 available channels (numbered 2 through 81); in France, there are only 9 channels (numbered 46 through 54).

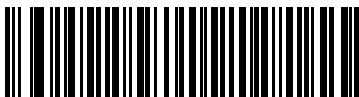
The initial transmission frequency is determined by the base's unique address, so neighboring systems operate on different channels without interfering with each other. Occasionally, there may be noticeable interference on a channel from some other source of radio transmissions. The system has been programmed to change the channel automatically if it detects excessive interference, but the channel may also be changed manually if there are communications problems.

To set the transmission frequency, scan the **SELECT CHANNEL NUMBER** bar code appropriate for your country. Then scan two numeric bar codes to set the two-digit channel number within the allowable range (46 through 54 in France, 02 through 81 elsewhere).

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Set Transmission Frequency

Scan this bar code for all countries except France.



SELECT CHANNEL NUMBER (02-81)

Scan this bar code for France only.



SELECT CHANNEL NUMBER (46-54)

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0



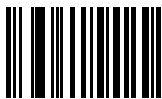
1



2



3



4

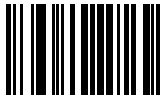
Preliminary



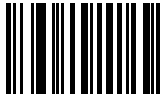
5



6



7



8



9



CANCEL

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Recharging the Battery

When necessary, recharge the batteries. To do so with the base/charger:

- Connect the power supply to the power input port on the front panel of the base/charger, as illustrated below.
- Connect the power supply to a receptacle supplying AC power of the proper voltage level.
- Then place the scanner into the base/charger cradle, so that the nose of the scanner and tip of the handle fit snugly into the receptacles. Check the charge status indicator (blinking rapidly = fully charged) for full charge, which occurs in less than two hours. However, the scanner can be used on less than full charge.

Charge Status LED Indications

On the base/charger, there is a red LED indicator which uses flashing patterns to indicate the current charger status. The red Charge Status LED indicates the following conditions:

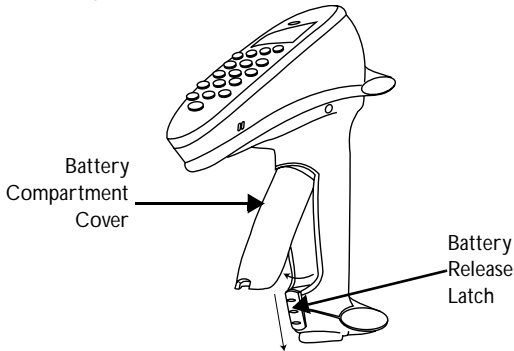
- **RED LED OFF** — The scanner is not properly inserted or the battery is not functioning properly.
- **RED LED blinking slowly** (1/8 sec. ON, 3/8 sec. OFF) — Battery charge is pending. This can occur if the battery temperature is too high or low or if the battery is deeply discharged. After several minutes, normal charging should begin.
- **RED LED ON** — The battery is actively charging. Charging will complete in less than 2 hours.
- **RED LED blinking rapidly** (1/8 sec. ON, 1/8 sec. OFF) — Battery charging is complete.

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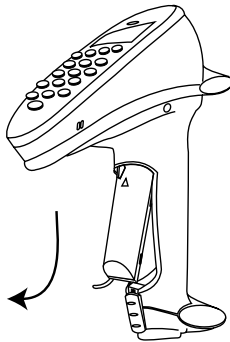


Installing or Changing the Battery

1. Slide the battery compartment release latch down and remove the battery compartment cover.



2. Slide the battery towards the bottom of the scanner and then pull the bottom of the battery up and out of the scanner.



Replacing the Battery

1. Seat the battery fully in the scanner and then slide it up the handle.
2. Replace the battery compartment cover and slide the release latch up to secure the cover in place.

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Troubleshooting

If the scanner does not work after you've followed these operating instructions:

- Check the system power.
- Check that scanning is enabled.
- Check that the battery is installed correctly.
- Check for loose cable connections.
- Be sure the Phaser is programmed to read the type of bar code you are trying to scan.
- Check to be sure the symbol is not defaced.
- Check that the correct power supply is attached to the base/charger.
- Check for correct host interface cable or loose cable connections at the base/charger and host device.
- Make sure the device is programmed to read the type of bar code you want to scan.
- Try scanning similar symbols of the same code type.
- Make sure the scanner and base/charger have been successfully paired.
- Be sure you're within the proper scanning and transmission range (30 to 50 ft., or 9 - 15 meters).

You get frequent communication errors (6 beeps after decode)

- Check that you are within transmit range.
- Check that the scanner is successfully paired with the base/charger.

You get frequent communication errors (6 beeps after decode):

- Check that the base/charger is powered up and that its cable connections are secure.

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Note: If after performing these checks the symbol still does not scan, contact your distributor or call the Symbol Support Center.

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.

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

Test Symbols



Code 128

5012345248



EAN-8

0000 3001



13 Mil UPC

0

12345 67890



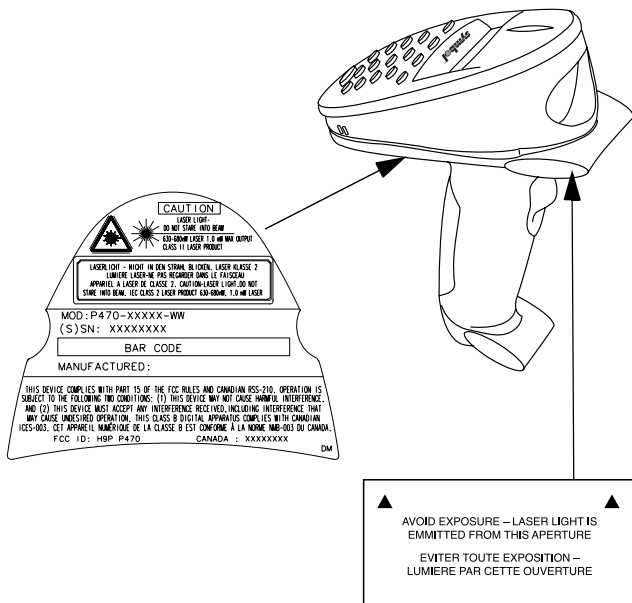
Code 39

01234567

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Regulatory Information

Scanner Labeling



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

In accordance with Clause 5, IEC 0825 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 אור לייזר אין להביט אל תוך הזרם מוצר לייזר רמה 2	רמה 1 רמה 2
DANISH KLASSE 1 KLASSE 2	KLASSE 1 LASERPRODUKT LASERLYF SE IKKE IND I STRÅLEN KLASSE 2 LASERPRODUKT AL LASER DI CLASSE 2	ITALIAN	CLASSE 1 PRODOTTO AL LASER DI CLASSE 1 CLASSE 2 LUCE LASER NON FISSARE IL RAGGIOPRODOTTO	
DUTCH KLASSE 1 KLASSE 2	KLASSE-1 LASERPRODUKT LASERLICHT NIET IN STRAAL STAREN KLASSE-2 LASERPRODUKT	NORWEGIAN	KLASSE 1 LASERPRODUKT. KLASSE 1 KLASSE 2 LASERLYS IKKE STIRR INN I LYSSTRÅLEN LASERPRODUKT. KLASSE 2	
FINNISH LUOKKA 1 LUOKKA 2	LUOKKA 1 LASERTUOTE LASERVALO ÄLÄ TUIJOTA SÄDETTÄ LUOKKA 2 LASERTUOTE	PORTUGUESE	CLASSE 1 PRODUTO LASER DA CLASSE 1 CLASSE 2 LUZ DE LASER NÃO FIXAR O RAILO LUMINOSO PRODUTO LASER DA CLASSE 2	
FRENCH CLASSE 1 CLASSE 2	PRODUIT LASER DE CLASSE 1 LUMIERE LASER NE PAS REGARDER LE RAYON FIXEMENT PRODUIT LASER DE CLASSE 2	SPANISH	CLASE 1 PRODUCTO LASER DE LA CLASE 1 CLASE 2 LUZ LASER NO MIRE FIJAMENTE EL HAZ PRODUCTO LASER DE LA CLASE 2	
GERMAN KLASSE 1 KLASSE 2	LASERPRODUKT DER KLASSE 1 LASERSTRAHLEN NICHT DIREKT IN DEN LASERSTRAHL SCHAUEN LASERPRODUKT DER KLASSE 2	SWEDISH	KLASS 1 LASERPRODUKT KLASS 1 KLASS 2 LASERLJUS STIRRA INTE MOT STRÅLEN LASERPRODUKT KLASS 2	

Radio Frequency Interference Requirements

This device has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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However, there is no guarantee that interference will not occur in a particular installation. If the 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:

- Re-orient 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 which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC Part 15. 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 may cause undesired operation.

Radio Frequency Interference Requirements - Canada

This device complies with RSS 210 of Industry & Science Canada. 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 may cause undesired operation.

This Class B digital apparatus complies with Industry Canada Standard ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 d'Industrie Canada.

CE Marking and European Union Compliance



Products intended for sale within the European Union are marked with the CE Mark which indicates compliance to applicable Directives and European Normes (EN), as follows. Amendments to these Directives or ENs are included:

Applicable Directives

- Electromagnetic Compatibility Directive 89/336/EEC
- Low Voltage Directive 73/23/EEC

Applicable Standards

- EN 55 022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information technology Equipment
- EN 50 082-1:1997 - Electromagnetic Compatibility - Generic Immunity Standard, Part 1: Residential, commercial, Light Industry
- IEC 1000-4-2(1995-01) - Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 2: Electrostatic discharge immunity test.
- IEC 1000-4-3(1995-03) - Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 3: Radiated, radio-frequency, electromagnetic field immunity test.

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- IEC 1000-4-4(1995-01) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 4: Electrical Fast transient/burst immunity test.
- EN 60 950 + Amd 1 + Amd 2 - Safety of Information Technology Equipment Including Electrical Business Equipment
- EN 60 825-1 (EN 60 825) - Safety of Devices Containing Lasers

RF Devices

Symbol's RF products are designed to be compliant with the rules and regulations in the locations into which they are sold and will be labeled as required. The majority of Symbol's RF devices are type approved and do not require the user to obtain license or authorization before using the equipment. 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 products using lasers comply with US 21CFR1040.10, Subchapter J and IEC825/EN 60 825 (or IEC825-1/EN 60 825-1, depending on the date of manufacture). The laser classification is marked on one of the labels on the product.

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.

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	1-800-653-5350	Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific	337-6588
Australia	1-800-672-906	Austria	1-505-5794
Denmark	7020-1718	Finland	9 5407 580
France	01-40-96-52-21	Germany	6074-49020
Italy	2-484441	Mexico	5-520-1835
Netherlands	315-271700	Norway	66810600
South Africa	11-4405668	Spain	9-1-320-39-09

Sweden 84452900

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

Warranty

Symbol Technologies, Inc. ("Symbol") manufactures its hardware products in accordance with industry-standard practices. Symbol warrants that for a period of twelve (12) months from date of shipment, products will be free from defects in materials and workmanship.

This warranty is provided to the original owner only and is not transferable to any third party. It shall not apply to any product (i) which has been repaired or altered unless done or approved by Symbol, (ii) which has not been maintained in accordance with any operating or handling instructions supplied by Symbol, (iii) which has been subjected to unusual physical or electrical stress, misuse, abuse, power shortage, negligence or accident or (iv) which has been used other than in accordance with the product operating and handling instructions. Preventive maintenance is the responsibility of customer and is not covered under this warranty.

Wear items and accessories having a Symbol serial number, will carry a 90-day limited warranty. Non-serialized items will carry a 30-day limited warranty.

Warranty Coverage and Procedure

During the warranty period, Symbol will repair or replace defective products returned to Symbol's manufacturing plant in the US. For warranty service in North America, call the Symbol Support Center at 1-800-653-5350. International customers should contact the local Symbol office or support center. If warranty service is required, Symbol will issue a Return Material Authorization Number. Products must be shipped in the original or comparable packaging, shipping and insurance charges prepaid. Symbol will ship the repaired or replacement product freight and insurance prepaid in North America. Shipments from the US or other locations will be made F.O.B. Symbol's manufacturing plant.

Symbol will use new or refurbished parts at its discretion and will own all parts removed from repaired products. Customer will pay for the replacement product in case it does not return the replaced product to Symbol within 3 days of receipt of the replacement product. The process for return and customer's charges will be in accordance with Symbol's Exchange Policy in effect at the time of the exchange. Customer accepts full responsibility for its software and data including the appropriate backup thereof.

Repair or replacement of a product during warranty will not extend the original warranty term.

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Symbol's Customer Service organization offers an array of service plans, such as on-site, depot, or phone support, that can be implemented to meet customer's special operational requirements and are available at a substantial discount during warranty period.

General

Except for the warranties stated above, Symbol disclaims all warranties, express or implied, on products furnished hereunder, including without limitation implied warranties of merchantability and fitness for a particular purpose. The stated express warranties are in lieu of all obligations or liabilities on part of Symbol for damages, including without limitation, special, indirect, or consequential damages arising out of or in connection with the use or performance of the product.

Seller's liability for damages to buyer or others resulting from the use of any product, shall in no way exceed the purchase price of said product, except in instances of injury to persons or property.

Some states (or jurisdictions) do not allow the exclusion or limitation of incidental or consequential damages, so the proceeding exclusion or limitation may not apply to you.

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 meeting with 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.

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72-38493-01
Revision .1 — June 1999

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