**MT20X0 Poster**

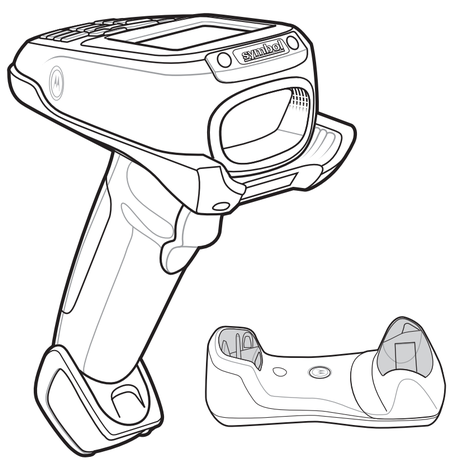
**BLACK**

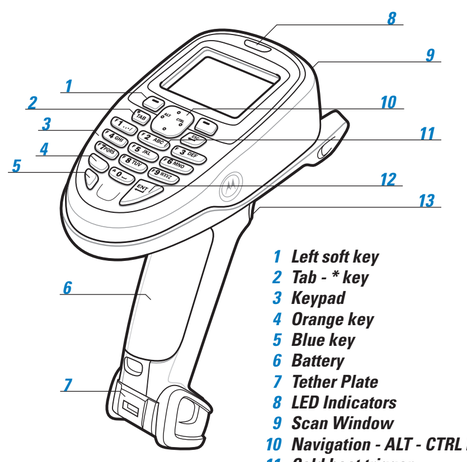
**PANTONE 285**

# SYMBOL MT2000 Series
## Quick Start Guide

*http://www.motorola.com/mt2070*
*http://www.motorola.com/mt2090*
*See Product Reference Guide for more information*

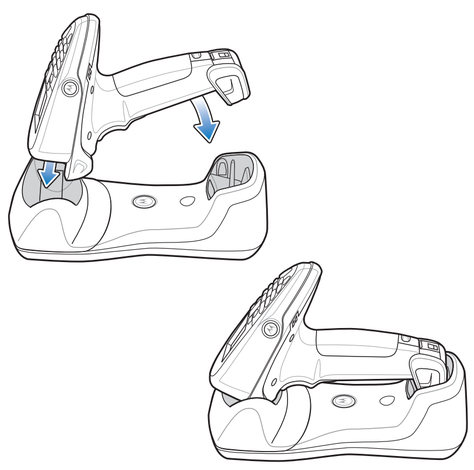
POST IN WORK AREA





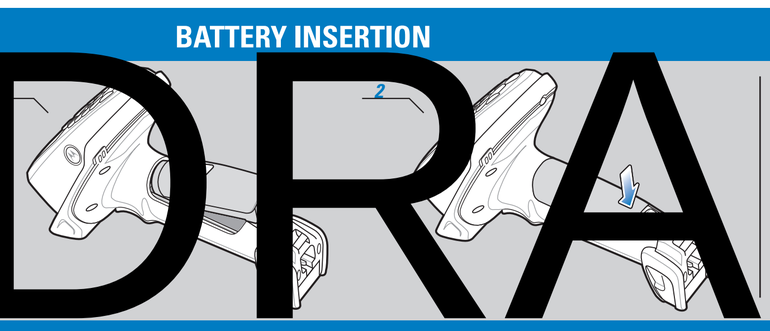

1 Left soft key
2 Tab - * key
3 Keypad
4 Orange key
5 Blue key
6 Battery
7 Tether Plate
8 LED Indicators
9 Scan Window
10 Navigation - ALT - CTRL key
11 Cold boot trigger
12 Enter key
13 Scan Trigger

Table Top Cradle Insertion

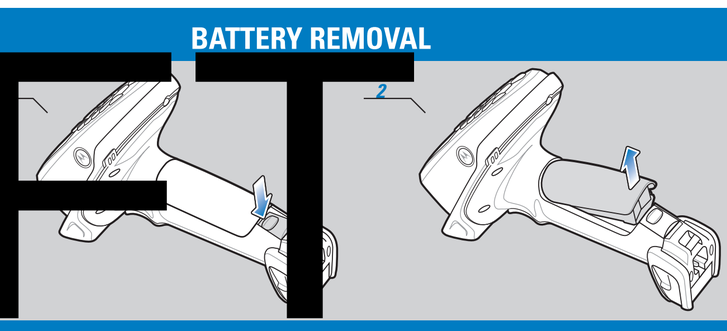




## BATTERY INSERTION

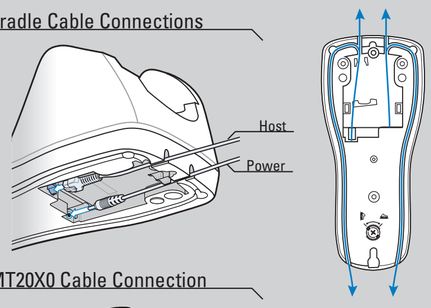



## BATTERY REMOVAL

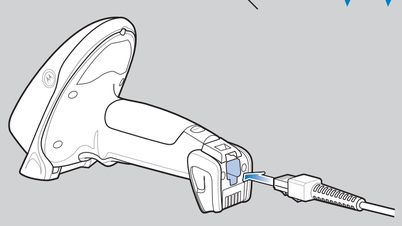



## CONNECTIONS

Cradle Cable Connections



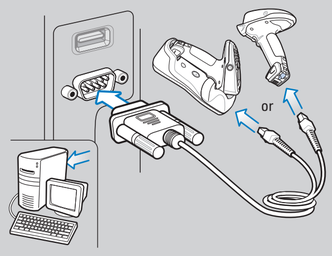

MT20X0 Cable Connection



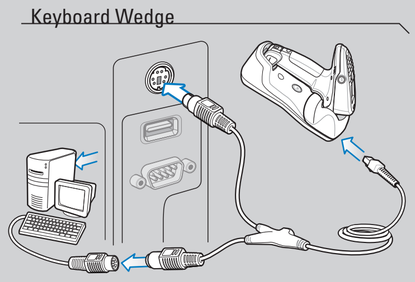
NOTE: Cables may vary depending on configuration. When using an external power supply, insert the cable into the cradle first, then insert host cable. Connect power last.

## HOST INTERFACES

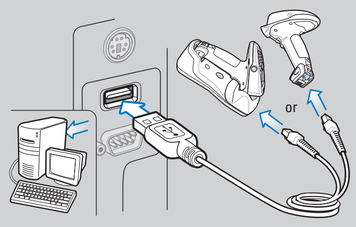
RS-232



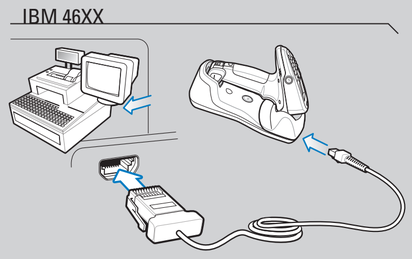

Keyboard Wedge



USB




IBM 46XX



## TROUBLESHOOTING

Please refer to the Symbol MT20X0 Product Reference Guide Troubleshooting section for further information.

***Scanner not working***

*No power to scanner*
Check battery

*End cap not secured correctly*
Turn end cap to secure

***Scanner not decoding bar code***

*Scanner not programmed for bar code type*
Ensure scanner is programmed to read type of bar code being scanned

*Bar code unreadable*
Ensure bar code is not defaced; try scanning test bar code of same bar code type

***Scanner decoding bar code, but data not transmitting to host***

*Scanner not paired to host-connected cradle*
Pair the scanner to the cradle (using the PAIR bar code on the cradle)

*Cradle not programmed for correct host interface*
Check scanner host parameters or edit options

*Interface cable is loose*
Check for loose cable connections

*If data is still not transmitting to host, it may be necessary to recycle power on the cradle.*

***Scanned data incorrectly displayed on host***

*Paired cradle host communication parameters do not match the host's parameters*
Check cradle host parameters or edit options

## SYMBOL MT20x0 PROGRAMMING BAR CODES

### Host Types

RS-232 Host Types

STANDARD RS-232

ICL RS-232

NIXDORF RS-232 MODE B

FUJITSU RS-232

NIXDORF RS-232 MODE A

OPOS/JPOS

Keyboard Wedge Host Types

IBM PC/AT and IBM PC COMPATIBLE

Radio Communications Host Types

CRADLE HOST

SERIAL PORT PROFILE (SLAVE)

BLUETOOTH KEYBOARD EMULATION (HID SLAVE)

SERIAL PORT PROFILE (MASTER)

USB Host Types

HID KEYBOARD EMULATION

IBM HAND-HELD USB

IBM 46XX Host Types

PORT 5B

PORT 9B

### Host Mode

CABLE PRIORITY

CABLE ONLY

WIRELESS ONLY

### Miscellaneous

Set Defaults

Note: The scanner connection to the cradle is dissolved when Set Defaults is scanned.

SET DEFAULTS

Unpairing/Disconnection

UNPAIR/DISCONNECT

Unpairing/Disconnection

UNPAIR/DISCONNECT

Scan to Add Prefix/Suffix Values (Carriage Return/Line Feed)

SCAN OPTIONS

<DATA><SUFFIX>

ENTER

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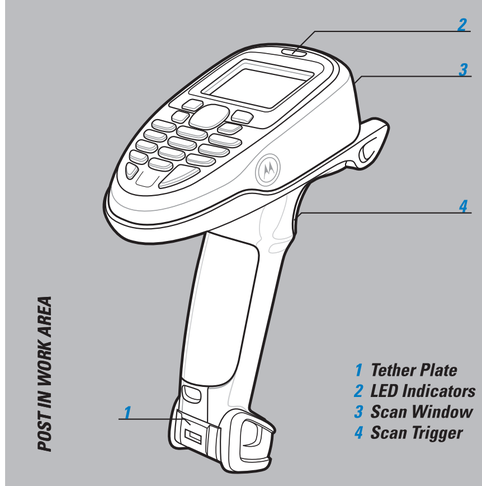
*BLACK*

*PANTONE 285*

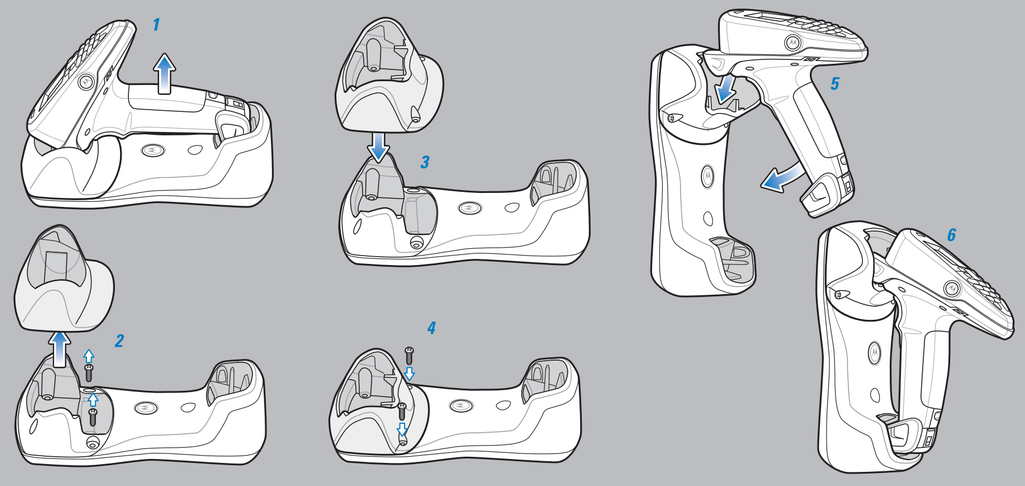
# SYMBOL MT2000 Series
Quick Start Guide

## CRADLE CONVERSION



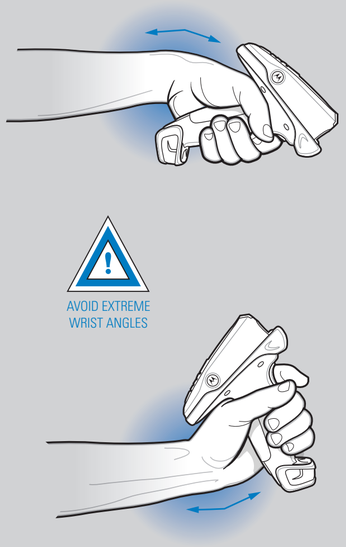

*POST IN WORK AREA*

*1 Tether Plate*
*2 LED Indicators*
*3 Scan Window*
*4 Scan Trigger*




## OPTIMUM UPRIGHT BODY POSTURE

### Avoid Extreme Wrist Angles




### Beeper Indications

Standard Use

| | | | |
|---|---|---|---|
| *Low-medium-high beeps* | *Normal beep* | *4 long low beeps* | *4 short high beeps* |
| Power up | Bar code decoded [if decode beeper enabled] | Transmission error detected; data is ignored | Low battery indication |
| *Short low-high beeps* | *Short high-low beeps* | *Long low-high beeps or Long low-high-low-high beeps* | |
| Scanner has paired with the cradle | Scanner has unpaired with the cradle | Unsuccessful pairing attempt | |

Parameter Menu Scanning

| | |
|---|---|
| *High-low-high-low beeps* | *Long low-high beeps* |
| Successful program exit with change in the parameter setting | Input error, incorrect programming sequence,or Cancel bar code scanned |

### LED Indications

Standard Use

| | | |
|---|---|---|
| *Off* | *Green* | *Red* |
| No power applied to scanner (battery discharged or removed), or scanner is in low power and ready to scan | Bar code successfully decoded | Data transmission error or scanner malfunction or Symbol LS3578 scanner inserted into an STB3478 cradle |

Charging Use

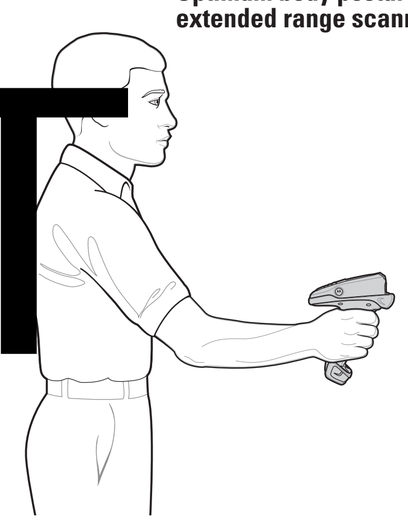
| | | | |
|---|---|---|---|
| *Green Slow Flash* | *Green Fast Flash* | *Red Flash* | *Red and Green Flash* |
| Scanner charging at a slow rate (used when cradle is powered by host cable) | Scanner charging at a fastrate (used when cradleis powered from external power supply) | Charging problem See Product Reference Guide for more information | Temperature fault |

## OPTIMUM BODY POSTURE

### Optimum body posture for low scanning



### Optimum body posture for extended range scanning





*PERF*

# SYMBOL MT20X0
Recommended Usage Guide

*PERF*

## REGULATORY INFORMATION

This device is approved under the Symbol Technologies brand: Symbol Technologies, Inc., is the Enterprise Mobility business of Motorola, Inc. ("Motorola").

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

Local langauge translations are available at the following website: http://support.symbol.com

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

**CAUTION:**
Only use Motorola/Symbol approved and UL Listed accessories, battery packs and battery chargers.

Do NOT attempt to charge damp/wet mobile computers or batteries. All components must be dry before connecting to an external power source.

### *Wireless Device Country Approvals*

Regulatory markings, subject to certification, are applied to the device signifying the radio(s) is/are approved for use in the following countries: United States, Canada, Japan, China, S. Korea, Australia, and Europe 1

Please refer to the Symbol Declaration of Conformity (DoC) for details of other country markings.
This is available at http://www2.symbol.com/doc/.

Note 1: For 2.4GHz or 5GHz Products: Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**Operation of the device without regulatory approval is illegal.**

***Frequency of Operation – FCC and IC***

***5 GHz Only***

The use in the UNII (Unlicensed National Information Infrastructure) band 1 5150-5250 MHz band is restricted to Indoor Use Only; any other use will make the operation of this device illegal.

***2.4 GHz Only***

The available channels for 802.11 b/g operation in the US are Channels 1 to 11. The range of channels is limited by firmware.

### *Health and Safety Recommendations*

***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.

***Warnings for Use of Wireless Devices***

Please observe all warning notices with regard to the usage of wireless devices

***Safety in Hospitals***

Wireless devices transmit radio frequency energy and may affect medical electrical equipement.

Wireless devices should be switched off wherever you are requested to do so in hospitals, clinics or healthcare facilities. These requests are designed to prevent possible interference with sensitive medical equipement.

***Pacemakers***

Pacemaker manufacturers recommended that a minimum of 15cm (6 inches) be maintained between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with independent research and recommendations by Wireless Technology Research.

***Persons with Pacemakers:***

- Should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON.
- Should not carry the device in a breast pocket.
- Should use the ear furthest from the pacemaker to minimise the potential for inter-ference.
- If you have any reason to suspect that interference is taking place, turn OFF your device.

***Other Medical Devices***

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.

***RF Exposure Guidelines***

***Safety Information***

***Reducing RF Exposure – Use Properly***

Only operate the device in accordance with the instructions supplied.

***International***

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices.

***EU***

***Handheld Devices***

To comply with EU RF exposure requirements, this device must be operated in the hand with a minimum separation distance of xxcm or more from a person's body. Other operating configurations should be avoided.

For information on "International" human exposure to eletromagnic fields refer to the Motorola/Symbol Declaration of Conformity (DoC) at http://www2.symbol.com/doc/.

***US and Canada***

***Handheld Devices***

To comply with FCC RF exposure requirements, this device must be operated in the hand with a minimum separation distance of 20 cm or more from a person's body. Other operating configurations should be avoided.

***Batteries***

***Charging –***

To charge the mobile device battery, the battery and charger temperatures must be between + 32 ° F and + 104 ° F (0 ° C and + 40 ° C).

Please follow the local regulations when disposing of re-chargeable batteries.

***Taiwan - Recycling***

EPA (Environmental Protection Administration) requires dry battery producing or importing firms in accordance with Article 15 of the Waste Disposal Act are required to indicate the recycling marks on the batteries used in sales, giveaway or promotion. Contact a qualified Taiwanese recycler for proper battery disposal.

However, there are limitations to how long a battery can operate or be stored before needing replacement. Many factors affect the actual life cycle of a battery pack, such as heat, cold, harsh environmental conditions and severe drops.

When batteries are stored over six (6) months, some irreversible deterioration in overall battery quality may occur. Store batteries at half of full charge in a dry, cool place, removed from the equipment to prevent loss of capacity, rusting of metallic parts and electrolyte leakage. When storing batteries for one year or longer, the charge level should be verified at least once a year and charged to half of full charge.

Replace the battery when a significant loss of run time is detected.

Standard warranty period for all Symbol batteries is 30 days, regardless if the battery was purchased separately |or included as part of the mobile computer or bar code scanner. For more information on Symbol batteries, please visit: http/mysymbolcare.symbol.com/battery/batbasics1.html

***Battery Safety Guidelines***

- The area in which the units are charged should be clear of debris and combustible materials or chemicals. Particular care should be taken where the device is charged in a non commercial environment.
- Follow battery usage, storage, and charging guidelines found in the user's guide.
- Improper battery use may result in a fire, explosion, or other hazard.
- To charge the mobile device battery, the battery and charger temperatures must be between +32 °F and +104 °F (0 °C and +40 °C)
- Do not use incompatible batteries and chargers. Use of an incompatible battery or charger may present a risk of fire, explosion, leakage, or other hazard. If you have any questions about the compatibility of a battery or a charger, contact Motorola Enterprise Mobility support.
- For devices that utilize a USB port as a charging source, the device shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.
- Do not disassemble or open, crush, bend or deform, puncture, or shred.
- Severe impact from dropping any battery-operated device on a hard surface could cause the battery to overheat.
- Do not short circuit a battery or allow metallic or conductive objects to contact the battery terminals.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, or expose to fire, explosion, or other hazard.
- Do not leave or store the equipment in or near areas that might get very hot, such as in a parked vehicle or near a radiator or other heat source. Do not place battery into a microwave oven or dryer.
- Battery usage by children should be supervised.
- Please follow local regulations to promptly dispose of used re-chargeable batteries.
- Do not dispose of batteries in fire.
- Seek medical advice immediately if a battery has been swallowed.
- In the event of a battery leak, do not allow the liquid to come in contact with the skin or eyes. If contact has been made, wash the affected area with large amounts of water and seek medical advice.
- If you suspect damage to your equipment or battery, contact Motorola Enterprise Mobility support to arrange for inspection.

### *1. Radio Frequency Interference Requirements- FCC*

Tested to comply with FCC Standards
FOR HOME OR OFFICE USE

**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 Transmitters (Part 15)

This device complies with Part 15 of the FCC Rules. 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.

### *2. 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.

Radio Transmitters

For RLAN Devices:

The use of 5 GHz RLAN's, for use in Canada, have the following restrictions:

- Restricted Band 5.60 – 5.65 GHz

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.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.

CE

### *3. Marking and European Economic Area (EEA)*

The use of 2.4GHz RLAN's, for use through the EEA, have the following restrictions:

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz.
- France, outside usage is restricted to 2.4 – 2.454 GHz.
- Italy requires a user license for outside usage.

The use of 5GHz RLAN's has varying restrictions for use within the EEA; please refer to the Motorola/Symbol Declaration of Conformity (DoC) for details at http://www2.symbol.com/doc/.

Bluetooth® Wireless Technology for use through the EEA has the following restrictions:

- Maximum radiated transmit power of 100mW EIRP in the frequency range 2.400 -2.4835 GHz
- France, outside usage is restricted to 10mW EIRP
- Italy requires a user license for outside usage.

### *Statement of Compliance*

Motorola/Symbol hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A Declaration of Conformity may be obtained from http://wwww2.symbol.com/doc/.

### *Japan (VCCI) - Voluntary Control Council for Interference*

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manua

***Other Countries***

***Brazil***

Declarações Regulamentares para MT2090 - Brasil

Nota: "A marca de certificação se aplica ao Transceptor, modelo MT2090. Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário."

Para maiores informações sobre ANATEL consulte o site: www.anatel.gov.br

***Mexico -*** Restrict Frequency Range to: 2.450 – 2.4835 GHz.

***Sri Lanka -*** Restrict Frequency Range to: 2.400 – 2.430 GHz.

***Taiwan -***

臺灣
低功率電波輻射性電機管理辦法
第十二條
經型式認證合格之低功率射頻電機, 非經許可, 公司、商號或使用者均不得擅自變更頻率、
加大功率或變更原設計之特性及功能。
第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時, 應立即停用,
並改善至無干擾時方得繼續使用。
前項合法通信, 指依電信規定作業之無線電通信。
低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
限制頻率範圍是： ***2.400 - 2.4835 GHz***。 最大發射功率: ***27dBm***
***5.250 - 5.350 GHz***。 最大發射功率: ***17dBm***
***5.725 - 5.850 GHz***。 最大發射功率: ***24dBm***
***2.4GHz***：***11***個通道
***5GHz***： ***8***個通道
在***5.25-5.35***赫頻帶內操作之無線資訊傳輸設備, 限於室內使用。

### *Laser Labels*

In accordance with Clause 5. IEC 825 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

**DANISH / DANSK**
KLASSE 1 KLASSE 1 LASERPRODUKT
KLASSE 2 LASERLYF
SE IKKE IND I STRÅLEN
KLASSE 2 LASERPRODUKT

**DUTCH / NEDERLANDS**
KLASSE 1 KLASSE-1 LASERPRODUKT
KLASSE 2 LASERLICHT
NIET IN STRAAL STAREN
KLASSE-2 LASERPRODUKT

**FINNISH / SUOMI**
LUOKKA 1 LUOKKA 1 LASERTUOTE
LUOKKA 2 LASERVALO
ÄLÄ TUIJOTA SÄDETTÄ
LUOKKA 2 LASERTUOTE

**FRENCH / FRANÇAIS**
CLASSE 1 PRODUIT LASER DE CLASSE 1
CLASSE 2 LUMIERE LASER
NE PAS REGARDER LE RAYON RKEMENT
PRODUIT LASER DE CLASSE 2

**GERMAN / DEUTSCH**
KLASSE 1 LASERPRODUKT DER KLASSE 1
KLASSE 2 LASERSTRAHLEN
NICHT DIREKT IN DEN LASERSTRAHL
SCHAUEN
LASERPRODUKT DER KLASSE 2

**JAPANESE /** 日本語
第1種 第1種レーザー製品
第2種 レーザー光線
光線を見つめないでください
2種 レーザー製品

**HEBREW**
מוצר לייזר רמת 1 רמת 1
אור לייזר רמת 2
אין להביט אל תור הקרן
מוצר לייזר רמת 2

**ITALIAN / ITALIANO**
CLASSE 1 PRODOTTO AL LASER DI CLASSE 1
CLASSE 2 LUCE LASER
NON FISSARE IL RAGGIOPRODOTTO
AL LASER DI CLASSE 2

**NORWEGIAN / NORSK**
KLASSE 1 LASERPRODUKT, KLASSE 1
KLASSE 2 LASERLYS IKKE STIRR INN ILYSSTRÅLEN
LASERPRODUKT, KLASSE 2

**PORTUGUESE / PORTUGUÊS**
CLASSE 1 PRODUTO LASER DA CLASSE 1
CLASSE 2 LUZ DE LASER NÃO FIXAR O RAIO LUMINOSO
PRODUTO LASER DA 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

**SWEDISH / SVENSKA**
KLASS 1 LASERPRODUKT KLASS 1
KLASS 2 LASERLJUS STIRRA INTE MOT STRÅLEN
LASERPRODUKT KLASS 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 광선

### *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

IEC60825-1:1993+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.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# SYMBOL MT20X0



***http://www.motorola.com/mt20x0***