

WT6300

Wearable Computer



ZEBRA

Product Reference Guide for Android™ 11

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About This Guide

This guide provides information about setting up and using the WT6300 wearable computer. Some screens shown in this guide may differ from the actual screens shown on the device.

Configurations

The guide covers configurations described in the table.

Table 1 Configurations

Configuration	Radios	Display	Memory	Keypad	Data Capture Options	Operating System
WT63B0-TS0QNERW	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11
WT63B0-TS0QNEANA	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11
WT63B0-TX0QNERW	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11

Table 1 Configurations (Continued)

Configuration	Radios	Display	Memory	Keypad	Data Capture Options	Operating System
WT63B0-TX0QNENA	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11
WT63B0-TS0ANECN	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based AOSP 11 (China only)
WT63B0-TS0QNETR	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11
WT63B0-TS0QNERU	WLAN: 802.11 a/b/g/n Bluetooth 5.0	3.2" WVGA Color	3 GB RAM / 32 GB Flash	Optional accessory	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11
WT63B0-KS0QNERW	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	External Keypad	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11
WT63B0-KS0QNENA	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	External Keypad	Optional external corded and Bluetooth scanners.	Android-based, Google™ Moblie Services (GMS) 11

Table 1 Configurations (Continued)

Configuration	Radios	Display	Memory	Keypad	Data Capture Options	Operating System
WT63B0-KX0QNERW	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	External Keypad	Optional external corded and Bluetooth scanners.	Android-based, Google™ Mobile Services (GMS) 11
WT63B0-KX0QNEANA	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	External Keypad	Optional external corded and Bluetooth scanners.	Android-based, Google™ Mobile Services (GMS) 11
WT63B0-KS0ANECA	WLAN: 802.11 a/b/g/n WPAN: Bluetooth v5.0 Low Energy	3.2" WVGA Color	3 GB RAM / 32 GB Flash	External Keypad	Optional external corded and Bluetooth scanners.	Android-based AOSP 11 (China only)

Notational Conventions

The following conventions are used in this document:

- **Bold** text is used to highlight the following:
 - Dialog box, window, and screen names
 - Drop-down list and list box names
 - Checkbox and radio button names
 - Icons on a screen
 - Key names on a keypad
 - Button names on a screen
- Bullets (•) indicate:
 - Action items
 - List of alternatives
 - Lists of required steps that are not necessarily sequential.
- Sequential lists (for example, those that describe step-by-step procedures) appear as numbered lists.

Icon Conventions

The documentation set is designed to give the reader more visual clues. The following graphic icons are used throughout the documentation set.



NOTE: The text here indicates information that is supplemental for the user to know and that is not required to complete a task. The text here indicates information that is important for the user to know.



IMPORTANT: The text here indicates information that is important for the user to know.



CAUTION: If the precaution is not heeded, the user could receive a minor or moderate injury.



WARNING: If danger is not avoided, the user CAN be seriously injured or killed.



DANGER: If danger is not avoided, the user WILL be seriously injured or killed.

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 set forth 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 possibly void the warranty.

If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

Determining Software Versions

Before contacting Customer Support, determine the current software version on your device.

1. Swipe down from the Status bar with two fingers to open the Quick Access panel, and then touch .
2. Touch **About phone**.

3. Scroll to view the following information:

- Battery information
- Emergency information
- SW components
- Legal information
- Model & hardware
- Android version
 - Android security patch level
 - Kernel version
 - Build number

Determining the Serial Number

Before contacting Customer Support, determine the serial number of your device.

1. Touch **About phone**.
2. Touch **Model & hardware**.
3. Touch **Serial number**.

Getting Started

This section provides information for getting the device up and running for the first time.

Unpacking the Device

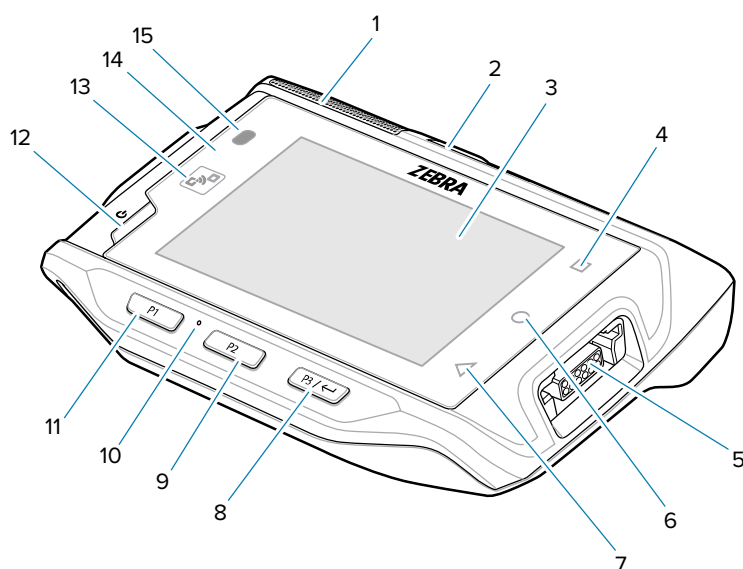
Unpacking the WT6300 from the box.

1. Carefully remove all protective material from the device and save the shipping container for later storage and shipping.
2. Verify that the following items were received:
 - Wearable computer
 - Lithium-ion battery
 - Regulatory Guide.
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 film that covers the screen.

Device Features

This section lists the features of the WT6300 wearable computer.

Figure 1 Front View



Number	Item	Function
1	Speaker	Provides audio output for video and music playback.
2	Battery	Provides power to the device.
3	Display	Displays all information needed to operate the device.
4	Recent button	Displays recently open applications.
5	Right interface connector	Provides USB host and client communication, audio and device charging via cables and accessories.
6	Home button	Displays the Home screen.
7	Back button	Displays the previous screen.
8	P3 button / Enter button	Use as the Enter button. If programmed as PTT, initiates Push-To-Talk communication.
9	P2 button	Increases volume.
10	Microphone	Use for communication on handset.
11	P1 button	Decreases volume.
12	Power button	Turns the display on and off. Press and hold to reset the device and power off.
13	NFC antenna	Provides communication with other NFC-enabled devices.
14	Ambient light sensor	Determines ambient light for controlling display backlight intensity.
15	Notification/ Charge LED	Indicates battery charging status while charging with USB Charge cable and provide notifications from applications.

Figure 2 Rear View

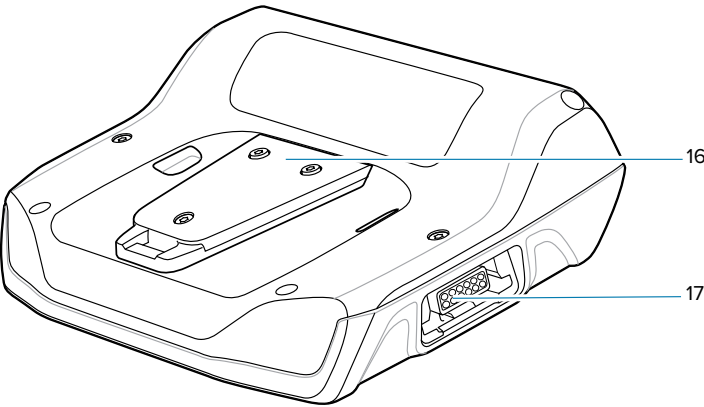


Table 2 Rear View

Number	Item	Function
16	Cleat	Provides alignment and secures the device to the wrist and hip mounts.
17	Left interface connector	Provides USB host and client communication, audio and device charging via cables and accessories.

Setting Up the Device

1. Install wrist mount (optional).
2. Install the battery.
3. Charge the device.
4. Power on the device.

Installing the Battery

This section describes how to install the battery into the WT6300.

1. Insert the end of the battery into the battery well.

Figure 3 Standard Battery Installation

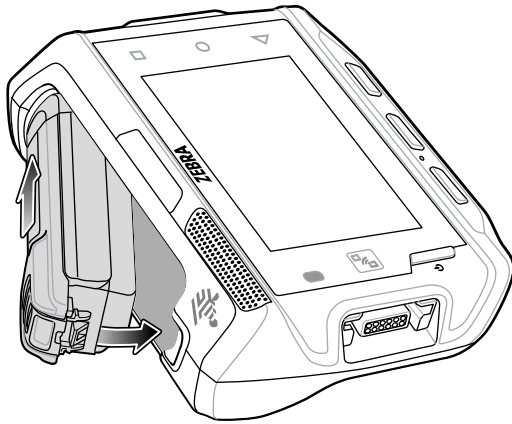
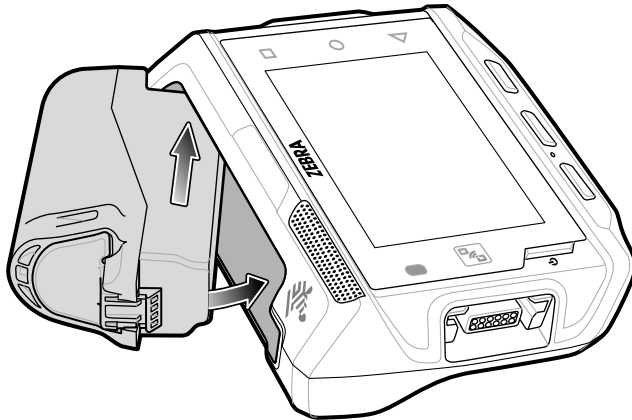


Figure 4 Extended Battery Installation



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

Charging the Battery

Before using the device for the first time, charge the battery using a cable or a cradle with the appropriate power supply.

For information about the accessories available for the device, see [Accessories](#). The standard 3350 mAh battery fully charges in approximately four hours at room temperature. The extended 5000 mAh battery fully charges in approximately five hours and 30 minutes at room temperature.

1. Connect the charging accessory to the appropriate power source.
2. Insert the device into a cradle or attach to a cable. 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 table describes the LED states and what they indicate.

Table 3 Charging Indicators

State	Indication
Off	The device is not charging. The device is not inserted correctly in the cradle or connected to a power source. Charger/cradle is not powered.
Solid Amber	Healthy battery is charging.
Solid Green	Healthy battery charging is complete.
Fast Blinking Red (2 blinks/second)	Charging error, for example:- Temperature is too low or too high.- Charging has gone on too long without completion (typically eight hours).
Solid Red	Unhealthy battery is charging or fully charged.



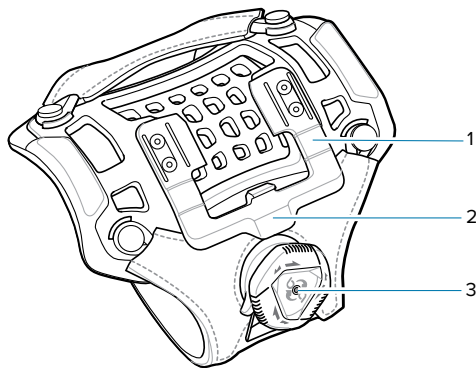
NOTE: When trying to power on the device, a quick red blink of the Charging LED indicates that it does not have enough battery power to turn on. Charge the battery or replace it.

Charging Temperature

Charge batteries in temperatures from 0°C to 40°C (32°F to 104°F). The device or cradle always performs battery charging in a safe and intelligent manner. At higher temperatures (for example, approximately +37°C (+98°F)) the device or cradle may for small periods of time alternately enable and disable battery charging to keep the battery at acceptable temperatures. The device and cradle indicates when charging is disabled due to abnormal temperatures via its LED.

Installing the Wrist Mount

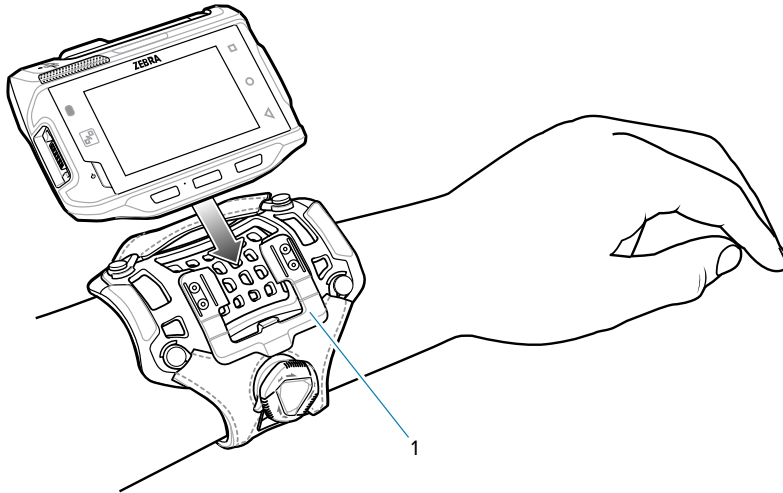
The wrist mount provides the mounting of the device on the forearm for hands-free applications. Refer to the Wrist Mount Installation Guide for information on the wrist mount.

Figure 5 Wrist Mount

1	Mounting bracket
2	Release lever
3	Strap tighten dial

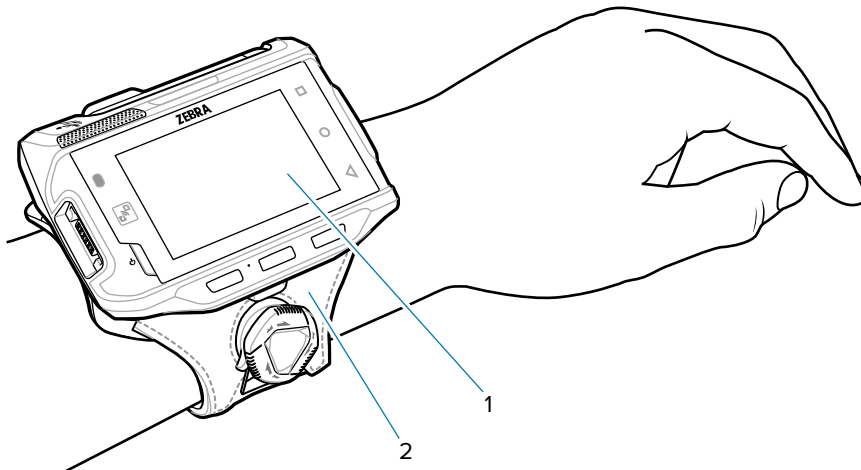
1. Slide the wrist mount onto arm.

2. Position the short strap on the forearm.
3. Push in the dial and turn the dial clockwise to tighten. If too tight, pull out the dial to loosen slightly.
4. Align the cleat on the back of the device with the mounting bracket on the wrist mount.



1	Mounting Bracket
---	------------------

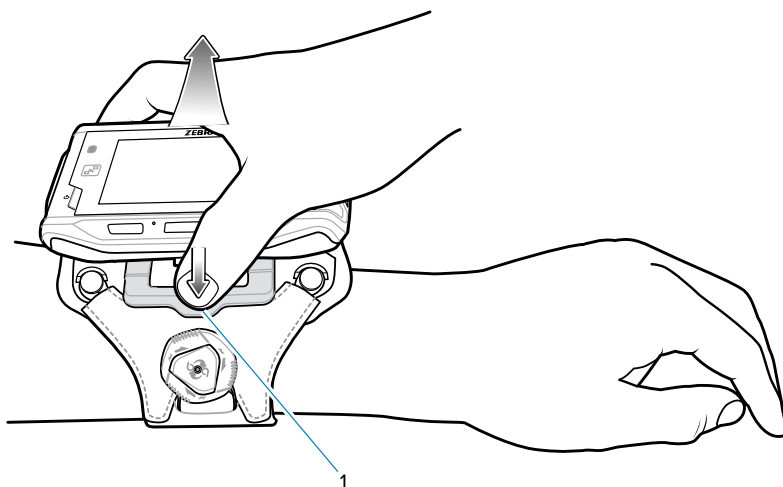
5. Slide the device onto the wrist mount until it clicks into place.
6. If necessary, use the dial to loosen and re-tighten the strap.



1	Device
---	--------

2	Wrist mount
---	-------------

To remove the device from the wrist mount, press down on the release lever and slide the device out.



1	Release lever
---	---------------

Connecting a Scanner

The RS4000 scanner and the RS5000 and RS6000 imagers can be used with the device.

Replacing the Battery

Replacing the battery in the WT6300.

1. Press the Power button to place the device in suspend mode.

2. Using fingertip, press the battery release latch toward the end of the battery.

Figure 6 Pull Release Latch Back on Standard Battery

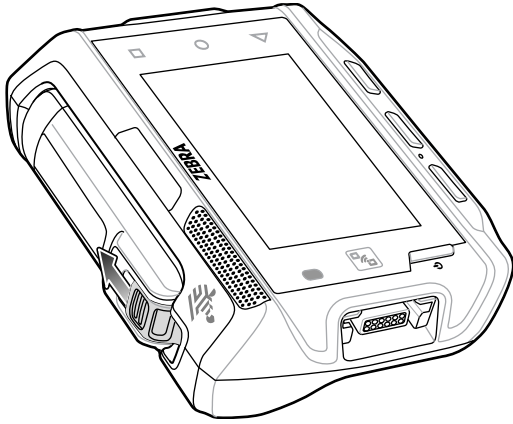
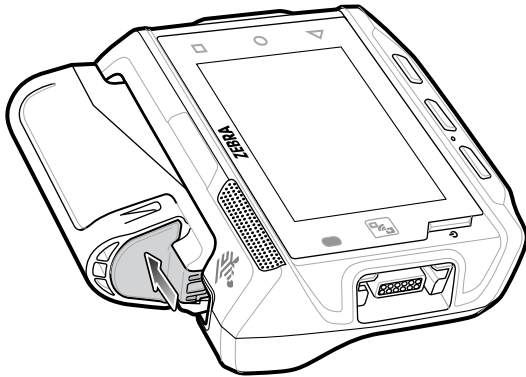


Figure 7 Pull Release Latch Back on Extended Battery



3. Lift the battery out of the battery well.

Figure 8 Standard Battery Removal

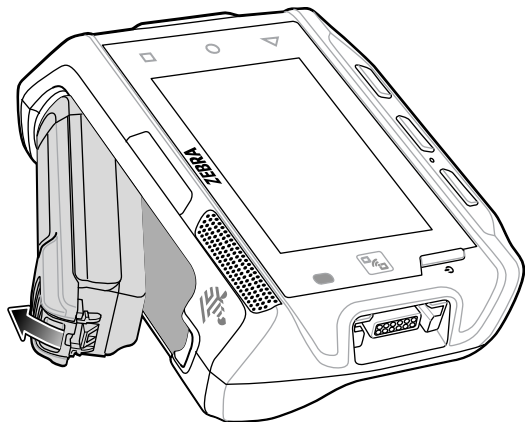
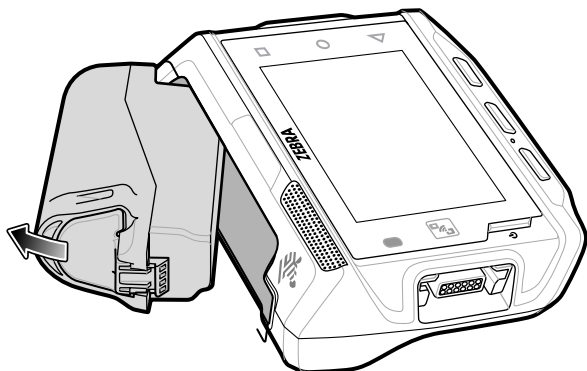


Figure 9 Extended Battery Removal



4. Insert the end of the battery into the battery well.

Figure 10 Standard Battery Installation

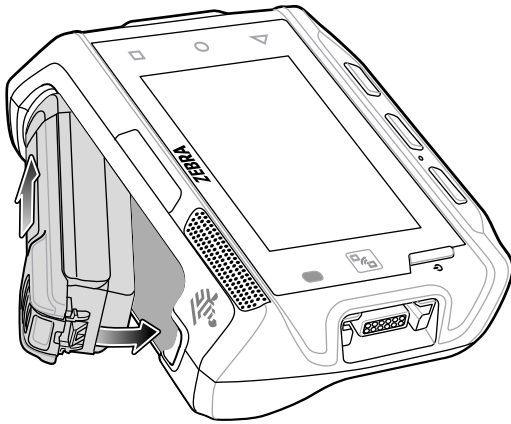
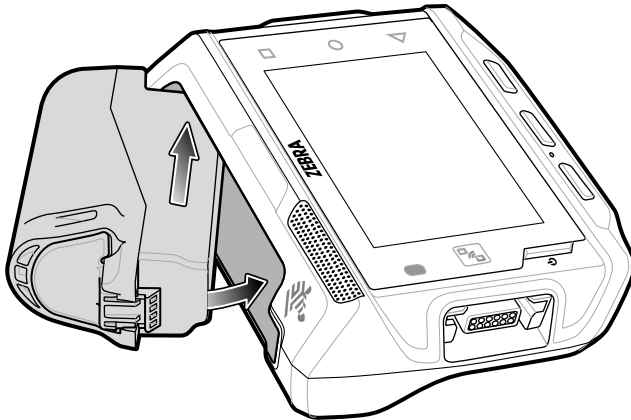


Figure 11 Extended Battery Installation



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

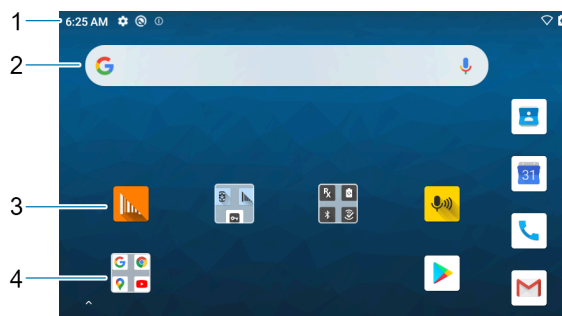
Using the Device

This section explains how to use the device.

Home Screen

Turn on the device to display the Home screen. Depending on how your system administrator configured your device, your Home screen may appear differently than the graphics in this section.

Figure 12 Home Screen



After a suspend or screen time-out, the Home screen displays with the lock slider. Touch the screen and slide up to unlock. The Home screen provides four additional screens to place widgets and shortcuts. Swipe the screen left or right to view the additional screens.

1	Status bar	Displays the time, status icons (right side), and notification icons (left side).
2	Widgets	Launches stand-alone apps that run on the Home screen.
3	Shortcut icons	Opens apps installed on the device.
4	Folder	Contains apps.

Setting Home Screen Rotation

By default, the Home screen rotation is disabled.

1. Touch and hold anywhere on the Home screen until the options appear.
2. Touch **Home settings**.
3. Touch the **Allow Home screen rotation switch**.
4. Touch **Home**.
5. Rotate the device.

Status Bar

The Status bar displays the time, notification icons (left side), and status icons (right side).

If there are more notifications than can fit in the Status bar, a dot displays indicating that more notifications exist. Swipe down from the Status bar to open the Notification panel and view all notifications and status.

Figure 13 Notifications and Status Icons



1	Notification icons
2	Status icons










Notification Icons

Notification icons indicate app events and messages.

Table 4 Notification Icons

Icon	Description
	Main battery is low.
	More notifications are available for viewing.
	Data is synching.
	Indicates an upcoming event. AOSP devices only.
	Indicates an upcoming event. GMS devices only.
	Open Wi-Fi network is available.
	Audio is playing.

Table 4 Notification Icons (Continued)

Icon	Description
	Problem with sign-in or sync has occurred.
	Device is uploading data.
	Animated: the device is downloading data. Static: the download is complete.
	Device is connected to or disconnected from a virtual private network (VPN).
	Preparing internal storage by checking it for errors.
	USB debugging is enabled on the device.
	Indicates the RxLogger app is running.
	Indicates the Bluetooth scanner is connected to the device.
	Indicates the ring scanner is connected to the device in HID mode.

Status Icons

Status icons display system information for the device.

Table 5 Status Icons























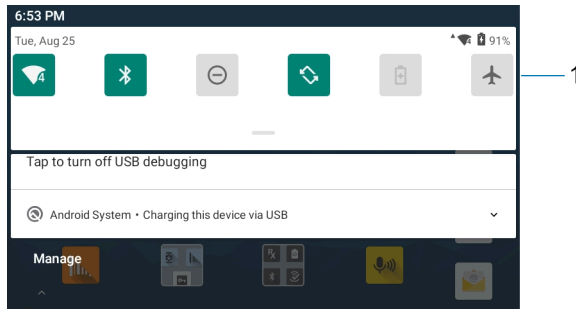
Icon	Description
	Alarm is active.
	Main battery is fully charged.
	Main battery is partially drained.
	Main battery charge is low.
	Main battery charge is very low.

Table 5 Status Icons (Continued)

Icon	Description
	Main battery is charging.
	All sounds, except media and alarms, are muted. Vibrate mode is active.
	Indicates that all sounds except media and alarms are muted.
	Do Not Disturb mode active.
	Airplane Mode is active. All radios are turned off.
	Bluetooth is on.
	The device is connected to a Bluetooth device.
	Connected to a Wi-Fi network. Indicates the Wi-Fi version number.
	Not connected to a Wi-Fi network or no Wi-Fi signal.
	Connected to an Ethernet network.
	Indicates that the Orange key is locked.
	Indicates that the Blue key is pressed.
	Indicates that the ALT key is pressed.
	Indicates that the CTRL key is pressed.
	Indicates that the Shift key is pressed.
	Indicates that the Shift key is locked.
	Indicates that the Blue Key and SHIFT key are pressed enabling CAPSLOCK.

Managing Notifications

Notification icons report the arrival of new messages, calendar events, alarms, and ongoing events. When a notification occurs, an icon appears in the Status bar with a brief description.

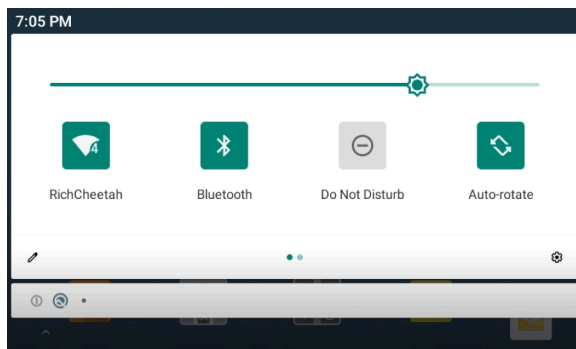


1	Quick settings bar
---	--------------------

- To view a list of all notifications, open the Notification panel by dragging the Status bar down from the top of the screen.
- To respond to a notification, open the Notification panel and then touch a notification. The Notification panel closes and the corresponding app opens.
- To manage recent or frequently used notifications, open the Notification panel and then touch Manage notifications. Touch the toggle switch next to an app to turn off all notifications, or touch an app for more notification options.
- To clear all notifications, open the Notification panel and then touch CLEAR ALL. All event-based notifications are removed. Ongoing notifications remain in the list.
- To close the Notification panel, swipe the Notification panel up.

Opening the Quick Access Panel

Use the Quick Access panel to access frequently used settings (for example, Airplane mode).










NOTE: Not all icons are pictured. Icons may vary.

- If the device is locked, swipe down once.
- If the device is unlocked, swipe down once with two fingers, or twice with one finger.
- If the Notification panel is open, swipe down from the Quick Settings bar.

Quick Access Panel Icons

Quick Access panel icons indicate frequently used settings (for example, Airplane mode).

Table 6 Quick Access Panel Icons

Icon	Description
	Display brightness - Use the slider to decrease or increase the brightness of the screen.
	Wi-Fi network - Turn Wi-Fi on or off. To open Wi-Fi settings, touch the Wi-Fi network name.
	Bluetooth settings - Turn Bluetooth on or off. To open Bluetooth settings, touch Bluetooth.
	Battery saver - Turn Battery saver mode on or off. When Battery saver mode is on the performance of the device is reduced to preserve battery power (not applicable).
	Do not disturb - Control how and when to receive notifications.
	Airplane mode - Turn Airplane mode on or off. When Airplane mode is on the device does not connect to Wi-Fi or Bluetooth.
	Screen Cast - Share phone content on Chromecast or a television with Chromecast built-in. Touch cast screen to display a list of devices, then touch a device to begin casting.

Editing Icons on the Quick Settings Bar

The first several setting tiles from the Quick Access panel become the Quick Settings bar.

- Open the Quick Access panel and touch  to edit, add, or remove settings tiles.

Battery Management


Observe the recommended battery optimization tips for the device.

- Set the screen to turn off after a short period of inactivity.
- Reduce screen brightness.
- Turn off all wireless radios when not in use.
- Turn off automatic syncing for Email, Calendar, Contacts, and other apps.
- Minimize use of apps that keep the device from suspending, for example, music and video apps.



NOTE: Before checking the battery charge level, remove the device from any AC power source (cradle or cable).

Checking Battery Status

- Open **Settings** and touch **About phone** > **Battery Information**. Or, swipe up from the bottom of the screen and touch  to open the **Battery Manager** app.

Battery present status indicates if the battery is present.

Battery level lists the battery charge (as a percentage of fully charged).

- Swipe down with two fingers from the status bar to open the quick access panel.
Battery percentage is displayed next to the battery icon.

Monitoring Battery Usage

The Battery screen provides battery charge details and power management options to extend battery life. Different apps display different information. Some apps include buttons that open screens with settings to adjust power use.

- Go to **Settings**.
- Touch **Battery**.

To display battery information and power management options for a specific app:

- Go to **Settings**.
- Touch **Apps & notifications**.
- Touch an app.
- Touch **Advanced** > **Battery**.

Low Battery Notification

When the battery charge level drops below the charge level in the table below, the device displays a notice to connect the device to power. Charge the battery using one of the charging accessories.

Charge Level Drops Below	Action
15%	The user should charge the battery soon.
10%	The user must charge the battery.
5%	The device turns off. The user must charge the battery.

Waking the Device

The device goes into Suspend mode when you press **Power** or after a period of inactivity (set in the Display settings window).

1. To wake the device from Suspend mode, press the Power, P1, P2, or P3/Enter button.
The lock screen displays.

2. Swipe the screen up to unlock.

- If the Pattern screen unlock feature is enabled, the Pattern screen appears instead of the Lock screen.
- If the PIN or Password screen unlock feature is enabled, enter the PIN or password after unlocking the screen.



NOTE: If you enter the PIN, password, or pattern incorrectly five times, you must wait 30 seconds before trying again.

- If you forget the PIN, password, or pattern, contact your system administrator.

USB Communication

Connect the device to a host computer to transfer files between the device and the host computer.

When connecting the device to a host computer, follow the host computer's instructions for connecting and disconnecting USB devices, to avoid damaging or corrupting files.

Transferring Files

Use Transfer files to copy files between the device and the host computer.

1. Connect the device to a host computer using a USB accessory.
2. On the device, pull down the Notification panel and touch **Charging this device via USB**.

By default, **No data transfer** is selected.

3. Touch **File Transfer**.



NOTE: After changing the setting to **File Transfer**, and then disconnecting the USB cable, the setting reverts back to **No data transfer**. If the USB cable is reconnected, select **File Transfer** again.

4. Touch **File Transfer**.
5. On the host computer, open **File Explorer**.
6. Locate the **device** as a portable device.
7. Open the **Internal storage** folder.
8. Copy files to and from the device or delete files as required.

Transferring Photos

Use PTP to copy photos from the device to the host computer.

1. Connect the device to a host computer using a USB accessory.
2. On the device, pull down the Notification panel and touch **Charging this device via USB**.
3. Touch **PTP**.
4. On the host computer, open a file explorer application.
5. Open the **Internal storage** folder.
6. Copy or delete photos as required.

Disconnecting from the Host Computer


1. On the host computer, unmount the device.
2. Remove the device from the USB accessory.

Settings

This section describes the settings on the device.

Accessing Settings

There are multiple ways to access settings on a device.

- Swipe down with two fingers from the top of the Home screen to open the Quick Access panel and touch ⚙️.
- Double-swipe down from the top of the Home screen to open the Quick Access panel and touch ⚙️.
- Swipe up from the bottom of the Home screen to open APPS and touch  **Settings**.

Display Settings

Use Display settings to change the screen brightness, enable night light, change the background image, enable screen rotation, set sleep time, and change font size.

Setting the Screen Brightness Manually

Manually set the screen brightness using the touchscreen.

1. Swipe down with two fingers from the Status bar to open the Quick Access panel.
2. Slide the icon to adjust the screen brightness level.



Setting the Screen Brightness Automatically

Automatically adjust the screen brightness using the built-in light sensor.

1. Go to **Settings**.
2. Touch **Display**.
3. If disabled, touch **Adaptive brightness** to automatically adjust the brightness.

By default, **Adaptive brightness** is enabled. Toggle the switch to disable.

Setting Night Light

The Night Light setting tints the screen amber, making the screen easier to look at in low light.

1. Go to **Settings**.
2. Touch **Display**.
3. Touch **Night Light**.
4. Touch **Schedule**.
5. Select one of the schedule values:
 - None (default)
 - Turns on at custom time
 - Turns on from sunset to sunrise.
6. By default, **Night Light** is disabled. Touch **TURN ON NOW** to enable.
7. Adjust the tint using the **Intensity** slider.

Setting Screen Timeout

Set the screen sleep time.

1. Go to **Settings**.
2. Touch **Display > Advanced > Sleep**.
3. Select one of the sleep values:
 - **15 seconds**
 - **30 seconds**
 - **1 minute** (default)
 - **2 minutes**
 - **5 minutes**
 - **10 minutes**
 - **30 minutes**

Setting Screen Rotation

By default, screen rotation is enabled.

1. Go to **Settings**.
2. Touch **Display > Advanced**.
3. Touch **Auto-rotate screen**.

Setting Lock Screen Notifications

The lock screen display setting wakes the screen when notifications are received.

1. Go to **Settings**.
2. Touch **Display > Advanced**.

3. Touch **Lock screen**.
4. In the **When to show** section, enable or disable an option using the switch.

Setting Font Size

Set the size of the font in system apps.

1. Go to **Settings**.
2. Touch **Display > Advanced**.
3. Touch **Font size**.
4. Select an option to choose how long the touch key light stays on:
 - **Small**
 - **Default**
 - **Large**
 - **Largest**.

Setting the Date and Time

You are only required to set the time zone or set the date and time if the wireless LAN does not support Network Time Protocol (NTP) or when not connected to a cellular/wireless network.

1. Go to **Settings**.
2. Touch **System > Date & time**.
3. Touch **Use network-provided time** to disable automatic date and time synchronization.
4. Touch **Date** to select the date in the calendar.
5. Touch **OK**.
6. Touch **Time**.
 - a) Touch the green circle, drag to the current hour, and then release.
 - b) Touch the green circle, drag to the current minute, and then release.
 - c) Touch **AM** or **PM**.
7. Touch **OK**.
8. Touch **Time zone** to select the current time zone from the list.
9. Touch **Update Interval** to select an interval to synchronize the system time from the network.
10. In **TIME FORMAT**, choose either **Use local default** or **Use 24-hour format**.
11. Touch **Use 24-hour format**.

General Sound Setting

Press the volume buttons on the device to display on-screen volume controls.

Use the Sound settings to configure media and alarm volumes.

1. Go to **Settings**.

2. Touch **Sound**.
3. Touch an option to set sounds.

Sound Options

- **Media volume** - Controls the music, games, and media volume.
- **Alarm volume** - Controls the alarm clock volume.
- **Notifications volume** - Controls the notification volume.
- **Do Not Disturb** - Mutes some or all sounds and vibrations.
- **Media** - Shows the media player in Quick Settings while sound is playing, allowing quick access.
- **Shortcut to prevent ringing** - Select how the shortcut method prevents ringing.
- **Default notification sound** - Select a sound to play for all system notifications.
- **Default alarm sound** - Select a sound to play for alarms.
- **Other sounds and vibrations**
 - **Screen locking sounds** - Play a sound when locking and unlocking the screen (default – enabled).
- **Advanced**
 - **Charging sounds and vibration** - Plays a sound and vibrates when power is applied to the device (default - enabled).
 - **Touch sounds** - Play a sound when making screen selections (default – enabled).
 - **Touch vibration** - Vibrate the device when making screen selections (default – enabled).

Setting Wake-Up Sources

By default, the device wakes from suspend mode when the user presses the **Power** button.

1. Go to **Settings**.
2. Touch **Wake-Up Sources**.
 - **P1**
 - **P2**
 - **P3**
 - **LEFT_EXTERNAL_TRIGGER**
 - **RIGHT_EXTERNAL_TRIGGER**
 - **BLUETOOTH_REMOTE_TRIGGER_1**
 - **BLUETOOTH_REMOTE_TRIGGER_2**
3. Touch a checkbox. A check appears in the checkbox.

Remapping a Button

Buttons on the device can be programmed to perform different functions or as shortcuts to installed apps. For a list of key names and descriptions, refer to: techdocs.zebra.com.

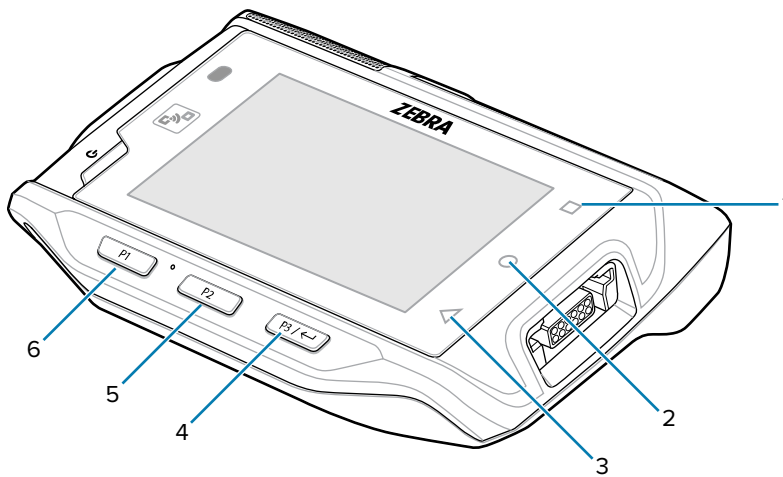
1. Go to **Settings**.
2. Touch **Key Programmer**. A list of programmable buttons displays.
3. Select the button to remap.
4. Touch the **BUTTON REMAPPING**, the **SHORTCUT**, or the **TRIGGERS** tabs to list the available functions, applications, and triggers.
5. Touch a function or application shortcut to map to the button.



NOTE: If you select an application shortcut, the application icon appears next to the button on the Key Programmer screen.

Remappable Keys

Remappable keys for the device are as displayed.



1	RECENT	Recent Button
2	HOME	Home Button
3	BACK	Back Button
4	P3	Enter Button
5	P2	Volume Up Button
6	P1	Volume Down Button

Keyboards

The device provides multiple keyboard options.

- Android Keyboard - AOSP devices only
- Enterprise Keyboard



NOTE: By default, the Enterprise and Virtual Keyboards are disabled. The Enterprise Keyboard is available for download from the [Zebra Support Site](#).

Keyboard Configuration

This section describes configuring the device's keyboard.

Enabling Keyboards

1. Go to **Settings**.
2. Touch **System** > **Languages & input** > **Virtual keyboard** > **Manage keyboards**.
3. Touch a keyboard to enable.

Switching Between Keyboards

To switch between keyboards, touch in a text box to display the current keyboard.



NOTE: By default, the Gboard is enabled. All other virtual keyboards are disabled.

- On the Gboard keyboard, touch and hold (GMS devices only).
- On the Android keyboard, touch, and hold (AOSP devices only).
- On the Enterprise keyboard, touch . Only available with Mobility DNA Enterprise License. Not pre-installed on the device. Contact Zebra Support for more information.

Using the Android and Gboard Keyboards

Use the Android or Gboard keyboards to enter text in a text field.

- To configure the keyboard settings, touch and hold "," (comma) and then select **Android keyboard settings**.

Edit Text

Edit entered text and use menu commands to cut, copy, and paste text within or across apps. Some apps do not support editing some or all of the text they display; others may offer their own way to select text.

Entering Numbers, Symbols, and Special Characters

1. Enter numbers and symbols.
 - Touch and hold one of the top-row keys until a menu appears then select a number or special character.
 - Touch the Shift key once for a single capital letter. Touch the Shift key twice to lock in uppercase. Touch the Shift key a third time to unlock Capslock.
 - Touch **?123** to switch to the numbers and symbols keyboard.
 - Touch the **=\<** key on the numbers and symbols keyboard to view additional symbols.
2. Enter special characters.
 - Touch and hold a number or symbol key to open a menu of additional symbols. A larger version of the key displays briefly over the keyboard.

Enterprise Keyboard

The Enterprise Keyboard contains multiple keyboard types.



NOTE: Only available with Mobility DNA Enterprise License.

- Numeric
- Alpha
- Special characters
- Data capture.

Numeric Tab

The numeric keyboard is labeled **123**. The keys displayed vary on the app being used. For example, an arrow displays in **Contacts**, however **Done** displays in **Email** account setup.

Alpha Tab

The alpha keyboard is labeled using the language code. For English, the alpha keyboard is labeled **EN**.

Additional Character Tab

The additional characters keyboard is labeled **#*/**.

- Touch 😊 to enter emoji icons in a text message.
- Touch **ABC** to return to the Symbols keyboard.

Scan Tab

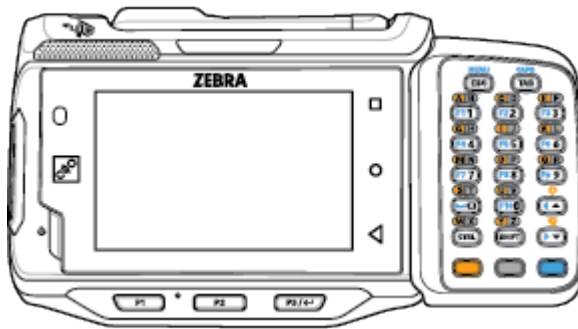
The Scan tab provides an easy data capture feature for scanning barcodes.

Keypad

The alphanumeric keypad accessory contains scroll keys and function keys. The keypad is color-coded to indicate the alternate function keys (blue, orange, and gray).



NOTE: The keypad functions can be changed by an application, so the wearable terminal's keypad may not function exactly as described.





Figure 14 Keypad

Keypad Descriptions

Table 7 Alphanumeric Keypad Descriptions

Key	Description
Orange	Press and release the Orange key to activate alphabetic characters (shown on the keypad in orange). The orange icon appears in the Status bar.
Gray	Press and release the Gray key to activate alphabetic characters (shown on the keypad in gray). The gray icon appears in the Status bar.
Blue	Press and release the Blue key to activate the keypad alternate functions (shown on the keypad in blue). The blue icon appears in the Status bar.
Scroll Keys	Moves up or down from one item to another or increases/decreases specified values. Moves left or right from one item to another when used with the Blue key. For each left or right scroll, the Blue key must be pressed first.
ESC	Exits the current operation.
Alphanumeric	In default state, produces the numeric value on the key. In Left Alpha state, produces the lower case alphabetic characters in the orange area. In Right Alpha state, produces the lower case alphabetic characters in the gray area. When the CAPS key is pressed in the Alpha state, the upper case alphabetic characters on the key are produced. For example, press and release the Orange key, press and release the CAPS key and then press the 4 key once to produce the letter 'G'.
CTRL (Control)	Press and release the CTRL key to activate the keypad alternate CTRL functions. The CTRL icon appears in the Status bar. Press the Blue key followed by the CTRL key to activate the keypad alternate ALT functions. The ALT icon appears in the Status bar.
SHIFT	Press and release the SHIFT key to activate the keypad alternate SHIFT functions. The arrow icon appears in the Status bar.
ENTER	Executes a selected item or function.
TAB	Move the focus to the next field in a window.
MENU	Press and release Blue key, then press and release the MENU key to display the menu on the current screen.
CAPS	Press and release Blue key, then press and release the CAPS key to activate upper case alphabetic characters.

Table 7 Alphanumeric Keypad Descriptions (Continued)

Key	Description
	Backspace function.
	Space function when used with the Blue key.
	Enables the backlight when used with the Orange key.
	Disables the backlight when used with the Orange key.

The keypad is color-coded to indicate the alternate function key (blue) values and the alternate ALPHA key (orange) values. The following table describes the special character generation.


Table 8 Special Character Generation Map

Special Character	Keypad
! (exclamation point)	Shift - 1
@ (at sign)	Shift - 2
# (Pound sign)	Shift - 3
\$ (dollar sign)	Shift - 4
% (percent sign)	Shift - 5
^ (carat)	Shift - 6
& (ampersand)	Shift - 7
* (asterisk)	Shift - 8

Language Usage

Use the **Language & input** settings to change the device's language, including words added to the dictionary.

Changing the Language Setting

1. Go to **Settings**.
2. Touch **System > Languages & input**.
3. Touch **Languages**. A list of available languages displays.
4. If the desired language is not listed, touch **Add a language** and select a language from the list.
5. Touch and hold  to the right of the desired language, then drag it to the top of the list.
6. The operating system text changes to the selected language.

Adding Words to the Dictionary

1. Go to **Settings**.
2. Touch **System > Languages & input > Advanced > Personal dictionary** .
3. If prompted, select the language where this word or phrase is stored.
4. Touch + to add a new word or phrase to the dictionary.
5. Enter the word or phrase.
6. In the Shortcut text box, enter a shortcut for the word or phrase.

Notifications

The user can configure notifications for the device and for specific apps. Device notifications settings allow the user to configure how notifications occur on the device. App notification settings allow the user to configure how notifications for a specific app occur.

To view device notification settings, touch **Settings > Apps & notifications > Notifications**. To view app notifications, **Settings > Apps & notifications > App info**, and then select an app.

Setting App Notifications

Configure the notifications settings for a specific app.

1. Go to **Settings**.
2. Touch **Apps & notifications > SEE ALL XX APPS** . The App info screen displays.
3. Select an app.
4. Touch **Notifications**.

Options vary depending on the app selected.

5. Select an available option:

Show notifications - Select to turn all notifications from this app on (default) or off. Touch a notification category to display additional options.

- **Alerting** - Allow notifications from this app to make a sound.
 - **Pop on screen** - Allow notifications from this app to pop notifications on the screen.
- **Alerting** - Allow notifications from this app to make sound or vibrate the device.
 - **Pop on screen** - Allow notifications from this app to pop notifications on the screen.
- **Silent** - Do not allow notifications from this app to make a sound.
 - **Minimize** - In the Notification panel, collapse notifications to one line.
- **Silent** - Do not allow notifications from this app to make sound or vibrate.
 - **Minimize** - In the Notification panel, collapse notifications to one line.
- **Advanced** - Touch for additional options.
 - **Sound** - Select a sound to play for notifications from this app.
 - **Vibrate** - Allow notifications from this app to vibrate the device.
 - **Blink light** - Allow notifications from this app the light the Notification LED blue.
 - **Show notification dot** - Allow notifications from this app to add a notification dot to the app icon.
 - **Override Do Not Disturb** - Allow these notifications to interrupt when Do Not Disturb is enabled.

Advanced

- **Allow notification dot** - Do not allow this app to add a notification dot to the app icon.
- **Additional settings in the app** - Open the app settings.

Viewing Notifications

1. Go to **Settings**.
2. Touch **Apps & Notifications**.
3. Scroll down to **Notifications** to view how many apps have notifications turned off.

Controlling Lock Screen Notifications

Control whether notifications can be seen when the device is locked

1. Go to **Settings**.
2. Touch **Apps & notifications > Notifications**.
3. Touch **Notifications on lockscreen** and select one of the following:
 - **Show alerting and silent notifications (default)**
 - **Show alerting notifications only**
 - **Don't show notifications.**

Enabling Blink Light

The Notification LED lights blue when an app, such as email and VoIP, generates a programmable notification or to indicate when the device is connected to a Bluetooth device. By default, LED notifications are enabled.

1. Go to **Settings**.
2. Touch **Apps & notifications > Notifications > Advanced** .
3. Touch **Blink light** to toggle the notification on or off.

Applications

Apart from the standard pre-installed Android applications, the following table lists Zebra-specific applications installed on the device.

Installed Applications

Aside from the common Google apps, the Zebra-specific apps that are installed on the device are described in this section.

Table 9 Apps











Icon	Description
	Battery Manager - Displays battery information, including charge level, status, health and wear level.
	Bluetooth Pairing Utility - Use to pair peripherals with the device by scanning a barcode.
	DataWedge - Enables data capture using the imager.
	DWDemo - Provides a way to demonstrate the data capture features using the imager.
	Phone - Use to dial a phone number when used with some Voice over IP (VoIP) clients (VoIP telephony ready only).
	PTT Express - Use to launch PTT Express client for VoIP communication.
	RxLogger - Use to diagnose device and app issues.

Table 9 Apps (Continued)

Icon	Description
	StageNow - Allows the device to stage a device for initial use by initiating the deployment of settings, firmware, and software.
	Settings - Use to configure the device.
	Worry Free Wifi Analyzer - A diagnostic intelligent app. Use to diagnose surrounding area and display network stats, such as coverage hole detection, or AP in the vicinity. Refer to the Worry Free Wi-Fi Analyzer Administrator Guide for Android. Only available with Mobility DNA Enterprise License.

Accessing Apps

Access all apps installed on the device using the APPS window.

1. On the Home screen, swipe up from the bottom of the screen.
2. Slide the **APPS** window up or down to view more app icons.
3. Touch an icon to open the app.

Switching Between Recent Apps


1. Touch **Recent**.
A window appears on the screen with icons of recently used apps.
2. Slide the apps displayed up and down to view all recently used apps.
3. Swipe left or right to remove the app from the list and force close the app.
4. Touch an icon to open an app or touch **Back** to return to the current screen.

Battery Manager

The Battery Manager provides detailed information about the battery.

This section also provides battery swap procedures for supported devices.




Opening Battery Manager


- To open the Battery Manager app, swipe up from the bottom of the Home screen, and then touch .

Battery Manager Information Tab

The Battery Manager displays detailed information about battery charging, health, and status.

Table 10 Battery Icons

Battery Icon	Description
	Battery charge level is between 85% and 100%.
	Battery charge level is between 19% and 84%.
	Battery charge level is between 0% and 18%.

- **Level** - The current battery charge level as a percentage. Displays -% when the level is unknown.
- **Wear** - The health of the battery in graphical form. When the wear level exceeds 80%, the bar color changes to red.
- **Health** - The health of the battery. If a critical error occurs,  appears. Touch to view the error description.
 - **Decommission** - The battery is past its useful life and should be replaced. See system administrator.
 - **Good** - The battery is good.
 - **Charge error** - An error occurred while charging. See system administrator.
 - **Over Current** - An over-current condition occurred. See system administrator.
 - **Dead** - The battery has no charge. Replace the battery.
 - **Over Voltage** - An over-voltage condition occurred. See system administrator.
 - **Below Temperature** - The battery temperature is below the operating temperature. See system administrator.
 - **Failure Detected** - A failure has been detected in the battery. See system administrator.
 - **Unknown** - See system administrator.
- **Charge Status**
 - **Not charging** - The device is not connected to AC power.
 - **Not charging** - The device is not charging.
 - **Charging-AC** - The device is connected to AC power and charging or is fast charging via USB.
 - **Charging-USB** - The device is connected to a host computer with a USB cable and charging.
 - **Discharging** - The battery is discharging.
 - **Full** - The battery is fully charged.
 - **Unknown** - The battery status is unknown.
- **Time until Full** - The amount of time until the battery is fully charged.
- **Time since charging** - The amount of time since the device began charging.
- **Time until empty** - The amount of time until the battery is empty.
- **Advanced info** - Touch to view additional battery information.
- **Battery present status** - Indicates that the battery is present.










- **Battery level** - The battery charge level as a percentage of scale.
- **Battery scale** - The battery scale level used to determine battery level (100).
- **Battery voltage** - The current battery voltage in millivolts.
- **Battery temperature** - The current battery temperature in degrees Centigrade.
- **Battery technology** - The type of battery.
- **Battery current** - The average current into or out of the battery over the last second in mAh.
- **Battery manufacture date** - The date of manufacture.
- **Battery serial number** - The battery serial number. The number matches the serial number printed on the battery label.
- **Battery part number** - The battery part number.
- **Battery rated capacity** - Lists the rated capacity of the backup battery in mAh.
- **Battery decommission status** - Indicates if the battery is past its life span.
 - **Battery Good** - The battery is in good health.
 - **Decommissioned Battery** - The battery is past its useful life and should be replaced.
- **Base cumulative charge** - Cumulative charge using Zebra charging equipment only.
- **Battery present capacity** - Maximum amount of charge that could be pulled from the battery under the present discharge conditions if the battery were fully charged.
- **Battery health percentage** - With a range from 0 to 100, this is the ratio of “present_capacity” to “design_capacity” at a discharge rate of “design_capacity”.
- **% decommission threshold** - The default % decommission threshold for a gifted battery as 80%.
- **Battery present charge** - Amount of usable charge remaining in the battery at present under the current discharge conditions.
- **Battery total cumulative charge** - The total accumulated charge in all chargers.
- **Battery time since first use** - The time passed since the battery was placed in a Zebra terminal for the first time.
- **Battery error status** - The error status of the battery.
- **Battery usage number** - The health of the battery as a result of charging and discharging. A high number indicates low battery health.
- **Usage decommission threshold** - When the Battery usage number is greater than or equal to the Usage decommission threshold, the battery is past its useful life and should be replaced.
- **App version** - The application version number.

DataWedge Demonstration

Use DataWedge Demonstration (DWDemo) to demonstrate data capture functionality. To configure DataWedge, refer to techdocs.zebra.com/datawedge/.


DataWedge Demonstration Icons

Table 11 DataWedge Demonstration Icons

	Icon	Description
Illumination		Imager illumination is on. Touch to turn illumination off.
Illumination		Imager illumination is off. Touch to turn illumination on.
Data Capture		An RS4000 laser scanner or RS5000 imager is connected.
Data Capture		An RS4000 laser scanner or RS5000 imager is not connected.
Data Capture		An RS507 or RS6000 Bluetooth imager is connected.
Data Capture		An RS507 or RS6000 Bluetooth imager is not connected.
Scan Mode		Imager is in picklist mode. Touch to change to normal scan mode.
Scan Mode		Imager is in normal scan mode. Touch to change to picklist mode.
Menu		Opens a menu to view the application information or to set the application DataWedge profile.

Selecting a Scanner

See the Data Capture section for more information.

1. To select a scanner, touch  > **Settings** > **Scanner Selection**.
2. Press the programmable button or touch the yellow scan button to capture data. The data appears in the text field below the yellow button.

PTT Express Voice Client

PTT Express Voice Client enables Push-To-Talk (PTT) communication between disparate enterprise devices. Leveraging existing Wireless Local Area Network (WLAN) infrastructure, PTT Express delivers simple PTT communication without requiring a voice communication server.



NOTE: Requires a PTT Express License.



NOTE: Not available in all countries.

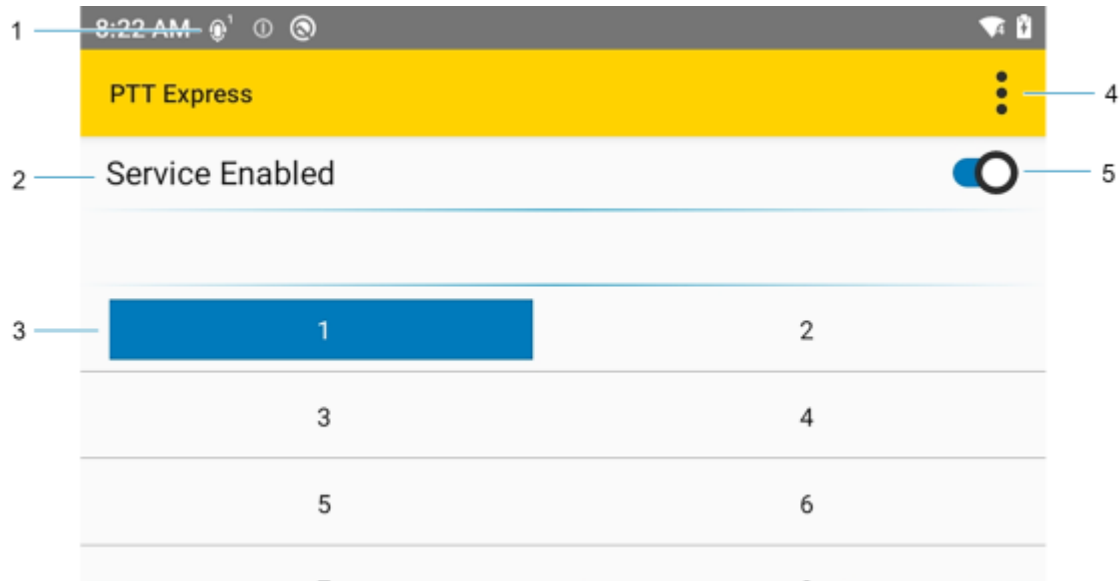
- **Group Call** - Press and hold **PTT (Talk)** to start communicating with other voice client users.

- **Private Response** - Double-press **PTT** to respond to the originator of the last broadcast or to make a Private Response.

PTT Express User Interface

Use the PTT Express interface for Push-To-Talk communication.

Figure 15 PTT Express



Number	Item	Description
1	Notification icon	Indicates the current state of the PTT Express client.
2	Service indication	Indicates the status of the PTT Express client. Options are: Service Enabled, Service Disabled or Service Unavailable.
3	Talk group	Lists all 32 Talk Groups available for PTT communication.
4	Settings	Opens the PTT Express Settings screen.
5	Enable/disable switch	Turns the PTT service on and off.

PTT Audible Indicators

The following tones provide helpful cues when using the voice client.

- **Talk Tone:** Double chirp. Plays when the Talk button is depressed. This is a prompt for you to start talking.
- **Access Tone:** Single beep. Plays when another user just finished a broadcast or response. You can now initiate a Group Broadcast or Private Response.
- **Busy Tone:** Continuous tone. Plays when the Talk button is depressed and another user is already communicating on the same talkgroup. Plays after the maximum allowed talk time is reached (60 seconds).








- **Network Tone:**

- Three increasing pitch beeps. Plays when PTT Express acquires the WLAN connection and the service is enabled.
- Three decreasing pitch beeps. Plays when PTT Express loses the WLAN connection or the service is disabled.


PTT Notification Icons

Notification icons indicate the current state of the PTT Express Voice client.

Table 12 PTT Express Icons

Status Icon	Description
	The PTT Express Voice client is disabled.
	The PTT Express Voice client is enabled but not connected to a WLAN.
	The PTT Express Voice client is enabled, connected to a WLAN, and listening on the Talk Group indicated by the number next to the icon.
	The PTT Express Voice client is enabled, connected to a WLAN, and communicating on the Talk Group indicated by the number next to the icon.
	The PTT Express Voice client is enabled, connected to a WLAN, and in a private response.
	The PTT Express Voice client is enabled and muted.
	The PTT Express Voice client is enabled but it is not able to communicate due to a VoIP telephony call in progress.

Enabling PTT Communication

1. Swipe up from the bottom of the Home screen and touch .
2. Slide the Enable/Disable Switch to the **ON** position. The button changes to **ON**.

Selecting a Talk Group

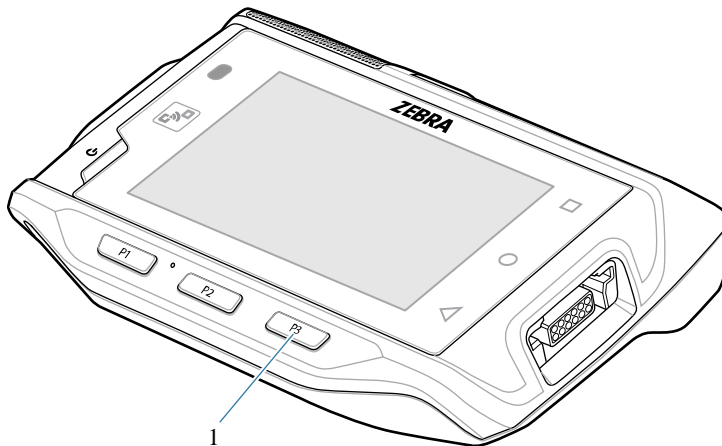
There are 32 Talk Groups that can be selected by PTT Express users. However, only one talk group can be enabled at a time on the device.

- Touch one of the 32 Talk Groups. The selected Talk Group is highlighted.

PTT Communication

This section describes the default PTT Express client configuration. Refer to the PTT Express V1.2 User Guide for detailed information on using the client.

PTT communication may be established as a Group Call.



1	PTT button
---	------------

Creating a Group Call

1. Press and hold **PTT** (1) (or **Talk** on the headset) and listen for the talk tone.

If you hear a busy tone, release the button and wait a moment before making another attempt. Ensure that PTT Express and the WLAN are enabled.



NOTE: Holding the button for more than 60 seconds (default) drops the call, allowing others to make Group calls. Release the button when finished talking to allow others to make calls.


2. Start talking after hearing the talk tone.
3. Release the button when finished talking.

Responding with a Private Response

The Private Response can only be initiated once a Group Call has been established. The initial Private Response is made to the originator of the Group Call.

1. Wait for an access tone.
2. Within 10 seconds, double-press **PTT**, and listen for the talk tone.
3. If you hear a busy tone, release the button and wait a moment before making another attempt. Ensure that PTT Express and the WLAN are enabled.
4. Start talking after the talk tone plays.
5. Release the button when finished talking.

Disabling PTT Communication

1. Swipe up from the bottom of the Home screen and touch .
2. Slide the **Enable/Disable Switch** to the **OFF** position. The button changes to **OFF**.

RxLogger

RxLogger is a comprehensive diagnostic tool that provides application and system metrics, and diagnoses device and application issues.

RxLogger logs the following information: CPU load, memory load, memory snapshots, battery consumption, power states, wireless logging, TCP dumps, Bluetooth logging, logcat, FTP push/pull, ANR dumps, etc. All generated logs and files are saved onto flash storage on the device (internal or external).

RxLogger Configuration

RxLogger is built with an extensible plug-in architecture and comes packaged with a number of plug-ins already built-in. For information on configuring RxLogger, refer to techdocs.zebra.com/rxlogger/.


To open the configuration screen, from the RxLogger home screen touch **Settings**.

Configuration File


RxLogger configuration can be set using an XML file.

The config.xml configuration file is located in the RxLogger\config folder. Copy the file from the device to a host computer using a USB connection. Edit the configuration file and then replace the XML file on the device. There is no need to stop and restart the RxLogger service since the file change is automatically detected.

Enabling Logging

1. Swipe the screen up and select .
2. Touch **Start**.

Disabling Logging

1. Swipe the screen up and select .
2. Touch **Stop**.

Extracting Log Files

1. Connect the device to a host computer using an USB connection.
2. Using a file explorer, navigate to the RxLogger folder.
3. Copy the file from the device to the host computer.
4. Disconnect the device from the host computer.

Backing Up Data


RxLogger Utility allows the user to make a zip file of the RxLogger folder in the device, which by default contains all the RxLogger logs stored in the device.

- To save the backup data, touch  > **BackupNow**.

RxLogger Utility

RxLogger Utility is a data monitoring application for viewing logs in the device while RxLogger is running. Logs and RxLogger Utility features are accessed using Main Chat Head.

Initiating the Main Chat Head

1. Open **RxLogger**.
2. Touch  > **Toggle Chat Head**.
The Main Chat Head icon appears on the screen.
3. Touch and drag the Main Chat head icon to move it around the screen.

Removing the Main Chat Head

1. Touch and drag the icon.
A circle with an X appears.
2. Move the icon over the circle and then release.

Viewing Logs

1. Touch the Main Chat Head icon.
The RxLogger Utility screen appears.
2. Touch a log to open it.
The user can open many logs with each displaying a new Sub Chat Head.
3. If necessary, scroll left or right to view additional Sub Chat Head icons.
4. Touch a Sub Chat Head to display the log contents.

Removing a Sub Chat Head Icon

- To remove a Sub Chat Head icon, press and hold the icon until it disappears.

Backing Up In Overlay View

RxLogger Utility allows the user to make a zip file of the RxLogger folder in the device, which by default contains all the RxLogger logs stored in the device.

The Backup icon is always available in Overlay View.

1. Touch .
The Backup dialog box appears.
2. Touch **Yes** to create the backup.

Data Capture

This section provides information for capturing barcode data using various scanning options.

The device supports data capture using:

- RS4000 Ring Scanner
- RS5000 Corded Imager
- RS5100 Bluetooth Ring Scanner
- RS6000 Hands-free Imager
- RS507/RS507X Hands-free Imager

Imaging

The device can be used with the RS507/RS507X, RS5000, or RS6000 imagers.

The imagers have the following features:

- Omnidirectional reading of a variety of barcode symbologies, including the most popular linear, postal, PDF417, Digimarc, and 2D matrix code types.
- Advanced intuitive laser aiming cross-hair and dot aiming for easy point-and-shoot operation.

The imager uses imaging technology to take a picture of a barcode, stores the resulting image in memory, and executes state-of-the-art software decoding algorithms to extract the barcode data from the image.

Laser Scanning

The device can be used with an RS4000 scanner.

The laser scanner has the following features:

- Reading of a variety of barcode symbologies, including the most popular linear, postal, and 1-D code types.
- Intuitive aiming for easy point-and-shoot operation.
- Adaptive scanning.

Operational Modes

The device with an integrated imager supports three modes of operation.

Activate each mode by pressing **Scan**.

- Decode mode — The device attempts to locate and decode enabled barcodes within its field of view. The imager remains in this mode as long as you hold the scan button, or until it decodes a barcode.



NOTE: To enable Pick List Mode, configure in DataWedge or set in an application using a API command.

- Pick List mode — Selectively decode a barcode when more than one barcode is in the device's field of view by moving the aiming crosshair or dot over the required barcode. Use this feature for pick lists containing multiple barcodes and manufacturing or transport labels containing more than one barcode type (either 1D or 2D).



NOTE: To enable Basic MultiBarcode Mode, configure in DataWedge or set in an application using a API command.

- Basic MultiBarcode Mode — In this mode, the device attempts to locate and decode a specific number of unique barcodes within its field of view. The device remains in this mode as long as the user holds the scan button, or until it decodes all the barcodes.
 - The device attempts to scan the programmed number of unique barcodes (from 2 through 100).
 - If there are duplicate barcodes (same symbology type and data), only one of the duplicate barcodes is decoded and the remainder are ignored. If the label has two duplicate barcodes plus another two different barcodes, a maximum of three barcodes will be decoded from that label; one will be ignored as a duplicate.
 - Barcodes can be of multiple symbology types and still be acquired together. For example, if the specified quantity for a Basic MultiBarcode scan is four, two barcodes can be symbology type Code 128 and the other two can be symbology type Code 39.
 - If the specified number of unique barcodes is not initially in view of the device, the device will not decode any data until the device is moved to capture the additional barcode(s) or time out occurs. If the device field of view contains a number of barcodes greater than the specified quantity, the device randomly decodes barcode(s) until the specified number of unique barcodes is reached. For example, if the count is set to two and eight barcodes are in the field of view, the device decodes the first two unique barcodes it sees, returning the data in random order.
 - Basic MultiBarcode Mode does not support concatenated barcodes.

Scanning Considerations

Typically, scanning is a simple matter of aim, scan, and decode, with a few quick trial efforts to master it.

However, consider the following to optimize scanning performance:

- Range — Scanners decode best over a particular working range — minimum and maximum distances from the barcode. This range varies according to barcode density and scanning device optics. Scan within range for quick and constant decodes; scanning too close or too far away prevents decodes. Move the scanner closer and further away to find the right working range for the barcodes being scanned.
- Angle — Scanning angle is important for quick decodes. When the illumination/flash reflects directly back into the imager, the specular reflection can blind/saturate the imager. To avoid this, scan the barcode so that the beam does not bounce directly back. Do not scan at too sharp an angle; the scanner needs to collect scattered reflections from the scan to make a successful decode. Practice quickly shows what tolerances to work within.
- Hold the device farther away for larger symbols.

- Move the device closer for symbols with bars that are close together.

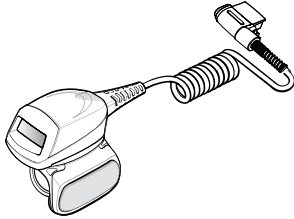


NOTE: Scanning procedures depend on the app and device configuration. An app may use different scanning procedures from the one listed above.

Scanning with the RS4000 Ring Scanner

Use the RS4000 Ring Scanner to capture barcode data.

Figure 16 RS4000 Ring Scanner



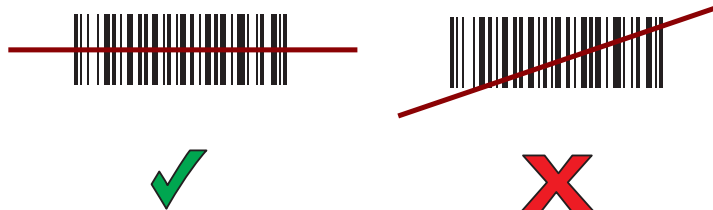
Refer to the RS4000 Ring Scanner Quick Start Guide for more information.



NOTE: To read a barcode, a scan-enabled app is required. The device contains the DataWedge app that allows the user to enable the scanner to decode barcode data and display the barcode content.

To scan with the RS4000:

1. Connect the RS4000 to the device. For more information, see [RS4000 Scanner](#) on page 126.
2. Ensure that a scan-enabled application is loaded or DataWedge is enabled.
3. Press the trigger.
4. Aim the scan beam at the bar code.



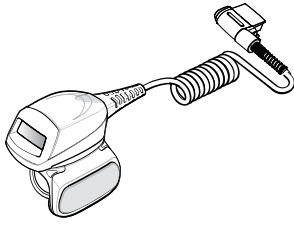
Ensure the red scan beam covers the entire bar code. The Decode LED lights red to indicate that scanning is in process, then lights green and a beep sounds, by default, to indicate the bar code was decoded successfully.

5. Release the trigger.

Scanning with the RS5000 Corded Imager

Use the RS5000 Corded Imager to capture barcode data.

Figure 17 RS5000 Corded Imager



NOTE: To read a barcode, a scan-enabled app is required. The device contains the DataWedge app that allows the user to enable the scanner to decode barcode data and display the barcode content.



NOTE: Imager decoding usually occurs instantaneously. The RS5000 repeats the steps required to take a digital picture (image) of a poor or difficult bar code as long as the scan button remains pressed.

To scan with the RS5000:

1. Connect the RS5000 to the device.
2. Press the scan trigger and aim the RS5000 at a bar code.
3. Ensure the bar code is within the area formed by the aiming pattern. The aiming dot is used for increased visibility in bright lighting conditions.

Figure 18 RS5000 Aiming Pattern

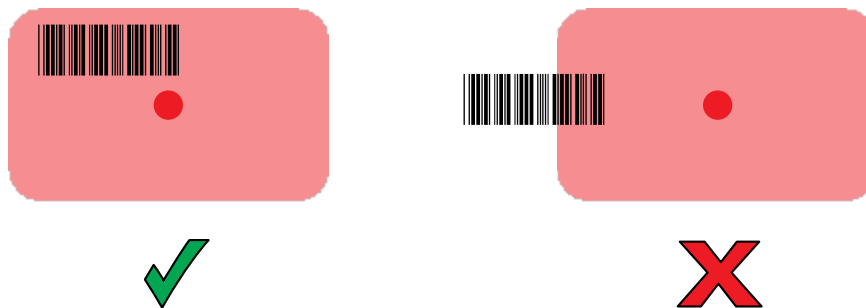
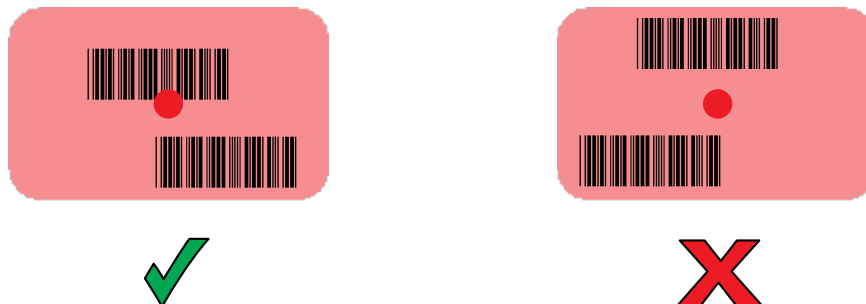


Figure 19 RS5000 Pick List Mode with Multiple Bar Codes

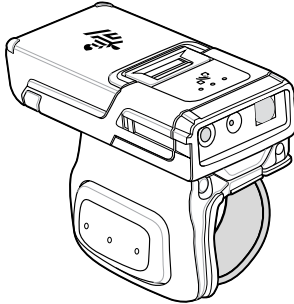


4. If the decode is successful the LED lights green. The terminal beeps if programmed accordingly.

Scanning with the RS5100 Ring Scanner

Use the RS5100 Ring Scanner to capture barcode data.

Figure 20 RS5100 Ring Scanner



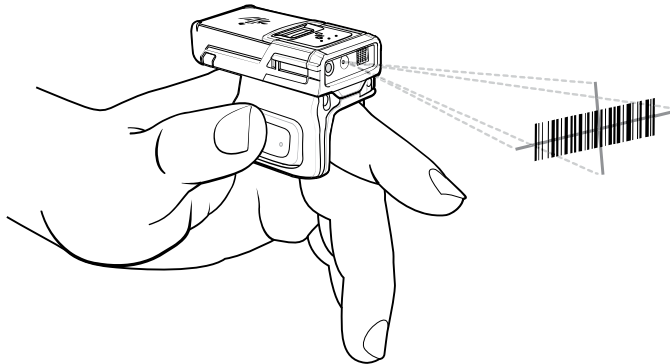
Refer to the RS5100 Ring Scanner Product Reference Guide for more information.



NOTE: To read a barcode, a scan-enabled app is required. The device contains the DataWedge app that allows the user to enable the scanner to decode barcode data and display the barcode content.

To scan with the RS5100:

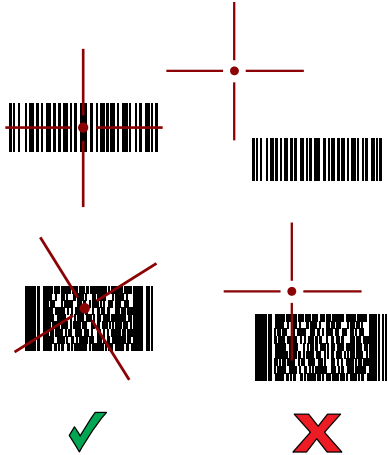
1. Pair the RS5100 with the device.
2. Ensure that an app is open on the device and a text field is in focus (text cursor in text field).
3. Point the RS5100 at a barcode.



4. Press and hold the trigger.

The red laser aiming pattern turns on to assist in aiming. Ensure the barcode is within the area formed by the cross-hairs in the aiming pattern. The aiming dot increases visibility in bright lighting conditions.

Figure 21 RS5100 Aiming Pattern



When the RS5100 is in Pick List mode, the RS5100 does not decode the barcode until the center of the crosshair touches the barcode.

Figure 22 RS5100 Pick List Mode with Multiple Barcodes in Aiming Pattern

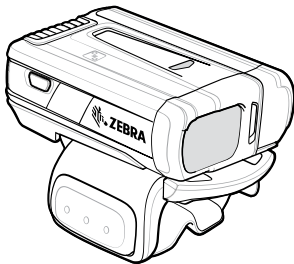


The RS5100 LEDs light green and a beep sounds to indicate the barcode was decoded successfully. The captured data appears in the text field.

Scanning with the RS6000 Bluetooth Ring Scanner

Use the RS6000 Bluetooth Ring Scanner to capture barcode data.

Figure 23 RS6000 Bluetooth Ring Scanner



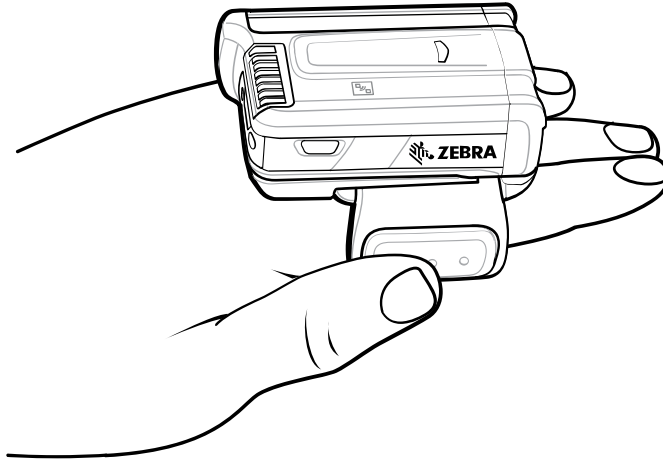
Refer to the RS6000 Bluetooth Ring Scanner Product Reference Guide for more information.



NOTE: To read a barcode, a scan-enabled app is required. The device contains the DataWedge app that allows the user to enable the scanner to decode barcode data and display the barcode content.

To scan with the RS6000:

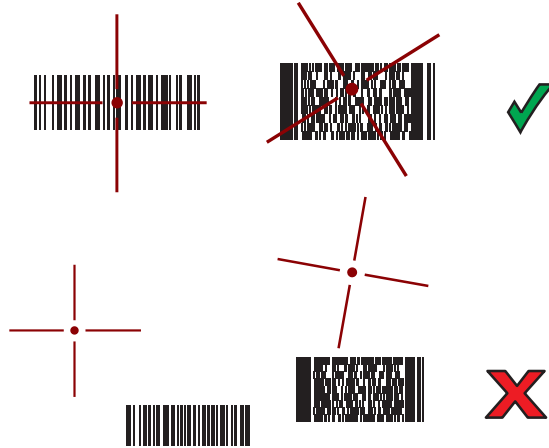
1. Pair the RS6000 with the device.
2. Ensure that an app is open on the device and a text field is in focus (text cursor in text field).
3. Point the RS6000 at a barcode.



4. Press and hold the trigger.

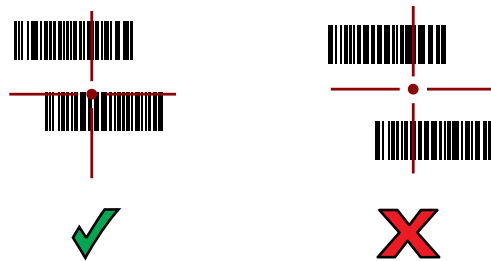
The red laser aiming pattern turns on to assist in aiming. Ensure the barcode is within the area formed by the cross-hairs in the aiming pattern. The aiming dot increases visibility in bright lighting conditions.

Figure 24 RS6000 Aiming Pattern



When the RS6000 is in Pick List mode, the RS6000 does not decode the barcode until the center of the crosshair touches the barcode.

Figure 25 RS6000 Pick List Mode with Multiple Barcodes in Aiming Pattern



The RS6000 LEDs light green and a beep sounds to indicate the barcode was decoded successfully. The captured data appears in the text field.

Scanning with the RS507/RS507X Hands-Free Imager

Use the RS507/RS507X Hands-Free Imager to capture barcode data.

Figure 26 RS507/RS507X Hands-Free Imager



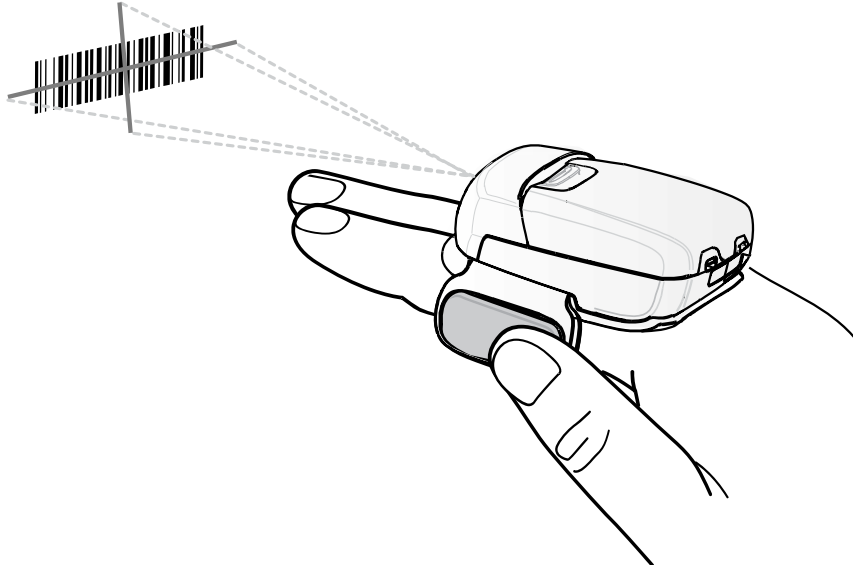
Refer to the RS507/RS507X Hands-free Imager Product Reference Guide for more information.



NOTE: To read a barcode, a scan-enabled app is required. The device contains the DataWedge app that allows the user to enable the scanner to decode barcode data and display the barcode content.

To scan with the RS507/RS507x:

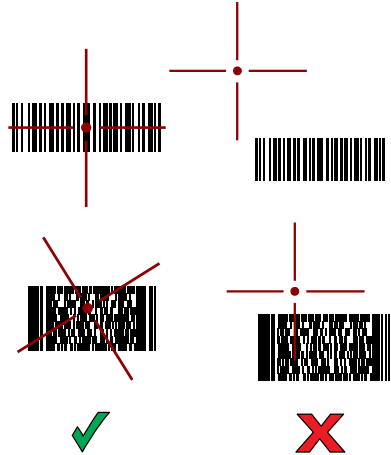
1. Pair the RS507/RS507X with the device.
2. Ensure that an app is open on the device and a text field is in focus (text cursor in text field).
3. Point the RS507/RS507X at a barcode.



4. Press and hold the trigger.

The red laser aiming pattern turns on to assist in aiming. Ensure the barcode is within the area formed by the cross-hairs in the aiming pattern. The aiming dot increases visibility in bright lighting conditions.

Figure 27 RS507/RS507X Aiming Pattern



When the RS507/RS507X is in Pick List mode, the RS507/RS507X does not decode the barcode until the center of the crosshair touches the barcode.

Figure 28 RS507/RS507X Pick List Mode with Multiple Barcodes in Aiming Pattern



The RS507/RS507X LEDs light green and a beep sounds to indicate the barcode was decoded successfully.

The captured data appears in the text field.

Pairing a Bluetooth Ring Scanner

Before using a Bluetooth Ring Scanner with the device, connect the device to the Ring Scanner.

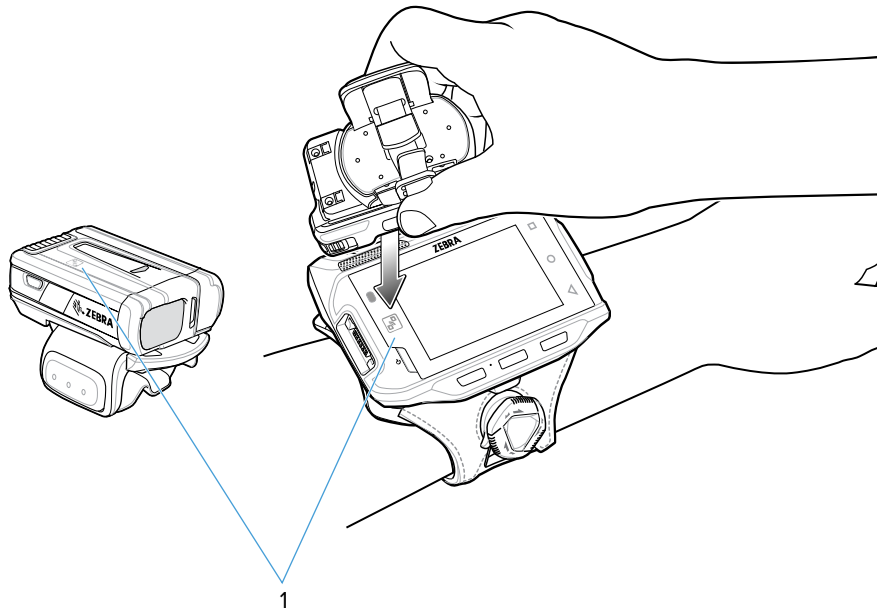
To connect the Ring Scanner to the device, use one of the following methods:

- Near Field Communication (NFC) (RS6000 only)
- Simple Serial Interface (SSI)
- Bluetooth Human Interface Device (HID) Mode.

Pairing in SSI Mode Using Near Field Communication

The device provides the ability to pair the RS5100 or RS6000 Ring Scanner in SSI Mode using NFC.


1. Ensure that NFC is enabled on the device.
2. Align the NFC icon on the Ring Scanner with the NFC icon on the back of the device.



1	NFC logo
---	----------

The Status LED blinks blue indicating that the Ring Scanner is attempting to establish a connection with the device. When a connection is established, the Status LED turns off and the Ring Scanner emits a single string of low/high beeps.

A notification appears on the device screen.

The  icon appears in the Status bar.

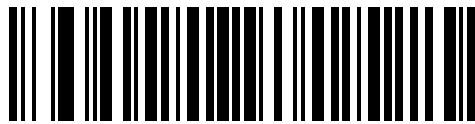
Pairing in HID Mode Using Near Field Communication

The device provides the ability to pair the RS6000 Ring Scanner in HID Mode using NFC.

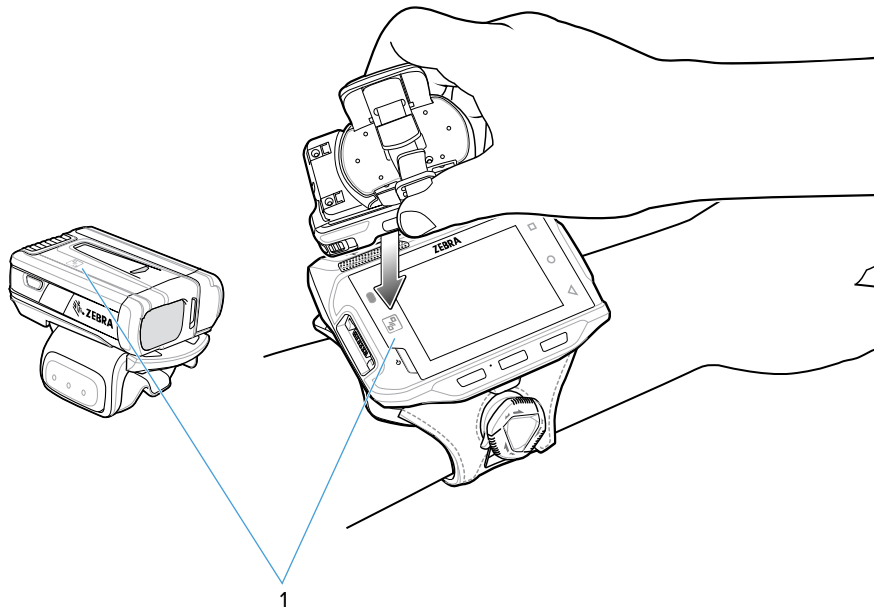
1. Ensure that NFC is enabled on the device.
2. Ensure that Bluetooth is enabled on both devices.
3. Ensure that the Bluetooth device to discover is in discoverable mode.
4. Ensure that the two devices are within 10 meters (32.8 feet) of one another.

5. Place the Ring Scanner in Human Interface Device (HID) mode. If the Ring Scanner is already in HID mode, skip to step 6.
 - a) Remove the battery from the Ring Scanner.
 - b) Press and hold the Restore key.
 - c) Install the battery onto the Ring Scanner.
 - d) Keep holding the Restore key for about five seconds until a chirp is heard and the Scan LEDs flash green.
 - e) Scan the barcode below to place the Ring Scanner in HID mode.

Figure 29 Bluetooth HID Barcode



6. Align the NFC icon on the Ring Scanner with the NFC icon on the device.



1	NFC logo
---	----------

The Status LED blinks blue indicating that the Ring Scanner is attempting to establish a connection with the device. When a connection is established, the Status LED turns off and the Ring Scanner emits a single string of low/high beeps.

A notification appears on the device screen.

The  icon appears in the Status bar.

Pairing a Bluetooth Scanner


Before using a Bluetooth scanner with the device, connect the device to the Bluetooth scanner.

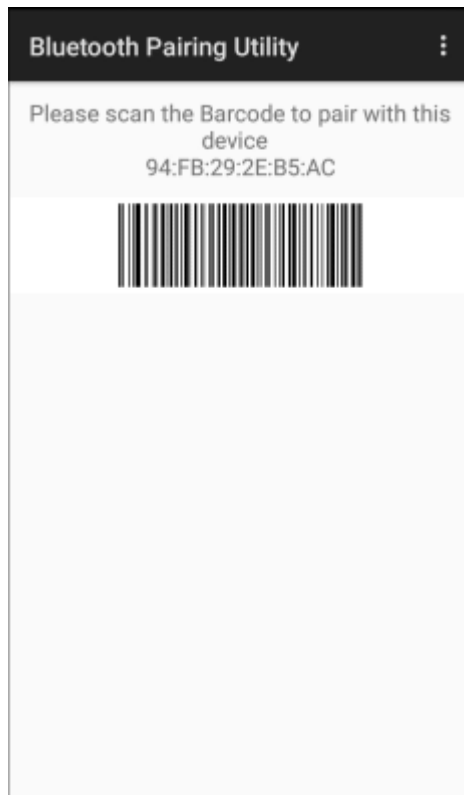
Connect the scanner to the device using one of the following methods:

- Simple Serial Interface (SSI) mode
- Bluetooth Human Interface Device (HID) mode

Pairing Using Simple Serial Interface

Pair the Bluetooth scanner to the device using Simple Serial Interface (SSI).

1. Ensure that the two devices are within 10 meters (32.8 feet) of one another.
2. Install the battery into the scanner.
3. Swipe up from the bottom of the Home screen and touch .



4. Using the Bluetooth scanner, scan the barcode on the screen.

The scanner emits a string of high/low/high/low beeps. The Scan LED flashes green indicating that the Ring Scanner is attempting to establish a connection with the device. When a connection is established, the Scan LED turns off and the Ring Scanner emits one string of low/high beeps.

A notification appears on the Notification panel and the  icon appears in the Status bar.

Pairing Using Bluetooth Human Interface Device


Pair the Bluetooth scanner to the device using HID.

To pair the scanner with the device using HID:

1. Remove the battery from the scanner.

2. Replace the battery.
3. After the scanner reboots, scan the barcode below to place the scanner in HID mode.



4. On the device, swipe down from the Status bar to open the Quick Access panel and then touch .
5. Touch **Bluetooth**.
6. Touch **Pair new device**. The device begins searching for discoverable Bluetooth devices in the area and displays them under **Available devices**.
7. Scroll through the list and select XXXXX xxxxxx, where XXXXX is the scanner and xxxxxx is the serial number.

The device connects to the scanner, the scanner beeps once and **Connected** appears below the device name. The Bluetooth device is added to the **Paired devices** list and a trusted (“paired”) connection is established.

DataWedge

DataWedge is a utility that adds advanced barcode scanning capability to any application without writing code. It runs in the background and handles the interface to built-in barcode scanners. The captured barcode data is converted to keystrokes and sent to the target application as if it was typed on the keypad.

DataWedge allows any app on the device to get data from input sources such as a barcode scanner, MSR, RFID, voice, or serial port and manipulate the data based on options or rules.



Configure DataWedge to:

- Provide data capture services from any app.
- Use a particular scanner, reader, or other peripheral devices.
- Properly format and transmit data to a specific app.

To configure DataWedge, refer to techdocs.zebra.com/datawedge/.

Enabling DataWedge


This procedure provides information on how to enable DataWedge on the device.

1. Swipe up from the bottom of the Home screen and touch .
2. Touch  > **Settings**.
3. Touch the **DataWedge enabled** checkbox.

A blue checkmark appears in the checkbox indicating that DataWedge is enabled.

Disabling DataWedge

This procedure provides information on how to disable DataWedge on the device.

1. Swipe up from the bottom of the Home screen and touch .

2. Touch .
3. Touch **Settings**.
4. Touch **DataWedge enabled**.

Supported Devices

This sections provides the supported decoders for each data capture option.

RS4000 Supported Decoders

Lists the supported decoders for the RS4000 Ring Scanner.

Table 13 RS4000 Ring Scanner Supported Decoders

Decoder	Default State	Decoder	Default State	Decoder	Default State
Australian Postal	—	EAN8	X	MSI	O
Aztec	—	Grid Matrix	—	PDF417	X
Canadian Postal	—	GS1 DataBar	X	QR Code	—
Chinese 2 of 5	O	GS1 DataBar Expanded	X	Decoder Signature	—
Codabar	X	GS1 DataBar Limited	O	TLC 39	O
Code 11	O	GS1 Datamatrix	—	Trioptic 39	O
Code 128	X	GS1 QRCode	—	UK Postal	—
Code 39	X	HAN XIN	—	UPCA	X
Code 93	O	Interleaved 2 of 5	O	UPCE0	X
Composite AB	—	Japanese Postal	—	UPCE1	O
Composite C	—	Korean 3 of 5	O	US4state	—
Discrete 2 of 5	O	MAIL MARK	X	US4state FICS	—
Datamatrix	—	Matrix 2 of 5	O	US Planet	—
Dutch Postal	—	Maxicode	—	US Postnet	—
DotCode	—	MicroPDF	—		
EAN13	X	MicroQR	—		

Key: X = Enabled, O = Disabled, — = Not Supported

RS5000 Supported Decoders

Lists the supported decoders for the RS5000 Ring Scanner.

Table 14 RS5000 Ring Scanner Supported Decoders

Decoder	Default State	Decoder	Default State	Decoder	Default State
Australian Postal	O	EAN8	X	MSI	O
Aztec	X	Grid Matrix	—	PDF417	X
Canadian Postal	—	GS1 DataBar	X	QR Code	X
Chinese 2 of 5	O	GS1 DataBar Expanded	X	Decoder Signature	O
Codabar	X	GS1 DataBar Limited	O	TLC 39	O
Code 11	O	GS1 Datamatrix	O	Trioptic 39	O
Code 128	X	GS1 QRCode	O	UK Postal	O
Code 39	X	HAN XIN	O	UPCA	X
Code 93	O	Interleaved 2 of 5	O	UPCE0	X
Composite AB	O	Japanese Postal	O	UPCE1	O
Composite C	O	Korean 3 of 5	O	US4state	O
Discrete 2 of 5	O	MAIL MARK	X	US4state FICS	O
Datamatrix	X	Matrix 2 of 5	O	US Planet	O
Dutch Postal	O	Maxicode	X	US Postnet	O
DotCode	—	MicroPDF	O		
EAN13	X	MicroQR	O		

Key: X = Enabled, O = Disabled, — = Not Supported

RS5100 Supported Decoders

Lists the supported decoders for the RS5100 Ring Scanner.

Table 15 RS5100 Supported Decoders

Decoder	Default State	Decoder	Default State	Decoder	Default State
Australian Postal	O	EAN8	X	MSI	O
Aztec	X	Grid Matrix	O	PDF417	X
Canadian Postal	O	GS1 DataBar	X	QR Code	X
Chinese 2 of 5	O	GS1 DataBar Expanded	X	Decoder Signature	O
Codabar	X	GS1 DataBar Limited	O	TLC 39	O

Table 15 RS5100 Supported Decoders (Continued)

Decoder	Default State	Decoder	Default State	Decoder	Default State
Code 11	O	GS1 Datamatrix	O	Trioptic 39	O
Code 128	X	GS1 QRCode	O	UK Postal	O
Code 39	X	HAN XIN	O	UPCA	X
Code 93	O	Interleaved 2 of 5	O	UPCE0	X
Composite AB	O	Japanese Postal	O	UPCE1	O
Composite C	O	Korean 3 of 5	O	US4state	O
Discrete 2 of 5	O	MAIL MARK	X	US4state FICS	O
Datamatrix	X	Matrix 2 of 5	O	US Planet	O
Dutch Postal	O	Maxicode	X	US Postnet	O
DotCode	O	MicroPDF	O		
EAN13	X	MicroQR	O		

Key: X = Enabled, O = Disabled, - = Not Supported

RS6000 Supported Decoders

Lists the supported decoders for the RS6000 Ring Scanner.

Table 16 RS6000 Supported Decoders

Decoder	Default State	Decoder	Default State	Decoder	Default State
Australian Postal	O	EAN8	X	MSI	O
Aztec	X	Grid Matrix	O	PDF417	X
Canadian Postal	O	GS1 DataBar	X	QR Code	X
Chinese 2 of 5	O	GS1 DataBar Expanded	X	Decoder Signature	O
Codabar	X	GS1 DataBar Limited	O	TLC 39	O
Code 11	O	GS1 Datamatrix	O	Trioptic 39	O
Code 128	X	GS1 QRCode	O	UK Postal	O
Code 39	X	HAN XIN	O	UPCA	X
Code 93	O	Interleaved 2 of 5	O	UPCE0	X
Composite AB	O	Japanese Postal	O	UPCE1	O
Composite C	O	Korean 3 of 5	O	US4state	O

Table 16 RS6000 Supported Decoders (Continued)

Decoder	Default State	Decoder	Default State	Decoder	Default State
Discrete 2 of 5	O	MAIL MARK	X	US4state FICS	O
Datamatrix	X	Matrix 2 of 5	O	US Planet	O
Dutch Postal	O	Maxicode	X	US Postnet	O
DotCode	O	MicroPDF	O		
EAN13	X	MicroQR	O		

Key: X = Enabled, O = Disabled, - = Not Supported

RS507/RS507x Supported Decoders

Lists the supported decoders for the RS507/RS507x Ring Scanner.

Table 17 RS507/RS507x Supported Decoders

Decoder	Default State	Decoder	Default State	Decoder	Default State
Australian Postal	O	EAN8	X	MSI	O
Aztec	X	Grid Matrix	O	PDF417	X
Canadian Postal	-	GS1 DataBar	X	QR Code	X
Chinese 2 of 5	O	GS1 DataBar Expanded	X	Decoder Signature	O
Codabar	X	GS1 DataBar Limited	O	TLC 39	O
Code 11	O	GS1 Datamatrix	-	Trioptic 39	O
Code 128	X	GS1 QRCode	-	UK Postal	O
Code 39	O	HAN XIN	-	UPCA	X
Code 93	O	Interleaved 2 of 5	O	UPCE0	X
Composite AB	O	Japanese Postal	O	UPCE1	O
Composite C	O	Korean 3 of 5	O	US4state	O
Discrete 2 of 5	O	MAIL MARK	-	US4state FICS	O
Datamatrix	X	Matrix 2 of 5	O	US Planet	O
Dutch Postal	O	Maxicode	X	US Postnet	O
DotCode	O	MicroPDF	O		
EAN13	X	MicroQR	O		

Key: X = Enabled, O = Disabled, - = Not Supported

Wireless

This section provides information on the wireless features of the device.

The following wireless features are available on the device:

- Wireless Local Area Network (WLAN)
- Bluetooth
- Cast
- Near Field Communications (NFC)

Wireless Local Area Networks

Wireless local area networks (WLANs) allow the device to communicate wirelessly inside a building. Before using the device on a WLAN, the facility must be set up with the required hardware to run the WLAN (sometimes known as infrastructure). The infrastructure and the device must both be properly configured to enable this communication.

Refer to the documentation provided with the infrastructure (access points (APs), access ports, switches, Radius servers, etc.) for instructions on how to set up the infrastructure.

Once the infrastructure is set up to enforce the chosen WLAN security scheme, use the **Wireless & networks** settings configure the device to match the security scheme.

The device supports the following WLAN security options:

- None
- Open
- Wireless Equivalent Privacy (WEP)
- Wi-Fi Protected Access (WPA)/WPA2 Personal (PSK)
- WPA3-Personal
- WPA/WPA2/WPA3 Enterprise (EAP)
 - Protected Extensible Authentication Protocol (PEAP) - with MSCHAPV2 and GTC authentication.
 - Transport Layer Security (TLS)
 - Tunneled Transport Layer Security (TTLS) - with Password Authentication Protocol (PAP), MSCHAP and MSCHAPv2 authentication.
 - Flexible Authentication via Secure Tunneling (EAP-FAST) - with MSCHAPV2 and GTC authentication.
 - Lightweight Extensible Authentication Protocol (LEAP).

- WPA3-Enterprise 192-bit

Connecting to a Wi-Fi Network

1. Go to **Settings**.
2. Touch **Network & internet**.
3. Touch **Wi-Fi** to open the **Wi-Fi** screen. The device searches for WLANs in the area and lists them.
4. Scroll through the list and select the desired WLAN network.
5. For open networks, touch profile once or press and hold and then select **Connect** or for secure networks enter the required password or other credentials then touch **Connect**. See the system administrator for more information.

The device obtains a network address and other required information from the network using the dynamic host configuration protocol (DHCP) protocol. To configure the device with a fixed internet protocol (IP) address, see [Configuring the Device to Use a Static IP Address](#) on page 81.

6. In the Wi-Fi setting field, **Connected** appears indicating that the device is connected to the WLAN.

Removing a Wi-Fi Network

Remove a remembered or connected Wi-Fi network.

1. Go to **Settings**.
2. Touch **Network & Internet > Wi-Fi**.
3. Scroll down to the bottom of the list and touch **Saved networks**.
4. Touch the name of the network.
5. Touch **FORGET**.

WLAN Configuration

This section provides information on configuring Wi-Fi settings.

Configuring a Secure Wi-Fi Network

1. Go to **Settings**.
2. Touch **Network & Internet > Wi-Fi**.
3. Slide the switch to the **ON** position.
4. The device searches for WLANs in the area and lists them on the screen.
5. Scroll through the list and select the desired WLAN network.
6. Touch the desired network. If network security is **Open**, the device automatically connects to the network. For all other network security, a dialog box appears.
7. If network security is **WPA/WPA2-Personal**, **WPA3-Personal**, or **WEP**, enter the required password and then touch **Connect**.

8. If network security is **WPA/WPA2/WPA3 Enterprise**:
 - a) Touch the **EAP method** drop-down list and select one of the following:
 - **PEAP**
 - **TLS**
 - **TTLS**
 - **PWD**
 - **LEAP**
 - b) Fill in the appropriate information. Options vary depending on the **EAP method** chosen.
 - When selecting **CA certificate**, Certification Authority (CA) certificates are installed using the **Security** settings.
 - When using the EAP methods PEAP, TLS, or TTLS, specify a domain.
 - Touch **Advanced options** to display additional network options.
9. If the network security is **WPA3-Enterprise 192-bit**:
 - Touch **CA certificate** and select a Certification Authority (CA) certificate. Note: Certificates are installed using the Security settings.
 - Touch **User certificate** and select a user certificate. Note: User certificates are installed using the Security settings.
 - In the **Identity** text box, enter the username credentials.



NOTE: By default, the network Proxy is set to None and the IP settings is set to DHCP. See [Configuring for a Proxy Server](#) on page 81 for setting the connection to a proxy server and see [Configuring the Device to Use a Static IP Address](#) on page 81 for setting the device to use a static IP address.


10. Touch **Connect**.

Manually Adding a Wi-Fi Network

Manually add a Wi-Fi network if the network does not broadcast its name (SSID) or to add a Wi-Fi network when out of range.

1. Go to **Settings**.
2. Touch **Network & Internet > Wi-Fi**.
3. Slide the Wi-Fi switch to the **On** position.
4. Scroll to the bottom of the list and select **Add network**.
5. In the **Network name** text box, enter the name of the Wi-Fi network.

6. In the **Security** drop-down list, set the type of security to:
 - **None**
 - **Enhanced Open**
 - **WEP**
 - **WPA/WPA2-Personal**
 - **WPA3-Personal**
 - **WPA/WPA2/WPA3-Enterprise**
 - **WPA3-Enterprise 192-bit**
7. If the network security is **None** or **Enhanced Open**, touch **Save**.
8. If the network security is **None**, touch **Save**.
9. If the network security is **WEP**, **WPA3-Personal**, or **WPA/WPA2-Personal**, enter the required password and then touch **Save**.
10. If network security is **WPA/WPA2/WPA3 Enterprise**:
 - a) Touch the **EAP method** drop-down list and select one of the following:
 - **PEAP**
 - **TLS**
 - **TTLS**
 - **PWD**
 - **LEAP**
 - b) Fill in the appropriate information. Options vary depending on the **EAP method** chosen.
 - When selecting **CA certificate**, Certification Authority (CA) certificates are installed using the **Security** settings.
 - When using the EAP methods PEAP, TLS, or TTLS, specify a domain.
 - Touch **Advanced options** to display additional network options.
11. If the network security is WPA3-Enterprise 192-bit:




NOTE: By default, the network Proxy is set to None and the IP settings is set to DHCP. See [Configuring for a Proxy Server](#) on page 81 for setting the connection to a proxy server and see [Configuring the Device to Use a Static IP Address](#) on page 81 for setting the device to use a static IP address.
12. If the network security is WPA3-Enterprise 192-bit:
 - Touch **CA certificate** and select a Certification Authority (CA) certificate. Note: Certificates are installed using the Security settings.
 - Touch **User certificate** and select a user certificate. Note: User certificates are installed using the Security settings.
 - In the **Identity** text box, enter the username credentials.
13. Touch **Save**. To connect to the saved network, touch and hold on the saved network and select **Connect to network**.

Configuring for a Proxy Server


A proxy server is a server that acts as an intermediary for requests from clients seeking resources from other servers. A client connects to the proxy server and requests some service, such as a file, connection, web page, or other resource, available from a different server. The proxy server evaluates the request according to its filtering rules. For example, it may filter traffic by IP address or protocol. If the request is validated by the filter, the proxy provides the resource by connecting to the relevant server and requesting the service on behalf of the client.

It is important for enterprise customers to be able to set up secure computing environments within their companies, making proxy configuration essential. Proxy configuration acts as a security barrier ensuring that the proxy server monitors all traffic between the Internet and the intranet. This is normally an integral part of security enforcement in corporate firewalls within intranets.

1. Go to **Settings**.
2. Touch **Network & Internet > Wi-Fi**.
3. Slide the Wi-Fi switch to the **On** position.
4. In the network dialog box, select and touch a network.
5. If configuring the connected network, touch  to edit the network details and then touch the down arrow to hide the keyboard.
6. Touch **Advanced options**.
7. Touch **Proxy** and select **Manual**.
8. In the **Proxy hostname** text box, enter the address of the proxy server.
9. In the **Proxy port** text box, enter the port number for the proxy server.
10. In the **Bypass proxy for** text box, enter addresses for web sites that are not required to go through the proxy server. Use a comma “,” between addresses. Do not use spaces or carriage returns between addresses.
11. If configuring the connected network, touch **Save** otherwise, touch **Connect**.
12. Touch **Connect**.

Configuring the Device to Use a Static IP Address

By default, the device is configured to use Dynamic Host Configuration Protocol (DHCP) to assign an Internet protocol (IP) address when connecting to a wireless network.

1. Go to **Settings**.
2. Touch **Network & Internet > Wi-Fi**.
3. Slide the Wi-Fi switch to the **On** position.
4. In the network dialog box, select and touch a network.
5. If configuring the connected network, touch  to edit the network details and then touch the down arrow to hide the keyboard.
6. Touch **Advanced options**.
7. Touch **IP settings** and select **Static**.
8. In the **IP address** text box, enter an IP address for the device.
9. If required, in the **Gateway** text box, enter a gateway address for the device.

10. If required, in the **Network prefix length** text box, enter the prefix length.
11. If required, in the **DNS 1** text box, enter a Domain Name System (DNS) address.
12. If required, in the **DNS 2** text box, enter a DNS address.
13. If configuring the connected network, touch **Save** otherwise, touch **Connect**.

Wi-Fi Preferences

Use the Wi-Fi preferences to configure advanced Wi-Fi settings. From the Wi-Fi screen scroll down to the bottom of the screen and touch Wi-Fi preferences.

- **Turn on Wi-Fi automatically** - When enabled, Wi-Fi automatically turns back on when near high-quality saved networks.
- **Open network notification** - When enabled, notifies the user when an open network is available.
- **Advanced** - Touch to expand options.
 - **Additional settings** - Touch to view additional Wi-Fi settings.
 - **Install Certificates** – Touch to install certificates.
 - **Network rating provider** - Disabled (AOSP devices). To help determine what constitutes a good Wi-Fi network, Android supports external Network rating providers that provide information about the quality of open Wi-Fi networks. Select one of the providers listed or **None**. If none are available or selected, the Connect to open networks feature is disabled.
 - **Wi-Fi Direct** - Displays a list of devices available for a direct Wi-Fi connection.

Additional Wi-Fi Settings

Use the Additional Settings to configure additional Wi-Fi settings. To view the additional Wi-Fi settings, scroll to the bottom of the Wi-Fi screen and touch **Wi-Fi Preferences > Advanced > Additional settings**.



NOTE: Additional Wi-Fi settings are for the device, not for a specific wireless network.

- **Regulatory**
 - **Country Selection** - Displays the acquired country code if 802.11d is enabled, else it displays the currently selected country code.
 - **Region code** - Displays the current region code.
- **Band and Channel Selection**
 - **Wi-Fi frequency band** - Set the frequency band to: **Auto** (default), **5 GHz only** or **2.4 GHz only**.
- **Logging**
 - **Advanced Logging** – Touch to enable advanced logging or change the log directory.
 - **Wireless logs** - Use to capture Wi-Fi log files.
 - **Fusion Logger** - Touch to open the **Fusion Logger** application. This application maintains a history of high level WLAN events which helps to understand the status of connectivity.
 - **Fusion Status** - Touch to display live status of WLAN state. Also provides information about the device and connected profile.

- **About**
 - **Version** - Displays the current Fusion information.

Wi-Fi Direct

Wi-Fi Direct devices can connect to each other without having to go through an access point. Wi-Fi Direct devices establish their own ad-hoc network when required, letting you see which devices are available and choose which one you want to connect to.

1. Go to **Settings**.
2. Touch **Wi-Fi** > **Wi-Fi preferences** > **Advanced** > **Wi-Fi Direct**. The device begins searching for another Wi-Fi Direct device.
3. Under **Peer devices**, touch the other device name.
4. On the other device, select **Accept**.

Connected appears on the device. On both devices, in their respective Wi-Fi Direct screens, the other device name appears in the list.

Bluetooth

Bluetooth devices can communicate without wires, using frequency-hopping spread spectrum (FHSS) radio frequency (RF) to transmit and receive data in the 2.4 GHz Industry Scientific and Medical (ISM) band (802.15.1). Bluetooth wireless technology is specifically designed for short-range (10 m (32.8 ft)) communication and low power consumption.

Devices with Bluetooth capabilities can exchange information (for example, files, appointments, and tasks) with other Bluetooth enabled devices such as printers, access points, and other mobile devices.

The device supports Bluetooth Low Energy. Bluetooth Low Energy is targeted at applications in the healthcare, fitness, security, and home entertainment industries. It provides reduced power consumption and cost while maintaining standard Bluetooth range.

Adaptive Frequency Hopping

Adaptive Frequency Hopping (AFH) is a method of avoiding fixed frequency interferers, and can be used with Bluetooth voice. All devices in the piconet (Bluetooth network) must be AFH-capable in order for AFH to work. There is no AFH when connecting and discovering devices. Avoid making Bluetooth connections and discoveries during critical 802.11b communications.

AFH for Bluetooth consists of four main sections:

- **Channel Classification** - A method of detecting an interference on a channel-by-channel basis, or pre-defined channel mask.
- **Link Management** - Coordinates and distributes the AFH information to the rest of the Bluetooth network.
- **Hop Sequence Modification** - Avoids interference by selectively reducing the number of hopping channels.
- **Channel Maintenance** - A method for periodically re-evaluating the channels.

When AFH is enabled, the Bluetooth radio “hops around” (instead of through) the 802.11b high-rate channels. AFH coexistence allows enterprise devices to operate in any infrastructure.

The Bluetooth radio in this device operates as a Class 1 device power class. The maximum output power is 7.5 mW and the expected range is 30 m (98.4 ft). A definition of ranges based on power class is difficult to obtain due to power and device differences, and whether in open space or closed office space.



NOTE: It is not recommended to perform Bluetooth wireless technology inquiry when high rate 802.11b operation is required.

Security

The current Bluetooth specification defines security at the link level. Application-level security is not specified. This allows application developers to define security mechanisms tailored to their specific need. Link-level security occurs between devices, not users, while application-level security can be implemented on a per-user basis. The Bluetooth specification defines security algorithms and procedures required to authenticate devices, and if needed, encrypt the data flowing on the link between the devices. Device authentication is a mandatory feature of Bluetooth while link encryption is optional.

Pairing of Bluetooth devices is accomplished by creating an initialization key used to authenticate the devices and create a link key for them. Entering a common personal identification number (PIN) in the devices being paired generates the initialization key. The PIN is never sent over the air. By default, the Bluetooth stack responds with no key when a key is requested (it is up to user to respond to the key request event). Authentication of Bluetooth devices is based-upon a challenge-response transaction. Bluetooth allows for a PIN or passkey used to create other 128-bit keys used for security and encryption. The encryption key is derived from the link key used to authenticate the pairing devices. Also worthy of note is the limited range and fast frequency hopping of the Bluetooth radios that makes long-distance eavesdropping difficult.

Recommendations are:

- Perform pairing in a secure environment
- Keep PIN codes private and do not store the PIN codes in the device
- Implement application-level security.

Bluetooth Profiles

The device supports the Bluetooth services listed.

Table 18 Bluetooth Profiles

Profile	Description
Service Discovery Protocol (SDP)	Handles the search for known and specific services as well as general services.
Serial Port Profile (SPP)	Allows use of RFCOMM protocol to emulate serial cable connection between two Bluetooth peer devices. For example, connecting the device to a printer.
Object Push Profile (OPP)	Allows the device to push and pull objects to and from a push server.
Advanced Audio Distribution Profile (A2DP)	Allows the device to stream stereo-quality audio to a wireless headset or wireless stereo speakers.
Audio/Video Remote Control Profile (AVRCP)	Allows the device to control A/V equipment to which a user has access. It may be used in concert with A2DP.

Table 18 Bluetooth Profiles (Continued)

Profile	Description
Personal Area Network (PAN)	Allows the use of Bluetooth Network Encapsulation Protocol to provide L3 networking capabilities over a Bluetooth link. Only PANU role is supported.
Human Interface Device Profile (HID)	Allows Bluetooth keyboards, pointing devices, gaming devices and remote monitoring devices to connect to the device.
Headset Profile (HSP)	Allows a hands-free device, such as a Bluetooth headset, to place and receive calls on the device.
Hands-Free Profile (HFP)	Allows car hands-free kits to communicate with the device in the car.
Out of Band (OOB)	Allows exchange of information used in the pairing process. Pairing is completed using the Bluetooth radio, but requires information from the OOB mechanism. Using OOB with NFC enables pairing when devices simply get close, rather than requiring a lengthy discovery process.
Symbol Serial Interface (SSI)	Allows for communication with Bluetooth Imager.

Bluetooth Power States

The Bluetooth radio is off by default.

- **Suspend** - When the device goes into suspend mode, the Bluetooth radio stays on.
- **Airplane Mode** - When the device is placed in Airplane Mode, the Bluetooth radio turns off. When Airplane mode is disabled, the Bluetooth radio returns to the prior state. When in Airplane Mode, the Bluetooth radio can be turned back on if desired.


Bluetooth Radio Power

Turn off the Bluetooth radio to save power or if entering an area with radio restrictions (for example, an airplane). When the radio is off, other Bluetooth devices cannot see or connect to the device. Turn on the Bluetooth radio to exchange information with other Bluetooth devices (within range). Communicate only with Bluetooth radios in close proximity.




NOTE: To achieve the best battery life, turn off radios when not in use.

Enabling Bluetooth

1. Swipe down from the Status bar to open the Notification panel.
2. Touch  to turn Bluetooth on.

Disabling Bluetooth

1. Swipe down from the Status bar to open the Notification panel.
2. Touch  to turn Bluetooth off.

Discovering Bluetooth Device(s)

The device can receive information from discovered devices without pairing. However, once paired, the device and a paired device exchange information automatically when the Bluetooth radio is on.

1. Ensure that Bluetooth is enabled on both devices.
2. Ensure that the Bluetooth device to discover is in discoverable mode.
3. Ensure that the two devices are within 10 meters (32.8 feet) of one another.
4. Swipe down from the Status bar to open the Quick Access panel.
5. Touch and hold **Bluetooth**.
6. Touch **Pair new device**. The device begins searching for discoverable Bluetooth devices in the area and displays them under **Available devices**.
7. Scroll through the list and select a device. The Bluetooth pairing request dialog box appears.
8. Touch **Pair** on both devices.
9. The Bluetooth device is added to the **Paired devices** list and a trusted (“paired”) connection is established.

Changing the Bluetooth Name

By default, the device has a generic Bluetooth name that is visible to other devices when connected.

1. Go to **Settings**.
2. Touch **Connected devices** > **Connection preferences** > **Bluetooth**.
3. If Bluetooth is not on, move the switch to turn Bluetooth on.
4. Touch **Device name**.
5. Enter a name and touch **RENAME**.

Connecting to a Bluetooth Device

Once paired, connect to a Bluetooth device.

1. Go to **Settings**.
2. Touch **Connected devices** > **Connection preferences** > **Bluetooth**.
3. In the list, touch the unconnected Bluetooth device.

When connected, **Connected** appears below the device name.

Selecting Profiles on the Bluetooth Device

Some Bluetooth devices have multiple profiles.

1. Go to **Settings**.
2. Touch **Connected devices** > **Connection preferences** > **Bluetooth**.
3. In the **Paired Devices** list, touch  next to the device name.
4. Turn on or off a profile to allow the device to use that profile.

Unpairing a Bluetooth Device

Unpairing a Bluetooth device erases all pairing information.

1. Go to **Settings**.
2. Touch **Connected devices** > **Connection preferences** > **Bluetooth**.
3. In the **Paired Devices** list, touch  next to the device name.
4. Touch **FORGET**.

Cast

Use **Cast** to mirror the device screen on a Miracast enabled wireless display.

1. Go to **Settings**.
2. Touch **Connected devices** > **Connection preferences** > **Cast**.
3. Touch  > **Enable wireless display**.

The device searches for nearby Miracast devices and lists them.

4. Touch a device to begin casting.

Near Field Communications

NFC/HF RFID is a short-range wireless connectivity technology standard that enables a secure transaction between a reader and a contactless smartcard.

The technology is based on ISO/IEC 14443 type A and B (proximity) ISO/IEC 15693 (vicinity) standards, using the HF 13.56 MHz unlicensed band.

The device supports the following operating modes:

- Reader mode
- Card Emulation mode.

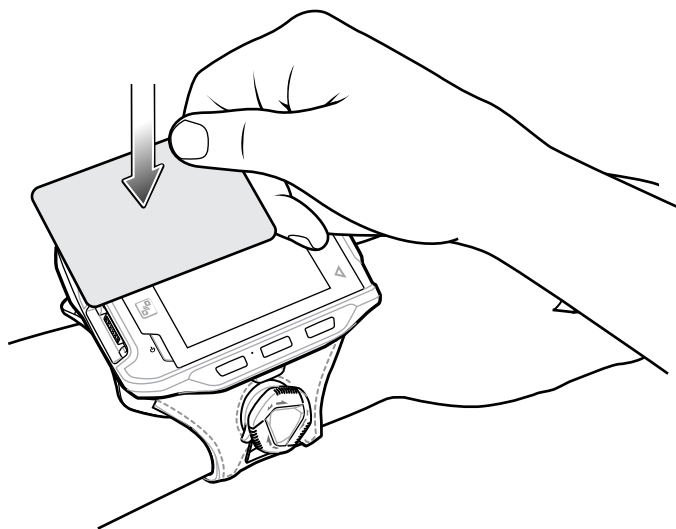
Using NFC, the device can:

- Read contactless cards such as contactless tickets, ID cards and ePassport.
- Read and write information to contactless cards such as SmartPosters and tickets, as well as devices with NFC interface such as vending machines.
- Read information from supported medical sensors.
- Pair with supported Bluetooth devices such as printers ring scanners (for example, RS6000), and headsets (for example, HS3100).
- Exchange data with another NFC device.
- Emulate a contactless card such as ticket.

The device NFC antenna is positioned to read NFC cards from the top of the device while the device is being held.

Reading NFC Cards

Read contactless cards using NFC.



1. Launch an NFC enabled application.
2. Hold device as shown.
3. Move the device close to the NFC card until it detects the card.
4. Hold the card steadily until the transaction is complete (usually indicated by the application).

Enterprise NFC Settings

Improve NFC performance or increase battery life by selecting which NFC features to use on the device.

- **Card Detection Mode** - Select a card detection mode.
 - **Low** - Increases battery life by lowering the NFC detection speed.
 - **Hybrid** - Provides a balance between NFC detection speed and battery life (default).
 - **Standard** - Provides the best NFC detection speed, but reduces battery life.
- **Supported Card Technology** - Select an option to detect only one NFC tag type, increasing battery life, but reducing detection speed.
 - **All (Default)** - Detects all NFC tag types.
 - **All (Default)** - Detects all NFC tag types. This provides the best detection speed, but reduces battery life.
 - **ISO 14443 Type A**
 - **ISO 14443 Type B**
 - **FeliCa**
 - **ISO 15693**
- **NFC Debug Logging** - Use to enable or disable debug logging for NFC.
- **Other NFC settings available with Zebra administrator tools (CSP)** - Allows configuration of additional Enterprise NFC Settings through staging tools and Mobile Device Management (MDM) solutions with an

MX version that supports the Enterprise NFC Settings Configuration Service Provider (CSP). For more information on using the Enterprise NFC Settings CSP, refer to: techdocs.zebra.com.

Accessories

This section provides information for using the accessories for the device. This table lists the accessories available for the device.

Device Accessories

This table lists the accessories available for the device.

Table 19 Device Accessories

Accessory	Part Number	Description
Cradles		
1-Slot Charging Cradle	CRD-NGWT-1S1BU-01	Provides device and spare battery charging and USB communication with a host computer. Use with power supply, p/n PWRS-14000-148R and country specific grounded AC line cord.
2-Slot Device/RS6000 Charging Cradle	CRD-NWTRS-2SUCH-01	Provides the device and RS6000 charging and USB communication with a host computer. Use with power supply, p/n PWRS-14000-148R and country specific grounded AC line cord.
5-Slot Charge Only Cradle	CRD-NGWT-5S5BC-01	Charges up to five devices and five spare batteries. Use with power supply, p/n PWRS-14000-241R, DC line cord, p/n 50-16002-029R and country specific grounded AC line cord.
10-Slot Device/RS6000 Charge Only Cradle	CRD-NWTRS-10SCH-01	Charges up to five devices and up to five RS6000 scanners. Use with power supply, p/n PWRS-14000-241R, DC line cord, p/n 50-16002-029R and country specific grounded AC line cord.
10-Slot Charge Only Cradle	CRD-NGWT-10SCH-01	Charges up to 10 devices. Use with power supply, p/n PWRS-14000-241R, DC line cord, p/n 50-16002-029R and country specific grounded AC line cord.

Table 19 Device Accessories (Continued)

Accessory	Part Number	Description
5-Slot Ethernet Cradle	CRD-NGWT-5S5BE-01	Charges up to five devices and five spare batteries and provides Ethernet communication. Use with power supply, p/n PWRS-14000-241R, DC line cord, p/n 50-16002-029R and country specific grounded AC line cord.
Batteries and Chargers		
Replacement Standard Battery	BTRY-NWTRS-33MA-01	Replacement standard 3,350 mAh battery for the device and RS6000 (single pack).
Replacement Extended Battery	BTRY-NGWT-50MA-01	Replacement extended 5,000 mAh battery for WT6300 only (single pack).
4-Slot Battery Charger	SAC-NWTRS-4SCH-01	Charges up to four spare batteries. Requires power supply, p/n PWRS-14000-148R and country specific grounded AC line cord.
20-Slot Battery Charger	SAC-NWTRS-20SCH-01	Charges up to 20 spare batteries. Use with power supply, p/n PWRS-14000-241R, DC line cord, p/n 50-16002-029R and country specific grounded AC line cord.
Mounting Brackets		
Rack Mount Bracket	BRKT-SCRD-SMRK-01	Use for mounting a 5-Slot cradle or four 4-Slot Battery Chargers on a rack.
Cables		
Headset Adapter Cable with Quick Disconnect (Long)	CBL-NGWT-AUQDLG-01	Connects a wired headset to the device on a Hip Mount.
Headset Adapter Cable with Quick Disconnect (Short)	CBL-NGWT-AUQDST-01	Connects a wired headset to the device on a Wrist Mount.
USB/Charge Cable	CBL-NGWT-USBCHG-01	Provides USB communication and power to the device. Requires power supply PWRS-14000-249R and country specific un-grounded AC line cord.
Vibrating Cable	CBL-NGWT-HDVBAP-01	Provides haptic notification feedback.
DC Y Cable	25-122026-02R	Provides power from the PWRS-14000-148R power supply to two 4-Slot Battery Chargers.
DC 4-way Cable	25-85992-01R	Provides power from the PWRS-14000-241R power supply to four 4-Slot Battery Chargers.
DC Line Cord	50-16002-029R	Provides power from the power supply to the 5-Slot Charge Only Cradle, 5-Slot Ethernet Cradle, 5-Slot Charge Only Cradle with Battery Charge and 5-Slot Ethernet Cradle with Battery Charger.
Power Supplies		
Power Supply	PWRS-14000-249R	Provides power to the device using the USB and Charging Cable. Requires country specific un-grounded AC line cord.

Table 19 Device Accessories (Continued)

Accessory	Part Number	Description
Power Supply	PWRS-14000-148R	Provides power to the 2-Slot cradles and 4-Slot Spare Battery Charger. Requires country specific grounded AC line cord.
Power Supply	PWRS-14000-241R	Provides power to the 5-Slot Charge Only Cradle, 5-Slot Ethernet Cradle, 5-Slot Charge Only Cradle with Battery Charger and the 5-Slot Ethernet Cradle with Battery Charger. Requires DC Line Cord, p/n 50-16002-029R and country specific grounded AC line cord.
Miscellaneous		
Screen Protectors	MISC-WT6X-SCRN-01	Provides additional protection for display (5-pack).
Soft Goods		
Hip Mount	SG-NGWT-HPMNT-01	Provides mounting the device on a belt.
Wrist Mount (Small/Medium)	SG-NGWT-WRMTS-01	Replacement strap.
Wrist Mount (Medium/Large)	SG-NGWT-WRMTL-01	Replacement strap.
Spare Straps (Small/Medium)	SG-NGWT-WSTPST-01	Replacement strap.
Spare Straps (Medium/Large)	SG-NGWT-WSTPLN-01	Replacement strap.
Spare Comfort Pad	SG-NGWT-CMPD-01	Replacement Comfort Pad for the Wrist Mount.

Battery Charging

This section describes how to charge the main and spare batteries of the device.

Charging the Main Battery

Follow these steps to charge the main battery.

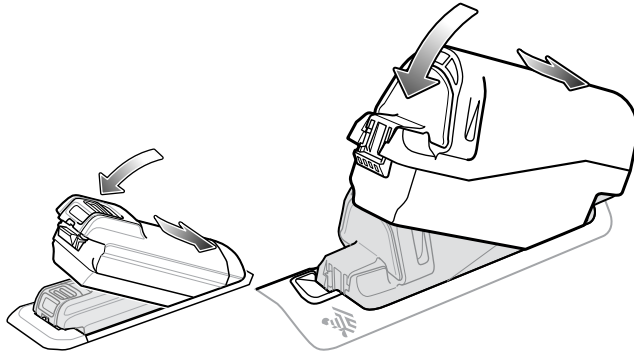
1. Ensure that the cradle is connected to power.
2. Slide the device into the slot in the cradle. The device Charge LED Indicator, indicates the mobile computer battery charging status.
3. Gently press down on the device to ensure proper contact.
4. When charging is complete, remove the device from the cradle slot.

Charging the Spare Battery

Follow these steps to charge the spare battery.

1. Insert a spare standard or extended battery into the spare battery slot.

2. Gently press down on the battery until it snaps into place.



3. Ensure the battery is seated properly. The Spare Battery Charging LED blinks indicating charging.

Charging Indicators

The table describes the LED states and what they indicate.

Table 20 Charging Indicators

State	Indication
Off	The device is not charging. The device is not inserted correctly in the cradle or connected to a power source. Charger/cradle is not powered.
Solid Amber	Healthy battery is charging.
Solid Green	Healthy battery charging is complete.
Fast Blinking Red (2 blinks/second)	Charging error, for example:- Temperature is too low or too high.- Charging has gone on too long without completion (typically eight hours).
Solid Red	Unhealthy battery is charging or fully charged.



NOTE: When trying to power on the device, a quick red blink of the Charging LED indicates that it does not have enough battery power to turn on. Charge the battery or replace it.

Charging Temperature

Charge batteries in temperatures from 0°C to 40°C (32°F to 104°F). The device or cradle always performs battery charging in a safe and intelligent manner. At higher temperatures (for example, approximately +37°C (+98°F)) the device or cradle may for small periods of time alternately enable and disable battery charging to keep the battery at acceptable temperatures. The device and cradle indicates when charging is disabled due to abnormal temperatures via its LED.

1-Slot USB Charging Cradle

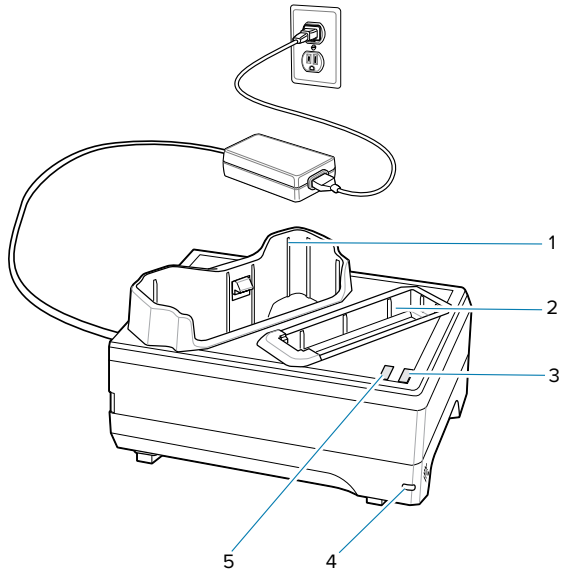


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The 1-Slot USB Charging Cradle:

- Provides 5.4 VDC (nominal) power for operating the device.

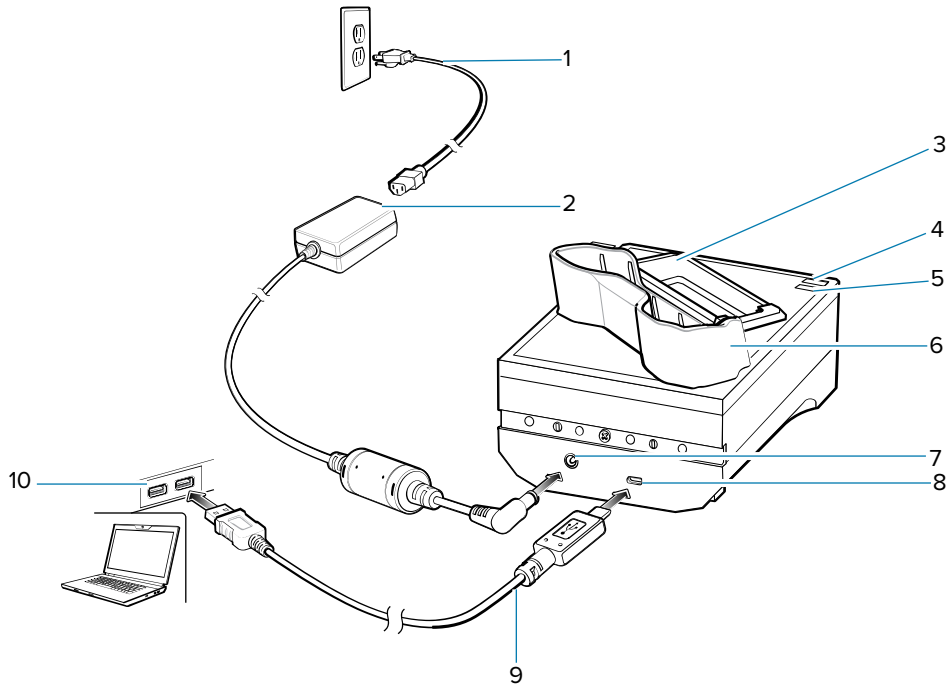
- Provides USB communication with a host computer
- Charges a spare battery.



1	Device charging slot
2	Spare battery charging slot
3	Power LED
4	Spare battery charging LED
5	Device charging LED

Setup

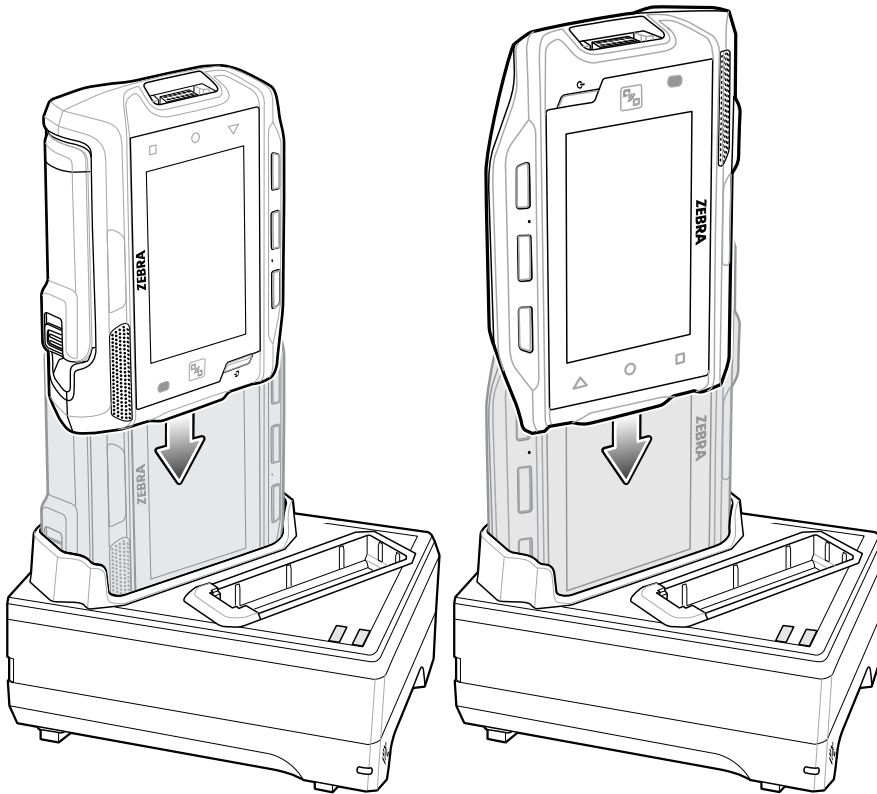
Figure 30 1-Slot USB Charging Cradle Setup



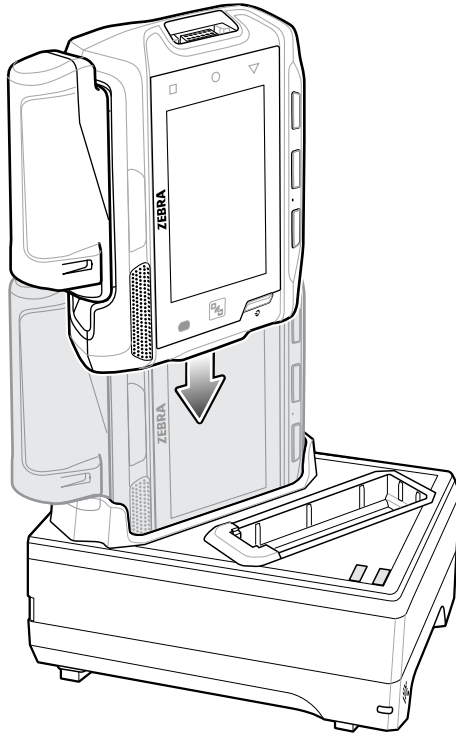
1	AC line cord
2	Power supply
3	Spare battery charging Slot
4	Spare battery charging LED
5	Charging LED
6	Device charging slot
7	Power input
8	USB port
9	USB cable
10	Host computer

Charging the Device

1. If charging a device with a standard battery, insert either end of the device into the device charging slot.



2. If charging a device with an extended battery, insert the end of the device into the device charging slot as shown below.

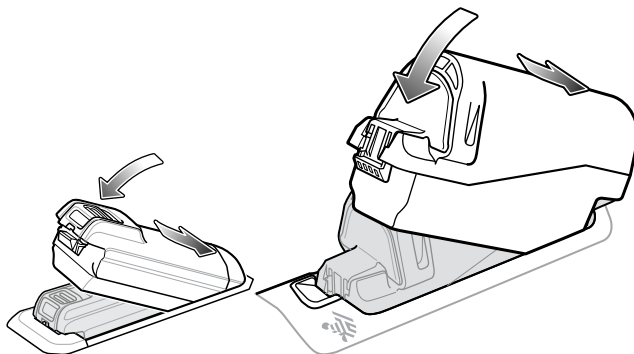


3. Ensure the device is seated properly.
The device Charge LED blinks indicating charging.

Charging the Spare Battery

Follow these steps to charge the spare battery.

1. Insert a spare standard or extended battery into the spare battery slot.
2. Gently press down on the battery until it snaps into place.



3. Ensure the battery is seated properly. The Spare Battery Charging LED blinks indicating charging.

Battery Removal

To remove the battery, press the battery release latch toward the end of the battery and lift the battery out of the battery slot.

2-Slot Device/RS6000 Charging Cradle

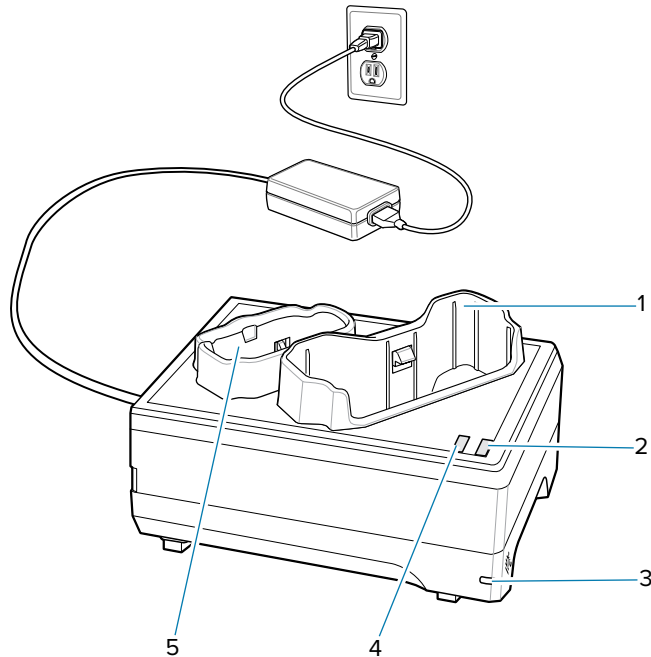


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The 2-Slot Device/RS6000 Charging Cradle:

- Provides 5.4 VDC (nominal) power for operating the device and RS6000.
- Provides USB communication with a host computer.

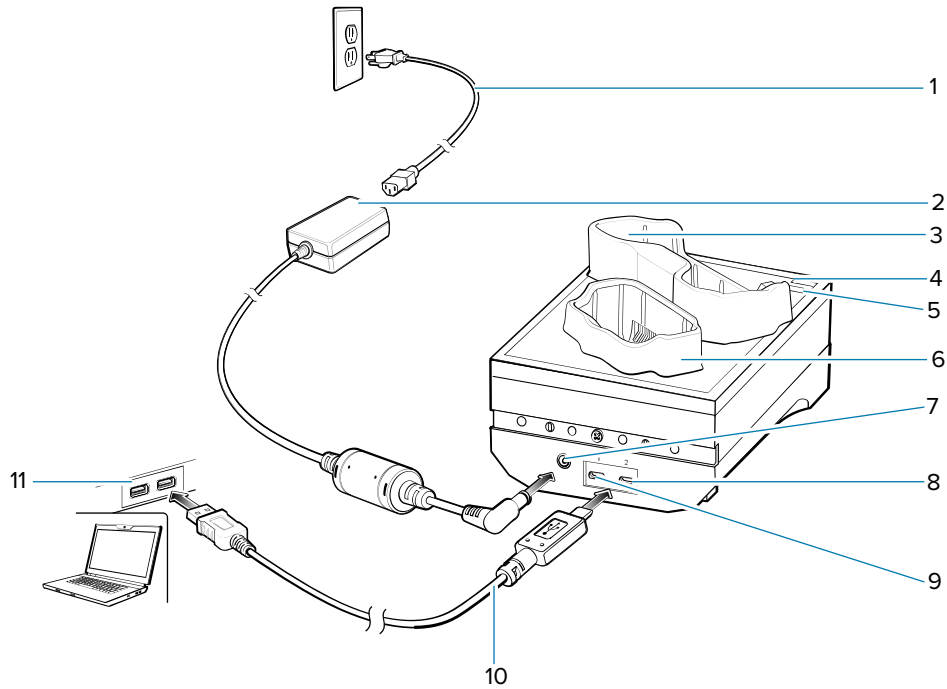
Figure 31 2-Slot Device/RS6000 Charging Cradle



1	Device charging slot
2	Device charging LED
3	Power LED
4	RS6000 charging LED
5	RS6000 charging slot

Setup

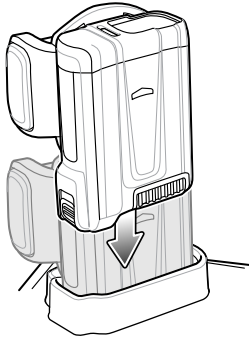
Figure 32 2-Slot Device/RS6000 Charging Cradle Setup



1	Power supply
2	AC line cord
3	Device charging slot
4	Device charging LED
5	RS6000 charging LED
6	RS6000 charging slot
7	Power input
8	Device USB port
9	RS6000 USB port
10	USB cable
11	Host computer

Charging the RS6000

1. Insert the RS6000 in the RS6000 charging slot.



2. Ensure the RS6000 is seated properly. The RS6000 Charging LED blinks indicating charging.

5-Slot Charge Only Cradle

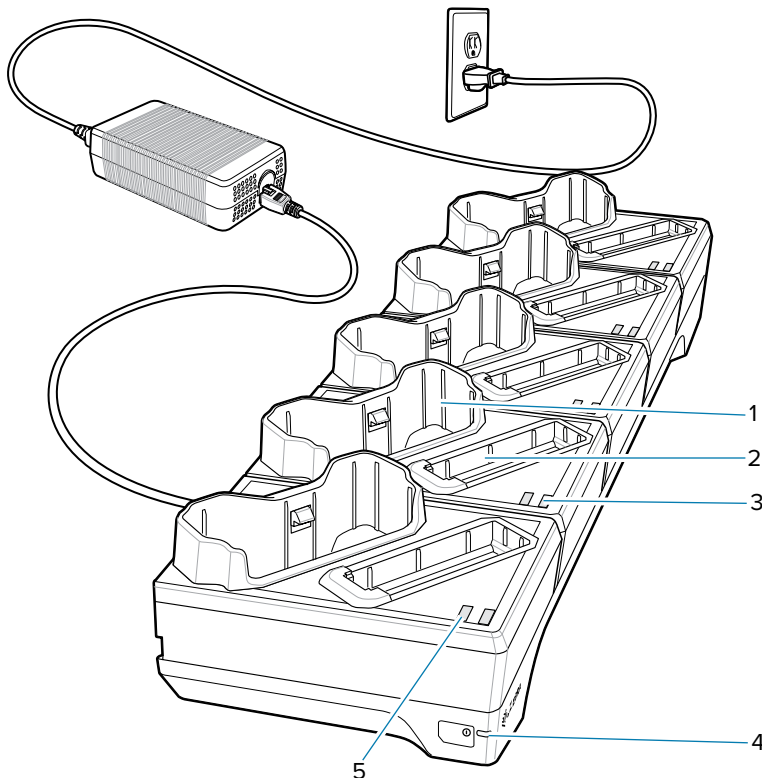


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The 5-Slot Charge Only Cradle:

- Provides 5.4 VDC (nominal) power for operating up to five devices.
- Simultaneously charges up to five devices.
- Simultaneously charges up to five spare batteries.

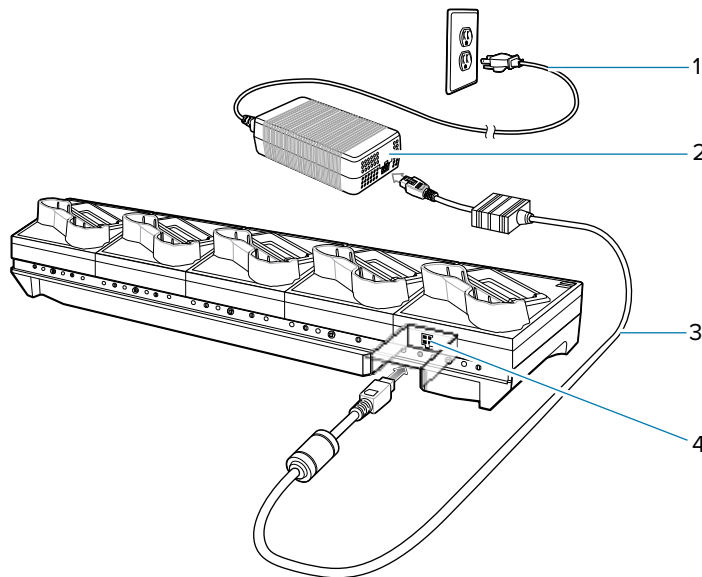
Figure 33 5-Slot Charge Only Cradle



1	Device charging slot
2	Spare battery charging slot
3	Power LED
4	Spare battery charging LED
5	Device charging LED

Setup

Figure 34 5-Slot Charge Only Cradle Setup



1	AC line cord
2	Power supply
3	DC line cord
4	Power input

10-Slot Device/RS6000 Charge Only Cradle

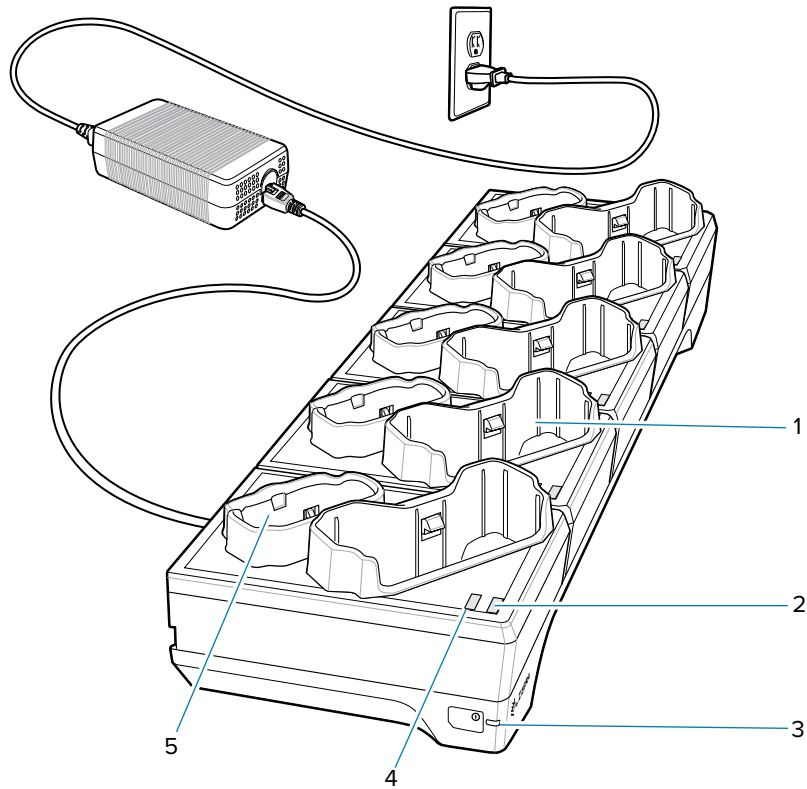


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The 10-Slot Device/RS6000 Charge Only Cradle:

- Provides 5.4 VDC (nominal) power for operating the device and RS6000.
- Simultaneously charges up to five devices.
- Simultaneously charges up to five RS6000's.

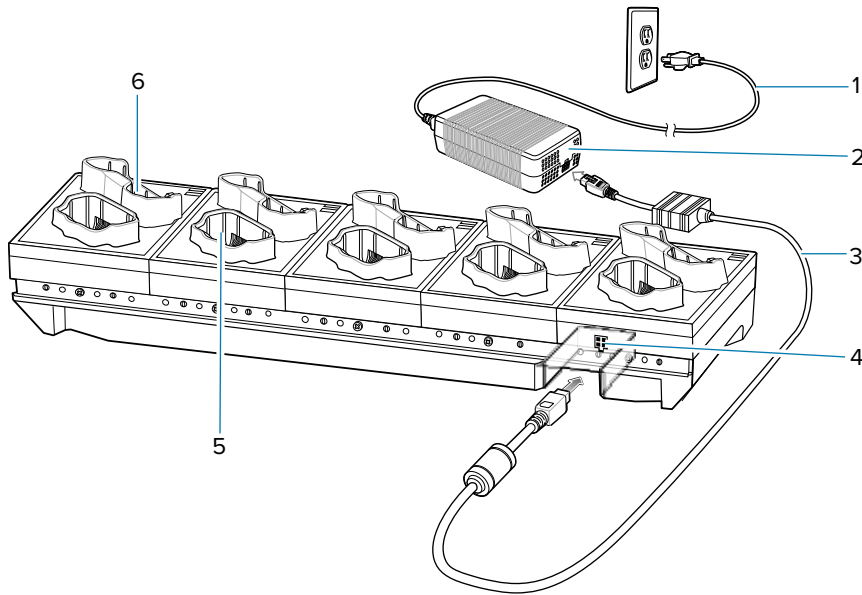
Figure 35 10-Slot Device/RS6000 Charge Only Cradle



1	Device charging slot
2	Device charging LED
3	Power LED
4	RS6000 charging LED
5	RS6000 charging slot

Setup

Figure 36 10-Slot Device/RS6000 Charge Only Cradle Setup



1	AC line cord
2	Power supply
3	DC line cord
4	Power input
5	RS6000 charging slot
6	Device charging slot

10-Slot Charge Only Cradle

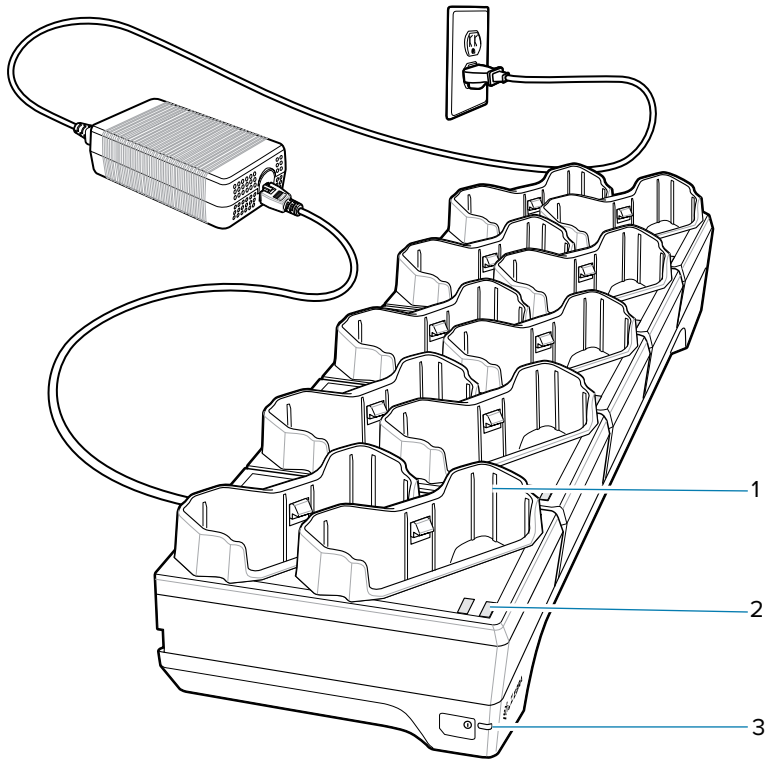


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The 10-Slot Charge Only Cradle:

- Provides 5.4 VDC (nominal) power for operating the device.
- Simultaneously charges up to 10 devices.

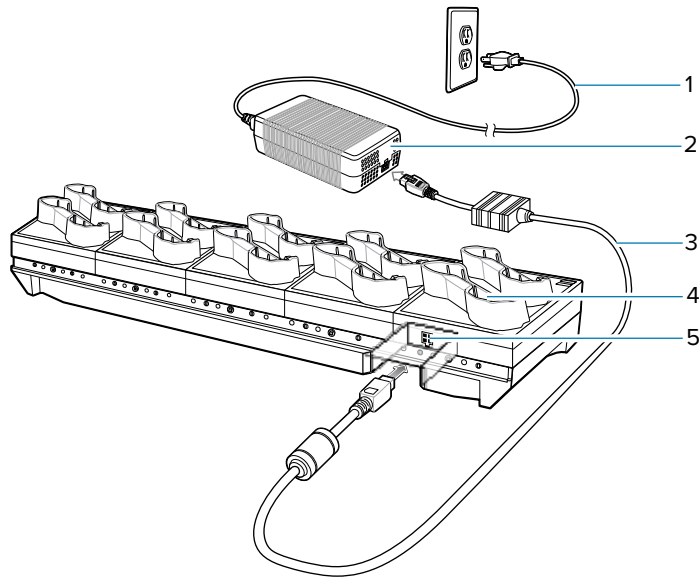
Figure 37 10-Slot Charge Only Cradle



1	Device charging slot
2	Power LED
3	Device charging LEDs

Setup

Figure 38 10-Slot Charge Only Cradle Setup



1	AC line cord
2	Power supply
3	DC line cord
4	Power input
5	Device charging slot

5-Slot Ethernet Cradle

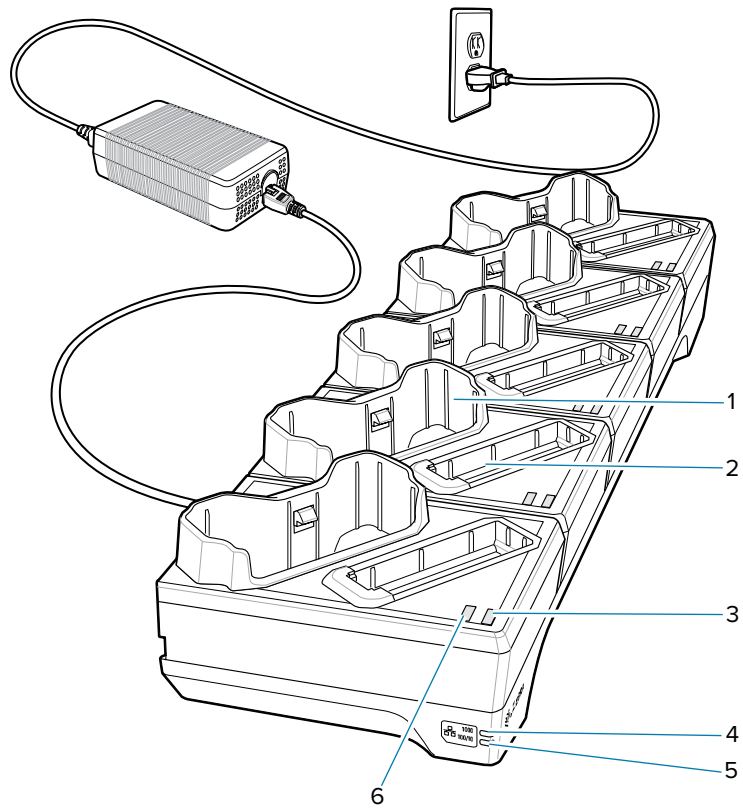


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The 5-Slot Ethernet Cradle:

- Provides 5.4 VDC (nominal) power for operating the device.
- Connects up to five devices to an Ethernet network.
- Simultaneously charges up to five devices.
- Simultaneously charges up to five spare batteries.

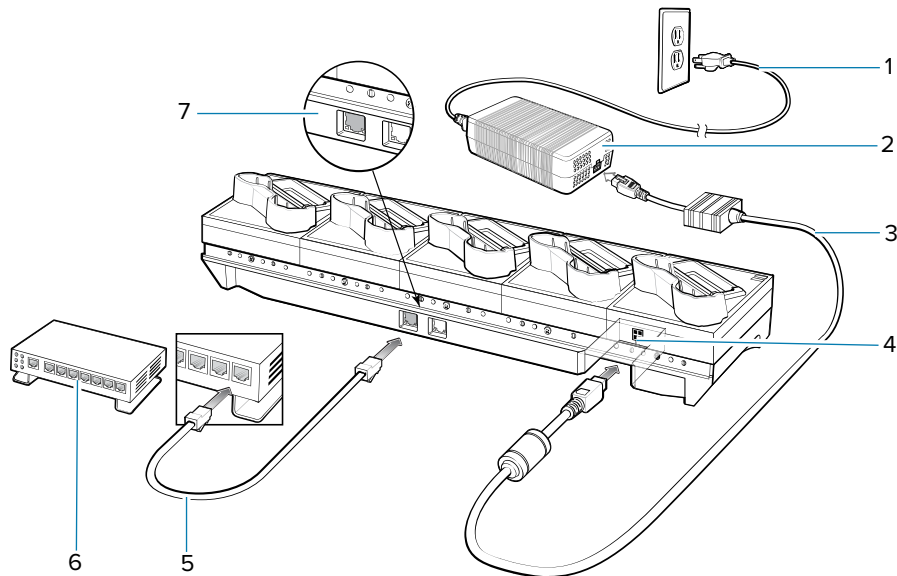
Figure 39 5-Slot Device Ethernet Cradle



1	Device charging slot
2	Spare battery charging slot
3	1000 LED
4	100/100 LED
5	Spare battery charging LED
6	Device charging LED



Setup

Figure 40 5-Slot Ethernet Cradle Setup



1	AC line cord
2	Power supply
3	DC line cord
4	Power port
5	Ethernet cable
6	Ethernet switch
7	Primary Ethernet Port

Establishing Ethernet Communication

1. Swipe down from the status bar to open the quick settings bar and then touch .
2. Touch  Ethernet setting.
3. Slide the Ethernet switch to the ON position.
4. Insert the device into a slot.
5. The  icon appears in the Status bar.
6. Touch Eth0 to view Ethernet connection details.

Ethernet LED Indicators

There are two green LEDs on the side of the cradle. These green LEDs light and blink to indicate the data transfer rate.

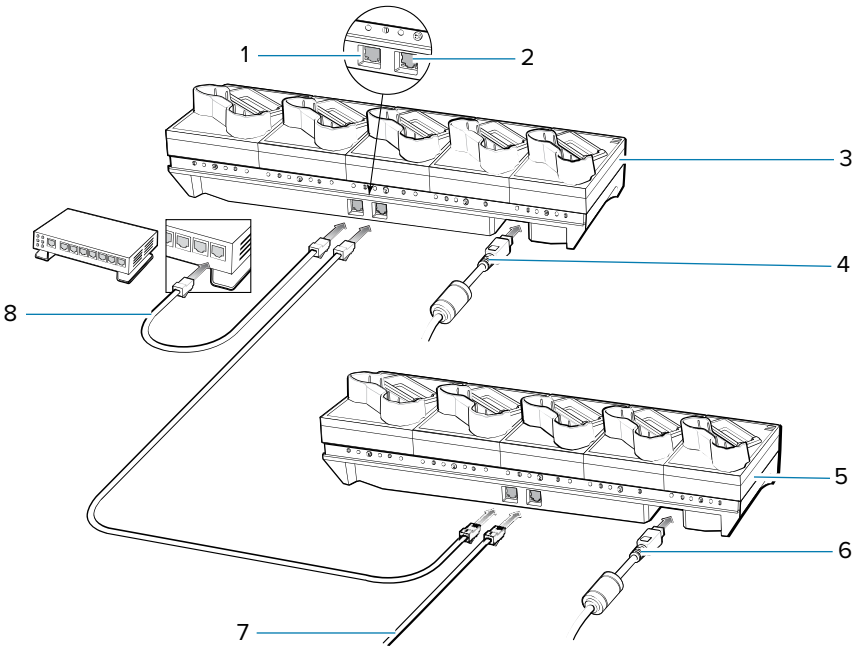
Table 21 LED Data Rate Indicators

Data Rate	1000 LED	100/10 LED
1 Gbps	On/Blink	Off
100 Mbps	Off	On/Blink
10 Mbps	Off	On/Blink

Daisy-chaining Ethernet Cradles

Daisy-chain up to ten 5-Slot Ethernet cradles to connect several cradles to an Ethernet network. Use either a straight or crossover cable. Daisy-chaining should not be attempted when the main Ethernet connection to the first cradle is 10 Mbps as throughput issues will almost certainly result.

1. Connect power to each 5-Slot Ethernet Cradle.
2. Connect an Ethernet cable to port 1 on the back of the first cradle and to the Ethernet switch.
3. Connect an Ethernet cable to port 2 on the back of the first cradle to port 1 on the back of the second cradle.



1	Primary port
2	Secondary port
3	First cradle

4	To power supply
5	Second cradle
6	To power supply
7	Ethernet cable to next cradle
8	To Ethernet switch


4. Connect additional cradles as described in steps 2 and 3.

Ethernet Settings

You can configure Proxy and Static IP settings when using Ethernet communication.

Configuring Ethernet Proxy Settings

The device includes Ethernet cradle drivers. After the device, configure the Ethernet connection.

1. Swipe down from the status bar to open the quick settings bar and then touch .
2. Touch  Ethernet setting.
3. Slide the switch to the ON position.
4. Touch > **Advanced**.
5. Touch **Enable Http Proxy**.
6. In the Proxy hostname field, enter the proxy server address.
7. In the Proxy port field, enter the proxy server port number.



NOTE: When entering proxy addresses in the Bypass proxy for field, do not use spaces or carriage returns between addresses.

8. In the Bypass proxy for text box, enter addresses for web sites that do not require to go through the proxy server. Use the separator “|” between addresses.
9. Touch **Save**.
10. Touch **Home**.

LED Indicators

There are two green LEDs on the side of the cradle and on each Ethernet port. These green LEDs light and blink to indicate the data transfer rate.

Table 22 LED Data Rate Indicators

Data Rate	1000 LED	100/10 LED
1 Gbps	On/Blink	Off
100 Mbps	Off	On/Blink
10 Mbps	Off	On/Blink

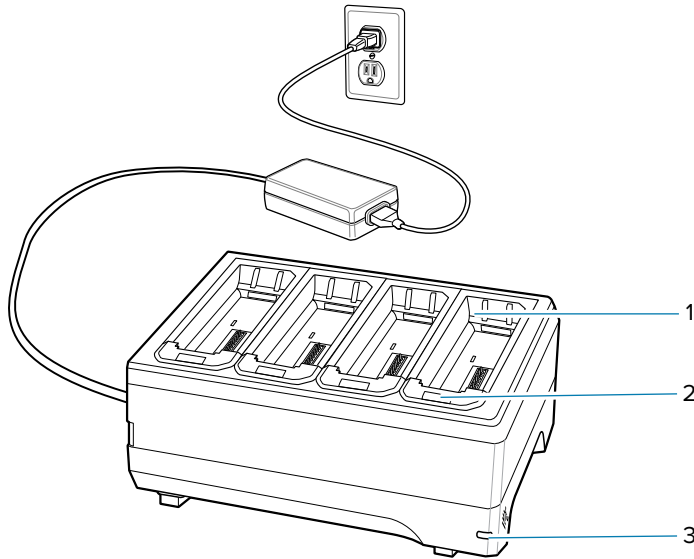
4-Slot Battery Charger

The 4-Slot Battery Charger charges up to four spare batteries.



CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

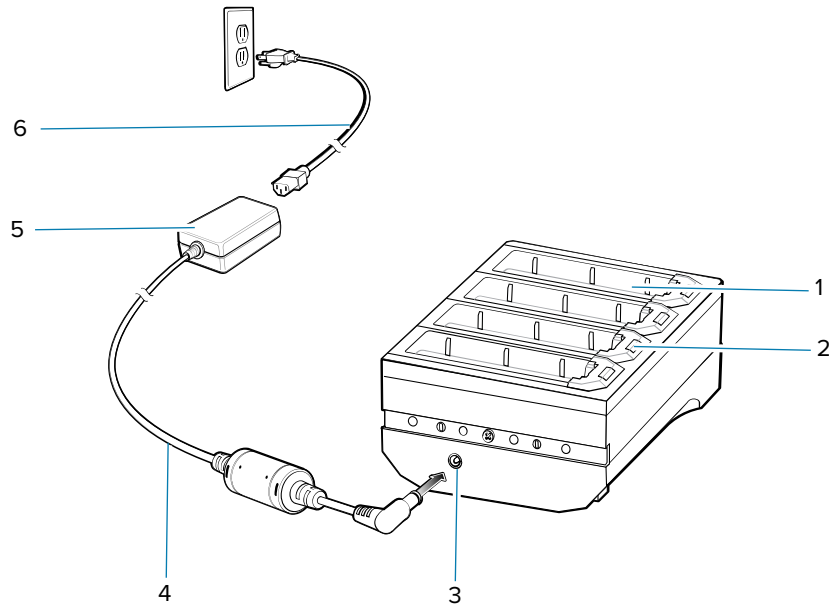
Figure 41 4-Slot Spare Battery Charger



1	Spare battery charging slot
2	Battery charging LEDs (4)
3	Power LED

Setup

Figure 42 4-Slot Spare Battery Charger Setup



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

Charging the Spare Battery

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

2. Gently press down on the battery until it snaps into place.

Figure 43 Standard Spare Battery

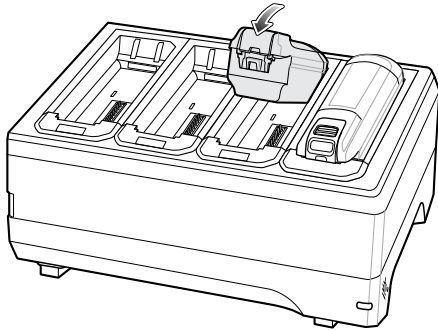
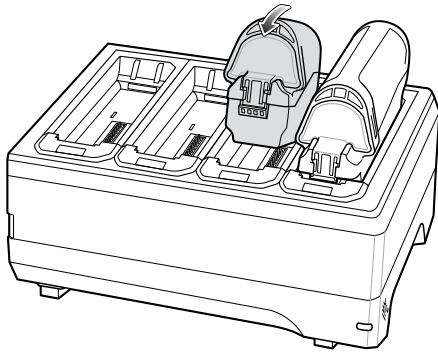


Figure 44 Extended Spare Battery



Battery Removal

To remove the battery, press the battery release latch toward the end of the battery and lift the battery out of the battery slot.

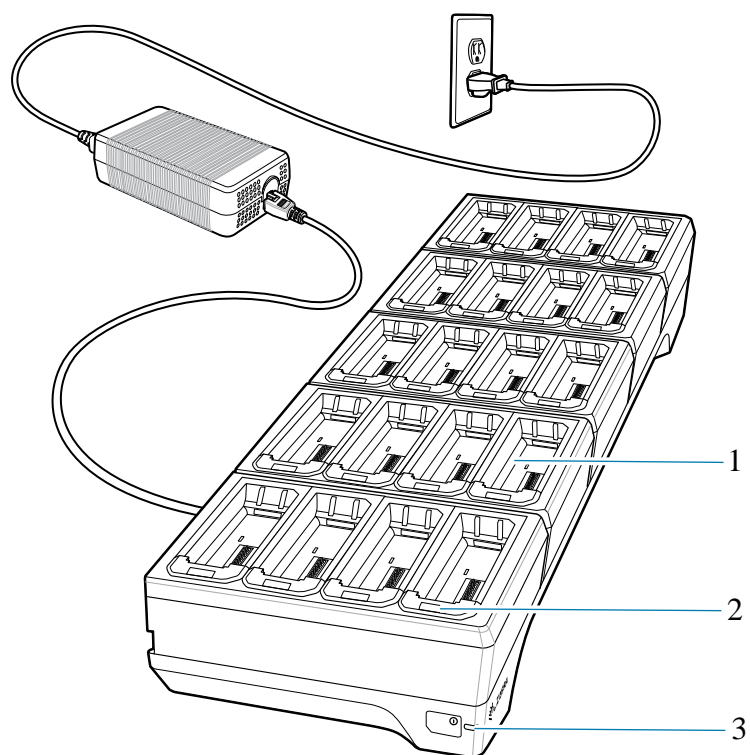
20-Slot Battery Charger

The 20-Slot Battery Charger charges up to 20 spare batteries.



CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

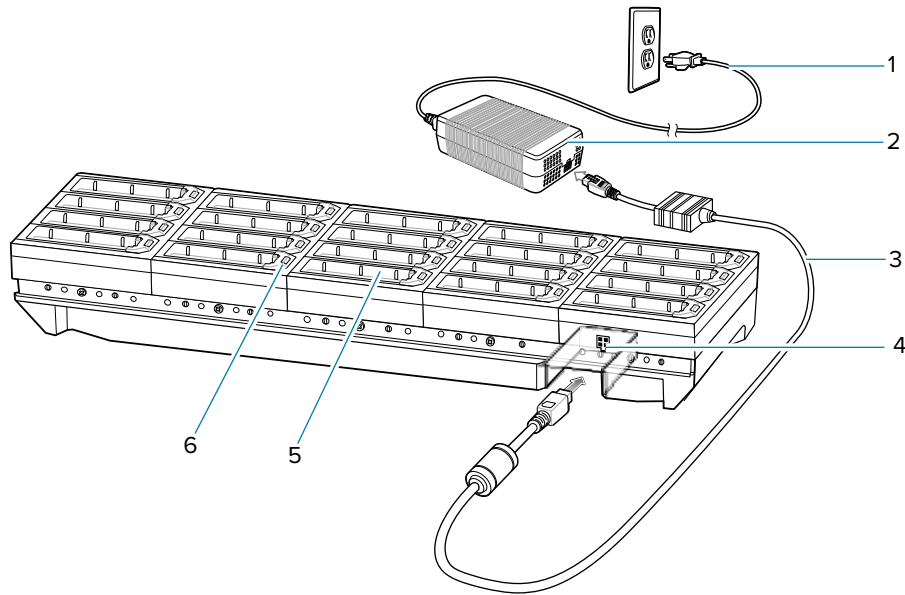
Figure 45 20-Slot Battery Charger



1	Spare battery charging slot
2	Battery charging LEDs (20)
3	Power LED

Setup

Figure 46 20-Slot Battery Charger Setup



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

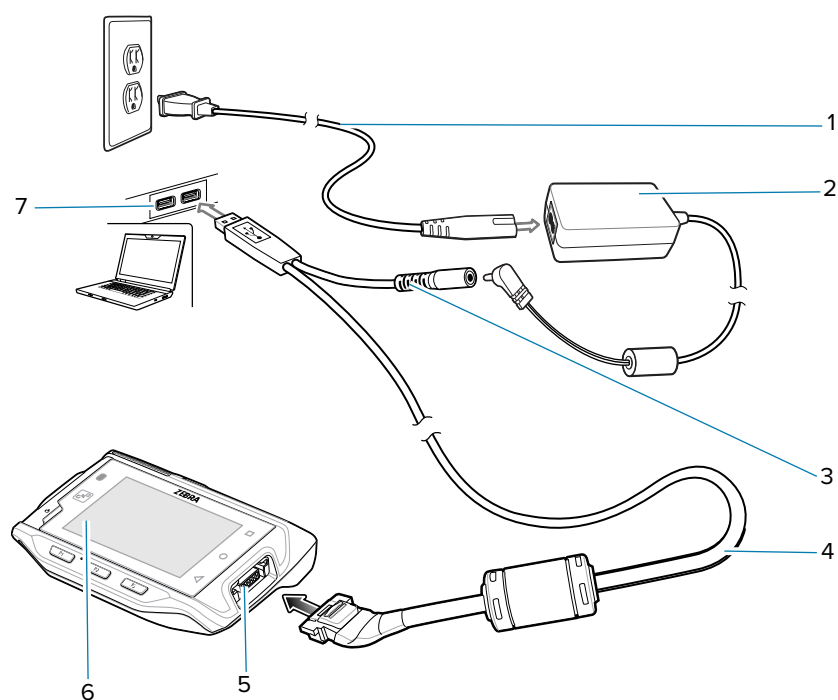
USB/Charge Cable



CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines](#) on page 162.

The USB and Charging cable connects to either interface connector on the device. When attached to the device, allows the device to transfer data to a host computer and provides power for charging the device.

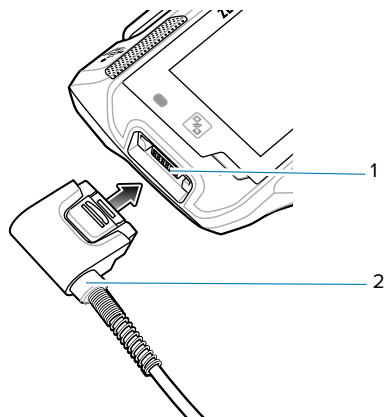
Figure 47 USB and Charging Cable



1	USB port
2	AC line cord
3	Power supply
4	USB charge cable
5	Interface connector

Attaching the USB and Charging Cable

1. Connect the connector to the device interface connector.



1	Interface connector
2	Cable connector

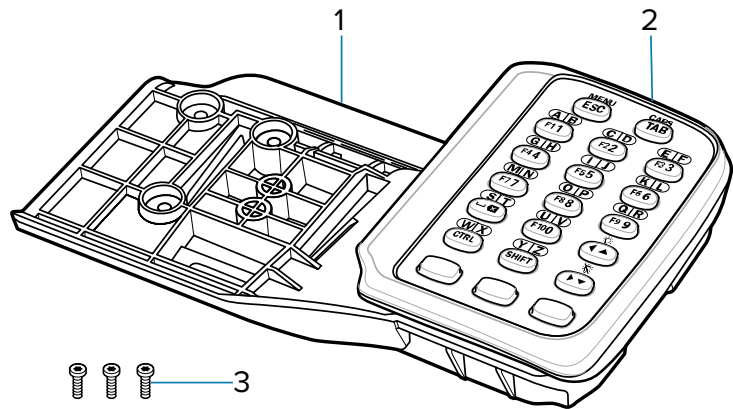
2. Attach the USB connection to the host computer.

Removing the USB and Charging Cable

1. Press the release level toward the cable.
2. Rotate the adapter toward the front of the device and remove.

Keypad

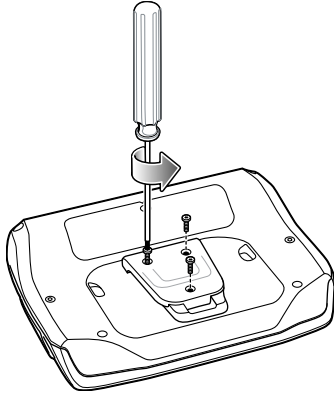
Figure 48 Keypad



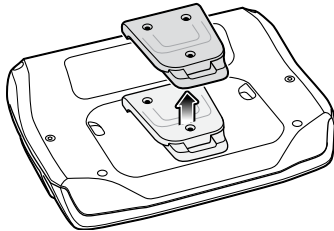
1	Keypad Mount
2	Device Keypad
3	Installation Screws

Installing the Keypad

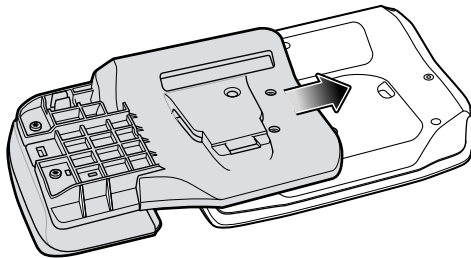
1. Power off the device.
2. Using a T6 Torx screwdriver, remove the screws from the cleat on the back of the device.



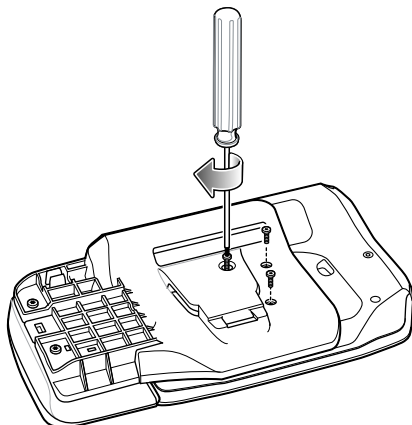
3. Lift the cleat from the back of the device.



4. Slide the keypad mount onto the device.



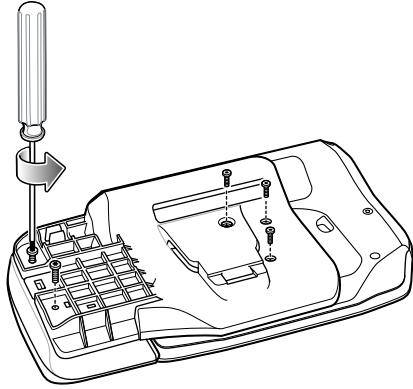
5. Using a T6 Torx screwdriver, secure the keypad mount to the device with the three screws, and torque to 2kgf-cm or 1.73lbf-in.



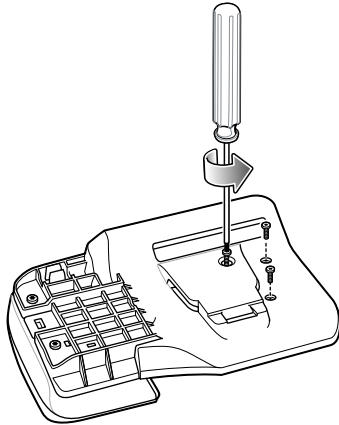
6. Power on the device.

Replacing the Keypad Mount

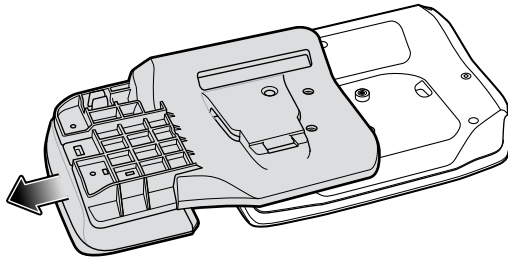
1. Power off the device.
2. Using a T8 Torx screwdriver, remove the two screws that connect the keypad to the mount.



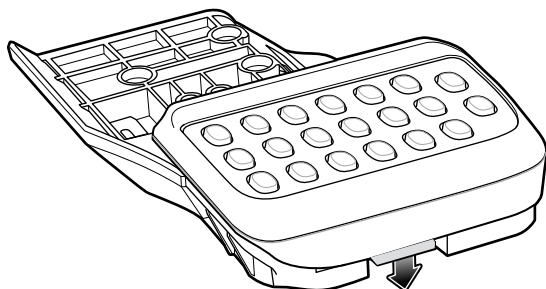
3. Using a T6 Torx screwdriver, remove the three screws that connect the keypad mount to the device.



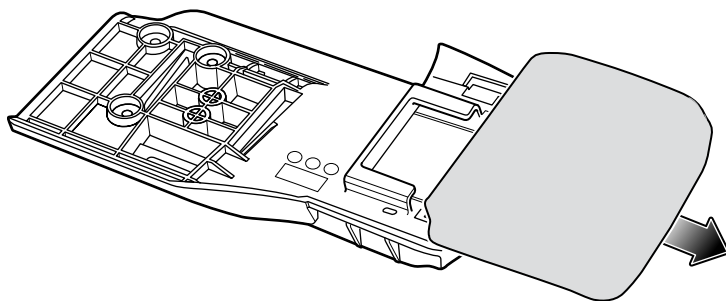
4. Slide the mount off of the device.



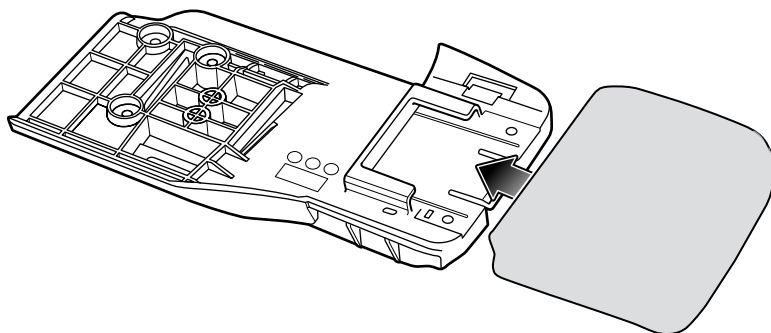
5. Press and hold the latch under the keypad.



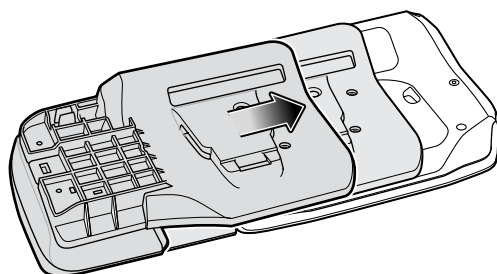
6. Slide the keypad off the mount.



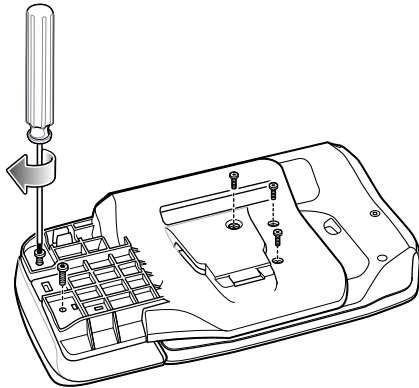
7. Slide the keypad onto the new mount. Ensure the keypad snaps securely onto the mount.



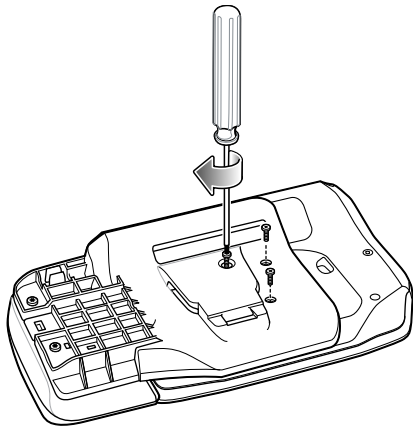
8. Slide the mount onto the device.



9. Using a T8 Torx screwdriver, secure the keypad mount to the device with the two screws, and torque to 2kgf-cm or 1.73lbf-in.



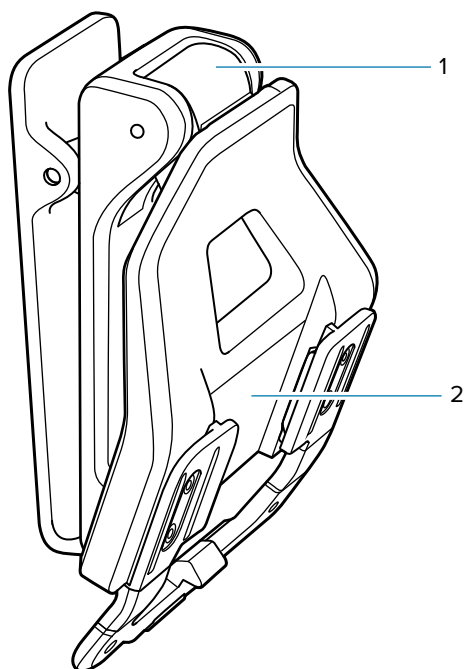
10. Using a T6 Torx screwdriver, secure the keypad mount to the device with the three screws, and torque to 2kgf-cm or 1.73lbf-in.



11. Power on the device.

Hip Mount

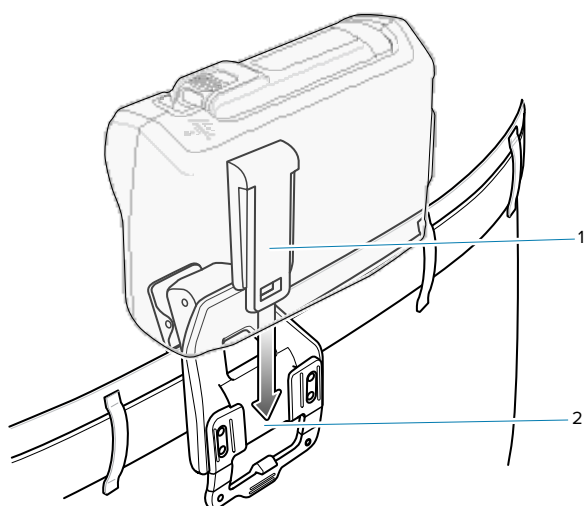
The hip mount allows the user to mount the device on the belt for use in voice picking applications. An RS4000 or RS5000 scanner with an extended cable, a wired headset or the RS6000 Hands-free Bluetooth Imager is required when using the hip mount.

Figure 49 Hip Mount

1	Hinge
2	Mounting bracket

Installing the Hip Mount

1. Attach the Hip Mount to belt.
2. Align the cleat on the device with the mounting bracket on the Hip Mount.
3. Slide the device into the hip mount.

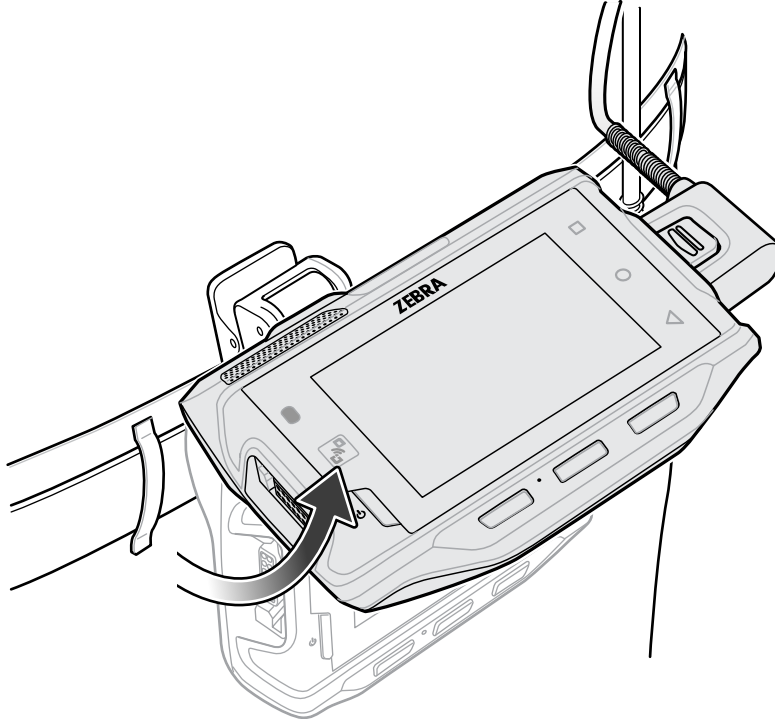


1	Cleat
---	-------

2	Mounting bracket
---	------------------

4. Connect RS4000, RS5000 or headset to the device.

The Hip Mount provides a hinged bracket so the user can easily view the display by lifting the device.

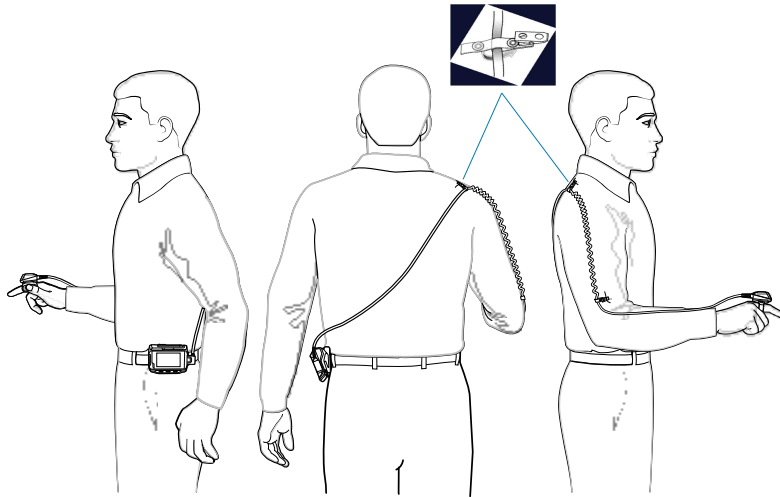


Routing an Extended Cable Scanner

When using an RS4000 or RS5000 scanner with the device mounted on the hip, the extended cable version is required.

Zebra offers for sale cable clips, which attach to clothing and hold the scanner cable so that the cable does not interfere with the user. The cable clips are similar to badge clips and can be purchased at any office supply store as well.

Figure 50 Routing RS4000 Scanner Cable from Hip to Hand



Quick Disconnect Audio Cables

The Quick Disconnect Audio Adapter snaps into either interface connector. When attached to the device, the Quick Disconnect Audio Adapter allows a user to connect a wired headset to the device.

Figure 51 Long Audio Cable

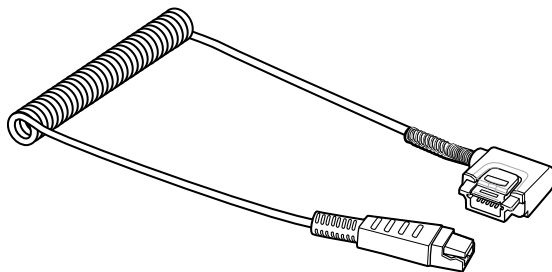
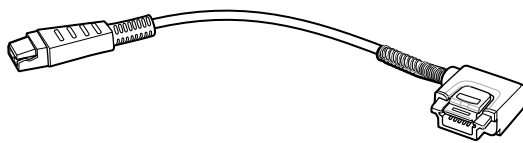


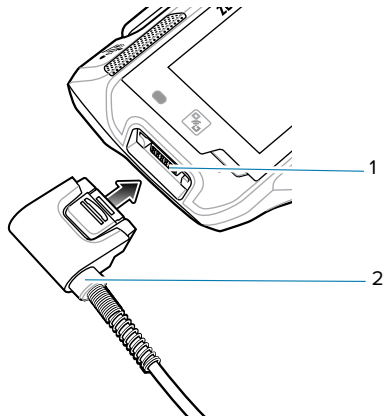
Figure 52 Short Audio Cable



Attaching the Audio Adapter

1. Align the tabs on the Audio Adapter with the slots on the device.

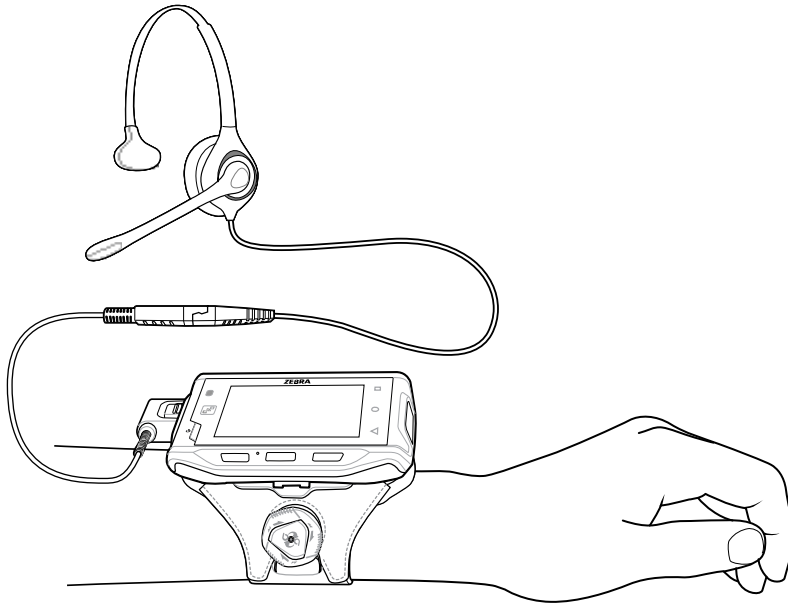
2. Rotate the Adapter toward the back of the device until the Adapter snaps onto the device.



1	Interface connector
2	Cable connector

Connecting the Audio Cable to a Headset

- Short Quick Disconnect Audio Cable Connection to Headset.



- Long Quick Disconnect Audio Cable Connection to Headset

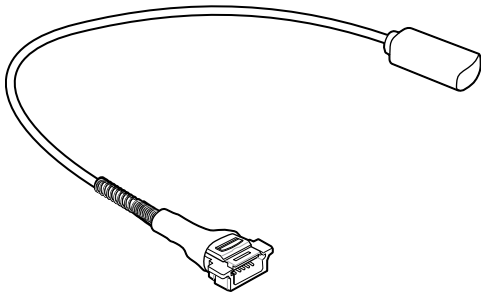


Removing the Audio Adapter

1. Press the release lever toward the cable.
2. Rotate the adapter toward the front of the device and remove.

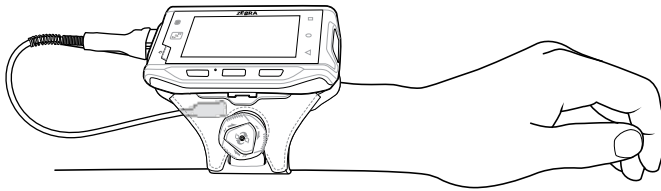
Vibrator Cable

Use the vibrator cable to provide a touch notification to a user to in noisy environments.

Figure 53 Vibrator Cable

Connecting the Vibrator Cable

1. Connect the cable to the interface connector on the device.
2. Slide the vibrator end between the wrist mount strap and arm.



1	Vibrator cable
2	Wrist mount

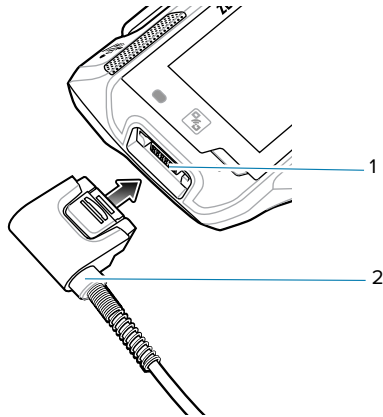
When an application generates a notification, the vibrator vibrates notifying the user.

RS4000 Scanner

There are two scanner configurations available. The short cable configuration connects the scanner to the device mounted on the arm. The extended cable configuration connects the scanner to the device mounted on the hip. This section describes connecting the device to a RS4000 scanner.

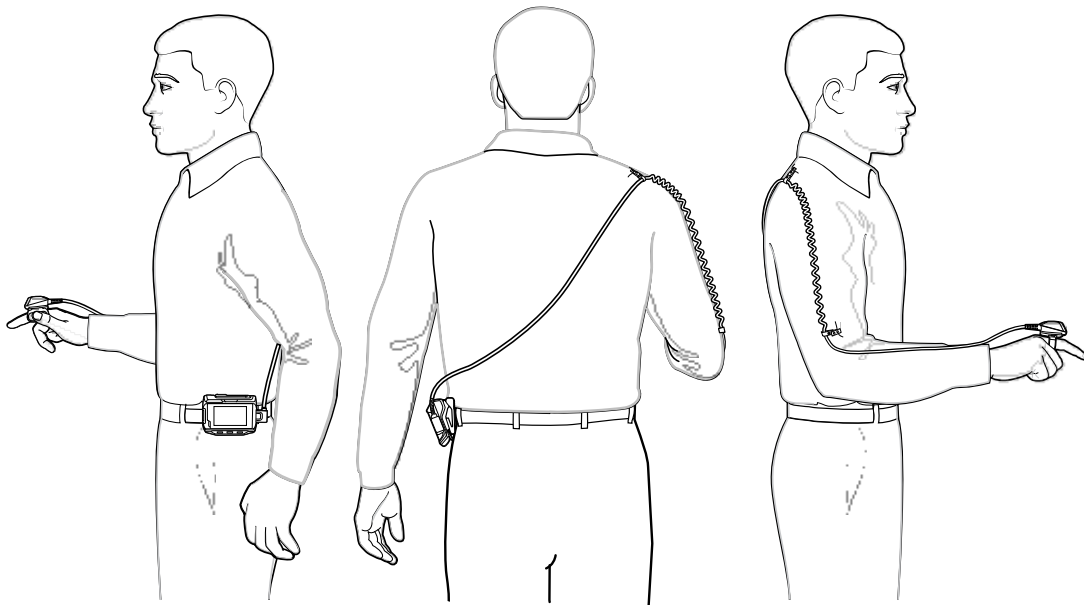
Connecting the RS4000 Scanner

1. Connect the scanner interface cable to the device interface connector. If the device is mounted on the arm, connect the cable to the interface connector closest to the wrist.



1	Interface connector
2	Cable connector

2. If using the extended cable configuration, route the scanner cable up to the shoulder and down to the hand that the scanner mounts on. Attach two cable clips to clothing and secure cable to cable clip.



3. Rotate the trigger assembly to the correct position for the hand that the scanner mounts to.

4. Slide the scanner onto the index finger with the scan trigger next to the thumb.



5. Tighten the finger strap.



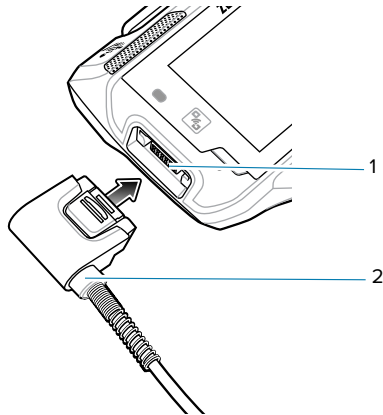
6. Soft boot the wearable terminal. See [Performing a Soft Reset](#) on page 168 for information on performing a soft boot.

RS5000 Imager

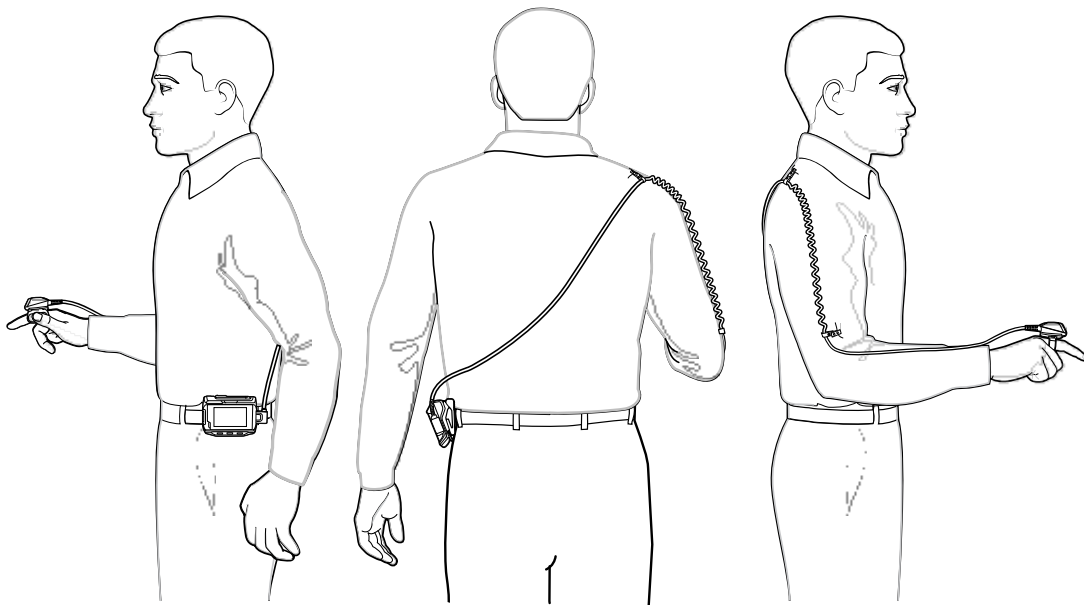
This section describes connecting the device to a RS5000 imager.

Connecting the RS5000 Imager

1. If using the device wearable terminal, remove the connector cap.

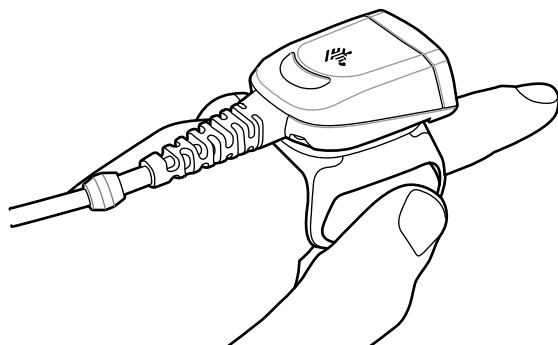


2. Connect the RS5000 interface cable to the wearable terminal interface connector. If connecting to a wrist-mounted wearable terminal, connect to the interface connector closest to the wrist.

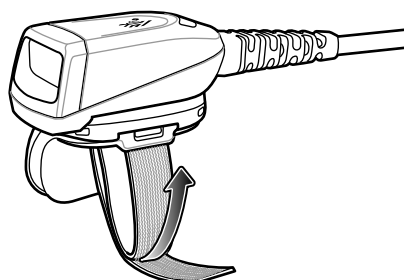


3. If using the extended cable configuration, route the scanner cable up to the shoulder and down to the hand that the scanner mounts on. Attach two cable clips to clothing and secure cable to cable clip.
4. Rotate the trigger assembly to the correct position for the hand that the imager mounts to.

5. Slide the RS5000 onto the index finger with the scan trigger next to the thumb.



6. Tighten the finger strap.



7. Soft boot the wearable terminal. See [Performing a Soft Reset](#) on page 168 for information on performing a soft boot.

5-Slot Cradle Rack

Use the Rack/Wall Mount Bracket to mount a 5-slot cradle on a rack. When installing on a rack, first assemble the bracket and cradles/chargers and then install the assembly on the rack.

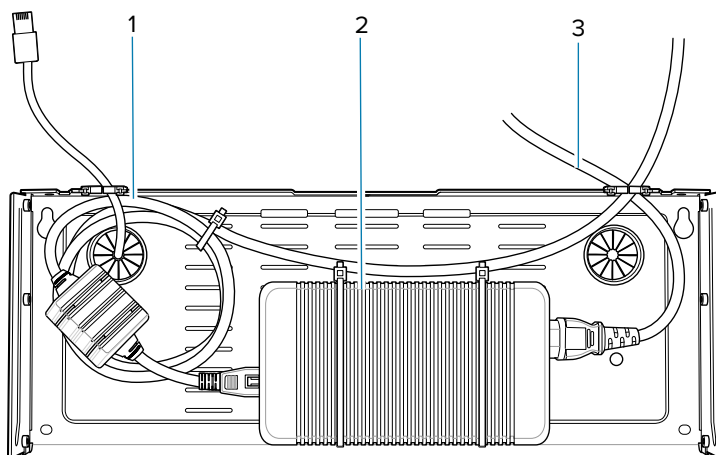
Installing the 5-Slot Cradle Rack

1. Place the power supply in bottom tray.
2. Connect AC line cord to power supply.
3. Connect DC line cord to power supply.
4. Secure power supply and cables to bottom tray with tie wraps.

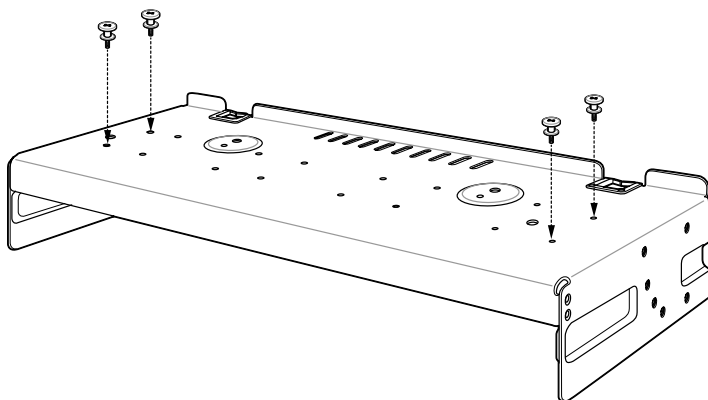


NOTE: Ensure that the tie wrap buckle is on the side of the power supply. Tie wrap buckle on top of power supply interferes with top tray.

5. Route cables through cable slots.

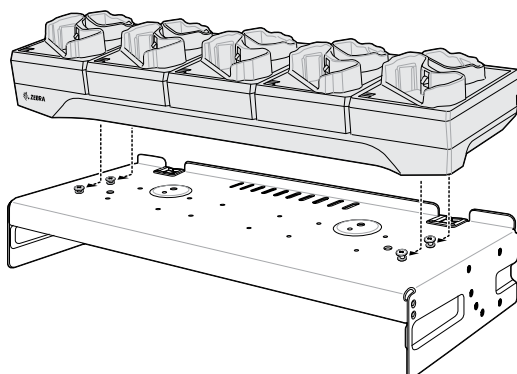


6. Secure four M2.5 studs to top tray as shown.

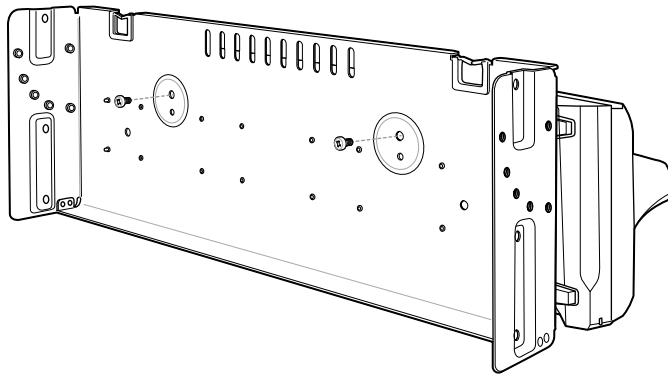


1	Studs (4)
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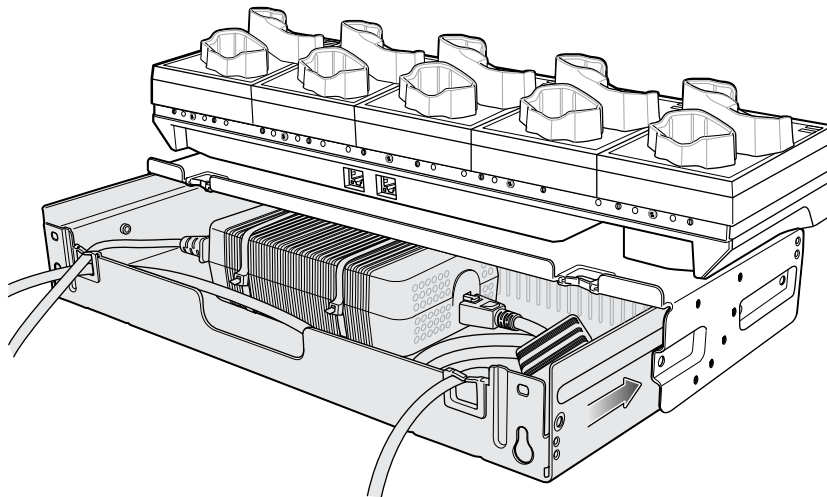
7. Align and install 5-Slot cradle onto studs of top tray.



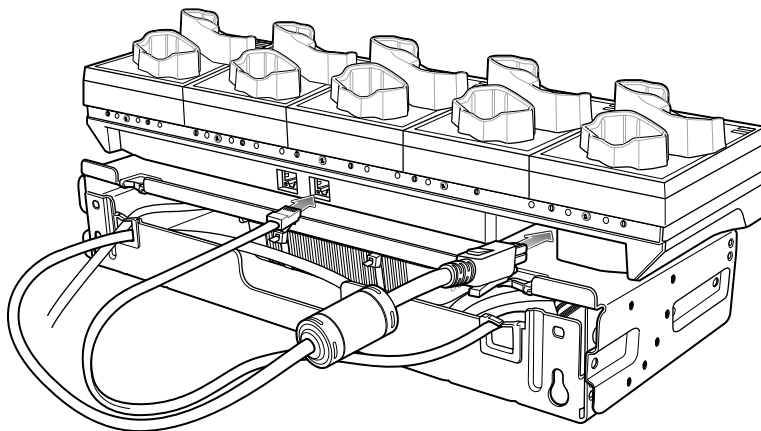
- 8.** Secure cradle to top tray with two M2.5 safety screws.



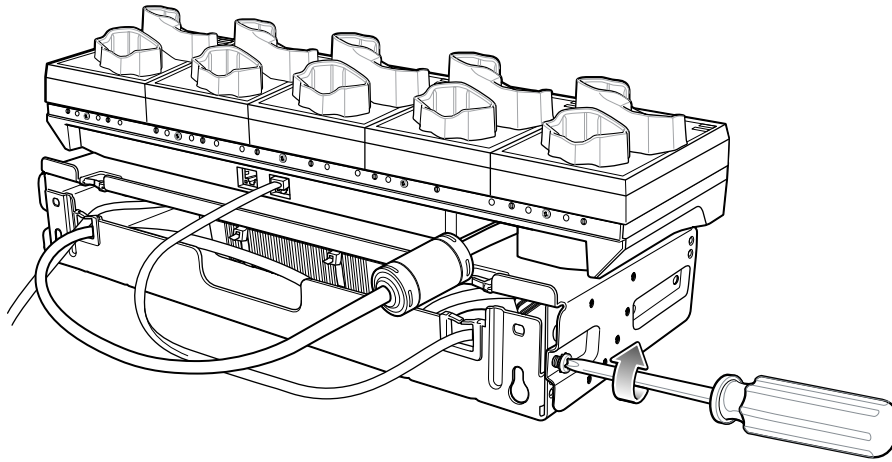
- 9.** Slide top tray onto bottom tray.



- 10.** Connect cables to cradle.



11. Secure top tray to bottom tray with 4 M5 screws (two on each side).



See [Installing the Rack Mount](#) on page 137 for installing the bracket assembly onto a rack.

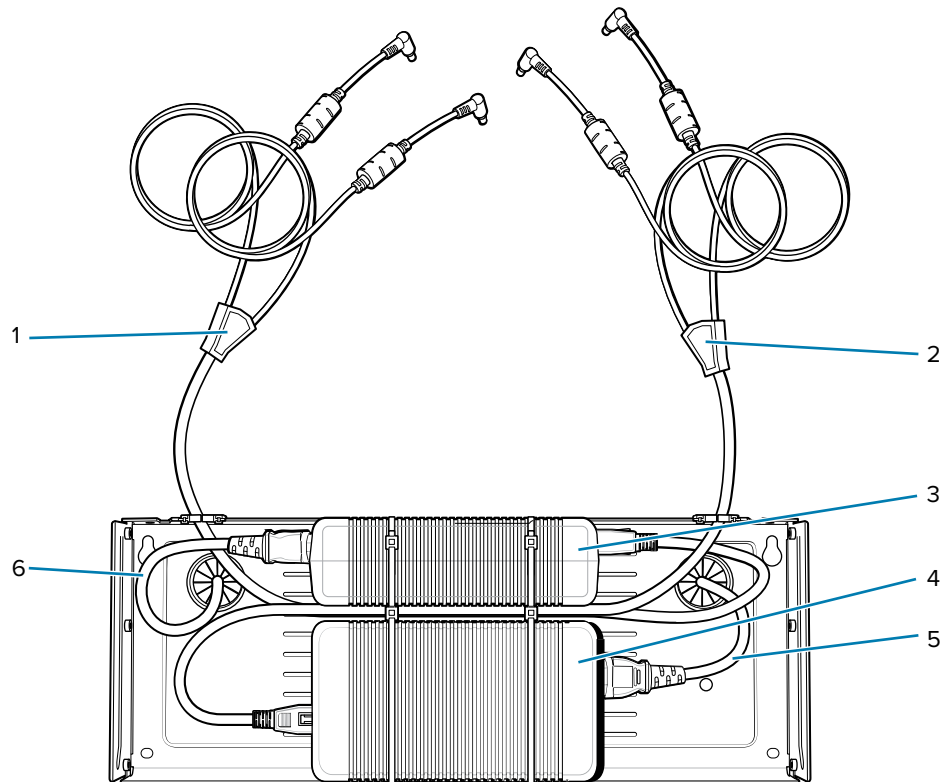
4-Slot Battery Chargers Rack

Use the Rack/Wall Mount Bracket to mount four 4-Slot Battery Chargers on a rack. When installing on a rack, first assemble the bracket and chargers and then install the assembly on the rack.

Installing the 4-Slot Battery Chargers Rack

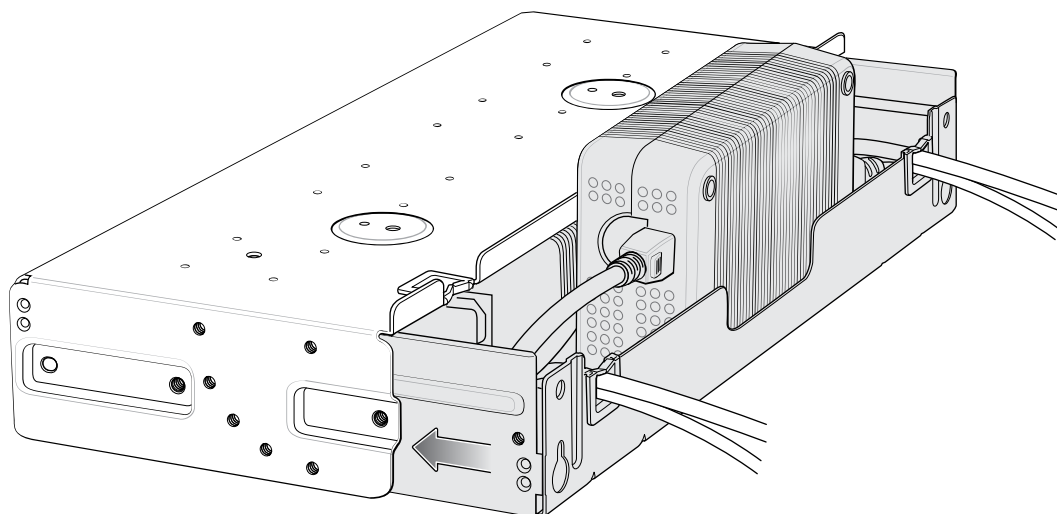
1. Place one power supply horizontally in bottom tray.
2. Place one power supply vertically in bottom tray.
3. Connect AC line cords to power supplies.
4. Connect DC line cords to power supplies.
5. Secure power supplies and cables to bottom tray with tie wraps.

6. Route cables through cable slots.

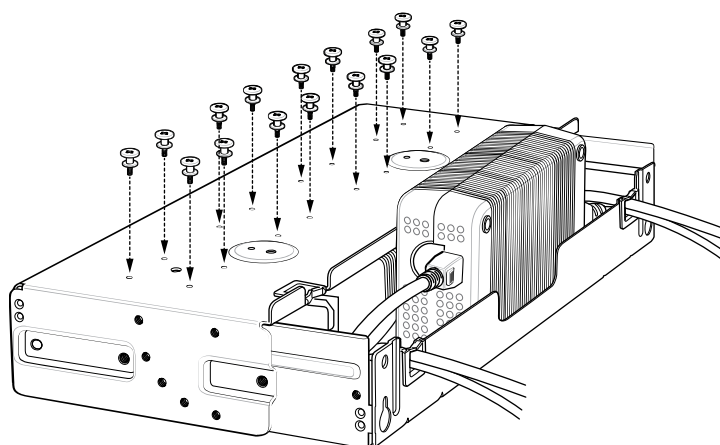


1	DC Y cable 1
2	DC Y cable 2
3	Power supply 1
4	Power supply 2
5	AC line cord 2
6	AC line cord 1

7. Slide top tray onto bottom tray until top tray touches vertical power supply.

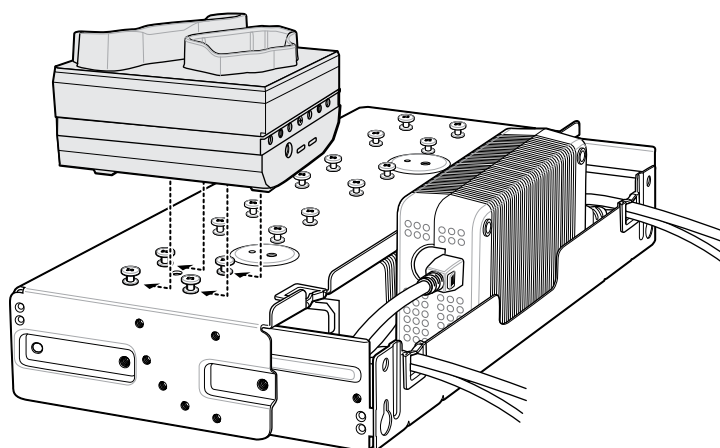


8. Install 16 M2.5 studs onto top tray as shown below.

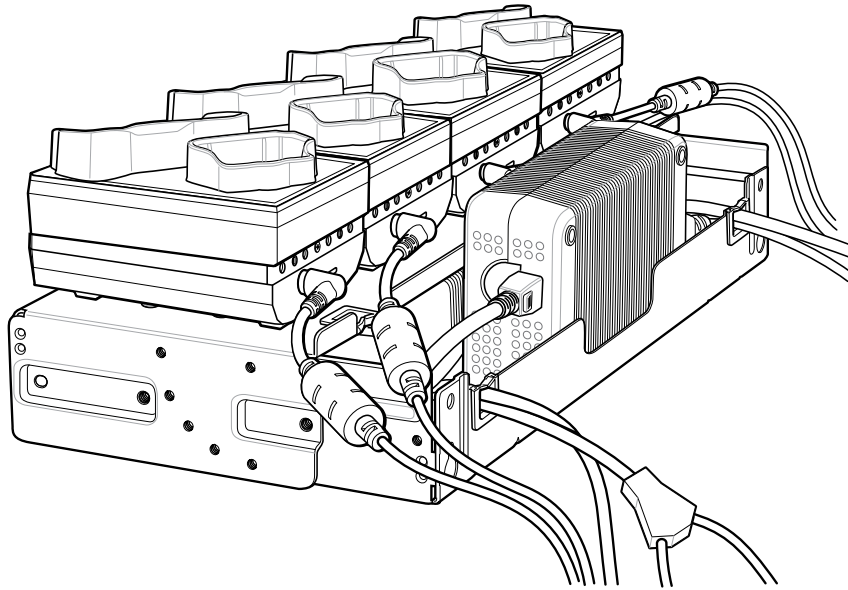


1	Studs (16)
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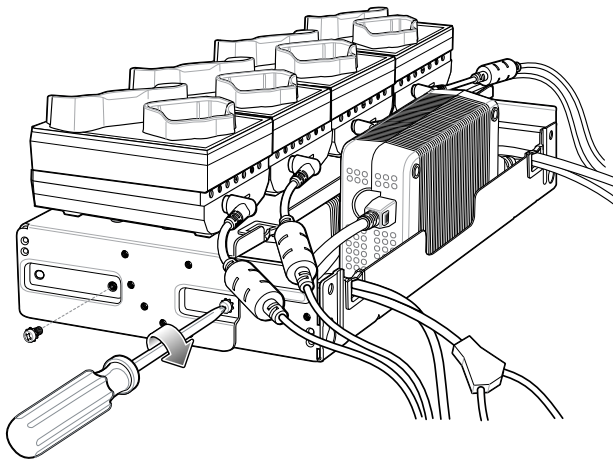
9. Align and install 4-Slot Battery Charger onto four studs.



10. Connect DC Y cables to four 4-Slot Battery Chargers.



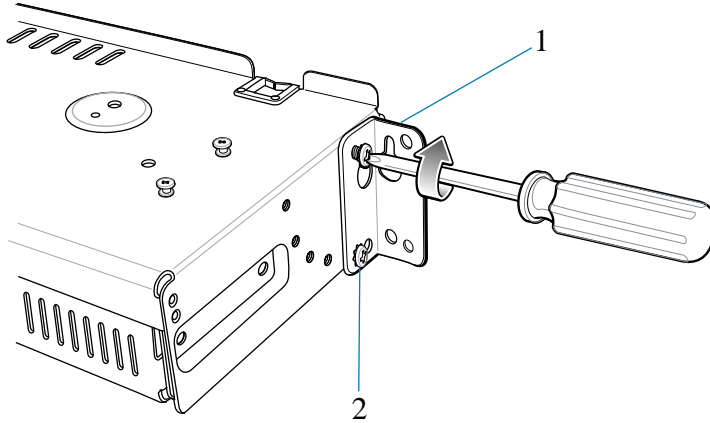
11. Secure top tray to bottom tray with four M5 screws (two on each side).



Installing the Rack Mount

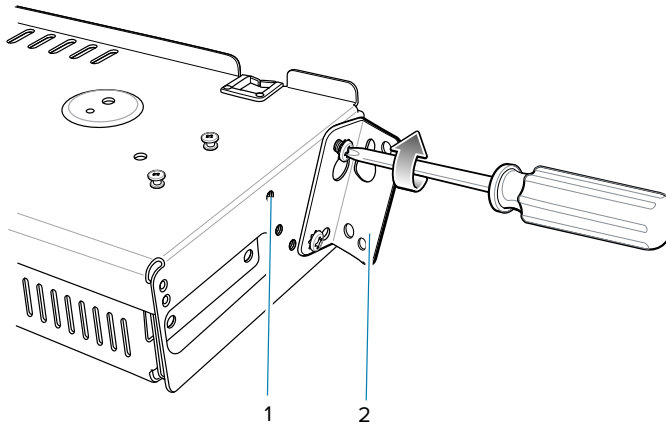
1. Secure mounting brackets to both sides of top tray with four M5 screws (two on each side). For 5-Slot cradles, position the flange for vertical installation. For 4-Slot Battery Chargers, position the flange for 25° installation.

Figure 54 Flange Vertical Position (5-Slot Cradles)



1	Top screw hole
2	Flange

Figure 55 Flange 25° Position (4-Slot Battery Chargers)



1	Flange
2	Fourth screw hole

2. Install two rack system screws for top of mounting brackets. The screw heads should protrude half way from the rail.

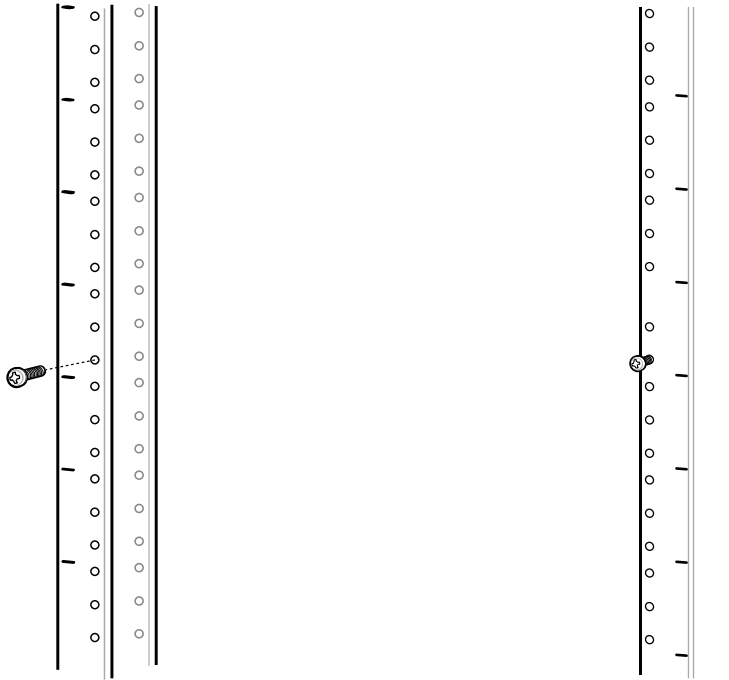
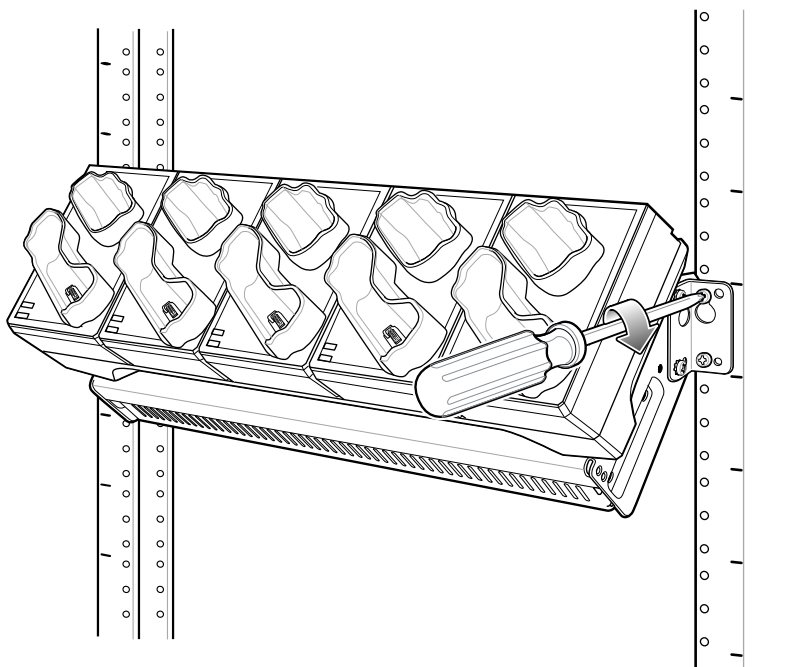


Figure 56

3. Align the mounting bracket's top mounting key holes with the screws.
4. Place the brackets on the screws.

Figure 57 Secure Bracket to Rack (Vertical Position Shown)



5. Secure the top screws.

6. Install bottom screws and tighten screws.
7. Route cables and connect to power source.



CAUTION: The installer should ensure that all building codes are followed when connecting the power supplies to an AC power source.

While installing the brackets, power supplies and cables:

- Use tie wraps to secure cables to the bracket and rails.
- Coil cables wherever possible.
- Route power cables along the rails.
- Route inter-cradle cables to the side rails and then from the rails to the bracket.

5-Slot Cradle Wall Installation

Use the Rack/Wall Mount Bracket to mount a cradle on a wall. When installing on a wall, first assemble the bottom tray, install the bottom tray on the wall and then assemble the top tray.

Bottom Tray Assembly

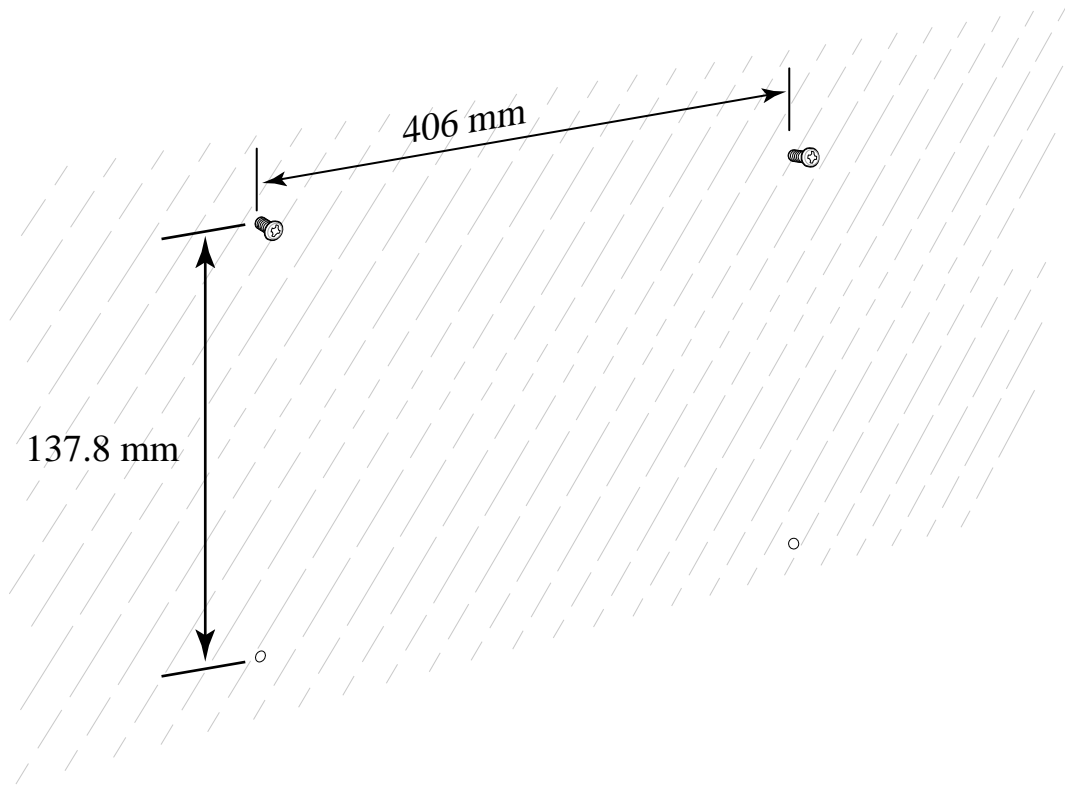
Use a short description in a reference topic to briefly describe what the reference item does, what it is, or what it is used for.

See steps 1 through 5 for instructions.

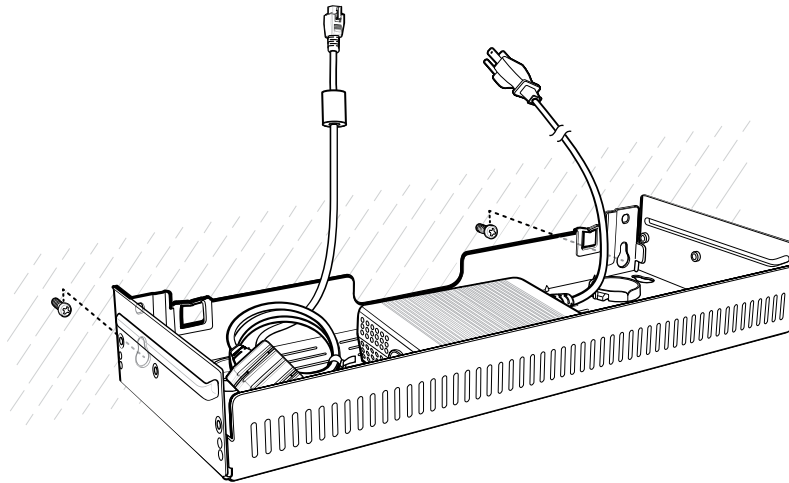
Wall Mounting the Bracket 5 Slot Cradle

1. Drill holes and install anchors according to the template supplied with the bracket.

2. Install two screws for bottom of bracket. The screw heads should protrude 2.5 mm (0.01 in.) from the wall.

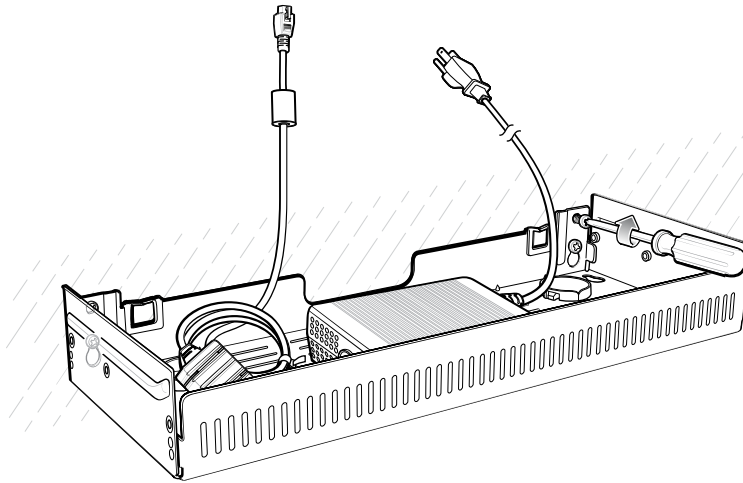


3. Align the mounting bracket's bottom mounting key holes with the screws.
4. Hang the bracket on the screws.



5. Install two top screws.

6. Tighten all screws.



7. Assemble the top tray. See steps 6 through 8 on page 129.
8. Slide the assembled top tray onto bottom tray.
9. Connect cables to cradle.
10. Secure top tray to bottom tray with four M5 screws (two on each side).
11. Route cables and connect to power source.



CAUTION: Installer should ensure that all building codes are followed when connecting the power supplies to an AC power source.

While installing the brackets, power supplies and cables:

- Use tie wraps to secure cables to the bracket.
- Coil cables wherever possible.
- Route power cables along wall and secure.

4-Slot Battery Charger Wall Installation

Use the Rack/Wall Mount Bracket to mount four 4-Slot Battery Chargers a cradle on a wall. When installing on a wall, first assemble the bottom tray, install the bottom tray on the wall and then assemble the top tray.

Fasten the mounting bracket to the wall using appropriate screws and/or anchors. The Mount Bracket mounting slots dimensions are 5 mm (0.2 in.). Fasteners must be able to hold a minimum of 20 Kg (44 lbs).

For proper installation consult a professional installer. Failure to install the bracket properly can possibly result in damage to the hardware.

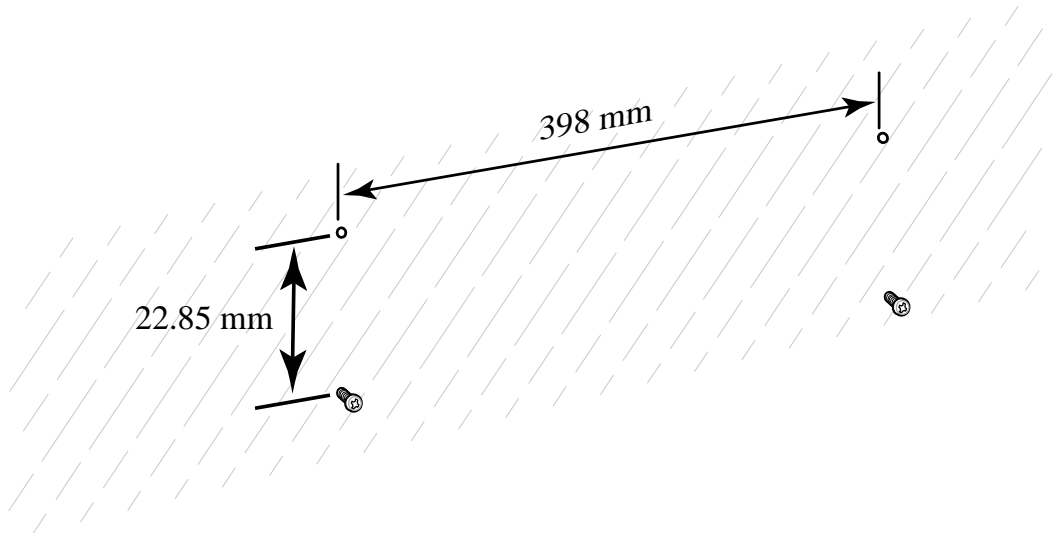
Bottom Tray Assembly 4-Slot Battery Charger

Use a short description in a reference topic to briefly describe what the reference item does, what it is, or what it is used for.

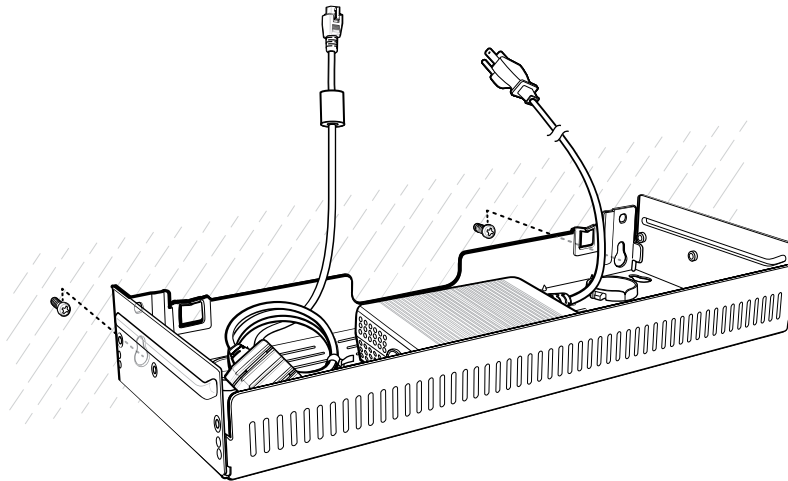
See steps 1 through 5 on page 129 for instructions.

Wall Mounting the Bracket 4 Slot Cradle

1. Drill holes and install anchors according to the template supplied with the bracket.
2. Install two screws for bottom of bracket. The screw heads should protrude 2.5 mm (0.01 in.) from the wall.

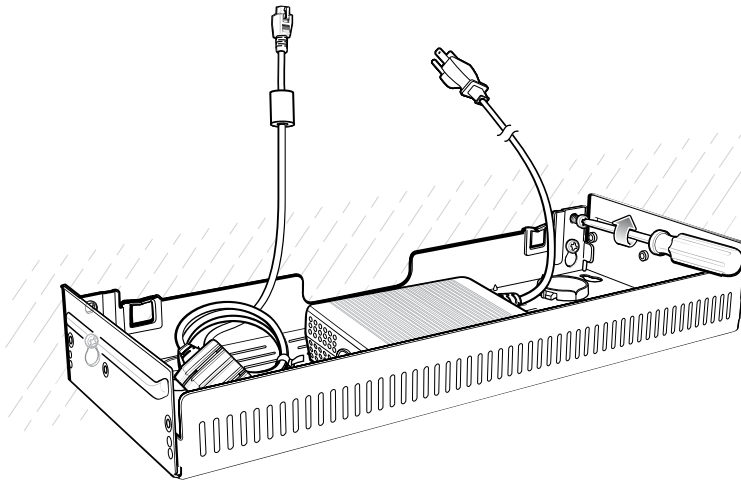


3. Align the mounting bracket's bottom mounting key holes with the screws.
4. Hang the bracket on the screws.



5. Install two top screws.

6. Tighten all screws.



7. Assemble the four 4-Slot Battery Chargers onto the bracket. See steps 9 through 11 on page.

8. Route cables and connect to power source.



CAUTION: Installer should ensure that all building codes are followed when connecting the power supplies to an AC power source.

While installing the brackets, power supplies and cables:

- Use tie wraps to secure cables to the bracket and rails.
- Coil cables wherever possible.
- Route power cables along the rails.
- Route inter-cradle cables to the side rails and then from the rails to the bracket.

Application Deployment

This section provides an overview of device security, app development, and app management. It also provides instructions for installing apps and updating the device software.

Secure Certificates

If the VPN or Wi-Fi networks rely on secure certificates, obtain the certificates and store them in the device's secure credential storage, before configuring access to the VPN or Wi-Fi networks.

If downloading the certificates from a web site, set a password for the credential storage. The device supports X.509 certificates saved in PKCS#12 key store files with a .p12 extension (if key store has a .pfx or other extension, change to .p12).

The device also installs any accompanying private key or certificate authority certificates contained in the key store.

Installing a Secure Certificate

If required by the VPN or Wi-Fi network, install a secure certificate on the device.

1. Copy the certificate from the host computer to the root of the device's internal memory. See [USB Communication](#) on page 35 for information about connecting the device to a host computer and copying files.
2. Go to **Settings**.
3. Touch **Security > Encryption & credentials**.
4. Touch **Install a certificate**.
5. Navigate to the location of the certificate file.
6. Touch the filename of the certificate to install.
7. If prompted, enter the password for credential storage. If a password has not been set for the credential storage, enter a password for it twice, and then touch **OK**.
8. If prompted, enter the certificate's password and touch **OK**.
9. Enter a name for the certificate and in the Credential use drop-down, select **VPN and apps** or **Wi-Fi**.
10. Touch **OK**.

The certificate can now be used when connecting to a secure network. For security, the certificate is deleted from the internal memory.

Configuring Credential Storage Settings

Configure credential storage from the device settings.

1. Go to **Settings**.
2. Touch **Security > Encryption & credentials**.
3. Select an option.
 - Touch **Trusted credentials** to display the trusted system credentials.
 - Touch **User credentials** to display user credentials.
 - Touch **Install from storage** to install a secure certificate from the internal storage.
 - Touch **Clear credentials** to delete all secure certificates and related credentials.

Android Development Tools

Development tools for Android include Android Studio, EMDK for Android, and StageNow.

Android Development Workstation

Android development tools are available at developer.android.com.

To start developing applications for the device, download Android Studio. Development can take place on a Microsoft® Windows®, Mac® OS X®, or Linux® operating system.

Applications are written in Java or Kotlin, but compiled and executed in the Dalvik virtual machine. Once the Java code is compiled cleanly, the developer tools make sure the application is packaged properly, including the AndroidManifest.xml file.

Android Studio contains a full featured IDE as well as SDK components required to develop Android applications.

Enabling Developer Options

The **Developer options** screen sets development-related settings. By default, the Developer Options are hidden.

1. Go to **Settings**.
2. Touch **About phone**.
3. Scroll down to **Build number**.
4. Tap **Build number** seven times.

The message **You are now a developer!** appears.
5. Touch **Back**.
6. Touch **System > Advanced > Developer options**.
7. Slide the **USB debugging** switch to the **ON** position.

EMDK for Android

EMDK for Android provides developers with tools to create business applications for enterprise mobile devices. It is designed for use with Google's Android Studio and includes Android class libraries such as Barcode, sample applications with source code, and the associated documentation.

EMDK for Android allows applications to take full advantage of the capabilities that Zebra devices have to offer. It embeds Profile Manager technology within Android Studio IDE, providing a GUI-based development tool designed specifically for Zebra devices. This allows fewer lines of code, resulting in reduced development time, effort, and errors.

See Also

[For more information go to techdocs.zebra.com.](https://techdocs.zebra.com)

StageNow for Android

StageNow is Zebra's next-generation Android Staging Solution built on the MX platform. It allows quick and easy creation of device profiles, and can deploy to devices simply by scanning a barcode, reading a tag, or playing an audio file.

The StageNow Staging Solution includes the following components:

- The StageNow Workstation tool installs on the staging workstation (host computer) and lets the administrator easily create staging profiles for configuring device components, and perform other staging actions such as checking the condition of a target device to determine suitability for software upgrades or other activities. The StageNow Workstation stores profiles and other created content for later use.
- The StageNow Client resides on the device and provides a user interface for the staging operator to initiate staging. The operator uses one or more of the desired staging methods (print and scan a barcode, read an NFC tag or play an audio file) to deliver staging material to the device.

See Also

[For more information go to techdocs.zebra.com.](https://techdocs.zebra.com)

GMS Restricted

GMS Restricted mode deactivates Google Mobile Services (GMS). All GMS apps are disabled on the device and communication with Google (analytics data collection and location services) is disabled.

Use StageNow to disable or enable GMS Restricted mode. After a device is in GMS Restricted mode, enable and disable individual GMS apps and services using StageNow. To ensure GMS Restricted mode persists after an Enterprise Reset, use the Persist Manager option in StageNow.

See Also

[For more information on StageNow, refer to techdocs.zebra.com.](https://techdocs.zebra.com)

ADB USB Setup

To use the ADB, install the development SDK on the host computer then install the ADB and USB drivers.

Before installing the USB driver, make sure that the development SDK is installed on the host computer. Go to developer.android.com/sdk/index.html for details on setting up the development SDK.

The ADB and USB drivers for Windows and Linux are available on the Zebra Support Central web site at zebra.com/support. Download the ADB and USB Driver Setup package. Follow the instructions with the package to install the ADB and USB drivers for Windows and Linux.

Enabling USB Debugging

By default, USB debugging is disabled.

1. Go to **Settings**.
2. Touch **About phone**.
3. Scroll down to **Build number**.
4. Tap **Build number** seven times.
The message **You are now a developer!** appears.
5. Touch **Back**.
6. Touch **System > Advanced > Developer options**.
7. Slide the **USB debugging** switch to the **ON** position.
8. Touch **OK**.
9. Connect the device to the host computer using the Rugged Charge/USB Cable.

The **Allow USB debugging?** dialog box appears on the device.

If the device and host computer are connected for the first time, the **Allow USB debugging?** dialog box with the **Always allow from this computer** check box displays. Select the check box, if required.

10. Touch **OK**.
11. Touch **OK** or **Allow**.
12. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
13. Type `adb devices`.

The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

14. Return to the Home screen.

Application Installation Methods


After an application is developed, install the application onto the device using one of the supported methods.

- USB connection
- Android Debug Bridge

- Mobile device management (MDM) platforms that have application provisioning. Refer to the MDM software documentation for details.

Installing Applications Using the USB Connection

Use the USB connection to install applications onto the device.

1. On the device, pull down the Notification panel and touch **Charging this device via USB**.
By default, **No data transfer** is selected.
 2. Touch **File Transfer**.
 3. On the host computer, open a file explorer application.
 4. On the host computer, copy the application APK file from the host computer to the device.
 5. Disconnect the device from the host computer.
 6. Swipe the screen up and select  to view files on the Internal Storage.
 7. Locate the application APK file.
 8. Touch the application file.
 9. Touch **Continue** to install the app or **Cancel** to stop the installation.
 10. To confirm installation and accept what the application affects, touch **Install** otherwise touch **Cancel**.
 11. Touch **Open** to open the application or **Done** to exit the installation process.
- The application appears in the App list.

Installing Applications Using the Android Debug Bridge

Use ADB commands to install applications onto the device.

1. Ensure that the ADB drivers are installed on the host computer.
2. Connect the device to a host computer using a USB cable.
3. Go to **Settings**.
4. Touch **System > Advanced > Developer options**.
5. Slide the **USB debugging** switch to the **ON** position.
6. If the device and host computer are connected for the first time, the **Allow USB debugging?** dialog box with the **Always allow from this computer** check box displays. Select the check box, if required.
7. Touch **OK** or **Allow**.
8. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
9. Type `adb install <application>`.
where: <application> = the path and filename of the apk file.
10. Disconnect the device from the host computer.

Installing Applications Using Wireless ADB

Use ADB commands to install an application onto the device.

Go to the Zebra Support & Downloads web site at zebra.com/support and download the appropriate Factory Reset file to a host computer.



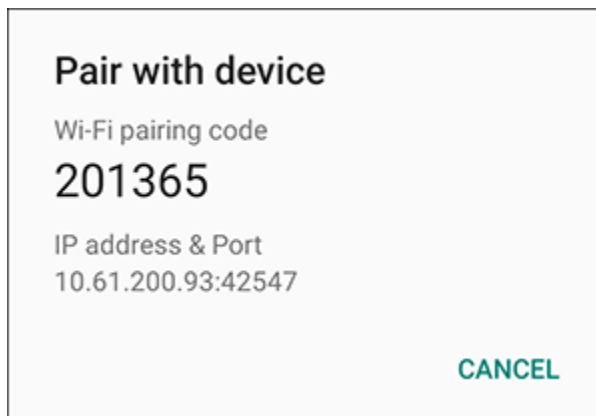
IMPORTANT: Ensure the latest adb files are installed on the host computer.



IMPORTANT: The device and host computer must be on the same wireless network.

1. Go to **Settings**.
2. Touch **System > Advanced > Developer options**.
3. Slide the **USB debugging** switch to the **ON** position.
4. Slide the **Wireless debugging** switch to the **ON** position.
5. If the device and host computer are connected for the first time, the **Allow wireless debugging on this network?** dialog box with the **Always allow from this network** check box displays. Select the check box, if required.
6. Touch **ALLOW**.
7. Touch **Wireless debugging**.
8. Touch **Pair with pairing code**.

The **Pair with device** dialog box displays.



9. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
10. Type `adb pair XX.XX.XX.XX.XXXXX`,
where `XX.XX.XX.XX.XXXXX` is the IP address and port number from the **Pair with device** dialog box.
11. Type: `adb connect XX.XX.XX.XX.XXXXX`
12. Press **Enter**.
13. Type the pairing code from the **Pair with device** dialog box.
14. Press **Enter**.
15. Type `adb connect`.

The device is now connected to the host computer.

16. Type `adb devices`.

The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

17. On the host computer command prompt window type:

```
adb install <application>
```

where: <file> = the path and filename of the apk file.

18. On the host computer, type:

```
adb disconnect.
```

Uninstalling an Application

Free up device memory by removing unused apps.

1. Go to **Settings**.
2. Touch **Apps & notifications**.
3. Touch **See all apps** to view all apps in the list.
4. Scroll through the list to the app.
5. Touch the app. The **App info** screen appears.
6. Touch **Uninstall**.
7. Touch **OK** to confirm.

Android System Update

System Update packages can contain either partial or complete updates for the operating system. Zebra distributes the System Update packages on the Zebra Support & Downloads website. Perform a system update using ADB.

Performing a System Update Using ADB

Use ADB to perform a system update.

1. Connect the device to a host computer using a USB cable.
2. Go to **Settings**.
3. Touch **System > Advanced > Developer options**.
4. Slide the **USB debugging** switch to the **ON** position.
5. Touch **OK**.

6. If the device and host computer are connected for the first time, the **Allow USB debugging?** dialog box with the **Always allow from this computer** check box displays. Select the check box, if required.
7. Touch **OK** or **Allow**.
8. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
9. Type `adb devices`.

The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

10. Type:
`adb reboot recovery`
11. Press **Enter**.
The System Recovery screen appears on the device.
12. On the host computer command prompt window type:

```
adb sideload <file>
```

where: <file> = the path and filename of the zip file.

13. Press **Up** and **Down** to navigate to **Apply upgrade from ADB**.
14. Press **Enter**.
The System Update installs (progress appears as percentage in the Command Prompt window) and then the System Recovery screen appears on the device.
15. Navigate to **Reboot system now** and press the Enter key or Power button to reboot the device.
16. Disconnect the USB cable from the device.

Performing a System Update Using Wireless ADB

Use wireless ADB to perform a system update.

Go to the Zebra Support & Downloads web site at zebra.com/support and download the appropriate System Update package to a host computer.



IMPORTANT: Ensure the latest adb files are installed on the host computer.



IMPORTANT: The device and the host computer must be on the same wireless network.

1. Go to **Settings**.
2. Touch **System > Advanced > Developer options**.
3. Slide the **USB debugging** switch to the **ON** position.

4. Slide the **Wireless debugging** switch to the **ON** position.
5. Touch **Wireless debugging**.
6. If the device and host computer are connected for the first time, the **Allow wireless debugging on this network?** dialog box with the **Always allow from this network** check box displays. Select the check box, if required.
7. Touch **ALLOW**.
8. Touch **Pair with pairing code**.
The **Pair with device** dialog box displays.
9. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
10. Type `adb pair XX.XX.XX.XX.XXXXX`.
where `XX.XX.XX.XX.XXXXX` is the IP address and port number from the **Pair with device** dialog box.
11. Press **Enter**.
12. Type the pairing code from the **Pair with device** dialog box.
13. Press **Enter**.
14. Type `adb connect`.
The device is now connected to the host computer.
15. Type:
`adb reboot recovery`
16. Press **Enter**.
The System Recovery screen appears on the device.
17. Press **Up** and **Down** to navigate to **Apply upgrade from ADB**.
18. Press **Power**.
19. Use **Up** and **Down** to navigate to **Full OTA Package**.
20. On the host computer command prompt window type:

```
adb sideload <file>
```


where: `<file>` = the path and filename of the zip file.
21. Press **Enter**.
The System Update installs (progress appears as percentage in the Command Prompt window) and then the System Recovery screen appears on the device.
22. Navigate to **Reboot system now** and press the Power button to reboot the device.
23. On the host computer, type:
`adb disconnect`.

Verifying System Update Installation

Verify that the system update was successful.

1. Go to **Settings**.
2. Touch **About phone**.
3. Scroll down to **Build number**.
4. Ensure that the build number matches the new system update package file number.

Android Enterprise Reset

An Enterprise Reset erases all user data in the /data partition, including data in the primary storage locations (emulated storage). Zebra distributes the Enterprise Reset packages on the Zebra Support & Downloads website.

Before performing an Enterprise Reset, provision all necessary configuration files and restore after the reset.

Performing an Enterprise Reset From Device Settings

Perform an Enterprise Reset from the device settings.

1. Go to **Settings**.
2. Touch **System > Reset options > Erase all data (enterprise reset)**.
3. Touch **Erase all data** twice to confirm the Enterprise Reset.

Performing an Enterprise Reset Using ADB

Perform an Enterprise Reset Using ADB.

1. Connect the device to a host computer using a USB cable.
2. Go to **Settings**.
3. Touch **System > Advanced > Developer options**.
4. Slide the **USB debugging** switch to the **ON** position.
5. Touch **OK**.
6. If the device and host computer are connected for the first time, the **Allow USB debugging?** dialog box with the **Always allow from this computer** check box displays. Select the check box, if required.
7. Touch **OK** or **Allow**.
8. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
9. Type `adb devices`.

The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

10. Type:
`adb reboot recovery`
11. Press **Enter**.
The System Recovery screen appears on the device.
12. On the host computer command prompt window type:

```
adb sideload <file>
```

where: <file> = the path and filename of the zip file.

13. Press **Enter**.
The Enterprise Reset package installs and then the System Recovery screen appears on the device.
14. Navigate to **Reboot system now** and press the Enter key or Power button to reboot the device.
15. Disconnect the USB cable from the device.

Performing an Enterprise Reset Using Wireless ADB

Perform an Enterprise Reset using Wireless ADB.

Go to the Zebra Support & Downloads web site at zebra.com/support and download the appropriate Enterprise Reset file to a host computer.



IMPORTANT: Ensure the latest adb files are installed on the host computer.

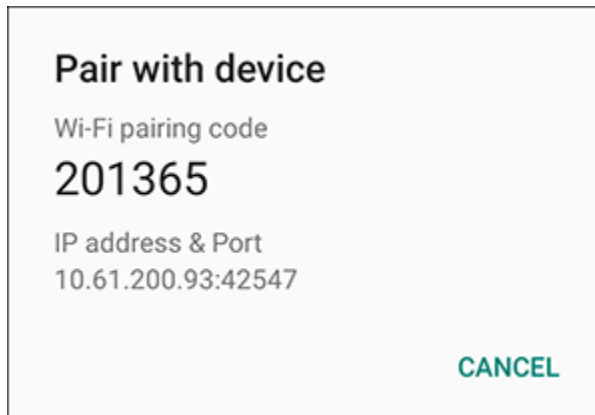


IMPORTANT: The device and host computer must be on the same wireless network.

1. Go to **Settings**.
2. Touch **System > Advanced > Developer options**.
3. Slide the **USB debugging** switch to the **ON** position.
4. Slide the **Wireless debugging** switch to the **ON** position.
5. If the device and host computer are connected for the first time, the **Allow wireless debugging on this network?** dialog box with the **Always allow from this network** check box displays. Select the check box, if required.
6. Touch **ALLOW**.
7. Touch **Wireless debugging**.

8. Touch **Pair with pairing code**.

The **Pair with device dialog** box displays.



9. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
10. Type `adb pair XX.XX.XX.XX.XXXXXX`.
where XX.XX.XX.XX.XXXXXX is the IP address and port number from the **Pair with device** dialog box.
11. Type: `adb connect XX.XX.XX.XX.XXXXXX`
12. Press **Enter**.
13. Type the pairing code from the **Pair with device** dialog box
14. Press **Enter**.
15. Type `adb connect`.
The device is now connected to the host computer.
16. Type `adb devices`.
The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

17. On the host computer command prompt window type:

```
adb sideload <file>
```

where: <file> = the path and filename of the zip file.

18. Type:
`adb reboot recovery`
19. Press **Enter**.
The Factory Recovery screen appears on the device.
20. Press **Up** and **Down** to navigate to **Apply upgrade from ADB**.

21. Press **Power**.
22. Use **Up** and **Down** to navigate to **Full OTA Package**.
23. On the host computer command prompt window type:

```
adb sideload <file>
```

where: <file> = the path and filename of the zip file.

24. Press **Enter**.
The Enterprise Reset package installs and then the System Recovery screen appears on the device.
25. Press **Power** to reboot the device.
26. On the host computer, type:
`adb disconnect`.

Android Factory Reset

A Factory Reset erases all data in the /data and /enterprise partitions in internal storage and clears all device settings. A Factory Reset returns the device to the last installed operating system image. To revert to a previous operating system version, re-install that operating system image. Zebra distributes the Factory Reset packages on the Zebra Support & Downloads website.

Performing a Factory Reset Using ADB

Perform a Factory Reset using ADB.

1. Connect the device to a host computer using a USB cable.
2. Go to **Settings**.
3. Touch **System** > **Advanced** > **Developer options**.
4. Slide the **USB debugging** switch to the **ON** position.
5. Touch **OK**.
6. If the device and host computer are connected for the first time, the **Allow USB debugging?** dialog box with the **Always allow from this computer** check box displays. Select the check box, if required.
7. Touch **OK** or **ALLOW**.
8. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
9. Type `adb devices`.

The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

10. Type:
`adb reboot recovery`
11. Press **Enter**.
The System Recovery screen appears on the device.
12. On the host computer command prompt window type:

```
adb sideload <file>
```

where: <file> = the path and filename of the zip file.

13. Press **Enter**.
The Factory Reset package installs and then the System Recovery screen appears on the device.
14. Navigate to **Reboot system now** and press the Enter key or Power button to reboot the device.
15. Disconnect the USB cable from the device.

Performing a Factory Reset Using Wireless ADB

Perform a Factory Reset using Wireless ADB.

Go to the Zebra Support & Downloads web site at zebra.com/support and download the appropriate Factory Reset file to a host computer.



IMPORTANT: Ensure the latest adb files are installed on the host computer.

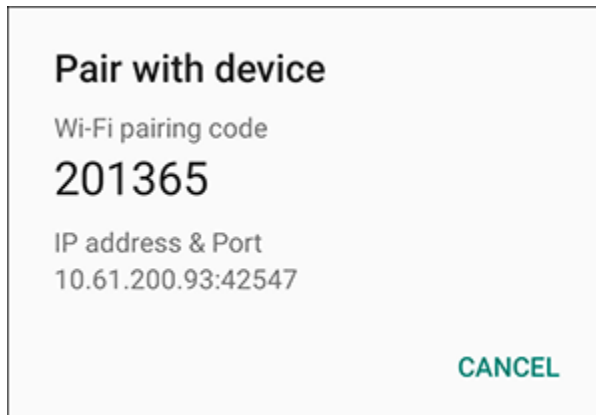


IMPORTANT: The device and host computer must be on the same wireless network.

1. Go to **Settings**.
2. Touch **System > Advanced > Developer options**.
3. Slide the **USB debugging** switch to the **ON** position.
4. Slide the **Wireless debugging** switch to the **ON** position.
5. If the device and host computer are connected for the first time, the **Allow wireless debugging on this network?** dialog box with the **Always allow from this network** check box displays. Select the check box, if required.
6. Touch **ALLOW**.
7. Touch **Wireless debugging**.

8. Touch **Pair with pairing code**.

The **Pair with device** dialog box displays.



9. On the host computer, navigate to the **platform-tools** folder and open a command prompt window.
10. Type `adb pair XX.XX.XX.XX.XXXXXX`.
where XX.XX.XX.XX.XXXXXX is the IP address and port number from the **Pair with device** dialog box.
11. Type: `adb connect XX.XX.XX.XX.XXXXXX`
12. Press Enter.
13. Type the pairing code from the **Pair with device** dialog box
14. Press Enter.
15. Type `adb connect`.
The device is now connected to the host computer.
16. Type `adb devices`.
The following displays:

```
List of devices attached      XXXXXXXXXXXXXXXXXX device
```

Where XXXXXXXXXXXXXXXXXX is the device number.



NOTE: If device number does not appear, ensure that ADB drivers are installed properly.

17. Type:
`adb reboot recovery`
18. Press **Enter**.
The Factory Reset package installs and then the System Recovery screen appears on the device.
19. Press **Up** and **Down** to navigate to **Apply upgrade from ADB**.
20. Press **Power**.
21. Use **Up** and **Down** to navigate to **Full OTA Package**.

22. On the host computer command prompt window type:

```
adb sideload <file>
```

where: <file> = the path and filename of the zip file.

23. Press **Enter**.

The Factory Reset package installs and then the System Recovery screen appears on the device.

24. Press **Power** to reboot the device.

25. On the host computer, type:

```
adb disconnect.
```

Android Storage

The device contains multiple types of file storage.

- Random Access Memory (RAM)
- Internal storage
- Enterprise folder.

Random Access Memory

Executing programs use RAM to store data. Data stored in RAM is lost upon a reset.

The operating system manages how applications use RAM. It only allows applications and component processes and services to use RAM when required. It may cache recently used processes in RAM, so they restart more quickly when opened again, but it will erase the cache if it needs the RAM for new activities.

The screen displays the amount of used and free RAM.

- **Performance** - Indicates memory performance.
- **Total memory** - Indicates the total amount of RAM available.
- **Average used (%)** - Indicates the average amount of memory (as a percentage) used during the period of time selected (default - 3 hours).
- **Free** - Indicates the total amount of unused RAM.
- **Memory used by apps** - Touch to view RAM usage by individual apps.

Viewing Memory

View the amount of memory used and free RAM.

1. Go to **Settings**.
2. Touch **System > Advanced > Developer options**.
3. Touch **Memory**.

Internal Storage

The device has internal storage. The internal storage content can be viewed and files copied to and from when the device is connected to a host computer. Some applications are designed to be stored on the internal storage rather than in internal memory.

Viewing Internal Storage

View available and used internal storage on the device.

1. Go to **Settings**.
2. Touch **Storage**.

Internal Storage displays the total amount of space on internal storage and amount used.

If the device has removable storage installed, touch **Internal shared storage** to display the amount of internal storage used by apps, photos, videos, audio, and other files.


Enterprise Folder

The Enterprise folder (within internal flash) is a super-persistent storage that is persistent after a reset and an Enterprise Reset.

The Enterprise folder is erased during a Factory Reset. The Enterprise folder is used for deployment and device-unique data. The Enterprise folder is approximately 128 MB (formatted). Applications can persist data after an Enterprise Reset by saving data to the enterprise/user folder. The folder is ext4 formatted and is only accessible from a host computer using ADB or from an MDM.

Managing Apps

Apps use two kinds of memory: storage memory and RAM. Apps use storage memory for themselves and any files, settings, and other data they use. They also use RAM when they are running.

1. Go to **Settings**.
2. Touch **Apps & notifications**.
3. Touch **See all XX apps** to view all apps on the device.
4. Touch  > **Show system** to include system processes in the list.
5. Touch an app, process, or service in the list to open a screen with details about it and, depending on the item, to change its settings, permissions, notifications and to force stop or uninstall it.

App Details




Apps have different kinds of information and controls.

- **Force stop** - Stop an app.
- **Disable** - Disable an app.
- **Uninstall** - Remove the app and all of its data and settings from the device.
- **Notifications** - Set the app notification settings.
- **Permissions** - Lists the areas on the device that the app has access to.

- **Storage & cache** - Lists how much information is stored and includes buttons for clearing it.
- **Mobile data & Wi-Fi** - Provides information about data consumed by an app.
- **Advanced**
 - **Screen time** - Displays the amount of time the app has displayed on the screen.
 - **Battery** - Lists the amount of computing power used by the app.
 - **Open by default** - If you have configured an app to launch certain file types by default, you can clear that setting here.
 - **Display over other apps** - Allows an app to display on top of other apps.
 - **App details** - Provides a link to additional app details on the Play store.
 - **Additional settings in the app** - Opens settings in the app.
 - **Modify system settings** - Allows an app to modify the system settings.

Managing Downloads

Files and apps downloaded using the Browser or Email are stored on the Internal storage in the Download directory. Use the Downloads app to view, open, or delete downloaded items.

1. Swipe the screen up and touch .
2. Touch  > **Downloads**.
3. Touch and hold an item, select items to delete and touch . The item is deleted from the device.

Maintenance and Troubleshooting

This section explains how to maintain and troubleshoot the device.

Maintaining the Device

Follow these guidelines to maintain the device properly.

- To avoid scratching the screen, use a Zebra approved capacitive compatible stylus intended for use with a touch-sensitive screen. Never use an actual pen or pencil or other sharp object on the surface of the device screen.
- The touch-sensitive screen of the device is glass. Do not drop the device or subject it to strong impact.
- Protect the device from temperature extremes. Do not leave it on the dashboard of a car on a hot day, and keep it away from heat sources.
- Do not store the device in any location that is dusty, damp, or wet.
- Use a soft lens cloth to clean the device. If the surface of the device screen becomes soiled, clean it with a soft cloth moistened with an approved cleanser.

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 where the device is charged in a non-commercial environment.
- Follow 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 +32°F and +104°F (0°C and +40°C).
- 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 or 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 battery into 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 fire.
- 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 label on alcohol product before using. 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 in accordance with these guidelines.

Approved Cleanser Active Ingredients

100% of the active ingredients in any cleaner must consist of one or some combination of the following: isopropyl alcohol, or mild dish soap.



IMPORTANT: Use pre-moistened wipes and do not allow liquid cleaner to pool.

Approved cleaners include:

- Purell Ethanol Wipes
- 409 Glass Cleaner
- Windex Blue

Harmful Ingredients

The following chemicals are known to damage the plastics on the device and should not come in contact with the device: acetone; ketones; ethers; aromatic and chlorinated hydrocarbons; aqueous or alcoholic alkaline solutions; ethanolamine; toluene; trichloroethylene; benzene; carbolic acid and TB-lysoform.

Many vinyl gloves contain phthalate additives, which are often not recommended for medical use and are known to be harmful to the housing of the device.

Device Cleaning Instructions

Do not apply liquid directly to the device. Dampen a soft cloth or use pre-moistened wipes. Do not wrap the device in the cloth or wipe, instead gently wipe the unit. Be careful not to let liquid pool around the display window or other places. Before use, allow the unit to air dry.



NOTE: For thorough cleaning, it is recommended to first remove all accessory attachments, such as hand straps or cradle cups from the mobile device and to clean them separately.

Special Cleaning Notes

Do not handle the device while wearing vinyl gloves containing phthalates. Remove vinyl gloves and wash hands to eliminate any residue left from the gloves.

If products containing any of the harmful ingredients listed above are used prior to handling the device, such as a hand sanitizer that contains 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 prior to 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 Materials Required

- Alcohol wipes
- Lens tissue
- Cotton-tipped applicators
- Isopropyl alcohol
- Can of compressed air with a tube.

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 makes the device more difficult to clean later on.

Cleaning the Device

This section describes how to clean the housing, display, and camera for the device.

Housing

Thoroughly wipe the housing, including all buttons and triggers, using an approved alcohol wipe.

Display

The display can be wiped down with an approved alcohol wipe, but care should be taken not to allow any pooling of liquid around the edges of the display. Immediately dry the display with a soft, non-abrasive cloth to prevent streaking.

Exit Window

Wipe the exit window periodically with a lens tissue or other material suitable for cleaning optical material such as eyeglasses.

Cleaning Cradle Connectors

1. Remove the DC power cable from the cradle.
2. Dip the cotton portion of the cotton-tipped applicator in isopropyl alcohol.
3. Rub the cotton portion of the cotton-tipped applicator along the pins of the connector. Slowly move the applicator back and forth from one side of the connector to the other. Do not leave any cotton residue on the connector.
4. All sides of the connector should also be rubbed with the cotton-tipped applicator.
5. Remove any lint left by the cotton-tipped applicator.
6. If grease and other dirt can be found on other areas of the cradle, use a lint-free cloth and alcohol to remove.
7. Allow at least 10 to 30 minutes (depending on ambient temperature and humidity) for the alcohol to air dry before applying power to cradle.

If the temperature is low and humidity is high, longer drying time is required. Warm temperature and low humidity requires less drying time.

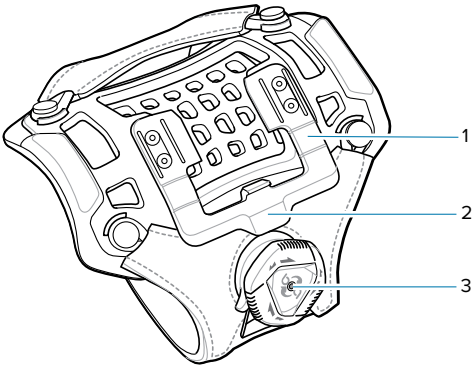


CAUTION: After cleaning the cradle connectors with bleach-based chemicals, follow the Cleaning Cradle Connectors instructions to remove bleach from the connectors.

Cleaning the Wrist Mount

It may be necessary to wash the wrist mount strap and replaceable comfort pad when they become soiled.

Figure 58 Wrist Mount



1	Comfort pad
2	Carriage
3	Strap

- Remove the strap and comfort pad from the wrist mount. Hand wash in cold water with a mild detergent (such as Woolite®). Do not use bleach. Air dry. Do not use a dryer.

Figure 59 Comfort Pad

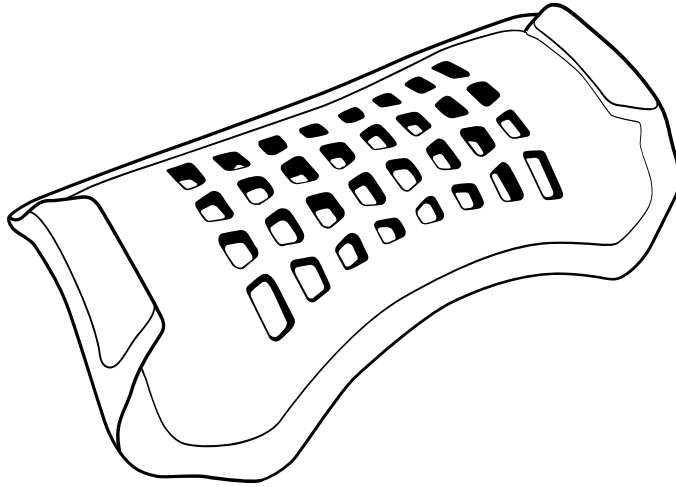


Figure 60 Strap

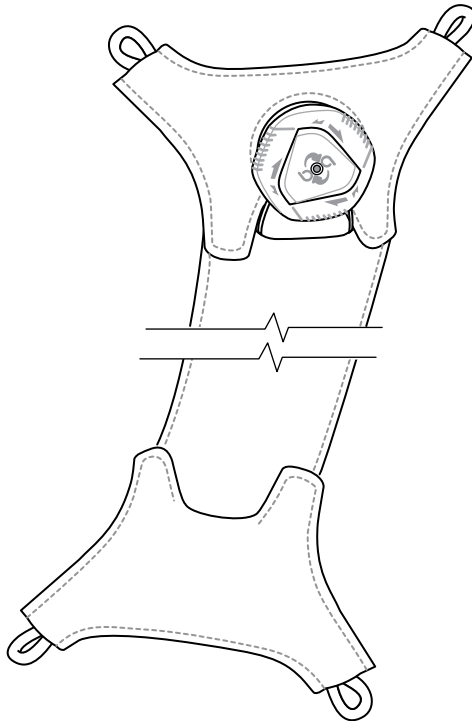
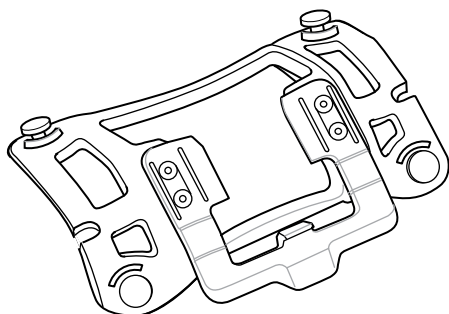


Figure 61 Carriage



Troubleshooting the Device

This section describes how to troubleshoot various issues that a user may encounter while using the device.

Resetting the Device

There are two reset functions, soft reset and hard reset.

Performing a Soft Reset

Perform a soft reset if applications stop responding.

1. Press the **Power** button until the menu appears.
2. Touch **Reset**.

The device reboots.

Performing a Hard Reset

Perform a hard reset only if the device stops responding.

1. Simultaneously press and hold the **Power**, **P1** and **P2** buttons for five seconds.
2. When the screen turns off, release the buttons.

The device reboots.

Troubleshooting the WT6300

This table describes problems, causes, and solutions to troubleshooting the device.

Table 23 Troubleshooting the WT6300

Problem	Cause	Solution
Device does not turn on.	Battery not charged.	Charge or replace the battery in the device.
	Battery not installed properly.	Ensure battery is installed properly. See Installing the Battery on page 20.
	System crash.	Perform a soft reset. If the device still does not turn on, perform a hard reset.
Battery did not charge.	Battery failed.	Replace battery. If the device still does not operate, try a soft reset, then a hard reset.
	Device removed from cradle before charging completed.	Insert the device into the cradle and begin charging. The battery fully charges in approximately four hours.

Table 23 Troubleshooting the WT6300 (Continued)

Problem	Cause	Solution
	Ambient temperature of the cradle is too warm or too cold.	The ambient temperature must be between 0°C and 40°C (32 °F and 104°F).
During data communication, no data was transmitted, or transmitted data was incomplete.	Device unplugged from host computer during communication.	Reconnect the programming cable to the host computer and re-transmit.
	Communication software was incorrectly installed or configured.	See system administrator.
Device turns itself off.	Device is inactive.	The device turns off after a period of inactivity. If the device is running on battery power, this period can be set to 15 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes, or 30 minutes. Change the setting if you need a longer delay before the automatic shutoff feature activates.
	Battery is depleted.	Place the device in the cradle to re-charge the battery.
	Battery is not inserted properly.	Insert the battery properly. See Installing the Battery on page 20.
	The devices' battery is low and it powers down to protect memory content.	Place the device in the cradle to re-charge the battery.
A message appears stating that the devices' memory is full.	Too many files stored on the device.	Delete unused memos and records. You can save these records on the host computer.
	Too many applications installed on the device.	If you have installed additional applications on the device, remove them to recover memory.
The device does not accept scan input from optional scanner.	Unreadable bar code.	Ensure the symbol is not defaced.
	Distance between scanner exit window and bar code is incorrect.	Move the scanner closer or further from the bar code to the proper scanning range.
	Device is not programmed for the bar code.	Verify that the device can read the type of bar code being scanned. Ensure that the bar code parameters are set properly for the bar code being scanned.
	Device is not programmed to generate a beep.	Verify that a beep on a good decode is used.

Table 23 Troubleshooting the WT6300 (Continued)

Problem	Cause	Solution
During USB data communications, no data was transmitted, or transmitted data was incomplete.	Incorrect cable connection.	See the Accessories on page 90 section.
	Communications software is not installed or configured properly.	Perform setup as described in the Accessories on page 90 section.

1-Slot Charging Cradle

Table 24 Troubleshooting the 1-Slot Charging Cradle

Symptom	Possible Cause	Action
LEDs do not light when device or spare battery is inserted.	Cradle is not receiving power.	Ensure the power cable is connected securely to both the cradle and to AC power.
	Device is not seated firmly in the cradle.	Remove and re-insert the device into the cradle, ensuring it is firmly seated.
	Spare battery is not seated firmly in the cradle.	Remove and re-insert the spare battery into the charging slot, ensuring it is firmly seated.
Device battery is not charging.	Device was removed from cradle or cradle was unplugged from AC power too soon.	Ensure cradle is receiving power. Ensure device is seated correctly. Confirm main battery is charging. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.
	The device is not fully seated in the cradle.	Remove and re-insert the device into the cradle, ensuring it is firmly seated.
	Extreme battery temperature.	Battery does not charge if ambient temperature is below 0°C (32°F) or above 40°C (104°F).
Spare battery is not charging.	Battery not fully seated in charging slot.	Remove and re-insert the spare battery in the cradle, ensuring it is firmly seated. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery inserted incorrectly.	Re-insert the battery so the charging contacts on the battery align with the contacts on the cradle.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.

2-Slot Device/RS6000 Charging Cradle

Table 25 Troubleshooting the 2-Slot Device/RS6000 Charging Cradle

Symptom	Possible Cause	Action
LEDs do not light when device or scanner is inserted.	Cradle is not receiving power.	Ensure the power cable is connected securely to both the cradle and to AC power.
	Device is not seated firmly in the cradle.	Remove and re-insert the device into the cradle, ensuring it is firmly seated.
	Scanner is not seated firmly in the cradle.	Remove and re-insert the scanner into the charging slot, ensuring it is firmly seated.
Device battery is not charging.	Device was removed from cradle or cradle was unplugged from AC power too soon.	Ensure cradle is receiving power. Ensure device is seated correctly. Confirm main battery is charging. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.
	The device is not fully seated in the cradle.	Remove and re-insert the device into the cradle, ensuring it is firmly seated.
	Extreme battery temperature.	Battery does not charge if ambient temperature is below 0°C (32°F) or above 40°C (104°F).
Scanner battery is not charging.	Scanner was removed from cradle or cradle was unplugged from AC power too soon.	Ensure cradle is receiving power. Ensure scanner is seated correctly. Confirm main battery is charging.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.

5-Slot Charge Only Cradle

Table 26 Troubleshooting the 5-Slot Charge Only Cradle

Problem	Cause	Solution
Battery is not charging.	Device removed from the cradle too soon.	Replace the device in the cradle. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.
	Device is not inserted correctly in the cradle.	Remove the device and reinsert it correctly. Verify charging is active. Touch > System > About phone > Status to view battery status.
	Ambient temperature of the cradle is too warm.	Move the cradle to an area where the ambient temperature is between 0°C (32°F) or above 40°C (104°F).

Table 26 Troubleshooting the 5-Slot Charge Only Cradle (Continued)

Problem	Cause	Solution
Spare Battery not charging.	Charger is not receiving power.	Ensure the power cable is connected securely to both the charger and to AC power.
	Spare battery is not correctly seated.	Remove and re-insert the battery into the battery adapter, ensuring it is correctly seated.
	Battery adapter is not seated properly.	Remove and re-insert the battery adapter into the charger, ensuring it is correctly seated.
	Battery was removed from the charger or charger was unplugged from AC power too soon.	Ensure charger is receiving power. Ensure the spare battery is seated correctly. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.

10-Slot Device/RS6000 Charge Only Cradle

Table 27 Troubleshooting the 10-Slot Device/RS6000 Charge Only Cradle

Problem	Cause	Solution
Battery is not charging.	Device removed from the cradle too soon.	Replace the device in the cradle. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.
	Device is not inserted correctly in the cradle.	Remove the device and reinsert it correctly. Verify charging is active. Touch > System > About phone > Status to view battery status.
	Ambient temperature of the cradle is too warm.	Move the cradle to an area where the ambient temperature is between 0°C (+32°F) and +40°C (+104°F).

10-Slot Charge Only Cradle

Table 28 Troubleshooting the 10-Slot Charge Only Cradle

Problem	Cause	Solution
Battery is not charging.	Device removed from the cradle too soon.	Replace the device in the cradle. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.
	Device is not inserted correctly in the cradle.	Remove the device and reinsert it correctly. Verify charging is active. Touch > System > About phone > Status to view battery status.
	Ambient temperature of the cradle is too warm.	Move the cradle to an area where the ambient temperature is between 0°C (+32°F) and +40°C (+104°F).

5-Slot Ethernet Cradle

Table 29 Troubleshooting the 5-Slot Ethernet Cradle

Problem	Cause	Solution
During communication, no data transmits, or transmitted data was incomplete.	Device removed from cradle during communications.	Replace device in cradle and retransmit.
	Incorrect cable configuration.	Ensure that the correct cable configuration.
	Device has no active connection.	An icon is visible in the status bar if a connection is currently active.
Battery is not charging.	Device removed from the cradle too soon.	Replace the device in the cradle. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.
	Device is not inserted correctly in the cradle.	Remove the device and reinsert it correctly. Verify charging is active. Touch > System > About phone > Status to view battery status.
	Ambient temperature of the cradle is too warm.	Move the cradle to an area where the ambient temperature is between 0°C (+32°F) and +40°C (+104°F).

4-Slot Spare Battery Charger

Table 30 Troubleshooting the 4-Slot Battery Charger

Problem	Cause	Solution
Spare Battery Charging LED does not light when spare battery is inserted.	Spare battery is not correctly seated.	Remove and re-insert the spare battery into the charging slot, ensuring it is correctly seated.
Spare Battery not charging.	Charger is not receiving power.	Ensure the power cable is connected securely to both the charger and to AC power.
	Spare battery is not correctly seated.	Remove and re-insert the battery into the battery adapter, ensuring it is correctly seated.
	Battery adapter is not seated properly.	Remove and re-insert the battery adapter into the charger, ensuring it is correctly seated.
	Battery was removed from the charger or charger was unplugged from AC power too soon.	Ensure charger is receiving power. Ensure the spare battery is seated correctly. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.

20-Slot Spare Battery Charger

Table 31 Troubleshooting the 20-Slot Battery Charger

Problem	Cause	Solution
Spare Battery Charging LED does not light when spare battery is inserted.	Spare battery is not correctly seated.	Remove and re-insert the spare battery into the charging slot, ensuring it is correctly seated.
Spare Battery not charging.	Charger is not receiving power.	Ensure the power cable is connected securely to both the charger and to AC power.
	Spare battery is not correctly seated.	Remove and re-insert the battery into the battery adapter, ensuring it is correctly seated.
	Battery adapter is not seated properly.	Remove and re-insert the battery adapter into the charger, ensuring it is correctly seated.

Table 31 Troubleshooting the 20-Slot Battery Charger (Continued)

Problem	Cause	Solution
	Battery was removed from the charger or charger was unplugged from AC power too soon.	Ensure charger is receiving power. Ensure the spare battery is seated correctly. The standard battery charges from fully depleted to 90% in approximately 4 hours, and the extended battery charges from fully depleted to 90% in approximately 5.5 hours.
	Battery is faulty.	Verify that other batteries charge properly. If so, replace the faulty battery.

Specifications

For device technical specifications, go to www.zebra.com.

Data Capture Options

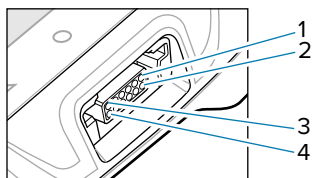
The data capture options available in the device are described in this table.

Table 32 Data Capture Options

Item	Description
1D Bar Codes	Chinese 2 of 5, Codabar, Code 11, Code 128, Code 39, Code 93, Discrete 2 of 5, EAN-8, EAN-13, GS1 DataBar, GS1 DataBar 14, GS1 DataBar Expanded GS1, GS1 DataBar Limited, Interleaved 2 of 5, Korean 2 of 5, Matrix 2 of 5, MSI, TLC39, Trioptic 39, UPCA, UPCE, UPCE1
2D Bar Codes	Australian Postal, Aztec, Canadian Postal, Composite AB, Composite C, Data Matrix, Dutch Postal, HAN XIN, Japanese Postal, Mail Mark, Maxi Code, Micro PDF-417, microQR, PDF-417, QR Code, US Planet, UK Postal, US Postnet, USPS 4-state (US4CB), US4state FICS

I/O Connector Pin-Outs

Figure 62 I/O Connector Pin-Outs



1	Pin 1
2	Pin 2
3	Pin 11
4	Pin 12

Table 33 I/O Connector Pin-Outs

Pin	Signal	Description
1	GND	Ground
2	DETECT	Detects connected accessory
3	RX	UART Rx signal (scanner)
4	PWR_OUT	Power output (scanner)
5	USB_PWR PWR_OUT	USB VBUS Power (cradles) Power output (scanner and vibrator cable)
6	USB_ID UART_CTS MIC	USB ID pin (cradles) UART_CTS (scanner) Microphone input (wired headset)
7	PWR_IN	Input power (cradles)
8	PWR_IN	Input power (cradles)
9	TX SPEAKER VIBRATOR	UART Tx signal (cradles and scanner) Audio out (wired headset) Vibrator control signal (vibrator)
10	USB_D+ HW_TRIG PTT	USB Data D+ (cradles) Scan trigger detect (scanner) Push-to-Talk signal (wired headset)
11	USB_D- UART_RTS	USB Data D- (cradles) UART RTS signal (scanner)
12	GND	Ground

1-Slot USB Charging Cradle Technical Specifications

Table 34 1-Slot USB Charging Cradle Technical Specifications

Item	Description
Dimensions	Height: 81.8 mm (3.22 in.) Width: 97.5 mm (3.84 in.) Depth: 134.5 mm (5.30 in.)
Weight	424 g (15.0 oz.)
Input Voltage	12 VDC
Power Consumption	11.8 watts
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)

Table 34 1-Slot USB Charging Cradle Technical Specifications (Continued)

Item	Description
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10 kV contact +/- 10 kV indirect discharge

2-Slot Device/RS6000 Charging Cradle Technical Specifications

Table 35 2-Slot Device/RS6000 Charging Cradle Technical Specifications

Item	Description
Dimensions	Height: 81.8 mm (3.22 in.) Width: 97.5 mm (3.84 in.) Depth: 134.5 mm (5.30 in.)
Weight	448 g (15.8 oz.)
Input Voltage	12 VDC
Power Consumption	13.7 watts
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	0% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

5-Slot Charge Only Cradle Technical Specifications

Table 36 5-Slot Charge Only Cradle Technical Specifications

Item	Description
Dimensions	Height: 86.3 mm (3.39 in.) Width: 489.0 mm (19.25 in.) Depth: 134.5 mm (5.30 in.)
Weight	2,228 g (78.6 oz.)

Table 36 5-Slot Charge Only Cradle Technical Specifications (Continued)

Item	Description
Input Voltage	12 VDC
Power Consumption	64.0 watts
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	0% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

10-Slot Device/RS6000 Charge Only Cradle Technical Specifications

Table 37 10-Slot Device/RS6000 Charge Only Cradle Technical Specifications

Item	Description
Dimensions	Height: 86.3 mm (3.39 in.) Width: 489.0 mm (19.25 in.) Depth: 134.5 mm (5.30 in.)
Weight	2,164 g (76.33 oz.)
Input Voltage	12 VDC
Power Consumption	65.8 watts
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

10-Slot Charge Only Cradle Technical Specifications

Table 38 10-Slot Charge Only Cradle Technical Specifications

Item	Description
Dimensions	Height: 86.3 mm (3.4 in.) Width: 489 mm (19.25 in.) Depth: 134.5 mm (5.3 in.)
Weight	2.2 kg (78.25 oz.)
Input Voltage	12 VDC
Power Consumption	71 watts
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

5-Slot Ethernet Cradle Technical Specifications

Table 39 5-Slot Ethernet Cradle Technical Specifications

Item	Description
Dimensions	Height: 86.3 mm (3.4 in.) Width: 489 mm (19.25 in.) Depth: 134.5 mm (5.3 in.)
Weight	2.2 kg (78.6 oz.)
Input Voltage	12 VDC
Power Consumption	65.5 watts
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.

Table 39 5-Slot Ethernet Cradle Technical Specifications (Continued)

Item	Description
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

4-Slot Battery Charger Technical Specifications

Table 40 4-Slot Battery Charger Technical Specifications

Item	Description
Dimensions	Height: 62.4 mm (3.5 in.) Width: 97.5 mm (3.8 in.) Depth: 134.5 mm (5.3 in.)
Weight	422 g (14.9 oz.)
Input Voltage	12 VDC
Power Consumption	16.4 watts
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

20-Slot Battery Charger Technical Specifications

Table 41 20-Slot Battery Charger Technical Specifications

Item	Description
Dimensions	Height: 66.9 mm (2.6 in.) Width: 489 mm (19.25 in.) Depth: 134.5 mm (5.3 in.)
Weight	2.2 kg (76.6 oz.)
Input Voltage	12 VDC
Power Consumption	97.8 watts

Table 41 20-Slot Battery Charger Technical Specifications (Continued)

Item	Description
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact +/- 10kV indirect discharge

USB and Charging Cable Technical Specifications

Table 42 USB and Charging Cable Technical Specifications

Item	Description
Length	160.3 cm (63 in.)
Input Voltage	5.4 VDC (external power supply)
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	10% to 95% non-condensing
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact

Short Quick Disconnect Headset Adapter Cable Technical Specifications

Table 43 Short Quick Disconnect Headset Adapter Cable Technical Specifications

Item	Description
Length	22.0 cm (8.7 in.)
Input Voltage	5.4 VDC
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	10% to 95% non-condensing
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact

Long Quick Disconnect Headset Adapter Cable Technical Specifications

Table 44 Long Quick Disconnect Headset Adapter Cable Technical Specifications

Item	Description
Length	47.5 cm (18.7 in.)
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	10% to 95% non-condensing
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact

Vibrator Cable Technical Specifications

Table 45 Vibrator Cable Technical Specifications

Item	Description
Length	31.8 cm (12.5 in.)
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	10% to 95% non-condensing
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10kV contact

