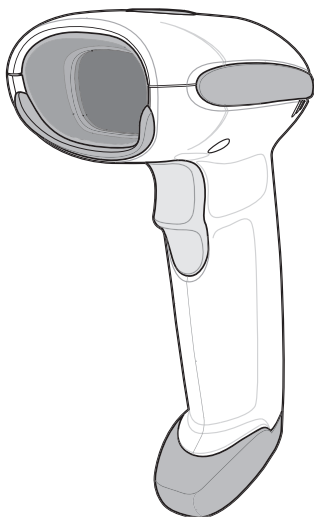




# LS4208

Quick Reference Guide



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<http://www.symbol.com>

## Warranty

For the complete Motorola hardware product warranty statement, go to:  
<http://www.symbol.com/warranty>.

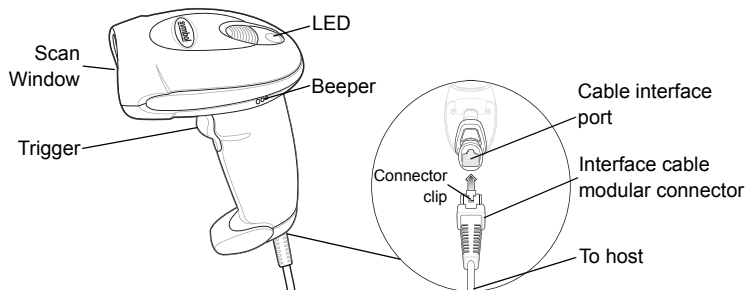
## Patents

This product is covered by one or more patents. For patent information go to:  
<http://www.symbol.com/patents>.

## Introduction

The LS4208 scanner combines excellent scanning performance and advanced ergonomics to provide the best value in a lightweight laser scanner. Whether used as a hand-held scanner or in hands-free mode in a stand, the scanner ensures comfort and ease of use for extended periods of time. Before programming the scanner, scan the appropriate bar code(s), beginning on [page 7](#), to communicate with the host.

## Parts

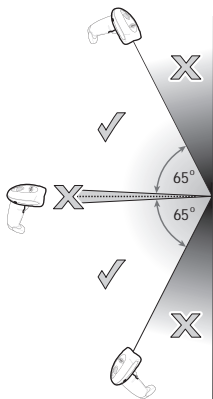


## Inserting and Removing the Interface Cable

To connect the interface cable, insert the interface cable's modular connector into the cable interface port.

To remove the interface cable, unplug the installed cable's modular connector by depressing the connector clip with the tip of a screwdriver.

## Aiming



## Scanning



## Beeper Definitions

The scanner issues different beep sequences and patterns to indicate status. The table below defines beep sequences that occur during both normal scanning and while programming the scanner.

Beeper Sequence	Indication
<b>Standard Use</b>	
Low/medium/high beep	Power up.
Short high beep	A bar code symbol was decoded (if decode beeper is enabled).
4 long low beeps	A transmission error was detected in a scanned symbol. The data is ignored. This occurs if a unit is not properly configured. Check option setting.
5 low beeps	Conversion or format error.
Lo/hi/lo beep	ADF transmit error.
Hi/hi/hi/lo beep	RS-232 receive error.
<b>Parameter Menu Scanning</b>	
Short high beep	Correct entry scanned or correct menu sequence performed.
Lo/hi beep	Input error, incorrect bar code or "Cancel" scanned, wrong entry, incorrect bar code programming sequence; remain in program mode.
Hi/lo beep	Keyboard parameter selected. Enter value using bar code keypad.

Beeper Sequence	Indication
Hi/lo/hi/lo beep	Successful program exit with change in the parameter setting.
Low/hi/low/hi beep	Out of host parameter storage space. Scan <i>&lt;Blue&gt;Set Defaults on page 1-7.</i>
<b>Code 39 Buffering</b>	
Hi/lo beep	New Code 39 data was entered into the buffer.
3 Beeps - long high beep	Code 39 buffer is full.
Lo/hi/lo beep	The Code 39 buffer was erased or there was an attempt to clear or transmit an empty buffer.
Lo/hi beep	A successful transmission of buffered data.
<b>Host Specific</b>	
USB only	
4 short high beeps	Scanner has not completed initialization. Wait several seconds and scan again.
Scanner gives a power-up beep after scanning a USB Device Type.	Communication with the bus must be established before the scanner can operate at the highest power level.
This power-up beep occurs more than once.	The USB bus may put the scanner in a state where power to the scanner is cycled on and off more than once. This is normal and usually happens when the host PC cold boots.
<b>RS-232 only</b>	
1 short high beep	A <BEL> character is received and Beep on <BEL> is enabled.

## LED Definitions

In addition to beeper sequences, the scanner communicates with the user using a two-color LED display. The table below defines LED colors that display during scanning.

LED	Indication
Off	No power is applied to the scanner, or the scanner is on and ready to scan.
Green	A bar code was successfully decoded.
Red	A data transmission error or scanner malfunction occurred.

## Troubleshooting

Problem	Possible Cause	Possible Solutions
Nothing happens when the trigger is pulled.	No power to the scanner.	Check the system power. Ensure the power supply is connected if the configuration requires a power supply.
	Interface/power cables are loose.	Check for loose cable connections.
Laser comes on, but symbol does not decode.	Scanner is not programmed for the correct bar code type.	Ensure the scanner is programmed to read the type of bar code scanned. Refer to the <i>LS4208 Product Reference Guide</i> , p/n 72E-69413-xx, for more information.
	Bar code symbol is unreadable.	Check the symbol to ensure it is not defaced. Try scanning test symbols of the same bar code type.
	Distance between scanner and bar code is incorrect.	Move the scanner closer to or further from the bar code.
Symbol is decoded but not transmitted to the host.	Scanner is not programmed for the correct host type.	Scan the appropriate host type bar code.
Scanned data is incorrectly displayed on the host.	Scanner is not programmed to work with the host.	Ensure proper host is selected. Check the scanner's host type parameters or editing options. For RS-232, ensure the scanner's communication parameters match the host's settings. For a keyboard wedge configuration, ensure the system is programmed for the correct keyboard type, and the CAPS LOCK key is off. Ensure editing options (e.g., UPC-E to UPC-A conversion) are properly programmed. Refer to the <i>LS4208 Product Reference Guide</i> , p/n 72E-69413-xx, for more information.

## Programming Bar Codes

Following are some frequently used programming bar codes.



**NOTE** For additional host types, refer to the *LS4208 Product Reference Guide*, p/n 72E-69413-xx, available on the LS4208 CD, or on the Symbol website: <http://www.symbol.com/manuals>.

## Set Defaults

Scan **SET DEFAULTS** to set all parameters to their default values.



**SET DEFAULTS**

## Scanning Modes

Scan the appropriate bar code below to determine the scanning pattern.

- **SINGLE LINE ONLY** - No up and down scan line movement (no raster).
- **MULTI-LINE SMART RASTER** - The scan line begins as a single line and moves up and down (rasters) when a partial scan of a bar code is detected, or no bar code is decoded 500 ms after the trigger is pulled.
- **MULTI-LINE ALWAYS RASTER** (default) - Rastering (up and down scan line movement) begins immediately.



**SINGLE LINE ONLY**



**MULTI-LINE SMART RASTER**



**MULTI-LINE ALWAYS RASTER (Default)**

## Host Type

If a Synapse cable is used (i.e., part number ST1xx-xxxx), the scanner autodetects the Synapse cable and there is no need to scan bar codes to enable the Synapse host.

If a USB interface is used, the scanner autodetects the USB and defaults to the HID keyboard interface. See [page 10](#) to select the IBM hand-held host type. Refer to the *LS4208 Product Reference Guide*, p/n 72E-69413-xx, for additional USB host types.

If a Keyboard Wedge, RS-232, Wand Emulation, Scanner Emulation, or IBM 46XX is used, the appropriate host type must be scanned. Select the appropriate host type from the bar codes that follow.

### ***Keyboard Wedge Host Type***



### ***Country Keyboard Types (Country Codes)***





**Country Keyboard Types (Country Codes)**



SPANISH Windows



ITALIAN Windows



SWEDISH Windows



UK ENGLISH Windows



JAPANESE Windows



PORTUGUESE-BRAZILIAN Windows

**RS-232 Host Types**



STANDARD RS-232



ICL RS-232

**RS-232 Host Types**

NIXDORF RS-232 MODE A



NIXDORF RS-232 MODE B



FUJITSU RS-232



OPOS/JPOS

**USB Host Types**

HID KEYBOARD EMULATION



IBM HAND-HELD USB

**IBM 46XX Host Types**

PORT 5B



PORT 9B

## ***Wand Emulation Host Type***



**SYMBOL WAND**

Many Wand hosts require input as Code 39 data. Scan the following bar codes to enable or disable transmission of data to the Wand host as Code 39 data.



**ENABLE CONVERT TO CODE 39 FOR WAND HOST**



**DISABLE CONVERT TO CODE 39 FOR WAND HOST (Default)**

## ***Scanner Emulation Host Type***

Scan the bar code below to enable the Scanner Emulation host.



**ENABLE SCANNER EMULATION HOST**

## ***Carriage Return/Line Feed***

To append a carriage return/line feed to all transmitted data, scan the following bar codes in the order shown. To cancel this operation, the **SET DEFAULTS** bar code on [page 7](#), or refer to the *LS4208 Product Reference Guide*.



**SCAN OPTIONS**



**<DATA><SUFFIX>**



**ENTER**

## 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

Symbol Technologies, Inc. the Enterprise Mobility business of Motorola, Inc. ("Motorola").

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.

Local language translations are available at the following web site: <http://support.symbol.com>.



## Power Supply

Note: Use only a Symbol-approved power supply (p/n 50-14000-008, 50-14000-009 or 50-14000-010) output rated 5 VDVC and minimum 650mA. The power supply is certified to EN60950 with SELV outputs. Use of alternative power supply will invalidate any approval given to this device and may be dangerous.

Hinweis: Benutzen Sie nur eine von Symbol Technologies genehmigte Stromversorgung (Teilenr. 50-14000-008, 50-14000-009, 50-14000-010) mit einer Ausgangsleistung von 5 VDC (Gleichstrom) und mindestens 650mA. Die Stromversorgung ist nach EN60950 für die Verwendung in SELV-Stromkreisen zertifiziert. Bei Verwendung eines anderen Netzteils werden alle für das Gerät gewährten Genehmigungen außer Kraft gesetzt, und der Betrieb kann gefährlich sein.

## Radio Frequency Interference Requirements-FCC



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 instruction manual, may cause harmful interference to radio

communications. 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 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.



## Marking and European Economic Area (EEA)

### Statement of Compliance

Symbol Technologies, Inc., hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directives 1999/5/EC, 89/336/EEC and 73/23/EEC. Declaration of Conformities may be obtained from <http://www2.symbol.com/doc/>.

### Laser Labels



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

#### ENGLISH

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

#### DANISH / DANSK

KLASSE 1 LASERPRODUKT  
KLASSE 2 LASERLYF  
KLASSE 2 LASERPRODUKT

#### DUTCH / NEDERLANDS

KLASSE 1 LASERPRODUKT  
KLASSE 2 LASERLICHT  
NIET IN STRAAL STAREN

LASERPRODUKT,

KLASSE-2 LASERPRODUKT

#### FINNISH / SUOMI

LUOKKA 1 LASERTUOTE  
LUOKKA 2 LASERVALO  
ÄLÄ TULIOTA SÄDETTÄ  
LUOKKA 2 LASERTUOTE

#### HEBREW

מוצר לייזר רמה 1

רמה 1

אור לייזר

רמה 2

אין להביט אל תוך הזרם  
מוצר לייזר רמה 2

#### ITALIAN / ITALIANO

CLASSE 1 PRODOTTO AL LASER DI CLASSE 1  
CLASSE 2 LUCE LASER  
SE IKKE IND I STRÅLEN

NON FISSARE IL  
RAGGIO/PRODOTTO  
AL LASER DI CLASSE 2

#### NORWEGIAN / NORSK

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

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

**GERMAN / DEUTCH**

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

**CHINESE / 简体中文**

1 类	1 类激光产品
2 类	激光 切勿注视光束 2 类激光产品

**KOREAN / 한국어**

1등급	1등급 레이저 제품
2등급	레이저 광선 이 광선을 주시하지 마십시오. 2등급 레이저 제품

**SPANISH / ESPAÑOL**

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

**SWEDISH / SVENSKA**

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

**JAPANESE / 日本語**

クラス1	クラス1 レーザ製品
クラス2	レーザ光線 光線を直視しないでください クラス2 レーザ製品

## Laser Devices



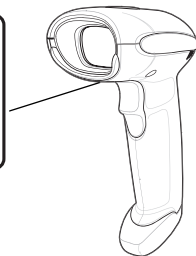
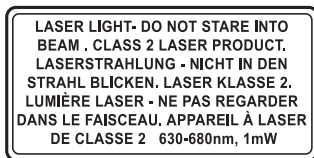
Complies with: 21CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001. EN60825-1:1994+ A1:2002 +A2:2001, IEC60825-1993+A1:1997+A2:2001.

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.

## Scanner Labeling



## Waste Electrical and Electronic Equipment (WEEE)

**English:** For EU Customers: All products at the end of their life must be returned to Motorola for recycling. For information on how to return product, please go to: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Bulgarish:** За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Motorola за рециклиране. За информацията относно връщането на продукти, моля отидете на адрес: <http://www.symbol.com/weeelink>.

**Čeština:** Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Motorola k recyklaci. Informace o způsobu vrácení produktu najdete na webové stránce: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Dansk:** Til kunder i EU: Alle produkter skal returneres til Motorola til recirkulering, når de er udtjent. Læs oplysningerne om returnering af produkter på: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Deutsch:** Für Kunden innerhalb der EU: Alle Produkte müssen am Ende ihrer Lebensdauer zum Recycling an Motorola zurückgesandt werden. Informationen zur Rücksendung von Produkten finden Sie unter [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Eesti:** EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Motorola'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Español:** Para clientes en la Unión Europea: todos los productos deberán entregarse a Motorola al final de su ciclo de vida para que sean reciclados. Si desea más información sobre cómo devolver un producto, visite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Ελληνικά:** Για πελάτες στην Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Motorola για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance) στο Διαδίκτυο.

**Français :** Clients de l'Union Européenne : Tous les produits en fin de cycle de vie doivent être retournés à Motorola pour recyclage. Pour de plus amples informations sur le retour de produits, consultez : [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Italiano:** per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Motorola al fine di consentirne il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Latviešu:** ES klientiem: visi produkti pēc to kalpošanas mūža beigām ir jānogādā atpakaļ Symbol otrreizējai pārstrādei. Lai iegūtu informāciju par produktu nogādāšanu Motorola, lūdzu, skatiet: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Lietuvių:** ES vartotojams: visi gaminiai, pasibaigus jų eksploatacijos laikui, turi būti grąžinti utilizuoti į kompaniją „Motorola“. Daugiau informacijos, kaip grąžinti gaminį, rasite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Magyar:** Az EU-ban vásárlóknak: Minden tönkrement termékét a Motorola vállalathoz kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalóért látogasson el a [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance) weboldalra.

**Malti:** Għal klijenti fl-UE: il-prodotti kollha li jkunu waslu fl-aħħar tal-ħajja ta' l-użu tagħhom, iridu jiġu rritornati għand Motorola għar-riċiklaġġ. Għal aktar taġħrif dwar kif għandek tirritorna l-prodott, jekk jogħġbok żur: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Nederlands:** Voor klanten in de EU: alle producten dienen aan het einde van hun levensduur naar Motorola te worden teruggezonden voor recycling. Raadpleeg [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance) voor meer informatie over het terugzenden van producten.

**Polski:** Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrócić do firmy Motorola w celu ich utylizacji. Informacje na temat zwrotu produktów znajdują się na stronie internetowej [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Português:** Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Motorola para reciclagem. Para obter informações sobre como devolver o produto, visite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Românesc:** Pentru clienții din UE: Toate produsele, la sfârșitul duratei lor de funcționare, trebuie returnate la Motorola pentru reciclare. Pentru informații despre returnarea produsului, accesați: <http://www.symbol.com/weeelink>.

**Slovenski:** Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Motorola za reciklažo. Za informacije o vračilu izdelka obiščite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Slovenčina:** Pre zákazníkov z krajín EU: Všetky výrobky musia byť po uplynutí doby ich životnosti vrátené spoločnosti Motorola na recykláciu. Bližšie informácie o vrátení výrobkov nájdete na: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Suomi:** Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Motorola-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Svenska:** För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Motorola för återvinning. Information om hur du returnerar produkten finns på [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

## Service Information

If you have a problem using the equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Motorola Enterprise Mobility Support at: <http://www.symbol.com/customersupport>.

For the latest version of this guide go to: <http://www.symbol.com/manuals>.



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