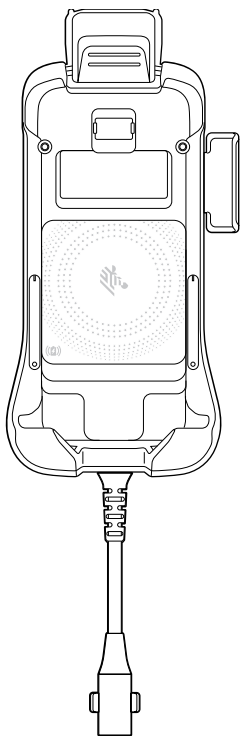


CRD-TC78-WCVC-01

Wireless Charging Vehicle Cradle



Installation Guide



ZEBRA

Zebra reserves the right to make changes to any product to improve reliability, function, or design. Zebra does not assume any product liability arising out of, or in connection with, the application or use of any product, circuit, or application described herein. No license is granted, either expressly or by implication, estoppel, or otherwise under any patent right or patent, covering or relating to any combination, system, apparatus, machine, material, method, or process in which our products might be used. An implied license exists only for equipment, circuits, and subsystems contained in the products.

Warranty

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

Patents

ip.zebra.com

Introduction

This guide describes how to install and use a CRD-TC78-WCVC-01 Wireless Vehicle Cradle with a TC78 touch computer.

Install the cradle into a vehicle. Once installed, the cradle:

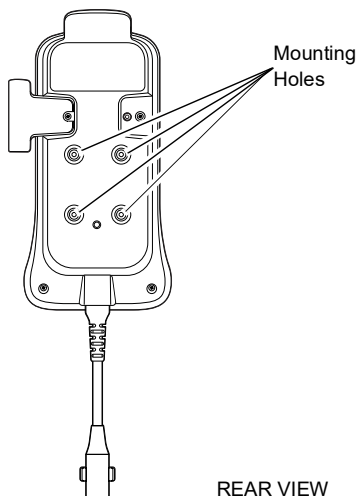
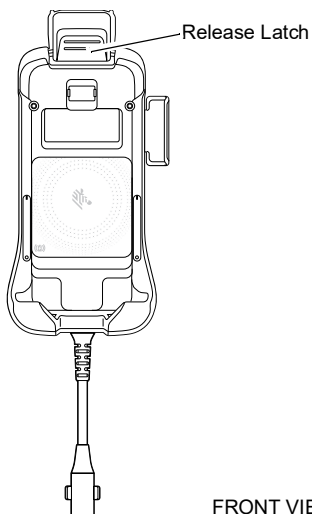
- Holds the TC78 securely in place
- Provides wireless power for operating the TC78.

Requirements

For mounting onto a RAM Mount[®]:

- RAM Mount (sold separately)
- Four M4 screws (included).

Parts



CAUTION: ROAD SAFETY - Do not use the TC78 while driving. Park the vehicle first. Always ensure the TC78 is fully inserted into the cradle. Do not place it on the seat or where it can break loose in a collision or sudden stop. Lack of proper insertion may result in property damage or personal injury. Zebra is not responsible for any loss resulting from the use of the products while driving. Remember: Safety comes first.

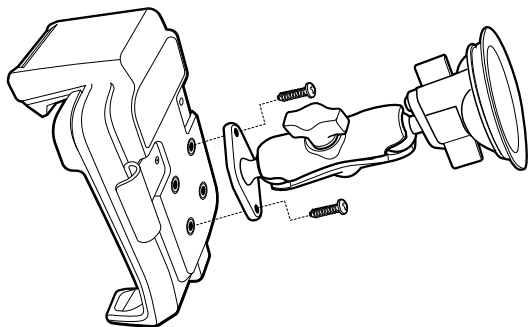
Mounting the Cradle to a RAM Mount

To mount the cradle onto a diamond (RAM-B-238U) or round (RAM-202U) shaped RAM Mount (RAM-B-166U):

CAUTION: Only mount the Vehicle Cradle in a vertical position. Never mount the vehicle cradle on the side or upside down or on a wall that can be subject to impact or collision of greater than 10Gs, in accordance with SAE J1455 Section 4.10.3.5.

1. Follow the instructions that are provided with the RAM Mount for RAM Mount mounting instructions.
2. Align the vehicle cradle with the RAM Mount ball base.
3. Secure the vehicle cradle to the ball base using M4 screws, lock washers and flat washers (provided).

CAUTION: Do not install a Vehicle Cradle on or near an air bag cover plate or within an area that could cause personal injury. Also, do not install it in a location that affects vehicle safety or your ability to drive.



4. Secure the RAM Mount to the vehicle depending upon the type of RAM Mount. See instructions provided with RAM Mount.
5. Tighten the screws to secure the cradle to the mounting plate.
6. Adjust RAM Mount according to RAM Mount instructions.

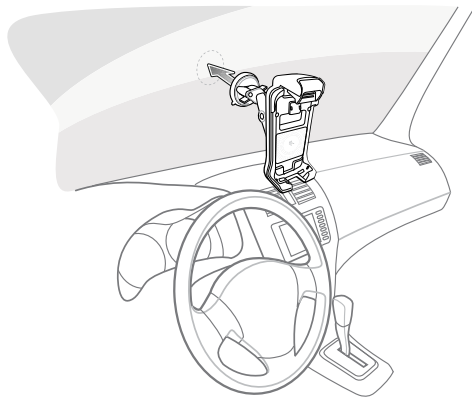
Mounting to a Windshield



CAUTION: Do not install a vehicle cradle on or near an air bag cover plate or within an area that could cause personal injury.

Do not install it in a location that inhibits visibility, affects vehicle safety or drivability.

1. Fix the RAM Mount to the selected area.



2. Twist the lever on the RAM Mount suction cup base to create a vacuum between the suction cup and the windshield.



IMPORTANT: To prevent suction cups from falling off the windshield due to bleeding air over time and with extreme heat:

- 1) Ensure the glass and the suction cup are completely clean and free of oils and debris before installing.
- 2) Periodically remove, clean, and reseat the suction cup on the glass (more frequently in the summer and hot, sunny climates).

3. Adjust the vehicle cradle in a vertical position and ensure that the suction bond is strong enough before installing the device.
4. To connect power, see [Power Connection on page 8](#).
5. To insert the device, see [TC78 Insertion on page 9](#).

Mounting to a Dashboard



CAUTION: Do not install a vehicle cradle on or near an air bag cover plate or within an area that could cause personal injury.

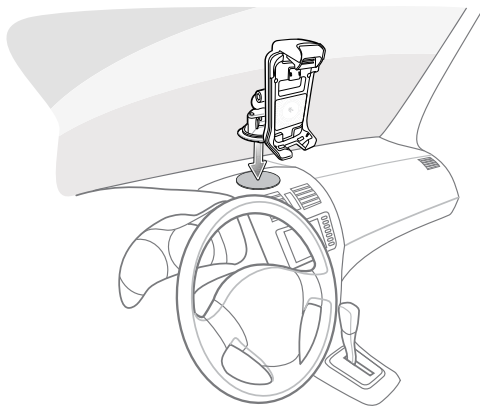
Do not install it in a location that inhibits visibility, affects vehicle safety or drivability.

1. Fix the RAM Mount to the selected area.



NOTE: Ensure that the installed vehicle cradle does not rest on the dashboard or other structure that can transmit the vehicle vibrations that would normally be reduced by the suction cup.

Figure 1 Mounting to a Dashboard

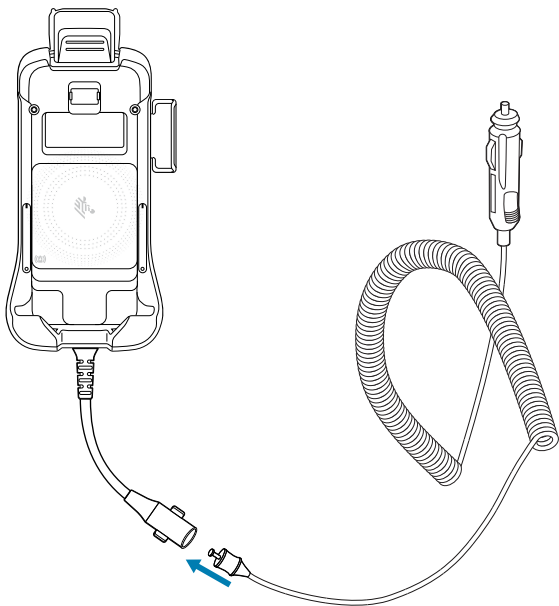


2. Twist the lever on the RAM Mount suction cup base to create a vacuum between the suction cup and the dashboard.
3. Adjust the vehicle cradle in a vertical position and ensure that the suction bond is strong enough before installing the device.
4. To connect power, see [Power Connection on page 8](#).
5. To insert the device, see [TC78 Insertion on page 9](#).

Power Connection

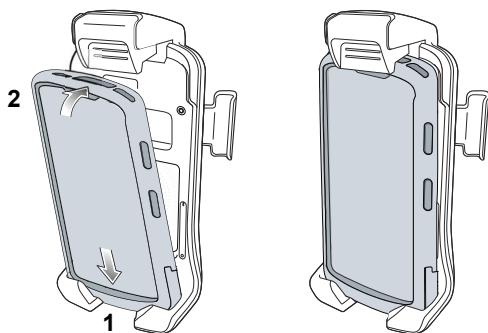
The wireless vehicle cradle can be powered using a CLA (cigarette lighter receptacle) Cable (CHG-AUTO-CLA1-01).

- To connect the power to the cradle with a CLA cable, plug the CLA cable connector into the wireless vehicle cradle cable and the cigarette adapter into a cigarette lighter receptacle.



NOTE: To hardwire the wireless vehicle cradle, have a professional install the Hardwire Auto Charge Cable (CHG-AUTO-HWIRE1-01).

TC78 Insertion

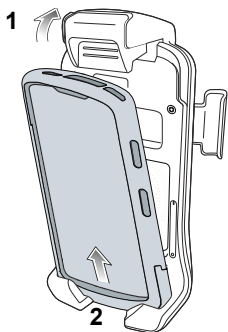


! **IMPORTANT:** The TC78 must have the Rugged Boot installed to fit in the wireless vehicle cradle.

To ensure the TC78 is inserted correctly, align the device with rugged boot installed with the guide rails on the bottom of the cradle while inserting the device. Listen for the audible click that signifies that the TC78 locking mechanism is enabled and the TC78 is locked into place.

! **CAUTION:** Ensure that the TC78 is fully inserted into the cradle. Lack of proper insertion may result in property damage or personal injury. Zebra Technologies Corporation is not responsible for any loss resulting from the use of the products while driving.

TC78 Removal



To remove the TC78 from the cradle, lift the release latch, grasp the TC78 and lift out of the vehicle cradle.

TC78 Battery Charging



NOTE: A wireless charge battery must be used for the charging function of the wireless charge vehicle cradle to work.

Not all TC78 configurations support wireless charging. Refer to the Product Reference Guide and configuration descriptions to ensure wireless charging is supported.

Ensure the vehicle cradle is connected to a power source. See [Power Connection on page 8](#).

Insert the TC78 into the cradle. The TC78 starts to charge through the cradle as soon as it is inserted. This does not deplete the vehicle battery significantly. The battery charges in approximately four hours.

Charging Note

The Vehicle Cradle operating temperature is -20°C to $+50^{\circ}\text{C}$. When in the cradle, the TC78 only charges when its temperature is between 0°C to $+40^{\circ}\text{C}$.

Care and Cleaning

Avoid getting oils, grease or gasoline on the cradle. When necessary, clean the cradle with a mild cleaner. If you are not sure whether or not to use a particular cleaner, contact Zebra for advice.

Troubleshooting

Symptom	Possible Cause	Action
TC78 charging LED does not light up.	Cradle is not receiving power.	Ensure the Power Input cable is securely connected to the cradle's Power Port.

Symptom	Possible Cause	Action
TC78 battery is not charging.	Battery is faulty.	Ensure you are using a wireless charge battery. Replace the battery.
	TC78 was not placed correctly in the cradle.	Ensure the device is seated properly. Remove the TC78 from the cradle, and reinsert correctly. If the battery still does not charge, contact system administrator. The TC78 battery charging LED slowly blinks amber when the TC78 is correctly inserted and charging.
	Ambient temperature is too high or too low.	Ambient temperature within the vehicle may be too high or too low. Charging will begin when temperature within the vehicle is within the TC78 charging temperature range (0 °C to 40 °C).

Regulatory Information

This device is approved under Zebra Technologies Corporation.

This guide applies to the following model number: CRD-TC-WCVC

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.

Local language translation / (BG) Превод на местен език / (CZ) Překlad do místního jazyka / (DE) Übersetzung in die Landessprache / (EL) Μετάφραση τοπικής γλώσσας / (ES) Traducción de idiomas locales / (ET) Kohaliku keele tõlge / (FI) Paikallinen käännös / (FR) Traduction en langue locale / (HR) Prijevod na lokalni jezik / (HU) Helyi nyelvű fordítás / (IT) Traduzione in lingua locale / (JA) 現地語翻訳 / (LT) Vietinės kalbos vertimas / (LV) Tulkojums vietējā valodā / (NL) Vertaling in lokale taal / (PL) Tłumaczenie na język lokalny / (PT) Tradução do idioma local / (RO) Traducere în limba locală / (RU) Перевод на местный язык / (SK) Preklad do miestneho jazyka / (SL) Prevajanje v lokalni jezik / (SR) Превод на локални језик / (SV) Översättning av lokalt språk / (TR) Yerel dil çevirisi / (ZH-CN) 当地语言翻译 / (ZH-TW) 當地語言翻譯 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.

Declared maximum operating temperature: 50°C

For use only with Zebra approved and UL Listed mobile devices, Zebra approved, and UL Listed/Recognized battery packs.



CAUTION: Only use Zebra approved and NRTL-certified accessories, battery packs, and battery chargers.

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

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: www.zebra.com/doc.

Health and Safety Recommendations

Vehicle Installation

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (including safety systems). Check with the manufacturer or its representative regarding your vehicle. Ensure the equipment is installed to avoid driver distractions. You should also consult the manufacturer about any equipment that has been added to your vehicle.

Position the device within easy reach. User should be able to access the device without removing their eyes from the road.



IMPORTANT: Before installing or using, check national and local laws regarding distracted driving.

Safety on the Road

Give your full attention to driving. Obey the laws and regulations on the use of wireless devices in the areas where you drive.

The wireless industry reminds you to use your device / phone safely when driving.

Restricted Use Locations

Remember to observe restrictions and obey all signs and instructions on the use of electronic devices in restricted use locations.

Safety in Hospitals and Aircraft



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 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.

To satisfy RF exposure requirements, this device must operate with a minimum separation distance of 20 cm or more from a user's body and nearby persons.

Power Supply



WARNING ELECTRICAL SHOCK: Use only a Zebra approved, Certified ITE [SELV] power supply with appropriate electrical ratings. Use of alternative power supply will invalidate any approvals given to this unit and may be dangerous.

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

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.

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: www.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: www.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

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 www.fcc.gov/oet/ea/fccid.

Mobile Devices

This equipment complies with RF Exposure limits established for an uncontrolled environment (General Population). This equipment should be installed and operated in such a way that a separation distance of greater than 20 (or 20) centimeters is maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

Cet équipement est conforme aux limites d'exposition aux RF établies pour un environnement non contrôlé (population générale). Cet équipement doit être installé et utilisé de manière à maintenir une distance de séparation supérieure à 20 or 20 centimètres entre la (les) structure (s) rayonnante (s) de l'émetteur et le corps de l'utilisateur ou des personnes à proximité.

France

Cet appareil a été testé et déclaré conforme aux limites applicables d'exposition aux radiofréquences (RF).

Le débit d'absorption spécifique (DAS) local quantifie l'exposition de l'utilisateur aux ondes électromagnétiques de l'équipement concerné.

Les valeurs SAR les plus élevées sont disponibles sur la déclaration de conformité (DoC) disponible sur: www.zebra.com/doc.

TÜRK WEEE Uyumluluk Beyanı

EEE Yönetmeliğine Uygundur.

เครื่องวิทยุคมนาคมนี้ได้รับการแผ่คลื่นแม่เหล็กไฟฟ้าสอดคล้องตาม

มาตรฐานความปลอดภัยต่อสุขภาพของมนุษย์จากการใช้เครื่องวิทยุคมนาคมที่คณะกรรมการกิจการ

โทรคมนาคมแห่งชาติประกาศกำหนด

臺灣 (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。公司資訊

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

限用物質含有情況標示聲明書

設備名稱		型號 (型式) CRD-TC-WCVC				
單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr+6)	多溴聯 苯 (PBB)	多溴二苯 醚 (PBDE)
印刷電路板 及電子組件	-	○	○	○	○	○
金屬零件	-	○	○	○	○	○
電纜及電纜 組件	○	○	○	○	○	○
塑料和聚合 物零件	○	○	○	○	○	○
光學與光學 元件	○	○	○	○	○	○
外部電源	-	○	○	○	○	○

備考 1. “超出 0.1 wt %” 及 “超出 0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。

備考 2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。

備考 3. “-” 係指該項限用物質為排除項目。

Note 1: “Exceeding 0.1 wt%” and “exceeding 0.01 wt%” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

Note 2: “O” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

Note 3: The “-” indicates that the restricted substance corresponds to the exemption.

UK United Kingdom

CA 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: www.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.

Software Support

Zebra wants to ensure that customers have the latest entitled software at the time of device purchase in order to keep the device operating at peak performance levels. To confirm that your Zebra device has the latest entitled software available at the time of purchase, go to zebra.com/support.

Check for the latest software from Support > Products, or search for the device and select Support > Software Downloads.

If your device does not have the latest entitled software as of your device purchase date, e-mail Zebra at entitlementservices@zebra.com and ensure you include the following essential device information:

- Model number
- Serial number
- Proof of purchase
- Title of the software download you are requesting.

If it is determined by Zebra that your device is entitled to the latest version of software, as of the date you purchased your device, you will receive an e-mail containing a link directing you to a Zebra Web site to download the appropriate software.

Product Support Information

- For information on using this product, see the User Guide at zebra.com/support.
- To find quick answers to known product behaviors, access our knowledge articles at supportcommunity.zebra.com/s/knowledge-base.
- Ask your questions in our Support community at supportcommunity.zebra.com.
- Download product manuals, drivers, software, and view how-to videos at zebra.com/support.
- To request a repair for your product, go to zebra.com/repair.



zebra.com

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners. | zebra.com
© 2022 Zebra Technologies Corp. and/or its affiliates. All rights reserved.



MN-004640-01EN-P Rev. A

