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C y c l o n e TM
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symbol[®]

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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. 4,496,831; 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; 5,321,246; 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; 5,557,093; 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; 6,031,830; 6,036,098;
6,047,892; 6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297; 6,068,190; 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; 6,216,951; 6,220,514; 6,243,447; 6,244,513; 6,247,647;
6,308,061; 6,250,551; 6,295,031; 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 (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. 11/01

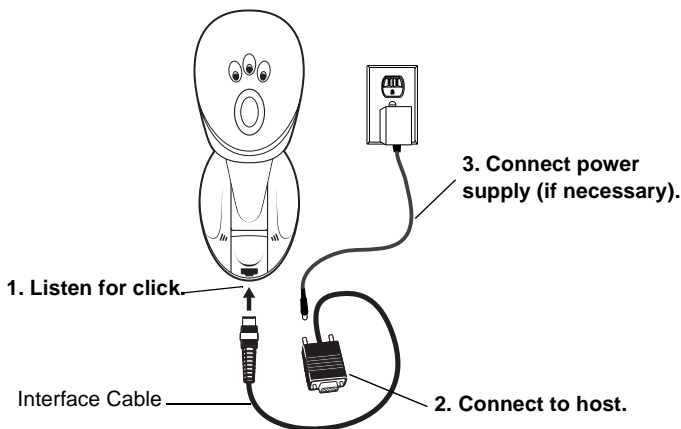
Introduction

The Cyclone™ M2000 Series scanner combines the benefits of multiple scan patterns (omni-directional, 2D raster, single scan-line and semi-omni directional scan pattern) with a light-weight, hands-free/hand-held design. The scanner's built-in stand seamlessly accommodates both counter-top and hand-held use. The scanner can be programmed to emit the preferred scan pattern for both counter-top and hand-held use.

The following models are available:

- M2004-I200 (RS-232C) contains on-board discrete RS-232C communications for connecting to RS-232C asynchronous terminals and host systems. It also accommodates Synapse™ Smart Cables which allow you to connect to a wide variety of host systems.
- M2004-I290 (RS-232C with EAS) also supports Checkpoint VII Electronic Article Surveillance (EAS).
- M2005-I200 (IBM 468X/469X) is fully compatible with the entire line of IBM 468X/469X terminals. It also accommodates Synapse Smart Cables.
- M2005-I290 (IBM 468X/469X with EAS) provides additional signal lines for EAS deactivation (Checkpoint VII).
- M2007-I200 (USB) supports USB connectivity. It also accommodates Synapse Smart Cables.
- M2007-I290 (USB with EAS) provides additional signal lines for EAS deactivation (Checkpoint VII).

Setting Up your Scanner



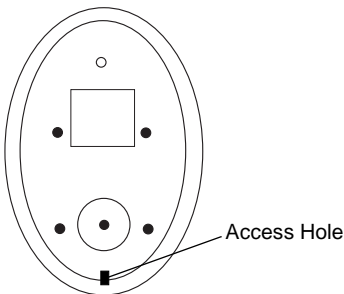
If you are using a Synapse cable, the scanner autodetects your host. If you are using another cable, set the M2000 to communicate with your particular POS host by scanning the appropriate bar code(s) in the *Cyclone™ M2000 Series Product Reference Guide*.

Power up the host. The green LEDs on top of the scanner flash 3 times while 3 power-up beeps sound, indicating the scanner is operational.

Removing the Interface Cable

Different cables are required for different hosts. To remove the interface cable:

1. Unplug the cable's modular connector by depressing the connector clip through the access hole on the bottom of the scanner with a screwdriver or paper clip.



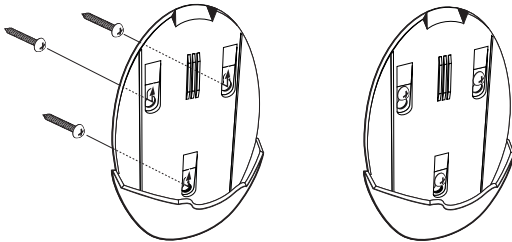
2. Carefully slide out the cable.

Wall Mounting the Scanner

An optional wall-mount bracket is available for using the M2000 in “scanning from above” applications. To wall-mount the M2000:

1. Place the bracket in its desired location on the wall, and place a pencil mark on the wall through each keyhole in the bracket.
2. Remove the bracket, and insert three #6 screws into the pencil marks on the wall. Do not tighten them all the way; leave enough space for the bracket's keyholes to slide onto.

3. Insert the bracket's keyholes over the screws, and slide the bracket down to secure. If necessary, tighten the screws.



4. Slide the base of the scanner into the bracket with the scan window facing down.

Electronic Article Surveillance (EAS) (Optional)

Because there are several Checkpoint EAS systems available, your local Checkpoint representative should install the EAS cable. To contact your local Checkpoint representative inside the U.S. call 800-257-5540, ext. 4300. Outside the U.S., call (609) 848-1800, ext. 4300.

If you are using an EAS cable, refer to the Universal Cable EAS Installation Sheet (Symbol p/n 70-32824-xx).

Scanning Modes

The M2000 may be used on the counter-top or in a hand-held orientation. In hand-held use, the scanner operates in triggered mode where you pull the trigger to activate the scan pattern and decode the bar code. In counter-top use, the scanner operates in continuous (constant-on) mode, where it automatically decodes a bar code presented in its field of view.

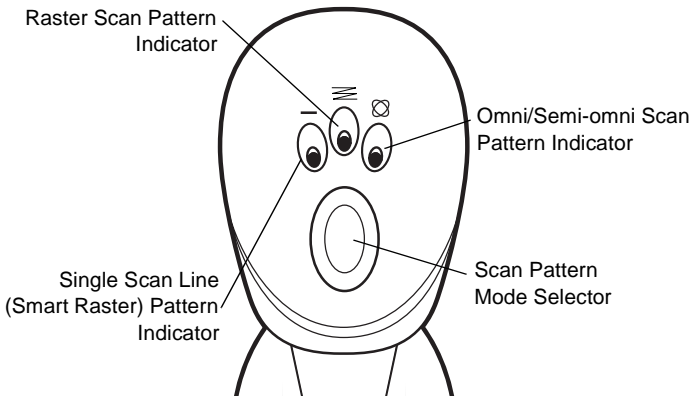
Laser Patterns

The scanner emits one of four laser patterns:

- **Cyclone Omnidirectional Scan Pattern** is a highly efficient scan pattern which decodes 1D and EAN/UCC reduced space symbologies in any orientation.
- **Cyclone Semi-omnidirectional Scan Pattern**, an alternative to the full omnidirectional pattern, scans highly truncated 1D and RSS bar codes. The bar code must be presented horizontally with no more than 20° tilt.
- **Raster Scan Pattern** directly opens the laser to a full sized raster pattern. Decodes 1D, PDF-417, RSS, and Composite Codes.
- **Single Scan Line Pattern (Smart Raster)** creates a single scan line which opens vertically for PDF-417 symbols using the Smart Raster feature. This feature autodetects the type of bar code being scanned and adjusts its pattern accordingly. This provides optimal performance on 1D, PDF-417, EAN/UCC, RSS and Composite Codes.

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One pattern can be selected for counter-top mode and another for hand-held mode via programming bar code in the *M2000 Series Product Reference Guide* (p/n 72-39696-xx). For hand-held mode, you may alternatively select a pattern by pressing the Scan Pattern Mode Selector button when the scanner is lifted off the counter.



To scan in hand-held mode, pick up the scanner and hold it within the scanning range for the bar code. A sensor on the bottom of the scanner's stand detects when the scanner is lifted off the counter, and automatically switches to the programmed hand-held laser pattern.

LED Indications

The lit LED indicates the selected scan pattern for hand-held and counter-top mode. In hand-held mode, pressing the Scan Pattern Mode Selector button selects the next pattern, and lights the corresponding LED. (The counter-top laser pattern is selectable only via programming bar codes.) When a bar code is successfully decoded, all three LEDs light momentarily.

Beeper Indications

The beeper indicates the scanner's status as follows:

Beeper	Indication
3 Beeps	Power up (or reset) has occurred.
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.

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.

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.

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.

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).

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.

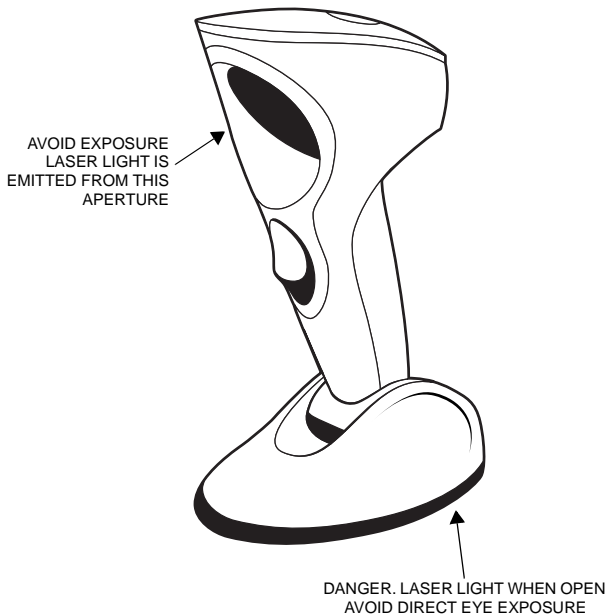
Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

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.

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Scanner Labeling



CAUTION

LASER LIGHT-DO NOT STARE INTO BEAM
630-680 nm LASER 1.0 mW MAX OUTPUT
CLASS II LASER PRODUCT



LASER LIGHT. DO NOT STARE INTO BEAM. CLASS 2 LASER PRODUCT
LASERLICHT - NICHT IN DEN STRAHL BLICKEN. LASER KLASSE 2
LUMIERE LASER-NE PAS REGARDER DANS LE FAISCEAU
APPAREIL A LASER DE CLASSE 2. 630-680nm, 1mW

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 1 LASER PRODUCT
CLASS 2 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 LASERLYF
SE IKKE IND I STRÅLEN
KLASSE 2 LASERPRODUKT

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 LASERLICHT
NIET IN STRAAL STAREN
KLASSE-2 LASERPRODUKT

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 RAIOS LUMINOSOS
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

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

GERMAN / DEUTSCH

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

Warranty

Symbol Technologies, Inc. ("Symbol") manufactures its hardware products in accordance with industry-standard practices. Symbol warrants that for a period of 3 (36 months) years 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.

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.

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

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.

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	337-6588
Australia	1-800-672-906	Austria/Österreich	1-505-5794
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	66810600
South Africa	11-4405668	Spain/España	+913244000
Sweden/Sverige	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 +44 208 945 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>.



72-39695-01
Revision B — December 2001