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ZEBRA PD20 Secure Card Reader User Guide

Contents

ZEBRA PD20 Secure Card Reader

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About this Device

The PD20 is a Payment Card Industry (PCI) approved credit card reader that is used with a Secure Card Reader (SCR) battery on specific Zebra mobile devices. The device is used as a payment terminal.

NOTE: The PD20 fits only onto the ET4x, TC52ax, TC52x, TC53, TC57x, TC58, TC73, and TC78 devices.

Service Information

- If you have a problem with your equipment, contact Zebra Global Customer Support for your region.
- Contact information is available at: **zebra.com/support**.
- When contacting support, please have the following information available:
    - Serial number of the unit
    - Model number or product name
    - Software type and version number
- Zebra responds to calls by email, telephone, or fax within the time limits outlined in support agreements.
- If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can void the warranty.
- If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

Unpacking the Device

1. Carefully remove all protective material from the device and save the shipping container for later storage and shipping.
2. Verify the following items are in the box:
    - PD20
    - Regulatory Guide
    NOTE: The SCR battery is shipped separately.
3. Inspect the damaged equipment. If any equipment is missing or damaged, contact the Zebra Support Center immediately.
4. Before using the device for the first time, remove the protective shipping film that covers the device.
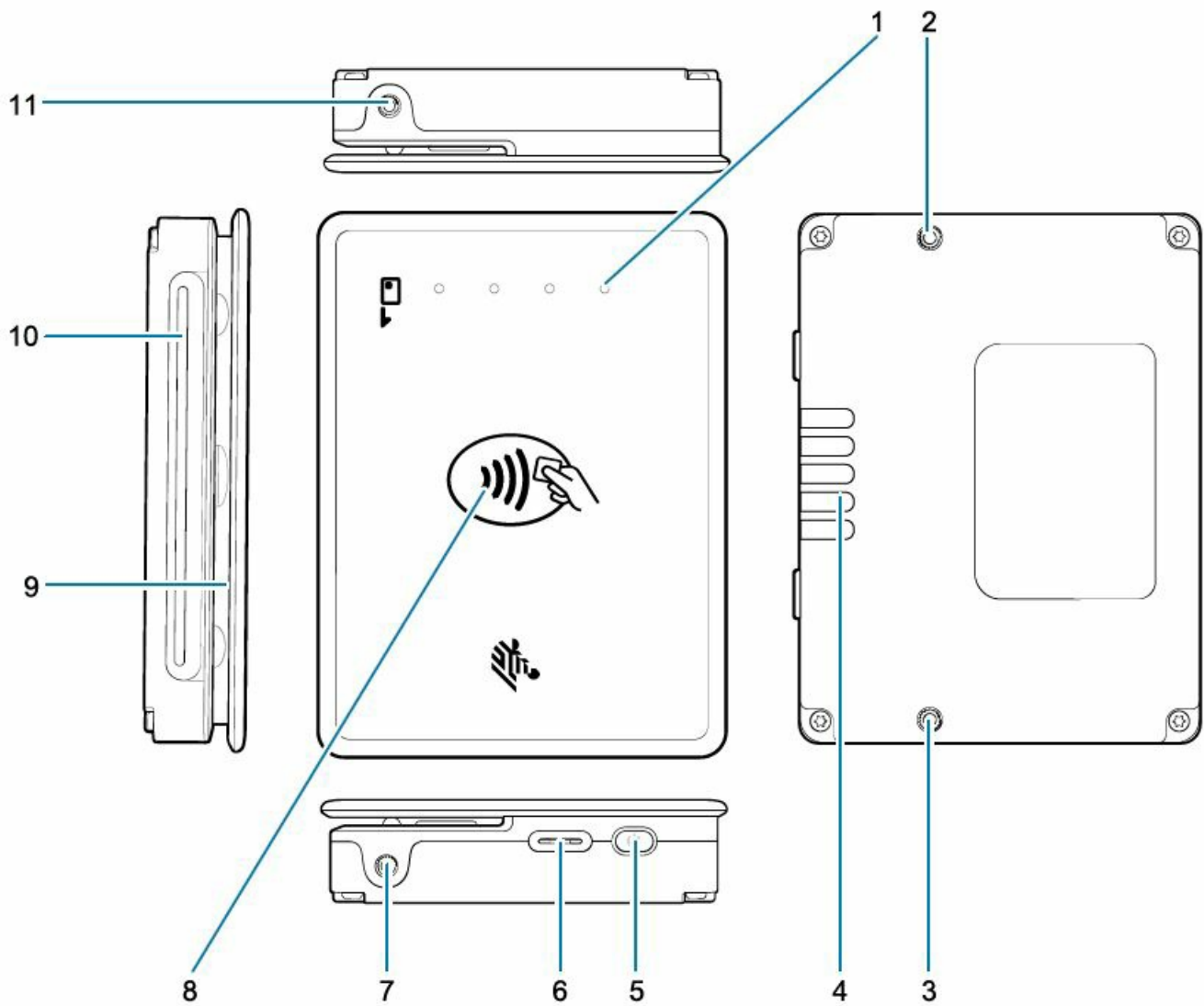
Device Features

Figure 1 PD20 Features

Table 1 PD20 Features

| Item	Name	Description
1	LED indicators	Indicators for transaction and device status.
2	Alignment hole	*Accepts the mounting screw to secure the PD20 to a device.
3	Alignment hole	*Accepts the mounting screw to secure the PD20 to a device.
4	Rear contacts	Used for USB charging and communication.
5	On/Off button	Turns the PD20 on and off.
6	USB port	USB port for charging the PD20.
7	Screw hole 1	Accepts the mounting screw to secure the PD20 to the SCR battery.
8	Contactless reader	Contactless payment reader.
9	Magnetic strip slot	Opening to swipe card magnetic strip.
10	Card slot	Opening to insert a chip card.

| Item	Name	Description
11	Screw hole 2	Accepts the mounting screw to secure the PD20 to the SCR battery.
* Reserved for future use.		

Attaching the PD20 to a Zebra Mobile Device

1. Assemble the PD20 and SCR battery.
   - Insert the PD20 (1) into the SCR battery (2), connector (3) side first.
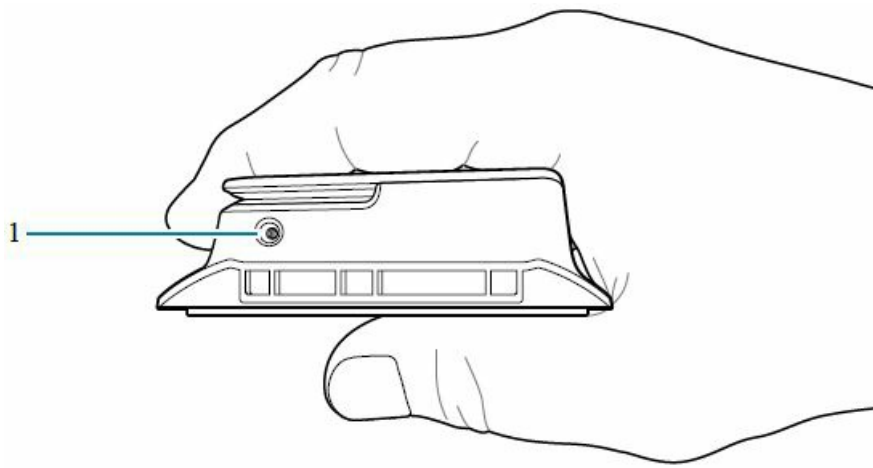
     NOTE: TC5x SCR battery shown.
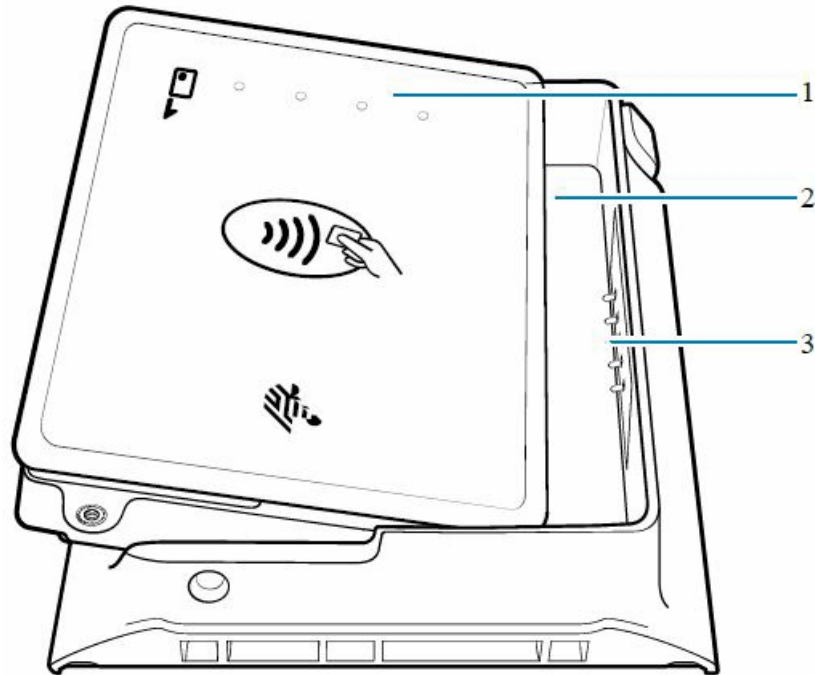
   - Align the holes on either side of the PD20 (1) with the holes on the SCR battery (2).
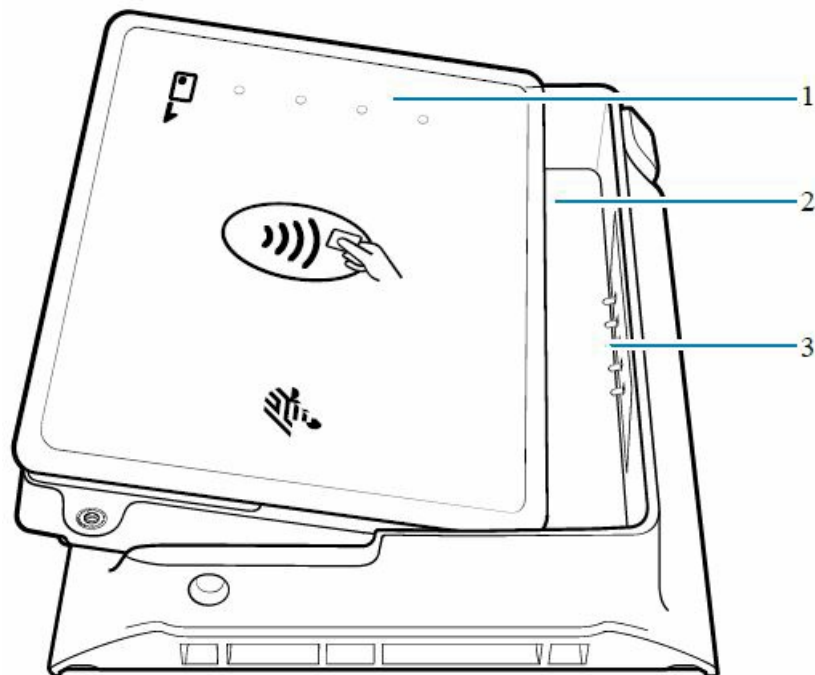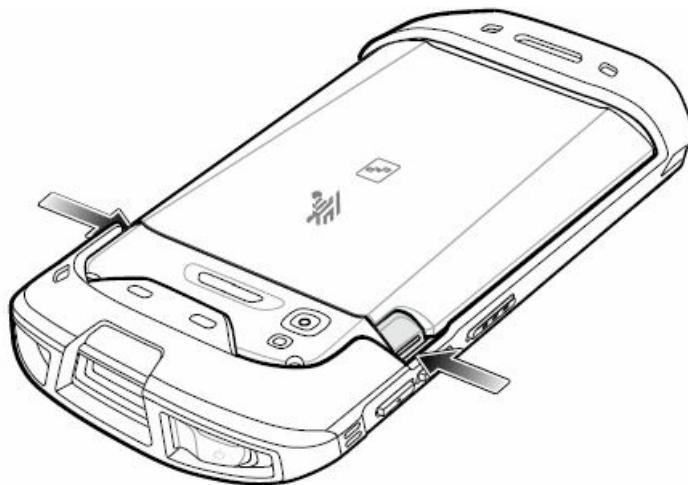

   - Push the PD20 down into the SCR battery until it sits flat.
   - Secure the PD20 in place using a Torx T5 screwdriver to attach the screw holes (1) on either side of the SCR battery and torque to 1.44 Kgf-cm (1.25 lb-in).
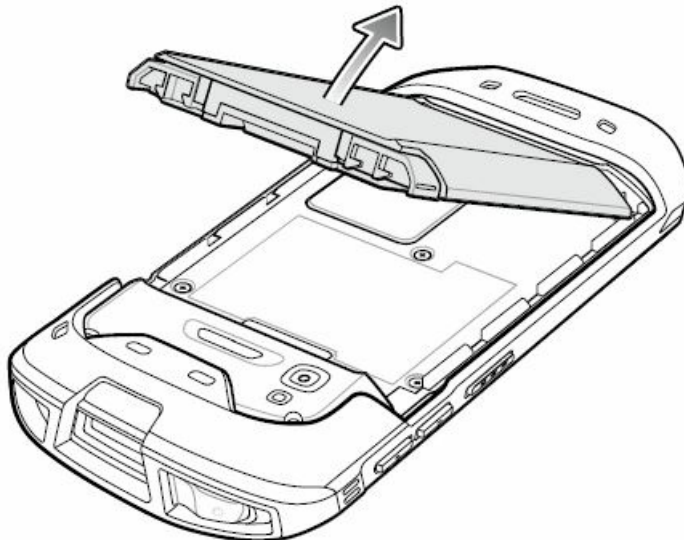
2. Power off the mobile device.

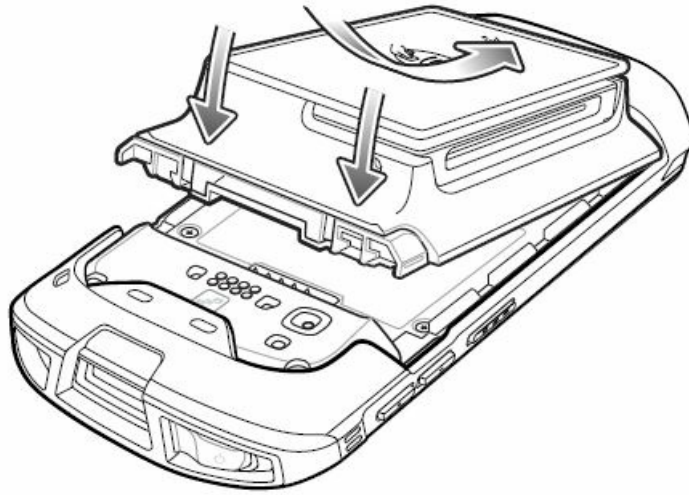3. Press the two battery latches in.

   NOTE: TC5x device shown.

4. Lift the standard battery from the device and store it in a safe place.
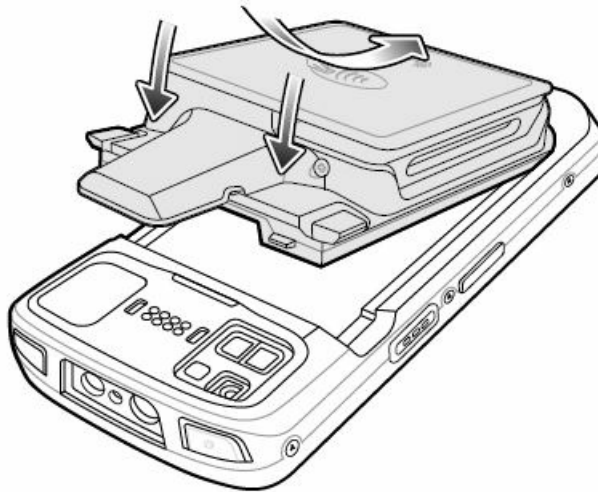

5. Insert the assembled PD20 and SCR battery component, bottom first, into the battery compartment at the back of the device.
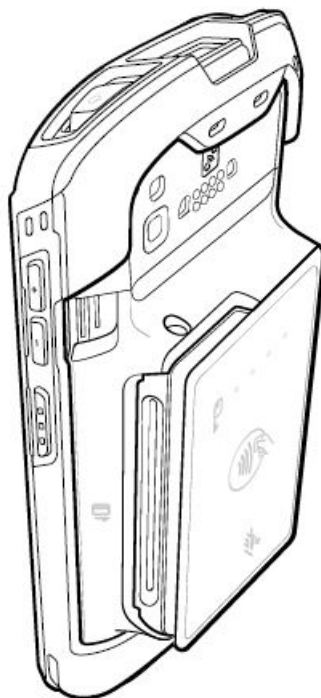
   NOTE: TC5x device shown.

NOTE: TC73 device shown.

6. Press the PD20 and SCR battery assembly down into the battery compartment until the battery release latches snap into place.

7. Press the Power button to turn on the device.


Attaching the PD20 to an ET4X

CAUTION: Power off the ET4X before installing or removing the Payment Sled.
CAUTION: Do not use any tool for battery cover removal. Puncturing the battery or seal may cause a hazardous condition and a potential risk of injury.

1. Remove the battery cover and store it in a safe place.

2. Insert the tabbed end of the PD20 Payment Sled into the battery well. Ensure that the tabs on the Payment Sled are aligned with the slots in the battery well.
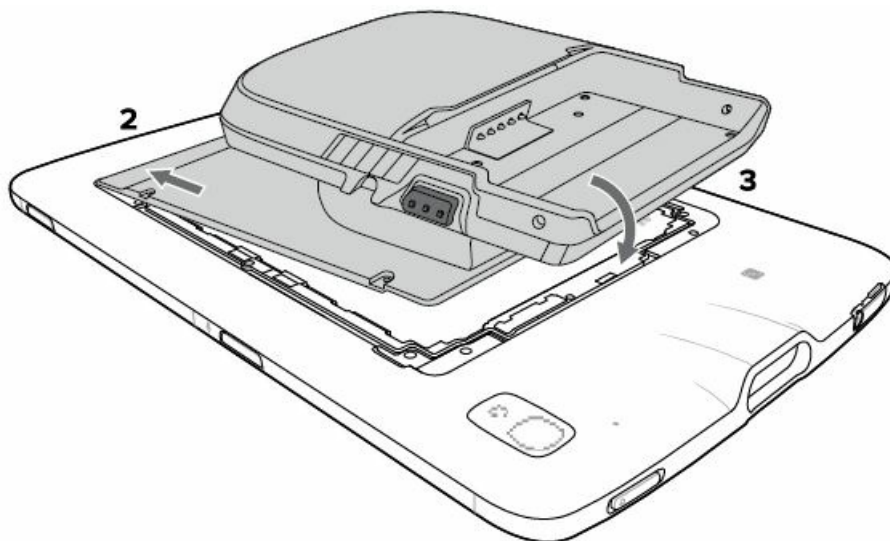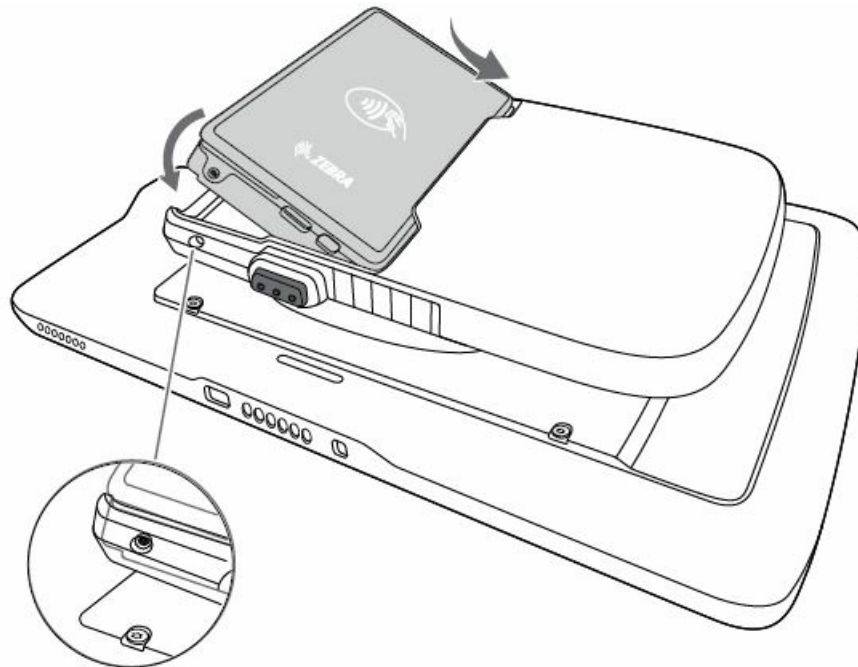

3. Rotate the Payment Sled down into the battery well.
4. Carefully press down around the edges of the Payment Sled. Make sure that the cover is seated correctly.
5. Using a T5 Torx screwdriver, secure the Payment Sled to the device using four M2 screws.
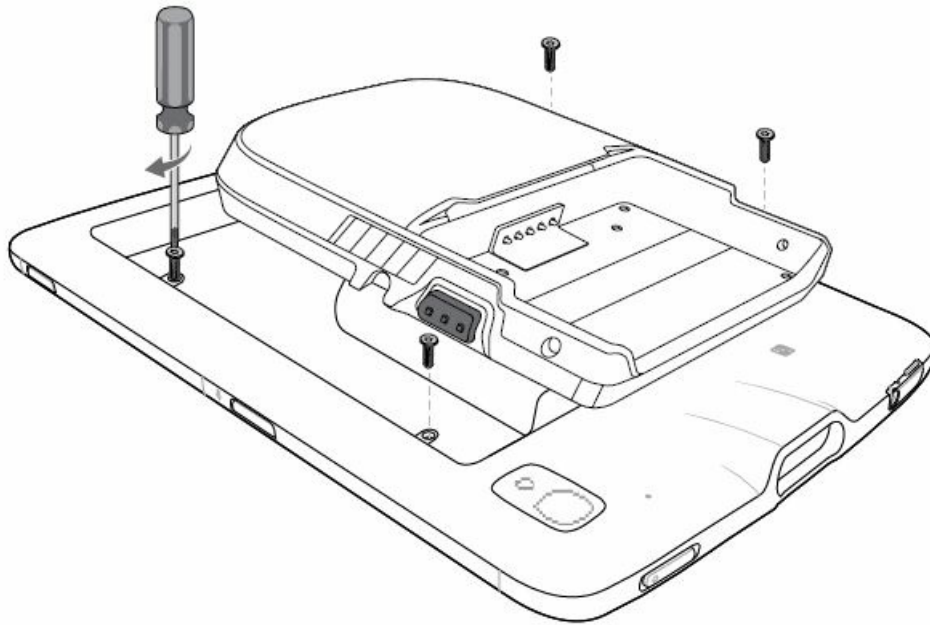
6. Insert the PD20 into the Payment Sled.

7. Align the holes on either side of the PD20 with the holes on the Payment Sled.

8. Push the PD20 down into the Payment Sled until it sits flat.

9. Secure the PD20 in place using a Torx T5 screwdriver to attach the screws on either side of the Payment Sled and torque to 1.44 Kgf-cm (1.25 lb-in).
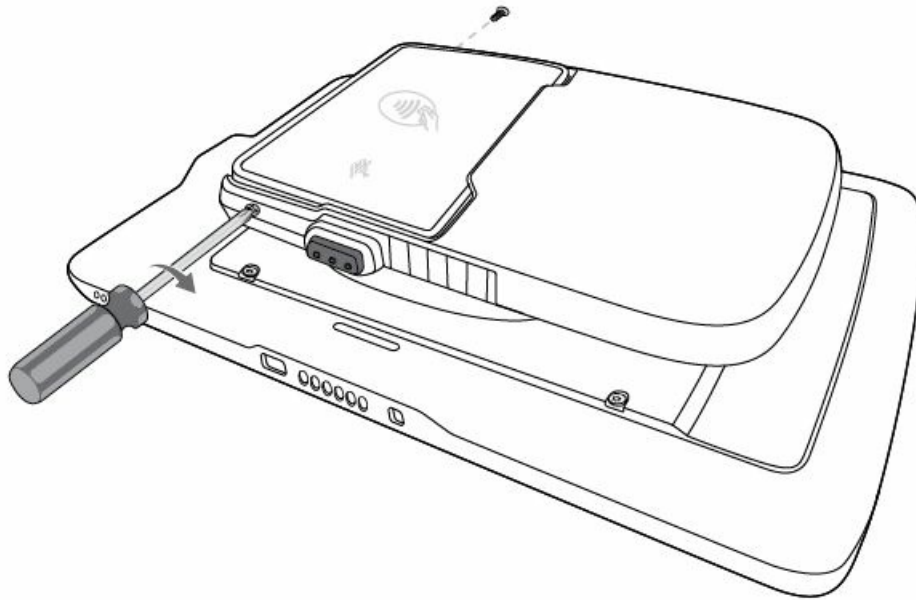
Charging the PD20

Before using the PD20, it is recommended to charge the PD20 battery fully.

- If the PD20 battery level is around 16%, place the device in the charging cradle. Refer to the device's product reference guide for more information on charging.
- The PD20 battery fully charges in approximately 1.5 hours.
- If the PD20 battery level is very low (below 16%) and the battery does not charge in the charging cradle after 30 minutes:
- Remove the PD20 from the device.
- Connect a USB-C cable to the PD20's USB port.
- Connect the USB connector to the power supply and plug it into a wall outlet (over 1 amp).

LED States

Figure 2   PD20 LEDs
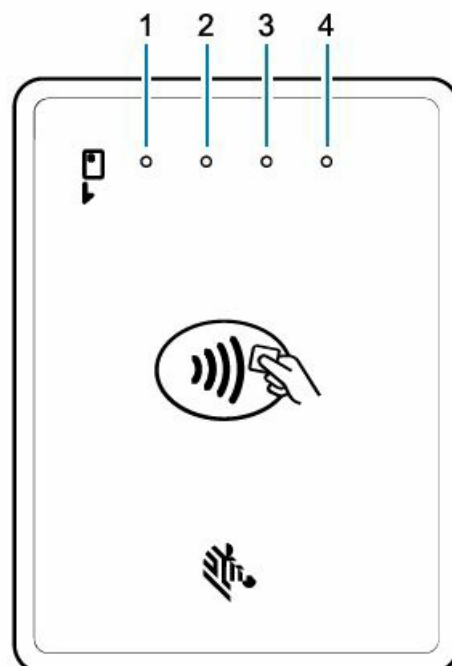
The following table indicates the various PD20 LED states.

Table 2 LED States

LED	Description
Device Operations	
No indication	The device is turned off.
LEDs 1, 2, 3, and 4 are flashing in ascending order.	SCR battery is between 0% and 25% charged.
LED 1 is on, and LEDs 2, 3, and 4 are flashing in ascending order.	SCR battery is between 50% and 75% charged.
LEDs 1, 2, and 3 are on, and LED 4 is flashing.	SCR battery is between 75% and 100% charged.
LED 4 is on, and LEDs 1, 2, and 3 are off.	SCR battery is fully charged.
Tampering	
LED 1 is on and LED 4 is flashing.	This indicates that someone has tampered with the device. Tampered units can no longer be used and should be discarded or recycled. For recycling and disposal advice, please refer to **zebra.com/weee**.

Performing a Contact-Based Transaction

1. Insert the smart card at the top into the PD20 with the back of the card facing up.
2. Swipe the magnetic strip.

Figure 3 Swipe Card on TC5Xx Mobile Device

Figure 4 Swipe Card on ET4X
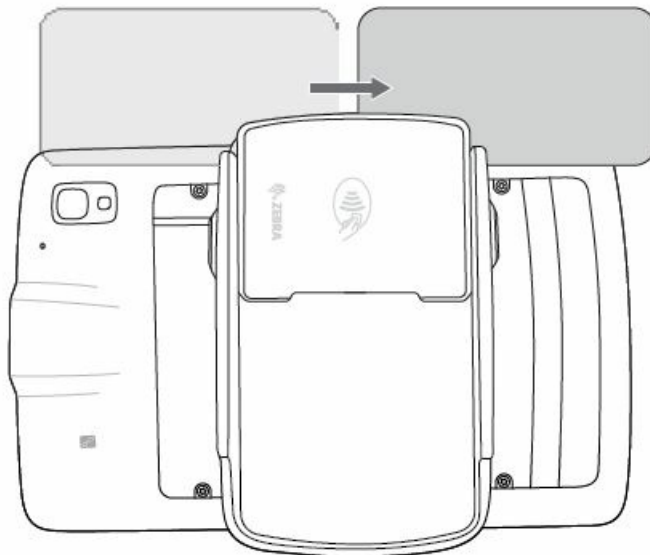
3. When prompted, the customer enters a Personal Identification Number (PIN).

   If the purchase is approved, a confirmation is received—typically a beep, green light, or checkmark.

Performing a Smart Card Transaction

1. Insert the smart card with the gold contacts (chip) facing up into the slot on the PD20.

Figure 5 Insert Card on TC5Xx

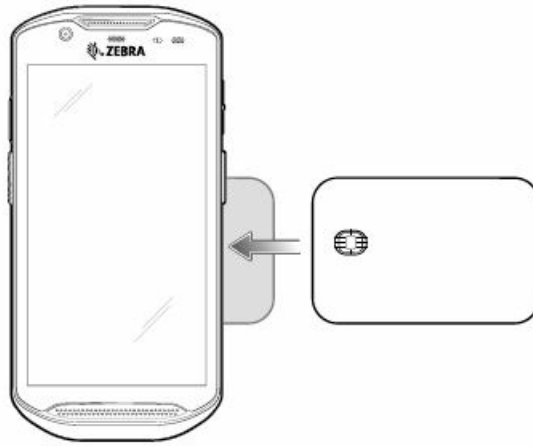**Figure 6** Insert Card on ET4X

2. When prompted, the customer enters a Personal Identification Number (PIN).

   If the purchase is approved, a confirmation is received—typically a beep, green light, or checkmark.

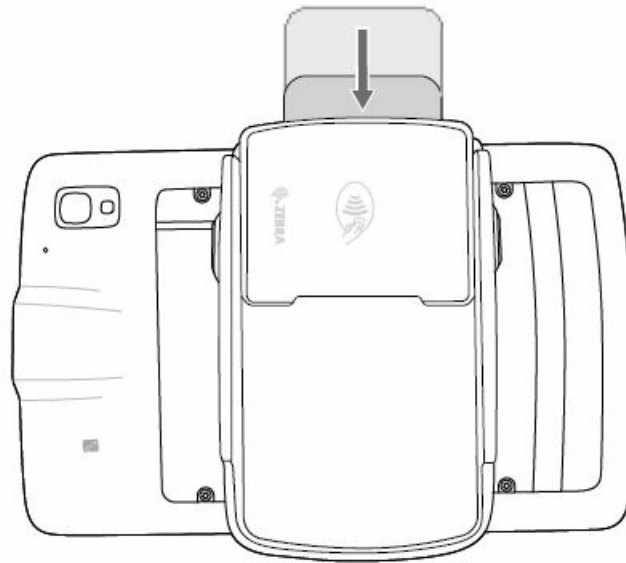3. Remove the card from the slot.

Performing a Contactless Transaction

1. Confirm that the contactless symbol))) is on both the card and PD20.

2. When prompted by the system, hold the card within one to two inches of the contactless symbol.

Figure 7 Tap Card on TC5Xx
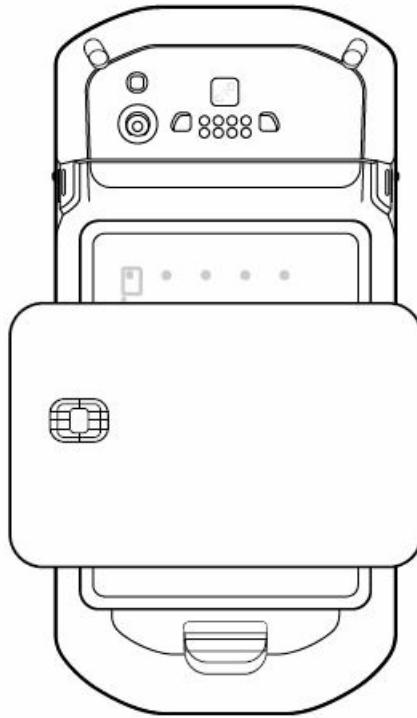
Figure 8 Tap Card on ET4X
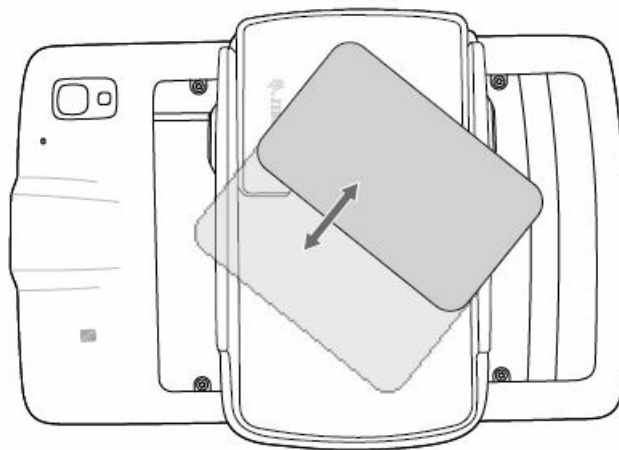
Troubleshooting

Troubleshooting the PD20
This section provides information about troubleshooting the device.

Table 3 Troubleshooting the PD20

Problem	Cause	Solution
An attestation error displays during payment or registration.	Several security checks are run on the device to ensure the integrity of the device before running any payment.	Ensure that developer options are disabled and no overlay windows are shown on the screen—for example, a chat bubble.
The PD20 is not powering up when running a transaction.	If the PD20 is not used for an extended period, it must be charged from a power source for at least 30 minutes before a transaction.	Charge the PD20 using a USB-C cable connected to a power supply (for example, a USB cable connected to a wall plug adapter). After 30 minutes, re-attach the PD20 to the device.
The PD20 is not communicating with the device. LED 1 is on, and LED 4 is flashing.	The PD20 has been tampered with.	Tampered devices can no longer be used and should be discarded or recycled. For recycling and disposal advice, refer to **zebra.com/weee**.
The PD20 battery level is inconsistent while charging versus when not charging.	While the device is charging, the PD20 battery level may not be accurate.	After removing the PD20 from the charger, wait 30 seconds before checking the battery level.

Maintenance

To maintain the device properly, observe all cleaning, storage, and battery safety information provided in this guide.

Battery Safety Guidelines

- To use the device safely, you must follow the battery guidelines.
- The area in which the units are charged should be clear of debris and combustible materials or chemicals. Particular care should be taken when the device is charged in a non-commercial environment.
- Follow the battery usage, storage, and charging guidelines found in this guide.
- Improper battery use may result in a fire, explosion, or other hazard.
- To charge the mobile device battery, the ambient battery and charger temperatures must be between 5°C to 40°C (41°F to 104°F).
- Do not use incompatible batteries and chargers, including non-Zebra 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 the Global Customer Support Center.
- 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 deform, puncture, or shred the battery.
- 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 the battery in a microwave oven or dryer.

- Battery usage by children should be supervised.
- Please follow local regulations to properly dispose of used rechargeable batteries.
- Do not dispose of batteries in a 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 water for 15 minutes, and seek medical advice.
- If you suspect damage to your equipment or battery, contact Customer Support to arrange for inspection.

Cleaning Instructions

CAUTION: Always wear eye protection. Read the warning labels on alcohol products before using them.
If you have to use any other solution for medical reasons please contact the Global Customer Support Center for more information.
WARNING: Avoid exposing this product to contact with hot oil or other flammable liquids. If such exposure occurs, unplug the device and clean the product immediately under these guidelines.

Cleaning and Disinfecting Guidelines

- Never spray or pour chemical agents directly onto the device.
- Turn off and/or disconnect the device from AC/DC power.
- To avoid damage to the device or accessory, use only approved cleaning and disinfecting agents specified for the device.
- Follow the manufacturer's directions on the approved cleaning and disinfecting agent for how to use their product properly and safely.
- Use pre-moistened wipes or dampen a soft sterile cloth (not wet) with the approved agent. Never spray or pour chemical agents directly onto the device.
- Use a moistened cotton-tipped applicator to reach tight or inaccessible areas. Be sure to remove any lint left over by the applicator.
- Do not allow liquid to pool.
- Allow the device to air dry before use, or dry with a soft lint-free cloth or towelette. Ensure electrical contacts are fully dry before reapplying power.

Approved Cleaning and Disinfectant Agents
100% of the active ingredients in any cleaner must consist of one or some combination of the following: isopropyl alcohol, bleach/sodium hypochlorite1 (see important note below), hydrogen peroxide, ammonium chloride or mild dish soap.

IMPORTANT

- Use pre-moistened wipes and do not allow liquid cleaner to pool.
  1 When using sodium hypochlorite (bleach) based products always follow the manufacturer's recommended instructions: use gloves during application and remove the residue afterwards with a damp alcohol cloth or a cotton swab to avoid prolonged skin contact while handling the device. Due to the powerful oxidizing nature of sodium hypochlorite, the metal surfaces on the device are prone to oxidation (corrosion) when exposed to this chemical in liquid form (including wipes).
- If these types of disinfectants come in contact with metal on the device, prompt removal with an alcohol-

dampened cloth or cotton swab after the cleaning step is critical.

Special Cleaning Notes
The device should not be handled while wearing vinyl gloves containing phthalates, or before hands are washed to remove contaminant residue after gloves are removed.
If products containing any of the harmful ingredients listed above are used before handling the device, such as hand sanitiser that contain ethanolamine, hands must be completely dry before handling the device to prevent damage to the device.

IMPORTANT: If the battery connectors are exposed to cleaning agents, thoroughly wipe off as much of the chemical as possible and clean with an alcohol wipe. It is also recommended to install the battery in the terminal before cleaning and disinfecting the device to help minimize buildup on the connectors.
When using cleaning/disinfectant agents on the device, it is important to follow the directions prescribed by the cleaning/disinfectant agent manufacturer.

Cleaning Frequency
The cleaning frequency is at the customer's discretion due to the varied environments in which the mobile devices are used and may be cleaned as frequently as required. When dirt is visible, it is recommended to clean the mobile device to avoid the build-up of particles which make the device more difficult to clean later on.
For consistency and optimum image capture, it is recommended to clean the camera window periodically, especially when used in environments prone to dirt or dust.

Storage
Do not store the device for extended periods as the PD20 may drain completely and become unrecoverable. Charge the battery at least once every six months.

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Documents / Resources

PD20 Secure Card Reader ZEBRA Quick Start Guide	**ZEBRA PD20 Secure Card Reader** [pdf] User Guide PD20 Secure Card Reader, PD20, Secure Card Reader, Card Reader, Reader

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