DS8178-HC

Digital Scanner

Quick Start Guide

ZEBRA

MN-004105-01EN Rev. A

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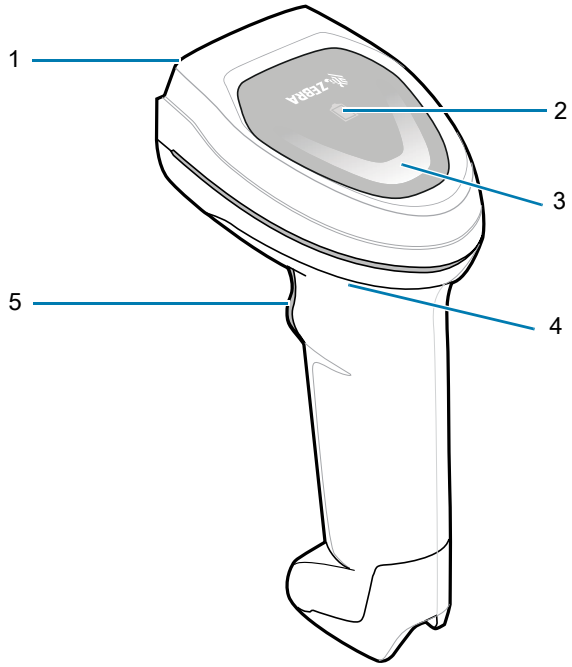
Introduction

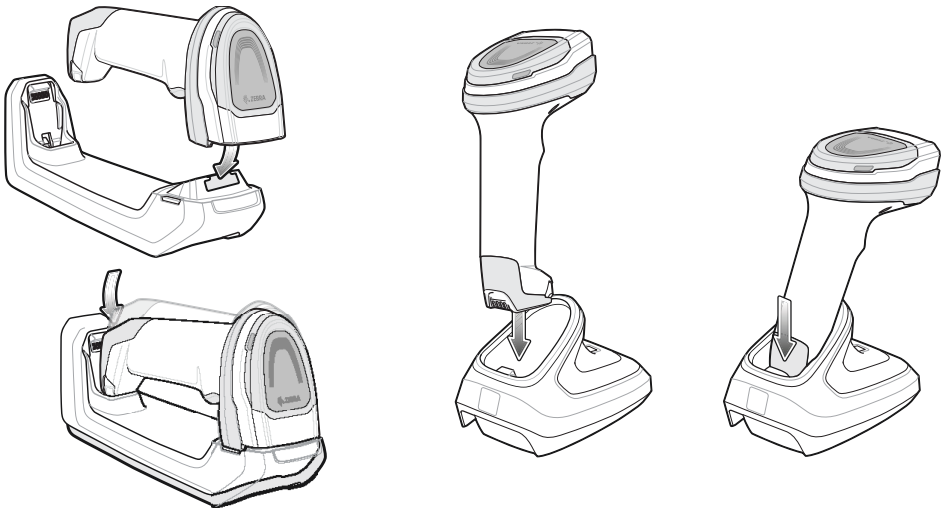
This guide provides basic instructions for setting up, programming, and using DS8178-HC scanners.

Features



1	Scan Window
2	Power Gauge LED
3	Scan LEDs
4	Beeper
5	Scan Trigger

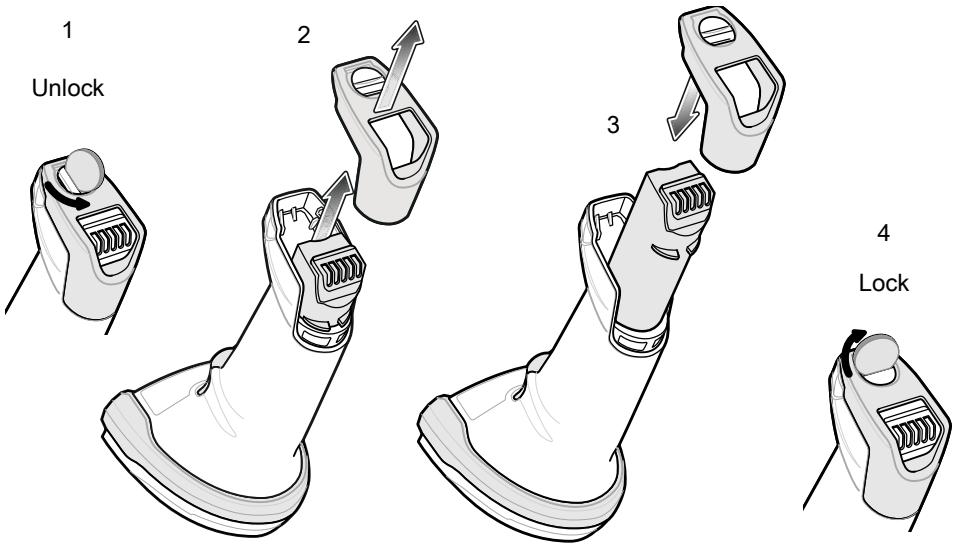
Cradle Insertion



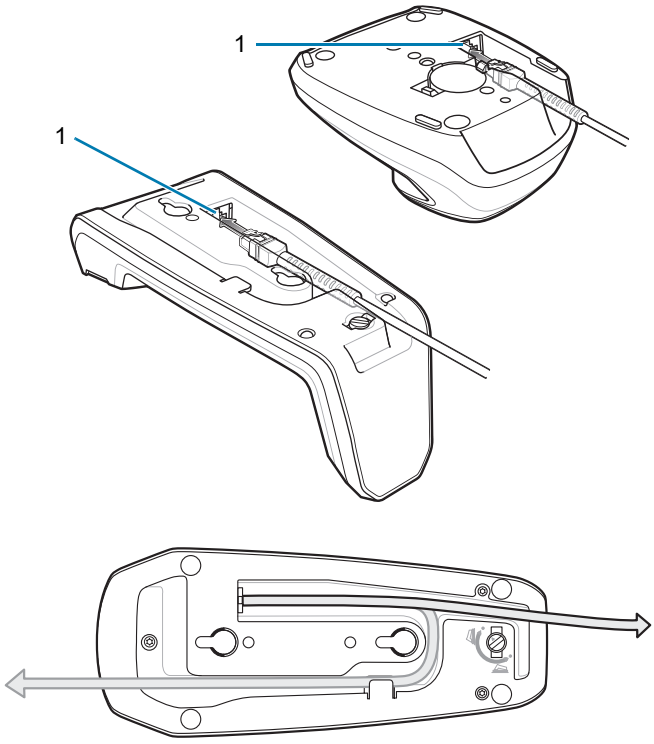
Battery/Power Cap Insertion/Removal

IMPORTANT: PowerCap requires firmware version CAACXS00-004-R00 or later.

NOTE: It is recommended to fully charge the battery/PowerCap before use.



Cradle Cable Connection

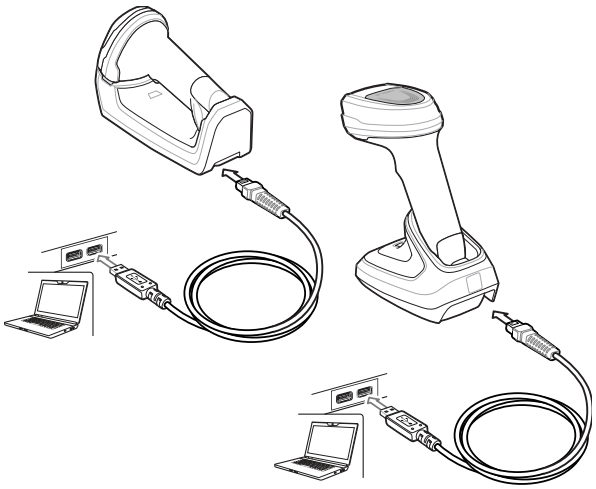


1	Host Port

Connect a USB Host Interface

NOTE: Cables may vary depending on configuration.

The scanner automatically detects the host interface type and uses the default setting.



*** USB Keyboard HID**

Useful Barcodes

NOTE: An asterisk (*) indicates the default setting.

Restore Defaults

Restore to Default Settings

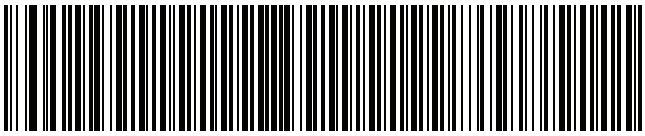
Add a Tab Key

To add a Tab Key after scanned data, scan the barcode below.

Add a Tab Key

Add an Enter Key (Carriage Return /Line Feed)

To add an Enter Key after scanned data, scan the barcode below.



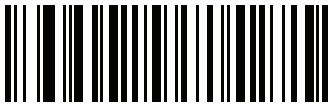
Add Enter Key

USB Caps Lock Override

USB-Override Caps Lock Key (Enable)

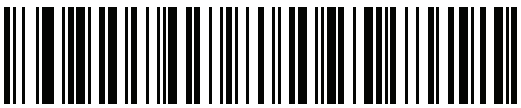
*** USB - Do Not Override Caps Lock Key (Disable)**

Night Mode With Vibrate



Enable Night Mode Trigger

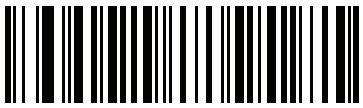
*** Disable Night Mode Trigger**



Toggle Night Mode

Lamp Mode

Press the Page button on cradle to turn on the Lamp Mode.



Enable Lamp Mode with Scanning

*** Enable Lamp Mode without Scanning**

Disable Lamp Mode

Picklist Mode

Picklist Mode allow you to pick out and decode a barcode from a group of barcodes that are printed close together by placing the aiming pattern on the barcode you want to decode.

Enable Picklist Mode in Hand-held Mode

*** Disable Picklist Mode Always**

ISBT Blood Bag Concatenation

Select an option for concatenating pairs of ISBT code types:

- **Enable ISBT Concatenation** (default) - Two ISBT barcodes are required for decode.
- **Disable ISBT Concatenation** - ISBT barcodes are decoded as individual barcodes.
- **Autodiscriminate ISBT Concatenation** - If a pair of ISBT barcodes is present, the scanner concatenates. Or else, a single barcode is transmitted.

*** Enable ISBT Concatenation**

Disable ISBT Concatenation

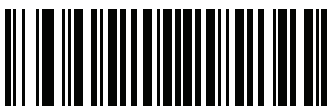
Autodiscriminate ISBT Concatenation

Hands-Free Mode

Scan one of the following barcodes to enable or disable the Hands-free mode.

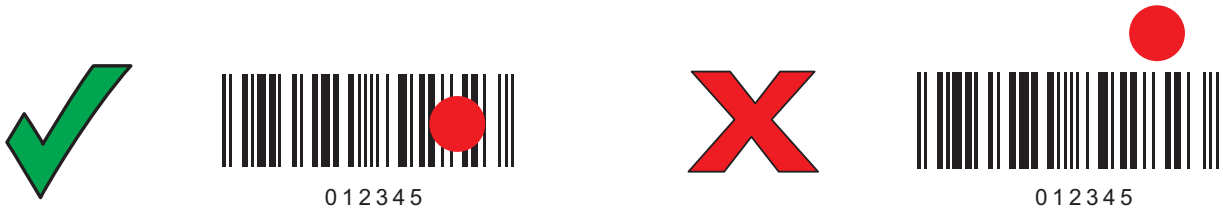
- **Enable Hands-free Mode** (default) - When the scanner is in the presentation cradle or Intellistand, it turns the illumination on slightly to detect the presence of a barcode and automatically triggers when a barcode is detected. Lifting the scanner causes it to behave according to the setting of the Hand-Held Trigger Mode.
- **Disable Hands-free Mode** - The scanner behaves according to the setting of the Hand-Held Trigger Mode whether or not it is in a cradle or Intellistand. The illumination only turns on when the scanner is lifted or when the trigger is pulled, depending on which Hand-Held Trigger Mode is selected.

*** Enable Hands-free Mode**



Disable Hands-free Mode

Aiming



User Indications By Default

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/PowerCap indication (on trigger release)	4 short high beeps

Power Gauge Indications

Power Gauge Indications	
Battery/PowerCap status	51-100% Green, 21-50% Amber, 0-20% Red
Battery end of life	51-100% Green/red alternating 21-50% Amber/red alternating 0-20% Red blinking

LED Indications

Indication	LED Indicator
Hand-Held Scanning	
Digital scanner is on and ready to scan, or no power to scanner	Off
Barcode is successfully decoded	Green flash
Transmission error.	Red
Paging state.	Blue (fast, fast slow)
Hands-Free (Presentation) Scanning	
No power to scanner.	Off
Digital scanner is ready to scan.	Green
Barcode is successfully decoded.	Off momentarily
Transmission error.	Red

123Scan

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

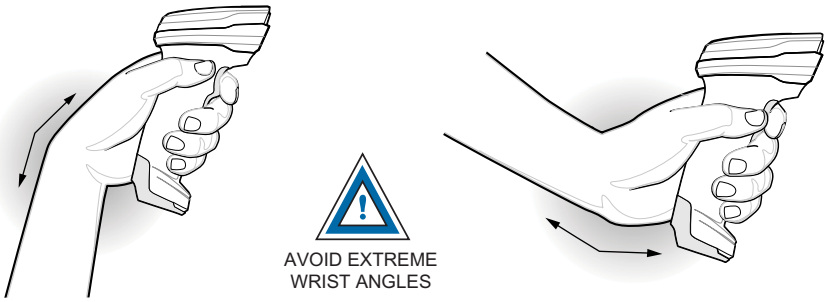
Utility Functionality

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

Troubleshooting

Digital scanner not working	
No power to scanner	Check system power; ensure battery/PowerCap is charged. If using PowerCap, ensure firmware version is CAACXS00-004-R00 or later.
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.

Recommended Usage Guide



Alternate left and right hands taking breaks and task rotation recommended.

Regulatory Information

This device is approved under Zebra Technologies Corporation.

This guide applies to the following model number: DS8178-HC

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

Any changes or modifications to Zebra equipment not expressly approved by Zebra could void the user's authority to operate the equipment.

Declared maximum operating temperature: 50°C

Bluetooth® Wireless Technology

This is an approved Bluetooth® product. For more information on the Bluetooth SIG listing, please visit bluetooth.com.

Regulatory Markings

Regulatory markings subject to certification are applied to the device signifying the radio(s) is/are approved for use. Refer to the Declaration of Conformity (DoC) for details of other country markings. The DOC is available at: zebra.com/doc.

Health and Safety Recommendations

Ergonomic Recommendations

In order to avoid or minimize the potential risk of ergonomic injury, always follow good ergonomic workplace practices. Consult with your local Health and Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

Safety in Hospitals and Aircraft

NOTE: Wireless devices transmit radio frequency energy that may affect medical electrical equipment and aircraft's operation. Wireless devices should be switched off wherever you are requested to do so in hospitals, clinics, healthcare facilities or by airline staff. These requests are designed to prevent possible interference with sensitive equipments.

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 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 zebra.com/responsibility.

Handheld or Body-Worn Devices

Limb-worn Devices

To satisfy RF exposure requirements, this device must be hand-held only and, where applicable use only with Zebra tested and approved accessories.

LED Devices

Classified as 'EXEMPT RISK GROUP' according to IEC 62471:2006 and EN 62471:2008.

Pulse Duration: 12 ms

Battery and PowerCap Information

Caution: Risk of explosion if battery/PowerCap is replaced by an incorrect type. Dispose of batteries/PowerCaps according to instructions.

The model DS8178-HC may be used with either a rechargeable Battery Pack or a rechargeable capacitor based PowerCap.

Zebra approved rechargeable battery packs and PowerCaps are designed and constructed to the highest standards within the industry.

Use only Zebra approved batteries or PowerCaps. Accessories which have charging capability are approved for use with the following battery and PowerCap models:

- Battery Part Number 82-176890-01 (3.6 Vdc, 2500 mAh)
- PowerCap Part Number AS-000231-01 (3.7 V, 2.0A).

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

When battery packs or PowerCaps are stored over six months, some irreversible deterioration in overall battery quality may occur. Store batteries and PowerCaps 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 pack or PowerCap when a significant loss of run time is detected.

Standard warranty period for all Zebra batteries and PowerCaps is 1 year, regardless if the battery or PowerCap was purchased separately or included as part of the barcode scanner. For more information on Zebra batteries, please visit: zebra.com/batterybasics.

Battery and PowerCap 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/PowerCap usage, storage, and charging guidelines found in the user's guide.
- Improper battery/PowerCap 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/PowerCaps and chargers. Use of an incompatible battery/PowerCap 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/PowerCap terminals.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery/PowerCap, 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/PowerCap into a microwave oven or dryer.
- Battery/PowerCap usage by children should be supervised.
- Please follow local regulations to promptly dispose of used re-chargeable batteries/PowerCaps.
- Do not dispose of batteries/PowerCaps 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/PowerCap, contact Zebra support to arrange for inspection.

CE Marking and European Economic Area (EEA)

Statement of Compliance

Zebra hereby declares that this radio equipment is in compliance with Directives 2014/53/EU and 2011/65/EU.

Any radio operation limitations within EEA countries are identified in Appendix A of EU Declaration of Conformity. The full text of the EU Declaration of Conformity is available at: zebra.com/doc.

EU Importer: Zebra Technologies B.V

Address: Mercurius 12, 8448 GX Heerenveen, Netherlands

Waste Electrical and Electronic Equipment (WEEE)

For EU and UK Customers: For products at the end of their life, please refer to recycling/disposal advice at: zebra.com/weee.

United States and Canada Regulatory

Radio Frequency Interference Notices

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.

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

Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-3 ([B])/NMB-3([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.

RF Exposure Requirements - FCC and ISED

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated in compliance with the FCC RF emission guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of fcc.gov/oet/ea/fccid.

To satisfy RF exposure requirements, this device must be hand-held only and, where applicable use only with Zebra tested and approved accessories.

Pour satisfaire aux exigences d'exposition aux RF, cet appareil doit être lcheville utilisé manuellement uniquement, le cas échéant, uniquement utilisé avec les accessoires approuvés et testés par Zebra.

中国

通过访问以下网址可下载当地语言支持的产品说明书 zebra.com/support

合格证：

产品中有害物质的名称及含量

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。

Евразийский Таможенный Союз (EAC)

Данный продукт соответствует требованиям знака EAC.

臺灣

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。

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台灣斑馬科技股份有限公司 / 台北市信義區松高路 9 號 13 樓

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「廢電池請回收」

TÜRK WEEE Uyumluluk Beyanı

EEE Yönetmeliğine Uygundur.

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

Warranty

For the complete Zebra hardware product warranty statement, go to: zebra.com\warranty.

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 System Support. If there is a problem with the equipment, they will contact Zebra support at zebra.com\support.

For the latest version of the guide go to: zebra.com\support.

Additional Information

For information on using the DS8178-HC, refer to the DS8178-HC product guide available at: zebra.com/ds8100-hc.