DS2278 DIGITAL SCANNER

http://www.zebra.com/DS2278

Digital Scanner
Quick Start Guide

ZEBRA

USEFUL BAR CODES

FACTORY DEFAULTS

RETURN TO FACTORY DEFAULTS

ADD AN ENTER KEY
(Carriage Return/Line Feed)

To add an Enter key after scanned data, scan the bar code below.

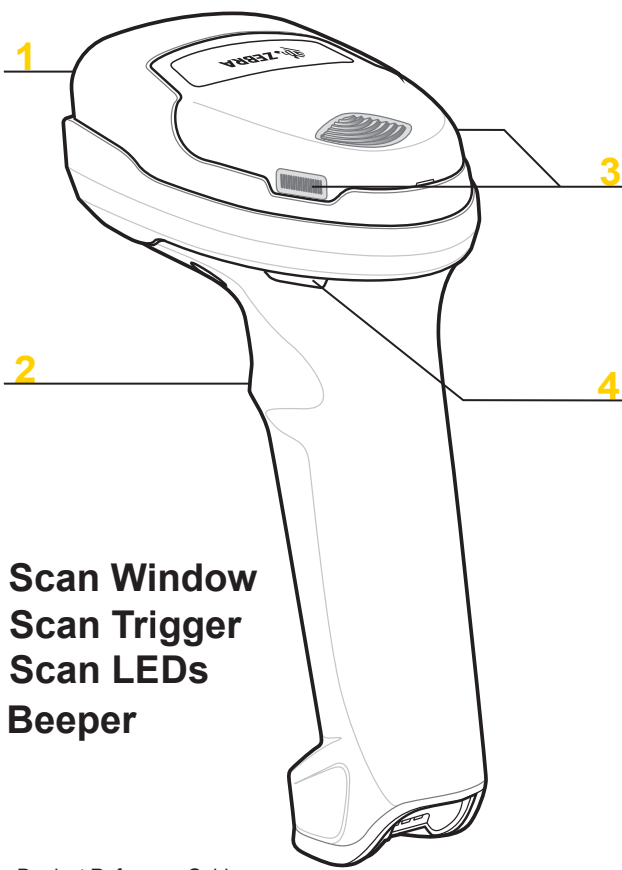ADD AN ENTER KEY (CARRIAGE RETURN/LINE FEED)

ADD A TAB KEY

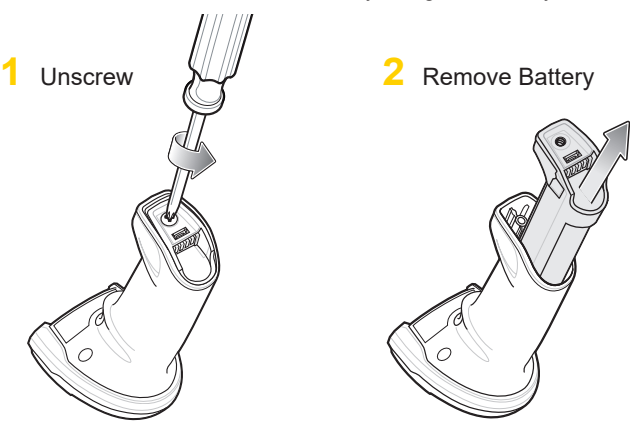To add a Tab key after scanned data, scan the bar code below.

ADD A TAB KEY

DIGITAL SCANNER FEATURES

Note: Standard range digital scanner pictured.

1 Scan Window
2 Scan Trigger
3 Scan LEDs
4 Beeper

See Product Reference Guide for detailed information

BATTERY REMOVAL

Note: It is recommended to fully charge the battery before use.

1 Unscrew   **2** Remove Battery
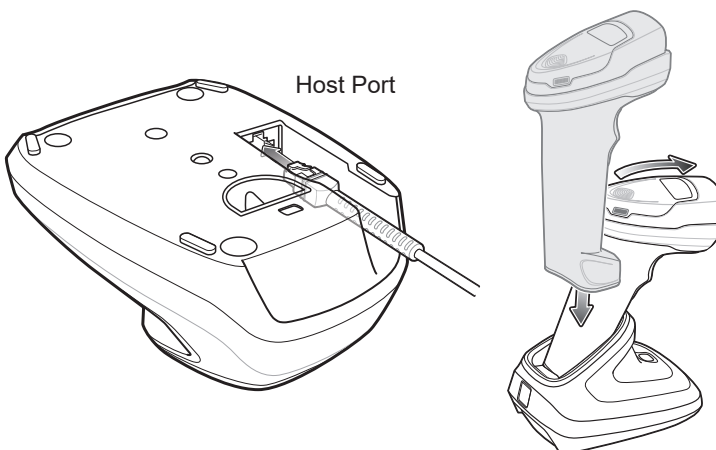
USB CAPS LOCK OVERRIDE BAR CODE

USB - OVERRIDE CAPS LOCK KEY (ENABLE)

*USB - DO NOT OVERRIDE CAPS LOCK KEY (DISABLE)
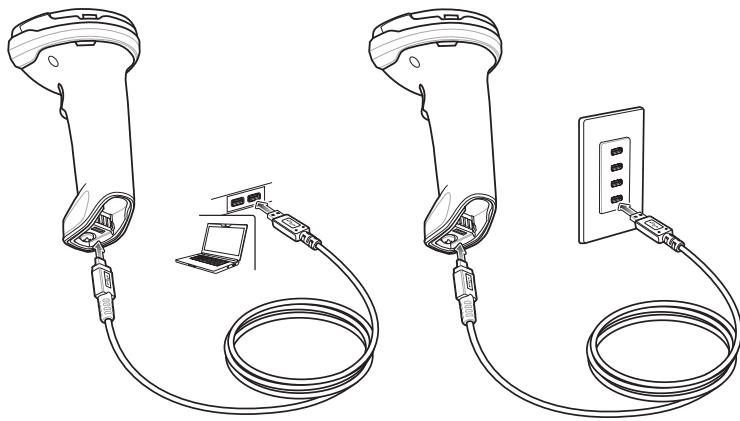
CRADLE CABLE CONNECT AND INSERT

Host Port

BATTERY INSERTION

1 Replace Battery   **2** Push Down   **3** Screw to Tighten
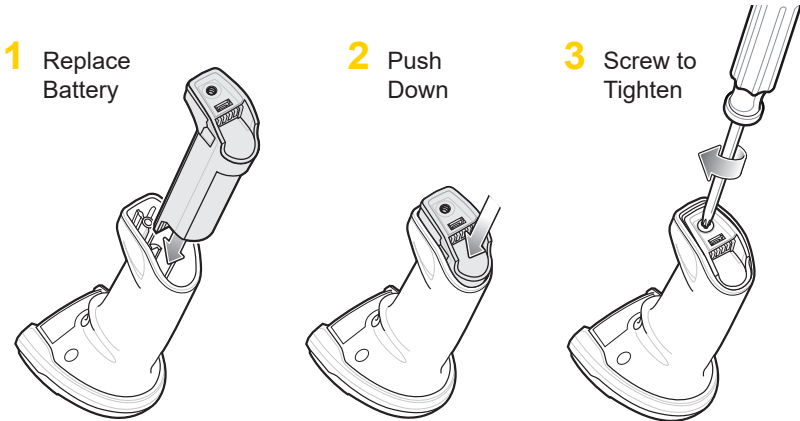
CHARGE ONLY MICRO USB CONNECTION

Note: For best performance, it is recommended to use Zebra accessories.

MICRO USB HID CONVERSION

When charging the scanner with a Micro USB cable instead of the presentation cradle, the scanner enumerates over USB as a CDC device. If your host does not have a CDC driver, a delay occurs between connecting the scanner to the host and the start of charging. To eliminate the delay scan **HID Device Conversion** below to enumerate as an HID device. This allows the scanner to begin charging sooner.

HID DEVICE CONVERSION

STEP 1 - CONNECT HOST INTERFACE

CERTIFIED USB
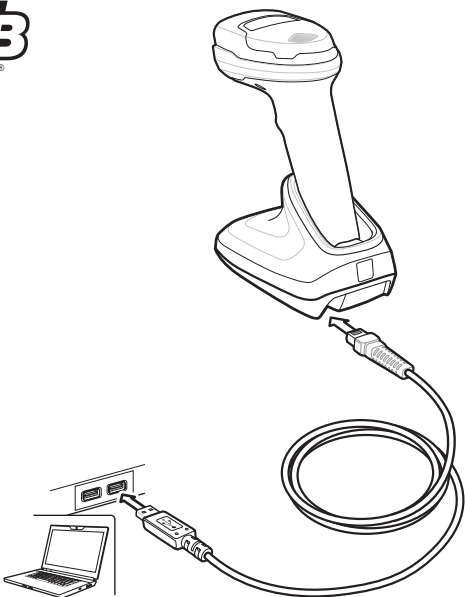
NOTE: Cables may vary depending on configuration

STEP 2 - SET UP INTERFACE (Scan Host Bar Codes)

USB
Scan *ONE* of the bar codes below

The interface cable automatically detects the host interface type and uses the default setting. If the default (*) does not meet your requirements, scan another host bar code below.
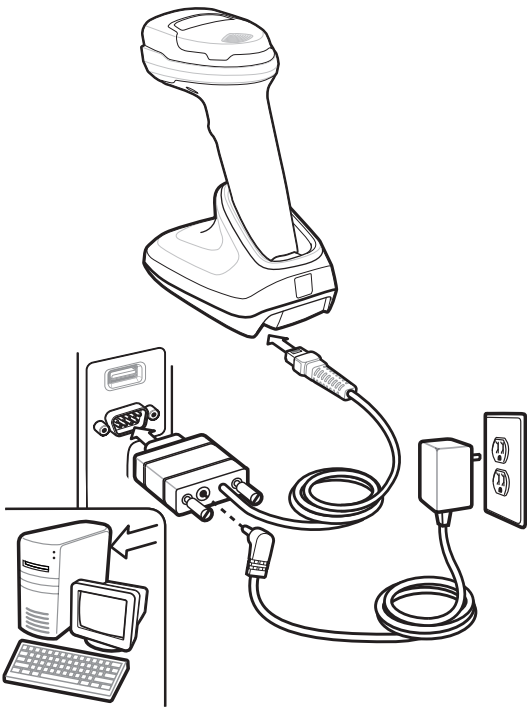
*USB KEYBOARD (HID)

IBM HAND-HELD USB

OPOS (IBM HAND-HELD with FULL DISABLE)

SYMBOL NATIVE API (SNAPI) WITH IMAGING

RS-232

RS-232
Scan *ONE* of the bar codes below

The interface cable automatically detects the host interface type and uses the default setting. If the default (*) does not meet your requirements, scan another host bar code below.

*STANDARD RS-232
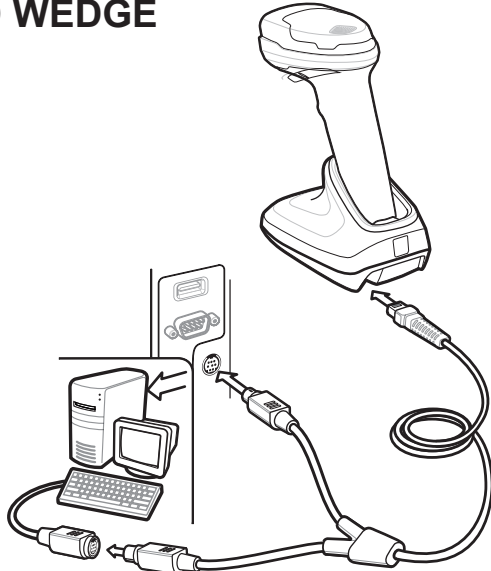
NIXDORF RS-232 MODE B

ICL RS-232

FUJITSU RS-232

NIXDORF RS-232 MODE A

OPOS/JPOS

KEYBOARD WEDGE

Keyboard Wedge
Scan a bar code below

The Auto-Host Detect Cable feature automatically detects the host interface type and uses the default setting. If the default (*) does not meet your requirements, scan the IBM PC/AT and IBM PC COMPATIBLE bar code below.
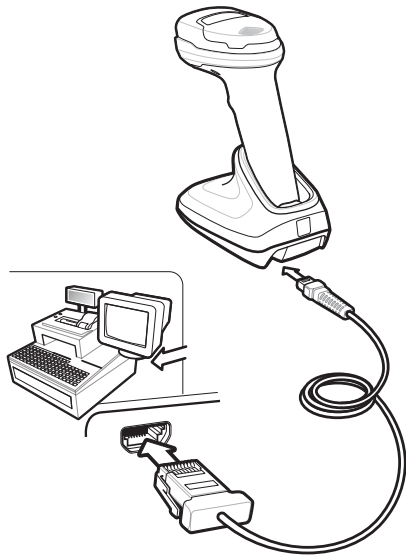
*IBM AT NOTEBOOK

IBM PC/AT and IBM PC COMPATIBLE

IBM 46XX

IBM 46XX
Scan *ONE* of the bar codes below

The Auto-Host Detect Cable feature automatically detects the host interface type, but there is no default setting. Scan one of the bar codes below to select the appropriate port.

NON-IBM SCANNER EMULATION (PORT 5B)

TABLE-TOP SCANNER EMULATION (PORT 17)

HAND-HELD SCANNER EMULATION (PORT 9B)

123Scan

ABOUT 123Scan

123Scan is an easy-to-use, PC-based software tool that enables rapid and easy customized setup of a scanner via a bar code or USB cable. For more information, visit: http://www.zebra.com/123Scan.

UTILITY FUNCTIONALITY

- Device configuration
  - Electronic programming (USB cable)
  - Programming bar code(s)
- Data view – scan log (display scanned bar code data)
- Access asset tracking information
- Upgrade firmware and view release notes
- Remote management (SMS package generation)

Aiming

✓

012345

✗

012345

Pairing

To pair directly with your PC, tablet, or phone, scan HID Bluetooth Classic below. You must then discover and connect to the scanner from your device.

HID BLUETOOTH CLASSIC

For the best experience on Windows and Android™ devices download the app/utility noted below:
- Windows: Go to www.zebra.com/support; search for Scan-To-Connect; select the Scan-To-Connect link; select the Scan-To-Connect for Windows Download and Support link.
- Android: Go to the Google Play Store at play.google.com/store and download the Zebra Scan-To-Connect (STC) utility.

RECOMMENDED USAGE GUIDE - OPTIMUM BODY POSTURE

POST IN WORK AREA

Avoid Extreme Wrist Angles

AVOID EXTREME WRIST ANGLES
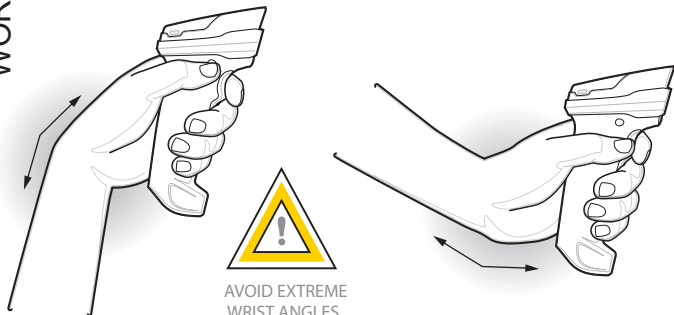
Avoid Bending

AVOID BENDING

Avoid Reaching

AVOID REACHING

Health and Safety Recommendation

⚠ **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
• Reduce or eliminate vibration
• Perform tasks at correct heights
• Keep objects that are used frequently within easy reach
• Reduce or eliminate direct pressure
• Provide adjustable workstations
• Provide adequate clearance
• Provide a suitable working environment
• Improve work procedures.

BEEPER INDICATIONS

Indication	Beeper Sequence
Power up	Low/medium/high beeps
Barcode decoded	Medium beep
Transmission error detected; data is ignored	4 long low beeps
Successful parameter setting	High/low/high/low beeps
Correct programming sequence performed	High/low beeps
Incorrect programming sequence, or **Cancel** barcode scanned	Long low/long high beeps
Low battery indication (on trigger release)	4 short high beeps

Cradle Indication	Cradle LED Indicator
Standard Use	
Power up	Green (stays on)
Radio Indications	
Bluetooth connection established	Green (off, then on)
Battery Indications	
Charging	Amber blinking
Fully charged	Green (solid)
Charging error	Amber fast blinking

SCANNER LED INDICATIONS

Hand-Held Scanning	
Indication	LED Indicator
Digital scanner is on and ready to scan, or no power to scanner	Off
Barcode is successfully decoded	Green flash
Transmission error	Red
Hands-Free (Presentation) Scanning	
No power to scanner	Off
Scanner dock in cradle	Single green flash
Digital scanner is ready to scan	Green
Barcode is successfully decoded	Off momentarily
Transmission error	Red
Charging with Micro USB Connection	
Digital scanner is charging	Green flash (fast continuous)
Digital scanner is fully charged	Green (solid)
Initial connection	Single green flash
Charge error	Red (solid)

Local Contact: _____

TROUBLESHOOTING

Digital scanner not working	
No power to scanner	Check system power; ensure battery is charged.
Digital scanner is disabled	Ensure that correct host interface cable is used.
Digital scanner decoding barcode, but data not transmitting to host	
Host interface not configured properly	Scan appropriate host parameter barcodes.
Interface cable is loose	Ensure all cable connections are secure.
Invalid ADF Rule	Program the correct ADF rules.
Digital scanner not paired to cradle	Scan cradle pairing barcode.

Digital scanner not decoding barcode	
Digital scanner not programmed for barcode type	Ensure scanner is programmed to read type of barcode being scanned.
Barcode unreadable	Ensure barcode is not defaced; try scanning test barcode of same barcode type.
Distance between scanner and barcode incorrect	Move scanner closer to, or further from barcode.
Scanned data incorrectly displayed on host	
Host interface not configured properly	Scan appropriate host parameter barcodes.
Region improperly configured	Select appropriate country and language encoding scheme.

REGULATORY INFORMATION

Warranty
For the complete Zebra hardware product warranty statement, go to: www.zebra.com/warranty.

For Australia Only.
This warranty is given by Zebra Technologies Asia Pacific Pte. Ltd., 71 Robinson Road, #05-02/03, Singapore 068895, Singapore. Our goods come with guarantees that cannot be excluded under the Australia Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Zebra Technologies Corporation Australia's limited warranty above is in addition to any rights and remedies you may have under the Australian Consumer Law. If you have any queries, please call Zebra Technologies Corporation at+65 6858 0722. You may also visit our website: www.zebra.com for the most updated warranty terms.

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 Zebra Global Customer Support Center at: www.zebra.com/support. For the latest version of this guide go to: www.zebra.com/support.

⚠ **Waste Electrical and Electronic Equipment (WEEE)**
English: For EU and UK Customers: For products at the end of their life, please refere to recylcing/disposal advice at www.zebra.com/weee.

TURKISH WEEE Statement of Compliance
EEE Yönetmeliğine Uygundur

CMM Disclosure

部件名称 (Parts)	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	X	O	O	O	O	O
电路模块 (Circuit Modules)	X	O	O	O	O	O
电缆及电缆组件 (Cables and Cable Assemblies)	O	O	O	O	O	O
塑料和聚合物部件 (Plastic and Polymeric Parts)	O	O	O	O	O	O
光学和光学组件 (Optics and Optical Components)	X	O	O	O	O	O
电池 (Batteries)	O	O	O	O	O	O

本表格依据 SJ/T 11364 的规定编制。
O: 表示该有害物质在该部件所有均质材料中的含量均在 SJ/T 11364—2014 规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11364—2014 规定的限量要求。（企业可在此处，根据实际情况对上表中打 "×" 的技术原因进行进一步说明。）

This table was created to comply with China RoHS requirements.

Regulatory Information
This device is approved under Zebra Technologies Corporation. This guide applies to Model Number: DS2278 and DS2278A. All Zebra devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.
Local language translations are available at the following website: www.zebra.com/support.
Any changes or modifications to Zebra equipment, not expressly approved by Zebra, could void the user's authority to operate the equipment.

⚠ **Caution:** Only use Zebra 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. Declared maximum operating temperature: 50ºC

Bluetooth Wireless Technology
This is an approved *Bluetooth* product. For more information on the Bluetooth SIG listing, please visit www.bluetooth.com.

Wireless Device Country Approvals
Note: this section is only applicable to WWI/WR/EU configurations.
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, South Korea, Australia, Europe and United Kingdom.

Please refer to the Declaration of Conformity (DoC) for details of other country markings. This is available at www.zebra.com/doc.

Note: 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, and Switzerland.

⚠ **Caution:** Operation of the device without regulatory approval is illegal.

Warnings for Use of Wireless Devices

⚠ **Caution:** 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 equipment. Wireless devices should be switched off wherever you are requested to do so in hospitals, clinics or health care facilities. These requests are designed to prevent possible interference with sensitive medical equipment.

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:

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.

The device complies with internationally recognized standards covering human exposure to electromagnetic fields. For information on international human exposure to electromagnetic fields refer to the Zebra Declaration of Conformity (DoC) at www.zebra.com/doc.
Use only Zebra tested and approved headset, belt-clips, holsters, and similar accessories to ensure RF exposure compliance. If applicable, follow the instructions for use as detailed in the accessory guide.
The use of third-party belt clips, holsters, and similar accessories may not comply with RF exposure compliance requirements and should be avoided.
For further information on the safety of RF energy from wireless devices, refer to RF exposure and assessment standards section at www.zebra.com/responsibility.

LED Devices
For LED devices which have been evaluated to IEC 62471 and comply with the Exempt Risk Group, no product labeling requirements apply. However, the following statement is required to comply with US and international regulations:
LED Compliance Statement:
Classified as 'EXEMPT RISK GROUP' according to IEC 62471:2006 and EN 62471:2008.
Pulse duration: 9 ms.

Batteries
Taiwan - Recycling
「廢電池請回收」

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.

Battery Information

⚠ **Caution:** Risk of explosion if battery is replaced by an incorrect type. Dispose of batteries according to instructions.

Use only Zebra approved batteries. Accessories which have battery charging capability are approved for use with the following battery models: Part Number BT-000317-01 (4.2 Vdc, 2400 mAh).

Zebra approved rechargeable battery packs are designed and constructed to the highest standards within the industry.
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 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 Zebra batteries is one year, regardless if the battery was purchased separately or included as part of the mobile computer or barcode scanner. For more information on Zebra batteries, please visit: www.zebra.com/batterybasics.

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 +32ºF and +104ºF (0ºC and +40ºC).
• 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 Zebra 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 Zebra support to arrange for inspection.

Radio Frequency Interference Requirements -FCC

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.

Radio Frequency Interference Requirements - Canada
CAN ICES-3 (B)/NMB-3(B)
Radio Transmitters
Innovation, Science and Economic Development Canada ICES-003
Compliance Label: CAN ICES-003 (B)/NMB-003(B)
This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi même si le brouillage est susceptible d'en compromettre le fonctionnement.

CE **Marking and European Economic Area (EEA)**

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.

Statement of Compliance
Zebra hereby declares that this radio equipment is in compliance with Directive 2011/65/EU and 1999/5/EC or 2014/53/EU (2014/53/EU supersedes 1999/5/EC from 13th June 2017). The full text of the EU Declaration of Conformity is available at the following internet address: www.zebra.com/doc.
EU Importer : Zebra Technologies B.V
Address: Mercurius 12, 8448 GX Heerenveen, Netherlands

UKCA **United Kingdom**
Statement of Compliance
Zebra hereby declares that this radio equipment is in compliance with the Radio Equipment Regulations 2017 and the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.
Any radio operation limitations within UK are identified in Appendix A of UK Declaration of Conformity. The full text of the UK Declaration of Conformity is available at: zebra.com/doc.
UK Importer: Zebra Technologies Europe Limited
Address: Dukes Meadow, Millboard Rd, Bourne End, Buckinghamshire, SL8 5XF

Other Countries
Brazil (UNWANTED EMISSIONS - ALL PRODUCTS)
Regulatory declarations for DS2278 - BRAZIL
For more information consult the website www.anatel.gov.br
NOTA: A marca de certificação se aplica ao Equip. de Radiação Restrita, modelo DS2278.
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 consultas sobre ANATEL consulte o site: www.anatel.gov.br.
Chile
Este equipo cumple con la Resolución No 403 de 2008, de la Subsecretaria de telecomunicaciones, relativa a radiaciones electromagnéticas.
China
通过访问以下网址可下载当地语言支持的产品说明书
www.zebra.com/support

锂电池安全警示语：
警告：请勿拆装、短路、撞击、挤压或者投入火中及水中；
注意：如果电池被不正确型号替换，或出现故障，会存在爆炸及其他危险
请按说明处置使用后的电池
电池浸水后严禁使用

合格证：

◇ 合格证

Eurasian Customs Union
Евразийский Таможенный Союз
Данный продукт соответствует требованиям знака EAC.

EAC

Mexico
Restrict Frequency Range to: 2.450 – 2.4835 GHz.

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

S. Korea
For a radio equipment using 2400~2483.5MHz or 5725~5825MHz, the following expression should be displayed:
당해 무선설비는 운용 중 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.
당해 무선설비는 전파혼선 가능성이

Taiwan
低功率電波輻射性電機管理辦法
取得審驗證明之低功率射頻器材，非經核准，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。
低功率射頻器材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。
前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材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。

Ukraine
Дане обладнання відповідає вимогам технічного регламенту №1057, № 2008 на обмеження щодо використання деяких небезпечних речовин в електричних та електронних пристроях.

Thailand
เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทช.