FR55

Touch Computer

Quick Start Guide

ZEBRA

MN-005240-01EN Rev. A

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Model Number

This guide applies to the model number: FR55E0.

Unpacking the Device

Unpacking the device from the box.

1. Carefully remove all protective material from the device and save the shipping container for later storage and shipping.
2. Verify that the following were received:
   - Touch computer
   - Lithium-ion battery
   - Regulatory guide
   - Rugged boot (with device inside)
3. Inspect the equipment for damage. If any equipment is missing or damaged, contact the Global Customer Support Center immediately.
4. Before using the device for the first time, remove the protective shipping film that covers the display and camera window.

Device Features

This section lists the features of the FR55 touch computer.

Figure 1 Front and Side Views

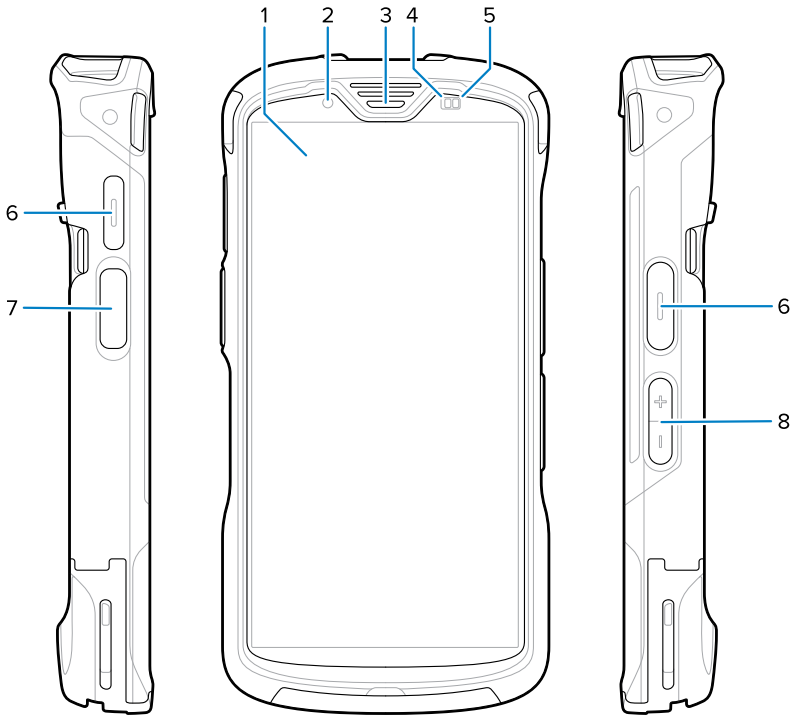


Table 1 FR55 Front and Side Items

Number	Item	Description
1	6 in. LCD touchscreen	Displays all information needed to operate the device.
2	Front Camera (8MP)	Takes photos and videos.
3	Receiver	Use for audio playback in Handset mode.
4	Proximity/light sensor	Determines proximity and ambient light for controlling display backlight intensity.

Table 1 FR55 Front and Side Items (Continued)

Number	Item	Description
5	Battery status LED	Indicates battery charging status while charging and application-generated notifications.
6	Programmable button	A customizable button used to assign various actions as seen fit.
7	PTT button	Typically used for PTT communications. Where regulatory restrictions exist, this button is configurable for use with other applications.
8	Volume up/down button	Increase and decrease audio volume (programmable).

Figure 2 Back and Top View

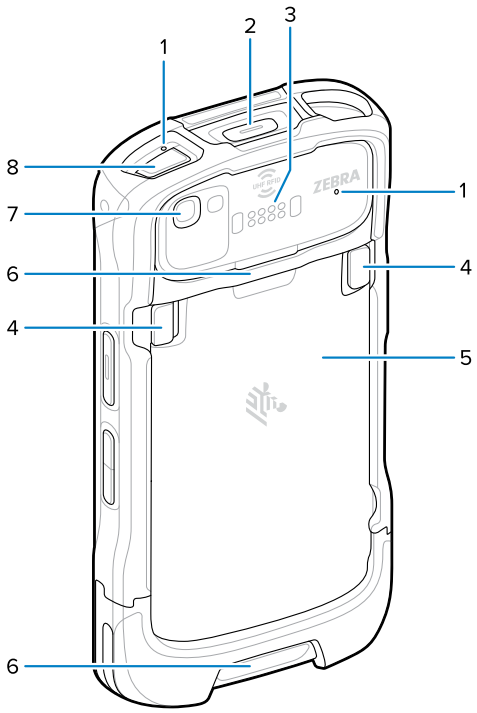


Table 2 Back and Top Items

Number	Item	Description
1	Microphone	Use for communications in Handset/Handsfree mode, audio recording, and noise cancellation.
2	Emergency duress button	Can be used to send an emergency alert.
	Back common I/O 8 pins	Provides host communications, audio, and device charging via cables and accessories.
4	Battery release latches	Pinch both latches in and lift up to remove the battery.

Table 2 Back and Top Items (Continued)

Number	Item	Description
5	Battery	Provides power to the device.
6	Hand strap points	Attachment points for the hand strap.
7	Rear camera (16MP) with flash	Takes photos and videos with flash to provide illumination for the camera.
8	Power button	Turns the display on and off. Press and hold to power off, restart, or lock the device.

Figure 3 Bottom View

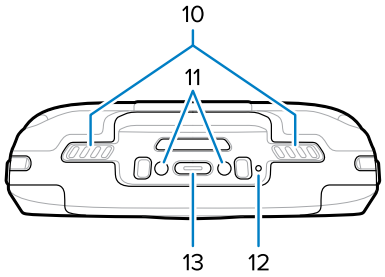


Table 3 Bottom Items

Number	Item	Description
10	Speaker	Provides audio output for video and music playback. Provides audio in speakerphone mode.
11	DC input pins	Power/ground for charging (5 VDC through 9 VDC).
12	Microphone	Use for communications in Handset/Handsfree mode, audio recording, and noise cancellation.
13	USB Type C and 2 charge pins	Provides power to the device using an I/O USB-C interface with 2 charge pins.

Setting Up the Device

This section describes assembling and powering on the device for the first time.

To start using the device for the first time:

1. Install a nano SIM card.
2. Depending on the configuration, install a micro Secure Digital (SD) card, a SAM card, or an additional nano SIM card as needed (optional).

NOTE: The FR55 has three data/memory variations: Dual SIM, SIM+SAM, and SIM+SD. The SIM location is consistent, but the secondary slot varies.

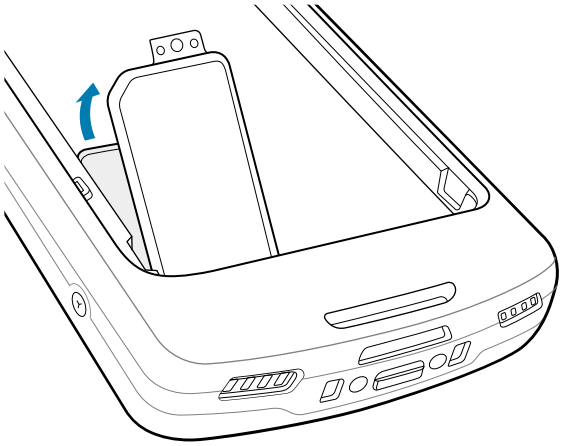
3. Install the battery.
4. Install hand strap (optional).
5. Charge the device.
6. Power on the device.

Installing a SIM Card

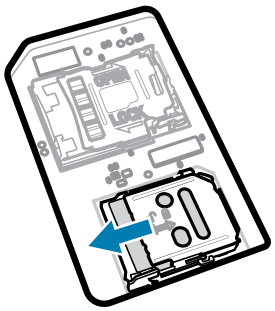
This section describes how to install a SIM card, which is required to make calls, send text messages, and transfer data over a cellular network. The slot is located under the battery pack.

CAUTION—ESD: Follow proper electrostatic discharge (ESD) precautions to avoid damaging the SIM card. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring the operator is properly grounded.

1. Lift the access door.

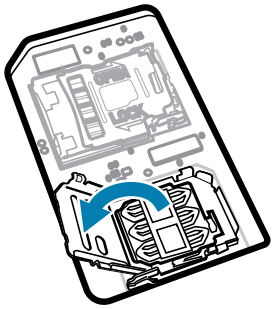


2. Slide the SIM card holder to the unlock position.

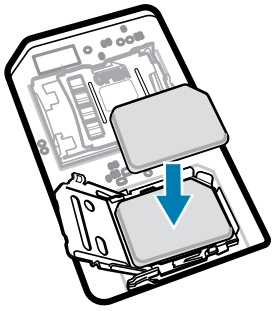


NOTE: Depending on the configuration of the FR55 being used, the layout of the memory/data slots will differ. The configuration is indicated on the access door. The process for installing the SIM card will stay the same.

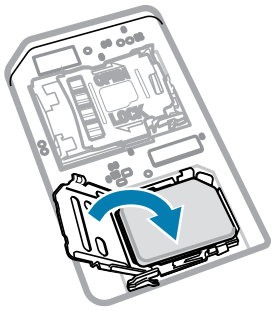
3. Lift the SIM card holder door.



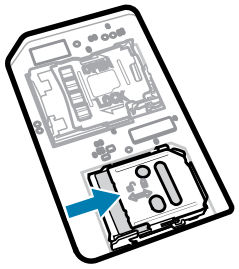
4. Place the SIM card into the card holder with the contacts facing down.



5. Close the SIM card holder door.

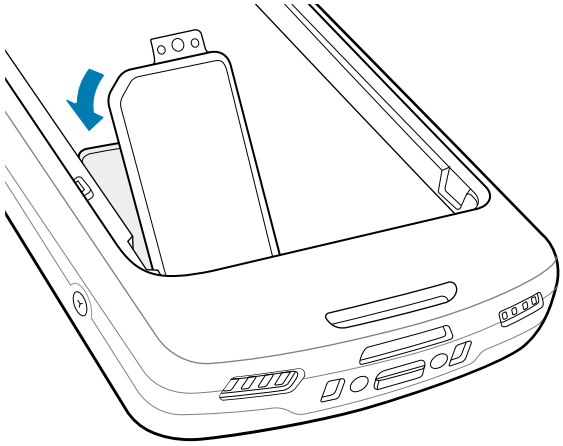


6. Slide the SIM card holder to the lock position.



NOTE: The access door must be replaced and securely seated to ensure proper device sealing.

7. Reinstall the access door.



Activating an eSIM

Activating an eSIM on the device.

Before adding an eSIM, contact your carrier to obtain the eSIM service and its activation or QR code.

NOTE: Ensure Airplane mode is turned **OFF**.

1. On the device, establish an internet connection via Wi-Fi or cellular data with an installed SIM card.
2. Go to **Settings**.
3. Touch **Network & internet** > **Mobile Networks**.
4. Touch + next to **SIMs** if a SIM card is already installed, or touch **SIMs** if there is no SIM card installed.

NOTE: A secure lock screen must be created or already in use to proceed.

The **Mobile network** screen displays.

5. Select either:
   - **MANUAL CODE ENTRY** to enter the activation code, or
   - **SCAN** to scan the QR code to download the eSIM profile.

   The **Confirmation!!!** dialog box displays.
6. Touch **OK**.
7. Enter the activation code or scan the QR Code.

NOTE: If you are manually entering the activation code, you will have to select **Next** to proceed.

The **Downloading a profile** message displays, followed by the **Use <Network Name>?** message.

8. Touch **ACTIVATE**.

9. Touch **Done**.

   The eSIM is now active.

Deactivating an eSIM

Turn off an eSIM temporarily and reactivate it later.

NOTE: Ensure Airplane mode is turned **OFF**.

1. Touch **Network & internet** > **SIMs**.
2. In the **Downloaded SIM** section, touch the name of the eSIM to deactivate.
3. Touch **Use SIM** switch to turn off the eSIM.
4. Touch **Yes**.

   The eSIM is deactivated.

Erasing an eSIM Profile

Erasing an eSIM profile removes it completely from the device.

After erasing an eSIM from the device, you cannot use it again.

NOTE: Ensure Airplane mode is turned **OFF**.

1. Touch **Network & internet** > **SIMs**.
2. In the **Downloaded SIM** section, touch the name of the eSIM to erase.
3. Touch **Erase**.

NOTE: A secure lock screen must be created or already in use to proceed.

   The **Erase this downloaded SIM?** message displays.

4. Touch **Erase**.

   The eSIM profile is erased from the device.

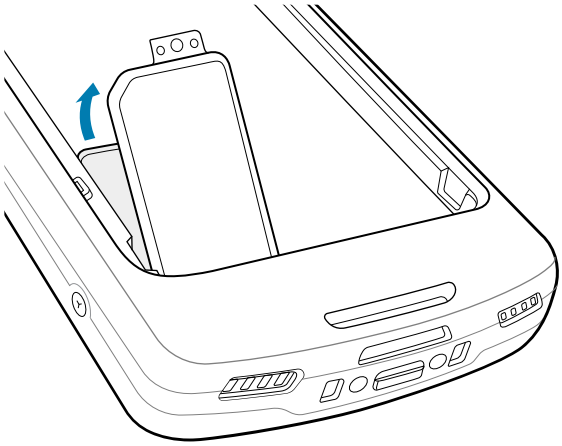
Installing a microSD Card

The microSD card slot provides secondary non-volatile storage. The slot is located under the battery pack. Refer to the documentation provided with the card for more information, and follow the manufacturer's recommendations for use.

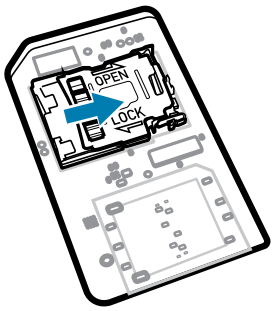
CAUTION—ESD: Follow proper electrostatic discharge (ESD) precautions to avoid damaging the MicroSD card. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring the operator is properly grounded.

NOTE: This only applies to the SIM+microSD card configurations.

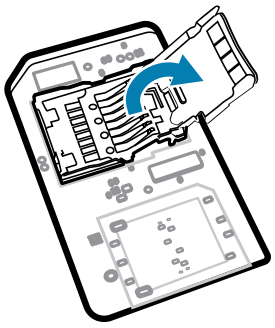
1. Lift the access door.



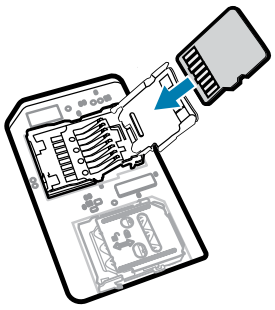
2. Slide the microSD card holder to the Open position.



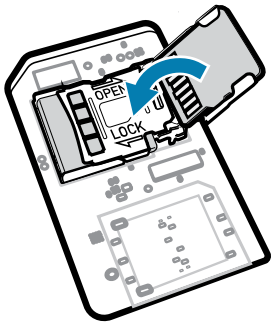
3. Lift the microSD card holder door.



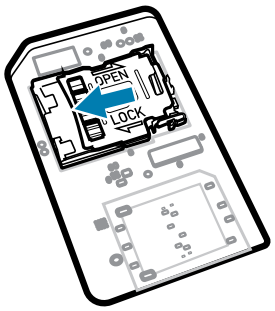
4. Insert the microSD card into the card holder, ensuring the card slides into the holding tabs on each side of the door.



5. Close the microSD card holder.

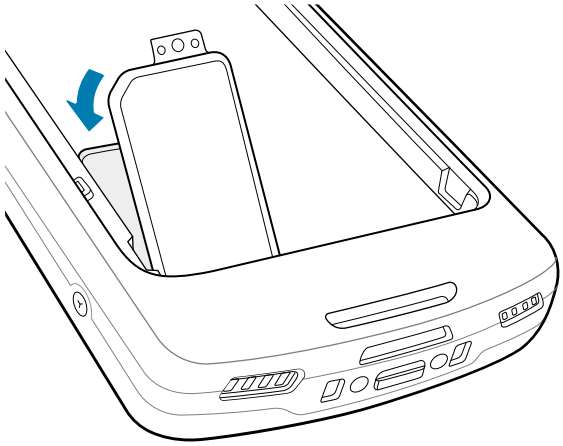


6. Slide the microSD card holder to the Lock position.



IMPORTANT: The access cover must be replaced and securely seated to ensure proper device sealing.

7. Reinstall the access door.



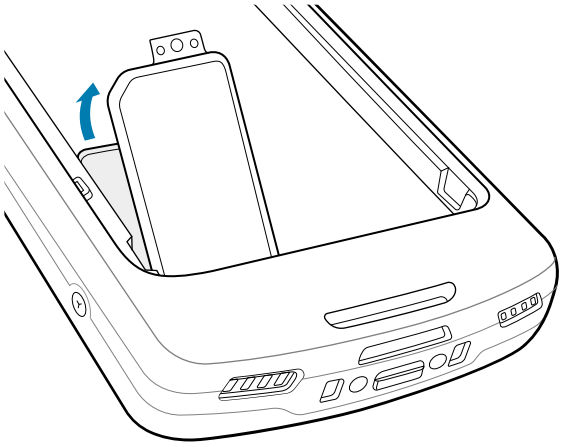
Installing a SAM or Second SIM Card

This section describes how to install a SAM or second SIM card. The slot is located under the battery pack.

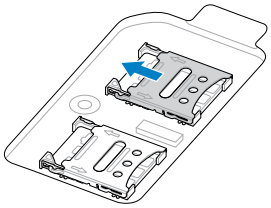
CAUTION—ESD: Follow proper electrostatic discharge (ESD) precautions to avoid damaging the SIM card. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring the operator is properly grounded.

NOTE: This memory/data card slot layout only applies to the SIM+SIM and SIM+SAM configurations.

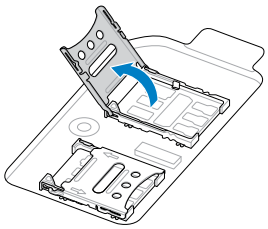
1. Lift the access door.



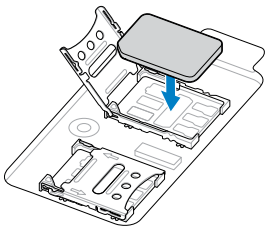
2. Slide the card holder to the unlock position.



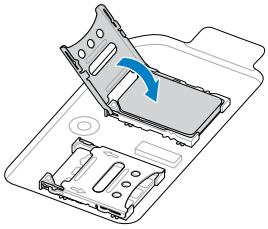
3. Lift the card holder door.



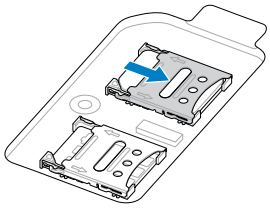
4. Place the desired card into the card holder with the contacts facing down.



5. Close the card holder door.

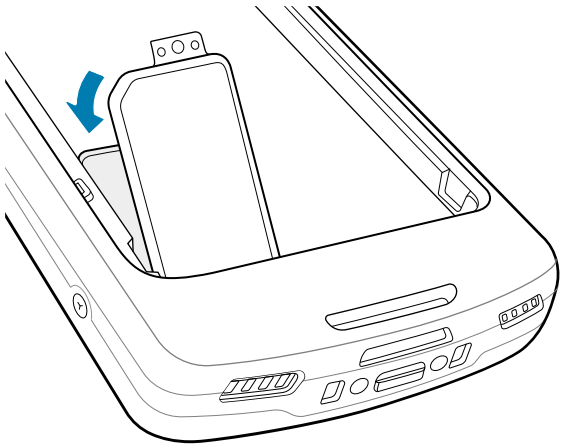


6. Slide the card holder to the lock position.



NOTE: The access door must be replaced and securely seated to ensure proper device sealing.

7. Reinstall the access door.



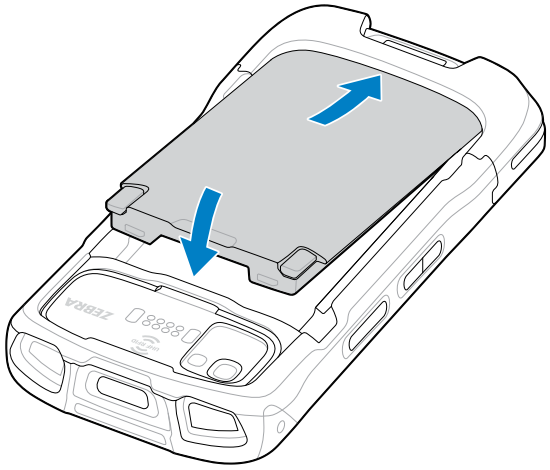
Installing the Battery

This section describes how to install a battery into the device.

NOTE: Do not put any labels, asset tags, engravings, stickers, or other objects in the battery well. Doing so may compromise the intended performance of the device or accessories. Performance levels, such as sealing [Ingress Protection (IP)], impact performance (drop and tumble), functionality, or temperature resistance, could be affected.

1. Insert the battery, bottom first, into the battery compartment in the back of the device.

2. Press the battery down until it snaps into place.



The Rechargeable Li-Ion Battery with BLE Beacon

This device utilizes a rechargeable Li-Ion battery to facilitate Bluetooth Low Energy (BLE) Beacon. When enabled, the battery transmits a BLE signal for up to seven days while the device is powered off due to battery depletion.

NOTE: The device transmits a Bluetooth beacon only when it is powered off or in airplane mode.

For additional information on configuring the Secondary BLE settings, see techdocs.zebra.com/emdk-for-android/13-0/mx/beaconmgr/.

The Rechargeable Li-Ion Wireless Battery

Use a rechargeable Li-Ion battery to facilitate wireless charging.

NOTE: The rechargeable Li-Ion wireless battery must be used along with the device in the Zebra Wireless Charge Vehicle Cradle or Qi-certified wireless chargers.

The BLE Beacon

The rechargeable Li-Ion battery facilitates Bluetooth Low Energy (BLE) Beacon. When enabled, the battery transmits a BLE signal for up to seven days while the device is powered off due to battery depletion.

NOTE: The device transmits a Bluetooth beacon only when it is powered off or in airplane mode.

For additional information on configuring the Secondary BLE settings, see techdocs.zebra.com/emdk-for-android/13-0/mx/beaconmgr/.

Charging the Device

Use only Zebra charging accessories and batteries to achieve optimal charging results. Charge batteries at room temperature with the device in Sleep mode.

The device goes into Sleep mode when you press Power or after a period of inactivity.

A battery charges from fully depleted to 90% in approximately 2 hours. In many cases, a 90% charge provides enough charge for daily use. Depending on the usage profile, a full 100% charge may last for approximately 14 hours of use.

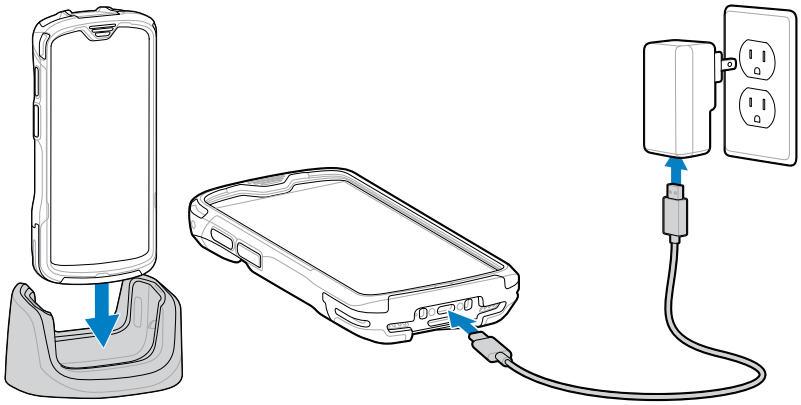
The device or accessory always performs battery charging in a safe and intelligent manner and indicates when charging is disabled due to abnormal temperatures via its LED, and a notification appears on the device display.

Temperature	Battery Charging Behavior
20 to 45°C (68 to 113°F)	Optimal charging range.
0 to 20°C (32 to 68°F) / 45 to 50°C (113 to 122°F)	Charging slows to optimize the JEITA requirements of the cell.
Below 0°C (32°F) / Above 50°C (122°F)	Charging stops.
Above 55°C (131°F)	The device shuts down.

To charge the main battery:

1. Connect the charging accessory to the appropriate power source and connect it to the device.

2. Insert the device into a cradle or attach to a power cable (minimum 9 VDC / 2 A).



NOTE:

The device turns on and begins charging. The Charging/Notification LED blinks amber while charging, then turns solid green when fully charged.

Charging Indicators

The charging/notification LED indicates the charging status.

Table 4 Charging/Notification LED Charging Indicators

State	LED Color	Indications
Off	○	The device is not charging. • The device is not inserted correctly in the cradle or connected to a power source. • The charger/cradle is not powered.
Slow Blinking Amber (1 blink every 4 seconds)	●	The device is charging.
Slow Blinking Red (1 blink every 4 seconds)	●	The device is charging, but the battery is at the end of its useful life.
Solid Green	●	Charging is complete.
Solid Red	●	Charging is complete, but the battery is at the end of its useful life.
Fast Blinking Amber (2 blinks/second)	●	Charging error. For example: • Temperature is too low or too high. • Charging has gone on too long without completion (typically 12 hours).

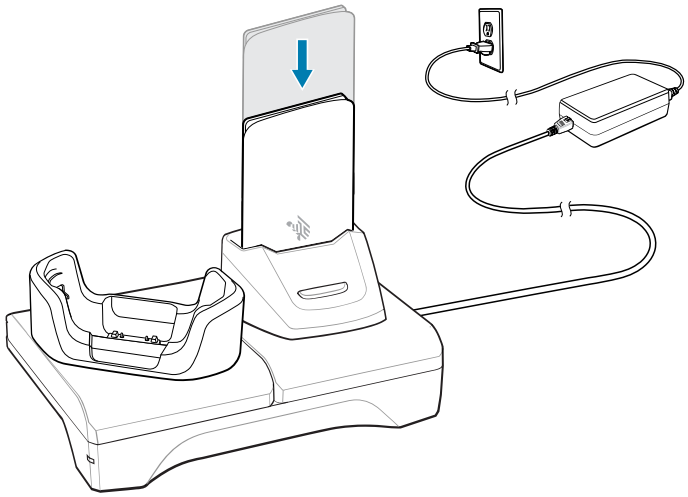
Table 4 Charging/Notification LED Charging Indicators (Continued)

State	LED Color	Indications
Fast Blinking Red (2 blinks/second)		Charging error, and the battery is at the end of its useful life. For example: • The temperature is too low or too high. • Charging has gone on too long without completion (typically 12 hours).

Charging the Spare Battery

This section provides information on charging a spare battery. Use only Zebra charging accessories and batteries to achieve optimal charging results.

1. Insert a spare battery into the spare battery slot.



2. Ensure the battery is seated properly.

   The Spare Battery Charging LED blinks, indicating charging.

The battery charges from fully depleted to 90% in approximately 2.5 hours. In many cases, the 90% charge provides plenty of charge for daily use. Depending on the usage profile, a full 100% charge may last for approximately 14 hours of use.

Accessories for Charging

Use one of the following accessories to charge the device and/or spare battery.

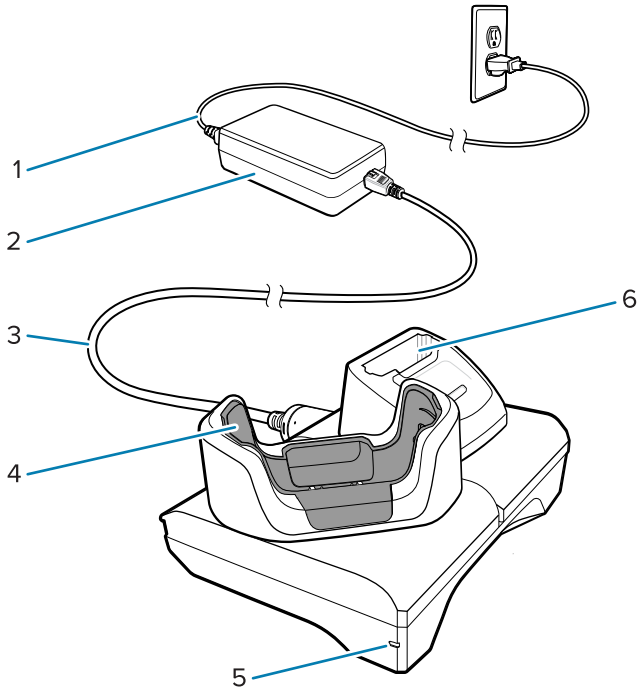
Charging and Communication

Description	Part Number	Charging		Communication	
		Battery (In device)	Spare Battery	USB	Ethernet
1-Slot Charge Only Cradle	CRD-NGTC5-2SC1B	Yes	Yes	No	No
1-Slot USB/Ethernet Cradle	CRD-NGTC5-2SE1B	Yes	Yes	Yes	Yes
4-Slot Device Charge Only Cradle and Spare Battery Charger	CRD-NGTC5-5SC4B	Yes	Yes	No	No
5-Slot Charge Only Cradle	CRD-NGTC5-5SC5D	Yes	No	No	No
5-Slot Ethernet Cradle	CRD-NGTC5-5SE5D	Yes	No	No	Yes
4-Slot Spare Battery Charger	SAC-NGTC5TC7-4SCHG-01	No	Yes	Yes	No
Charge/USB Cable	CBL-TC5X-USBC2A-01	Yes	No	Yes	No

1-Slot Charge Only Cradle

This USB cradle provides power, spare battery charging, and host communications.

CAUTION: Ensure that you follow the guidelines for battery safety described in the Product Reference Guide.

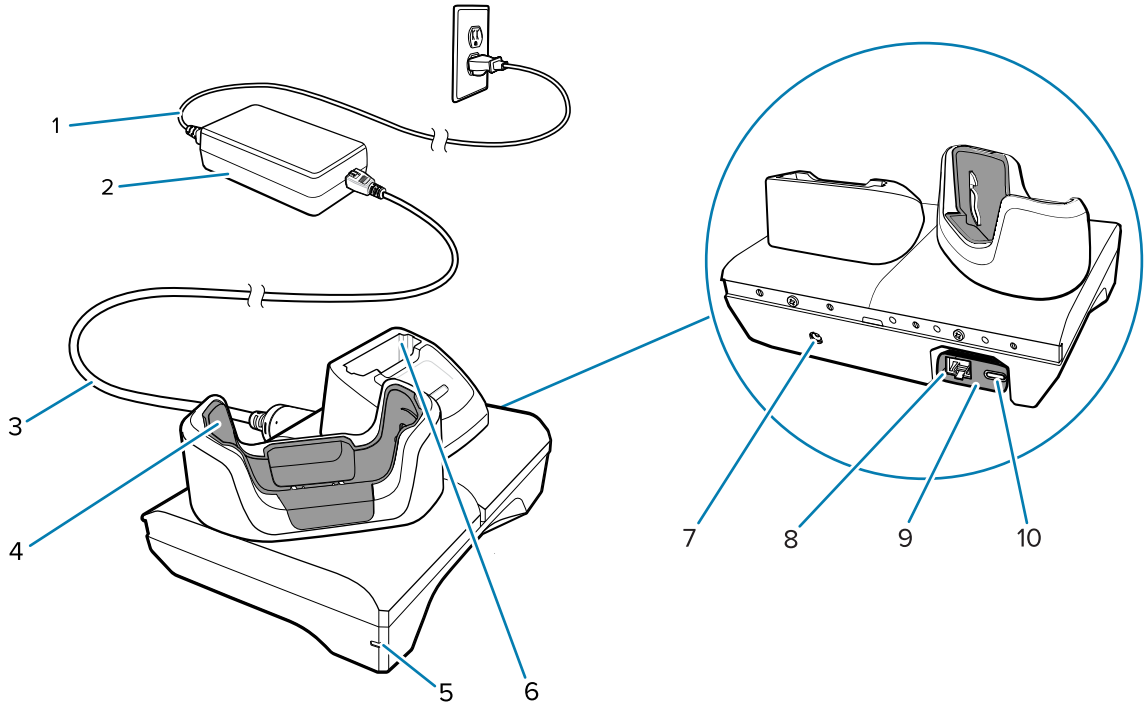


1	AC line cord
2	Power supply
3	DC line cord
4	Device charging slot
5	Power LED
6	Spare battery charging slot

1-Slot USB/Ethernet Charge Cradle

The 1-Slot USB/Ethernet Charging Cradle charges one device and one spare battery while also connecting a device to the Ethernet network.

CAUTION: Ensure that you follow the guidelines for battery safety described in the Product Reference Guide.



1	AC line cord
2	Power supply
3	DC line cord
4	Device charging slot
5	Power LED
6	Spare battery charging slot
7	DC line cord input
8	Ethernet port (on USB to Ethernet module kit)
9	USB to Ethernet module kit
10	USB port (on USB to Ethernet module kit)

NOTE: The USB to Ethernet module kit (KT-TC51-ETH1-01) connects via a single-slot USB charger.

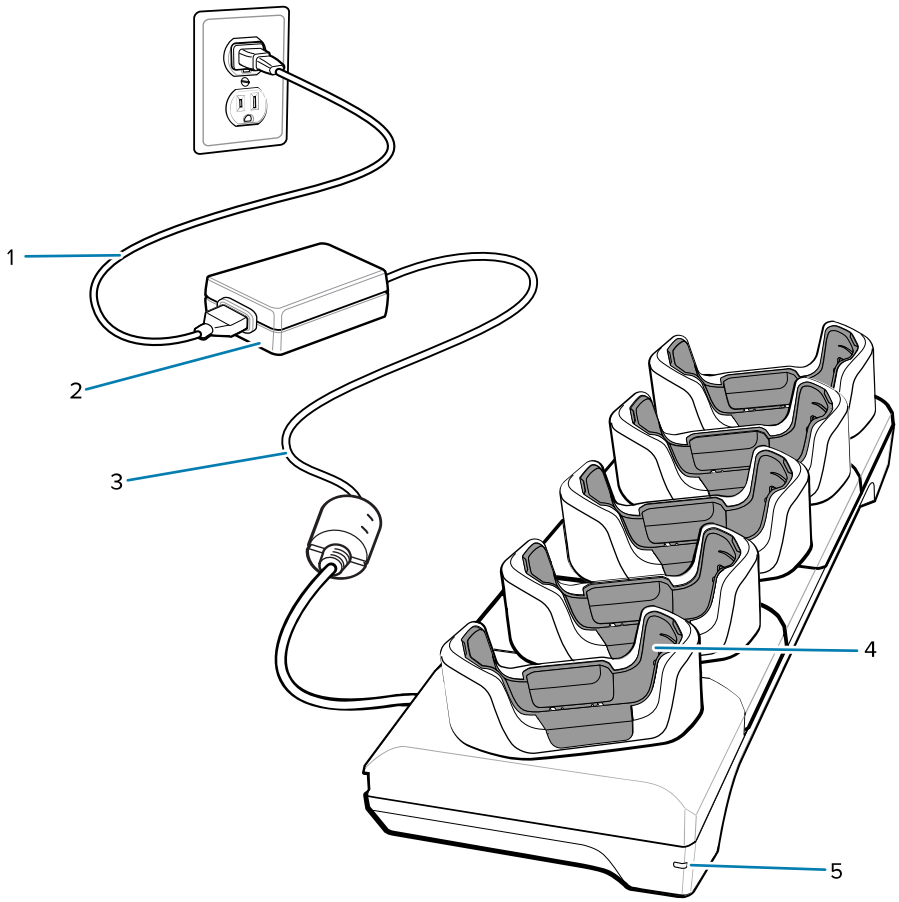
5-Slot Charge Only Cradle

CAUTION: Ensure that you follow the guidelines for battery safety described in the Product Reference Guide.

The 5-Slot Charge Only Cradle:

- Provides 5.0 VDC power for operating the device.
- Simultaneously charges up to five devices or up to four devices and four batteries using the 4-slot battery charger adapter.

- Contains a cradle base and cups that can be configured for various charging requirements.



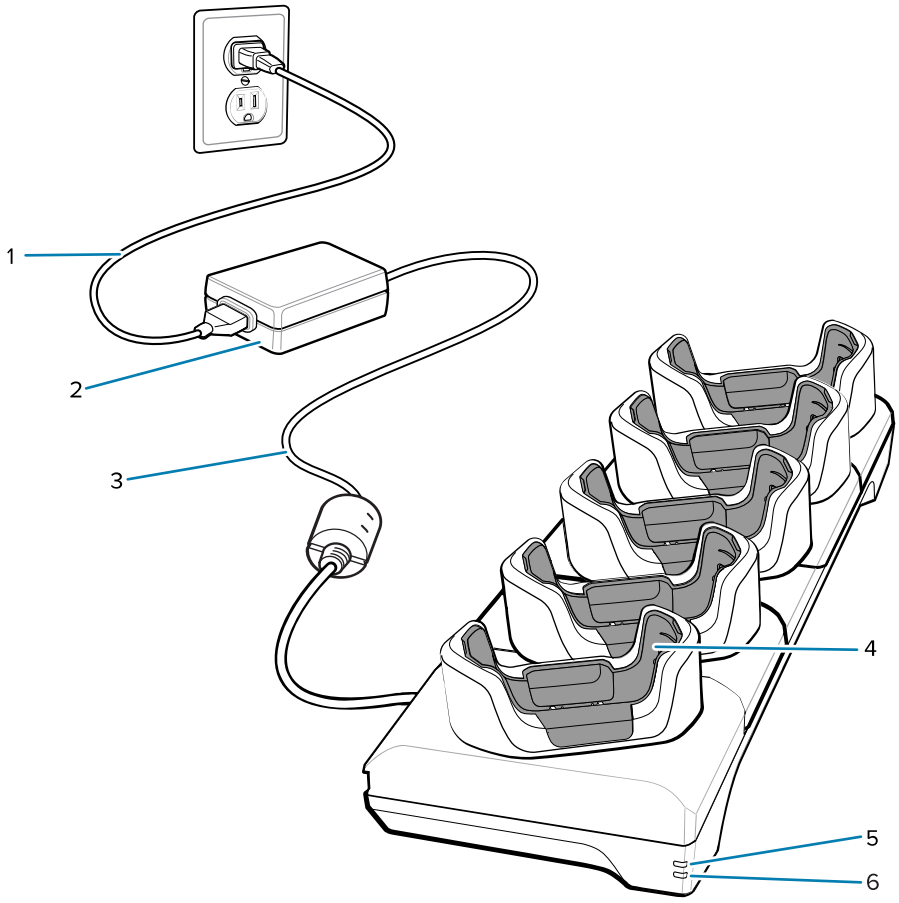
1	AC line cord
2	Power supply
3	DC line cord
4	Device charging slot with shim
5	Power LED

5-Slot Ethernet Cradle

CAUTION: Ensure that you follow the guidelines for battery safety described in the Product Reference Guide.

The 5-Slot Ethernet Cradle:

- Provides 5.0 VDC power for operating the device.
- Connects up to five devices to an Ethernet network.
- Simultaneously charges up to five devices or up to four devices and four batteries using the 4-slot battery charger adapter.



1	AC line cord
2	Power supply
3	DC line cord
4	Device charging slot
5	1000Base-T LED
6	10/100Base-T LED

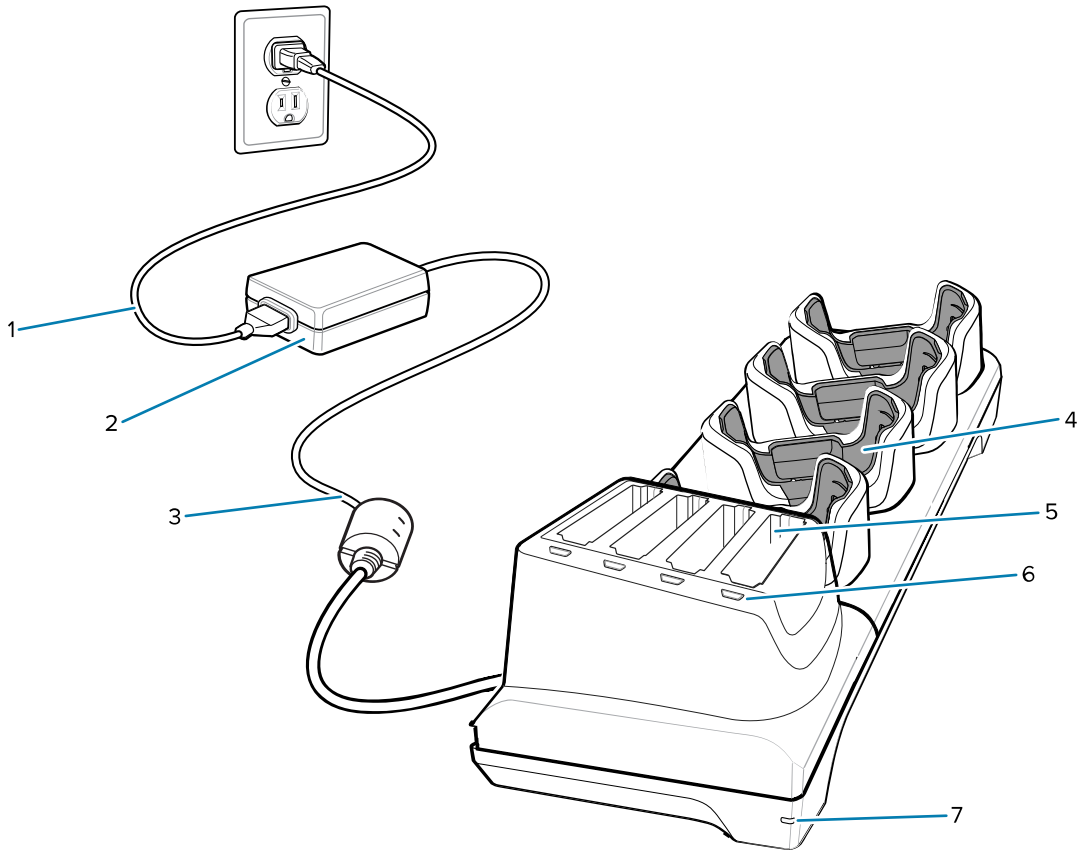
4-Slot Device Charge Only Cradle and Spare Battery Charger

The 4-Slot Device Charge Only Cradle and Spare Battery Charger charges up to four devices and four spare batteries.

CAUTION: Ensure that you follow the guidelines for battery safety described in the Product Reference Guide.

The 4-Slot Device Charge Only Cradle and Spare Battery Charger:

- Provides 5.0 VDC power for operating the device.
- Simultaneously charges up to four devices and four spare batteries.

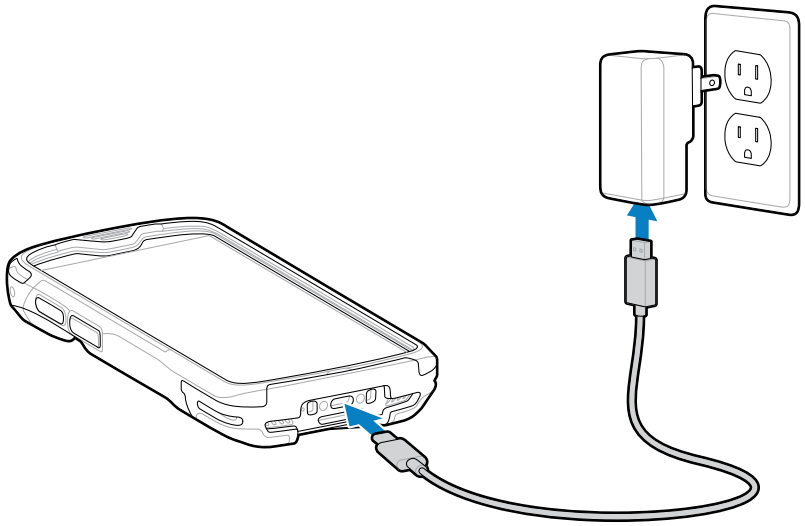


1	AC line cord
2	Power supply
3	DC line cord
4	Device charging slot with shim
5	Spare battery charging slot
6	Spare battery charging LED
7	Power LED

Charge/USB-C Cable

The USB-C Cable snaps onto the bottom of the device and removes easily when not in use.

NOTE: When attached to the device, it provides charging and allows the device to transfer data to a host computer.



True Battery Hot Swap

Replacing the main battery via hot swap allows the device to maintain Wi-Fi/WAN connectivity and memory persistence while replacing the depleted battery with a fully charged battery.

NOTE:

- The volume level is set at a maximum of 50% while performing a battery hot swap and is set to the original volume when the battery is replaced.
- Audio calls made while using a Bluetooth or wired headset are maintained during the battery hot swap.
- Push-to-talk applications maintain a network connection during the true battery hot swap, so long as the app remains open.

When the battery is removed, the backup supercapacitor immediately takes over to maintain the system, including Wi-Fi/WAN connectivity (only voice, data, and current state of applications), for 30 seconds. During this time, the user can still interact with the device. The display turns off, and the touchscreen is disabled to conserve power.

To ensure your device can remain functional for the full expected duration during a hot swap, refer to this table:

Connectivity Type	Temperature Range	Supported Call Types	Functional Duration
WAN	0 to 50°C	5G VoNR, 4G VoLTE, LAN VOIP	30 seconds
VOIP / LAN	-10 to 50°C	LAN VOIP	30 seconds

After 30 seconds without a battery, the device enters an emergency (critical) suspension mode, which maintains the memory cache for an additional 30 seconds. This allows the device to resume operation, rather than rebooting, so long as the battery is replaced within this 60-second window. If the battery is not reinstalled in time, memory persistence may be lost, causing the device to reboot when a charged battery is inserted.

Incoming calls received before replacing the battery are suspended and will resume when a fresh battery has been inserted. The performance of these calls depends on temperature and signal strength.

Performing a True Battery Hot Swap

This section describes how to perform a battery hot swap for the device.

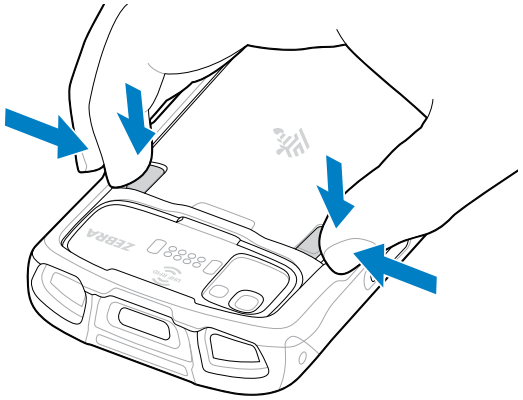
NOTE: Do not put any labels, asset tags, engravings, stickers, or other objects in the battery well. Doing so may compromise the intended performance of the device or accessories. Performance levels such as sealing (Ingress Protection (IP)), impact performance (drop and tumble), functionality, or temperature resistance could be affected.

CAUTION—PRODUCT DAMAGE: Do not add or remove a microSD, SAM, or SIM card during battery replacement.

1. Ensure the device is ready for a battery swap by checking the notification bar.

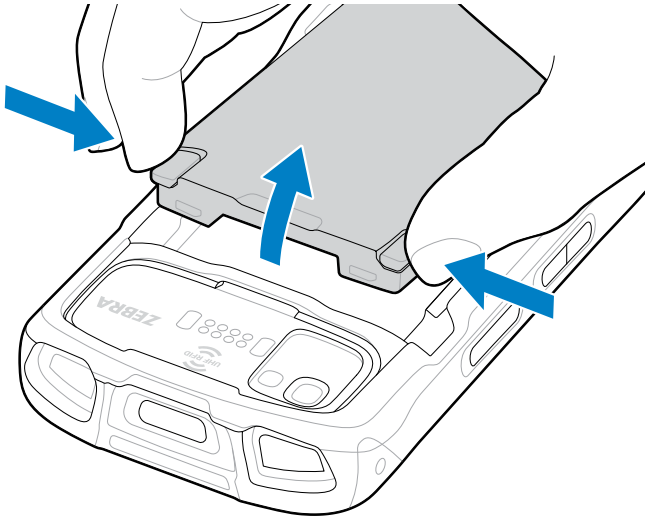
NOTE: If the device is not ready, a notification will display **Backup power not ready for battery swap.**

2. Remove any accessories blocking access to the battery.
3. Press the battery latches down and inward towards the center of the device.



CAUTION: Do not insert fingers under the latches while pulling on the battery, as this can damage the latches.

4. Pull the battery out of the device.

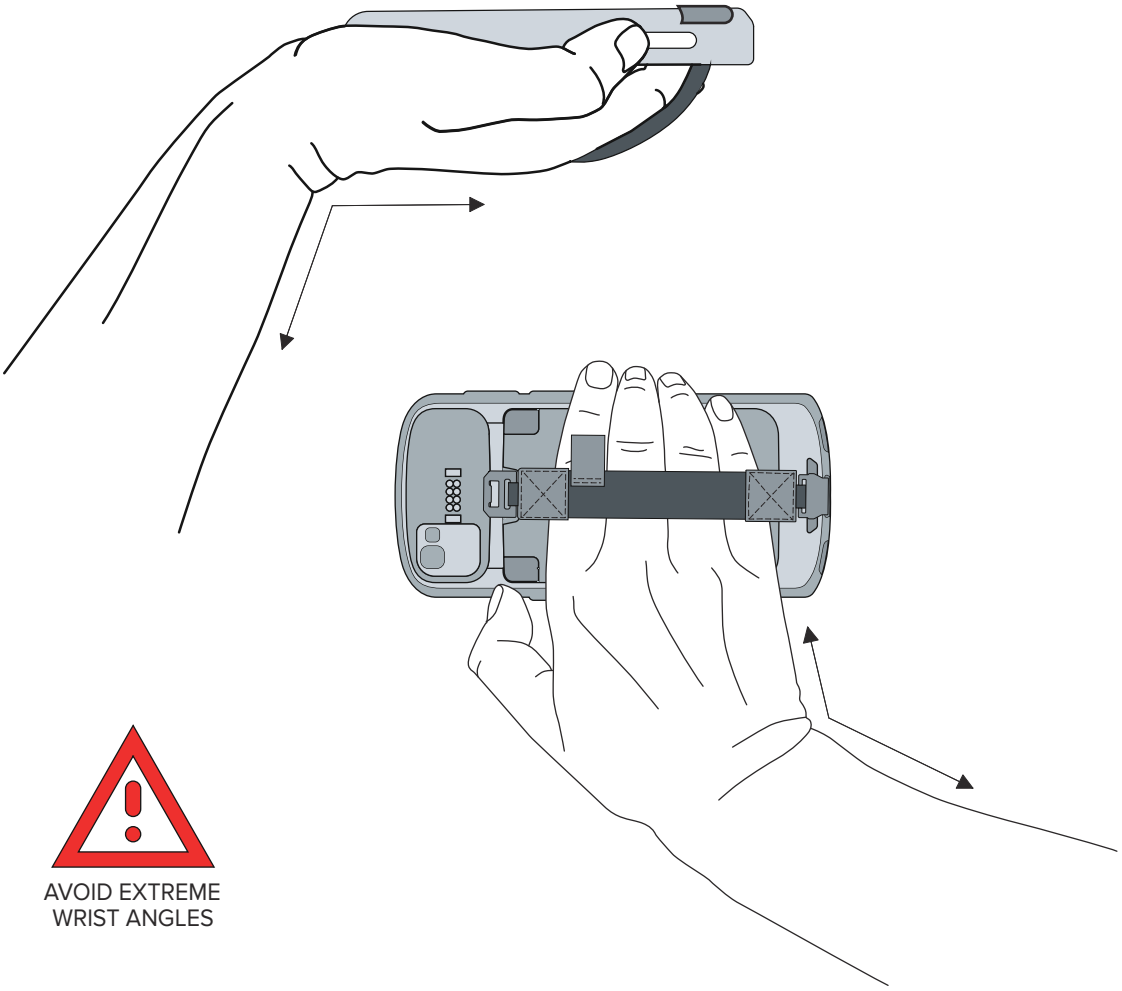


NOTE: You will have 30 seconds to insert the new battery, or the device will enter emergency (critical) suspension mode. After 60 total seconds, the device will be rebooted once the replacement battery is inserted.

5. Insert the bottom edge of the replacement battery into the battery compartment at the back of the device.
6. Press the battery in until it clicks into place.

Ergonomic Considerations

Avoid extreme wrist angles when using the device.



AVOID EXTREME
WRIST ANGLES

Service Information

Repair services using Zebra-qualified parts are available for at least three years after the end of production and can be requested at zebra.com/support.