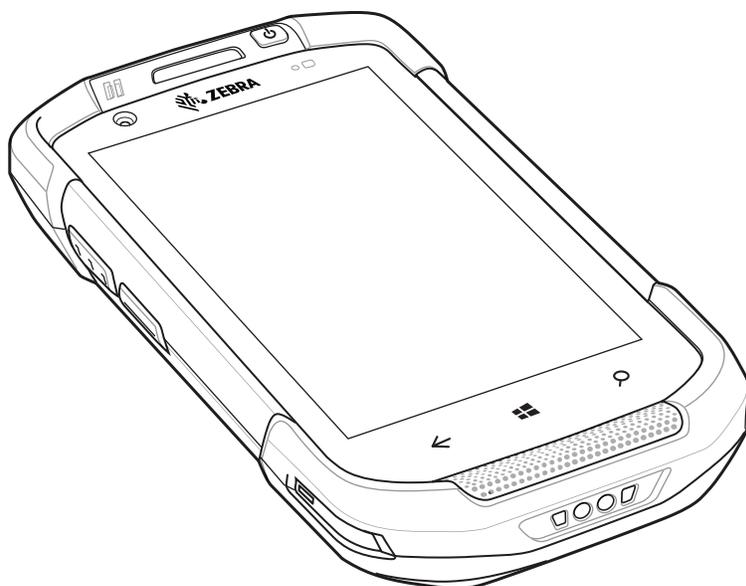




# TC70x



## Touch Computer

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### Quick Start Guide with Windows 10 IoT Mobile Enterprise



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## Introduction

This guide provides information about using the TC70x touch computer running Microsoft Windows 10 IoT Mobile Enterprise and accessories.

## Features

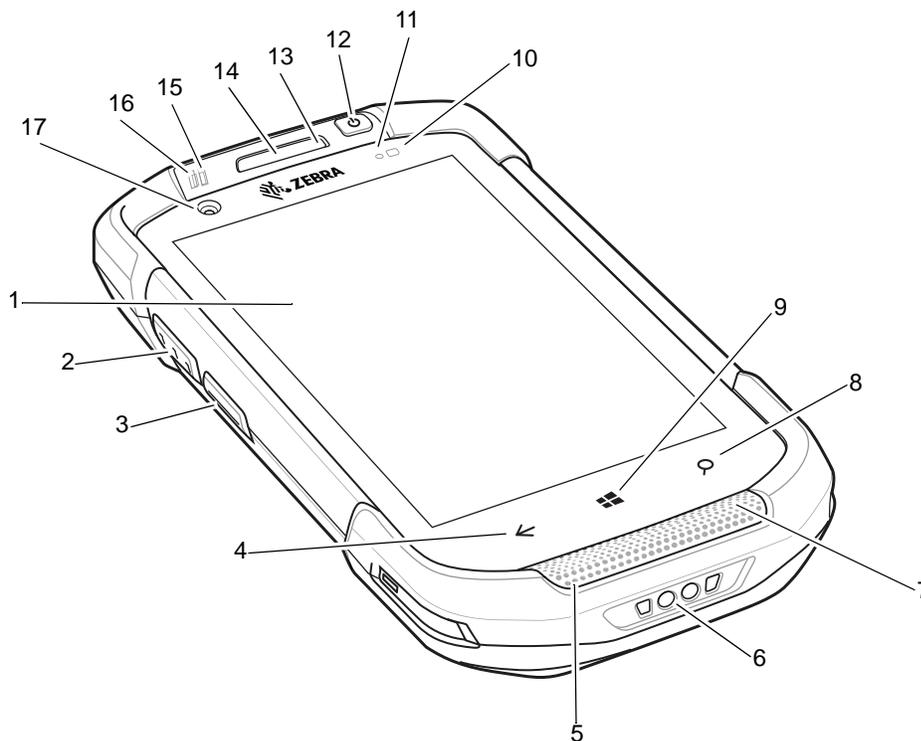


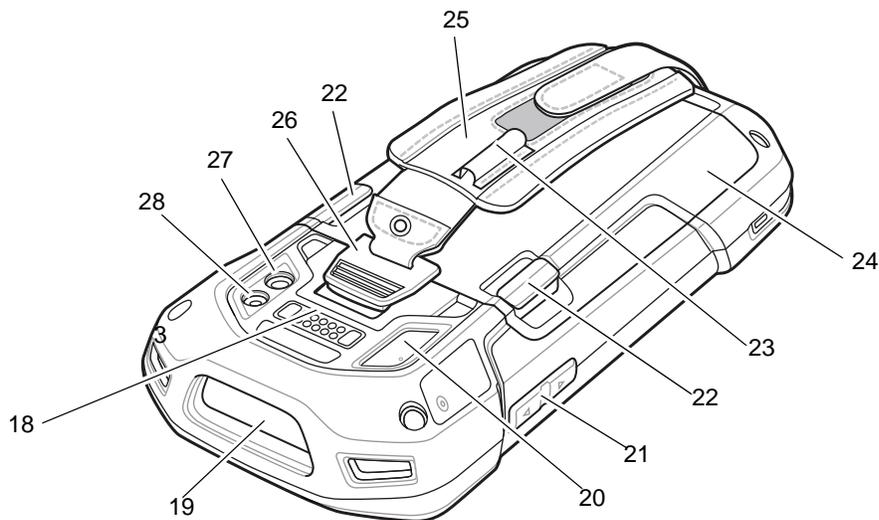
Figure 1 TC70x Front View

Table 1 Front View Features

Number	Item	Function
1	Touch Screen	Displays all information needed to operate the TC70x.
2	Scan Button	Initiates data capture (programmable).
3	Programmable Button	Application dependent.
4	Back Button	Displays the previous screen.
5	Microphone	Use for communications in Handset mode.
6	Charging Contacts	Provides power to the device from cables and cradles.
7	Speaker	Provides audio output for video and music playback. Provides audio in speakerphone mode.
8	Search Button	Opens the search application.

**Table 1** Front View Features (Continued)

Number	Item	Function
9	Start Button	Displays the Home screen with a single press.
10	Light Sensor	Determines ambient light for controlling display backlight intensity.
11	Proximity Sensor	Determines proximity for turning off display when in handset mode.
12	Power Button	Turns the display on and off. Press and hold to reset the device or power off.
13	Microphone	Use for communications in Speakerphone mode.
14	Receiver	Use for audio playback in Handset mode.
15	Charging/Notification LED	Indicates battery charging status while charging and application generated notifications..
16	Data Capture LED	Indicates data capture status.
17	Front Facing Camera	Use to take photos and videos.



**Figure 2** TC70x Rear View

**Table 2** Back View Features

Number	Item	Function
18	Interface Connector	Provides USB host and client communications, audio and device charging via cables and accessories.
19	Exit Window	Provides data capture using the imager.
20	Microphone	Use during video recording and for noise cancellation.
21	Volume Up/Down Button	Increase and decrease audio volume.

**Table 2** *Back View Features (Continued)*

Number	Item	Function
22	Battery Release Latches	Press to remove the battery.
23	Elastic Sleeve	Use to hold optional stylus.
24	Battery	Provides power to the device.
25	Hand strap	Use to securely hold the device in your hand.
26	Hand strap Mounting Point	Provides latching point for the hand strap.
27	Camera	Takes photos and videos.
28	Camera Flash	Provides illumination for the camera.

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## Turn On the Device

Press the power key for about five seconds until the boot screen appears.

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## Turn Off the Device

To turn off the device:

1. Press and hold the power key.
2. Drag the lock screen down.

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## Setup

Perform these procedures to start using the TC70x for the first time.

1. Install a micro secure digital (SD) card (optional).
2. Install hand strap (optional).
3. Install the battery.
4. Charge the TC70x.
5. Power on the TC70x.

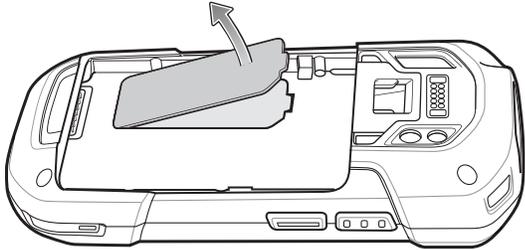
### Installing a microSD Card

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



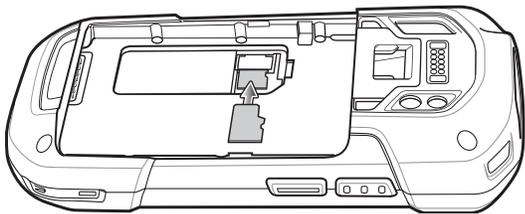
**CAUTION** Follow proper electrostatic discharge (ESD) precautions to avoid damaging the microSD card. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring that the operator is properly grounded.

1. Remove the hand strap, if installed.
2. Lift the access door.



**Figure 3** *Lift Access Door*

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



**Figure 4** *Insert microSD Card in Holder*

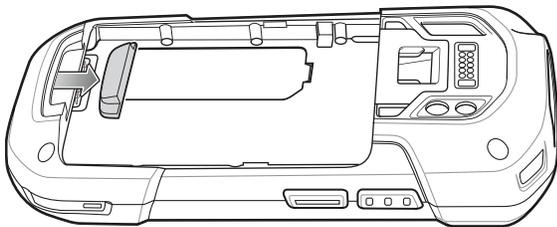
4. Re-install the access door.

### Installing the Hand Strap and Battery



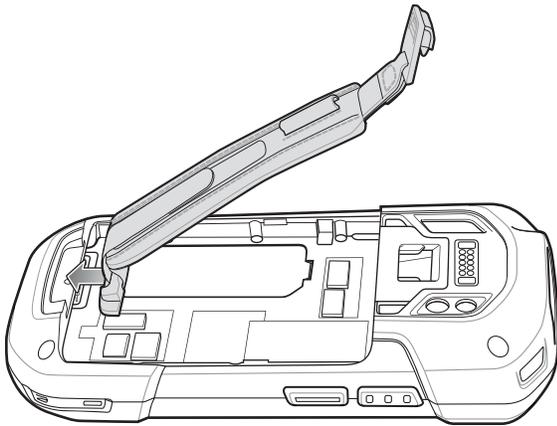
**NOTE** Installation of the hand strap is optional. Skip this section if not installing the hand strap.

1. Remove the hand strap filler from the hand strap slot. Store the hand strap filler in a safe place for future replacement.



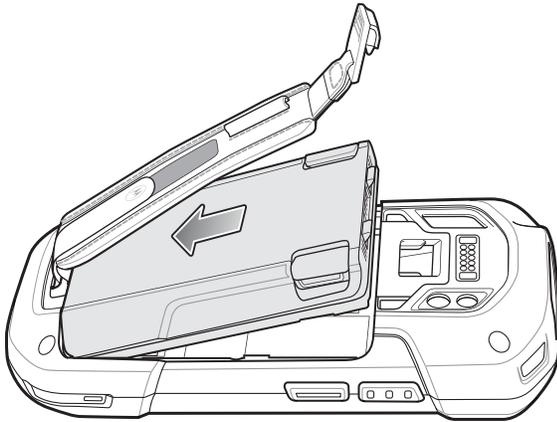
**Figure 5** *Remove Filler*

2. Insert the hand strap plate into the hand strap slot.



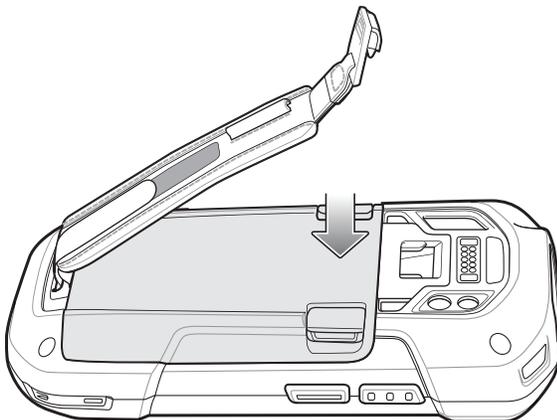
**Figure 6** *Insert Hand Strap*

3. Insert the battery, bottom first, into the battery compartment in the back of the TC70x.



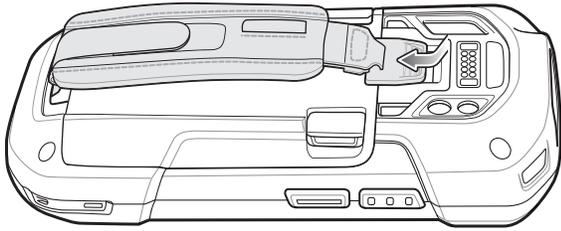
**Figure 7** *Insert Bottom of Battery into Battery Compartment*

4. Rotate the top of the battery into the battery compartment.
5. Press the battery down into the battery compartment until the battery release latches snap into place.



**Figure 8** *Press Down on Battery*

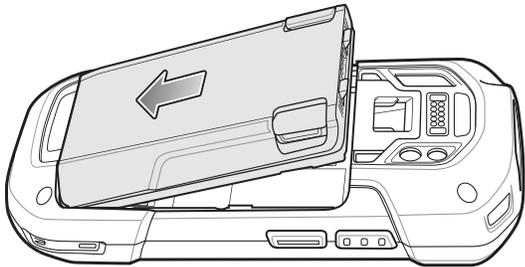
6. Place hand strap clip into hand strap mounting slot and pull down until it snaps into place.



**Figure 9** *Secure Hand Strap Clip*

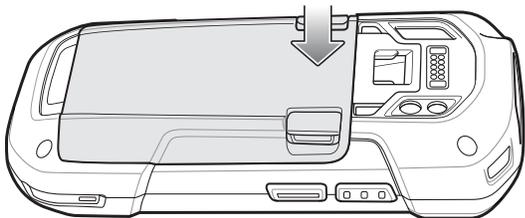
### Installing the Battery

1. Insert the battery, bottom first, into the battery compartment in the back of the TC70x.



**Figure 10** *Insert Bottom of Battery into Battery Compartment*

2. Rotate the top of the battery into the battery compartment.
3. Press the battery down into the battery compartment until the battery release latches snap into place.



**Figure 11** *Press Down on Battery*

### Charging the Battery

Before using the TC70x for the first time, charge the main battery until the green Charging/Notification light emitting diode (LED) remains lit. To charge the TC70x, use a cable or a cradle with the appropriate power supply. For information about the accessories available for the TC70x, refer to the *TC70x Touch Computer User Guide for Windows 10 IoT Mobile Enterprise*.

- Snap-On USB Cable
- Charging Cable Cup
- 2-Slot Charge Only Cradle
- 2-Slot USB/Ethernet Cradle
- 5-Slot Charge Only Cradle
- 5-Slot Ethernet Cradle
- Charge Only Vehicle Cradle

- TC7X Vehicle Communication Cradle
- Auto Charging Cable Cup.
- Serial Cable Cup

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

Charge batteries in temperatures from 0°C to 40°C (32°F to 104°F). The TC70x or accessory always performs battery charging in a safe and intelligent manner. At higher temperatures (e.g. approximately +37°C (+98°F)) the TC70x or accessory may for small periods of time alternately enable and disable battery charging to keep the battery at acceptable temperatures. The TC70x or accessory indicates when charging is disabled due to abnormal temperatures via its LED.

1. To charge the main battery, connect the charging accessory to the appropriate power source.
2. Insert the TC70x into a cradle or attach to a cable. The TC70x turns on and begins charging. The Charging/Notification LED blinks amber while charging, then turns solid green when fully charged.

## Charging Indicators

**Table 3** Charging/Notification LED Charging Indicators

State	Indication
Off	TC70x is not charging. TC70x is not inserted correctly in the cradle or connected to a power source. Charger/cradle is not powered.
Slow Blinking Amber (1 blink every 2 seconds)	TC70x is charging.
Solid Green	Charging complete.
Fast Blinking Amber (2 blinks/second)	Charging error, e.g.: <ul style="list-style-type: none"> <li>• Temperature is too low or too high.</li> <li>• Charging has gone on too long without completion (typically eight hours).</li> </ul>
Slow Blinking Red (1 blink every 2 seconds)	TC70x is charging but the battery is at end of useful life.
Solid Red	Charging complete but the battery is at end of useful life.
Fast Blinking Red (2 blinks/second)	Charging error but the battery is at end of useful life., e.g.: <ul style="list-style-type: none"> <li>• Temperature is too low or too high.</li> <li>• Charging has gone on too long without completion (typically eight hours).</li> </ul>

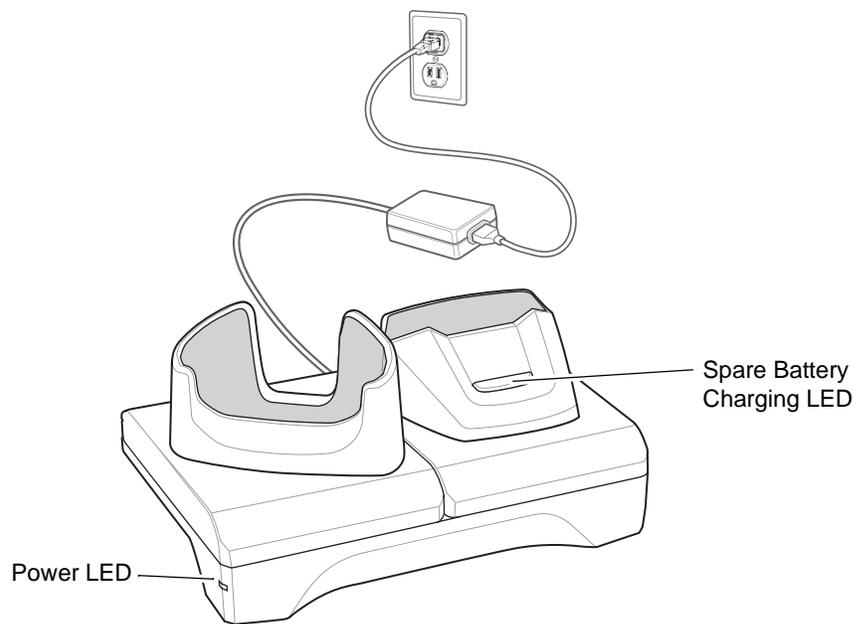
## 2-Slot Charge Only Cradle



**CAUTION** Ensure that you follow the guidelines for battery safety described in TC70x User Guide.

The 2-Slot Charge Only Cradle:

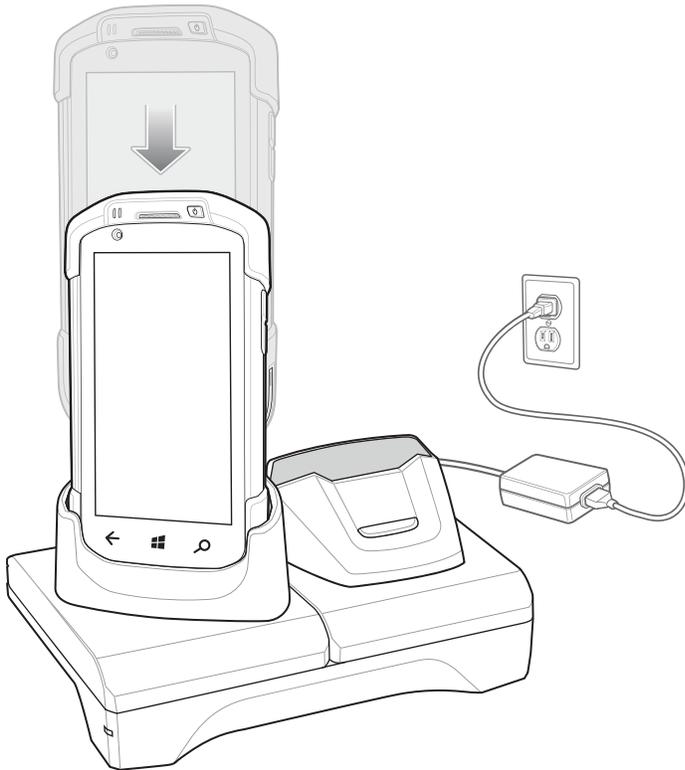
- Provides 5 VDC power for operating the device.
- Charges the device's battery.
- Charges a spare battery.



**Figure 12** 2-Slot Charge Only Cradle

### Charging the Device

1. Insert the device into the slot to begin charging.

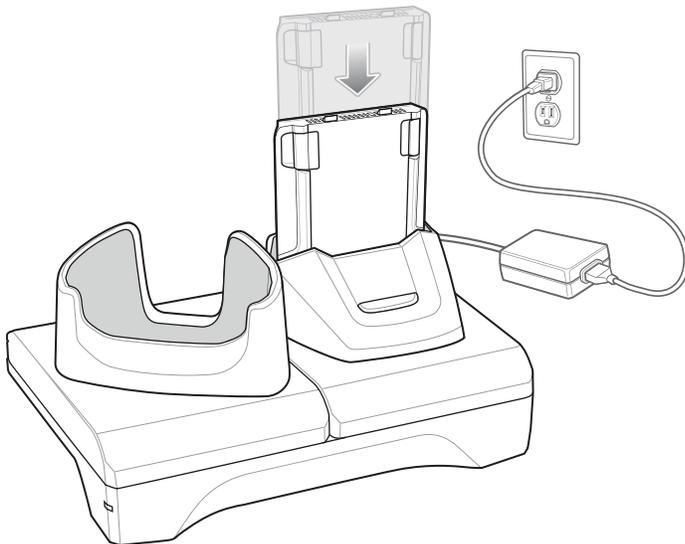


**Figure 13** *Battery Charging*

2. Ensure the device is seated properly.

## Charging the Spare Battery

1. Insert the battery into the right slot to begin charging.



**Figure 14** *Spare Battery Charging*

2. Ensure the battery is seated properly.

## Battery Charging

### Main Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

### Spare Battery Charging

The Spare battery Charging LED on the cup indicates the status of the spare battery charging.

The 4,620 mAh fully depleted battery fully charges in less than six hours at room temperature.

**Table 4** Spare Battery Charging LED Indicators

LED	Indication
Slow Blinking Amber	Spare battery is charging.
Solid Green	Charging complete.
Fast Blinking Amber	Error in charging; check placement of spare battery.
Slow Blinking Red	Spare battery is charging and battery is at the end of useful life.
Solid Red	Charging complete and battery is at the end of useful life.
Fast Blinking Red	Error in charging; check placement of spare battery and battery is at the end of useful life.
Off	No spare battery in slot; spare battery not placed correctly; cradle is not powered.

### 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 (e.g. 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.

## 2-Slot USB/Ethernet Cradle



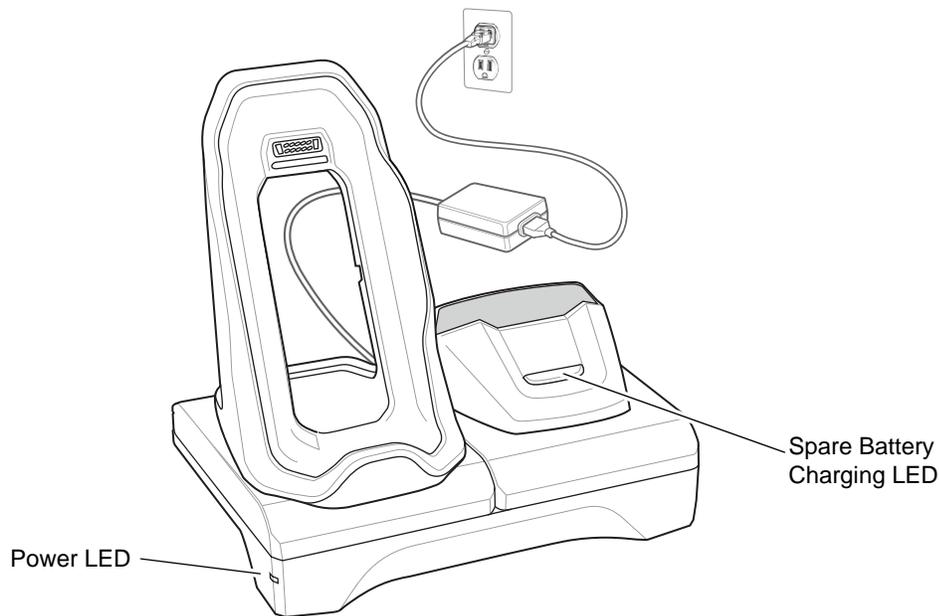
**CAUTION** Ensure that you follow the guidelines for battery safety described in TC70x User Guide.

The 2-Slot USB/Ethernet Cradle:

- Provides 5.0 VDC power for operating the device.
- Charges the device's battery.
- Charges a spare battery.
- Connects the device to an Ethernet network.
- Provides communication to a host computer using a USB cable.



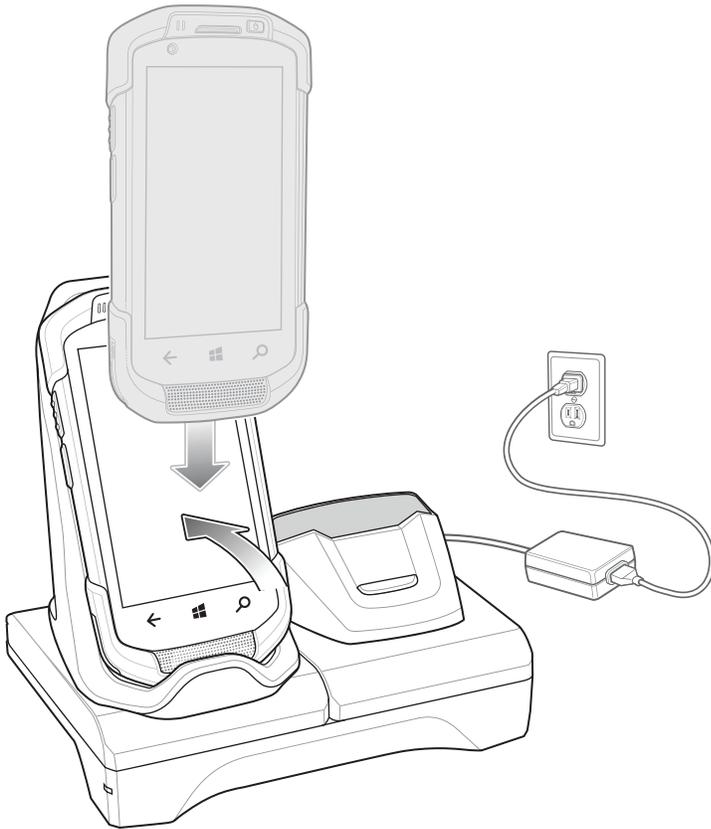
**NOTE** Remove all attachments on the device, except the hand strap, before place onto the cradle.



**Figure 15** 2-Slot USB/Ethernet Cradle

### Charging the Device

1. Place the bottom of the device into the base.



**Figure 16** *Battery Charging*

2. Rotate the top of the device until the connector on the back of the device mates with the connector on the cradle.
3. Ensure the device is connected properly. The charging Charging/Notification LED on the device begins blinking amber indicating that the device is charging.

## **Charging the Spare Battery**

1. Insert the battery into the right slot to begin charging.



**Figure 17** Spare Battery Charging

2. Ensure the battery is seated properly.

## Battery Charging

### Main Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

### Spare Battery Charging

The Spare battery Charging LED on the cup indicates the status of the spare battery charging.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

**Table 5** Spare Battery Charging LED Indicators

LED	Indication
Slow Blinking Amber	Spare battery is charging.
Solid Green	Charging complete.
Fast Blinking Amber	Error in charging; check placement of spare battery.
Slow Blinking Red	Spare battery is charging and battery is at the end of useful life.
Solid Red	Charging complete and battery is at the end of useful life.

**Table 5** Spare Battery Charging LED Indicators (Continued)

LED	Indication
Fast Blinking Red	Error in charging; check placement of spare battery and battery is at the end of useful life.
Off	No spare battery in slot; spare battery not placed correctly; cradle is not powered.

### 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 (e.g. 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.

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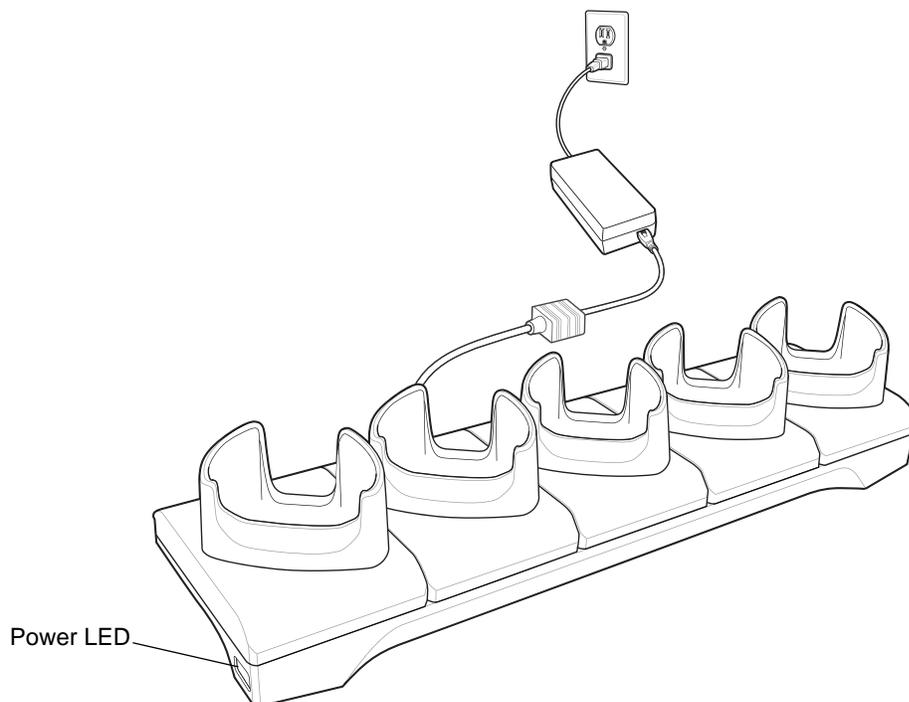
## 5-Slot Charge Only Cradle



**CAUTION** Ensure that you follow the guidelines for battery safety described in TC70x User Guide.

The 5-Slot Charge Only Cradle:

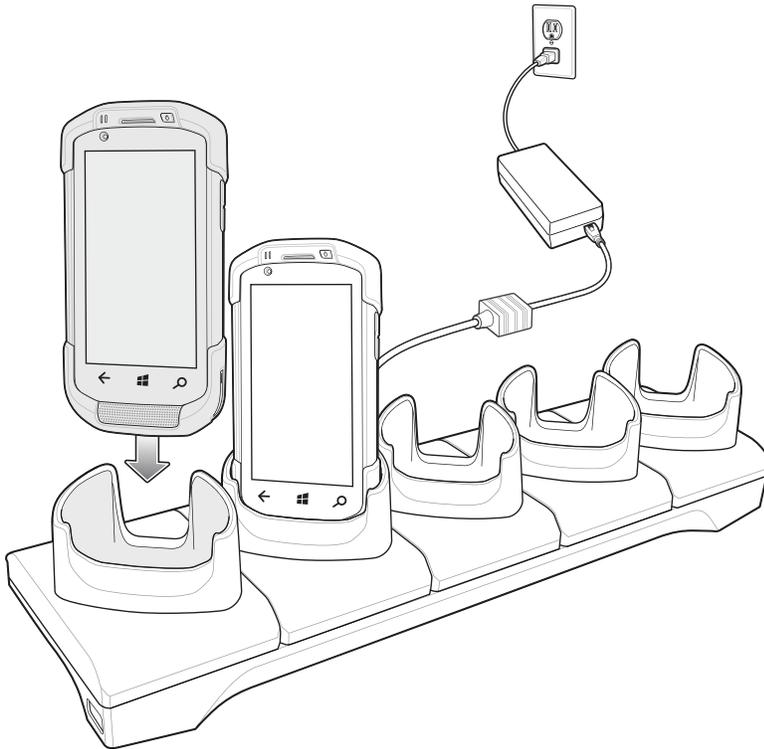
- Provides 5 VDC power for operating the TC70x.
- Simultaneously charges up to five TC70s and up to four TC70s and on 4-Slot Battery Charger using the Battery Charger Adapter. See the *TC70x Integrator Guide* for information on installing the 4-Slot Battery Charger onto the cradle.
- Consists of a cradle base and cups that can be configured for various charging requirements.



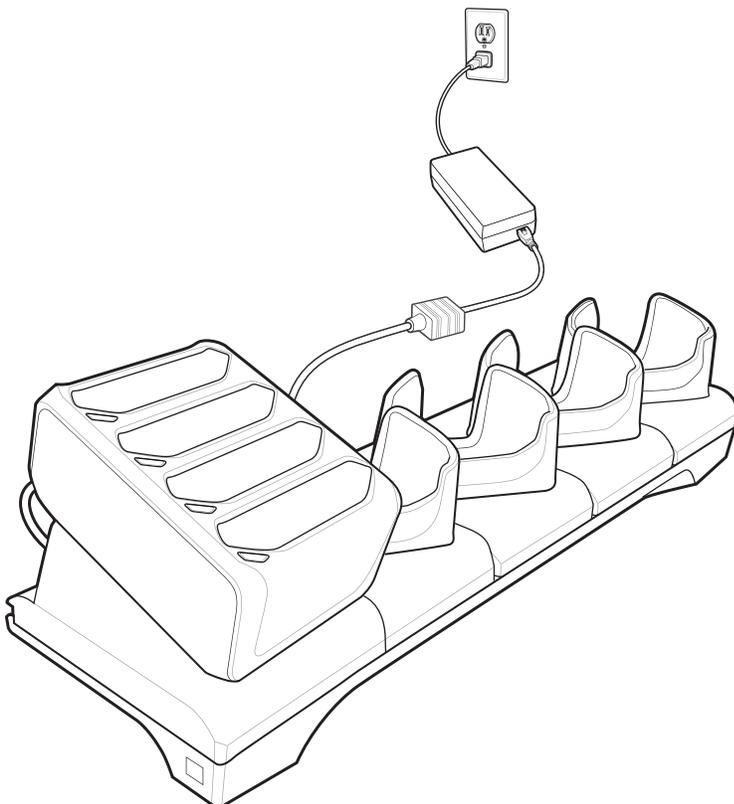
**Figure 18** 5-Slot Charge Only Cradle

### Charging the TC70

1. Insert the TC70x into a slot to begin charging.



**Figure 19** *TC70x Battery Charging*



**Figure 20** *5-Slot Charge Only Cradle with Four Slot Battery Charger*

2. Ensure the TC70x is seated properly.

See the *TC70x Integrator Guide* for information on installing the 4-Slot Battery Charger onto the cradle.

## Battery Charging

### Main Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

### Spare Battery Charging

The Spare battery Charging LED on the cup indicates the status of the spare battery charging.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

**Table 6** Spare Battery Charging LED Indicators

LED	Indication
Slow Blinking Amber	Spare battery is charging.
Solid Green	Charging complete.
Fast Blinking Amber	Error in charging; check placement of spare battery.
Slow Blinking Red	Spare battery is charging and battery is at the end of useful life.
Solid Red	Charging complete and battery is at the end of useful life.
Fast Blinking Red	Error in charging; check placement of spare battery and battery is at the end of useful life.
Off	No spare battery in slot; spare battery not placed correctly; cradle is not powered.

### 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 (e.g. 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.

## 5-Slot Ethernet Cradle



**CAUTION** Ensure that you follow the guidelines for battery safety described in TC70x User Guide.

The 5-Slot Ethernet Cradle:

- Provides 5.0 VDC power for operating the device.
- Connects the device (up to five) to an Ethernet network.
- Simultaneously charges up to five TC70s and up to four TC70s and on 4-Slot Battery Charger using the Battery Charger Adapter. See the *TC70x Integrator Guide* for information on installing the 4-Slot Battery Charger onto the cradle.

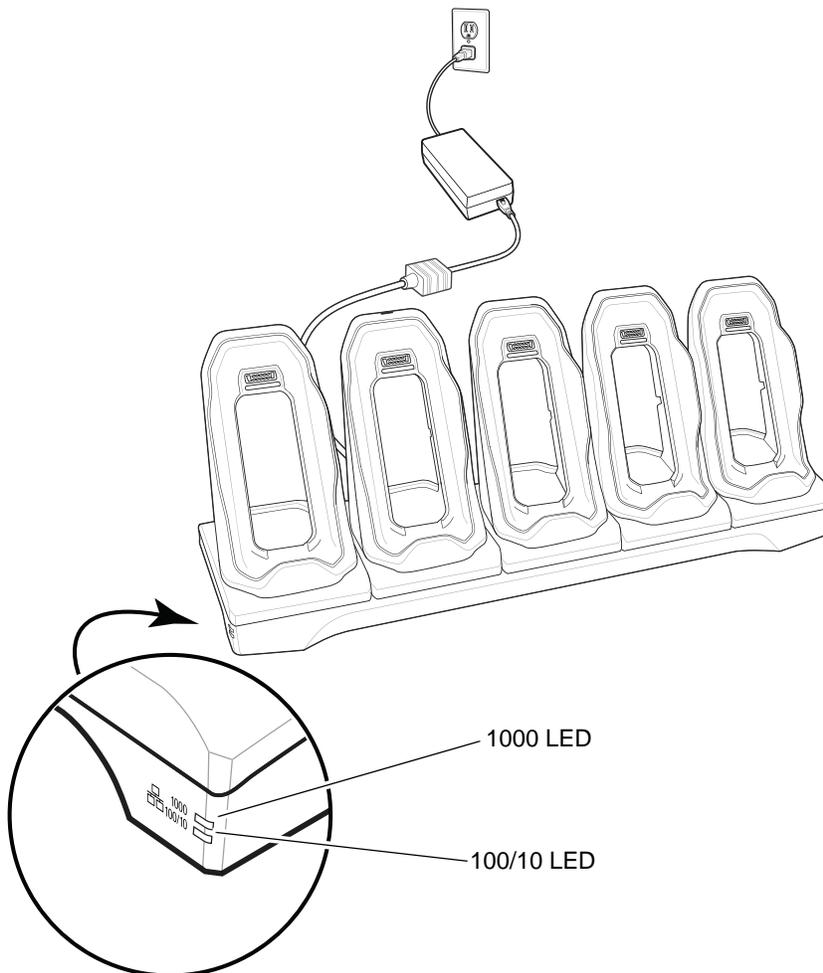
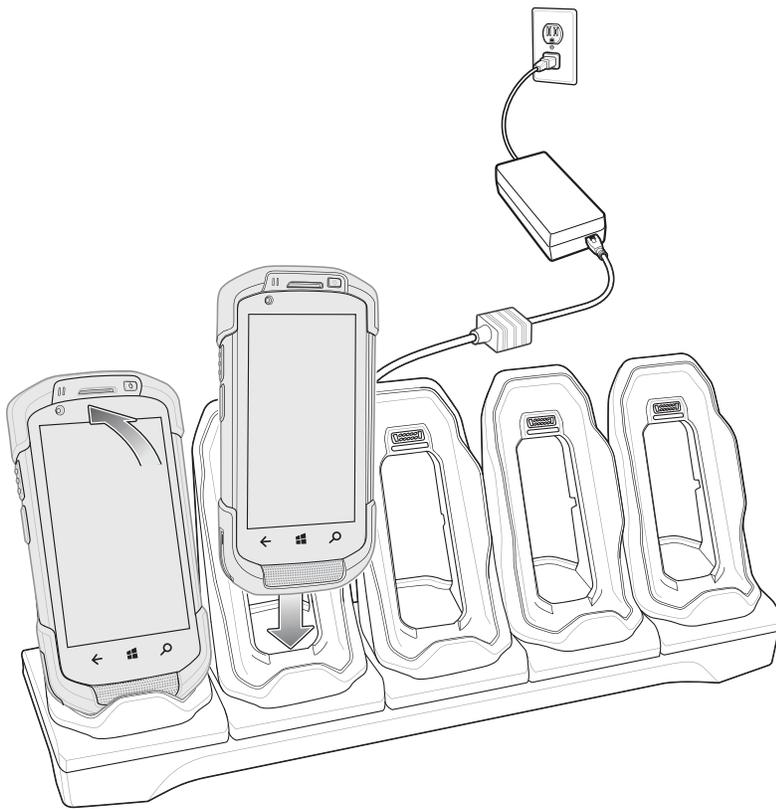


Figure 21 5-Slot Ethernet Cradle

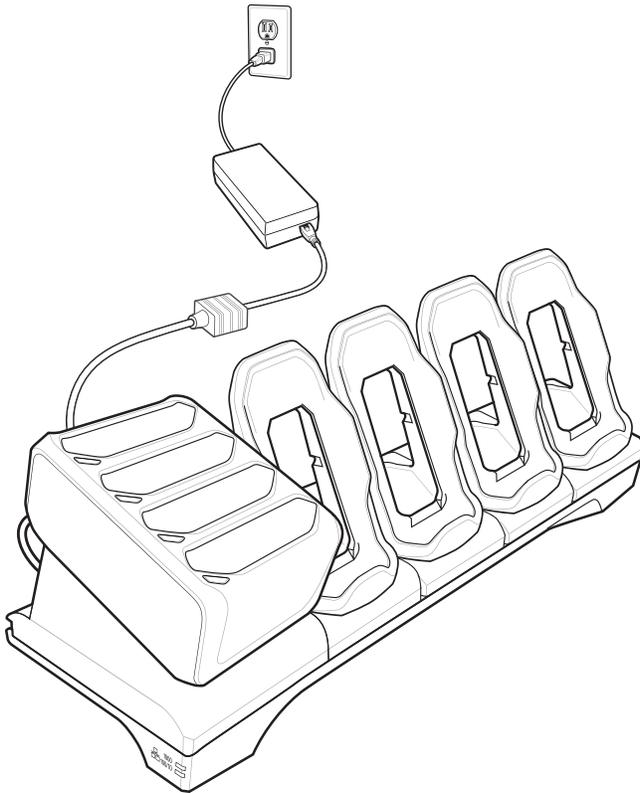
### Charging the TC70

1. Insert the TC70x into a slot to begin charging.



**Figure 22** *TC70x Battery Charging*

2. Ensure the TC70x is seated properly.



**Figure 23** 5-Slot Ethernet Cradle with 4-Slot Battery Charger



**NOTE** See the *TC70x Integrator Guide* for information on installing the 4-Slot Battery Charger onto the cradle.

## Battery Charging

### Main Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

### Spare Battery Charging

The Spare battery Charging LED on the cup indicates the status of the spare battery charging.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

**Table 7** Spare Battery Charging LED Indicators

LED	Indication
Slow Blinking Amber	Spare battery is charging.
Solid Green	Charging complete.
Fast Blinking Amber	Error in charging; check placement of spare battery.

**Table 7** Spare Battery Charging LED Indicators (Continued)

LED	Indication
Slow Blinking Red	Spare battery is charging and battery is at the end of useful life.
Solid Red	Charging complete and battery is at the end of useful life.
Fast Blinking Red	Error in charging; check placement of spare battery and battery is at the end of useful life.
Off	No spare battery in slot; spare battery not placed correctly; cradle is not powered.

## 4-Slot Battery Charger

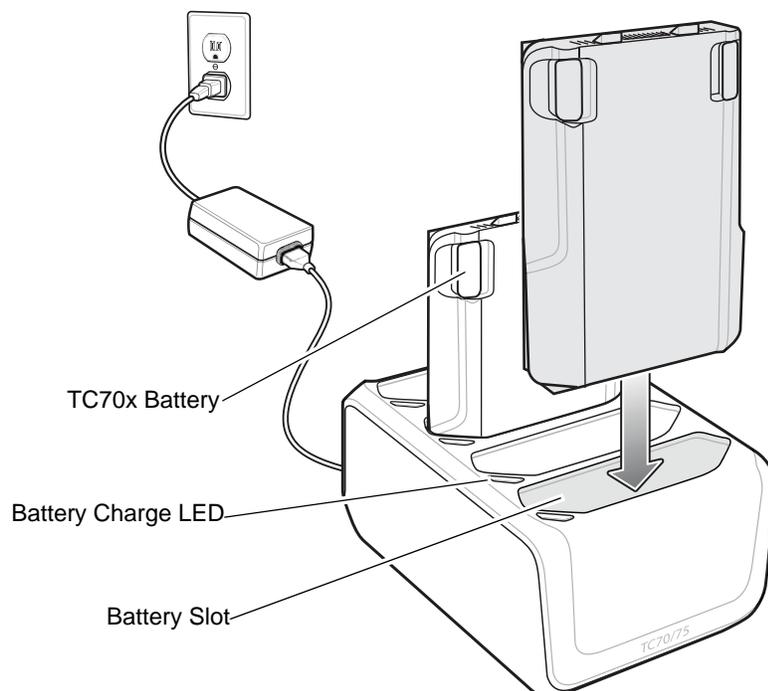


**CAUTION** Ensure that you follow the guidelines for battery safety described in TC70x User Guide.

This section describes how to use the 4-Slot Battery Charger to charge up to four TC70x batteries.

### Charging Spare Batteries

1. Connect the charger to a power source.
2. Insert the battery into a battery charging well and gently press down on the battery to ensure proper contact.



**Figure 24** 4-Slot Battery Charger

## Battery Charging

### Spare Battery Charging

Each Battery Charging LED indicates the status of the battery charging in each slot. The table below describes the Battery Charging LED status.

The 4,620 mAh fully depleted battery fully charges in less than five hours at room temperature.

**Table 8** *Battery LED Charging Indicators*

LED	Indication
Slow Blinking Amber	Spare battery is charging.
Solid Green	Charging complete.
Fast Blinking Amber	Error in charging; check placement of spare battery.
Slow Blinking Red	Spare battery is charging and battery is at the end of useful life.
Solid Red	Charging complete and battery is at the end of useful life.
Fast Blinking Red	Error in charging; check placement of spare battery and battery is at the end of useful life.
Off	No spare battery in slot; spare battery not placed correctly; cradle is not powered.

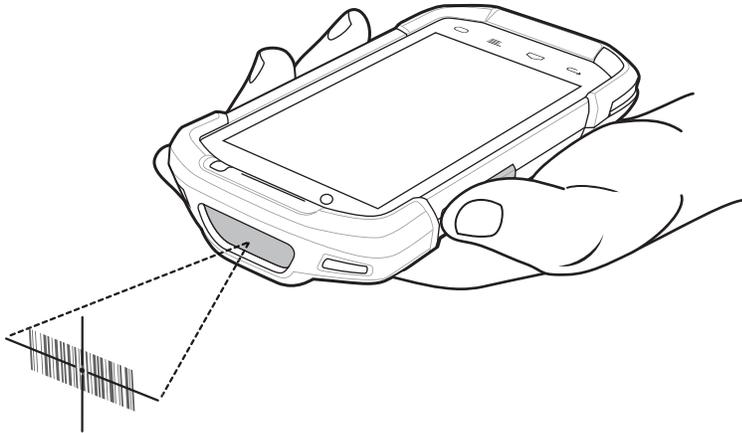
### Charging Temperature

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

## Imager Scanning

To read a bar code, a scan-enabled application is required.

1. Ensure that an application is open on the TC70x and a text field is in focus (text cursor in text field).
2. Point the exit window on the top of the TC70x at a bar code.



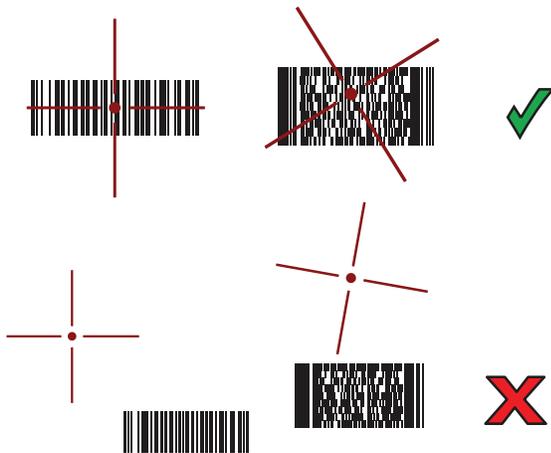
**Figure 25** *Imager Scanning*

3. Press and hold the scan button.

The red laser aiming pattern turns on to assist in aiming.

✓ **NOTE** When the TC70x is in Picklist mode, the imager does not decode the bar code until the crosshair or aiming dot touches the bar code.

4. Ensure the bar code is within the area formed by the crosshairs in the aiming pattern. The aiming dot is used for increased visibility in bright lighting conditions.



**Figure 26** *Aiming Pattern*



**Figure 27** *Pick List Mode with Multiple Bar Codes in Aiming Pattern*

5. The Data Capture LED lights green and a beep sounds, by default, to indicate the bar code was decoded successfully.
6. Release the scan button.

Imager decoding usually occurs instantaneously. The TC70x 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.

7. The bar code content data displays in the text field.





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