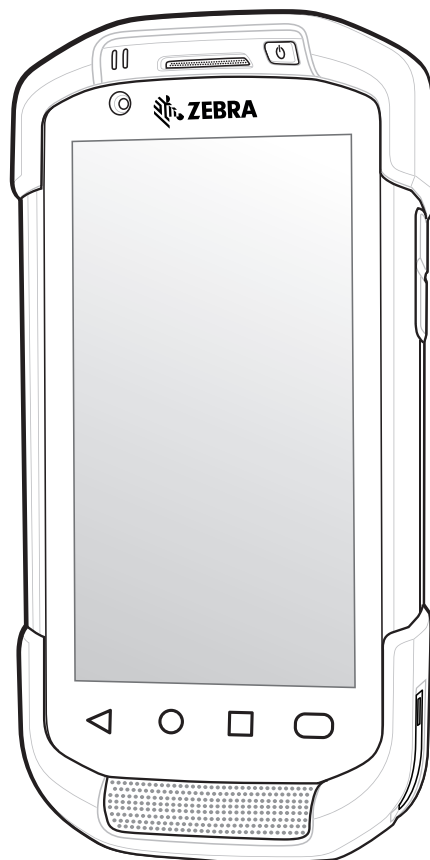


TC70x/TC75x

Touch Computer



User Guide
for Android™ 7.1.2 Nougat



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Revision History

Changes to the original guide are listed below:

Change	Date	Description
-01 Rev A	10/2017	Initial release.
-02 Rev A	1/2018	Information added for TC75x WWAN devices.

Change	Date	Description
-03 Rev. A	4/2018	Update approved cleanser active ingredients.
-04 Rev A	8/2019	Add note to battery installation sections warning against putting anything in the battery well.

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About This Guide

Introduction

This guide provides information about using the TC70x/TC75x touch computers and accessories.



NOTE: Screens and windows pictured in this guide are samples and can differ from actual screens.

Documentation Set

The documentation set for the TC70x and TC75x provides information for specific user needs, and includes:


- TC70x/TC75x Touch Computer Quick Start Guide - describes how to get the device up and running.
- TC70x/TC75x Touch Computer User Guide for Android Version 7.1.2 - describes how to use the device.
- TC70x/TC75x Touch Computer Integrator Guide for Android Version 7.1.2 - describes how to set up the device and accessories.

Configurations

This guide covers the following configurations:

Configuration	Radios	Display	Memory	Data Capture Options	Operating System
TC700K	WLAN: 802.11 a/b/g/n/d/h/i/r WPAN: Bluetooth v4.0 Low Energy	4.7" High Definition (1280 x 720) LCD	2 GB RAM/16 GB Flash	2D imager, camera, or integrated NFC	Android 7.1.2
TC75EK	WWAN: HSPA+/LTE/CD MA WLAN: 802.11 a/b/g/n/d/h/i/r WPAN: Bluetooth v4.0 Low Energy	4.7" High Definition (1280 x 720) LCD	2 GB RAM/16 GB Flash	2D imager, camera and integrated NFC	Android 7.1.2
TC75FK	WWAN: HSPA+/LTE WLAN: 802.11 a/b/g/n/d/h/i/r WPAN: Bluetooth v4.0 Low Energy	4.7" High Definition (1280 x 720) LCD	2 GB RAM/16 GB Flash	2D imager, camera and integrated NFC	Android 7.1.2
TC75GK	WWAN: HSPA+/LTE WLAN: 802.11 a/b/g/n/d/h/i/r WPAN: Bluetooth v4.0 Low Energy	4.7" High Definition (1280 x 720) LCD	2 GB RAM/16 GB Flash	2D imager, camera and integrated NFC	Android 7.1.2

Software Versions

To determine the current software versions, swipe down with two fingers from the status bar to open the quick access panel and then touch .

Touch  **About phone**.

- **Model number**- Displays the model number.
- **Android version** - Displays the operating system version.
- **Kernel version** - Displays the kernel version number.
- **Build number** - Displays the software build number.
- **Serial number** - Displays the serial number.

To determine the device serial number, touch  **About phone > Status**.

- **Serial number** - Displays the serial number.

Chapter Descriptions

Topics covered in this guide are as follows:

- [Getting Started](#) provides information on getting the TC70x/TC75x up and running for the first time.
- [Using the Device](#) provides information for operating the TC70x/TC75x.
- [Calls](#) provides instructions for making phone calls.
- [Applications](#) provides information on using applications installed on the TC70x/TC75x.
- [Data Capture](#) provides information for capturing barcode data using the imager.
- [Wireless](#) provides information on the various wireless options.
- [Accessories](#) provides information for using the accessories for the TC70x/TC75x.
- [Maintenance and Troubleshooting](#) includes instructions on cleaning and provides troubleshooting solutions for potential problems during TC70x/TC75x operation.
- [Technical Specifications](#) provides the technical specifications for the TC70x/TC75x.

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
 - Check box and radio button names
 - Icons on a screen
 - Key names on a keypad
 - Button names on a screen.
- Bullets (•) indicate:
 - Action items
 - Lists of alternatives
 - Lists of required steps that are not necessarily sequential
- Sequential lists (for example, lists that describe step-by-step procedures) appear as numbered lists.

Related Documents

- TC70x/TC75x Touch Computer Quick Start Guide for Android Version 6.0.1, p/n MN-002879-xx.
- TC75x Touch Computer Regulatory Guide for Android Version 6.0.1, p/n MN-002880-xx.
- TC70x Touch Computer Regulatory Guide for Android Version 6.0.1, p/n MN-002960-xx.
- TC70x/TC75x Touch Computer Integrator Guide for Android Version 7.1.2, p/n MN-003145-xx.
- RS507 Hands-free Imager Product Reference Guide, p/n 72E-12082-xx.
- DS36X8 Product Reference Guide, p/n MN-002689-xx.
- RS6000 User Guide, MN-002704-xx.

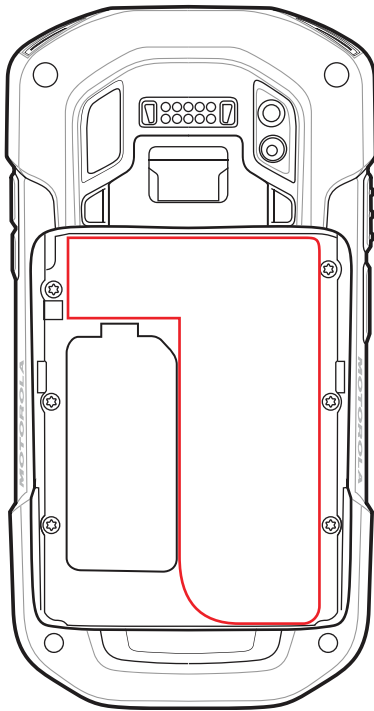
For the latest version of this guide and all guides, go to: www.zebra.com/support.

Service Information

If you have a problem with the equipment, contact Customer Support in the region. Contact information is available at: www.zebra.com/support.

When contacting support, please have the following information available:

- Serial number of the unit (found on manufacturing label)
- Model number or product name (found on manufacturing label)
- Software type and version number
- IMEI number



Customer Support responds to calls by email or telephone within the time limits set forth in support agreements.

If the problem cannot be solved by Customer Support, the user may need to return the equipment for servicing and will be given specific directions. We are 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. Remove the SIM card and/or microSD card from the device before shipping for service.

If the device was purchased from a business partner, contact that business partner for support.

Provide Documentation Feedback

If you have comments, questions, or suggestions about this guide, send an email to EVM-Techdocs@zebra.com.

Getting Started

Introduction

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

Unpacking

1. Carefully remove all protective material from the TC70x/TC75x and save the shipping container for later storage and shipping.
2. Verify that the following were received:
 - touch computer
 - 4,620 mAh PowerPercision+ Lithium-ion battery
 - Hand strap
 - Regulatory Guide.
3. Inspect the equipment for damage. If any equipment is missing or damaged, contact the Global Customer Support center immediately.
4. Prior to using the device for the first time, remove the protective shipping film that covers the scan window, display and camera window.

Features

Figure 1 Front View

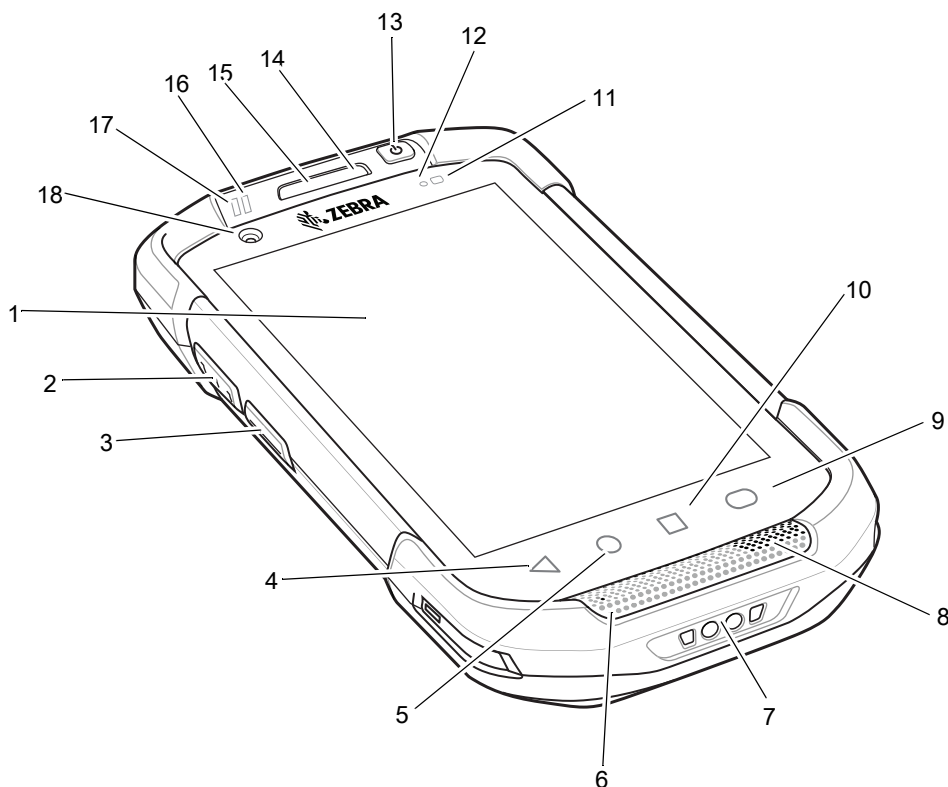


Table 1 Front View Features

Number	Item	Function
1	Touch Screen	Displays all information needed to operate the device.
2	Scan Button	Initiates data capture (programmable).
3	PTT Button	Initiates push-to-talk communications (programmable).
4	Back Button	Displays the previous screen.
5	Home Button	Displays the Home screen with a single press. On TC70x/TC75x with GSM, opens the Google Now screen when held for a short period of time.
6	Microphone	Use for communications in Handset mode.
7	Charging Contacts	Provides power to the device from cables and cradles.
8	Speaker	Provides audio output for video and music playback. Provides audio in speakerphone mode.
9	Search Button	Opens the Recent App screen.
10	Menu Button	Opens a menu with items that affect the current screen or application.

Table 1 Front View Features (Continued)

Number	Item	Function
11	Light Sensor	Determines ambient light for controlling display backlight intensity.
12	Proximity Sensor	Determines proximity for turning off display when in handset mode.
13	Power Button	Turns the display on and off. Press and hold to reset the device, power off or swap battery. Press quickly twice when the screen is locked to open the camera application.
14	Microphone	Use for communications in Speakerphone mode.
15	Receiver	Use for audio playback in Handset mode.
16	Charging/Notification LED	Indicates battery charging status while charging and application generated notifications.
17	Data Capture LED	Indicates data capture status.
18	Front Facing Camera	Use to take photos and videos (optional).

Figure 2 Rear View

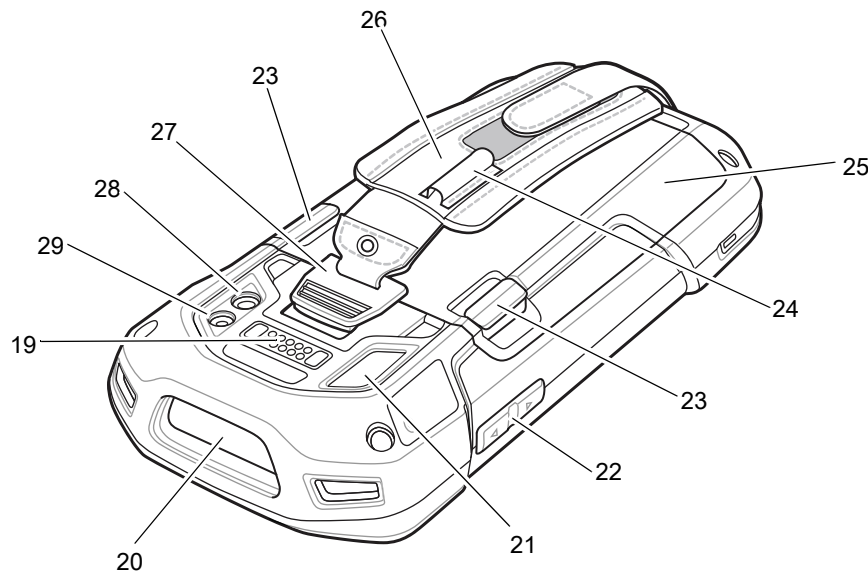


Table 2 Back View Features

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

Table 2 Back View Features (Continued)

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

Setup

Perform this procedure to start using the TC70x/TC75x for the first time.

1. Install a SIM card (TC75x only).
2. Install a SAM card.
3. Install a micro secure digital (SD) card (optional).
4. Install hand strap (optional).
5. Install the battery.
6. Charge the device.
7. Power on the device.

Installing the SIM Card



NOTE: TC75x only.



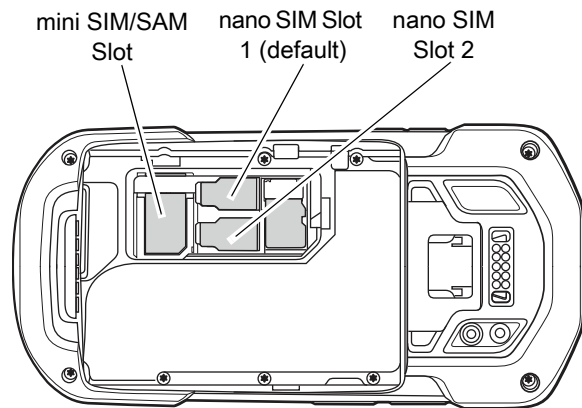
CAUTION: For proper electrostatic discharge (ESD) precautions to avoid damaging the SIM card. Proper ESD precautions include, but not limited to, working on an ESD mat and ensuring that the user is properly grounded.



NOTE: The TC75x may contain one mini SIM slot and two nano SIM slots. If using a micro SIM card, a third-party SIM adapter is required. By default, use a nano SIM card in slot 1.

1. Remove access cover.

Figure 3 TC75x SIM Slot Locations



2. Insert a SIM card into the SIM slot with the cut edge toward the middle of the device and the contacts facing down.

Figure 4 nano SIM Card Installation

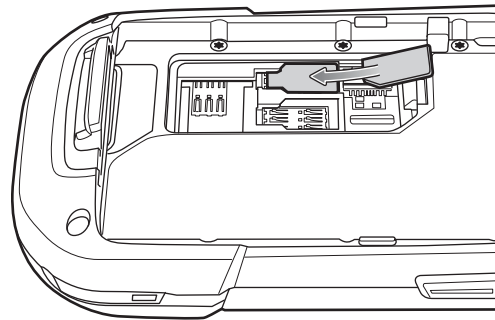
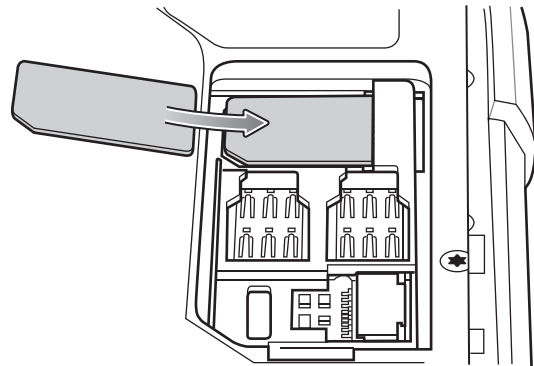


Figure 5 Mini SIM Card Installation



3. Ensure that the SIM card is seated properly.

Installing the SAM Card



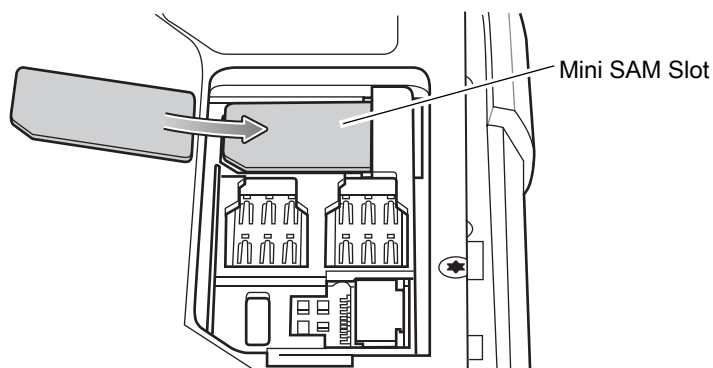
CAUTION:For proper electrostatic discharge (ESD) precautions to avoid damaging the Secure Access Module (SAM) card. Proper ESD precautions include, but not limited to, working on an ESD mat and ensuring that the user is properly grounded.



NOTE: The TC70x/TC75x contains one slot for a mini SAM card. If using a micro SAM card, a third-party adapter is required. On the TC75x, when using a SAM card, only a nano SIM card can be used.

1. Remove access cover.
2. Insert a SAM card into the SAM slot with the cut edge toward the middle of the device and the contacts facing down.

Figure 6 SAM Card Installation



3. Ensure that the SAM card is seated properly.

Installing a microSD Card

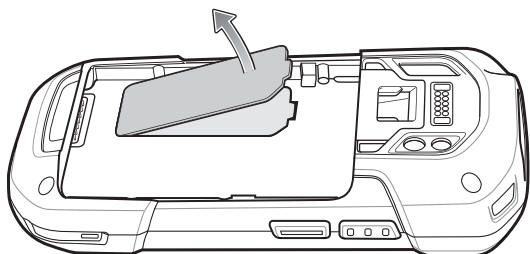
The microSD card slot provides secondary non-volatile storage. The slot is located under the battery pack. Refer to the documentation provided with the card for more information, and follow the manufacturer's recommendations for use.



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.

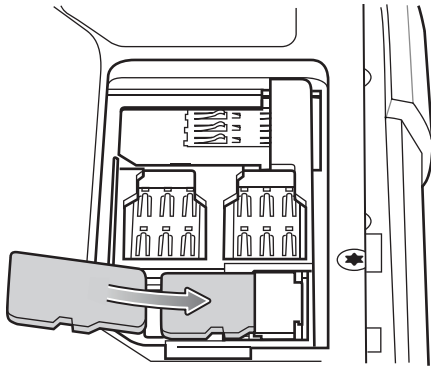
1. Remove the hand strap, if installed.
2. Lift the access door.

Figure 7 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 8 Insert microSD Card in Holder



4. Re-install the access door.

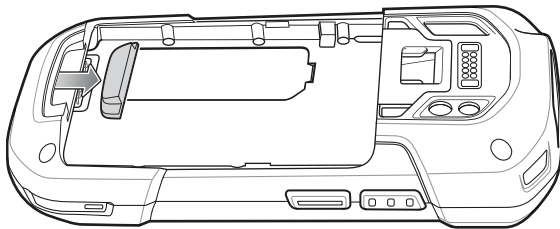
Installing the Hand Strap and Battery

✓ **NOTE:** User modification of the device, particularly in the battery well, such as labels, asset tags, engravings, stickers, etc., may compromise the intended performance of the device or accessories. Performance levels such as sealing (Ingress Protection (IP)), impact performance (drop and tumble), functionality, temperature resistance, etc. could be effected. DO NOT put any labels, asset tags, engravings, stickers, etc. in the battery well.

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

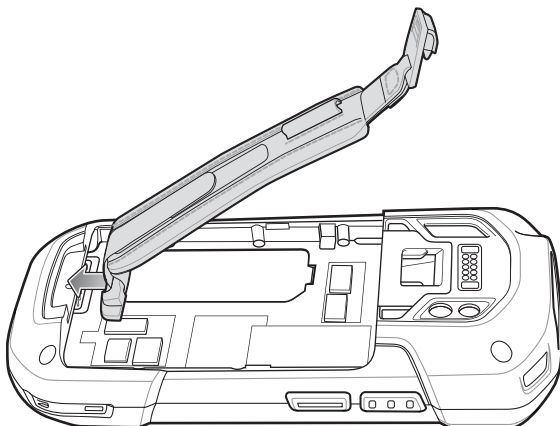
1. Remove the hand strap filler from the hand strap slot. Store the hand strap filler in a safe place for future replacement.

Figure 9 Remove Filler



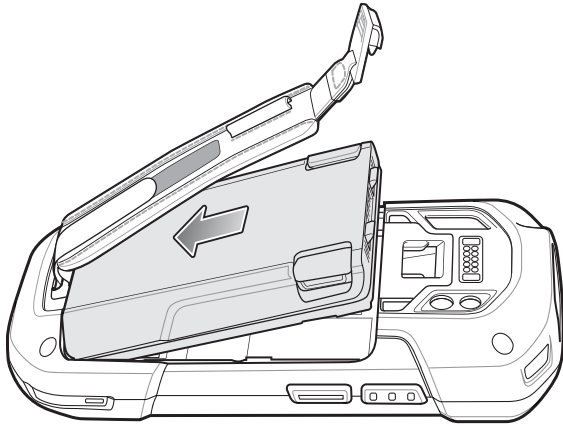
2. Insert the hand strap plate into the hand strap slot.

Figure 10 Insert Hand Strap



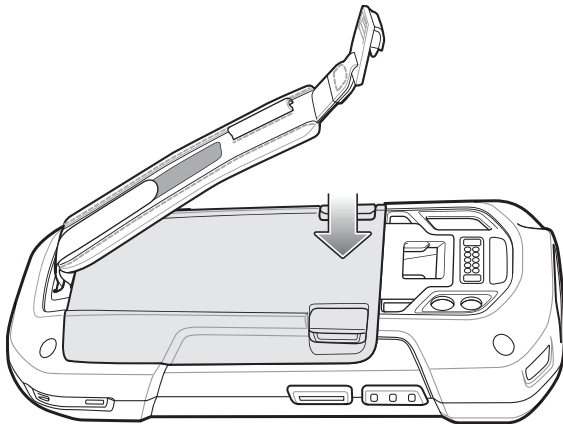
3. Insert the battery, bottom first, into the battery compartment in the back of the TC70x/TC75x.

Figure 11 Insert Bottom of Battery into Battery Compartment



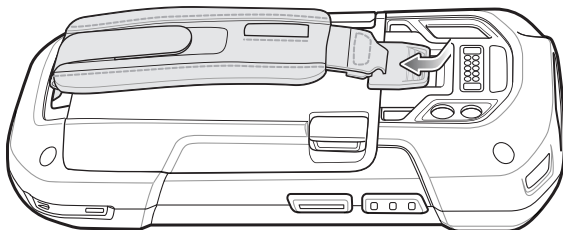
4. Press the battery down into the battery compartment until the battery release latches snap into place.

Figure 12 Press Down on Battery



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

Figure 13 Secure Hand Strap Clip



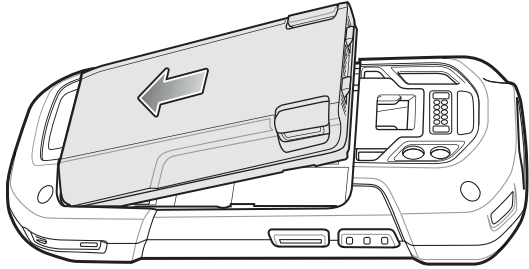
Installing the Battery



NOTE: User modification of the device, particularly in the battery well, such as labels, asset tags, engravings, stickers, etc., may compromise the intended performance of the device or accessories. Performance levels such as sealing (Ingress Protection (IP)), impact performance (drop and tumble), functionality, temperature resistance, etc. could be effected. DO NOT put any labels, asset tags, engravings, stickers, etc. in the battery well.

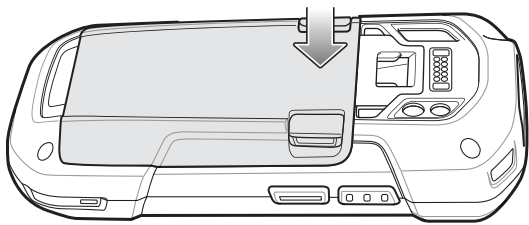
1. Insert the battery, bottom first, into the battery compartment in the back of the TC70x/TC75x.

Figure 14 Insert Bottom of Battery into Battery Compartment



2. Press the battery down into the battery compartment until the battery release latches snap into place.

Figure 15 Press Down on Battery



Charging the Battery

Before using the TC70x/TC75x for the first time, charge the main battery until the green Charging/Notification light emitting diode (LED) remains lit. To charge the TC70x/TC75x, use a cable or a cradle with the appropriate power supply. For information about the accessories available for the TC70x/TC75x, see [Accessories](#) for more information.

- 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
- Auto Charging Cable Cup.
- Serial Cable Cup

The 4,620 mAh 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/TC75x or accessory always performs battery charging in a safe and intelligent manner. At higher temperatures (e.g. approximately +37°C

(+98°F)) the TC70x/TC75x or accessory may for small periods of time alternately enable and disable battery charging to keep the battery at acceptable temperatures. The TC70x/TC75x 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/TC75x into a cradle or attach to a cable. The TC70x/TC75x 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	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.
Slow Blinking Amber (1 blink every 4 seconds)	The device is charging.
Solid Green	Charging complete.
Fast Blinking Amber (2 blinks/second)	Charging error, e.g.: <ul style="list-style-type: none"> • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).
Slow Blinking Red (1 blink every 4 seconds)	The device 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"> • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).

Google Account Setup



NOTE: Available only on devices with GMS software.

The TC70x/TC75x has to be connected to the internet, either through WAN (TC75x only) or Wi-Fi, in-order to set up a Google account.

The first time the TC70x/TC75x starts, the Setup Wizard displays. Follow the on-screen instructions to set up a Google account, configure Google Wallet for purchasing items from the Play Store, entering your personal information, and enabling backup/restore features.

Replacing the Battery



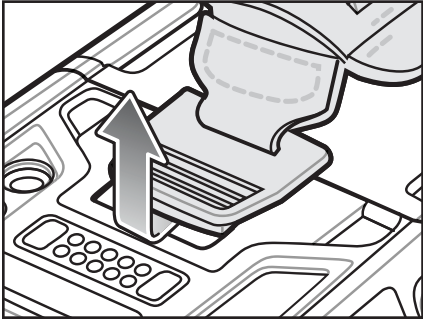
NOTE: User modification of the device, particularly in the battery well, such as labels, asset tags, engravings, stickers, etc., may compromise the intended performance of the device or accessories. Performance levels such as sealing (Ingress Protection (IP)), impact performance (drop and tumble), functionality, temperature resistance, etc. could be effected. DO NOT put any labels, asset tags, engravings, stickers, etc. in the battery well.



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

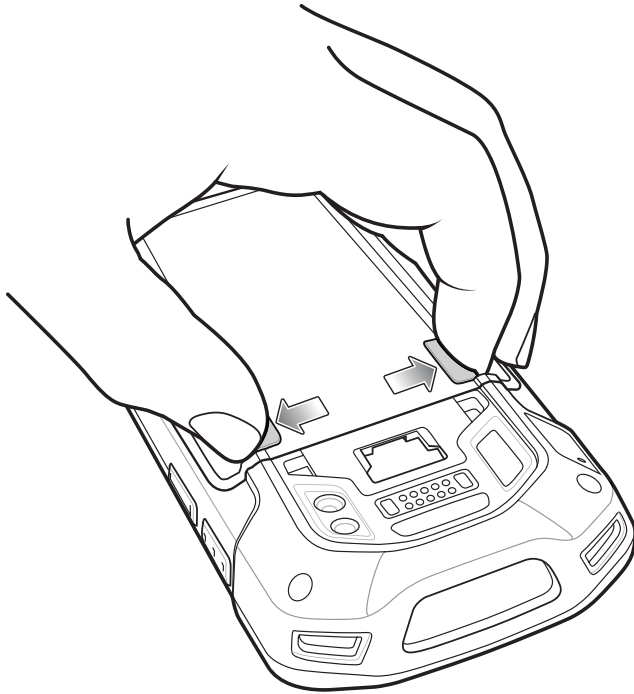
1. Remove any accessory attached to the device.
2. Press the Power button until the menu appears.
3. Touch **Battery Swap**.
4. Follow the on-screen instructions.
5. Wait for the LED to turn off.
6. If hand strap is attached, slide the hand strap clip up toward the top of the TC70x/TC75x and then lift.

Figure 16 Remove Hand Strap Clip



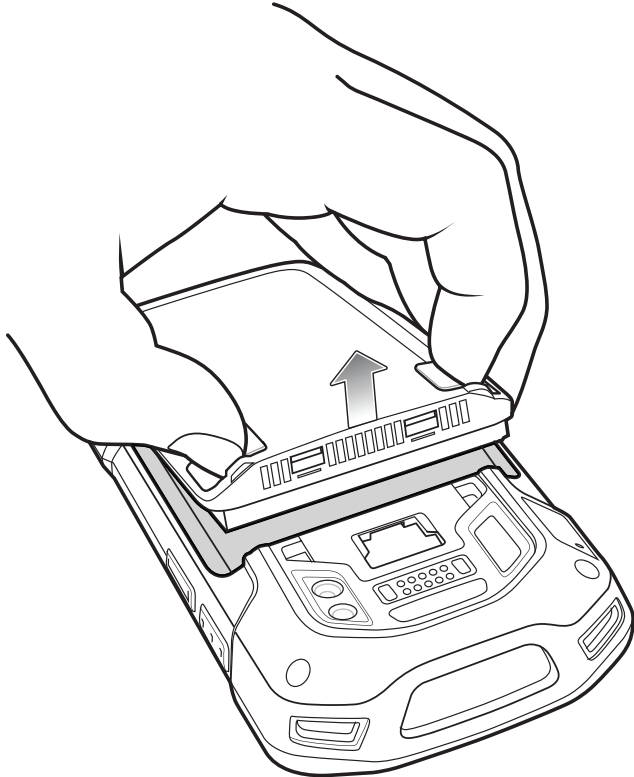
7. Press the two battery latches in.

Figure 17 Press Battery Latches



8. Lift the battery from the TC70x/TC75x.

Figure 18 Lift the Battery



CAUTION: Replace the battery within two minutes. After two minutes the device reboots and data may be lost.

9. Insert the replacement battery, bottom first, into the battery compartment in the back of the TC70x/TC75x.
10. Press the battery down until the battery release latch snaps into place.
11. Replace the hand strap, if required.
12. Press and hold the Power button to turn on the TC70x/TC75x.

Replacing the SIM or SAM Card

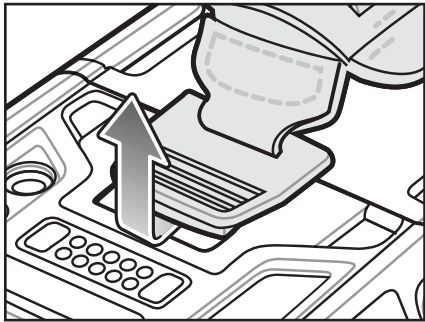


NOTE: SIM replacement applies to TC75x only.

To replace the SIM or SAM card:

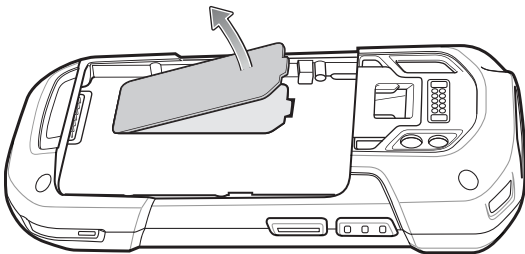
1. Press and hold the Power button until the menu appears.
2. Touch **Power off**.
3. Touch **OK**.
4. If hand strap is attached, slide the hand strap clip up toward the top of the TC70x/TC75x and then lift.

Figure 19 Remove Hand Strap Clip



5. Press the two battery latches in.
6. Lift the battery from the TC70x/TC75x.
7. Lift the access door.

Figure 20 Remove Access Door



8. Remove card from holder.

Figure 21 Remove Mini SIM/SAM Card

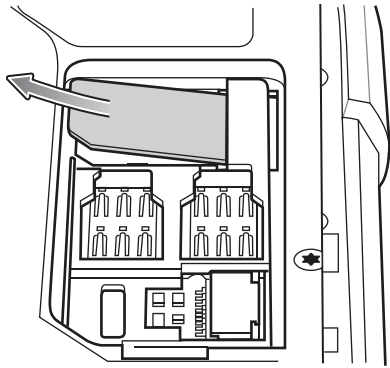
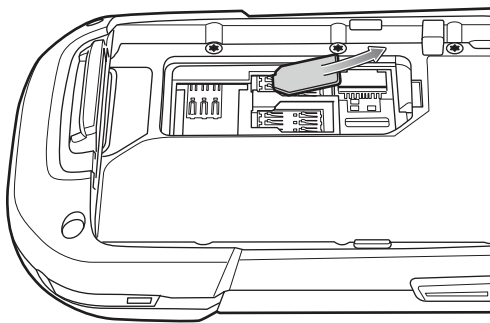


Figure 22 Remove Nano SIM Card



9. Insert the replacement card.

Figure 23 Insert Mini SIM/SAM Card

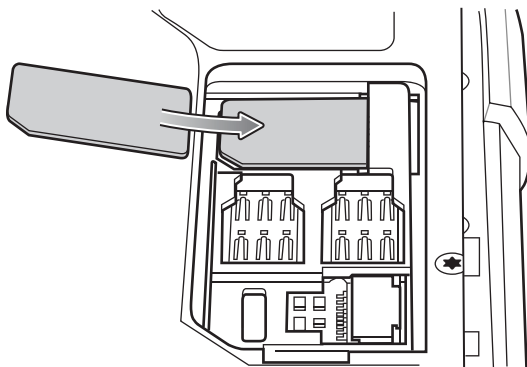
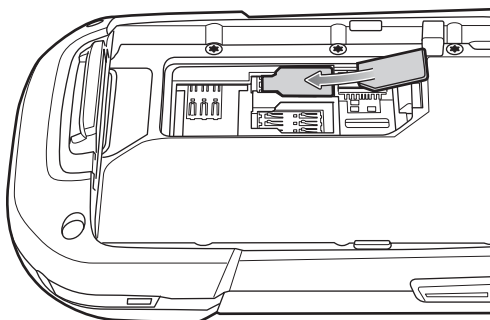
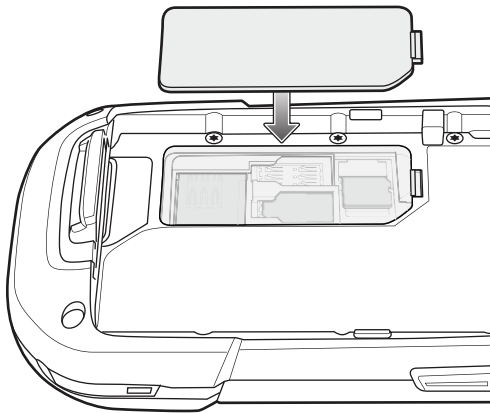


Figure 24 Insert Nano SIM Card



10. Replace the access door.

Figure 25 Replace Access Door



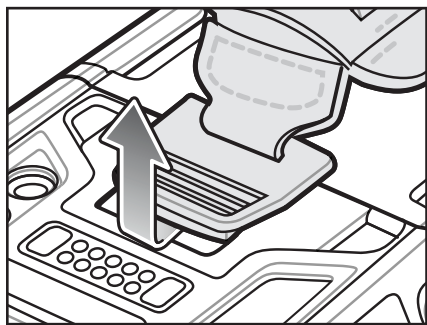
11. Press the access door down and ensure that it is properly seated.
12. Insert the battery, bottom first, into the battery compartment in the back of the TC70x/TC75x.
13. Press the battery down until the battery release latch snaps into place.
14. Replace the hand strap, if required.
15. Press and hold the Power button to turn on the TC70x/TC75x.

Replacing the microSD Card

To replace the microSD card:

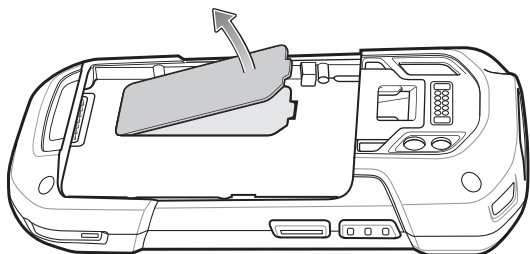
1. Press the Power button until the menu appears.
2. Touch **Power off**.
3. Touch **OK**.
4. If hand strap is attached, slide the hand strap clip up toward the top of the TC70x/TC75x and then lift.

Figure 26 Remove Hand Strap Clip



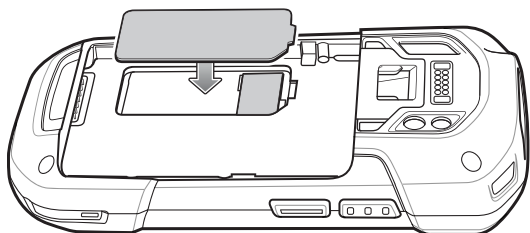
5. Press the two battery latches in.
6. Lift the battery from the TC70x/TC75x.
7. Lift the access door.

Figure 27 Remove Access Door



8. Remove microSD card from holder.
9. Press the access door down and ensure that it is properly seated.
10. Insert the replacement microSD card.
11. Replace the access door.



Figure 28 Replace Access Door



12. Insert the battery, bottom first, into the battery compartment in the back of the TC70x/TC75x.
13. Press the battery down until the battery release latch snaps into place.
14. Replace the hand strap, if required.
15. Press and hold the Power button to turn on the TC70x/TC75x.

Accessing Device Settings

Throughout this guide, the user can access device:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. On the Home screen, swipe up from the bottom of the screen and touch .

Battery Management



NOTE: Prior to checking the battery charge level, remove the TC70x/TC75x from any AC power source (cradle or cable).

To check the charge status of the main battery, open Settings and touch  **About phone > Battery Information**.

Battery present status indicates that the battery is present and **Battery level** lists the battery charge (as a percentage of fully charged).

Monitor Battery Usage

The **Battery** screen lists which applications consume the most battery power. Also use it to turn off applications that were downloaded if they are consuming too much power.



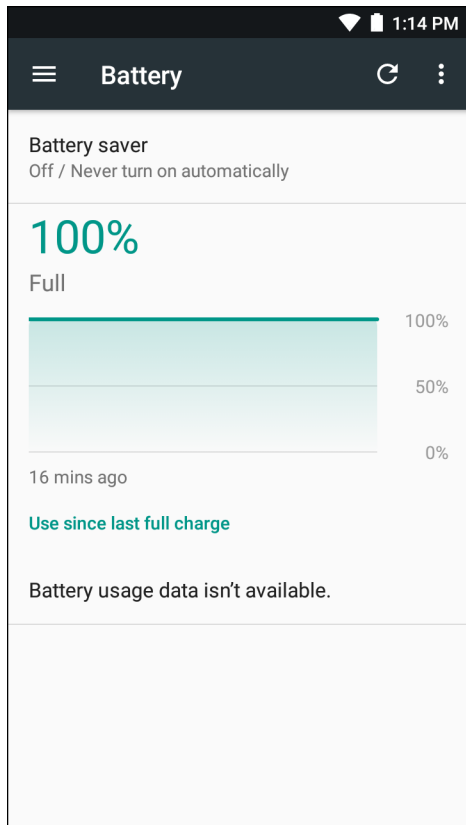
1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Battery**.

Figure 29 Battery Screen

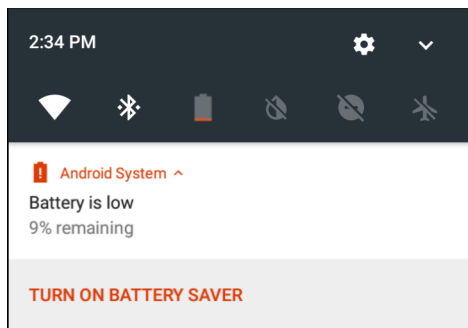


The Battery screen lists the applications using the battery. The discharge graph at the top of the screen shows the rate of the battery discharge since last charged (short periods of time when connected to a charger are shown as thin green lines at the bottom of the chart), and how long it has been running on battery power.

Touch an application in the Battery screen to display details about its power consumption. Different applications display different information. Some applications include buttons that open screens with settings to adjust power use.

Low Battery Notification

When the battery charge level drops below 18%, the TC70x/TC75x displays a notice to connect the TC70x/TC75x to power. The user should charge the battery using one of the charging accessories.

Figure 30 Low Battery Notification

When the battery charge drops below 10%, the TC70x/TC75x displays a notice to connect the TC70x/TC75x to power. The user must charge the battery using one of the charging accessories.

When the battery charge drops below 4%, the TC70x/TC75x turns off.

The user must charge the TC70x/TC75x using one of the charging accessories.


Battery Optimization

Observe the following battery saving tips:

- Disable DataWedge Launcher profile. Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for instructions.
- Remove Snap-on accessories when not in use.
- Set the screen to turn off after a short period of non-use. See [Setting Screen Timeout Setting on page 34](#).
- Reduce screen brightness. See [Setting the Screen Brightness](#).
- Turn off all wireless radios when not in use. Note that the global positioning system (GPS) receiver is only turned on when a GPS application is using the GPS radio.
- Turn off automatic syncing for Email, Calendar, Contacts and other applications.
- Minimize use of applications that keep the TC70x/TC75x from suspending, for example, music, GPS and video applications.



Turning Off the Radios


To turn off all the radios:

1. Press the Power button until the menu appears.
2. Touch **Airplane mode**. The airplane icon  appears in the Status bar indicating that all the radios are off.

Setting the Date and Time

The date and time is automatically synchronized using a NITZ server when the TC75x is connected to a cellular network. The user is only required to set the time zone or set the date and time when not connected to a cellular network or if the wireless LAN does not support Network Time Protocol (NTP).

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Date & time**.
3. Touch **Automatic date & time** to disable automatic date and time synchronization.

4. Touch **Set date**.
5. In the calendar, set today's date.
6. Touch **OK**.
7. Touch **Set time**.
8. Touch the green circle, drag to the current hour and then release.
9. Touch the green circle, drag to the current minute and then release.
10. Touch **AM** or **PM**.
11. Touch **OK**.
12. Touch **Select time zone**.
13. Select the current time zone from the list.
14. Touch .

Display Setting

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

Setting the Screen Brightness




To manually set the screen brightness:

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.

Figure 31 Brightness Dialog Box





To let the TC70x/TC75x automatically adjust the screen brightness using the built-in light sensor:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Brightness Level**.
4. Touch **Adaptive brightness** to automatically adjust the brightness.
5. Touch .

Setting Screen Timeout Setting

To set the screen sleep time:




1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Sleep**.
4. Select one of the sleep values.
 - **15 seconds**

- **30 seconds**
- **1 minute** (default)
- **2 minutes**
- **5 minutes**
- **10 minutes**
- **30 minutes**

5. Touch .

Ambient Display

The Ambient display setting wakes the screen when notifications are received. To disable ambient display:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Ambient display**.
4. Touch .

Setting Touch Key Light

The four touch keys under the screen are backlit. Configure the touch key light to save battery power.



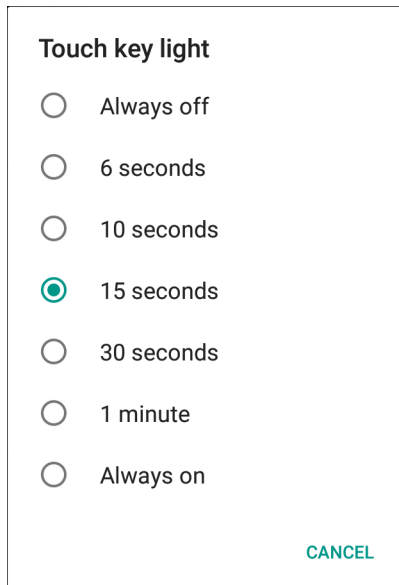
1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Touch key light**.
4. Select one of the options.
 - **Always off** - The touch key light is off.
 - **6 seconds** - The touch key light stays on for six seconds and then turns off (default).
 - **10 seconds** - The touch key light stays on for 10 seconds and then turns off.
 - **15 seconds** - The touch key light stays on for 15 seconds and then turns off.
 - **30 seconds** - The touch key light stays on for 30 seconds and then turns off.
 - **1 minute** - The touch key light stays on for one minute and then turns off.
 - **Always on** - The touch key light is on when the screen is on.

Figure 32 Touch Key Light Dialog Box

5. Touch .

Setting Font Size

To set the size of the font in system applications:



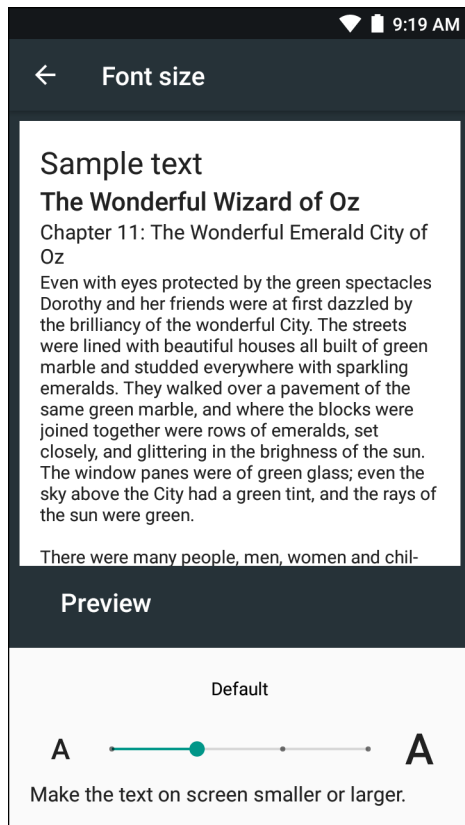



1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Font size**.

Figure 33 Font Settings

4. Select one of the font size values.
 - **Small**
 - **Default** (default)
 - **Large**
 - **Largest**
5. Touch .

Setting Screen Rotation

By default, screen rotation is disabled. To enable screen rotation:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **When device is rotated** and select **Rotate the contents of the screen** to set the TC70x/TC75x to automatically switch orientation when the TC70x/TC75x is rotated.



NOTE: The Home screen does not rotate.

4. Touch .

Touch Panel Mode

The TC70x/TC75x display is able to detect touches using a finger, a conductive-tip stylus or gloved finger.



NOTE: A glove can be made of medical latex, leather, cotton or wool.

For optimal performance use Zebra certified stylus.



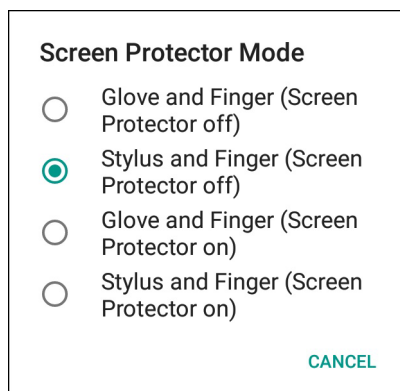

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Touch panel mode**.





Figure 34 Screen Protector Mode Dialog Box



4. Select:
 - a. **Glove and Finger (Screen Protector off)** to use a finger or a gloved finger on the screen without a screen protector.
 - b. **Stylus and Finger (Screen Protector off)** to use a finger or a stylus on the screen without a screen protector.
 - c. **Glove and Finger (Screen Protector on)** to use a finger or a gloved finger on the screen with a screen protector.
 - d. **Stylus and Finger (Screen Protector on)** to use a finger or a stylus on the screen with a screen protector.
5. Touch .

Cast

Use **Cast** to mirror the TC70x/TC75x screen on a Miracast enabled wireless display.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Cast**.
4. Touch  > **Enable wireless display**. The TC70x/TC75x searches for nearby Miracast devices and lists them.
5. Touch a device to begin casting.
6. Touch .

General Sound Setting

Use the **Sounds** settings to configure media and alarm volumes.



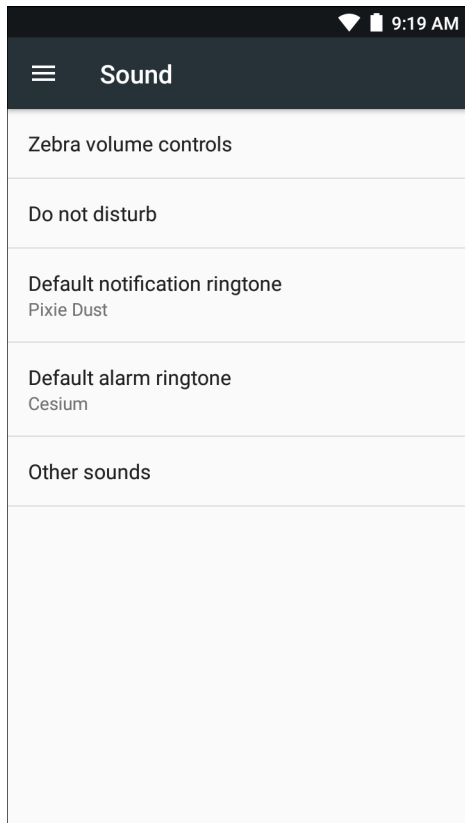



1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Sound**.

Figure 35 Sound Screen



- **Zebra Volume Control**
 - **Ring volume** - Controls the ringtone volume.
 - **Media volume** - Controls the music, games and media volume.
 - **Alarm volume** - Controls the alarm clock volume.
 - **Notifications volume** - Controls the notification volume.
 - **Scanner volume** - Controls the scanner volume.
 - Volume Presets
 -  - Mutes the ring, notifications and scanner so that the TC70x/TC75x does not make sounds or vibrate.
 -  - All sounds except media and alarms are silenced and vibrate mode is active.
 -  - Enables all sounds at the user defined levels.

- **Do not disturb** - Mutes the TC70x/TC75x so that it does not make sounds or vibrate when you do not want it to.
 - **Priority only allows** - Use to set priorities.
 - **Alarms** - Disabled.
 - **Reminders and Events** - Switch on or off.
 - **Messages and Calls** - Choose from anyone, starred contacts, any contact, or none. To star contacts, use the Contacts app.
 - **Repeat callers** - Choose whether to let the TC70x/TC75x ring if the same person calls again within 15 minutes.
 - **Automatic rules** - To automatically silence the TC70x/TC75x during certain times, like at night or on weekends. Touch a default rule Weekend or Weeknight. Or, to make your own rule, tap Add rule and then Time rule.
 - **Block visual disturbances**
 - **Block when screen is on** - option pertains to notifications you receive when you are actively using the device. If you would like to disable the banner like notifications when Do not Disturb is enabled, turn this option On. This will also prevent you from peeking at notifications.
 - **Block when screen is off** - option pertains to notifications you receive when you are not using your device i.e. the display is asleep. If you want to prevent the display from waking up when a new notification is received, turn this option On. This will additionally disable the LED light alerts your phone sends you when you have new notifications.
 - **Default notification ringtone** - Touch to select a sound to play for all system notifications.
 - **Default alarm ringtone** - Touch to select a sound to play for alarms.
 - **Other sounds**
 - **Screen locking sounds** - play a sound when locking and unlocking the screen (default – enabled)
 - **Charging sounds** - Not applicable.
 - **Touch sounds** - Play a sound when making screen selections (default – enabled).
 - **Vibrate on tap** - Device vibrates when making screen selections (default – disabled).

Wake-Up Sources

By default the TC70x/TC75x wakes from suspend mode when the user presses the power button. The TC70x/TC75x can be configured to wake when the user presses the PPT or Scan buttons on the left side of the device.



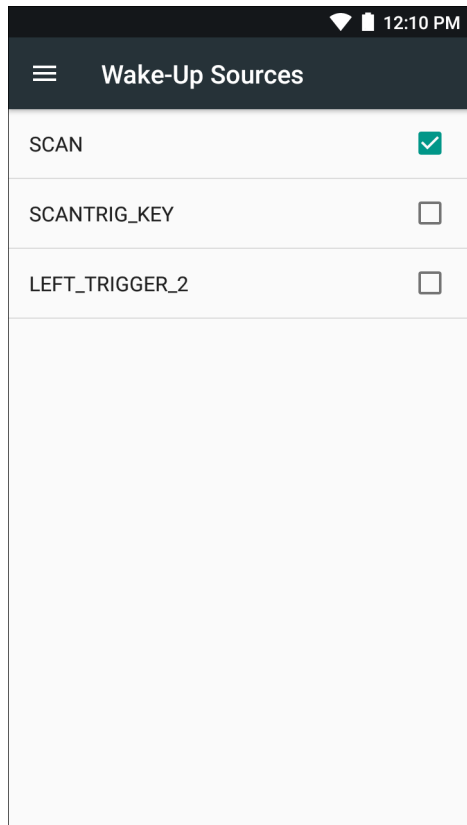
1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Wake-Up Sources**.
3. Touch **SCAN** checkbox. A check appears in the checkbox.
4. Touch **SCANTRIG_KEY** checkbox. A check appears in the checkbox.
5. Touch **LEFT_TRIGGER_2** checkbox. A check appears in the checkbox.

Figure 36 Wake-Up Sources



6. Touch .

Using the Device

Introduction

This chapter explains the buttons, status icons, and controls on the TC70x/TC75x, and provides basic instructions for using the TC70x/TC75x including resetting the TC70x/TC75x and entering data.

Google Mobile Services



NOTE: This section only applies to TC70x/TC75x configurations with Google Mobile Services (GMS).

The TC70x/TC75x with GMS contains applications and services that provide additional functionality to the TC70x/TC75x.

GMS includes:

- **Applications** - GMS adds a variety of Google applications and associated widgets including Chrome, Gmail, Drive and Maps.
- **Services:**
 - **Speech to Text** - Allows for free format speech to text, in many languages for both connected and disconnected network. Launch by touching the microphone icon on the keyboard.
 - **TalkBack Service** - Provides spoken feedback on various parts of the user interface. To enable, go to **Settings > Accessibility**.
 - **Network Location Provider** - Adds a location provider which uses mobile network tower information and Wi-Fi access point information to provide a location without using GPS. To enable, go to **Settings > Location access**.
 - **Widevine DRM** - Enables the digital rights management so that protected content can be played. Enable via DRM Info from the Play Store.
 - **Google Cloud Messaging** - Allows the sending of data from your server to your TC70x/TC75x and also to receive messages from devices on the same connection.
 - **Backup and Restore** - Allows the users settings and applications to be backed up to a Google server and subsequently restored from that server after a factory reset.
- **Google accounts** - Create and use a Google account to synchronize mail, files, music, photos, contacts and calendar events.

Home Screen

The Home screen displays when the TC70x/TC75x turns on. Depending upon the configuration, the Home screen might appear different. Contact your system administrator for more information.

After a suspend or screen time-out, the Home screen displays with the lock sliders. Touch the screen and slide up to unlock. For screen locking information see [Un-Locking the Screen on page 62](#).

Figure 37 Home Screen

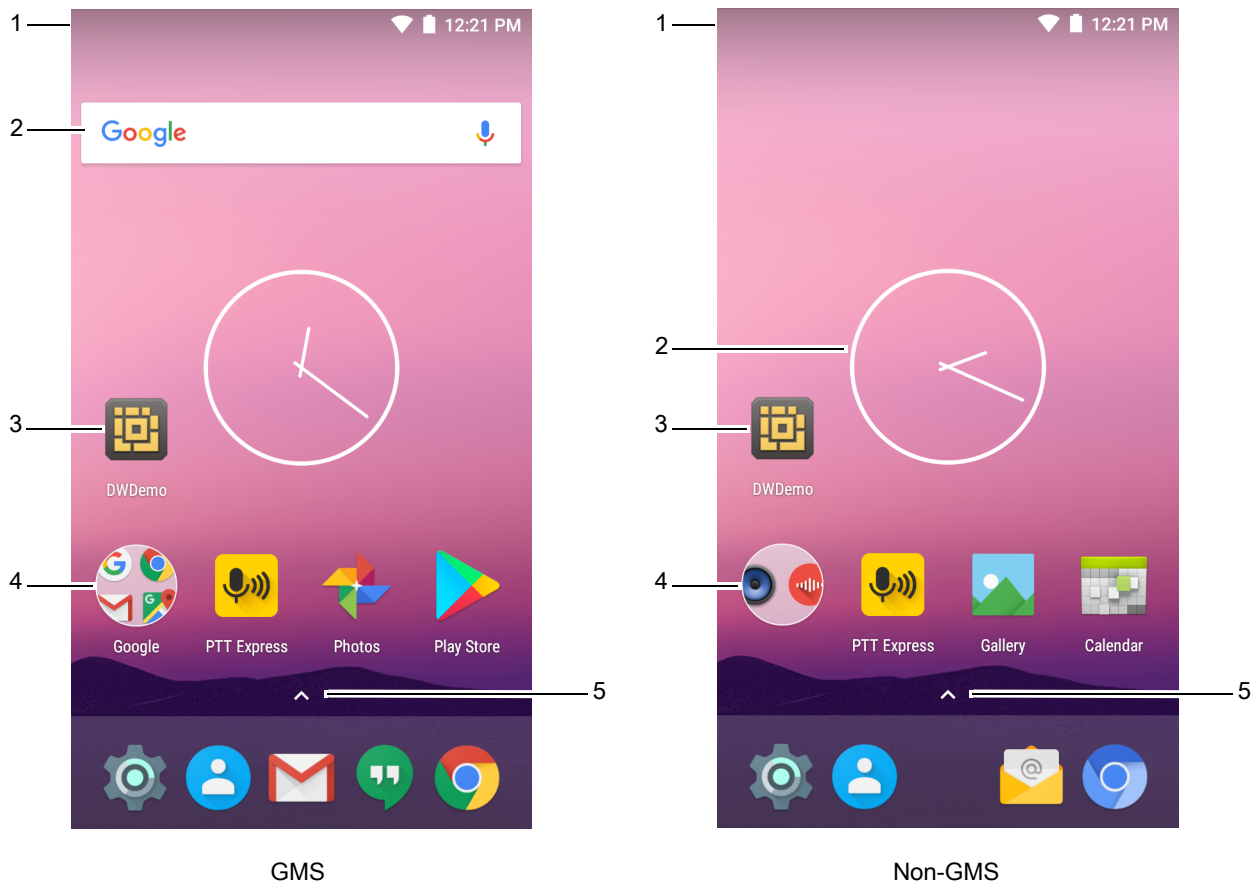


Table 4 Home Screen Items

Item	Description
1 — Status Bar	Displays the time, status icons (right side), and notification icons (left side). For more information see Status Bar on page 44 and Managing Notifications on page 47 .
2 — Widgets	Launches stand-alone applications that run on the Home screen.
3 — Shortcut Icons	Opens applications installed on the TC70x/TC75x.
4 — Folder	Contains apps.
5 — All Apps	Opens the APPS window.

The Home screen provides four additional screens for placement of widgets and shortcuts. Swipe the screen left or right to view the additional screens.

Setting Home Screen Rotation

By default the Home screen rotation is disabled. To enable Home screen rotation:



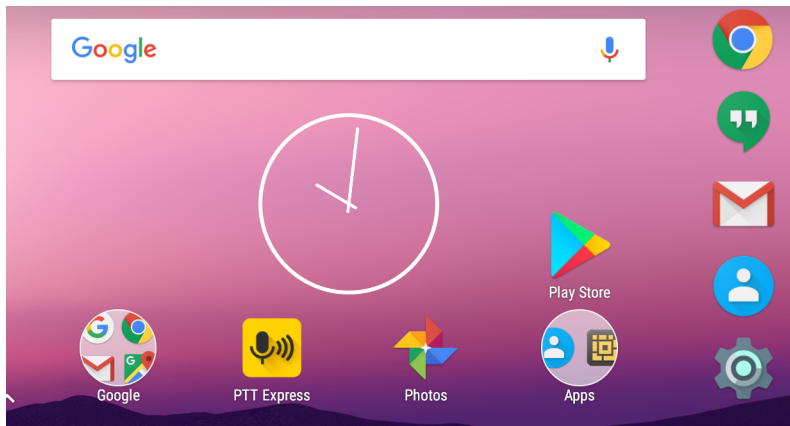
1. Touch and hold anywhere on the Home screen until the options appear.
2. Touch .
3. Touch **Allow Home screen rotation** switch.
4. Touch .
5. Rotate the device.

Figure 38 Rotated Home Screen



Status Bar


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



NOTE: Some Status icons might not appear in the Status Bar if there are too many icons to display.





















Figure 39 Notification and Status Icons



If there are more notifications than can fit in the Status bar,  displays indicating that more notifications exist. Open the Notifications panel to view all notifications and status.



Status Icons

Table 5 Status Icons

Icon	Description
	Indicates that the Alarm is active.
	Indicates that the main battery is fully charged.
	Indicates that the main battery is partially drained.
	Indicates that the main battery charge is low.
	Indicates that the main battery charge is very low.
	Indicates that the main battery is charging.
	Indicates that all sounds except media and alarms are silenced and vibrate mode is active.
	Indicates that the Airplane Mode is active. All radios are turned off.
	Indicates that Bluetooth is on.
	Indicates that the TC70x/TC75x is connected to a Bluetooth device.
	Connected to a Wi-Fi network.
	Not connected to a Wi-Fi network or no Wi-Fi signal.
	Connected to an Ethernet network.
	Speakerphone enabled.
	Mobile network signal strength (TC75x only).
	No mobile network signal (TC75x only).
	Connected to a 4G LTE/LTE-CA network (TC75x only) (see Note 1).
	Connected to a DC-HSPA, HSDPA, HSPA+, HSUPA, LTE/LTE-CA or WCDMA network (TC75x only) (see Note 1).
	Connected to a 1x-RTT (Sprint), EGDGE, EVDO, EVDV or WCDMA network (TC75x only) (see Note 1).
	Connected to a DC - HSPA, HSDPA, HSPA+ or HSUPA network (TC75x only) (see Note 1).

Note 1: Cellular network icon that appears is dependent upon the carrier/network.

Table 5 Status Icons (Continued)

Icon	Description
E	Connected to an EDGE network (TC75x only) (see Note 1).
G	Connected to a GPRS network (TC75x only) (see Note 1).
2G	Connected to a GPRS network (see Note 1).
1X	Connected to a 1x-RTT (Verizon) network (see Note 1).
	Roaming from a network (TC75x only).
	No SIM card installed (TC75x only).
Note 1: Cellular network icon that appears is dependent upon the carrier/network.	

Notification Icons

Table 6 Notification Icons























Icon	Description
	Indicates the main battery is low.
	Indicates that more notifications are available for viewing.
	Indicates that data is syncing.
	Indicates an upcoming event.
	Indicates that an open Wi-Fi network is available.
	Indicates that a song is playing.
	Indicates that a problem with sign-in or sync has occurred.
	Indicates that the TC70x/TC75x is uploading data.
	Indicates that the TC70x/TC75x is downloading data when animated and download is complete when static.
	Indicates that the TC70x/TC75x is connected via USB cable.
	Indicates that the TC70x/TC75x is connected to or disconnected from virtual private network (VPN).
	Preparing Internal Storage.
	Indicates that USB debugging is enabled on the TC70x/TC75x.

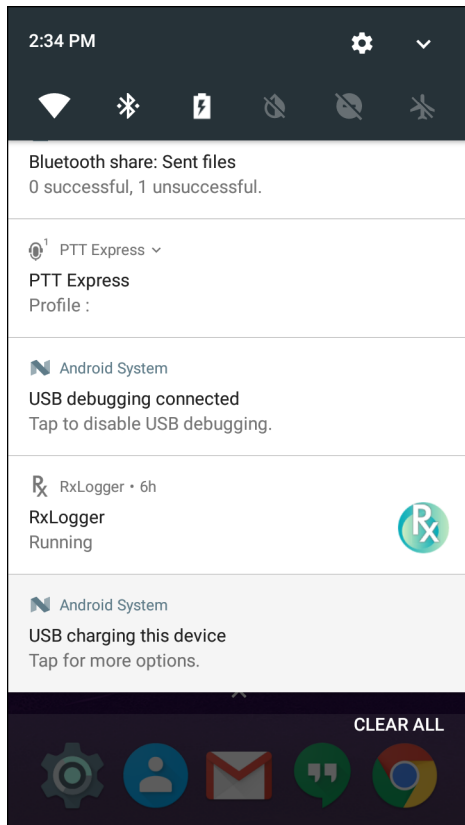
Table 6 Notification Icons (Continued)

Icon	Description
	Indicates a call is in progress (TC75x only).
	Indicates that one or more voice message is in mailbox (TC75x only).
	Indicates that the call is on hold (TC75x only).
	Indicates that a call was missed (TC75x only).
	Indicates that a headset is connected to the device.
	Indicates the status of the PTT Express Voice Client. See Notification Icons on page 116 for complete list of PTT Express notification icons.
	Indicates that RxLogger application is running.
	Indicates the RS6000 is connected to the device.
	Indicates the RS507 or RS6000 is connected to the device in HID mode.

Managing Notifications

Notification icons report the arrival of new messages, calendar events, and alarms, as well as ongoing events. When a notification occurs, an icon appears in the Status bar with a brief description. See [Notification Icons on page 46](#) for a list of possible notification icons and their description. Open the Notifications panel to view a list of all the notifications.

To open the Notification panel drag the Status bar down from the top of the screen.

Figure 40 Notification Panel



To respond to a notification, open the Notifications Panel and then touch a notification. The Notifications Panel closes and the subsequent activity is dependent on the notification.

To clear all notifications, open the Notifications 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 Notifications Panel up.

Setting Application Notifications


To change notification settings for a specific app:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Notifications**.
3. Select an application.
4. Select an available option:
 - **Block all** - Never show notifications from this application.
 - **Show silently** - Do not allow notifications from this application to make sound, vibrate or peek into view.
 - **Override Do Not Disturb** - Allow these notifications to interrupt when Do Not Disturb is set to Priority Only.





IMPORTANT In the notification, slide the notification slightly left or right and touch .

Viewing Notification Settings for All Apps

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch **Notifications**.
3. Touch down-arrow next to **All apps**.
4. To see all the apps currently set to a specific setting, touch that setting.



Controlling Lock Screen Notifications

To control whether notifications can be seen when the TC70x/TC75x is locked.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch **Notifications**.
3. Touch  > **On the lock screen** and select one of the following:
 - **Show all notification content** (default)
 - **Don't show notifications at all**.

Pulse Notification Light

The Charging/Notification LED lights blue when an application, such as email and VoIP, generates a programmable notification or to indicate when the TC70x/TC75x is connected to a Bluetooth device. By default, LED notifications are enabled.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch **Notifications**.
3. Touch  > **Pulse notification light** to toggle the notification on or off.

Quick Access Panel

Use Quick Settings to get to frequently used settings, like turning on airplane mode. To open the Quick Settings bar, swipe down once from the top of an unlocked screen.

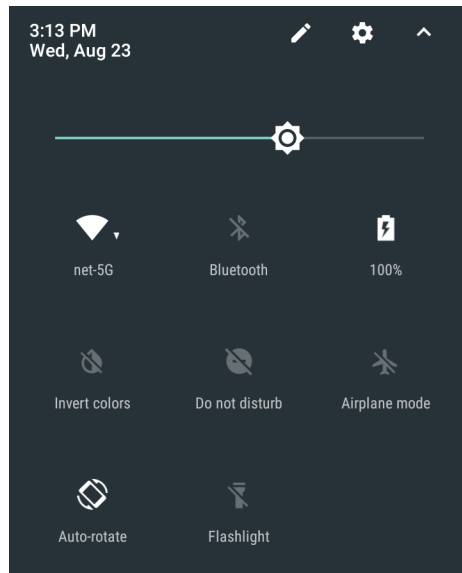
Figure 41 Quick Settings Bar



To see the full Quick Settings panel:

- If the TC70x/TC75x is locked, swipe down once.
- If the TC70x/TC75x is unlocked, swipe down once with two fingers, or twice with one finger.
- If the Quick Settings bar is open, touch the Down arrow.

Figure 42 Quick Settings Panel





To change a setting, just touch the icon:

- Display brightness: Slide to lower 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 the **Bluetooth**.
- Battery Power - Indicates percentage of battery power remaining. Touch to view battery usage.
- Invert colors - Invert the display colors.
- Do not disturb: Control how and when to receive notifications.
- Cellular: Turns cellular radio on or off. To open Cellular settings, touch (TC75x only)
- Airplane mode: Turn airplane mode on or off. Airplane mode means device will not connect to Wi-Fi or Bluetooth.
- Auto-rotate: Lock the device's orientation in portrait or landscape mode or set to automatically rotate.
- Flashlight: Turn camera flash on or off.
- Location: Enable or disable locationing feature.
- Data Saver - Turn on to prevent some apps from sending or receiving data in the background.



Edit Icons on Quick Settings

The first several setting tiles become the Quick Settings bar.



To move a setting tile:

1. Open Quick Settings panel.
2. Touch .
3. Touch and drag a setting tile to another location.
4. Release the tile.
5. Touch  to save tiles and return to quick settings.

To add a setting tile:

1. Open Quick Settings panel.
2. Touch .
3. Slide Quick Settings panel up to reveal additional tiles.
4. Touch and drag a setting tile from the **Drag to add tiles** area to the main area.
5. Release the tile.
6. Touch  to save tiles and return to quick settings.

To remove a setting tile:

1. Open Quick Settings.
2. Touch .
3. Touch and drag a setting tile to the **Drag here to remove** area.
4. Release the tile.
5. Touch  to save tiles and return to quick settings.

Application Shortcuts and Widgets

Application shortcuts placed on the Home screen allow quick and easy access to applications. Application Widgets are self-contained applications placed on the Home screen to access frequently used features.

Adding an Application to the Home Screen

1. Go to the desired Home screen.
2. Swipe up from the bottom of the screen.
3. Scroll through the list to find the application icon.
4. Touch and hold the icon until the Home screen appears.
5. Position the icon on the screen and then release.

Adding a Widget to the Home Screen

To add a widget to the Home screen:

1. Go to the desired Home screen.
2. Touch and hold onto the menu appears.
3. Touch **WIDGETS**.
4. Scroll through the list to find the widget.
5. Touch and hold the widget until the Home screen appears.
6. Position the widget on the screen and then release.

Moving Items on the Home Screen

1. Touch and hold the item until it floats on the screen.
2. Drag the item to a new location. Pause at the edge of the screen to drag the item onto an adjacent Home screen.
3. Lift finger to place the item on the Home screen.

Removing an Application Shortcut or Widget from the Home Screen

1. Go to the desired Home screen.

2. Touch and hold the application shortcut or widget icon until it floats on the screen.
3. Drag the icon to **X Remove** on the top of the screen and then release.

Folders

Use **Folders** to organize similar applications together. Tap the folder to open and display items in the folder.

Creating a Folder

To create a folder, there must be at least two app icons on the Home screen.

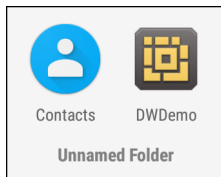
1. Go to the desired Home screen.
2. Touch and hold on one application icon.
3. Drag the icon and stack on top of another icon.
4. Lift and release.


Naming Folders

To name a folder:

1. Touch the folder.

Figure 43 Open Folder



2. Touch the title area and enter a folder name using the keyboard.
3. Touch  on the keyboard.
4. Touch anywhere on the Home screen to close the folder. The folder name appears under the folder.

Removing a Folder

To remove a folder:

1. Touch and hold the folder icon until it enlarges.
2. Drag the folder to **X Remove** and release.

Home Screen Wallpaper

To change the Home screen wallpaper:

1. Touch and hold on the screen until the menu appears.
2. Touch **WALLPAPERS**.
3. Touch **My photos** to select a photo from Gallery or select one of the pre-installed photos.
4. Touch **Save wallpaper**.

Using the Touchscreen

Use the multi-tap sensitive screen to operate the device.

- **Tap** - Tap to:
 - select items on the screen
 - type letters and symbols using the on-screen keyboard
 - press on-screen buttons.
- **Tap and Hold** - Tap and hold:
 - an item on the Home screen to move it to a new location or to the trash.
 - an item in Apps to create a shortcut on the Home screen.
 - the Home screen to open a menu for customizing the Home screen.
 - an empty area on the Home screen until the menu appears.
- **Drag** - Tap and hold an item for a moment and then move finger on the screen until reaching the new position.
- **Swipe**- Move finger up and down or left and right on the screen to:
 - unlock the screen
 - view additional Home screens
 - view additional application icons in the Launcher window
 - view more information on an application's screen.
- **Double-tap** - Tap twice on a web page, map, or other screen to zoom in and out.
- **Pinch** - In some applications, zoom in and out by placing two fingers on the screen and pinching them together (to zoom out) or spreading them apart (to zoom in).

Keyboards




Use the on-screen keyboard to enter text in a text field.

Editing Text

Edit entered text and use menu commands to cut, copy, and paste text within or across applications. Some applications 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

To enter numbers and symbols:

- Touch and hold one of the top-row keys until a menu appears then select a number. Keys with alternate characters display an ellipsis (...) below the character.
- Touch and hold the Shift key with one finger, touch one or more capital letters or symbols to enter them, and then lift both fingers to return to the lowercase keyboard.
- Touch  to switch to the numbers and symbols keyboard.
- Touch  on the numbers and symbols keyboard to view additional symbols.
- Touch  to enter emoji icons in a text message.


To 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.
- Keys with alternate characters display an ellipsis (...) below the character.

Configuring the Keyboard

To configure the keyboard, See the Keyboard Settings section in the TC70x/TC75X Integrator Guide for Android Version 7.1.2.

AOSP Keyboard

To configure the keyboard settings, touch and hold  (comma) >  and then select **Android Keyboard Settings (AOSP)**.

GMS Keyboard

To configure the keyboard settings, touch and hold  (comma) >  and then select **Gboard Keyboard settings**.

Do Not Disturb Feature

This mode mutes the TC70x/TC75x so that it does not make sounds or vibrate.

For example, use Do Not Disturb to:

- Automatically limit sounds at night or during events
- Mute interruptions other than alarms
- Get alerted to messages only from favorite contacts.

Limit Sounds and Vibrations

Mute the TC70x/TC75x completely, or let through the important alarms or important calls.

Total Silence

To completely mute the TC70x/TC75x so that it does not make a sound or vibrate, choose **Total silence**.


In Total silence mode:

- Alarms do not make noise.
- TC70x/TC75x does not vibrate or make sounds when receiving a message, or notification.
- Sounds from music, videos, games, and other media are muted.



NOTE: The user will not hear alarms in Total silence mode.

1. Swipe down with two fingers from the status bar to open the quick access panel.
2. Touch **Do not disturb** > **Total silence**.
3. Choose **Until you turn it off** or select a time period.
4. Touch **Done**.

When Total Silence is on,  appears in the quick access panel and the Status Bar.

To turn off Total Silence, open quick access panel and touch **Total silence**.

Alarms Only

To mute the TC70x/TC75x so that the user hears alarms, choose **Alarms only**. This option does not mute sounds from music, videos, games, or other media.

1. Swipe down with two fingers from the status bar to open the quick access panel.
2. Touch **Do not disturb > Alarms only**.
3. Choose **Until you turn it off** or select a time period.
4. Tap **Done**.

When Alarms Only is on,  appears in the quick access panel and the Status Bar.

To turn off Alarms Only, open quick access panel and touch **Alarms only**.





NOTE: To quickly turn on Alarms Only, with the screen on, press and hold the Volume Down button until the volume is all the way down. Then, press Volume Down again to turn on Alarms Only.

To turn off Alarms Only, press either the Volume Up or Volume Down button and the touch **END NOW** in the alert message. Then, press Volume Up again to turn on Alarms Only.

Priority Notifications Only


To only be interrupted by important notifications, choose Priority Only. This option does not mute sounds from music, videos, games, or other media.

Before turning on Priority Only mode, set the notification priorities:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Sound > Do not disturb > Priority only allows**.
3. Set priorities.
 - **Alarms:** Disabled by default.
 - **Reminders and Events:** Switch on or off.
 - **Messages and Calls:** Choose **From anyone**, **From contacts only**, **From starred contacts only**, or **none**. To star contacts, use the **Contacts** app.
 - **Repeat callers:** Choose whether to let the TC70x/TC75x ring if the same person calls again within 15 minutes.

After setting notification priorities, turn on Priority only mode to limit interruptions. The priority notifications make a sound or vibrate based on the current ringer volume, but other notifications will be silenced.

1. Swipe down with two fingers from the status bar to open the quick access panel.
2. Touch **Do not disturb > Priority only**.
3. Choose **Until you turn it off** or select a time period.
4. Tap **Done**.



When Priority Only is on,  appears in the quick access panel and the Status Bar.

To turn off Priority Only, open quick access panel and touch **Priority only**.

Automatically Block Sounds and Vibrations



Silence Sounds During Certain Times

To automatically silence the TC70x/TC75x during certain times, like at night or on weekends, set the time rules.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Sound > Do not disturb > Automatic rules.**
3. Touch a default **Weekend** or **Weeknight**. Or, to make a new rule, touch **Add rule** and then **Time rule**.
4. Edit the new rule:
 - **Rule name:** Name the rule.
 - **Days, Start time,** and **End time:** Set the rule's schedule.
 - **Do not disturb:** Choose whether the rule uses **Alarms only**, **Priority only**, or **Total silence**.
5. Touch the On/Off text or switch at the top to turn on the rule.

Silence Sounds During Events and Meetings

To automatically silence the TC70x/TC75x during events or meetings, set an event rules.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Sound > Do not disturb > Automatic rules.**
3. To edit the default rule, touch **Event**. Or, to create a new rule, touch **Add rule > Event rule**.
4. Edit the rule settings.
 - **During events for:** Select which Google Calendar events the rule uses.
 - **Where reply is:** Options: **Yes, Maybe, or Not replied, Yes or Maybe, or Yes.**
 - **Do not disturb:** Choose whether the rule uses **Priority only**, **Alarms only**, or **Total silence**.
5. Touch the On/Off switch at the top to turn on the rule.

Turn Sounds Back On


When the TC70x/TC75x is in Do Not Disturb mode, Alarms or Priority only  or Total silence  display.

To turn off Do Not Disturb, either:

- In the quick access panel, touch **Alarms only**, **Priority only**, or **Total silence**.
- Press the Volume Down button and touch **End Now**.

Override Do Not Disturb for Specific Apps

To let through notifications from specific apps:

1. Open **Settings >  Notifications.**
2. Touch an app.
3. Touch **Override Do Not Disturb**.

Applications

The **APPS** screen displays icons for all installed applications. The table below lists the applications installed on the TC70x/TC75x. Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on installing and uninstalling application.

Table 7 Applications






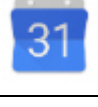





Icon	Description
	App Gallery - Provides links to utilities and demonstration applications that can be installed on the device.
	Battery Management - Displays battery information, including charge level, status, health and wear level.
	Battery Swap – Use to place device in Battery Swap mode when replacing the battery.
	Bluetooth Pairing Utility – Use to pair the RS507 Hands-free Imager with the TC70x/TC75x by scanning a barcode.
	Calculator - Provides the basic and scientific arithmetic functions.
	Calendar - Use to manage events and appointments. TC70x/TC75x with GMS only.
	Chrome - Use to access the Internet or intranet. TC70x/TC75x with GMS only.
	Chromium - Use to access the Internet or intranet. TC70x/TC75x without GMS only.
	Clock - Use to schedule alarms for appointments or as a wake-up.
	Contacts - Use to manage contact information. See Contacts on page 94 for more information.
	DataWedge - Enables data capture using the imager.

Table 7 Applications (Continued)














Icon	Description
	Device Central - Use to display detailed information about the TC70x/TC75x and connected peripherals. See Device Central on page 88 for more information.
	Diagnostic Tool - Use to diagnose the TC70x/TC75x.
	Downloads - lists all downloads files.
	Duo - A one-to-one video calling application (Available only on devices with GMS software).
	Drive - Upload photos, videos, documents, and other files to personal storage site. TC70x/TC75x with GMS only.
	DWDemo - Provides a way to demonstrate the data capture features using the imager. See DataWedge Demonstration on page 112 for more information.
	Email - Use to send and receive email.
	File Browser - Organize and manage files on the TC70x/TC75x. See File Browser on page 90 for more information.
	Gallery - Use to view photos stored on the microSD card. For more information, see Gallery on page 100 for more information. TC70x/TC75x without GMS only.
	Gmail - Use to send and receive email using a Google email account. TC70x/TC75x with GMS only.
	Google - Launches Google search application. TC70x/TC75x with GMS only.
	Maps - Use to see your location on a map (with public transit, traffic or satellite overlays). Search for any business or place of interest. Provides turn-by-turn navigation with voice guidance and traffic-avoidance and alternate routes, for drivers, cyclist, walkers and users of public transportation. TC70x/TC75x with GMS only.
	Messaging - Send SMS and MMS messages. See Messaging on page 92 for more information (TC75x only).

Table 7 Applications (Continued)





















Icon	Description
	MSRN - Use to verify authenticity of the paired Snap-on MSR and to provision the Snap-on MSR. See TC70x/TC75x Touch Computer Integrator Guide for Android Version 7.1.2 for more information.
	Music - Play music stored on the microSD card. TC70x/TC75x without GMS only.
	Notes - Use to take and save notes.
	Phone - Use to dial a phone number when used with some Voice over IP (VoIP) clients (VoIP telephony ready only) (TC75x only).
	Photos - Use to sync photos with Google account. For more information, see Photos on page 106 for more information. TC70x/TC75x with GMS only.
	Play Movies & TV - View movies and video on your device. TC70x/TC75x with GMS only.
	Play Music - Use to listen to music. TC70x/TC75x with GMS only.
	Play Store - Download music, movies, books, and Android apps and games from the Google Play Store. TC70x/TC75x with GMS only.
	PTT Express - Use to launch PTT Express client for VoIP communication.
	RxLogger - Use to diagnose device and application issues. See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for more information.
	RxLogger Utility - Use to view, backup, and archive RxLogger data.
	Search - (Available only on devices without GMS software).
	Settings - Use to configure the TC70x/TC75x.

Table 7 Applications (Continued)

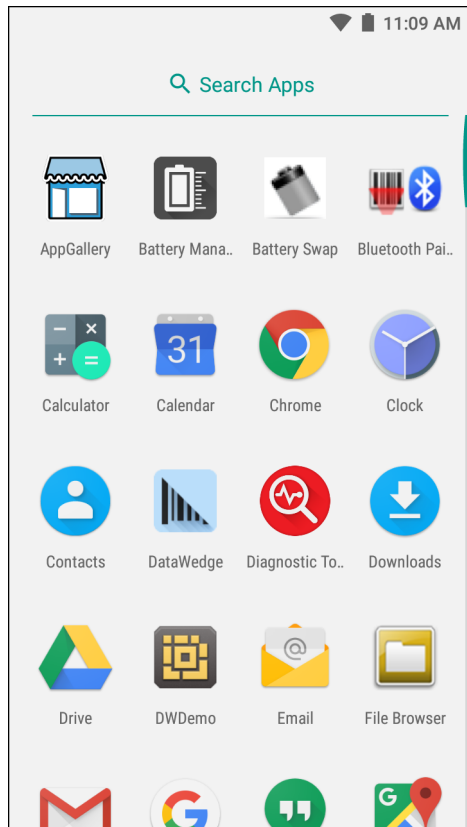
Icon	Description
	SimulScan Demo - Use to demonstrate the document capture feature of the TC70x/TC75x.
	SMARTMU - A diagnostic intelligent app. Use to diagnose surrounding area and display network stats, such as coverage hole detection, or AP in vicinity.
	Snapdragon Camera - Take photos or record videos. For more information see Camera on page 95 .
	Sound Recorder - Use to record audio.
	StageNow - Allows the TC70x/TC75x to stage a device for initial use by initiating the deployment of settings, firmware and software.
	Voice Search - Use to perform searches by asking questions. TC70x/TC75x with GMS only.
	YouTube - Use to view videos on the YouTube web site. TC70x/TC75x with GMS only.

Accessing Applications

All applications installed on the device are accessed using the **APPS** window.

1. On the Home screen, swipe up from the bottom of the screen.

Figure 44 APPS Window Example



2. Slide the **APPS** window up or down to view more application icons. Touch an icon to open the application.

Switching Between Recent Applications


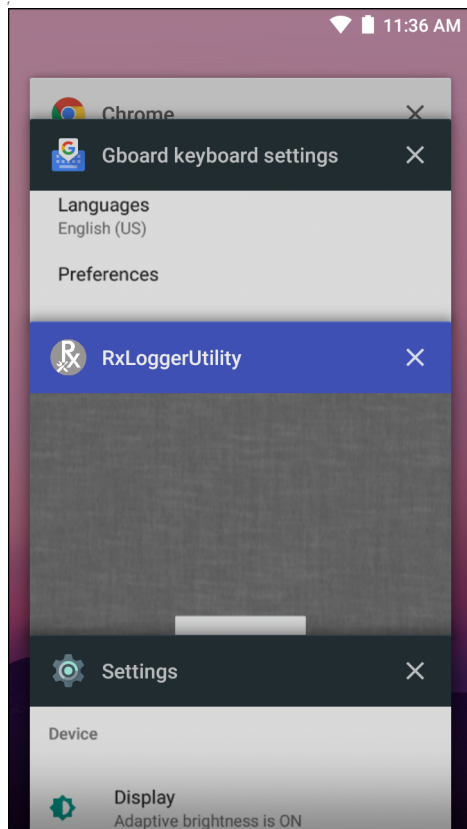

1. Touch . A window appears on the screen with icons of recently used applications.

Figure 45 Recently Used Applications



2. Slide the window up and down to view all recently used applications.
3. Swipe left or right to remove application from the list and force close the application.
4. Touch an icon to open it or touch  to return to the current screen.

Un-Locking the Screen

Use the Lock screen to protect access to data on the TC70x/TC75x. Some email account require locking the screen. Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on setting up the locking feature.

When locked, a pattern, PIN or password is required to unlock the device. Press the Power button to lock the screen. The device also locks after a pre-defined time-out.

Press and release the Power button to wake the device. The Lock screen displays. 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.

Figure 46 Lock Screen

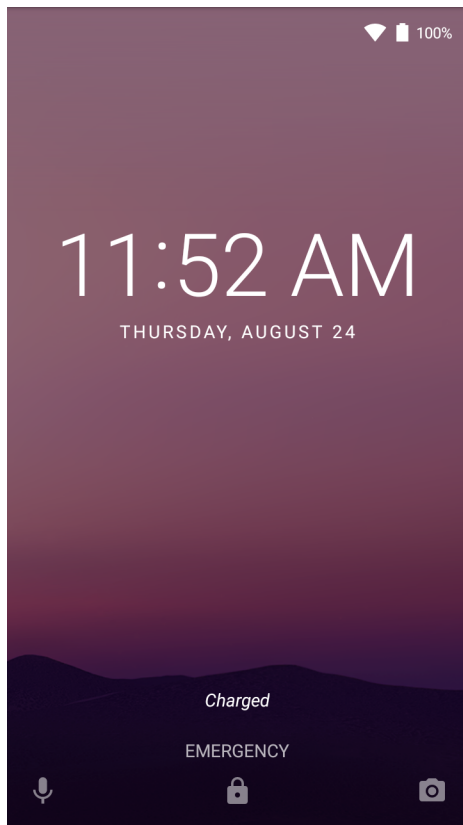


Figure 47 PIN Screen

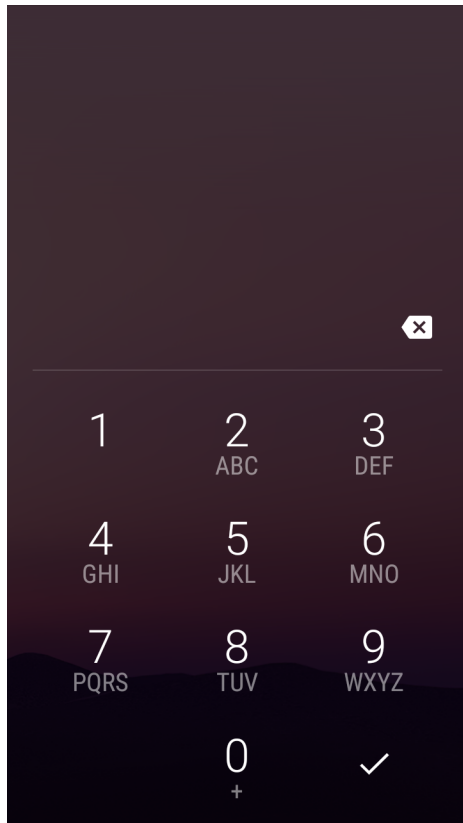
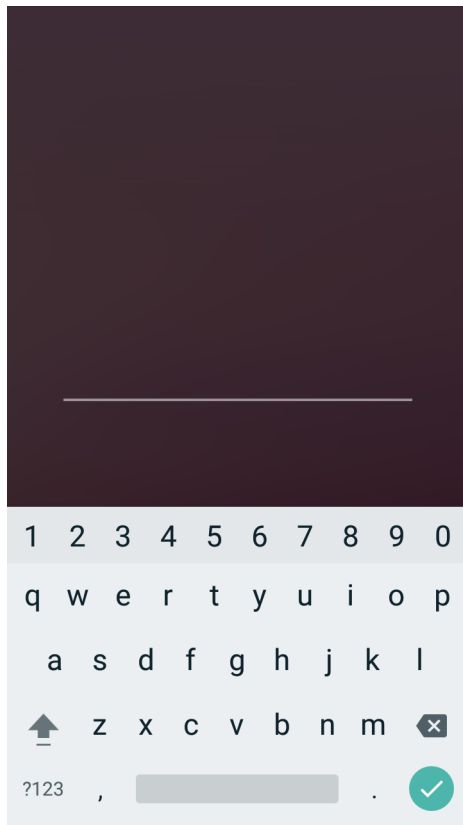


Figure 48 Pattern Screen



Figure 49 Password Screen

Interactive Sensor Technology

The TC70x/TC75x contains sensors that monitor movement, orientation and ambient light:

- Gyroscope - Measures angular rotational velocity to detect rotation of the device.
- Accelerometer - Measures the linear acceleration of movement to detect the orientation of the device.
- Digital Compass - The digital compass or magnetometer provides simple orientation in relation to the Earth's magnetic field. As a result, the device always knows which way is North so it can auto rotate your digital maps depending on your physical orientation.
- Light Sensor - Used to detect ambient light and adjust the screen brightness.
- Proximity Sensor - Uses to detect presence of nearby objects without physical contact.

In order to take advantage of these sensors, applications use API commands. Refer to the Zebra Android EMDK for more information.

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 and hold the Power button until the menu appears.
2. Touch **Reset**.
3. The device reboots.

Performing a Hard Reset



CAUTION: Performing a hard reset with a SD card installed in the TC70x/TC75x may cause damage or data corruption to the SD card.

Perform a hard reset if the TC70x/TC75x stops responding.

1. Simultaneously press the Power, Scan and Volume Up buttons for at least four seconds.
2. When the screen turns off, release the buttons.
3. The TC70x/TC75x reboots.

Suspend Mode

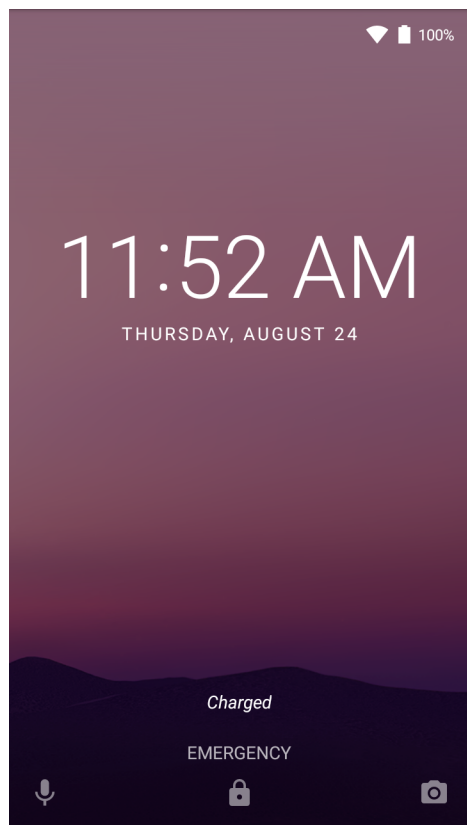
The TC70x/TC75x goes into suspend mode when the user presses the Power button or after a period of inactivity (set in the Display settings window).

To wake the TC70x/TC75x from Suspend mode, press the Power button. The Lock screen displays. 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. See [Un-Locking the Screen on page 62](#).



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

If the user forgets the PIN, password or pattern contact the system administrator.

Figure 50 Lock Screen

Transferring Files with a Host Computer via USB

Connect the TC70x/TC75x to a host computer using the USB Charging cable or the 1-Slot USB cradle to transfer files between the TC70x/TC75x and the host computer. See [Accessories](#) for more information.

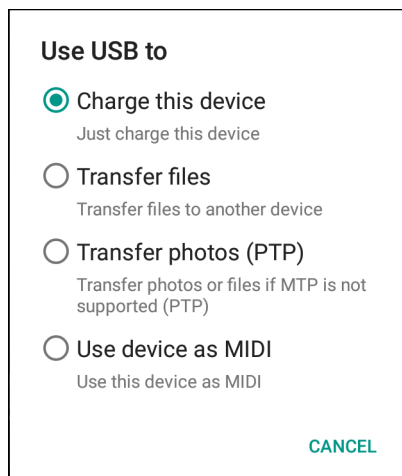
When connecting the TC70x/TC75x to a host computer, follow the host computer's instructions for connecting and disconnecting USB devices, to avoid damaging or corrupting files.

Transferring Files using Media Transfer Protocol



NOTE Use Media Transfer Protocol (MTP) to copy files between the TC70x/TC75x (internal memory or microSD card) and the host computer.

1. Connect the Snap-On USB Cable to the TC70x/TC75x or place the TC70x/TC75x into the 2-Slot USB/Ethernet Cradle. See [Accessories](#) for setup information.
2. Pull down the Notification panel and touch **USB charging this device**.

Figure 51 Use USB Dialog Box

3. Touch **Transfer files**.
4. On the host computer, open a file explorer application.
5. Locate the **TC70x/TC75x** as a portable device.
6. Open the **SD card** or the **Internal storage** folder.
7. Copy files to and from the TC70x/TC75x or delete files as required.

Transferring Files using Photo Transfer Protocol



NOTE Use Photo Transfer Protocol (PTP) to copy photos from either the microSD card or internal memory to the host computer.

1. Connect the Snap-On USB Cable to the TC70x/TC75x or place the TC70x/TC75x into the 2-Slot USB/Ethernet Cradle. See [Accessories](#) for setup information.
2. Pull down the Notification panel and touch **USB charging this device**.
3. Touch **Transfer photos (PTP)**.
4. On the host computer, open a file explorer application.
5. Open the **SD card** or the **Internal storage** folder.
6. Copy or delete photos as required.

Disconnect from the Host Computer



CAUTION Carefully follow the host computer's instructions to unmount the microSD card and disconnect USB devices correctly to avoid losing information.

1. On the host computer, unmount the device.
2. Remove the USB cable from the device or remove the device from the cradle.

Calls

Introduction



NOTE: TC75x only.

Make a phone call from the **Phone** application, the **Contacts** application or other applications or widgets that display contact information.

Emergency Calling

The service provider programs one or more emergency phone numbers, such as 911 or 999, that the user can call under any circumstances, even when the phone is locked, a SIM card is not inserted or the phone is not activated. The service provider can program additional emergency numbers into the SIM card. However, the SIM card must be inserted in the device in order to use the numbers stored on it. See the service provider for additional information.



NOTE: Emergency numbers vary by country. The phone's pre-programmed emergency number(s) may not work in all locations, and sometimes an emergency call cannot be placed due to network, environmental, or interference issues.

Audio Modes

The device offers three audio modes for use during phone calls:

- **Handset Mode:** Switches audio to the receiver at the top front of the device, so the user can use the device as a handset. This is the default mode.
- **Speaker Mode:** Use the device as if on speaker phone.
- **Headset Mode:** Connect a Bluetooth or wired headset to automatically switch audio to the headset.

Using a Bluetooth Headset

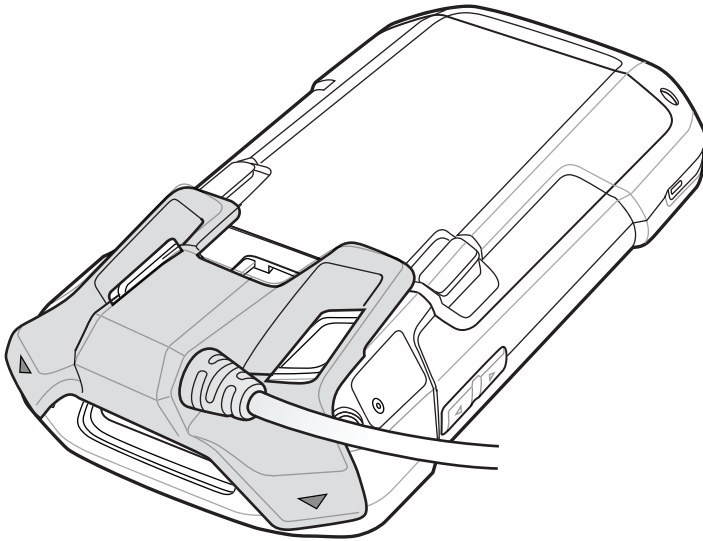
Use a Bluetooth headset for audio communication when using an audio-enabled application. See [Bluetooth on page 158](#) for information on connecting a Bluetooth headset to the device. Set the volume appropriately before putting on the headset. When a Bluetooth headset is connected, the speakerphone is muted.

Using a Wired Headset

Use a wired headset and Audio Adapter for audio communication when using an audio-enabled application. Set the volume appropriately before putting on the headset. When a wired headset is connected, the speakerphone is muted.

To end a call using the wired headset, press and hold the headset button until the call ends.

Figure 52 3.5 mm Headset Adapter



Adjusting Audio Volume

Use the Volume buttons to adjust the volume of the ringer when not in a call and the audio volume when in a call.



NOTE: Adjust the conversation phone volume during a call. Adjusting the volume while not in a call affects the ring and notification sound levels.

Making a Call Using the Dialer

Use the dialer tab to dial phone numbers.



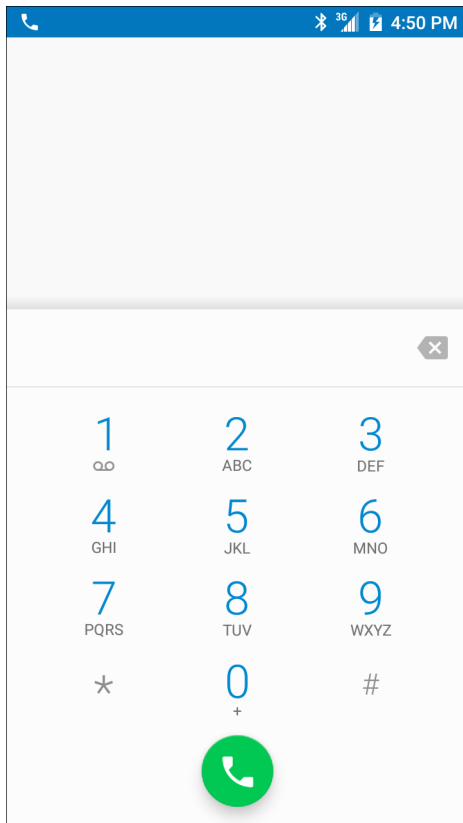
1. On the Home screen touch .
2. Touch .

Figure 53 Dialer Screen




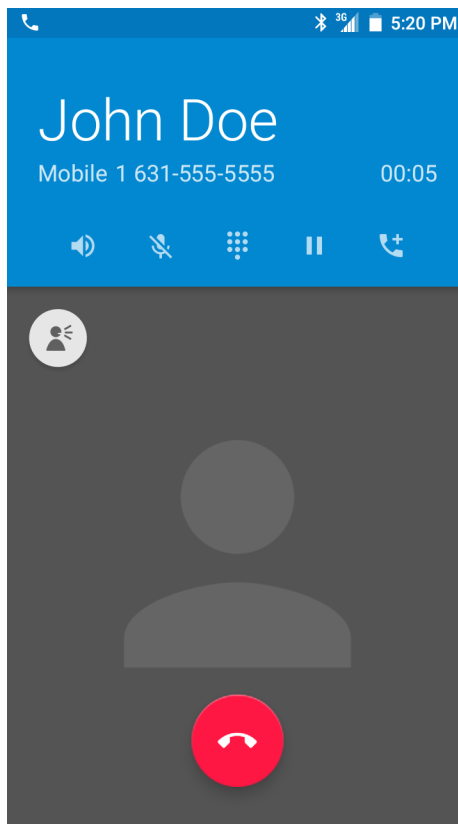





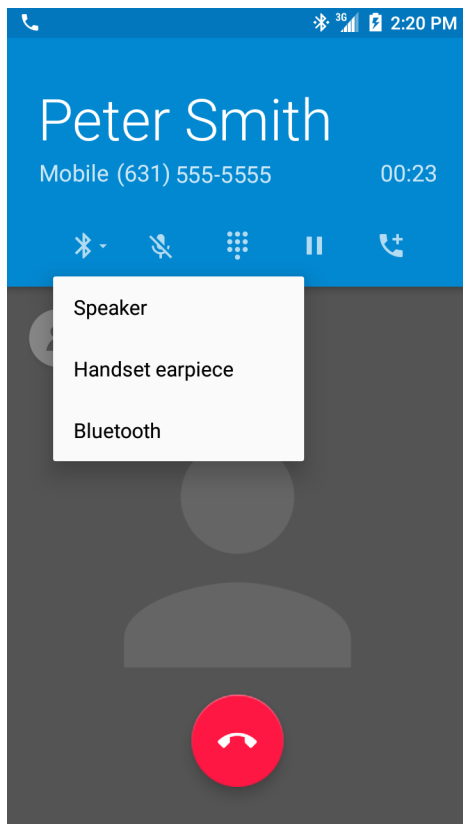
3. Touch the keys to enter the phone number.
4. Touch  below the dialer to initiate the call.




Figure 54 Call in Progress

-  - touch to send audio to the speakerphone.
-  - touch to mute the call.
-  - touch to display the dial pad.
-  - touch to place the call on hold.
-  - touch to create a conference call.


5. Touch  to end the call.

If using a Bluetooth headset, additional audio options are available. Touch the audio icon to open the audio menu.

Figure 55 Bluetooth Audio Options

-  - indicates that audio is routed to the Bluetooth headset.
-  - indicates that audio is routed to the speakerphone.
-  - indicates that audio is routed to the earpiece.

Dialer Dialing Options

The dialer provides options to save the dialed number to contacts, insert pauses and wait into the dial string and options for setting the Call settings. Enter at least one digit to access these options. Touch  to access the following.

- **Add 2-sec pause** - pause the dialing of the next number for two seconds. Multiple pauses can be added sequentially.
- **Add wait** - wait for confirmation to send the rest of the digits.

Making a Call Using Contacts

There are two ways to make a call using contacts:

- Using the Dialer
- Using the Contacts application.

Using the Dialer



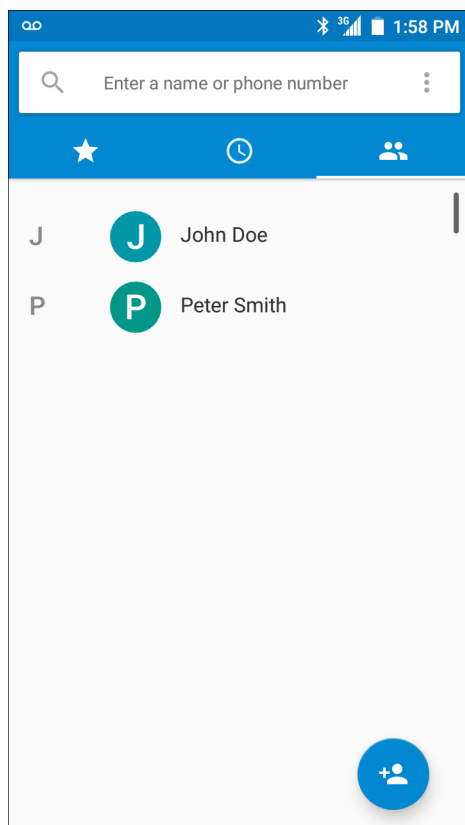


1. On the Home screen touch .
2. Touch the  tab.

Figure 56 Dialer Contacts Tab

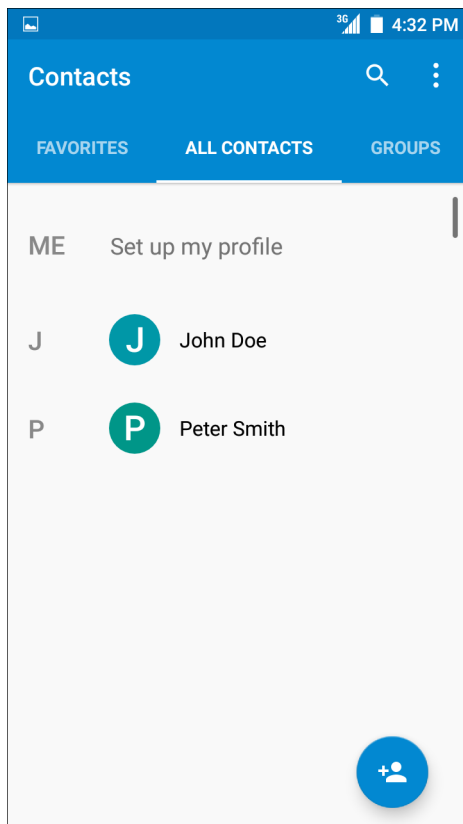


3. Touch the contact.
4. Touch  to initiate the call.
5. Touch  to end the call.

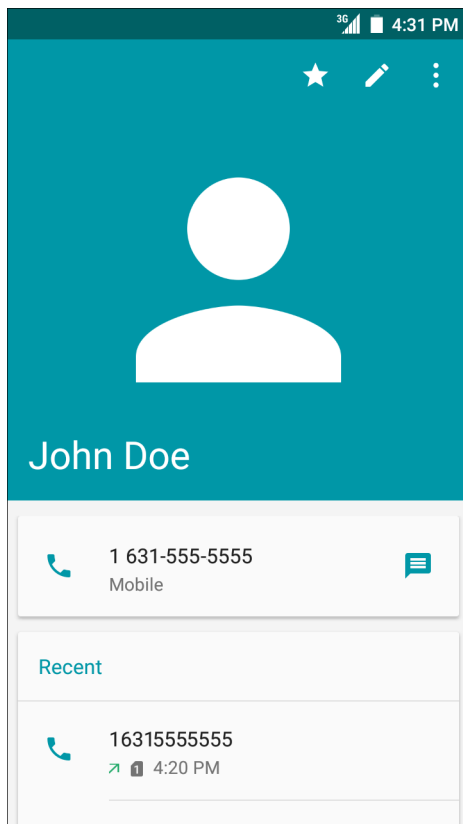
Using the Contacts Application

To make a call from the Contacts application:

1. Touch .

Figure 57 Contact Application

2. Touch a contact name.




Figure 58 Contact Information

3. Touch to initiate a call.

Making a Call Using Call History

Call History is a list of all the calls placed, received, or missed. It provides a convenient way to redial a number, return a call, or add a number to Contacts.

Arrow icons beside a call indicate the type of call. Multiple arrows indicate multiple calls:

-  - Missed incoming call
-  - Received incoming call
-  - Outgoing call.



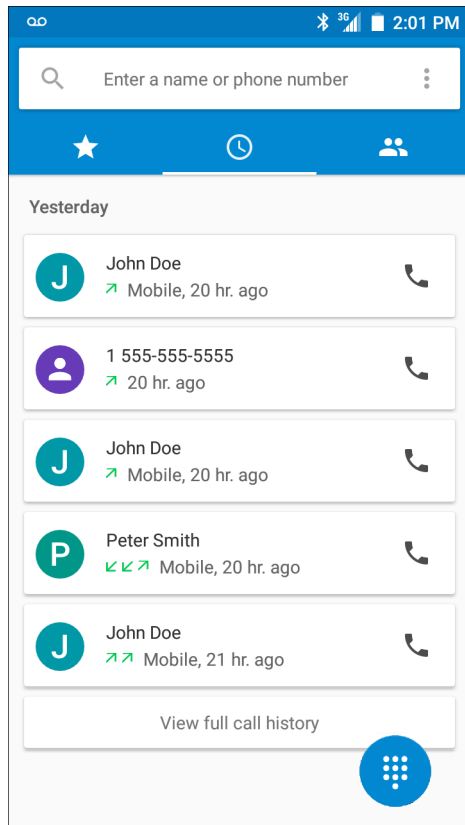


1. On the Home screen touch .
2. Touch the  tab.

Figure 59 Call History Tab






3. Touch  next to the contact to initiate the call.
4. Touch the contact to perform other functions.
5. Touch  to end the call.

Making a Conference Call

To create a conference phone session with multiple people.



NOTE: Conference Calling and the number of conference calls allowed may not be available on all services. Please check with the service provider for Conference Calling availability.

1. On the Home screen touch .
2. Touch .
3. Touch the keys to enter the phone number.
4. Touch  below the dialer to initiate the call.
5. When the call connects, touch .
The first call is placed on hold.
6. Touch .
7. Touch the keys to enter the second phone number.


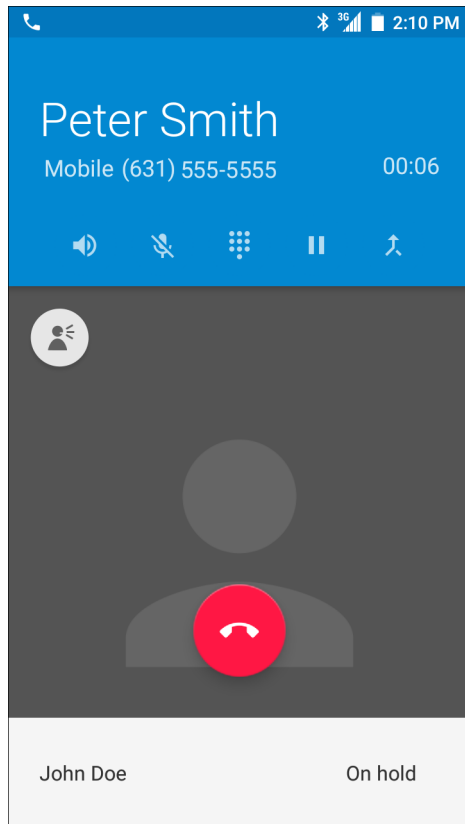
8. Touch  below the dialer to initiate the call.
9. When the call connects, the first call is placed on hold and the second call is active.

Figure 60 Two Calls




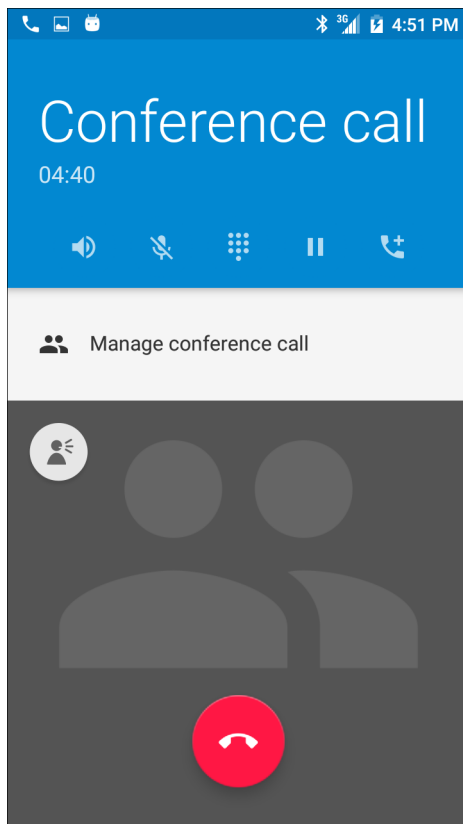
10. Touch  icon to create a conference call with three people.

Figure 61 Merged Calls





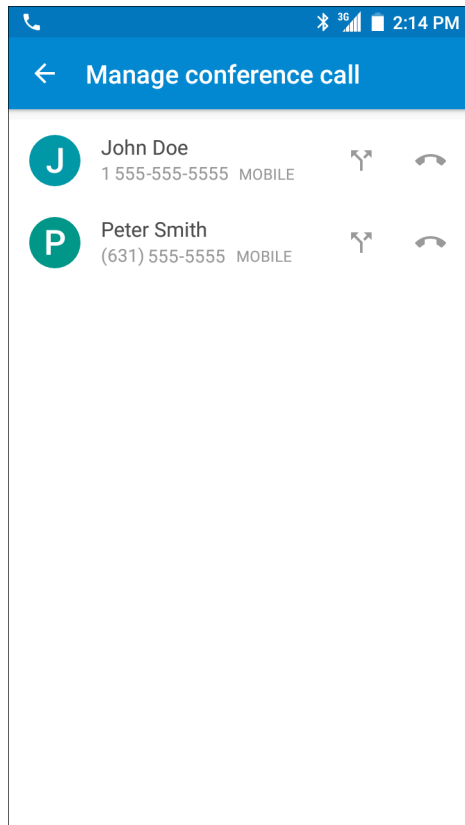


11. Touch  to add another call.
The conference is placed on hold.
12. Touch .
13. Touch the keys to enter the second phone number.
14. Touch  below the dialer to initiate the call.
15. Touch  icon to add the third call to the conference.
16. Touch **Manage Conference call** to view all callers.

Figure 62 Un-merge Calls

17. To remove a caller from the conference, touch  next to the caller.

To speak privately with one party during a conference call, touch . To include all parties again, touch .

Making a Call Using a Bluetooth Headset

To make a call using a Bluetooth headset:

1. Pair the Bluetooth headset with the device.
2. Press the Call button on the Bluetooth headset.
"Speak now" is heard from the Bluetooth headset and the **Voice Dialer** screen appears.
3. Say a command.

Table 1:

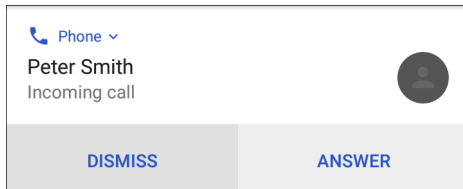
If ...	Then ...
You want to call a contact by name:	Say "Call <i>(name)</i> ."
You want to call a number:	Say "Dial <i>(number)</i> ."
If you want to call your voicemail:	Say "Call voicemail."
If you want to call the previous caller:	Say "Redial."

4. Press the Call button on the Bluetooth headset to end the call.

Answering Calls

When you receive a phone call, the **Incoming Call** screen displays, displaying the caller ID and any additional information about the caller that is in the **Contacts** application.

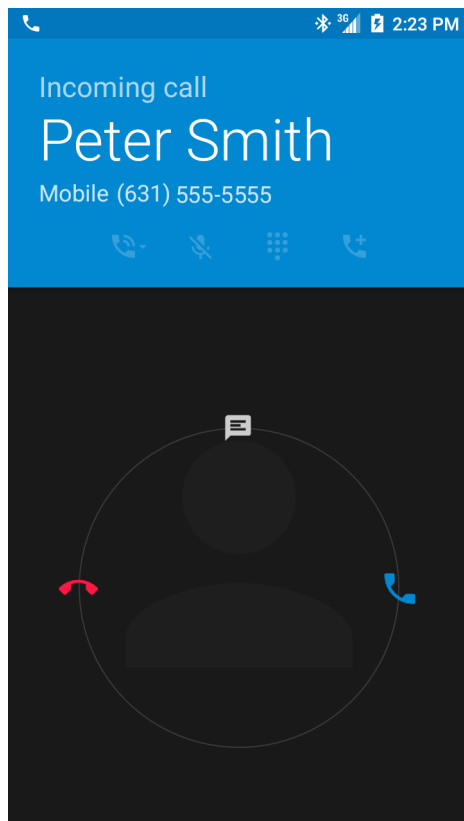
Figure 63 Incoming Call Screen






Touch **Answer** to answer the call or **Dismiss** to send the caller to voice mail.

If the screen lock is enabled, the user can still answer the call without unlocking the device.

Figure 64 Incoming Call Locked Screen



When a call arrives, touch the white phone icon and slide over one of these icons:

-  Answer call - Start talking to the caller.
-  Send to voice mail - Direct the caller to leave a voice mail message.
-  Send a message - Opens a list of quick text responses. Touch one to send it to the caller immediately.

When the calls ends, the device remains locked.

If using a Bluetooth headset, when a call arrives, touch the Call button on the Bluetooth headset to answer the call. To end the call press the headset Call button.

All incoming calls are recorded in the Phone application Call log tab. If you miss a call, you receive a notification. To silence the ringer before answering the call, press the volume down button on the side of device.

Call Settings



NOTE: Not all options are available for all configurations.

Use the Call Settings to modify options related to the phone call feature.

- **Display options**
 - **Sort by** - Options: **First name** or **Last name**.
 - **Name format** - Options: **First name first** or **Last name first**.
- **Sounds and vibrations**
 - **Phone ringtone** - Touch to select a ringtone to sound when an incoming call is received.
 - **Also vibrate for calls** - Check to make the device vibrate when a call is received (default - disabled).
 - **Dialpad tones** - Check to play a sound when a phone key is touched (default - enabled).
- **Quick responses** - Touch to edit quick responses to use instead of answering a call.
- **Speed dial settings** - Set speed dial contact shortcuts.
- **Calls**
 - **Calling accounts**
 - **SIP accounts** - Choose to receive Internet calls for accounts added to the device, view or change SIP accounts, or add an Internet calling account.
 - **Use SIP calling** - Options: **For all calls** or **Only for SIP calls** (default).
 - **Receive incoming calls** - When enabled, allows incoming calls (default - disabled).
 - **Voicemail** - Touch to configure voicemail settings.
 - **Service** - Set the service provider or other provider for voicemail service.
 - **Setup** - Touch to update the phone number used to access voicemail.
 - **Sound** - Touch to select a sound to play when a voicemail is received.
 - **Vibrate** - Set vibrate option. (default – disabled).
 - **Fixed Dialing Numbers** - Use Fixed Dialing to restrict the phone to dial only the phone number(s) or area code(s) specified in a Fixed Dialing list.
 - **Call forwarding** - Use call forwarding to forward incoming calls to a different phone number.



NOTE: Call Forwarding may not be available on all networks. Check with the service provider for availability.

- **Additional settings**
 - **Caller ID** - Enable caller ID to reveal the identity of the person making an outgoing call. Options: **Network default** (default), **Hide number**, **Show number**.

- **Call waiting** - set to be notified of an incoming call while on a call.
- **Call barring** - Use call barring to block certain types of incoming and/or outgoing calls. Select the type of incoming and/or outgoing calls to block.
- **Call blocking** - Use to block calls and texts from certain phone numbers. Touch **ADD NUMBER** to block a phone number.
- **Accessibility**
 - **TTY mode** - Touch to set the TTY setting. Use an optional teletypewriter (TTY) device with the TC56 to send and receive calls. Plug the TTY device into the TC56 headset jack and set the TC56 to operate in one of the TTY modes.



NOTE: Use a TSB-121 compliant cable (provided by the TTY manufacturer) to connect the TTY device to the TC75x.

Set the TC75x volume to a middle level setting for proper operation. If you experience a high number of incorrect characters, adjust the volume as needed to minimize the error rate.

For optimal performance, the TC75x should be at least 30 cm (12 inches) from the TTY device. Placing the TC75x too close to the TTY device may cause high error rates.

- **TTY off** (default) - TTY is off.
- **TTY Full** - Transmit and receive TTY characters.
- **TTY HCO** - Transmit TTY characters but receive by listening to earpiece.
- **TTY VCO** - Receive TTY characters but transmit by speaking into microphone.

Applications

Introduction

This section describes the applications installed on the device.

Battery Manager

The **Battery Manager** provides detailed information about the battery.

Figure 65 Battery Manager Screen

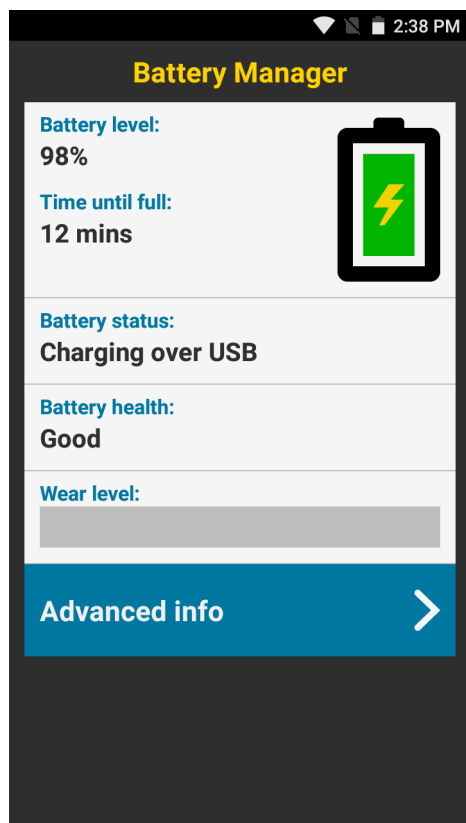






Table 8 Battery Icon Description

Battery Icon	Description
	Indicates battery charge level.
	Indicates battery charging.
	Indicates battery charge level is below 20%.

- **Battery level** - Indicates the current battery charge level as a percentage. Displays -% when level is unknown.
- **Time until full** - Indicates the amount of time until the battery is fully charged.
- **Time since charging** - Indicates the amount of time since the device began charging.
- **Time until empty** - Indicates the amount of time until the battery is empty.
- **Battery status**
 - **Not charging** - Indicates that the device is not connected to AC power.
 - **Charging over AC** - Indicates that the device is connected to AC power and charging.
 - **Charging over USB** - Indicates that the device is connected to a host computer with a USB cable and charging.
 - **Discharging** - Indicates that the battery is discharging.
 - **Full** - Indicates that the battery is fully charged.
 - **Unknown** - Indicates that the battery status is unknown.
- **Battery health** - Indicates the health of the battery. If a critical error occurs,  appears. Touch to view error description.
 - **Decommission** - The battery is past it's 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
 - **Failure Detected** - A failure has been detected in the battery. See system administrator.
 - **Unknown** - See system administrator.
- **Wear level** - Indicates the health of the battery in graphical form. When the wear level exceeds 80%, the bar color changes to red.

- **Advanced info** - Touch to view additional battery information.
 - **Battery present status**
 - **Battery level** - Indicates battery charge level as a percentage of scale.
 - **Battery scale** - Battery scale level used to determine battery level (100).
 - **Battery voltage** - Indicates current battery voltage in millivolts.
 - **Battery temperature** - Indicates current battery temperature in degrees Centigrade.
 - **Battery technology** - Lists the type of battery.
 - **Battery manufacture date** - Lists the date of manufacture.
 - **Battery serial number** - Lists the battery serial number. The number matches the serial number printed on the battery label.
 - **Battery part number** - Lists the battery part number.
 - **Backup battery level** - Indicates the current backup battery charge level as a percentage.
 - **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** - Battery is in good health.
 - **Decommissioned Battery** - 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. (Available on builds BSP 19-01.4 and above).
 - **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". (Available on builds BSP 19-01.4 and above).
 - **% decommission threshold** - Lists the default % decommission threshold for a gifted battery as 80%. (Available on builds BSP 19-01.4 and above).
 - **Battery present charge** - Amount of usable charge remaining in the battery at present under the current discharge conditions. (Available on builds BSP 19-01.4 and above).
 - **Battery total cumulative charge** - Lists the total accumulated charge in all chargers. (Available on builds BSP 19-01.4 and above).
 - **Battery time since first use** - Lists the time passed since the battery was placed in a Zebra terminal for the first time. (Available on builds BSP 19-01.4 and above).
 - **App version** - Lists the application version number.

Device Central

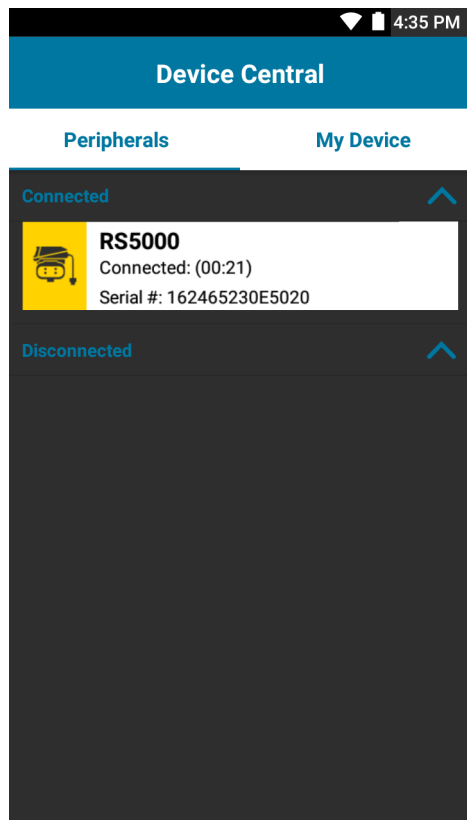
Device Central displays detailed information about the TC70x/TC75x and connected peripherals and supports the following Zebra devices:

- RS507 Hands-free Imager
- RS6000 Bluetooth Ring Scanner
- DS3678 Digital Scanner.

Device Central features include:

- Discovering and pairing with supported peripherals via Bluetooth or corded connection.
- Paging a connected RS6000 Ring Scanner.
- Updating the firmware of supported ring scanners. For information on updating ring scanner firmware using Device Central, refer to the RS5000 Quick Start Guide or RS6000 User Guide.
- Displaying the connection status of peripherals.
- Displaying information for a connected peripheral in the notification bar.

Figure 66 Device Central Screen



Device Central Tabs

- **Peripherals** Tab - displays all currently connected and previously connected peripherals. Connected peripherals display the length of time (in minutes) that they have been connected. When an RS6000 is connected the **Page** button displays. See [Paging an RS6000 Ring Scanner on page 89](#).
Touch the peripheral information to display the **Device Details** screen.
- **Device Details** - displays detailed device information for the selected peripheral.
- **My Device** Tab - displays information about the WT6000 and the current version of Device Central.
 - **Device Details** - displays the **About device** screen.
 - **Device Battery Details** - displays the **Battery** screen.

Paging an RS6000 Ring Scanner

Use the **Page** button to easily locate the currently connected RS6000 Ring Scanner:

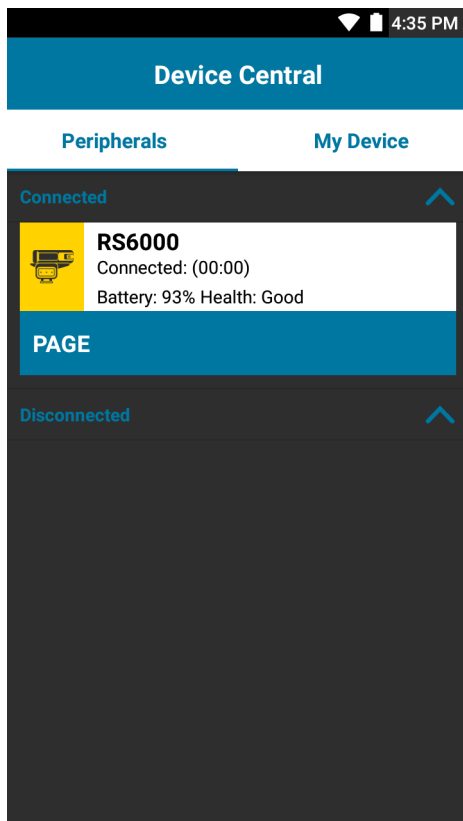
1. With the RS6000 Ring Scanner connected, swipe up from the bottom of the screen and touch .



NOTE: The RS6000 Ring Scanner must be within 10 m (32 ft) of the TC56.

2. Under the RS6000 peripheral information, touch **Page** to begin paging the RS6000. The paged RS6000 beeps and vibrates.

Figure 67 Page RS6000



To stop paging, press the scan trigger of the RS6000. On a triggerless RS6000, stop paging by resetting the RS6000. Refer to the RS6000 User Guide.

File Browser

Use the **File Browser** application to view and manage files on the device.


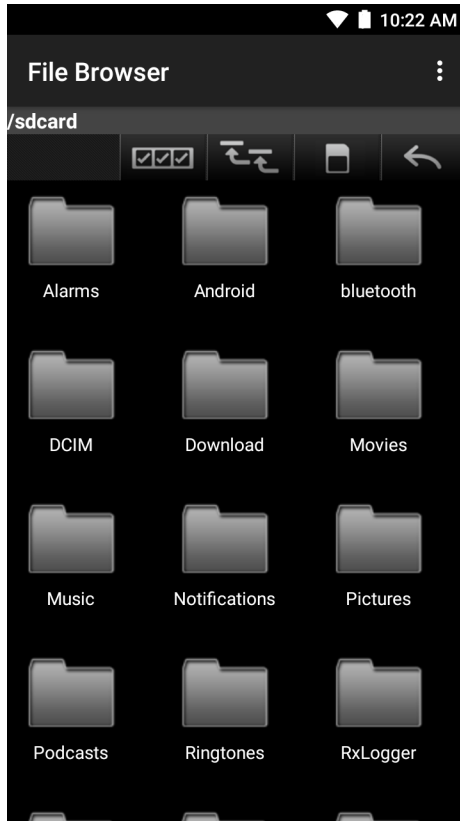

To open **File Browser**, swipe up from the bottom of the screen and touch .

Figure 68 File Browser Screen




The address bar indicates the current folder path. Touch the current folder path to manually enter a path and folder name.

Use  to select multiple files/folder.

Use  to view the internal storage root folder.


Use  to view the microSD card root folder.

Use  to view the previous folder or to exit the application.

Touch and hold an item to perform an operation on that item. Select one of the options from the **File Operations** menu:

- **Information** - View detailed information about the file or folder.
- **Move** - Move the file or folder to a new location.
- **Copy** - Copy the select file.
- **Delete** - Delete the selected file.
- **Rename** - Rename the select file.
- **Open as** - Open the selected file as a specific file type.

- **Share** - Share the file with other devices.


Touch  to open menu options:

- **New Folder** - Create a new folder.
- **Search** - Search for a specific file on the device.
- **Sort** - Select the sort order of the files by name, type, size or date.
- **Refresh** - Refresh the current folder.
- **List View** - Change the folder to display item is a list.
- **Grid View** - Change the folder to display item is a grid.
- **Change Size** - Change the size of the icons.
- **About File Browser** - Displays the app version.

Messaging



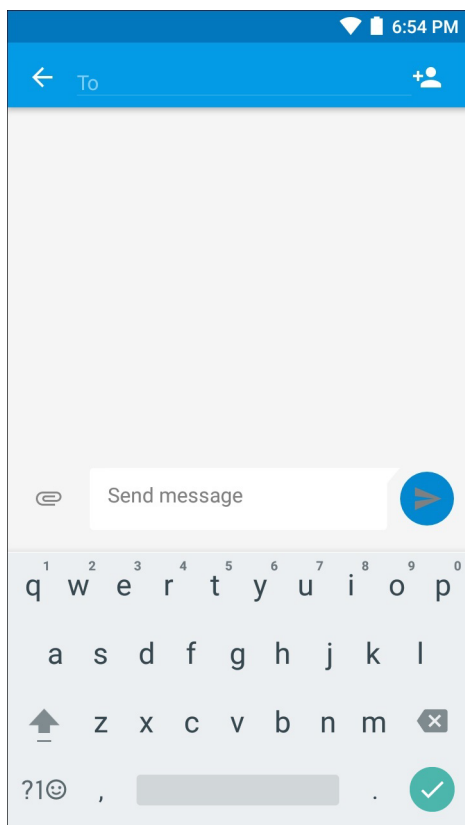
NOTE: TC75x only.


Use Messaging to send and receive SMS and MMS messages. From a Home or All Apps screen, touch .

Sending a Text Message


1. In the main Messaging screen, touch .

Figure 69 New Text Message Screen



2. In the **To** field, enter a name or a mobile phone number.
3. In the **Type message** field, enter the text message.
The 160-character limit counter indicates how many characters are left. If it goes over that limit, a new message is created, which is joined with its predecessors when received.
If the user presses the Back button while composing a message, it's saved as a draft in the Messaging screen. Touch the conversation to resume composing it.
4. Touch  to send message.

Sending a Multimedia Message

1. In the main Messaging screen, touch .
2. In the **To** field, enter a name or a mobile phone number.


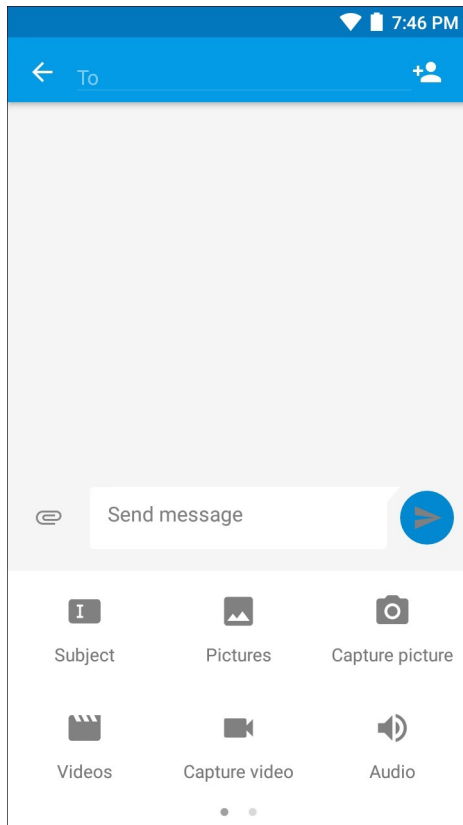

3. Touch  to attach the media file of your choice:


Figure 70 New Multimedia Message Screen





- **Subject** - Enter a message subject.
 - **Pictures**. Select a picture to attach.
 - **Capture picture**. Camera opens to take a picture and attach it.
 - **Videos**. Select a video to attach.
 - **Capture video**. Camcorder opens to record a video and attach it to the message.
 - **Audio**. Choose a sound file to attach.
 - **Record audio**. Sound Recorder opens to record a spoken message and attach it to the message.
 - **Slideshow**. Opens a screen opens to assemble text, photos, videos, and recordings into a slideshow of up to 10 slides to attach to the message.
 - **Insert contact info** - Opens the Contacts app - Select one or more contacts to insert the contact information into the message.
 - **Contact vCard**. Send a contact's information.
 - **Import Template** - Import a message template.
4. Touch  to send message.

Contacts



Use the **Contacts** application to manage contacts.

From a Home or Apps screen, touch . People opens to the main list of contacts. View contacts in three ways at the top of the screen: Favorites, All, and Groups. Touch the tabs to change how to view the contacts. Swipe up or down to scroll through the lists.


Adding a Contact

1. In the **Contacts** application, touch .
2. If there are more than one account with contacts, touch the one to use.
3. Type the contact's name and other information. Touch a field to start typing, and swipe down to view all categories.
4. To open a menu with preset labels, such as Home or Work for an email address, touch the label to the right of the item of contact information. Or, to create your own label, touch **Custom** in the menu.
5. Touch .

Editing Contacts

1. In the **Contacts** application, touch a contact name to edit.
2. Touch .
3. Edit the contact information.
4. Touch .

Deleting Contacts

1. In the **Contacts** application, touch a contact name to delete.
2. Touch .
3. Touch **Delete**.
4. Touch **OK** to confirm.

Camera

This section provides information for taking photos and recording videos using the integrated digital cameras.



NOTE: If a microSD card is installed, The TC70x/TC75x saves photos and videos on the microSD card. If a microSD card is not installed, the TC70x/TC75x saves photos and videos on the internal storage.

Front camera is optional.

Taking Photos



NOTE: Camera settings are described in [Photo Settings on page 98](#).


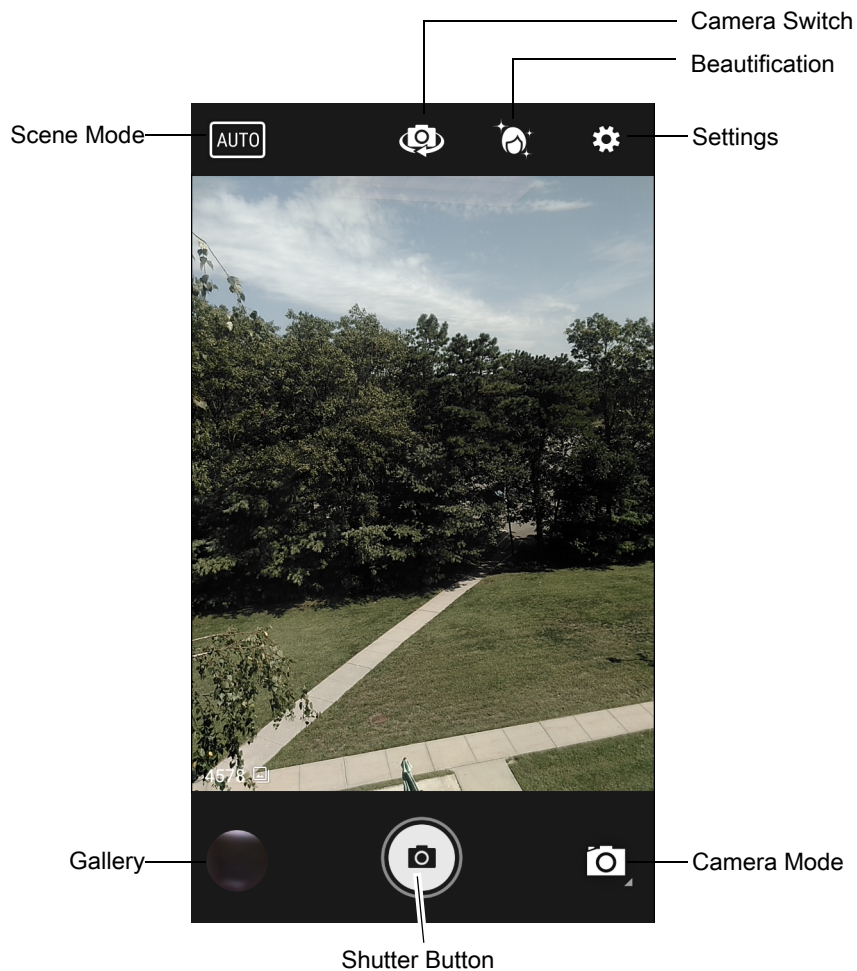



1. Swipe up from the bottom of the Home screen and touch .

Figure 71 Camera Mode



2. If necessary, touch the Camera Mode icon and touch .
3. To switch between the rear camera and front camera, touch .
4. Frame the subject on the screen.

5. To zoom in or out, press two fingers on the display and pinch or expand fingers. The zoom controls appear on the screen.
6. Touch an area on the screen to focus. The focus circle appears on the screen. The two bars turn green when in focus.
7. Touch .
The camera takes a photo and a shutter sound plays.
The photo momentarily displays as a thumbnail in the lower left corner.

Taking a Panoramic Photo

Panorama mode lets the user create a single wide image by panning slowly across a scene.





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

Figure 72 Panoramic Mode



2. Touch the Camera Mode and touch .
3. Frame one side of the scene to capture.
4. Touch  and slowly start panning across the area to capture. A small white square appears inside the button indicating the capture is in progress.
If panning too quickly, the message **Too fast** appears.
5. Touch  to end the shot. The panorama appears immediately and a progress indicator displays while it saves the image.

Recording Videos

To record a video:



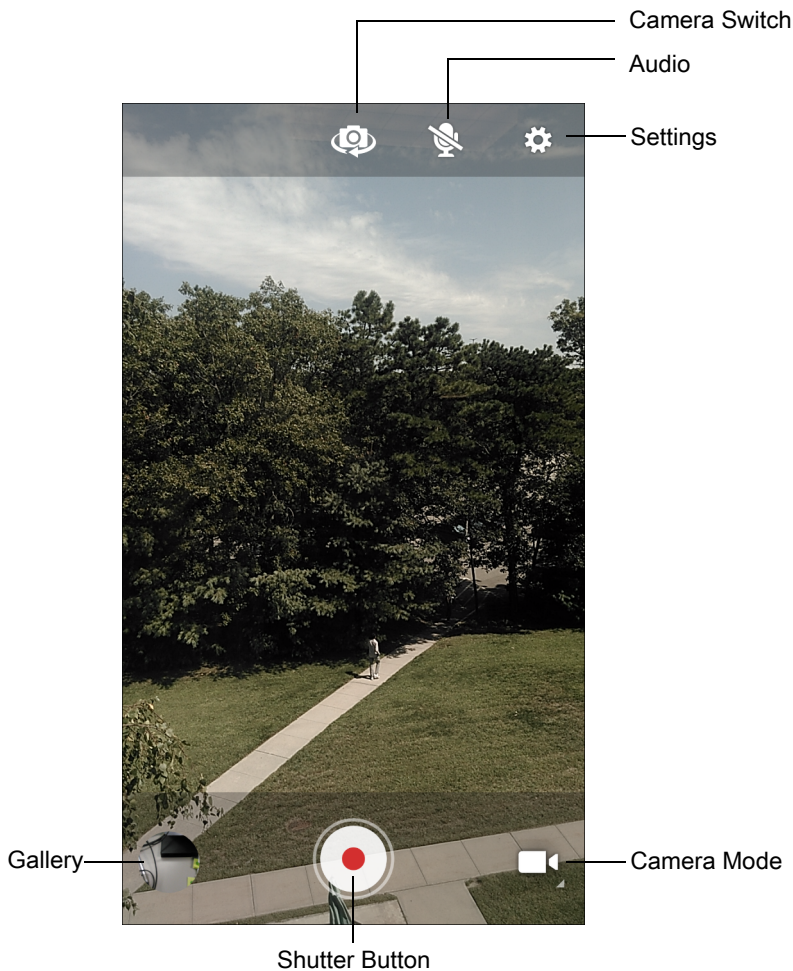
1. Swipe up from the bottom of the Home screen and touch .
2. Touch the options bar and touch .

Figure 73 Video Mode
















3. To switch between the rear camera and front camera, touch .
4. Point the camera and frame the scene.
5. To zoom in or out, press two fingers on the display and pinch or expand fingers. The zoom controls appear on the screen.
6. Touch  to start recording.
The device starts recording the video. The video time remaining appears in the top left of the screen.
7. Touch  to end recording.
The video momentarily displays as a thumbnail in the lower left corner.


Photo Settings

When in Photo mode, photo settings are displayed on screen. Touch  to display the photo settings options.

Rear Camera


- **Flash** - Touch to set whether the camera relies on its light meter to decide whether a flash is necessary, or to turn it on or off for all shots.
 -  **Off** - Disable flash.
 -  **Auto** - Camera adjusts flash automatically depending upon light meter (default).
 -  **On** - Enable flash upon taking a photo.
 -  **Torch** - Turn flash on continuously.
- **GPS location** - Options: **On** or **Off** (default).
- **Picture size** - Touch to set the size (in pixels) of the photo. Options: **13M pixels** (default), **8M pixels**, **5M pixels**, **3M pixels**, **HD 1080**, **2M pixels**, **HD 720**, **1M pixels**, **WVGA**, **VGA** or **QVGA**.
- **Picture quality** - Touch to select picture quality setting. Options: **Low**, **Standard** (default) or **High**.
- **Countdown timer** - Options: **Off** (default), **2 seconds**, **5 seconds** or **10 seconds**.
- **Storage** - Touch to select location to store the photo. Options: **Phone** or **SD Card**.
- **Face Detection** - Select to enable face detection. Options: **Off** (default) or **On**.
- **ISO** - Set how sensitive the camera is to light. Options: **Auto** (default), **ISO Auto (HJR)**, **ISO100**, **ISO200**, **ISO400**, **ISO800** or **ISO1600**.
- **Exposure** - Touch to adjust the exposure settings. Options: **+2**, **+1**, **0**(default), **-1** or **-2**.
- **White balance** - Touch to select how Camera adjusts colors in different kinds of light, to achieve the most natural-looking colors.
 -  **Incandescent** - Adjust the white balance for incandescent lighting.
 -  **Fluorescent** - Adjust the white balance for florescent lighting.
 -  **Auto** - Adjust the white balance automatically (default).
 -  **Daylight** - Adjust the white balance for daylight.
 -  **Cloudy** - Adjust the white balance for a cloudy environment.
- **Focus mode** - The default camera focus setting is **CAF** (Continuous Auto Focus).
- **ZSL** - Set the camera to immediately take a picture when the button is pressed (default – enabled)

Front Camera


Touch  to display the photo setting options.








- **GPS location** - Options: **On** or **Off** (default).
- **Picture size** - Touch to set the size (in pixels) of the photo. Options: **HD720** (default), **1M pixels**, **WVGA**, **VGA**, or **QVGA**.
- **Picture quality** - Touch to select picture quality setting. Options: **Low**, **Standard** (default) or **High**.
- **Countdown timer** - Options: **Off** (default), **2 seconds**, **5 seconds** or **10 seconds**.
- **Storage** - Touch to select location to store the photo. Options: **Phone** or **SD Card**.
- **Face Detection** - Select to enable face detection. Options: **Off** (default) or **On**.

Video Settings

When in Video mode, video settings are displayed on screen. Touch  to display the video settings options.

Rear Camera

Touch  to display the photo setting options.

- **Flash** - Touch to set whether Rear-facing Camera relies on its light meter to decide whether a flash is necessary, or to turn it on or off for all shots.
 -  **Off** - Disable flash (default).
 -  **Torch** - Turn flash on continuously.
- **Video quality** - Touch to select video quality. Options: **HD 1080p** (default), **HD 720p**, or **SD 480p**.
- **Video duration** - Options: **30 seconds (MMS)**, or **30 minutes** (default).
- **GPS location** - Options: **On** or **Off** (default).
- **Storage** – Touch to select location to store the photo. Options: **Phone** (default) or **SD Card**.
- **White balance** - Touch to select how Camera adjusts colors in different kinds of light, to achieve the most natural-looking colors.
 -  **Incandescent** - Adjust the white balance for incandescent lighting.
 -  **Fluorescent** - Adjust the white balance for florescent lighting.
 -  **Auto** - Adjust the white balance automatically (default).
 -  **Daylight** - Adjust the white balance for daylight.
 -  **Cloudy** - Adjust the white balance for a cloudy environment.

Front Camera

- **Video quality** - Touch to select video quality. Options: **HD 720p** (default) or **SD 480p**.
- **Video duration** - Options: **30 seconds (MMS)** or **30 minutes** (default).
- **GPS location** - Options: **On** or **Off** (default).
- **Storage** – Touch to select location to store the photo. Options: **Phone** (default) or **SD Card**.

Gallery



NOTE: The device supports the following image formats: jpeg, gif, png and bmp.


The device supports the following video formats: H.263, H.264 and MPEG4 Simple Profile.

Available on TC70x/TC75x with AOSP only.

Use Gallery to:

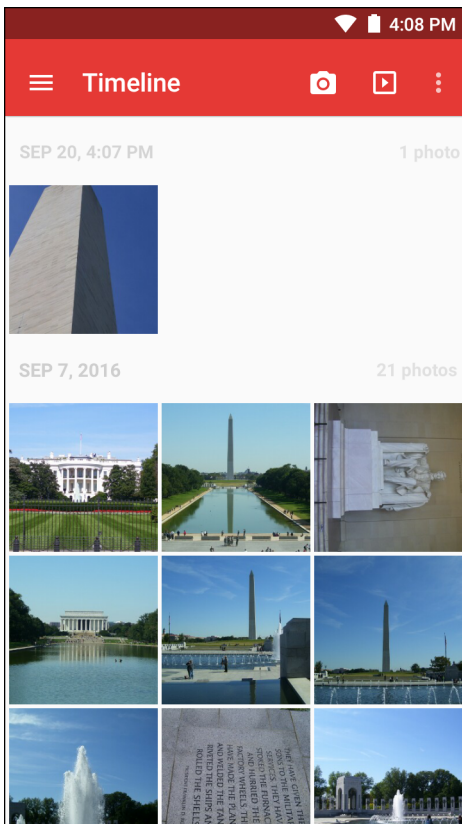
- view photos
- play videos
- perform basic editing of photos
- set photos as wallpaper
- set photos as a contact photo
- share photos and videos.

Gallery presents all photos and videos stored on the microSD card and internal memory.

To open the Gallery application, swipe up from the bottom of the Home screen and touch  or in the camera application touch the thumbnail image at the bottom left.

By default, Gallery opens to the **Timeline** view.

Figure 74 Gallery - Timeline View





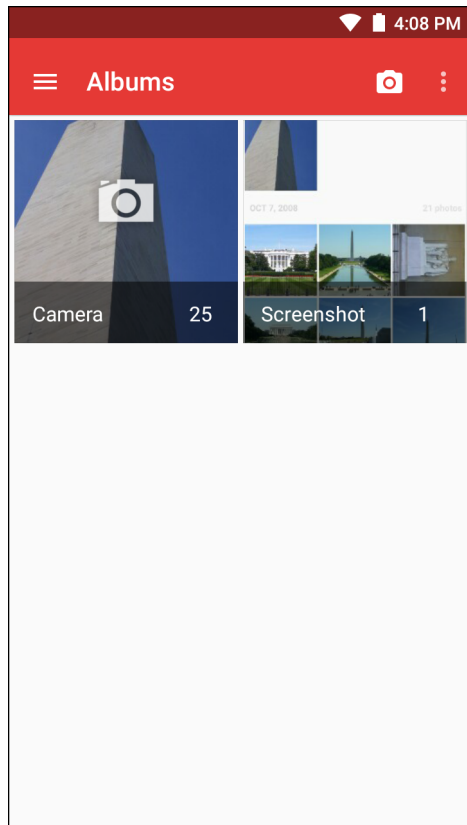

Touch  > **Albums** to view photos sorted by albums or  > **Videos** to view only videos.

Figure 75 Gallery — Albums View



- Touch an album to open it and view its contents. The photos and videos in the album are displayed in chronological order.
- Touch a photo or video in an album to view it.
- Touch  > **Timeline** to return to the default **Gallery** screen.

Working with Albums



Albums are groups of images and videos in folders. Touch an album to open it. The photos and videos are listed in a chronologically ordered grid. The name of the album displays at the top of the screen.

Figure 76 Photos Inside an Album





Swipe left or right to scroll images across the screen.

Share an Album


1. Swipe up from the bottom of the Home screen and touch .
2. Touch and hold an album until it highlights.
3. Touch other albums as required.
4. Touch . The Share menu opens. Touch the application to use to share the selected albums.
5. Follow the instructions within the selected application.


Get Album Information

1. Swipe up from the bottom of the Home screen and touch .
2. Touch and hold an album until it highlights.
3. Touch .
4. Touch **Details**.

Deleting an Album

To delete an album and its contents:

1. Swipe up from the bottom of the Home screen and touch .
2. Touch and hold an album until it highlights.
3. Check other albums to delete. Ensure that other albums are selected.

4. Touch .
5. In the **Delete selected item?** menu, touch **OK** to delete the album.

Working with Photos

Use Gallery to view photos on the microSD card and edit and share photos.

Viewing and Browsing Photos

To view a photo:


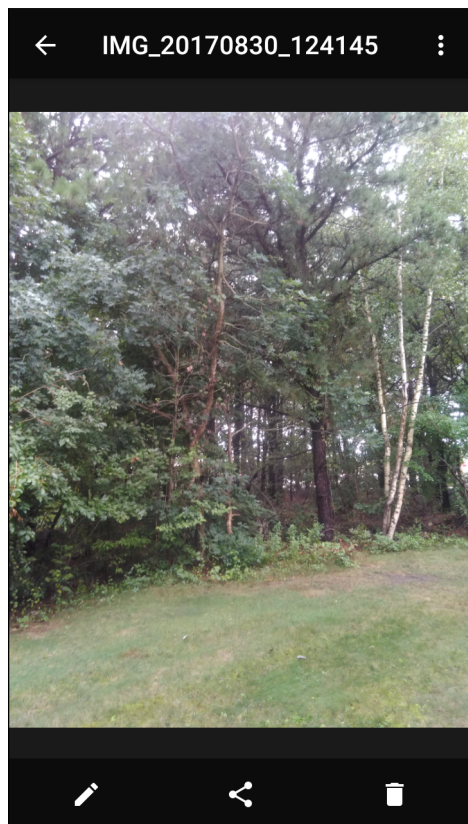
1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch a photo.

Figure 77 Photo Example



4. Swipe left or right to view the next or previous photo in the album.
5. Turn the device to view the photo in upright (portrait) or sideways (landscape) orientation. The photo is displayed (but not saved) in the new orientation.
6. Touch the photo to view the controls.
7. Double-tap the screen to zoom in or pinch two fingers together or spread them apart to zoom in or out.
8. Drag the photo to view parts that are not in view.

Cropping a Photo

1. In Gallery, touch a photo to view the controls.




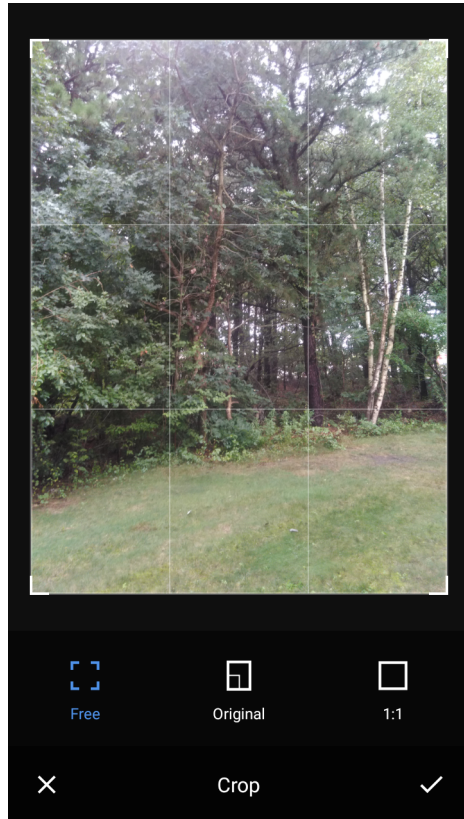



2. Touch  >  > . The cropping tool appears.
3. Use the cropping tool to select the portion of the photo to crop.
 - Drag from the inside of the cropping tool to move it.
 - Drag an edge of the cropping tool to resize it to any proportion.

Figure 78 Cropping Tool





4. Touch  > **SAVE** to save a copy of the cropped photo. The original version is retained.

Setting a Photo as a Contact Icon



1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch the photo to open it.
4. Touch .
5. Touch **Set picture as**.
6. Touch **Contact photo**.
7. In the **People** application, touch a contact.
8. Touch the white box and crop the photo accordingly.
9. Touch **Save**.

Share a Photo

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

2. Touch an album to open it.
3. Touch a photo to open it.
4. Touch .
5. Touch the application to use to share the selected photo. The application selected opens with the photo attached to a new message.



Deleting a Photo

1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch a photo to open it.
4. Touch .
5. Touch **OK** to delete the photo.



Working with Videos

Use **Gallery** to view videos and share videos.



Watching Videos

1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch a video.
4. Touch . The video begins to play.
5. Touch the screen to view the playback controls.

Sharing a Video

1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch a video to open it.
4. Touch . The Share menu appears.
5. Touch the application to use to share the selected video. The application selected opens with the video attached to a new message.

Deleting a Video

1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch a video to open it.
4. Touch .
5. Touch **OK**.

Photos



NOTE: The device supports the following image formats: jpeg, gif, png and bmp.


The device supports the following video formats: H.263, H.264 and MPEG4 Simple Profile.

Available on TC70x/TC75x with GMS only.

Use Photos to:

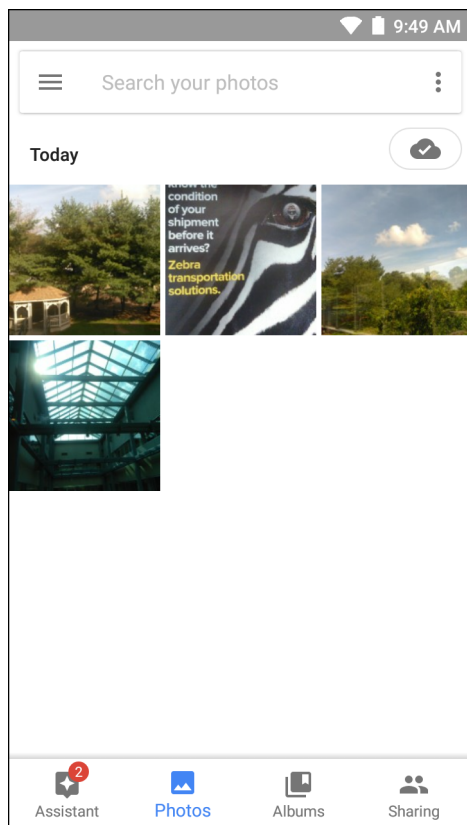
- view photos
- play videos
- perform basic editing of photos
- set photos as wallpaper
- set photos as a contact photo
- share photos and videos.

Photos presents all photos and videos stored on the microSD card and internal memory.

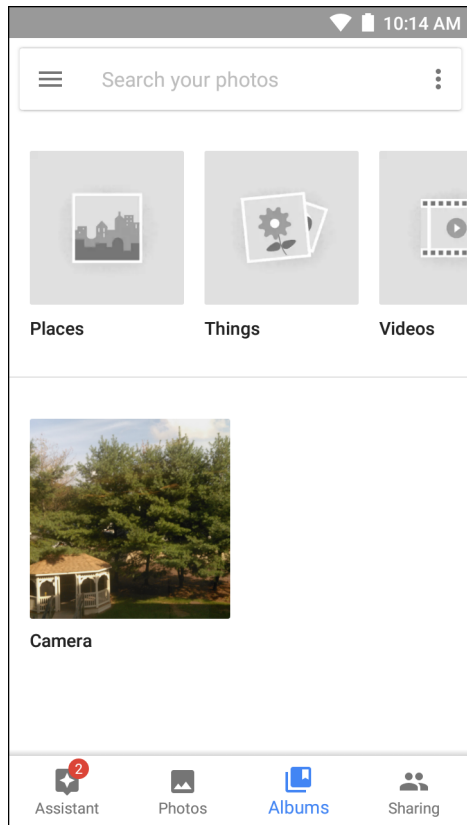
To open the **Photos** application, swipe up from the bottom of the Home screen and touch .

By default, Photos opens to the **Photos** view

Figure 79 Photos View



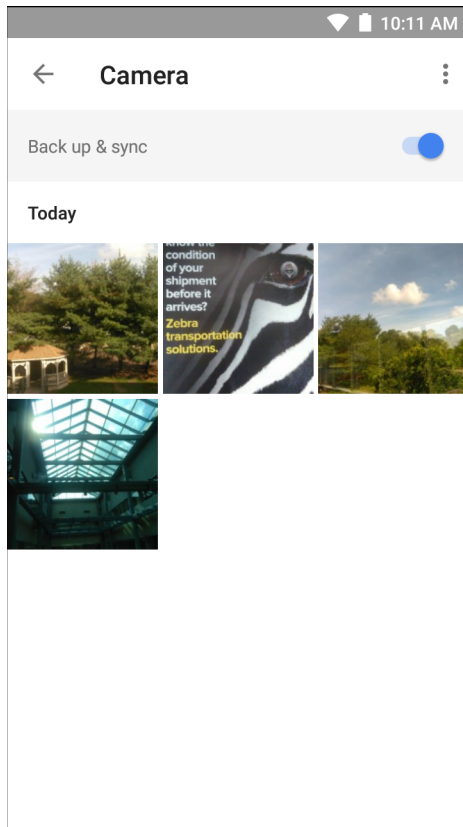
Touch **Albums** to view photos sorted by albums.

Figure 80 Albums View

- Touch an album to open it and view its contents. The photos and videos in the album are displayed in chronological order.
- Touch a photo or video in an album to view it.
- Touch ← to return to the main screen.




Working with Albums

Albums are groups of images and videos in folders. Touch an album to open it. The photos and videos are listed in a chronologically ordered grid. The name of the album displays at the top of the screen.

Figure 81 Photos Inside an Album




Swipe up to scroll images across the screen.

Share an Album

1. Swipe up from the bottom of the Home screen and touch .
2. Touch **Albums**.
3. Touch an album.
4. Touch  > **Select**.
5. Select all photos in the album.
6. Touch . The Share menu opens. Touch the application to use to share the selected albums.
7. Follow the instructions within the selected application.

Deleting an Album

To delete an album and its contents:

1. Swipe up from the bottom of the Home screen and touch .
2. Touch **Albums**.
3. Touch an album.
4. Touch  > **Select**.
5. Select all photos in the album.
6. Touch .

7. Touch **Move to trash** to delete the album.

Working with Photos

Use Photos to view photos on the internal memory and the microSD card.

Viewing and Browsing Photos

To view a photo:


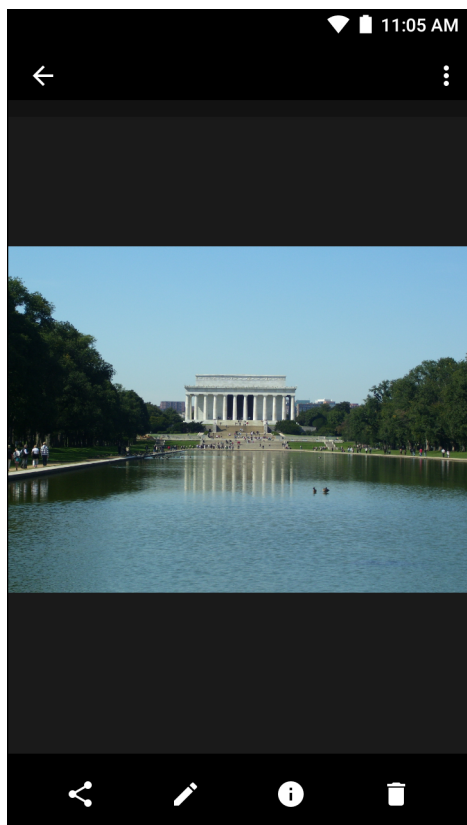

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a photo.

Figure 82 Photo Example



3. Swipe left or right to view the next or previous photo in the album.
4. Turn the device to view the photo in upright (portrait) or sideways (landscape) orientation. The photo is displayed (but not saved) in the new orientation.
5. Touch the photo to view the controls.
6. Double-tap the screen to zoom in or pinch two fingers together or spread them apart to zoom in or out.
7. Drag the photo to view parts that are not in view.

Cropping a Photo

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a photo to view the controls.





3. Touch  > . The cropping tool appears.

Figure 83 Cropping Tool





4. Use the cropping tool to select the portion of the photo to crop.
 - Drag from the inside of the cropping tool to move it.
 - Drag an edge of the cropping tool to resize it to any proportion.
5. Touch **DONE**.
6. Touch **SAVE** to save a copy of the cropped photo. The original version is retained.

Setting a Photo as a Contact Icon



1. Swipe up from the bottom of the Home screen and touch .
2. Touch the photo to open it.
3. Touch  > **Use as**.
4. Touch **Contact photo**.
5. In the **Contacts** application, touch a contact.
6. Touch the white box and crop the photo accordingly.
7. Touch **Done**.

Share a Photo

1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.

3. Touch a photo to open it.
4. Touch .
5. Touch the application to use to share the selected photo. The application selected opens with the photo attached to a new message.


Deleting a Photo

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a photo to open it.
3. Touch .
4. Touch **Move to trash** to delete the photo.



Working with Videos

Use **Photos** to view videos and share videos.



Watching Videos

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a video. The video automatically start playing.
3. Touch the screen to view the playback controls.

Sharing a Video

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a video to open it.
3. Touch . The Share menu appears.
4. Touch the application to use to share the selected video. The application selected opens with the video attached to a new message.

Deleting a Video

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a video to open it.
3. Touch .
4. Touch **Move to trash** to delete the photo.

DataWedge Demonstration



NOTE: DataWedge is enabled when on the Home screen displays. To disable this feature, go to the DataWedge settings and disable the **Launcher** profile.

Use **DataWedge Demonstration** to demonstrate data capture functionality.

Figure 84 DataWedge Demonstration Window

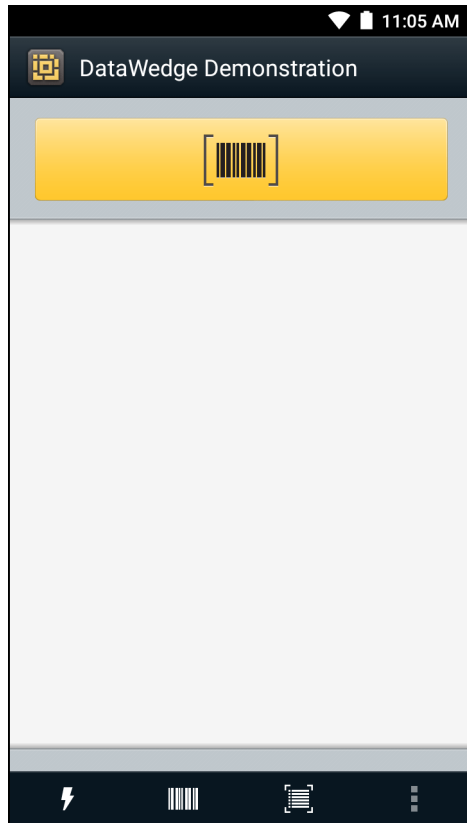





Table 9 DataWedge Demonstration Icons

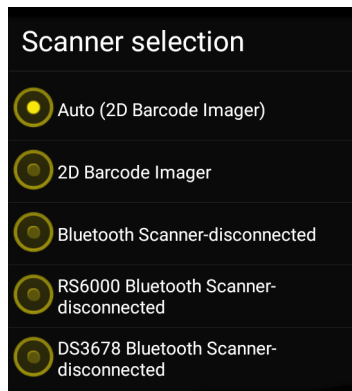
	Icon	Description
Illumination		Indicates imager illumination is off. Touch to turn illumination on.
		Indicates imager illumination is on. Touch to turn illumination off.
Data Capture		Indicates that the data capture function is through the internal imager.
		Indicates that an RS507 or RS6000 Bluetooth imager is connected.
		Indicates that an RS507 or RS6000 Bluetooth imager is not connected.

Table 9 DataWedge Demonstration Icons (Continued)

	Icon	Description
Scan Mode		Indicates imager is in picklist mode. Touch to change to normal scan mode.
		Indicates imager is in normal scan mode. Touch to change to picklist mode.
		Opens a menu to view the application information or to set the application DataWedge profile.



NOTE: See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on DataWedge configuration.

Figure 85 Data Capture Options Menu

Select a scanner to use. See [Data Capture](#) for configuring scanner options.

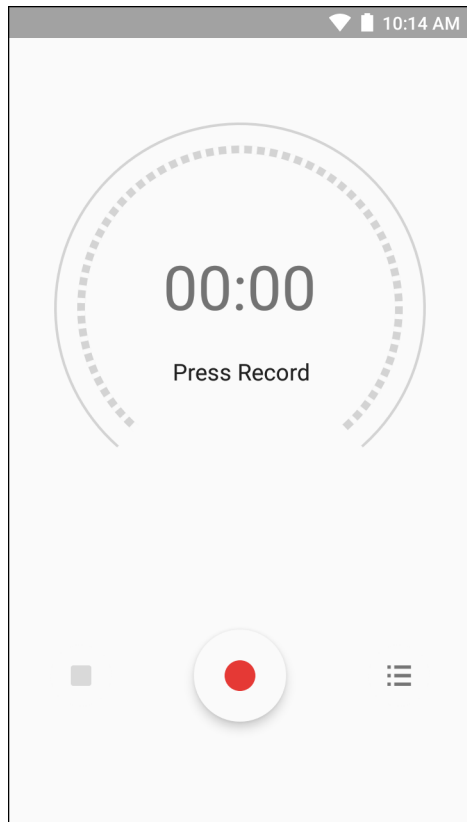
Either press the programmable button or touch the yellow scan button to enable data capture. The captured data appears in the text field below the yellow button.

Sound Recorder

Use **Sound Recorder** to record audio messages.

Recordings are saved on the microSD card (if installed) or the Internal Storage and available in the Music application (TC70x/TC75x without GMS) or the Play Music application (TC70x/TC75x with GMS).

Figure 86 Sound Recorder Application



PTT Express Voice Client



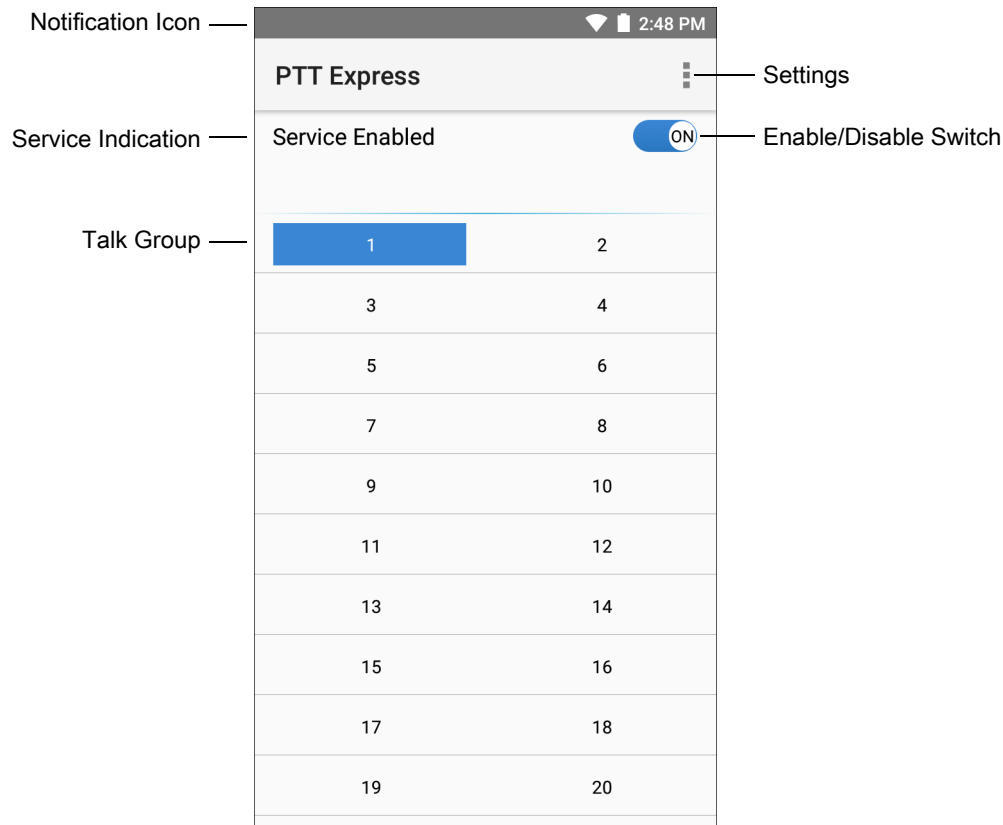
NOTE: PTT Express Voice Client creates Push-To-Talk (PTT) communication capability between disparate enterprise devices. Leveraging existing Wireless Local Area Network (WLAN) infrastructure, PTT Express delivers simple PTT communication without the need of a voice communication server.

- **Group Call:** Press and hold the PTT (Talk) button to start communicating with other voice client users.
- **Private Response:** Double-press the PTT button to respond to the originator of the last broadcast or to make a Private Response.

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 the user to start talking.
- **Access Tone:** Single beep. Plays when another user just finished a broadcast or response. The user is now able to 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 has acquired the WLAN connection and the service is enabled.
 - Three decreasing pitch beeps. Plays when PTT Express has lost the WLAN connection or the service is disabled.








Figure 87 PTT Express Default User Interface**Table 10** PTT Express Default User Interface Descriptions

Item	Description
Notification Icon	Indicates the current state of the PTT Express client.
Service Indication	Indicates the status of the PTT Express client. Options: Service Enabled , Service Disabled or Service Unavailable .
Talk Groups	Lists all 32 Talk Groups available for PTT communication.
Settings	Opens the PTT Express Settings screen.
Enable/Disable Switch	Turns the PTT service on and off.


Notification Icons

Indicates the current state of the PTT Express Voice client.

Table 11 PTT Express Default User Interface Descriptions

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

Selecting a Talk Group

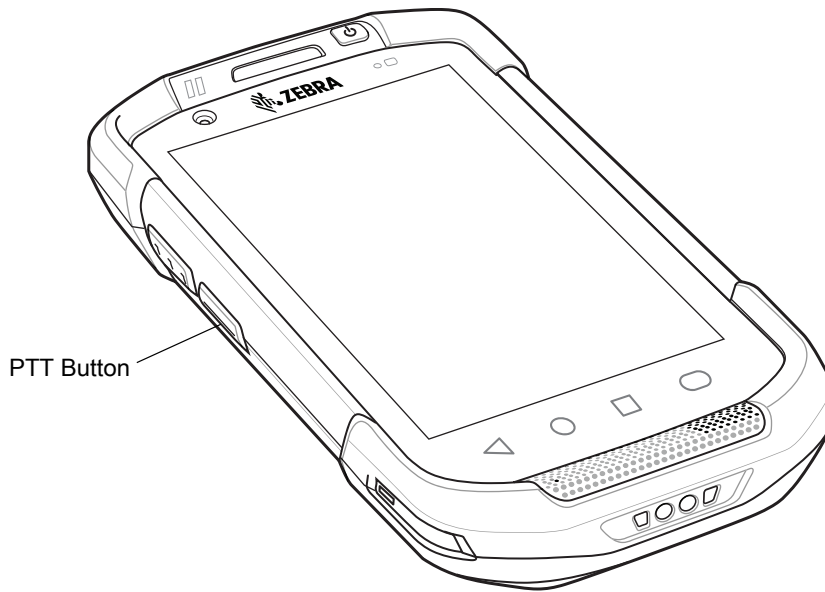
One of 32 Talk Groups can be selected by PTT Express users. However, only one talk group may be enabled at a time on the device. Touch one of the 32 Talk Groups. The selected Talk Group is highlighted.

PTT Communication



NOTE: This section describes the default PTT Express client configuration. See the PTT Express V1.2 User Guide for detailed information on using the client.

PTT communication may be established as a Group Call. When PTT Express is enabled, the PTT button on the left side of the device is assigned for PTT communication. When the Wired Headset is used, Group Calls can also be initiated using the headset Talk button.

Figure 88 PTT Buttons

Creating a Group Call

1. Press and hold the PTT button (or the Talk button on the headset) and listen for the talk tone to play.
If a busy tone is heard, release the button and wait a moment before making another attempt. Ensure that PTT Express and the WLAN are enabled.
2. Start talking after the talk tone is heard.



NOTE: If the user holds the button for more than 60 seconds (default), the call is dropped allowing others to make Group calls. The user should release the button when finished talking to allow others to make calls.



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 until an access tone is heard.
2. Within 10 seconds, double-press the PTT button, and listen for the talk tone to play.
3. If a busy tone is heard, 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.

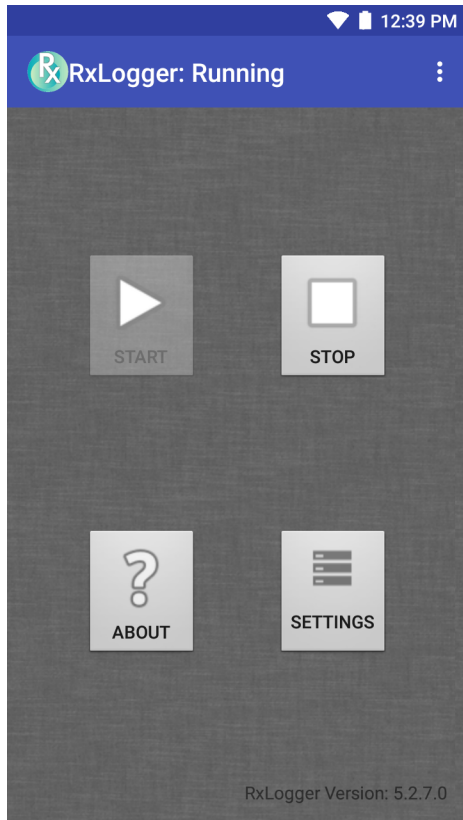
Disabling PTT Express Voice Client Communication

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**.
3. Touch .

RxLogger

RxLogger is a comprehensive diagnostic tool that provides application and system metrics. It allows for custom plug-ins to be created and work seamlessly with this tool. RxLogger is used to diagnose device and application issues. Its information tracking includes the following: CPU load, memory load, memory snapshots, battery consumption, power states, wireless logging, cellular logging, TCP dumps, Bluetooth logging, GPS logging, logcat, FTP push/pull, ANR dumps, etc. All logs and files generated are saved onto flash storage on the device (internal or external).

Figure 89 RxLogger

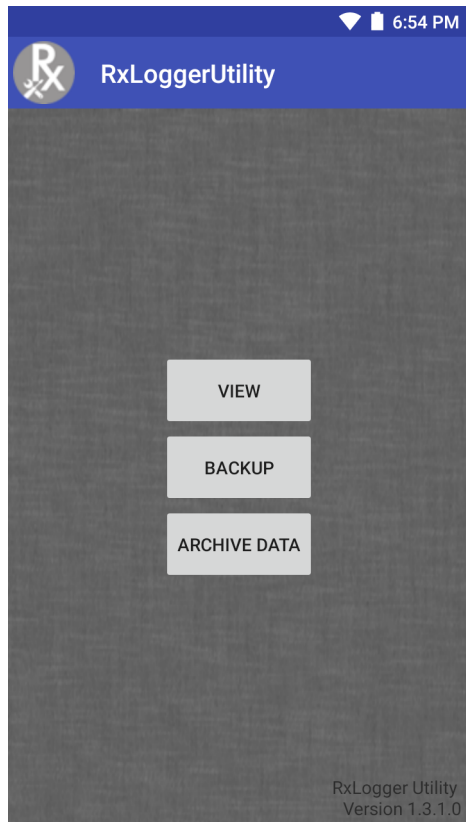


RxLogger Utility

RxLogger Utility is a data monitoring application for viewing logs in the TC70x/TC75x while RxLogger is running. The user can access the logs and RxLogger Utility features in the App View or the Overlay View.

In the App View the user views logs in the RxLogger Utility.

Figure 90 RxLogger Utility App View



Refer to the TC70x/TC75x Touch Computer Integrator Guide for detailed information about using RxLogger Utility.

Diagnostic Tool

The **Diagnostic Tool** is a utility that determines the health of the TC70x/TC75x. Use the Diagnostic Tool to troubleshooting the device and determine issues.


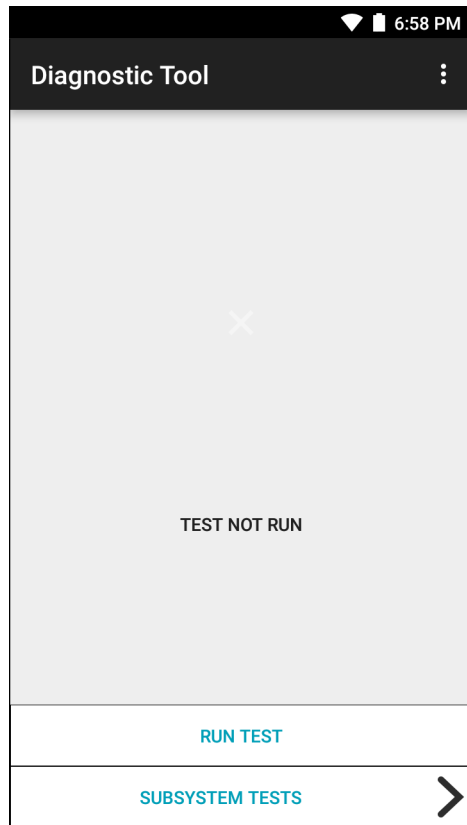
1. Swipe up from the bottom of the Home screen and touch .

Figure 91 Diagnostic Tool



2. Touch **Run Test**. The app tests all enabled subsystems (by default only the Battery and System tests are enabled). See [Settings on page 125](#) to enable subsystem tests.

Figure 92 Test Passed Screen

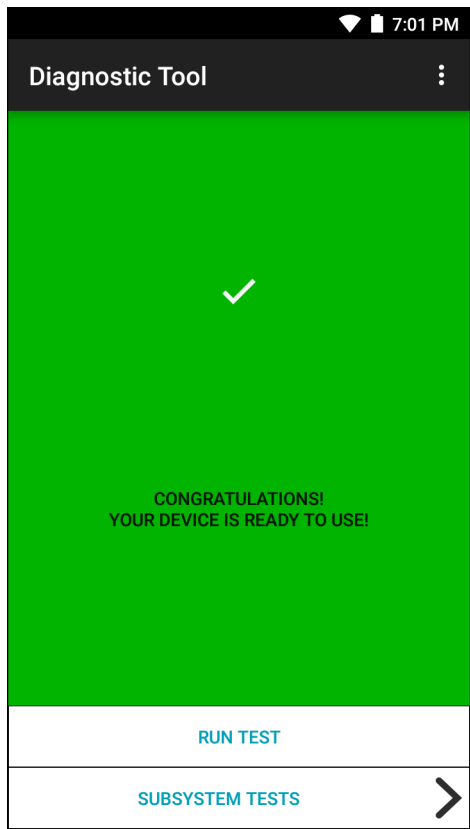
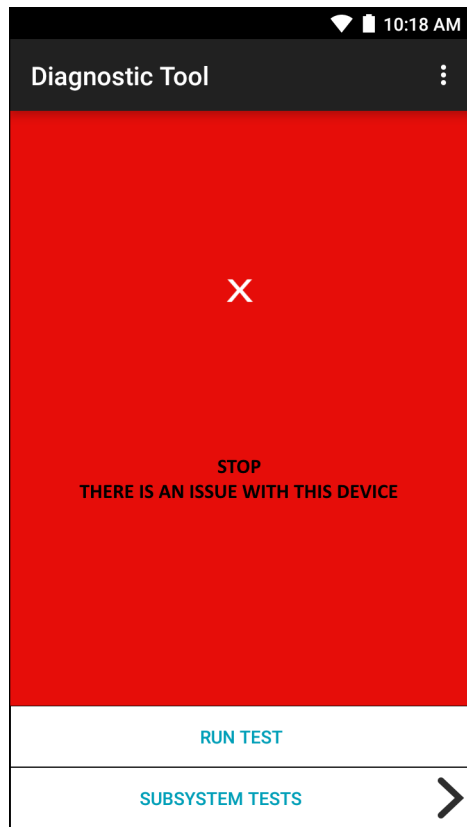


Figure 93 Test Failed Screen



3. To view each individual subsystem test, touch **Subsystem Tests**.

Figure 94 Subsystem Screen

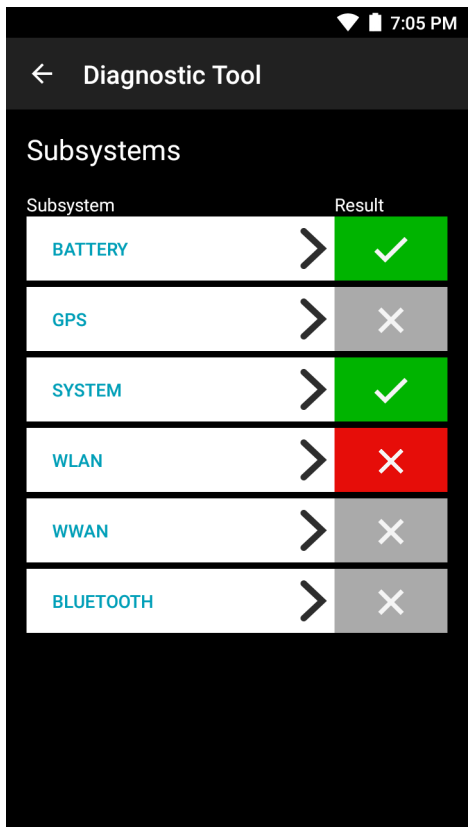



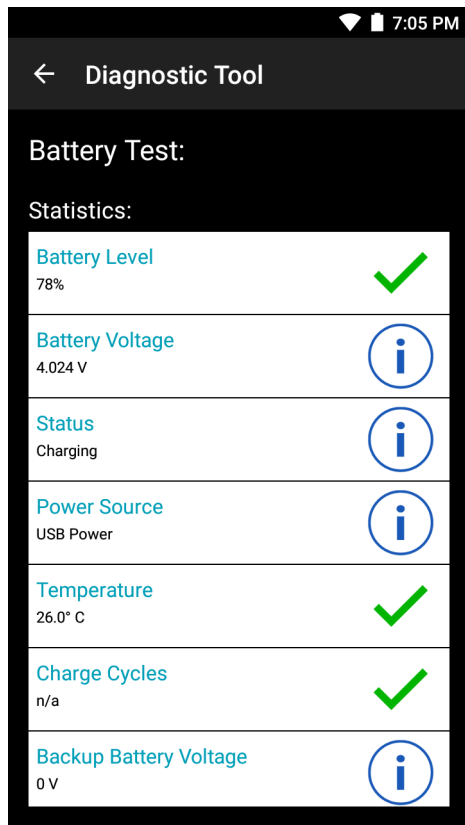


Table 12 Subsystem Test Result Indicators

Status Icon	Description
	Indicates test passed.
	Indicates test failed.
	Indicates test not supported or not enabled.

4. Touch one of the subsystems to view details.

Figure 95 Battery Subsystem Details

Settings

By default only the Battery and System tests are enabled. To enable other tests:

1. Touch > **Settings**.
2. Touch to the left of the test name. A green box with a checkmark appears.
3. Touch **SAVE**.
4. Touch **Yes** to confirm.
5. Touch .

Battery Test Information

The Battery Test obtains the following information:

- **Battery Level** - Indicates the current battery charge level.
- **Battery Voltage** - Indicates the current battery voltage.
- **Status** - Indicates if the battery is charging (on AC power) or discharging (on battery power).
- **Power Source** - Indicates whether the device is receiving power from the battery or from an external source.
- **Temperature** - Indicates the current battery temperature.
- **Charge Cycles** - Not applicable.
- **Backup Battery Voltage** - Indicates backup battery voltage.
- **Manufacture Date** - Not applicable (Displays the manufacture date of the battery).

GPS Test Information

The GPS Test obtains the following information (TC75x only):

- **GPS Provider Enabled** - Indicates if GPS is enabled (true) or disabled (false).
- **Latitude** - Indicates current latitude position.
- **Longitude** - Indicates current longitude position.
- **Altitude** - Indicates current altitude in meters.
- **Bearing** - Indicates current bearing.
- **Speed** - Indicates speed in meters per second.
- **Accuracy** - Indicates GPS accuracy in meters.

System Test Information

Use the System Test to determine if the CPU or memory loads are too high, there are too many processes running on the device, or that storage on the device is almost full. The System Test obtains the following information:

- **CPU Load** - Indicates the amount of CPU being used.
- **Free Physical Memory** - Indicates the amount of RAM available.
- **Free Storage** - Indicates the amount of internal Flash memory available.
- **Process Count** - Indicates the number of processes currently running.

WLAN Test Information

If the WiFi radio is not present or disabled the test may be skipped. Use this information to determine if the device's WLAN configuration is correct or whether there is any connection with an access point or network. The WLAN Test obtains the following information:

- **WLAN Enabled** - Indicates if the WLAN radio is enabled or disabled.
- **WLAN Status** - Indicates the current status of association with the access point.
- **ESSID** - Displays the name of the wireless network.
- **BSSID** - Displays the MAC address of the connected access point.
- **MAC Address** - Displays the device's MAC address.
- **Signal** - Indicates the strength of the Wi-Fi signal (in dBm).
- **IP Address** - Displays the IP address of the device.

WWAN Test Information

The WWAN Test obtains the following information (TC75x only):

- **SIM State** - Displays the current state of the SIM card.
- **WAN Type** - Displays the data connection type.
- **Signal Strength** - Displays the current cellular signal strength.
- **Phone Number** - Displays the phone number assigned to the device.
- **Device ID** - Displays the device ID number.

Bluetooth Test Information

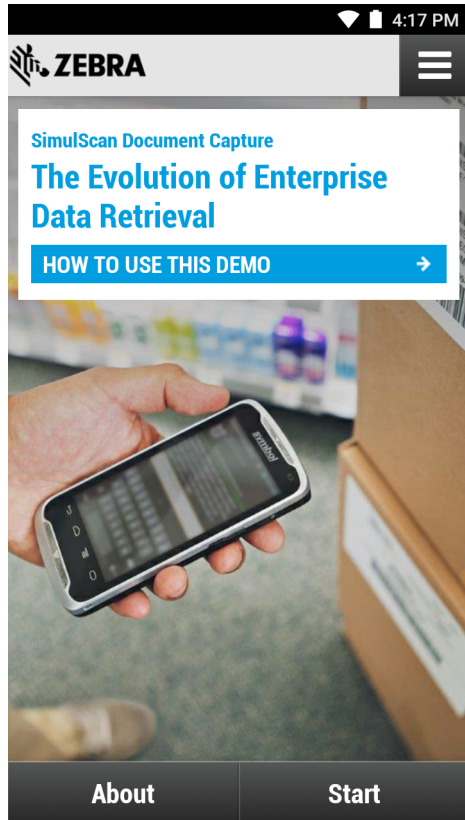
The Bluetooth Test obtains the following information:

- **Enabled** - Indicates if the Bluetooth radio is enabled or disabled.
- **Status** - Indicates if the device is paired to another Bluetooth device.
- **Connectable/Discoverable** - Indicates if the device is discoverable or connectable.
- **Address** - Displays the Bluetooth radio MAC address.
- **Name** - Displays the Bluetooth name for the device.

SimulScan Demo

The SimulScan application is an out of the box demonstration application included on the device that support SimulScan. The application enables pre-sales personnel to showcase the various features of SimulScan to customers by employing use-cases in the two most popular verticals, Postal/Transportation and Logistics and Manufacturing. The Transportation and Logistics example showcases the OCR and OMR features. The Manufacturing example showcases the MultiCode 20 feature. SimulScan also allows customers to create templates using the Template Builder and then testing on the device.

Figure 96 SimulScan Demo Home Screen



Exporting Sample Forms

In order to perform the Postal, Transportation & Logistics or Manufacturing demonstrations, print the example forms stored on the device.

1. Launch **SimulScan Demo** application.
2. On the **SimulScan Demo** home screen, touch **HOW TO USE THIS DEMO**.
3. Scroll down and touch **Export sample forms** button. The device copies the forms to the \simulscan\samples folder in Internal Storage.
4. Connect the device to a computer using the USB Charging cable.
5. Copy the files from the \simulscan\samples folder in Internal Storage to the computer.
6. Print the forms.

Postal, Transportation and Logistics Example

The Postal, Transportation and Logistics example uses the following form:.

Figure 97 Postal, Transportation and Logistics Form

POSTAL/T&L

Shipment Air Waybill
(Non negotiable)

123456-789A

1 Payer account number and insurance details

Charge to ☒ Shipper ☐ Receiver ☐ 3rd party
Not all payment options are available in all countries.

Payer Account No. **001-12349876**

Shipment Insurance see reverse
☒ Yes Insurance value (in local currency) **1400**

2 Non-Document Shipments Only (Customs Requirements)

Attach the original and four copies of a Proforma or Commercial Invoice

Shipper's VAT/GST number 564451112	Receiver's VAT/GST or Shipper's EIN/SSN 1111577738	Harmonised Commodity Code if applicable
--	--	---

Destination duties/taxes If left blank receiver pays duties/taxes
☐ Receiver ☐ Shipper ☐ Other _____
specify approved account number

Declared Value for Customs (as on commercial/proforma invoice)

3 From (Shipper)

Shipper's account number
155-22263

Company name
Pure Theory Ltd

Address
**163B Lansdown Drive
Fitzrovia, London
England
WC2 1AB**

Contact name
Scott Andrews

Phone, Fax or E-mail (required)
0207 553633

4 To (Receiver)

Company name
TFW Solutions

Delivery address We cannot deliver to a PO Box
**Solvalla
Travbaneplan
12A 64 Bromma**

Postcode/Zip Code (required)
286 32

Country
Sweden

Contact person
Aidan Peterson

Phone, Fax or E-mail (required)
+46 8 123 89 67

5 Shipper's agreement

(Signature required)
Unless otherwise agreed to writing, I/we agree to the Terms and Conditions of Carriage between me/us and (1) such terms and conditions and, where applicable, the Convention limits and/or excludes liability for loss, damage or delay and (2) this shipment does not contain cash or dangerous goods (see reverse).

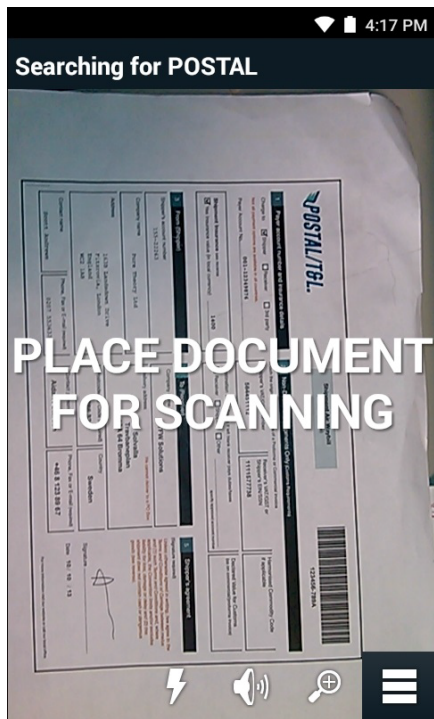
Signature _____

Date **10 / 10 / 13**

For more information visit our website or call our local office

1. Place the form on a flat surface.
2. On the device, launch **SimulScan Demo** application.
3. Touch the **Menu** icon in the top right corner of the screen.
4. Touch **Postal, Transportation & Logistics**.
5. Touch **Start SimulScan**.
6. Use the image control at the bottom of the screen to control the flash, audio and zoom level.

Figure 98 Image Controls



7. Position the camera over the form. Ensure that the complete border of the form is visible on the screen.
8. Hold the device steady.
9. Once the device detects the form **Tap Screen to Scan** appears on the screen.
10. Tap the screen to start the data capture. When completed, the device beeps and the data from the form displays.

Figure 99 Postal Data Screen

4:17 PM

POSTAL

Field	Parsed Data
Barcode	123456-789A
Charge To	<input checked="" type="checkbox"/>
Account Number	155-22253
Shipper Name	<div>▲ Check Result</div> Pssupcs Thckrry Ltd
	Pure Theory Ltd
Shipper Address	<div>▲ Check Result</div> 1538 Landsdown Drive lill,tgrav;la, ll;pndolrls England WC2 IAB
	163B Landsdown Drive Fitzrovia, London England WC2 IAB

RESCANACCEPT

- 11. Touch the text boxes to correct any errors. Note: if there are too many errors, touch **Rescan** to perform the capture again.
- 12. Touch **Accept** to confirm the data is correct. The **Results summary** screen appears.
- 13. Touch **OK**.

Manufacturing Example

The Postal, Transportation and Logistics example uses the following form:.

Figure 100 Manufacturing Form

The screenshot displays the 'MSI reader' application interface. At the top left is a logo consisting of two interlocking gears, one larger than the other, with a white 'M' on the larger gear. At the top right is a small icon of a device with a triangle and a circle. Below the title 'MSI reader' is the text '<5 kgs MV unit'. The form contains several data fields, each with a label, a text value, and a corresponding barcode:

- PART NUMBER (P):** 5290261-69
- SUPPLIER (V):** V4305156059
- QUANTITY (Q):** 000128
- PKG ID/SERIAL NUMBER (IS):** 1SX1000114
- MADE IN MEXICO:** (indicated by a small barcode)

At the bottom right, there is a logo with the text 'MANUFACTURING LTD'.

1. Copy the sample form from the device to a computer.
2. Print this form.
3. Place the form on a flat surface.
4. On the device, launch **SimulScan Demo** application.
5. Touch the **Menu** icon in the top right corner of the screen.
6. Touch **Manufacturing**.
7. Touch **Start SimulScan**.
8. Point the top of the device at the document and center the target on the document.
9. Hold the device steady.
10. The device starts the data capture. When completed, the device beeps and the data from the document displays.

Figure 101 Manufacturing Data

The screenshot shows a mobile application interface titled "MFTR". It displays a table with two columns: "Field" and "Parsed Data". The table contains the following data:

Field	Parsed Data
Part Number	P5290261-69
Supplier	V4305156059
Quantity	Q000128
Serial Number	1SX1000114
Country	

At the bottom of the screen, there are two buttons: "Rescan" and "Accept", and a menu icon (three horizontal lines) on the right.

11. Touch the text boxes to correct any errors. If there are too many errors, touch **Rescan** to perform the capture again.
12. Touch **Accept** to confirm the data is correct. The **Results summary** screen appears.
13. Touch **OK**.

Settings

To set the settings for the **SimulScan Demo** application touch **Menu** icon > **Settings**.

Figure 102 Settings Screen

The screenshot shows a mobile application interface titled "Settings". It contains the following sections:

- Volume**: A toggle switch labeled "ON".
- Haptic**: A toggle switch labeled "ON".
- Debug mode**: A toggle switch labeled "OFF".
- Template server login credentials**: Two text input fields labeled "Username" and "Password".

At the bottom of the screen, there are two buttons: "Cancel" and "Save".

- **Volume** - Toggle switch to turn audible notification on and off.
- **Haptic** - Toggle switch to turn vibration notification on and off.
- **Debug mode** - Toggle switch to enable or disable debug mode.
- **Template server login credentials** - enter credentials for accessing the template server.

Advanced Settings


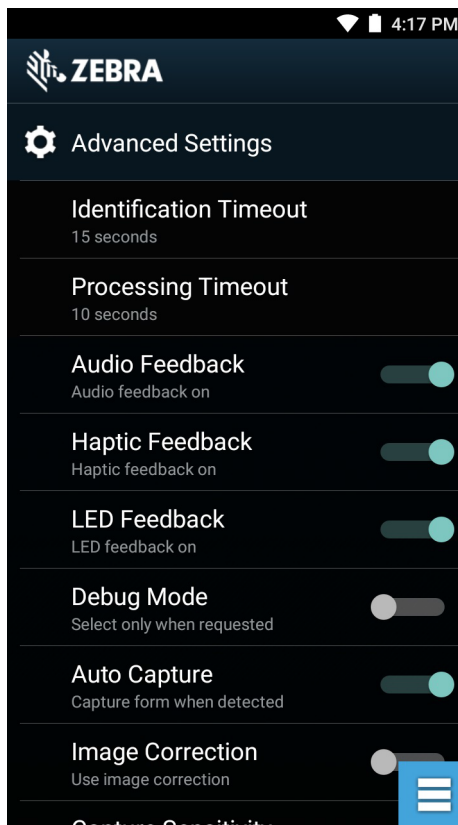
Use the Advanced setting to configure data capture options. In the data capture screen, touch  in the bottom right corner of the screen.

Figure 103 Advanced Settings Screen



- **Identification Timeout** - Set the amount of time to wait before timing out identifying the target document. Options: **2 seconds**, **5 seconds**, **10 seconds**, **15 seconds**, **20 seconds** or **25 seconds**.
- **Processing Timeout** - Once the target document is identified, amount of time to wait before timing out processing.
- **Audio Feedback** - Turn on or off audio feedback on successful parse.
- **Haptic Feedback** - Turn on or off haptic (vibration) feedback on successful parse.
- **LED Feedback** - Turn on or off LED feedback on successful parse.
- **Debug Mode** - If enabled, allows a session to write form capture, region images, region values, and other data to storage. Use only when directed by administrator.
- **Auto Capture** - Set to **On** to automatically capture forms when detected. Set to **Off** to manually capture forms when user taps screen or presses a trigger button.
- **Image Correction** - Turn on when document is crumpled or curved and requires advanced image correction.

- **Capture Sensitivity** - Increase sensitivity for increased document identification accuracy before processing.
- **About** - Displays the SimulScan Engine version number.
- **Quit Scanner** - Exit Advanced Settings screen.

Demo Customization

Before creating a customized demo, first:

- Create a template using the Template Builder tool.
- Copy a company logo and image to the device storage location.

1. Touch **Menu** icon.
2. Touch **Setup Custom Demo**.

Figure 104 Custom Demo Setup Screen

The screenshot shows a mobile application screen titled 'Title'. It contains several text input fields for customizing a demo. The 'Name' field is pre-filled with 'Custom Demo'. Below it is the 'Custom Demo Setup' field, also pre-filled with 'Custom Demo'. There are two fields for image selection: 'Image' (pre-filled with 'Image.jpg') and 'Logo' (pre-filled with 'Logo.jpg'). An 'Introduction' text area contains the text: 'Whether capturing multiple barcodes, delivery sheets, distribution manifests or inventory tables, SimulScan Document Capture saves you hours.' At the bottom, there are two more input fields for 'Header Color' and 'Icon color'. The screen is framed by a dark border with 'Cancel' and 'Done' buttons at the very bottom.

3. In the **Name** text box, enter a name for the custom demo. This name appears in the drop-down menu.
4. In the **Custom Demo Setup** text box, enter a title for the demo. This appears in the demo screen title box.
5. Touch the **Image** field to select an image from the SD card.
6. Touch the **Logo** field to select the logo image from the SD card.
7. In the **Introduction** text box, enter text that will appear on the demo screen.
8. In the **Header color** text box, enter the hex color value for the header.
9. In the **Icon color** text box, enter the hex color value for Menu icon and button text.
10. In the **Key Features** text box, enter text that will appear under the Key Feature heading. This text appears in bullet format.
11. Touch one of the **SimulScan Document Capture Template** fields to select a template
 - a. **Browse external storage** - select a template loaded on the device.

- b. **Default templates** - select one of the default templates.
 - c. **Select from server** - select a template from the SimulScan server.
12. Touch **Done**. The customized example appears on the screen.
 13. Touch **Start SimulScan** to begin the demonstration.

Default Templates

The following templates are available:

- **Default - BankCheck.xml** – Use this template to read the MICR E-13B font (length between 19 and 40 characters) on bank checks.
- **Default - Barcode 1.xml** – Use this template to read a single supported bar code.
- **Default - Barcode 10.xml** – Use this template to read up to 10 supported bar codes.
- **Default - Barcode 2.xml** – Use this template to read two supported bar codes.
- **Default - Barcode 4.xml** – Use this template to read up to supported four bar codes.
- **Default - Barcode 5.xml** – Use this template to read up to supported five bar codes.
- **Default - BookNumber.xml** – Use this template to read the OCR-B ISBN 10 or 13 digit book numbers.
- **Default - DocCap + Optional Barcode** – Use this template to capture a full page image and decode any supported bar codes that are in the form. The captured area is the largest rectangular region in the field of view defined by the solid border or contrast of background. Any OCR or OMR content will not be decoded in this mode. The captured area is further processed to correct, de-skew and sharpen and returned as a picture.
- **Default - DocCap + Required Barcode** – Use this template to capture a full page image and decode of any supported bar codes that are present in the form. The captured area is the largest rectangular region in the field of view defined by the solid border or contrast of background. Any OCR or OMR content will not be decoded in this mode. The captured area is further processed to correct, de-skew and sharpen and returned as a picture.
- **Default - TravelDoc.xml** – Use this template to read passport and Visa travel documents with OCR-B types A and B fonts.
- **Default - Unstructured Multi-Line** – Use this template to read up to seven lines of text.
- **Default - Unstructured Single Line** – Use this template to read a single line of text.

Data Capture

Introduction

The TC70x/TC75x supports data capture using:

- integrated imager
- RS507 Hands-free Imager
- RS6000 Bluetooth Ring Scanner
- DS3678 Digital Scanner.

Imaging

The TC70x/TC75x with an integrated 2D imager has the following features:

- Omnidirectional reading of a variety of barcode symbologies, including the most popular linear, postal, PDF417, and 2D matrix code types.
- The ability to capture and download images to a host for a variety of imaging applications.
- 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 its memory, and executes state-of-the-art software decoding algorithms to extract the barcode data from the image.

Operational Modes

The TC70x/TC75x with an integrated imager supports two modes of operation, listed below. Activate each mode by pressing the Scan button.

- **Decode Mode:** In this mode, the TC70x/TC75x attempts to locate and decode enabled barcodes within its field of view. The imager remains in this mode as long as the user holds the scan button, or until it decodes a barcode.



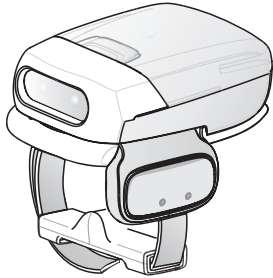
NOTE: To enable Pick List Mode, configure in DataWedge or set in an application using a API command.

- **Pick List Mode:** This mode allows the user to selectively decode a barcode when more than one barcode is in the TC70x/TC75x's field of view. To accomplish this, move the aiming crosshair or dot over the required barcode to decode only this barcode. This feature is ideal for pick lists containing multiple barcodes and manufacturing or transport labels containing more than one barcode type (either 1D or 2D).

RS507 Hands-Free Imager

The RS507 Hands-free Imager is a wearable barcode scan solution for both 1D and 2D barcode symbologies. The scanner supports Bluetooth Human Interface Device (HID) connection to the device.

Figure 105 RS507 Hands-Free Imager

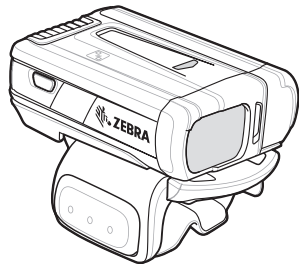


Refer to the RS507 Hands-free Imager Product Reference Guide for more information.

RS6000 Bluetooth Ring Scanner

The RS6000 Bluetooth Ring Scanner is a wearable barcode scan solution for both 1D and 2D barcode symbologies.

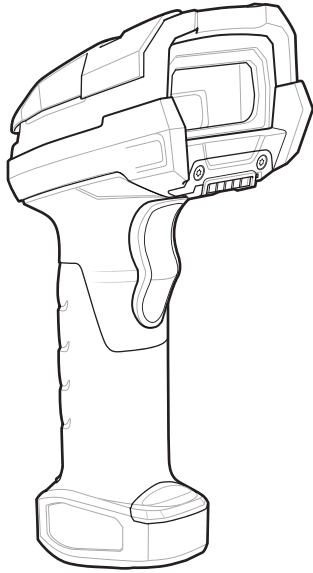
Figure 106 RS6000 Bluetooth Ring Scanner



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

DS3678 Digital Scanner

The cordless DS3678 combines superior 1D and 2D omnidirectional barcode scanning performance and advanced ergonomics in a lightweight design. See the DS36X8 Product Reference Guide for more information.

Figure 107 DS3678 Digital Scanner

Scanning Considerations

Typically, scanning is a simple matter of aim, scan, and decode and a few quick trial efforts master it. However, consider the following to optimize scanning performance:

- **Range:** Any scanning device decodes well over a particular working range — minimum and maximum distances from the barcode. This range varies according to barcode density and scanning device optics. Scanning within range brings 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 promoting quick decodes. When laser beams reflect directly back into the scanner from the barcode, this specular reflection can “blind” the scanner. To avoid this, scan the barcode so that the beam does not bounce directly back. But don’t 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 TC70x/TC75x farther away for larger symbols
- Move the TC70x/TC75x closer for symbols with bars that are close together.

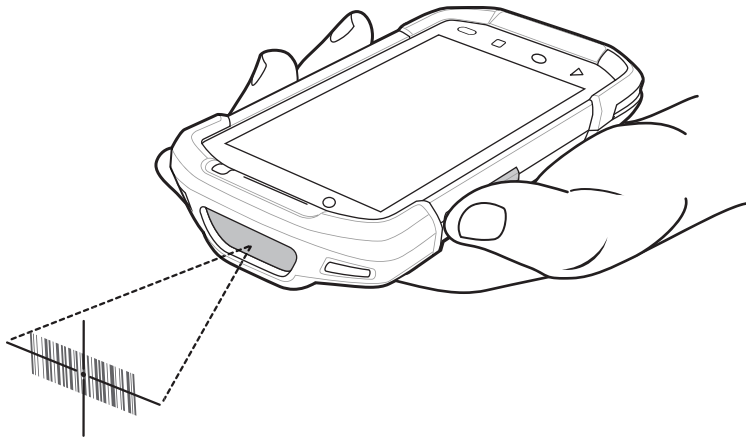


NOTE: Scanning procedures depend on the application and TC70x/TC75x configuration. An application may use different scanning procedures from the one listed above.

Barcode Scanning with Internal Imager

To read a barcode, a scan-enabled application is required. The TC70x/TC75x contains the DataWedge application that allows the user to enable the imager, decode the barcode data and display the barcode content.

1. Ensure that an application is open on the TC70x/TC75x and a text field is in focus (text cursor in text field).
2. Point the exit window on the top of the TC70x/TC75x at a barcode.

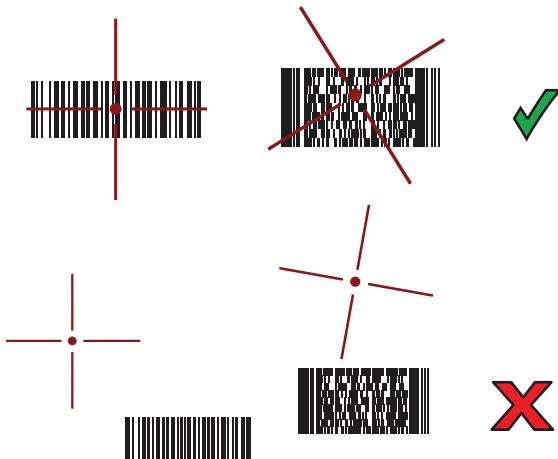
Figure 108 Imager Scanning

3. Press and hold the scan button.
The red laser aiming pattern turns on to assist in aiming.



NOTE: When the TC70x/TC75x is in Picklist mode, the imager does not decode the barcode until the crosshair or aiming dot touches the barcode.

4. Ensure the barcode 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 109 Internal Imager Aiming Pattern**Figure 110** Internal Imager Pick List Mode with Multiple Barcodes in Aiming Pattern

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



NOTE: Imager decoding usually occurs instantaneously. The TC70x/TC75x repeats the steps required to take a digital picture (image) of a poor or difficult barcode as long as the scan button remains pressed.

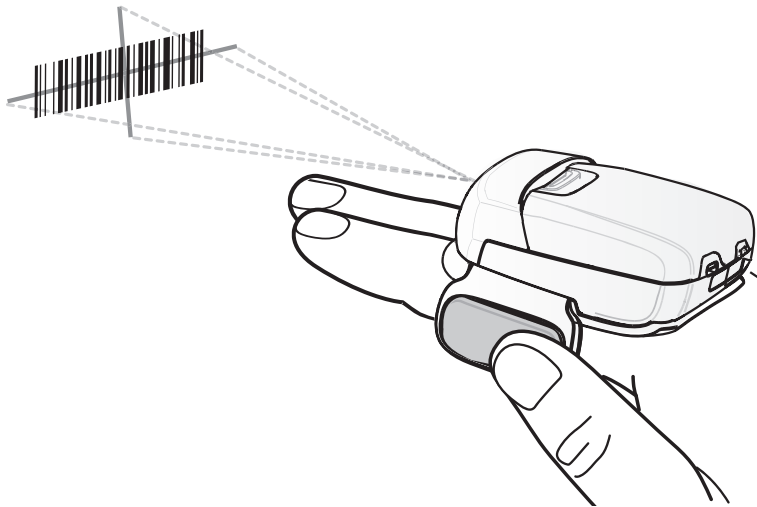
7. The barcode content data displays in the text field.

Barcode Capture with RS507 Hands-Free Imager

Pair the RS507 with the TC70x/TC75x. See [Pairing Using Simple Serial Interface on page 146](#) or [Pairing Using Bluetooth Human Interface Device on page 147](#) for more information.

1. Ensure that an application is open on the device and a text field is in focus (text cursor in text field).
2. Point the RS507 at a barcode.

Figure 111 Barcode Scanning with RS507



3. 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 is used for increased visibility in bright lighting conditions.

The RS507 LEDs light green, a beep sounds to indicate the barcode was decoded successfully. Note that when the RS507 is in Pick List Mode, the RS507 does not decode the barcode until the center of the crosshair touches the barcode.

Figure 112 RS507 Aiming Pattern



Figure 113 RS507 Pick List Mode with Multiple Barcodes in Aiming Pattern

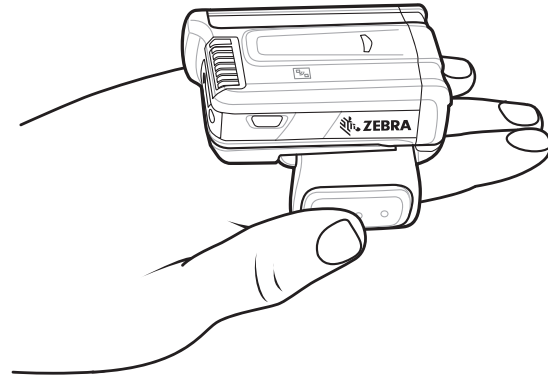
4. The captured data appears in the text field.

Barcode Capture with RS6000 Bluetooth Ring Scanner

To read a barcode, a scan-enabled application is required. The TC70x/TC75x contains the **DataWedge** application that allows the user to enable the scanner to decode barcode data and display the barcode content. See [DataWedge Demonstration on page 112](#) for more information on launching DataWedge.

Pair the RS6000 with the TC70x/TC75x. See [Pairing Using Simple Serial Interface on page 146](#) or [Pairing Using Bluetooth Human Interface Device on page 147](#) for more information.

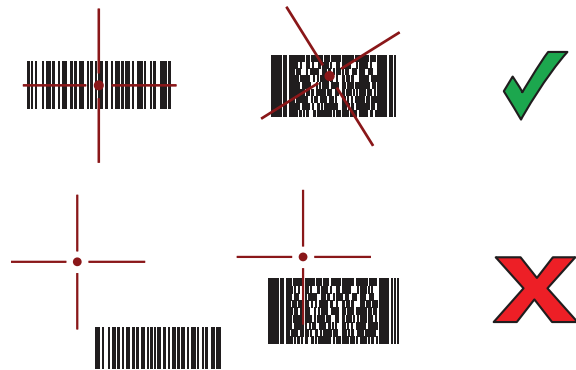
1. Ensure that an application is open on the device and a text field is in focus (text cursor in text field).
2. Point the RS6000 at a barcode.

Figure 114 Barcode Scanning with RS6000

3. 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 is used for increased visibility in bright lighting conditions.

The RS6000 LEDs light green, a beep sounds to indicate the barcode was decoded successfully. Note that when the RS6000 is in Pick List Mode, the RS6000 does not decode the barcode until the center of the crosshair touches the barcode.

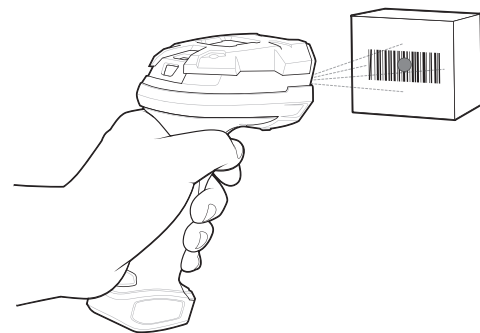
Figure 115 RS6000 Aiming Pattern**Figure 116** RS6000 Pick List Mode with Multiple Barcodes in Aiming Pattern

4. The captured data appears in the text field.

Barcode Capture with DS3678 Bluetooth Scanner

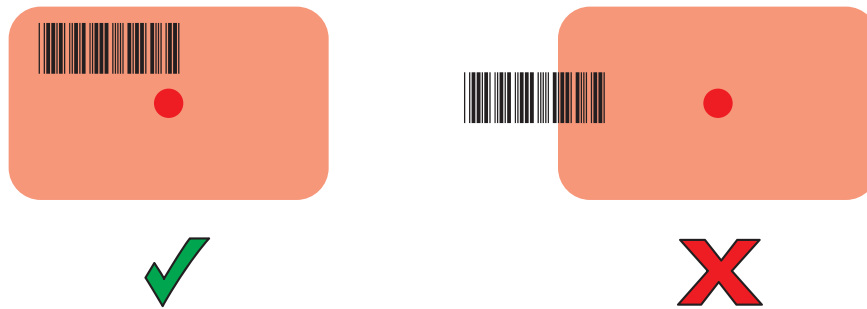
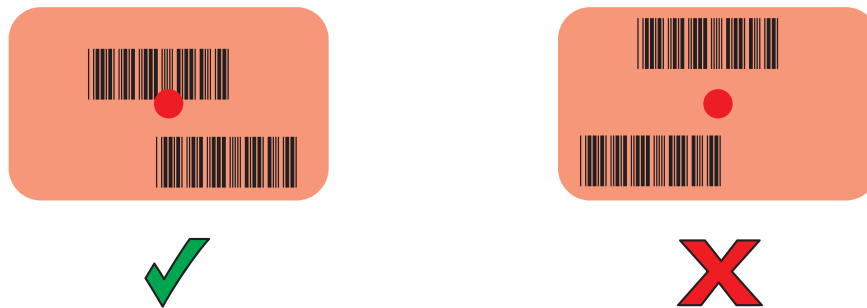
Pair the DS3678 with the TC70x/TC75x. See [Pairing the DS3678 Digital Scanner on page 147](#) for more information.

1. Ensure that an application is open on the device and a text field is in focus (text cursor in text field).
2. Point the DS3678 at a barcode.

Figure 117 Barcode Scanning with DS3678 (-SR shown)

3. Press and hold the trigger.

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

Figure 118 DS3678-SR Aiming Pattern**Figure 119** DS3678-SR Pick List Mode with Multiple Barcodes in Aiming Pattern

4. The captured data appears in the text field.

Pairing the RS507/RS6000 Hands-Free Imager

To connect the RS507 or RS6000 imagers to the TC70x/TC75x, use one of the following methods:

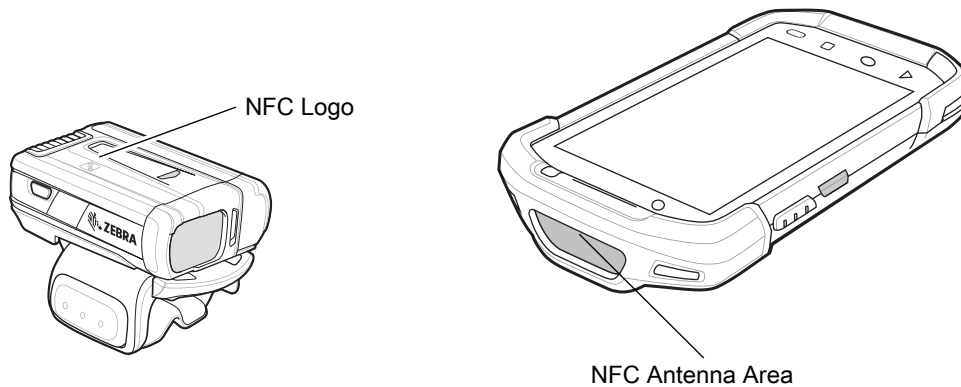
- Near Field Communication (NFC) (RS6000 only)
- Simple Serial Interface (SSI)
- Bluetooth Human Interface Device (HID) Mode.

Pairing Using Near Field Communication


The TC70x/TC75x provides the ability to pair the RS6000 using NFC.

✓ **NOTE:** RS6000 only.

1. Ensure that the RS6000 is in SSI mode. Refer to the RS6000 User Guide for more information.
2. Ensure that NFC is enabled on the TC70x/TC75x.
3. Align the NFC icon on the RS6000 with the NFC antenna on the TC70x/TC75x.

Figure 120 Align NFC Antennas

The RS6000 Status LED blinks blue indicating that the RS6000 is attempting to establish connection with the TC70x/TC75x. When connection is established, the Status LED turns off and the RS6000 emits a single string of low/high beeps.

A notification appears on the TC70x/TC75x screen and the  icon appears in the Status bar.

Pairing in HID Mode Using Near Field Communication

The TC70x/TC75x provides the ability to pair the RS6000 in HID Mode using NFC.

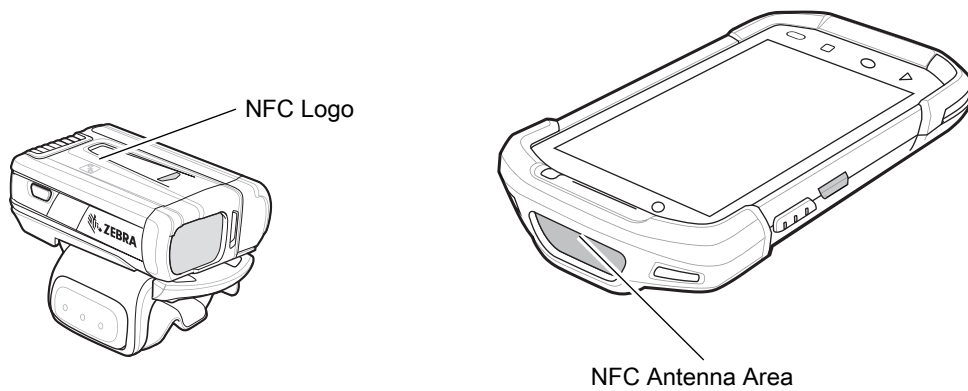


NOTE: RS6000 only.

1. Ensure that NFC is enabled on the TC70x/TC75x.
2. Ensure that Bluetooth is enabled on the TC70x/TC75x.
3. Place the RS6000 in Human Interface Device (HID) mode. If the RS6000 is already in HID mode, skip to step 4.
 - a. Remove the battery from the RS6000.
 - b. Press and hold the Restore key.
 - c. Install the battery onto the RS6000.
 - 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 RS6000 in HID mode.

Figure 121 RS6000 Bluetooth HID Barcode

4. Remove the battery from the RS6000.
5. Re-install the battery into the RS6000.
6. Align the NFC icon on the RS6000 with the NFC antenna on the TC70x/TC75x.

Figure 122 Align NFC Antennas

The RS6000 Status LED blinks blue indicating that the RS6000 is attempting to establish connection with the TC70x/TC75x. When connection is established, the Status LED turns off and the RS6000 emits a single string of low/high beeps.

A notification appears on the screen and the **A** icon appears in the Status bar.

Pairing Using Simple Serial Interface

To pair the RS507/RS6000 with the TC70x/TC75x using SSI.


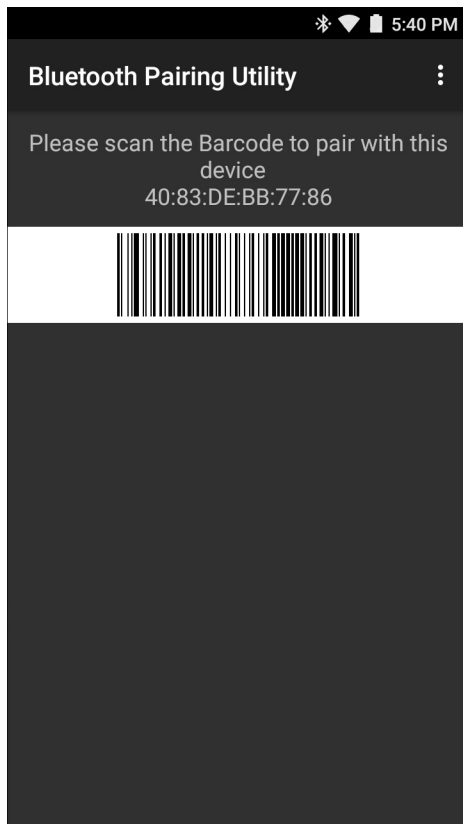

1. Swipe up from the bottom of the Home screen and touch .

Figure 123 Bluetooth Pairing Utility

2. Using the RS507/RS6000, scan the barcode on the screen.

The RS507/RS6000 emits a high/low/high/low beeps. The Scan LED flashes green indicating that the RS507/RS6000 is attempting to establish connection with the TC70x/TC75x. When connection is established, the Scan LED turns off and the RS507/RS6000 emits one string of low/high beeps.

A notification appears on the screen and the  icon appears in the Status bar.

Pairing Using Bluetooth Human Interface Device

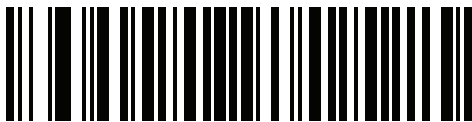
To pair the RS507/RS6000 with the TC70x/TC75x using HID:



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. Place the RS507/RS6000 in Human Interface Device (HID) mode. If the RS507/RS6000 is already in HID mode, skip to step 5.
 - a. Remove the battery from the RS507/RS6000.
 - b. Press and hold the Restore key.
 - c. Install the battery onto the RS507/RS6000.
 - 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 RS507/RS6000 in HID mode.

Figure 124 RS507 Bluetooth HID Barcode




Figure 125 RS6000 Bluetooth HID Barcode



5. Remove the battery from the RS507/RS6000.
6. Re-install the battery into the RS507/RS6000.
7. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
8. Touch  **Bluetooth**.
9. Touch **SCAN FOR DEVICES**. The TC70x/TC75x begins searching for discoverable Bluetooth devices in the area and displays them under **AVAILABLE DEVICES**.
10. Scroll through the list and select RS507 or RS6000.

The TC70x/TC75x connects to the RS507/RS6000 and **Connected** appears below the device name. The Bluetooth device is added to the **Bluetooth devices** list and a trusted ("paired") connection is established.

A notification appears on the screen and the  icon appears in the Status bar.

Pairing the DS3678 Digital Scanner

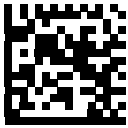
To connect the DS3678 Digital Scanner to the TC70x/TC75x using Bluetooth Human Interface Device (HID) Mode.



Pairing Using Bluetooth Human Interface Device

To pair the DS3678 with the TC70x/TC75x using HID:

1. Remove the battery from the DS3678 scanner.
2. Replace the battery.
3. After the DS3678 reboots, scan the barcode below to place the DS3678 in HID mode.

Figure 126 Bluetooth HID Classic Barcode






4. On the TC70x/TC75x, swipe down with two fingers from the status bar to open the quick access panel and then touch .
5. Touch  **Bluetooth**.
6. Touch **SCAN FOR DEVICES**. The TC70x/TC75x begins searching for discoverable Bluetooth devices in the area and displays them under **Available devices**.
7. Scroll through the list and select DS3678 xxxxxx, where xxxxxx is the serial number.
The TC70x/TC75x connects to the DS3678, the DS3678 beeps once and **Connected** appears below the device name. The Bluetooth device is added to the **Bluetooth 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.

To configure DataWedge refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2.

Enabling DataWedge

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.
4. Touch .

Disabling DataWedge

1. Swipe up from the bottom of the Home screen and touch .
2. Touch  > **Settings**.
3. Touch the **DataWedge enabled** checkbox. The blue checkmark disappears from the checkbox indicating that DataWedge is disabled.
4. Touch .

Wireless

Introduction

This section provides information on the wireless features:

- Wireless Wide Area Network (WWAN)
- Wireless Local Area Network (WLAN)
- Bluetooth
- Near Field Communications (NFC).

Wireless Wide Area Networks



NOTE: TC75x only.

Use Wireless wide area networks (WWANs) to access data over a cellular network. This section provides information on:

- Sharing a data connection
- Disabling data roaming
- Monitoring data usage
- Limiting connections to 2G networks
- Locking a SIM card
- Editing Access Point Names (APNs).


Sharing the Mobile Data Connection

The **tethering & portable hotspot** settings allow you to share your data connection. You can share the TC75x's mobile data connection with a single computer via USB tethering or Bluetooth tethering. You can also share the data connection with up to eight devices at once, by turning it into a portable Wi-Fi hotspot. While the TC75x is sharing its data connection, an icon appears at the top of the screen and a corresponding message appears in the notification list.

USB Tethering



NOTE: USB tethering is not supported on computers running Mac OS. If your computer is running Windows 7 or a recent version of Linux (such as Ubuntu), follow these instructions without any special preparation. If running a version of Windows that precedes Windows 7, or some other operating system, you may need to prepare the computer to establish a network connection via USB.

1. Connect the TC75x to a host computer with the USB cable.
A USB icon appears at the top of the screen, and the notification **Connected as a media device** or **Connected as a camera** appears briefly at the top of the screen.
2. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
3. Touch ... **More**.
4. Touch **Tethering & portable hotspot**.
5. Touch the **USB tethering**.


The host computer is now sharing the TC75x's data connection.

To stop sharing the data connection, touch the **USB tethering** switch again or disconnect the USB cable.

Bluetooth Tethering

Use Bluetooth tethering to share the data connection with a host computer.

Configure the host computer to obtain its network connection using Bluetooth. For more information, see the host computer's documentation.


1. Pair the TC75x with the host computer.
2. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
3. Touch ... **More > Tethering & portable hotspot**.
4. Touch the **Bluetooth tethering** switch to enable.


The host computer is now sharing the TC75x's data connection.

To stop sharing the data connection, touch the **Bluetooth tethering** switch again.

Portable Wi-Fi Hotspot

Configure the Wi-Fi Hotspot settings.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More > Tethering & portable hotspot**.
3. Touch the **Portable Wi-Fi hotspot** switch to enable.

After a moment, the TC75x starts broadcasting its Wi-Fi network name (SSID), so you can connect to it with up to eight computers or other devices. The Hotspot  icon appears in the Status Bar.

To stop sharing the data connection, touch the **Portable Wi-Fi hotspot** switch again.

Configuring the Wi-Fi Hotspot


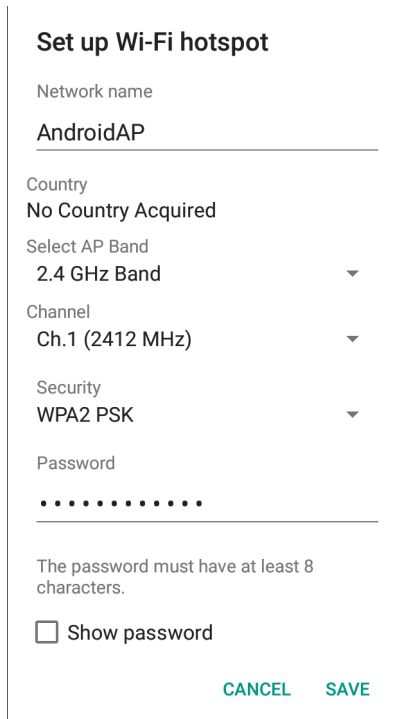
1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More > Tethering & portable hotspot > Set up Wi-Fi hotspot**.

Figure 127 Set up Wi-Fi Hotspot Dialog Box


Set up Wi-Fi hotspot

Network name
AndroidAP

Country
No Country Acquired

Select AP Band
2.4 GHz Band ▼

Channel
Ch.1 (2412 MHz) ▼

Security
WPA2 PSK ▼

Password
.....

The password must have at least 8 characters.

☐ Show password

CANCEL SAVE

3. In the **Network name** text field, edit the name for the hotspot.
4. In the **Select AP Band** drop-down list, select **2.4 GHz Band**.
5. Touch the **Channel** option and select a channel number from the drop-down list.
6. Touch the **Security** option and select a security method from the drop-down list.
 - None
 - WPA2 PSK
7. In the **Password** text field, enter a password.



NOTE: If **None** is selected in the **Security** option, a password is not required.

8. Touch **Save**.

Cellular Network Settings

Disabling Data When Roaming

To prevent the device from transmitting data over other carriers' mobile networks when leaving an area that is covered by the carrier's networks. This is useful for controlling expenses if the service plan does not include data roaming.

CDMA Devices


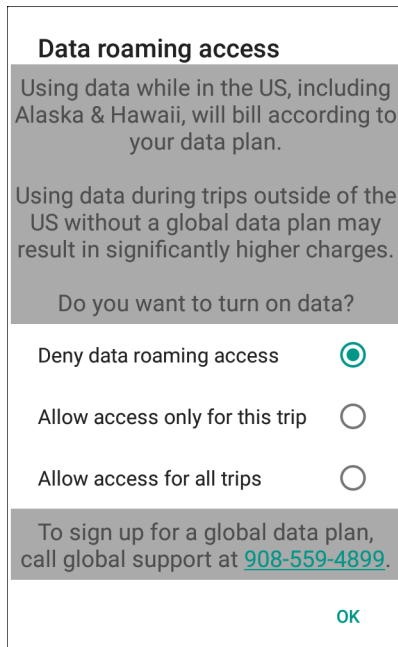

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More** > **Cellular networks** > **Data roaming access**.

Figure 128 Data Roaming Access Dialog Box


3. Select the roaming option and then touch **OK**.

GSM Devices

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More > Cellular networks**.
3. Slide the **Data roaming** switch to the off position.

Preferred Network Type

Use to change the network operating mode.


1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More > Cellular networks > Preferred network type**.
3. In the **Preferred network type** dialog box, select a mode to set as default. Options: **LTE only**, **Automatic** or **CDMA only**.

Enhanced 4G LTE Mode

Use LTE services to improve voice and other communication. (default - disabled).



Search for MicroCell

A MicroCell acts like a mini cell tower in a building or residence and connects to an existing broadband Internet service. It improves cell signal performance for voice calls, texts, and cellular data applications like picture messaging and Web surfing.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More > Cellular Networks > Search for MicroCell**.
3. Touch **Search for MicroCell**.

System Select

Use System select to change the CDMA roaming mode.





1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More** > **Cellular networks** > **System Select**.
3. In the System select dialog box, select a mode. Options:
 - **Home only** - Do not roam from Home network.
 - **Automatic** - Allow automatic roaming.
4. Touch .

Editing the Access Point Name



NOTE: Many service provider Access Point Name (APN) data are pre-configured in the device. The APN information for all other service providers must be obtained from the wireless service provider.

To use the data on a network the user must configure the APN information.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More** > **Cellular networks** > **Access Point Names**.
3. Touch an APN name in the list to edit an existing APN or touch  to create a new APN.
4. Touch each APN setting and enter the appropriate data obtained from the wireless service provider.
5. When finished, touch .
6. Touch **Save**.
7. Touch the radio button next to the APN name to start using it.
8. Touch .

Locking the SIM Card

Locking the SIM card requires the user to enter a PIN every time the device is turned on. If the correct PIN is not entered, only Emergency calls can be made.



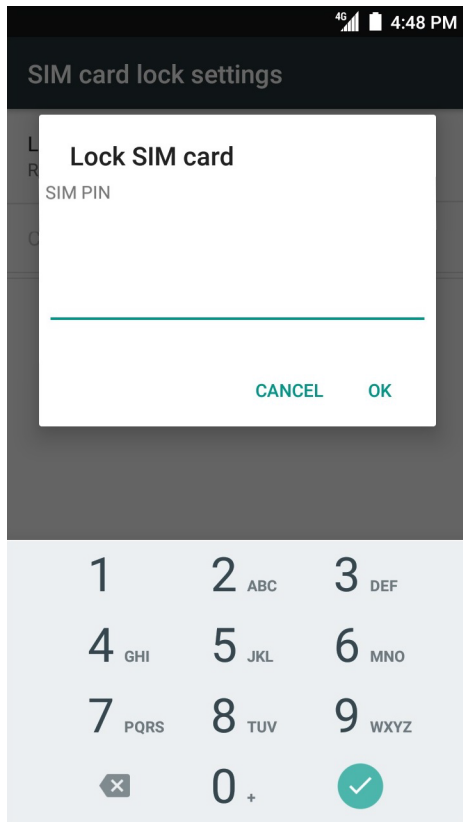

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Security**.
3. Touch **Set up SIM card lock**.
4. Touch **Lock SIM card**.

Figure 129 Enter PIN to Lock SIM Card

5. Enter the PIN associated with the card. Touch **OK**.
6. Reset the device.

Data Usage

Data usage refers to the amount of data uploaded or downloaded by the TC75x during a given period. Depending on the wireless plan, you may be charged additional fees when your data usage exceeds your plan's limit. To monitor your data usage, swipe down with two fingers from the status bar to open the quick access panel and then touch .

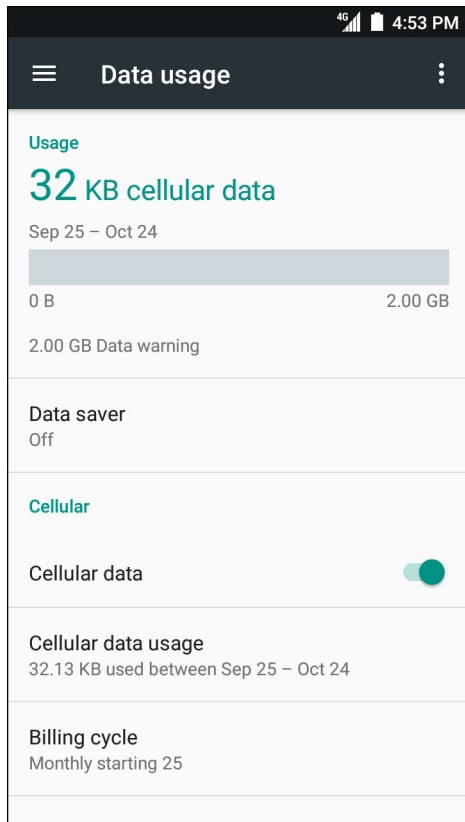


CAUTION: The usage displayed on the data usage settings screen is measured by your device. Your carrier's data usage accounting may differ. Usage in excess of your carrier plan's data limits can result in steep overage charges. The feature described here can help you track your usage, but is not guaranteed to prevent additional charges.

Data usage settings allow you to:



- Set the data usage level at which you'll receive a warning.
- Set a data usage limit.
- View or restrict data usage by app.
- Identify mobile hotspots and restrict background downloads that may result in extra charges.

By default, when you open the data usage settings screen you see the settings for mobile data: that is, the data network or networks provided by your carrier:

Figure 130 Data Usage Screen



Set Data Usage Warning

To set a warning alert when the device has used a certain amount of mobile data:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch **Data usage**.
3. Touch **Cellular data usage** >  > **Data warning**.
4. Enter a number. To switch between megabytes (MB) and gigabytes (GB), touch the down arrow.
5. Touch **Set**.

When the usage reaches the set level, a notification appears.

Set Auto-Sync

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch **Data usage**.
3. Touch **Cellular data usage** >  > **Set data limit**.
4. Touch **OK**.
5. Touch **Data limit**.
6. Enter a number. To switch between megabytes (MB) and gigabytes (GB), touch the down arrow.
7. Touch **Set**.

When the limit is reached, data automatically turns off and a notification appears.

Wireless Local Area Networks

Wireless local area networks (WLANs) allow the TC70x/TC75x to communicate wirelessly inside a building. Before using the TC70x/TC75x 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 TC70x/TC75x 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 TC70x/TC75x to match the security scheme.

The TC70x/TC75x supports the following WLAN security options:

- Open
- Wireless Equivalent Privacy (WEP).
- Wi-Fi Protected Access (WPA)/WPA2 Personal (PSK).
- Extensible Authentication Protocol (EAP).

The **Status** bar displays icons that indicate Wi-Fi network availability and Wi-Fi status. See [Status Bar on page 44](#) for more information.

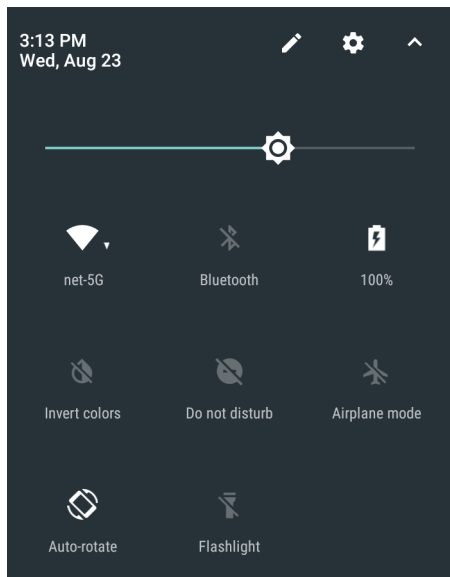


NOTE: Turn off Wi-Fi when not using it, to extend the life of the battery.

Scan and Connect to a Wi-Fi Network

1. Swipe down with two fingers from the status bar to open the quick access panel.

Figure 131 Quick Access Panel



2. Touch **WLAN** to open the **WLAN** screen. The TC70x/TC75x searches for WLANs in the area and lists them.

Figure 132 WLAN Screen




3. Scroll through the list and select the desired WLAN network.
4. For open networks, touch profile once or press and hold and then select **Connect to network** or for secure networks enter the required password or other credentials then touch **Connect**. See the system administrator for more information.

The TC70x/TC75x obtains a network address and other required information from the network using the dynamic host configuration protocol (DHCP) protocol. To configure the TC70x/TC75x with a fixed internet protocol (IP) address, refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2.

5. In the Wi-Fi setting field, **Connected** appears indicating that the TC70x/TC75x is connected to the WLAN.

Remove a Wi-Fi Network

To remove a remembered or connected network:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Wi-Fi**.
3. In the **Wi-Fi** list, touch and hold the name of the network.
4. In the menu, touch **Forget network**.
5. Touch .

Bluetooth

Bluetooth-equipped 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 meters (32.8 feet)) communication and low power consumption.

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

The TC70x/TC75x support 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 2 device power class. The maximum output power is 2.5 mW and the expected range is 10 meters (32.8 ft.). A definition of ranges based on power class is difficult to obtain due to power and device differences, and whether one measures 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 following Bluetooth services:

- 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.
- 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.
- Phone Book Access Profile (PBAP) - Allows exchange of Phone Book Objects between a car kit and a mobile device to allow the car kit to display the name of the incoming caller; allow the car kit to download the phone book so the user can initiate a call from the car display.
- Object Push Profile (OPP) - Allows the TC70x/TC75x to push and pull objects to and from a push server.
- Symbol Serial Interface Profile (SSI) - Allows for communication with RS507 Bluetooth Imager.

Bluetooth Power States

The Bluetooth radio is off by default.

- Suspend - When the TC70x/TC75x goes into suspend mode, the Bluetooth radio stays on.
- Airplane Mode - When the TC70x/TC75x 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 (e.g., 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 with two fingers from the status bar to open the quick access panel.
2. Touch  to turn Bluetooth on.
3. Touch .

Disabling Bluetooth

1. Swipe down with two fingers from the status bar to open the quick access panel.
2. Touch  to turn Bluetooth off.
3. Touch .



Discovering Bluetooth Device(s)



The TC70x/TC75x can receive information from discovered devices without pairing. However, once paired, the TC70x/TC75x and a paired device exchange information automatically when the Bluetooth radio is on. To find Bluetooth devices in the area:

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 with two fingers from the status bar to open the quick access panel.
5. Touch **Bluetooth**.
6. Touch **More Settings**. The **Bluetooth** screen appears.
7. The TC70x/TC75x begins searching for discoverable Bluetooth devices in the area and displays them under **Available devices**.
8. Scroll through the list and select a device. The **Bluetooth pairing request** dialog box appears.
9. Enter a PIN in the text box and touch **OK**. Enter the same PIN on the other device.
10. For Simple Pairing, touch **Pair** on both devices.
11. The Bluetooth device is added to the **Bluetooth devices** list and a trusted (“paired”) connection is established.

Changing the Bluetooth Name



By default, the TC70x/TC75x has a generic Bluetooth name that is visible to other devices when connected.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Bluetooth**.
3. If Bluetooth is not on, touch the switch to turn Bluetooth on.

4. Touch .
5. Touch **Rename this device**.
6. Enter a name and touch **Rename**.
7. Touch .





Connecting to a Bluetooth Device

Once paired, connect to a Bluetooth device.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Bluetooth**.
3. In the list, touch the unconnected Bluetooth device.
4. When connected, Connected appears below the device name.





Selecting Profiles on the Bluetooth Device

Some Bluetooth devices have multiple profiles. To select a profile:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Bluetooth**.
3. In the **Paired Devices** list, touch  next to the device name.
4. Under **PROFILES**, check or uncheck a profile to allow the device to use that profile.
5. Touch .

Unpairing a Bluetooth Device

To unpair a Bluetooth device and erase all pairing information:

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Bluetooth**.
3. In the **Paired Devices** list, touch  next to the device name.
4. Touch **FORGET**.
5. Touch .

Near Field Communications

NFC/HF RFID is a short-range wireless connectivity technology standard that enables secure transaction between a reader and a contactless smartcard. The technology is based on ISO/IEC 14443, ISO 18092, Type-A, Type-B, Type-F, and ISO/IEC 15693 (vicinity) standards, using the HF 13.56 MHz unlicensed band. The TC70x/TC75x support 3 operating modes:

- Reader mode
- Peer-to-Peer communication
- Card Emulation mode.

Using NFC, the TC70x/TC75x can:

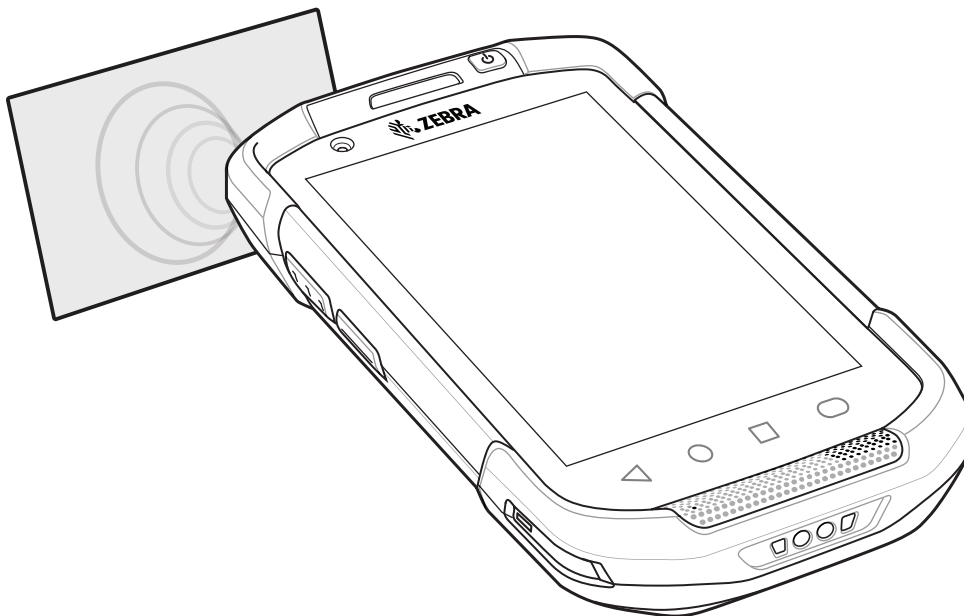
- Read contactless cards such as contactless tickets, ID cards and ePassport.
- Read and write information to contactless cards such as SmartPosters and tickets, as well as devices with NFC interface such as vending machines.
- Read information from supported medical sensors.
- Pair with supported Bluetooth devices such as printers and headsets.
- Exchange data with another NFC device.
- Emulate contactless card such as payment, ticket or SmartPoster.

The TC70x/TC75x NFC antenna is uniquely positioned to read NFC cards from the top of the device while being held in the user's hand.

Reading NFC Cards

1. Launch an NFC enabled application.
2. Hold device as shown.

Figure 133 Reading Cards



3. Move TC70x/TC75x close to the NFC card until the TC70x/TC75x detects the card.

4. Hold the card steadily until the transaction is complete (usually indicated by the application).

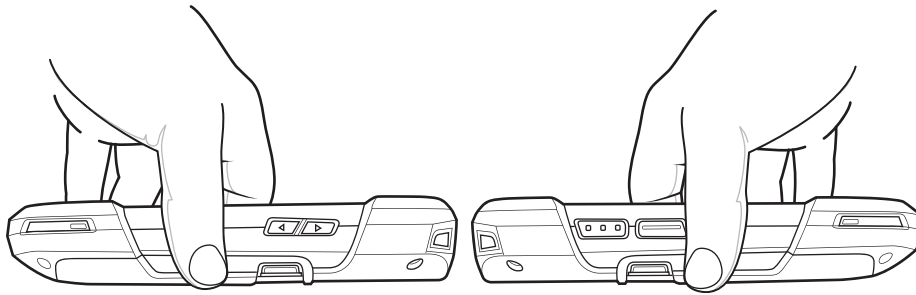
Sharing Information Using NFC

You can beam content like a web page, contact cards, pictures, YouTube links or location information from your screen to another device by bringing the devices together back to back.

Make sure both devices are unlocked, support NFC, and have both NFC and Android Beam turned on.

1. Open a screen that contains a web page, video, photo or contact.
2. Move the top of the TC70x/TC75x toward the top of the other device.

Figure 134 Sharing Data Using NFC



When the devices connect, you hear a sound, the image on the screen reduces in size, the message **Touch to beam** appears.

3. Touch anywhere on the screen.
The transfer begins.

Accessories

Introduction

This chapter provides information for using the accessories for the device.

Accessories

This table lists the accessories available for the TC70x/TC75x.

Table 13 Accessories

Accessory	Part Number	Description
Cradles		
2-Slot Charge Only Cradle	CRD-TC7X-SE2CPP-01	Provides device and spare battery charging. Use with power supply, p/n PWRS-14000-148R.
2-Slot USB/Ethernet Cradle	CRD-TC7X-SE2EPP-01	Provides device and spare battery charging and USB communication with a host computer and Ethernet communication with a network. Use with power supply, p/n PWRS-14000-148R.
5-Slot Charge Only Cradle	CRD-TC7X-SE5C1-01	Charges up to five devices. Use with power supply, p/n PWRS-14000-241R and DC line cord, p/n 50-16002-029R. Can accommodate one 4-Slot Battery Charger using the Battery Adapter Cup.
4-Slot Charge Only Cradle with Battery Charger	CRD-TC7X-SE5KPP-01	Charges up to four devices and four spare batteries. Use with power supply, p/n PWRS-14000-241R and DC line cord, p/n 50-16002-029R.
5-Slot Ethernet Cradle	CRD-TC7X-SE5EU1-01	Provides device charging and provides Ethernet communication for up to five devices. Use with power supply, p/n PWRS-14000-241R and DC line cord, p/n 50-16002-029R. Can accommodate one 4-Slot Battery Charger using the Battery Adapter Cup.

Table 13 Accessories (Continued)

Accessory	Part Number	Description
Cradle Mount	BRKT-SCRD-SMRK-01	Mounts the 5-Slot Charge Only Cradle, 5-Slot Ethernet Cradle, and 4-Slot Battery Charger to a wall or rack.
Batteries and Chargers		
4,620 mAh PowerPrecision+ battery	BTRY-TC7X-46MPP-01	Replacement battery (single pack).
	BTRY-TC7X-46MPP-10	Replacement battery (10-pack).
4-Slot Spare Battery Charger	SAC-TC7X-4BTYP-01	Charges up to four battery packs. Use with power supply, p/n PWRS-14000-148R.
Battery Charger Adapter Cup	CUP-SE-BTYADP1-01	Allows for one 4-Slot Battery Charger to be charged and docked on the left most slot of the 5-Slot cradles (maximum one per cradle).
Vehicle Solutions		
Charging Cable Cup	CHG-TC7X-CLA1-01	Provides power to the device from a cigarette lighter socket.
Charge Only Vehicle Cradle	CRD-TC7X-CVCD1-01	Charges and securely holds the device. Requires power cable CHG-AUTO-CLA1-01 or CHG-AUTO-HWIRE1-01, sold separately.
TC7X Vehicle Communication Charging Cradle	CRD-TC7X-DCVH-01	Provides power for operating the device when connected to the optional USB I/O Hub and securely holds the device.
USB I/O Hub	SHARE-USBH-01	Provides power to the TC7X Vehicle Communication Charging Cradle, USB communication and Requires power cable CHG-AUTO-CLA1-01 or CHG-AUTO-HWIRE1-01, sold separately.
TC7X Data Communication Enabled Vehicle Cradle with Hub Kit	CRD-TC7X-VCD1-01	Contains the TC7X Vehicle Communication Charging Cradle and the IUSB I/O Hub.
Cigarette Light Adapter Auto Charge Cable	CHG-AUTO-CLA1-01	Provides power to the Vehicle Cradle from a cigarette lighter socket.
Hard-wire Auto Charge Cable	CHG-AUTO-HWIRE1-01	Provides power to the Vehicle Cradle from the vehicle's power panel.
RAM Mount	RAM-B-166U	Provides window mounting option for the Vehicle Cradle. RAM Twist Lock Suction Cup with Double Socket Arm and Diamond Base Adapter. Overall Length: 6.75".
RAM Mount Base	RAM-B-238U	RAM 2.43" x 1.31" Diamond Ball base with 1" ball.

Table 13 Accessories (Continued)

Accessory	Part Number	Description
Charge and Communication Cables		
Charging Cable Cup	CHG-TC7X-CBL1-01	Provides power to the device. Use with power supply, p/n PWRS-14000-249R, sold separately.
Snap-On USB Cable	CBL-TC7X-CBL1-01	Provides power to the device and USB communication with a host computer. Use with power supply, p/n PWRS-14000-249R, sold separately.
Snap-On Serial Cable	CBL-TC7X-SERL1-01	Provides power and serial communication with a host computer. Use with power supply, p/n PWRS-14000-249R, sold separately.
Snap-On DEX Cable	CBL-TC7X-DEX1-01	Provides electronic data exchange with devices such as vending machines.
Audio Accessories		
Premium Headset	RCH51	Premium Rugged headset.
3.5 mm Audio Adapter	ADP-TC7X-AUD35-01	Snaps onto the device and provides audio to a wired headset with 3.5 mm plug.
3.5 mm Headset	HDST-35MM-PTVP-01	Use for PTT and VoIP calls.
3.5 mm Quick Disconnect Adapter Cable	ADP-35M-QDCBL1-01	Provides connection to the 3.5 mm Headset.
Scanning		
Trigger Handle	TRG-TC7X-SNP1-02	Adds gun-style handle with a scanner trigger for comfortable and productive scanning.
Carrying Solutions		
Soft Holster	SG-TC7X-HLSTR2-01	TC7X soft holster.
Rigid Holster	SG-TC7X-RHLSTR1-01	TC7X rigid holster.
Hand Strap	SG-TC7X-HSTRP2-03	Replacement hand strap with hand strap mounting clip (3-pack).
Stylus and Coiled Tether	SG-TC7X-STYLUS-03	TC7X stylus with coiled tether (3-pack).
Power Supplies		
Power Supply	PWRS-14000-249R	Provides power to the device using the Snap-On USB Cable, Snap-on Serial Cable or Charging Cable Cup. Requires AC line cord.
Power Supply	PWRS-14000-148R	Provides power to the 2-Slot cradles and 4-Slot Spare Battery Charger. Requires AC line cord.

Table 13 Accessories (Continued)

Accessory	Part Number	Description
Power Supply	PWRS-14000-241R	Provides power to the 5-Slot Charge Only cradle and the 5-Slot Ethernet Cradle. Requires DC Line Cord, p/n 50-16002-029R and country specific three wire grounded AC line cord sold separately.
DC Line Cord	50-16002-029R	Provides power from the power supply to the 5-Slot Charge Only Cradle and 5-Slot Ethernet Cradle.

2-Slot Charge Only Cradle

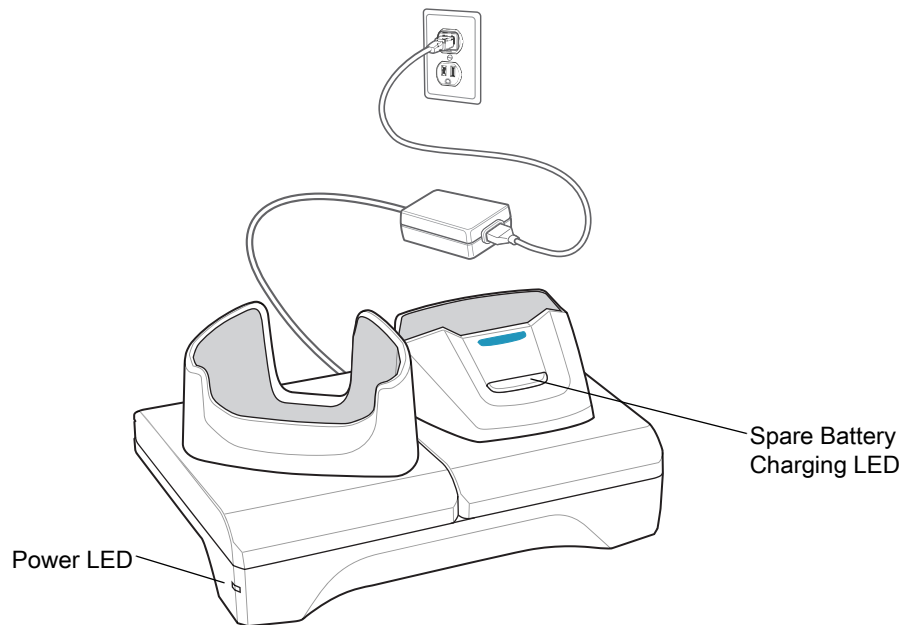


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 215](#).

The 2-Slot Charge Only Cradle:

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

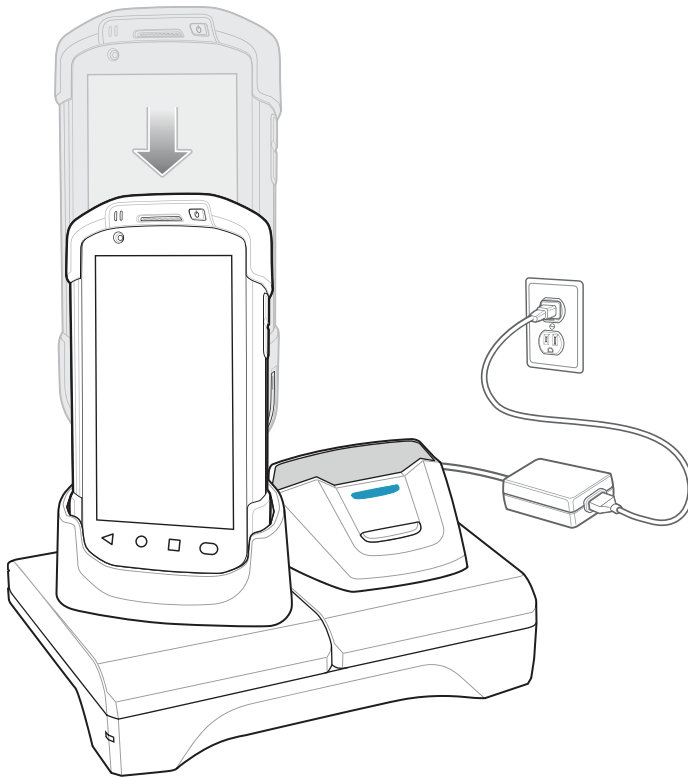
Figure 135 2-Slot Charge Only Cradle



Charging the Device

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

Figure 136 Battery Charging

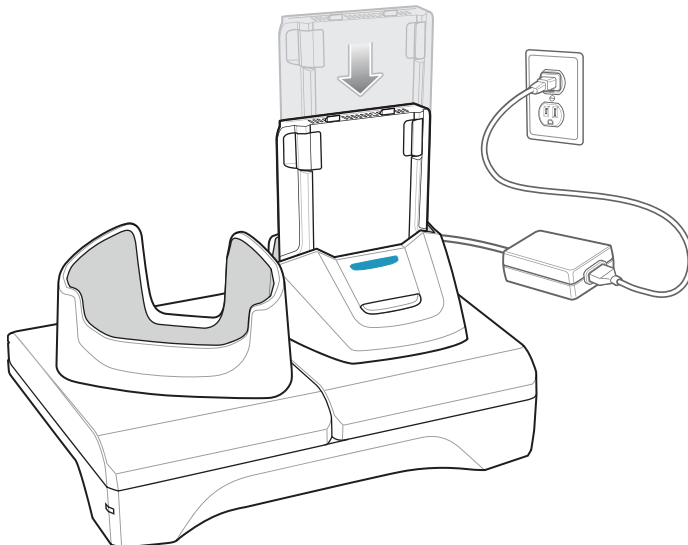


2. Ensure the device is seated properly.

Charging the Spare Battery

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

Figure 137 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 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 battery fully charges in less than five hours at room temperature.

Table 14 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 [Battery Safety Guidelines on page 215](#).

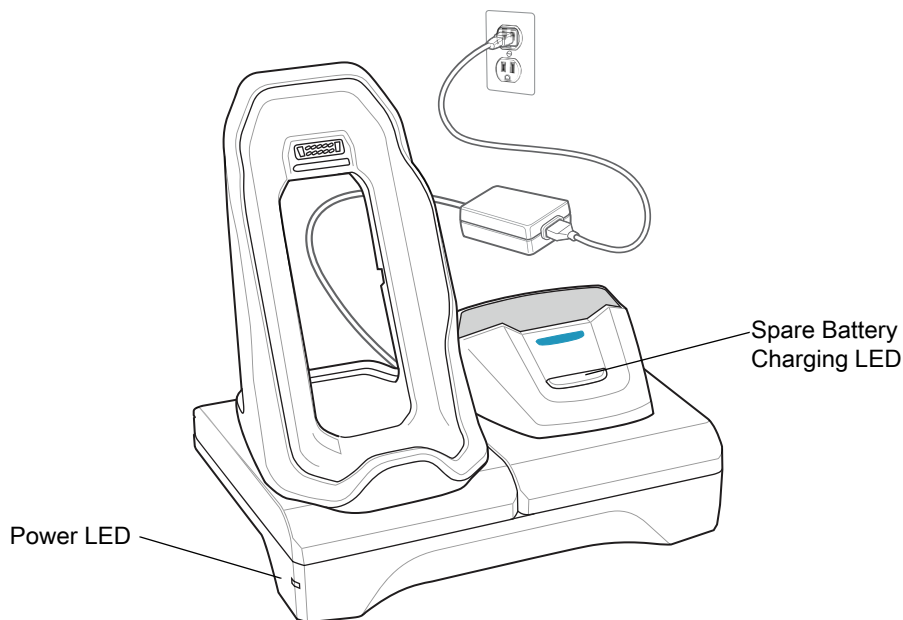
The 2-Slot USB/Ethernet Cradle:

- 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.



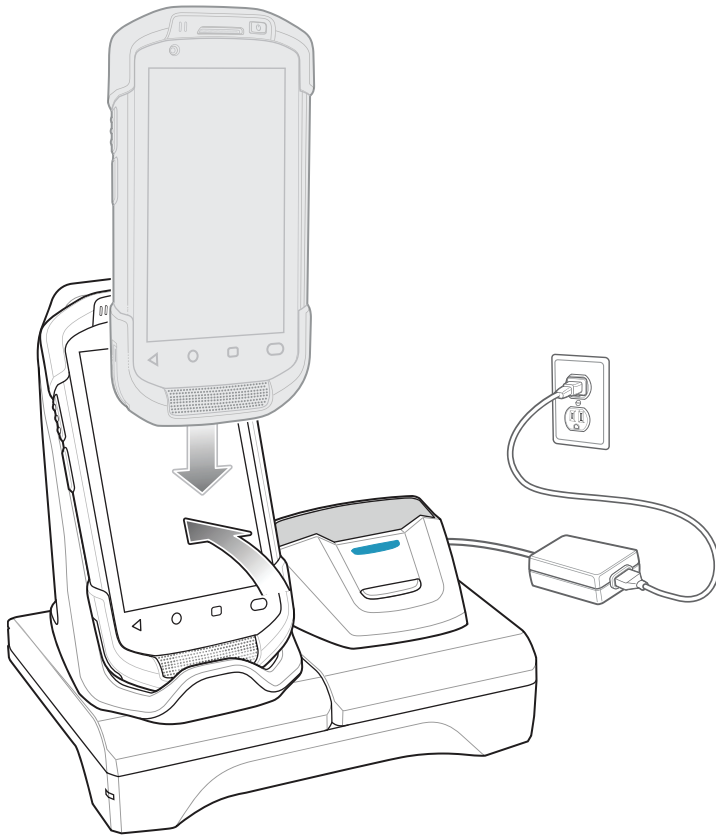
NOTE: Remove all attachments on the device, except the hand strap, before place onto the cradle.

Figure 138 2-Slot USB/Ethernet Cradle



Charging the Device

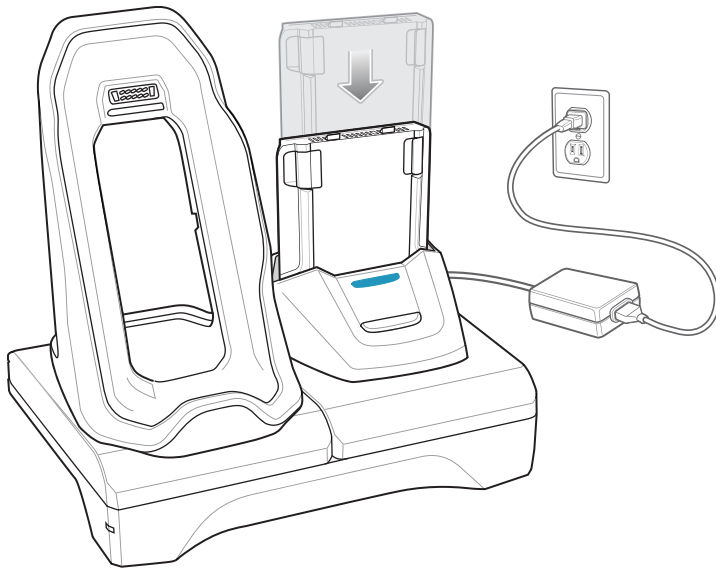
1. Place the bottom of the device into the base.

Figure 139 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 140 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 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 battery fully charges in less than five hours at room temperature.

Table 15 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

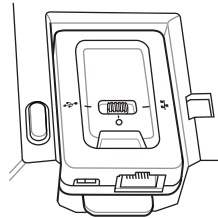
Charge batteries in temperatures from 0°C to 40°C (32°F to 104°F). The device or cradle always performs battery charging in a safe and intelligent manner. At higher temperatures (e.g. approximately +37°C (+98°F)) the device or cradle may for small periods of time alternately enable and disable battery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

USB/Ethernet Communication

The 2-Slot USB/Ethernet Cradle provides both Ethernet communication with a network and USB communication with a host computer. Prior to using the cradle for Ethernet or USB communication. Ensure that the switch on the USB/Ethernet module is set properly.

Turn the cradle over to view the module.

Figure 141 2-Slot USB/Ethernet Cradle Module Switch



For Ethernet communication, slide the switch to the  position.

For USB communication, slide the switch to the  position.

Place the switch in the center position  to disable communications.

Ethernet LED Indicators

There are two LEDs on the USB/Ethernet Module RJ-45 connector. The green LED lights to indicate that the transfer rate is 100 Mbps. When the LED is not lit the transfer rate is 10 Mbps. The yellow LED blinks to indicate activity, or stays lit to indicate that a link is established. When it is not lit it indicates that there is no link.

Figure 142 LED Indicators

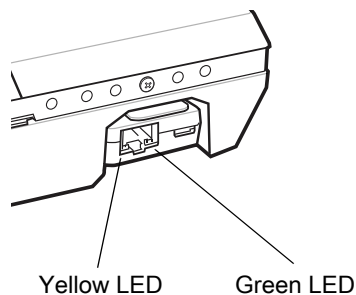




Table 16 USB/Ethernet Module LED Data Rate Indicators


Data Rate	Yellow LED	Green LED
100 Mbps	On/Blink	On
10 Mbps	On/Blink	Off

Establishing Ethernet Connection



NOTE: Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on configuring the Ethernet settings.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Ethernet**.
3. Slide the Ethernet switch to the **ON** position.
4. Insert the device into a slot.

The  icon appears in the Status bar.

5. Touch **Eth0** to view Ethernet connection details.

5-Slot Charge Only Cradle

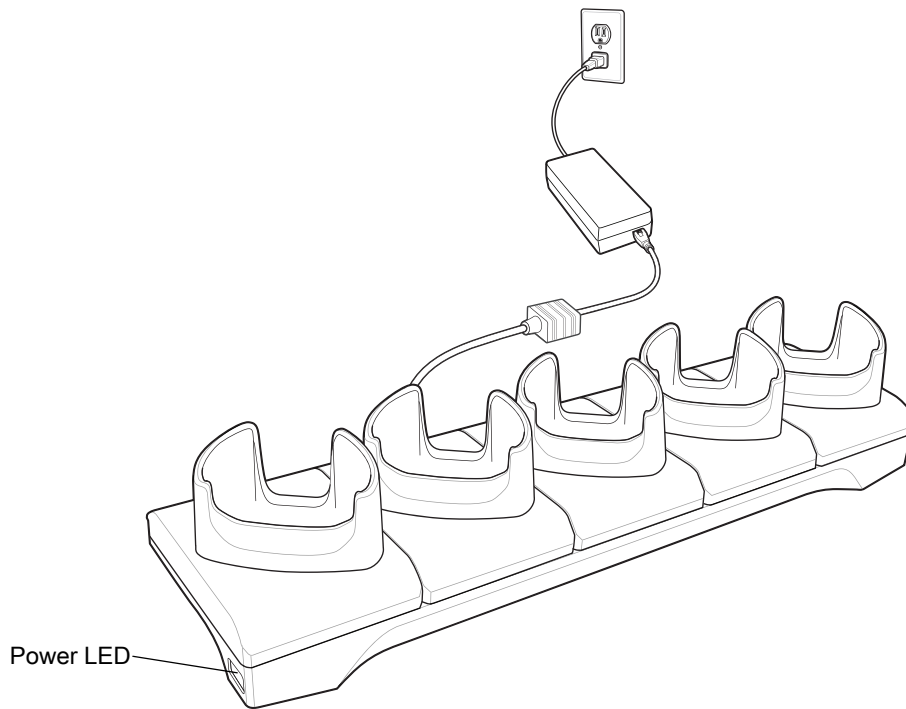


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 215](#).

The 5-Slot Charge Only Cradle:

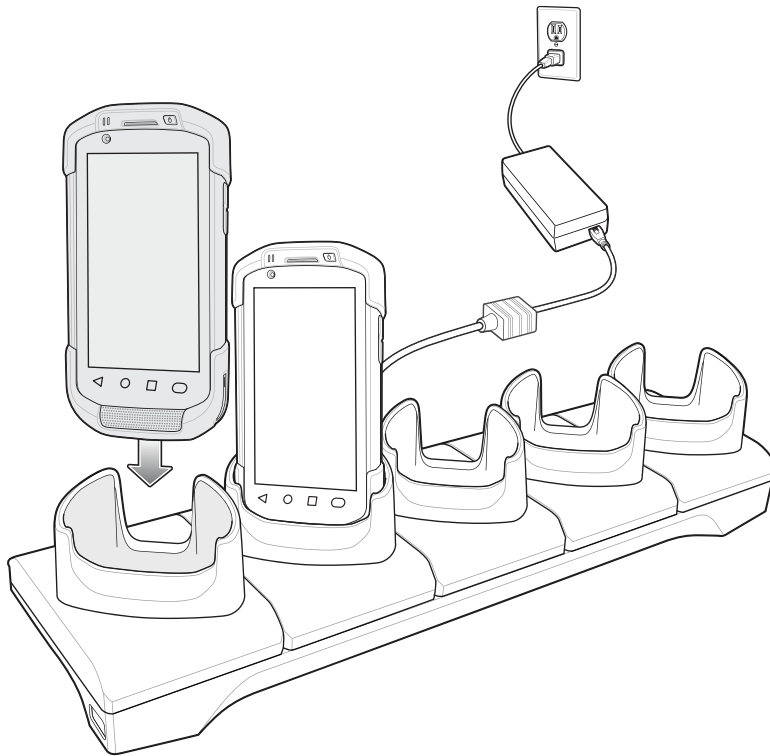
- Provides 5 VDC power for operating the TC70x/TC75x.
- Simultaneously charges up to five devices and up to four devices and one 4-Slot Battery Charger using the Battery Charger Adapter. See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on installing the 4-Slot Battery Charger onto the cradle.
- Consists of a cradle base and cups that can be configured for various charging requirements.

Figure 143 5-Slot Charge Only Cradle



Charging the TC75

1. Insert the TC70x/TC75x into a slot to begin charging.

Figure 144 Battery Charging

2. Ensure the TC70x/TC75x is seated properly.



NOTE: See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 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 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 battery fully charges in less than five hours at room temperature.

Table 17 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.

Table 17 Spare Battery Charging LED Indicators (Continued)

LED	Indication
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.

4-Slot Charge Only Cradle with Battery Charger

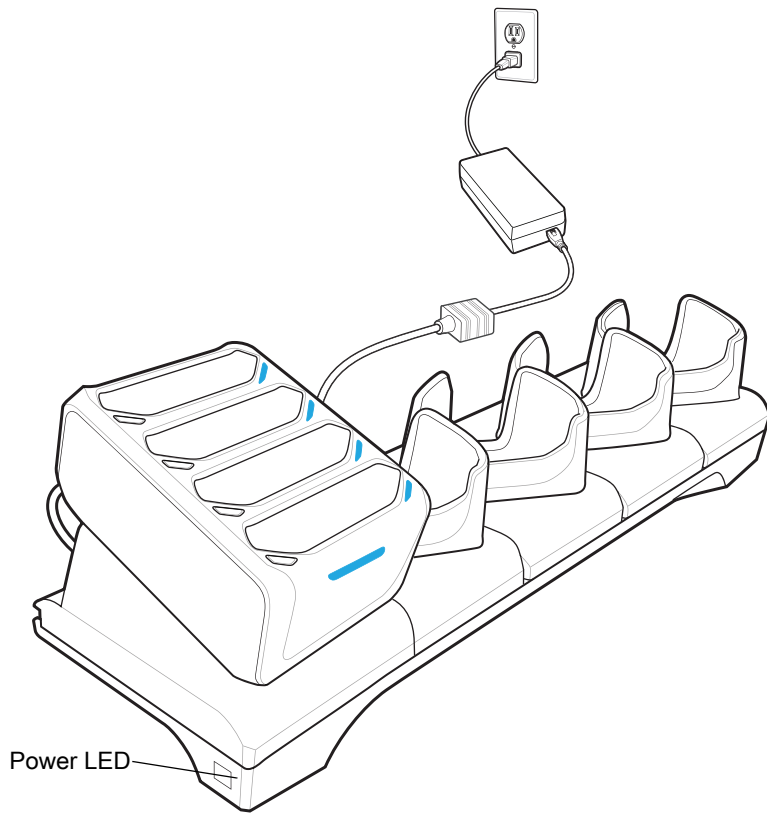


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 215](#).

The 4-Slot Charge Only Cradle with Battery Charger:

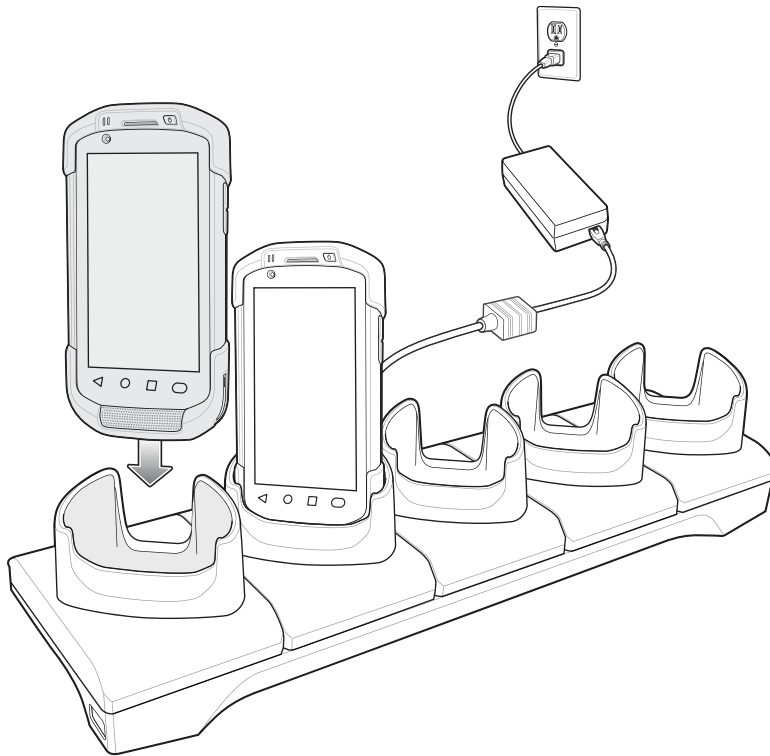
- Provides 5 VDC power for operating the TC70x/.
- Simultaneously charges up to four devices and up to four spare batteries.

Figure 145 4-Slot Charge Only Cradle with Battery Charger



Charging the Device

1. Insert the TC70x/TC75x into a slot to begin charging.

Figure 146 Battery Charging

2. Ensure the TC70x/TC75x is seated properly.



See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 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 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 battery fully charges in less than five hours at room temperature.

Table 18 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.

Table 18 Spare Battery Charging LED Indicators (Continued)

LED	Indication
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

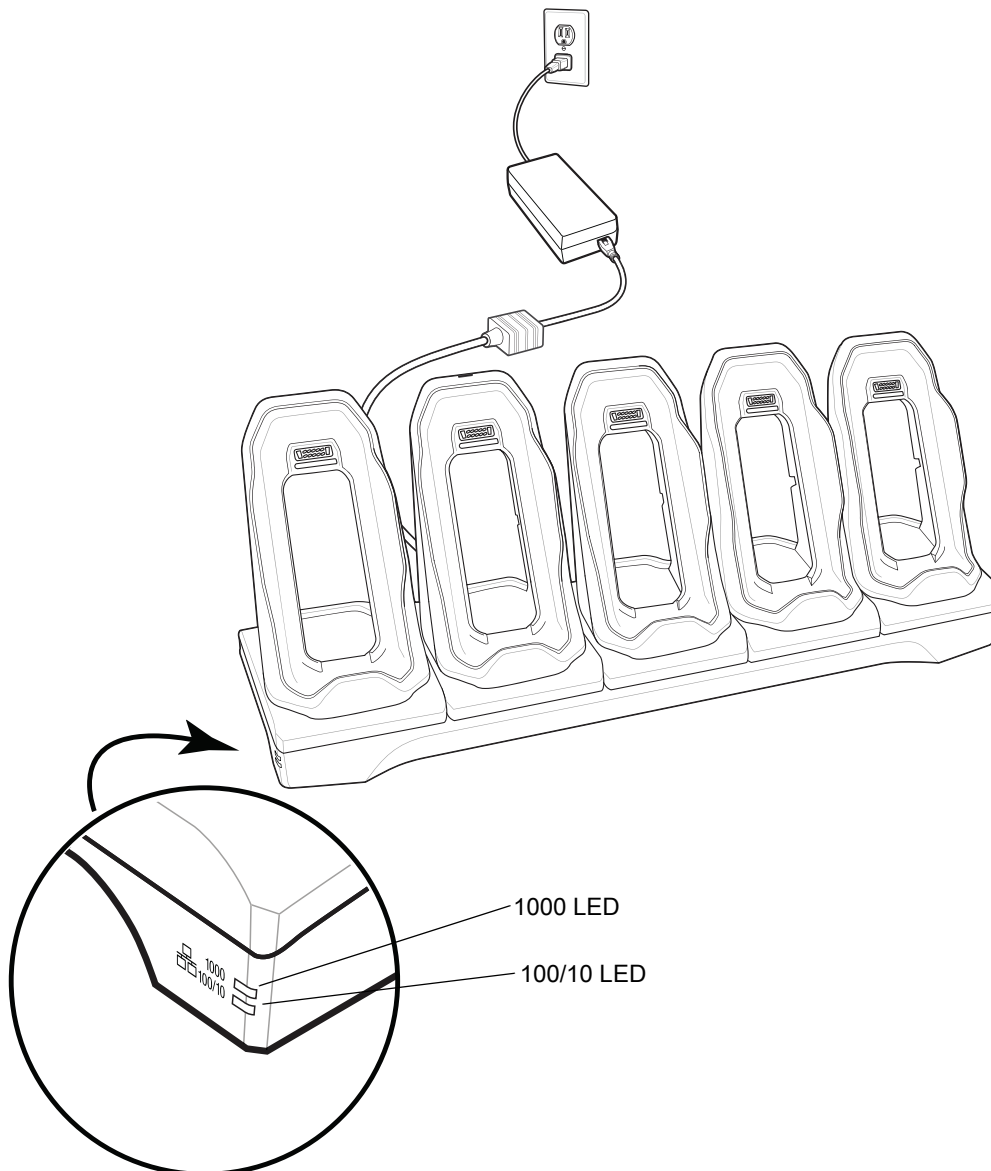


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 215](#).

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 devices and up to four devices and on 4-Slot Battery Charger using the Battery Charger Adapter. See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on installing the 4-Slot Battery Charger onto the cradle.

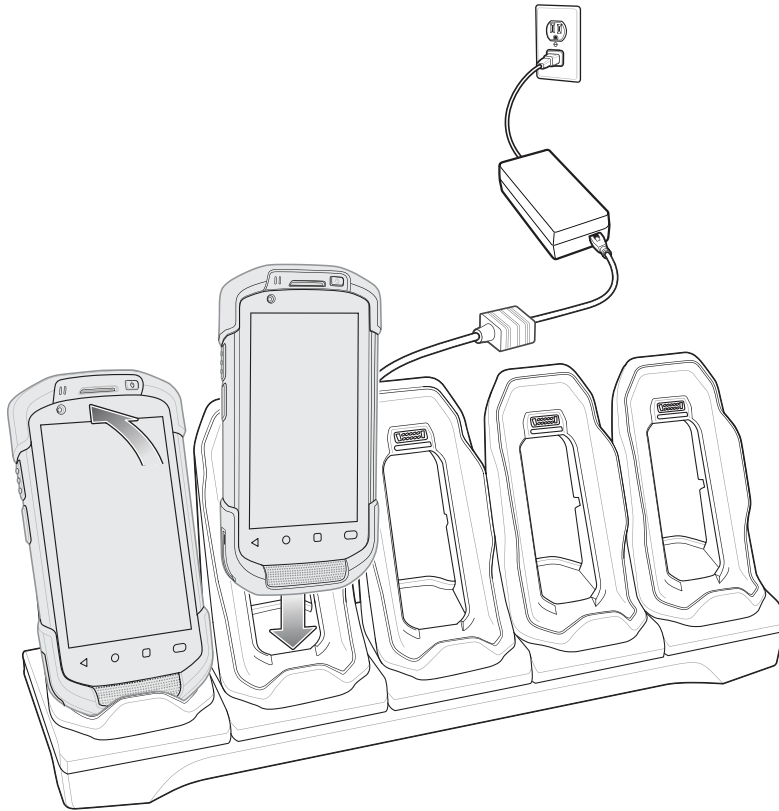
Figure 147 5-Slot Ethernet Cradle



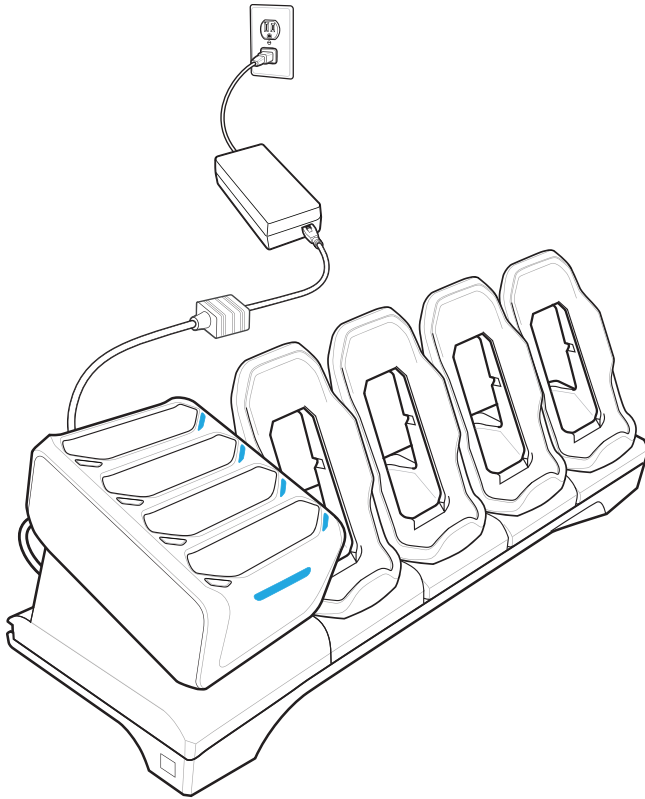
Charging the Device

1. Insert the TC70x/TC75x into a slot to begin charging.

Figure 148 Battery Charging



2. Ensure the TC70x/TC75x is seated properly.

Figure 149 5-Slot Ethernet Cradle with 4-Slot Battery Charger

NOTE: See the TC70x/TC75x Integrator Guide for Android Version 7.1.2 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 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 battery fully charges in less than five hours at room temperature.

Table 19 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.

Table 19 Spare Battery Charging LED Indicators (Continued)

LED	Indication
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.

Establishing Ethernet Connection



NOTE: Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on configuring the Ethernet settings.

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch **Ethernet**.
3. Slide the Ethernet switch to the **ON** position.
4. Insert the device into a slot.
The <--> icon appears in the Status bar.
5. Touch **Eth0** to view Ethernet connection details.

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 20 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



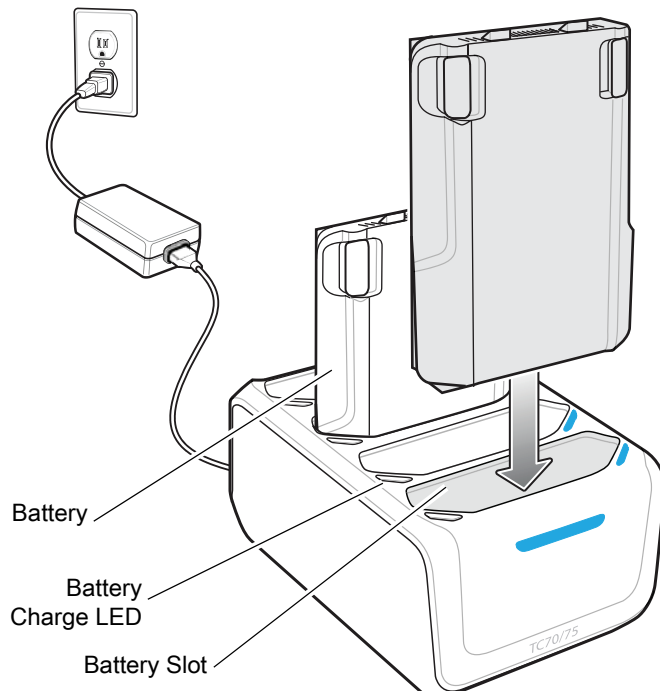
CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 215](#).

This section describes how to use the 4-Slot Battery Charger to charge up to four TC70x/TC75x 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 150 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 battery fully charges in less than five hours at room temperature.

Table 21 Battery LED Charging Indicators

LED	Indication
Slow Blinking Amber	Spare battery is charging.
Solid Green	Charging complete.

Table 21 Battery LED Charging Indicators (Continued)

LED	Indication
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.

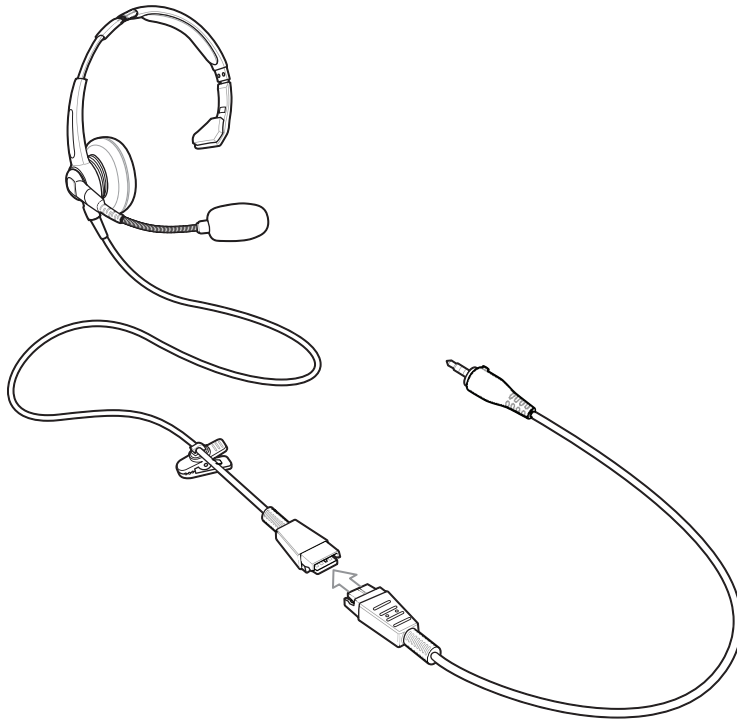
3.5 mm Audio Adapter

The 3.5 mm Audio Adapter snaps onto the back of the TC70x/TC75x and removes easily when not in use. When attached to the TC70x/TC75x the 3.5 mm Audio Adapter allows a user to connect a wired headset to the TC70x/TC75x.

Connecting a Headset to the 3.5 mm Audio Adapter

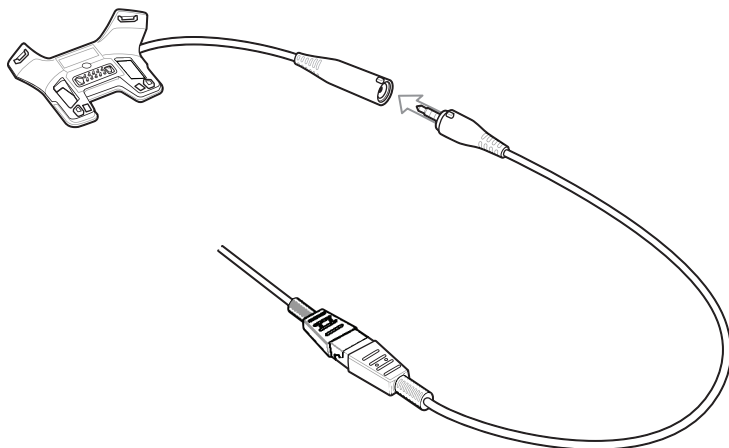
1. Connect the Quick Disconnect connect of the headset to the Quick Disconnect connector of the 3.5 mm Quick Disconnect Adapter Cable.

Figure 151 Connect Headset to Adapter Cable



2. Connect the audio jack of the 3.5 mm Quick Disconnect Adapter Cable to the 3.5 mm Audio Adapter.

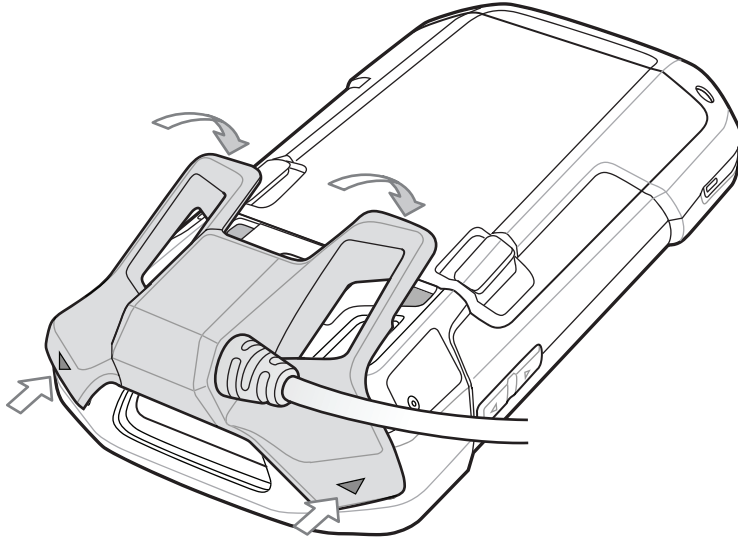
Figure 152 Connect Adapter Cable to Audio Adapter



Attaching the 3.5 mm Audio Adapter

1. Align the top mounting points on the 3.5 mm Audio Adapter with the mounting slots on the TC70x/TC75x.

Figure 153 Audio Adapter Installation

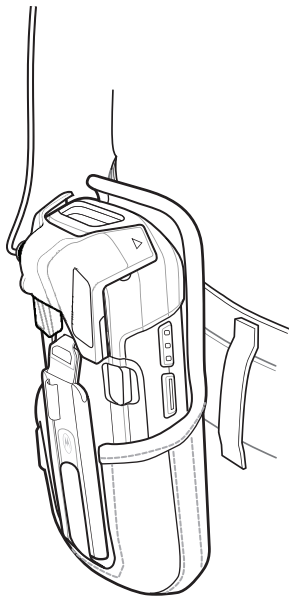


2. Rotate the Audio Adapter down and press down until it snaps into position.

Device with 3.5 mm Audio Adapter in Holster

When using the TC70x/TC75x and the audio adapter in a holster, ensure that the display faces in and the headset cable is securely attached to the audio adapter.

Figure 154 Device with 3.5 mm Audio Adapter in Holster

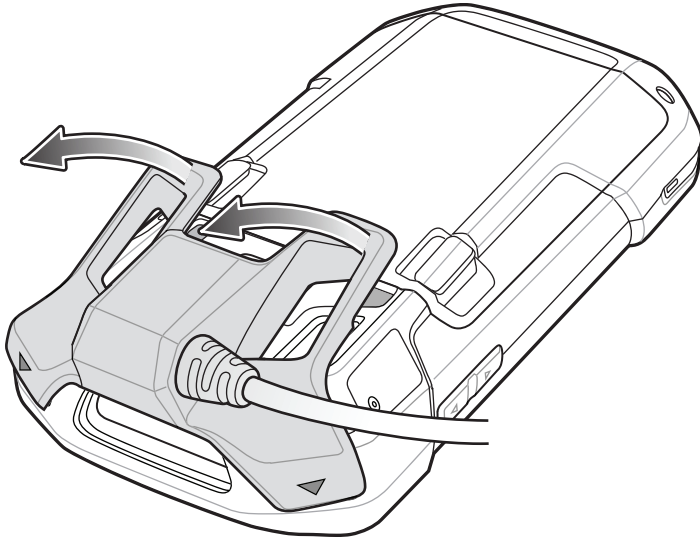


Removing the 3.5 mm Audio Adapter

1. Disconnect headset plug from 3.5 mm Audio Adapter.

2. Lift the bottom of the Audio Adapter away from the device.

Figure 155 Remove Audio Adapter from Device



3. Remove Audio Adapter from the TC70x/TC75x.

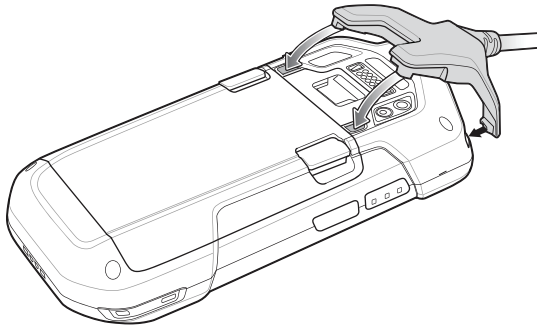
Snap-On USB Cable

The Snap-On USB Cable snaps on to the back of the TC70x/TC75x and removes easily when not in use. When attached to the TC70x/TC75x the Snap-On USB Cable allows the TC70x/TC75x to transfer data to a host computer and provide power for charging the TC70x/TC75x.

Connecting to Device

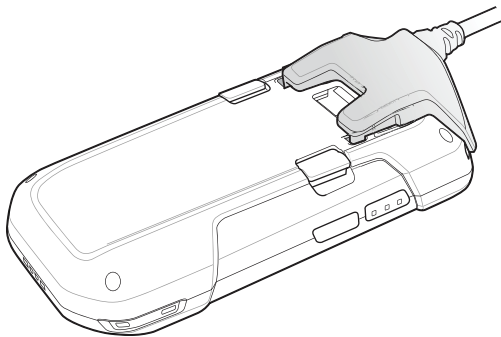
1. Align the top mounting points on the cable with the mounting slots on the TC70x/TC75x.

Figure 156 Cable Installation



2. Rotate the cable down and press until it snaps into place. Magnetics hold the cable to the TC70x/TC75x.

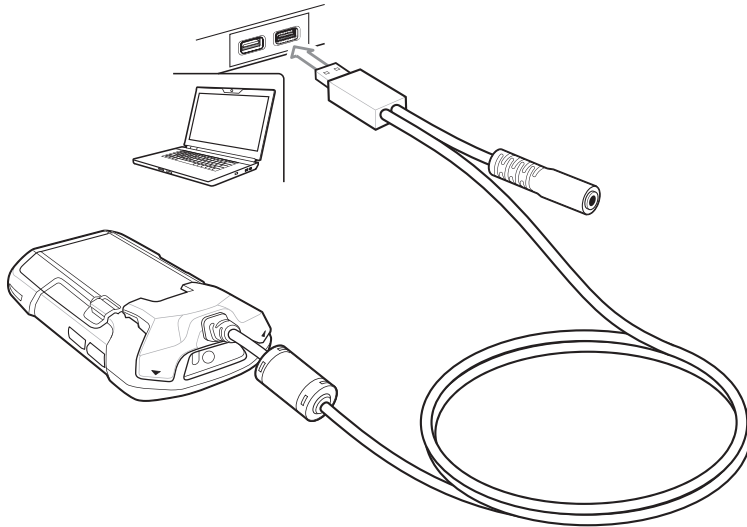
Figure 157 Cable Attached to TC75



USB Communication

1. Connect the Snap-On USB Cable to the TC70x/TC75x.

Figure 158 Cable Removed from Device

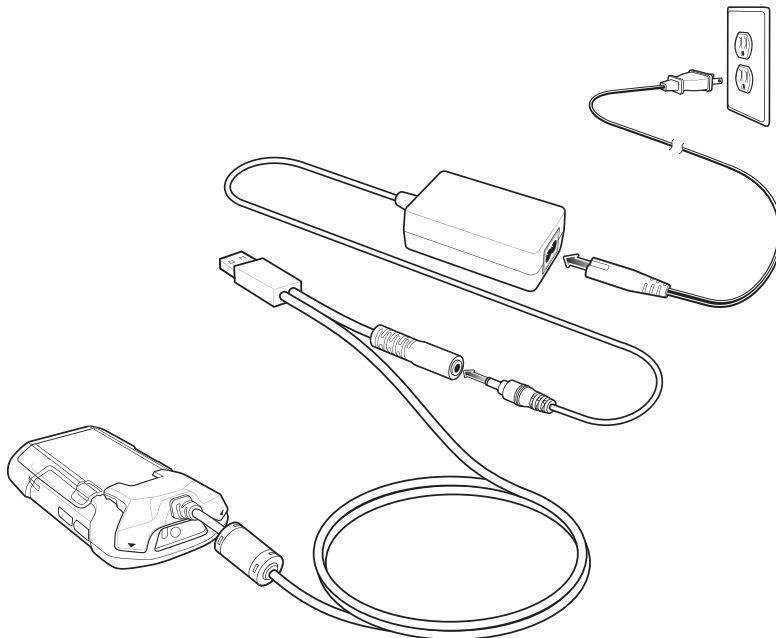


2. Connect the USB connector of the cable to a host computer.

Charging the Device

1. Connect the Snap-On USB Cable to the TC70x/TC75x.
2. Connect the power supply to the Snap-On USB Cable

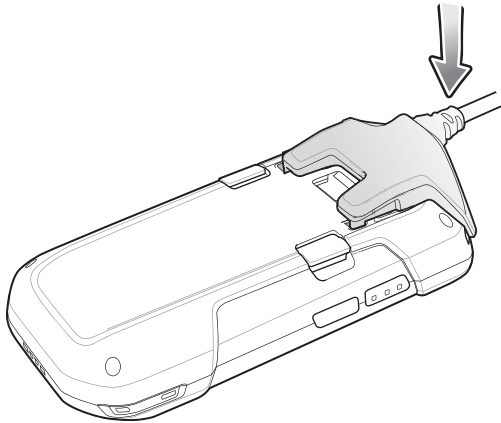
Figure 159 Power Setup



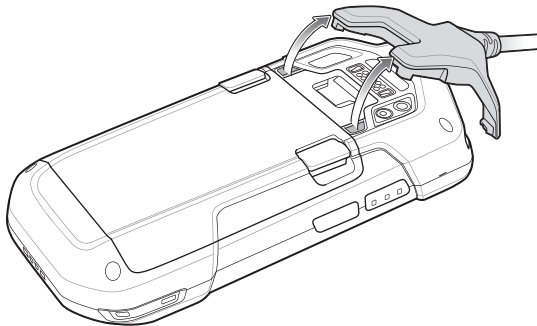
3. Connect to the power supply to an AC outlet.

Disconnecting from Device

1. Press down on the cable.

Figure 160 Press Down on Cable

2. Rotate away from the TC70x/TC75x. The magnetics release the cable from the TC70x/TC75x.

Figure 161 Remove Cable from Device

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 battery fully charges in less than five hours at room temperature.

Charging Temperature

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

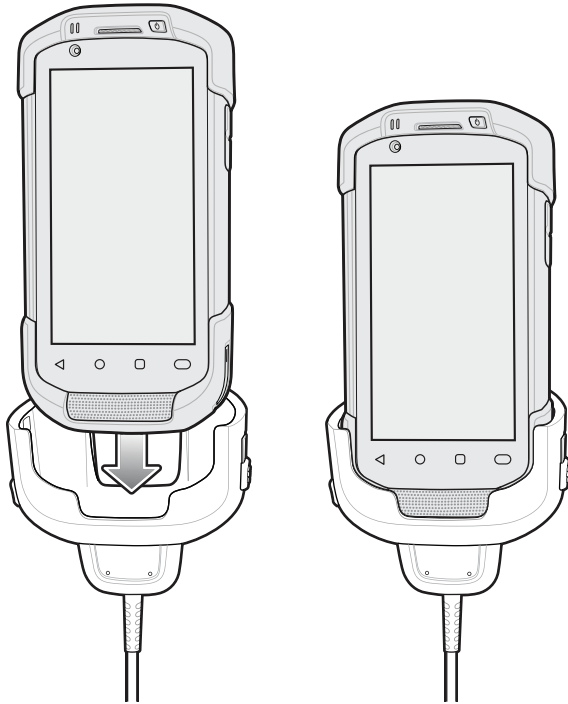
Charging Cable Cup

This section describes how to use the Charging Cable Cup to charge the device.

Charging the Device

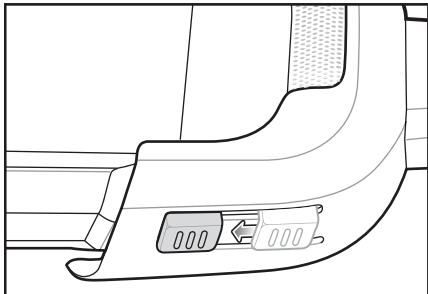
1. Insert the TC70x/TC75x into the cup of the Charging Cable Cup.

Figure 162 Charging

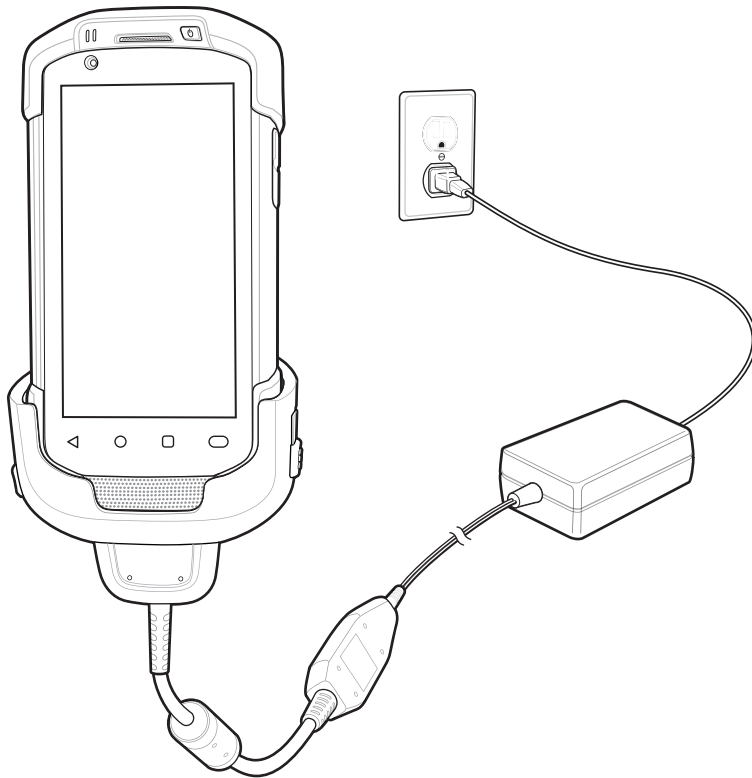


2. Ensure the TC70x/TC75x is seated properly.
3. Slide the two yellow locking tabs up to lock the cable to the TC70x/TC75x.

Figure 163 Lock Cable Cup



4. Connect the power supply to the Charging Cable Cup and to a power source.

Figure 164 Connect Cable to Power Supply

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 battery fully charges in less than five hours at room temperature.

Charging Temperature

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

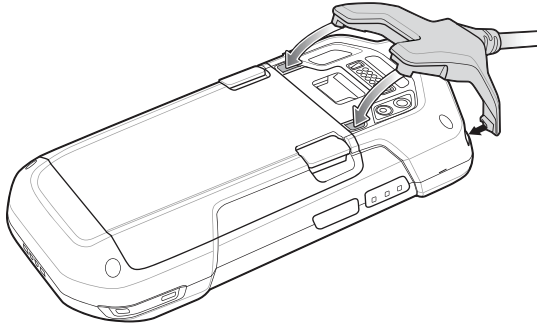
Snap-On DEX Cable

The Snap-On DEX Cable snaps on to the back of the TC70x/TC75x and removes easily when not in use. When attached to the TC70x/TC75x the Snap-On DEX Cable provides electronic data exchange with devices such as vending machines.

Connecting to Device

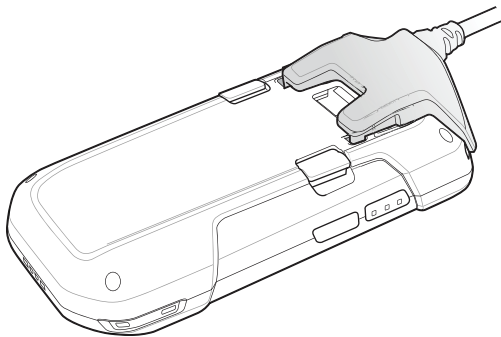
1. Align the top mounting points on the cable with the mounting slots on the TC70x/TC75x.

Figure 165 Cable Installation



2. Rotate the cable down and press until it snaps into place. Magnetics hold the cable to the TC70x/TC75x.

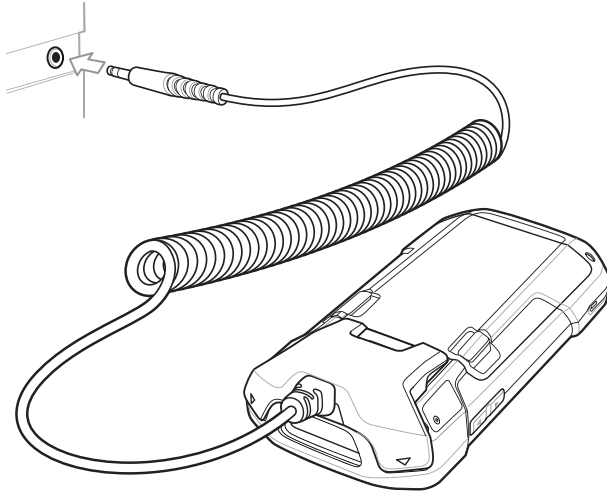
Figure 166 Cable Attached to Device



DEX Communication

1. Connect the Snap-On DEX Cable to the TC70x/TC75x.
2. Connect the DEX connector of the cable to a device such as a vending machine.

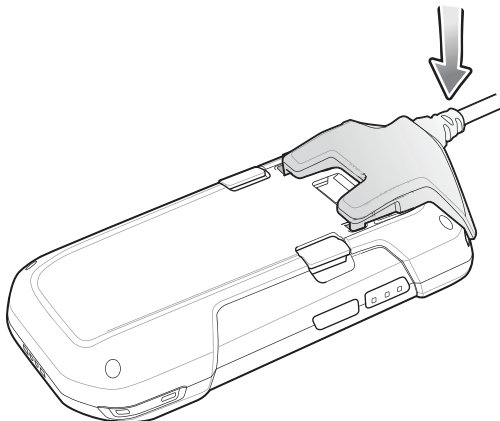
Figure 167 DEX Cable Connection



Disconnecting from Device

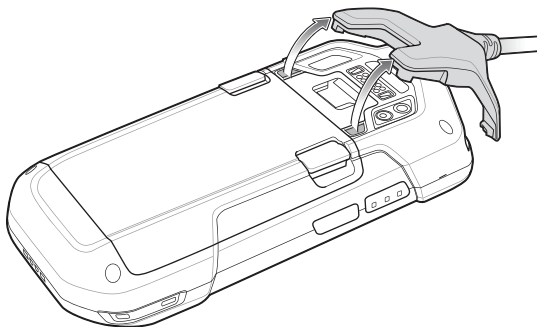
1. Press down on the cable.

Figure 168 Press Down on Cable



2. Rotate away from the TC70x/TC75x. The magnetics release the cable from the TC70x/TC75x.

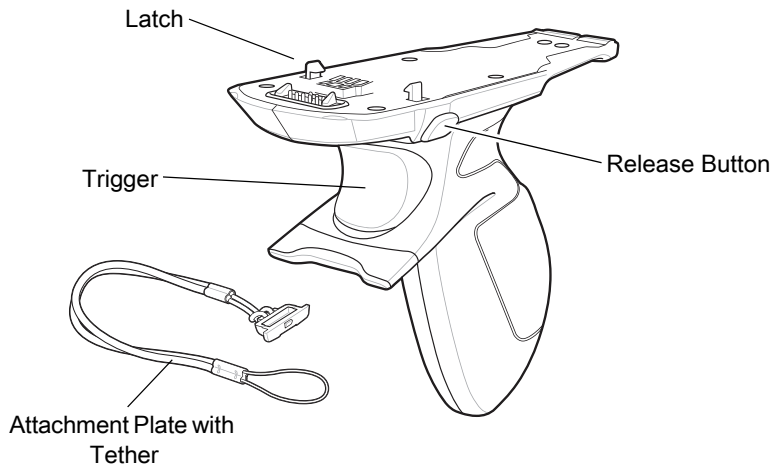
Figure 169 Remove Cable from Device



Trigger Handle

The Trigger Handle adds a gun-style handle with a scanning trigger to the device. It increases comfort when using the device in scan-intensive applications for extended periods of time.

Figure 170 Trigger Handle

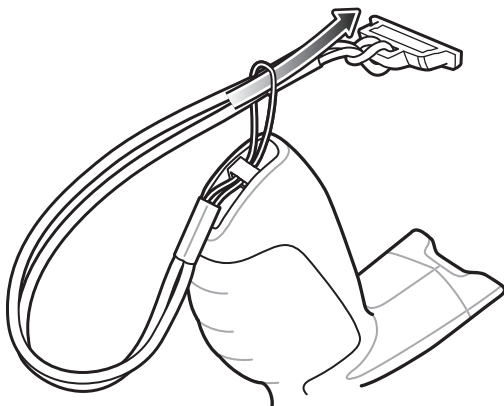


Installing the Attachment Plate to Trigger Handle

To install the attachment plate to the Trigger Handle:

1. Insert the loop end of the tether into the slot on the bottom of the handle.
2. Feed the attachment plate through the loop.

Figure 171 Install Attachment Plate to Handle



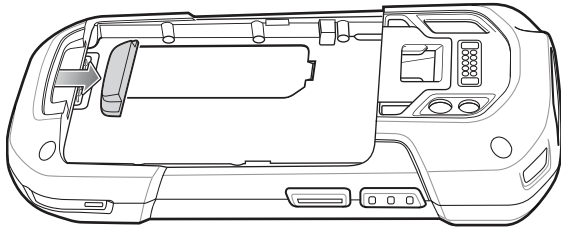
3. Pull the attachment plate until the loop tightens on the tether.

Installing the Trigger Handle Plate

1. Press and hold the **Power** button until the menu appears.
2. Touch **Power off**.

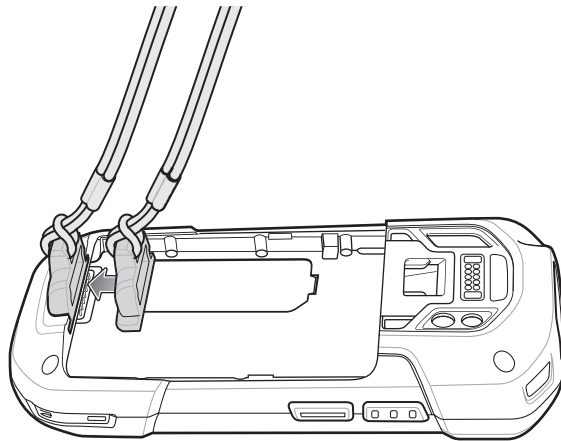
3. Touch **OK**.
4. Press in the two battery latches.
5. Lift the battery from the device.
6. Remove the hand strap filler plate from the hand strap slot. Store the hand strap filler plate in a safe place for future replacement.

Figure 172 Remove Hand Strap Plate



7. Insert the attachment plate into the hand strap slot.

Figure 173 Insert Trigger Handle Plate

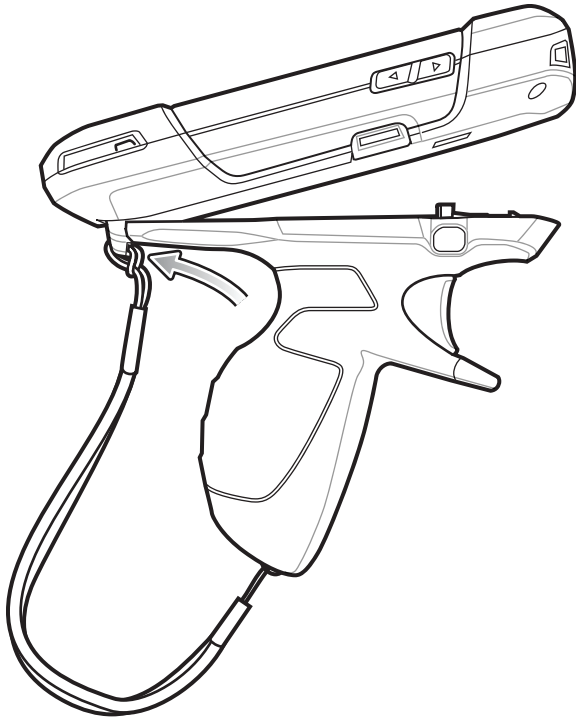


8. Insert the battery, bottom first, into the battery compartment in the back of the device.
9. Rotate the top of the battery into the battery compartment.
10. Press the battery down into the battery compartment until the battery release latches snap into place.

Inserting the Device into the Trigger Handle

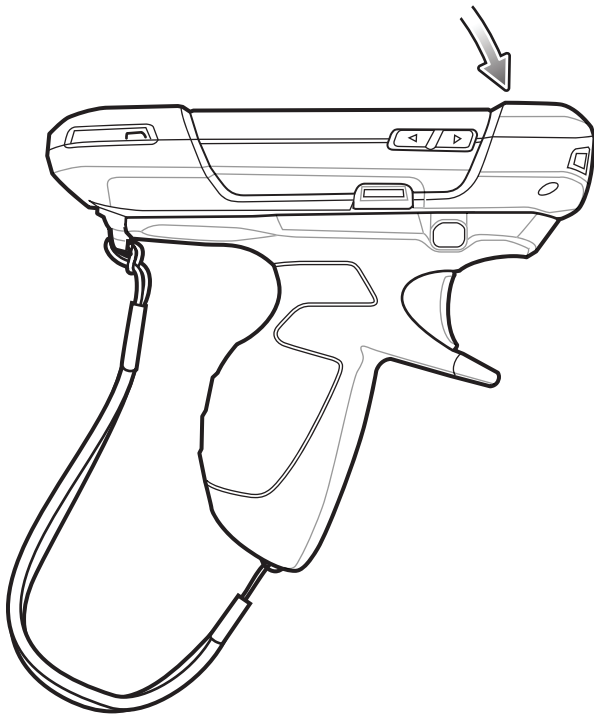
1. Align the back of the Trigger handle with the Trigger Mounting Plate.

Figure 174 Connect Device to Trigger Handle



2. Press the two release latches.
3. Rotate the device down and press down until it snaps into place.

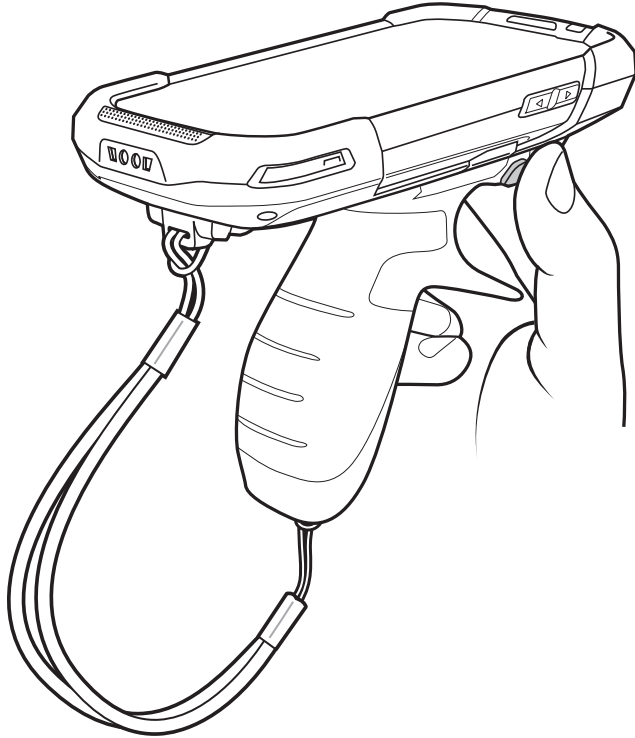
Figure 175 Rotate Device onto Trigger Handle



Removing the Device from the Trigger Handle

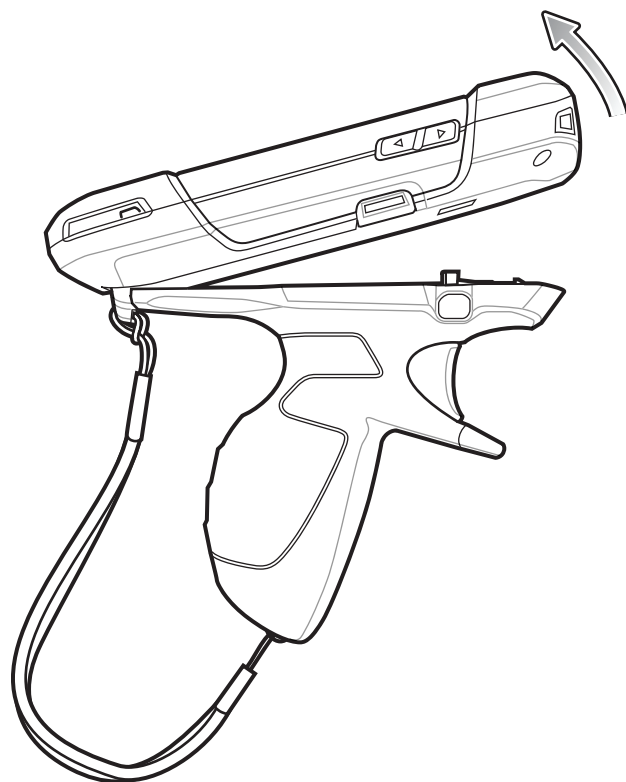
1. Press both Trigger Handle release latches.

Figure 176 Press Release Latches



2. Rotate the device up and remove from the Trigger handle.
3. Rotate the device down and press down until it snaps into place.

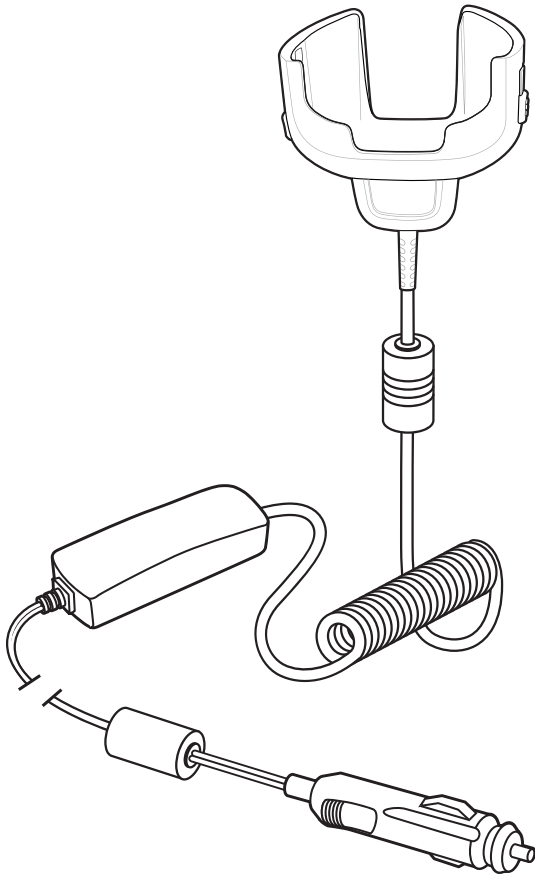
Figure 177 Rotate Device onto Trigger Handle



Vehicle Charging Cable Cup

This section describes how to use the Vehicle Charging Cable Cup to charge the TC70x/TC75x.

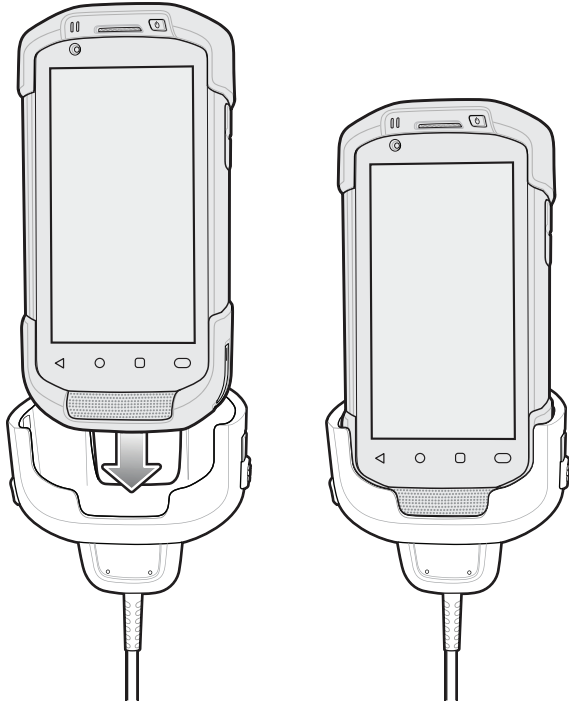
Figure 178 Vehicle Charging Cable Cup



Charging the Device

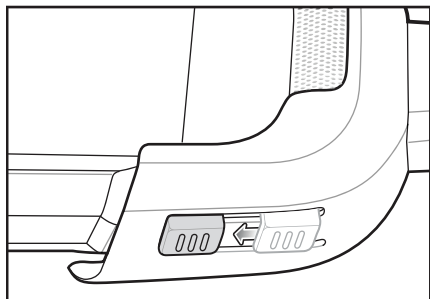
1. Insert the TC70x/TC75x into the cup of the Vehicle Charging Cable.

Figure 179 Charging

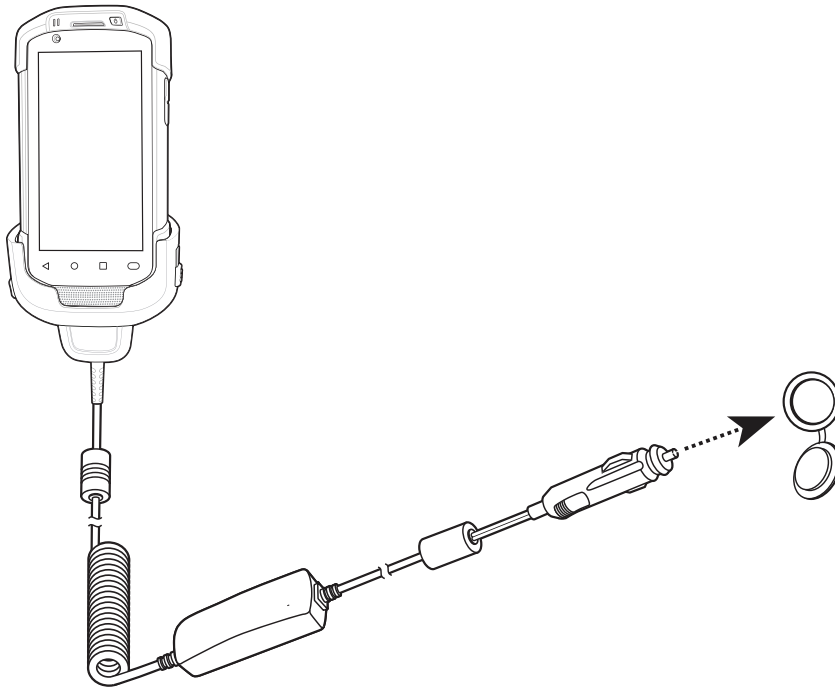


2. Ensure the TC70x/TC75x is seated properly.
3. Slide the two yellow locking tabs up to lock the cable to the TC70x/TC75x.

Figure 180 Lock Cable Cup



4. Insert the Cigarette Lighter plug into the vehicle cigarette lighter socket.

Figure 181 Connect Cable to Vehicle Power Source

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 battery fully charges in less than five hours at room temperature.

Charging Temperature

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

Vehicle Cradle

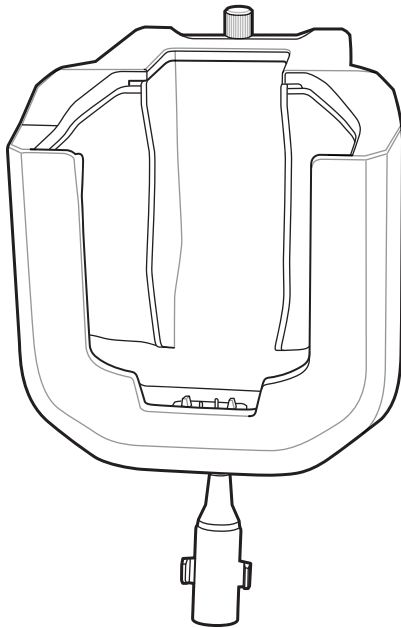
Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on installing the Vehicle Cradle.

The cradle:

- holds the TC70x/TC75x securely in place
- provides power for operating the TC70x/TC75x
- re-charges the battery in the TC70x/TC75x.

The cradle is powered by the vehicle's 12V or 24V electrical system. The operating voltage range is 9V to 32V and supplies a maximum current of 3A.

Figure 182 Vehicle Cradle



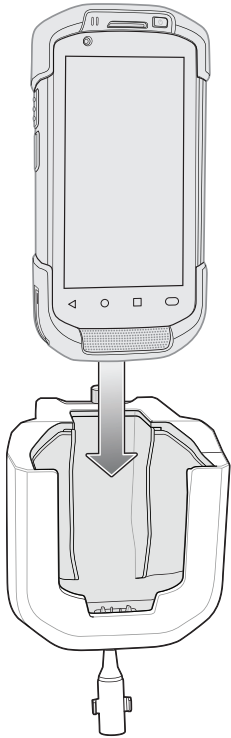
Device Insertion and Removal



CAUTION: Ensure that the TC70x/TC75x is fully inserted into the cradle. Lack of proper insertion may result in property damage or personal injury. Zebra Technologies Corporation is not responsible for any loss resulting from the use of the products while driving.

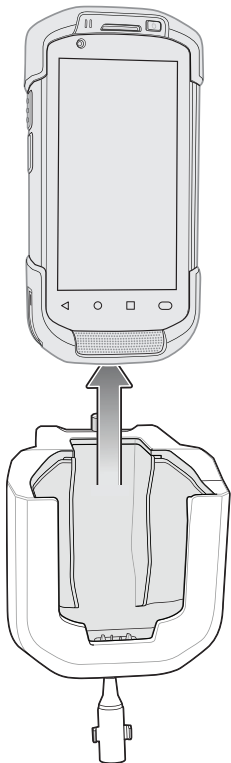
To ensure the TC70x/TC75x was inserted correctly, listen for the audible click that signifies that the TC70x/TC75x locking mechanism was enabled and the TC70x/TC75x was locked into place.

Figure 183 Install Device into Vehicle Cradle



To remove the TC70x/TC75x from the cradle, grasp the TC70x/TC75x and lift out of the cradle.

Figure 184 Remove Device from Vehicle Cradle



Battery Charging

Ensure the cradle is connected to a power source.

Insert the TC70x/TC75x into the cradle. The TC70x/TC75x starts to charge through the cradle as soon as it is inserted. This does not deplete the vehicle battery significantly. The battery charges in approximately four hours. See [Table 3 on page 25](#) for charging indications.



NOTE: The Vehicle Cradle operating temperature is -40°C to +85°C. When in the cradle, the TC70x/TC75x will only charge when its temperature is between 0°C to +40°C.

TC7X Vehicle Communication Charging Cradle

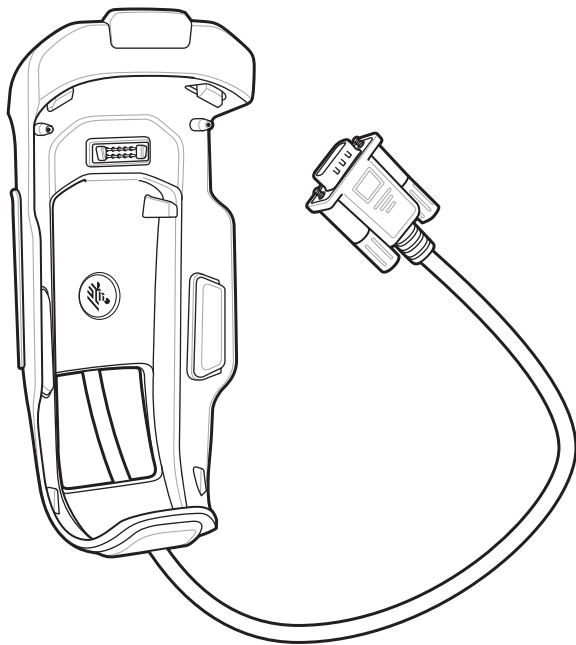
The Vehicle Communication Charging Cradle:

- holds the TC70x/TC75x securely in place
- provides power for operating the TC70x/TC75x
- re-charges the battery in the TC70x/TC75x.

The cradle is powered by the USB I/O Hub.

Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on installing the TC7X Vehicle Communication Charging Cradle.

Figure 185 TC7X Vehicle Communication Charging Cradle



Device Insertion and Removal

Figure 186 Insert Device into Cradle

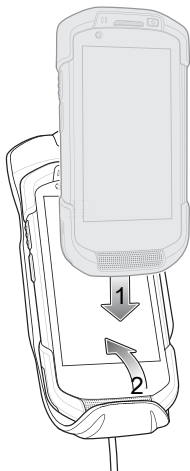
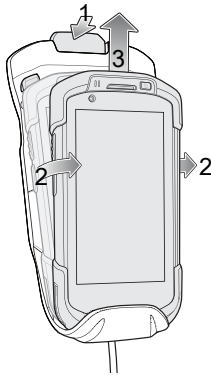


Figure 187 Remove Device from Cradle

To ensure the TC70x/TC75x was inserted correctly, listen for the audible click that signifies that the TC70x/TC75x locking mechanism was enabled and the TC70x/TC75x was locked into place.



CAUTION: Ensure that the TC70x/TC75x is fully inserted into the cradle. Lack of proper insertion may result in property damage or personal injury. Zebra Technologies Corporation is not responsible for any loss resulting from the use of the products while driving.

To remove the TC70x/TC75x from the cradle, press the release latch, grasp the TC70x/TC75x and lift out of the vehicle cradle.

Device Battery Charging

Insert the TC70x/TC75x into the cradle. The TC70x/TC75x starts to charge through the cradle as soon as it is inserted. This does not deplete the vehicle battery significantly. The battery charges in approximately four hours. See [Table 3 on page 25](#) for all charging indications.

Charging Note

The Vehicle Cradle operating temperature is -40°C to +85°C. When in the cradle, the TC70x/TC75x will only charge when its temperature is between 0°C to +40°C.

USB I/O Hub

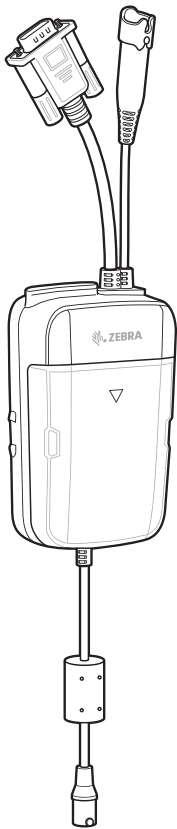
The USB I/O Hub:

- provides power to a vehicle cradle
- provides USB hub for three USB devices (such as printers)
- provides a powered USB port for charging another device.

The cradle is powered by the vehicle's 12V or 24V electrical system. The operating voltage range is 9V to 32V and supplies a maximum current of 3A to the vehicle cradle and 1.5 A to the four USB ports simultaneously.

Refer to the TC70x/TC75x Integrator Guide for Android Version 7.1.2 for information on installing the USB I/O Hub.

Figure 188 USB I/O Hub

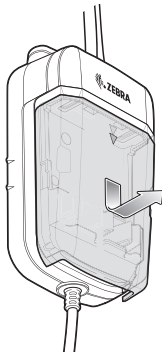


Connect USB Cables

The USB I/O Hub provides three USB ports for connecting devices such as printers to a device in the vehicle cradle. To connect USB cables:

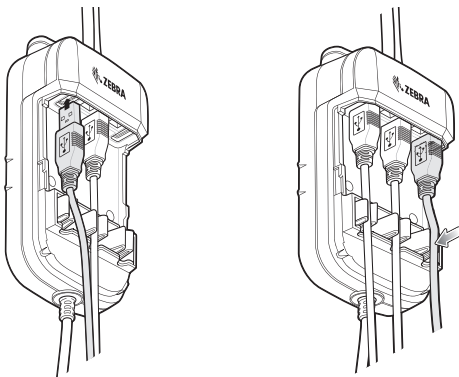
1. Slide the cable cover down and remove.

Figure 189 Remove Cover



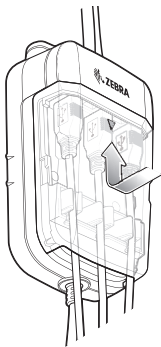
2. Insert the USB cable connector into one of the USB ports.
3. Place each cable into the cable holder.

Figure 190 Connect USB Cable



4. Align the cable cover onto the USB I/O Hub. Ensure that the cables are within the cover opening.

Figure 191 Replace Cover



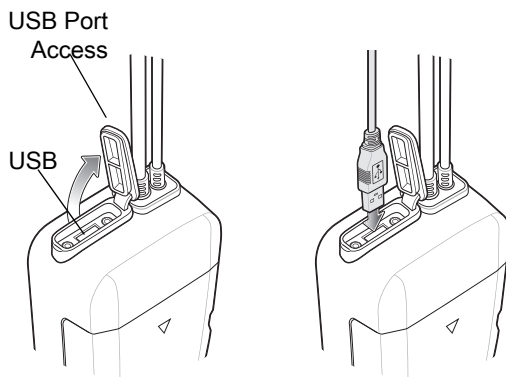
5. Slide cable cover up to lock into place.

External USB Cable

The USB I/O Hub provides a USB port for charging external devices such as cell phones. This port is for charging only.

1. Open the USB Access Cover.
2. Insert the USB cable connector into the USB port.

Figure 192 Insert External USB Cable

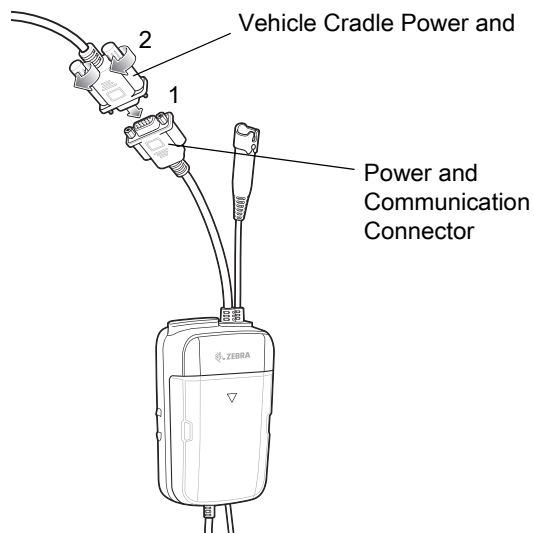


Power to Vehicle Cradle

The USB I/O Hub can provide power to a Vehicle Cradle.

1. Connect the Power Output Cable connector to the Power Input Cable connector of the Vehicle Cradle.
2. Tighten thumbscrews by hand until tight.

Figure 193 Connect Power to Vehicle Cradle

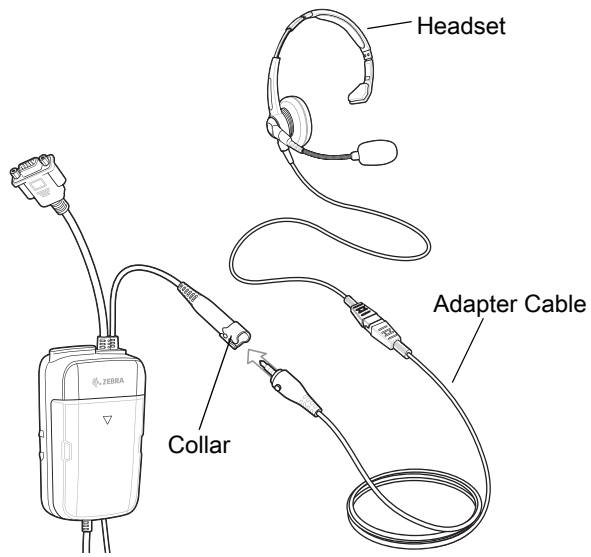


Audio Headset Connection

The USB I/O Hub provides audio connection to the device in a vehicle cradle.

Depending upon, headset, connect the headset and audio adapter to the Headset connector.

Figure 194 Connect Audio Headset



Maintenance and Troubleshooting

Introduction

This chapter includes instructions on cleaning and storing the device, and provides troubleshooting solutions for potential problems during operation.

Maintaining the Device

For trouble-free service, observe the following tips when using the TC70x/TC75x:

- Do not scratch the screen of the TC70x/TC75x. When working with the TC70x/TC75x use the supplied stylus or plastic-tipped pens intended for use device a touch-sensitive screen. Never use an actual pen or pencil or other sharp object on the surface of the TC70x/TC75x screen.
- The touch-sensitive screen of the TC70x/TC75x is glass. Do not drop the TC70x/TC75x or subject it to strong impact.
- Protect the TC70x/TC75x 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 or use the TC70x/TC75x in any location that is dusty, damp, or wet.
- Use a soft lens cloth to clean the TC70x/TC75x. If the surface of the TC70x/TC75x screen becomes soiled, clean it with a soft cloth moistened with a diluted window-cleaning solution.
- Periodically replace the rechargeable battery to ensure maximum battery life and product performance. Battery life depends on individual usage patterns.

Battery Safety 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 battery and charger temperatures must be between +32°F and +104°F (0°C and +40°C)
- Do not use incompatible batteries and chargers. Use of an incompatible battery or charger may present a risk of fire, explosion, leakage, or other hazard. If you have any questions about the compatibility of a battery or a charger, contact 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.
- To enable authentication of an approved battery, as required by IEEE1725 clause 10.2.1, all batteries will carry a hologram. Do not fit any battery without checking it has the authentication hologram.
- Do not disassemble or open, crush, bend or deform, puncture, or shred.
- 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 re-chargeable 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 large amounts of water and seek medical advice.
- If you suspect damage to your equipment or battery, contact the Customer Support to arrange for inspection.

Cleaning Instructions



CAUTION: Always wear eye protection.

Read warning label on compressed air and 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, bleach/sodium hypochlorite¹(see Important note below), hydrogen peroxide or mild dish soap.



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

¹ When using sodium hypochlorite (bleach) based products always follow the manufacturer's recommended instructions: use gloves during application and remove the residue afterwards with a damp alcohol cloth or a cotton swab to avoid prolonged skin contact while handling the device.

Due to the powerful oxidizing nature of sodium hypochlorite, the metal surfaces on the device are prone to oxidization (corrosion) when exposed to this chemical in the liquid form (including wipes). Avoid allowing any bleach based product to come in contact with the metal electrical contacts on the device, the battery, or the cradle. In the event that these types of disinfectants come in contact with metal on the device, prompt removal with alcohol-dampened cloth or cotton swab after the cleaning step is critical.

Harmful Ingredients

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

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, but gently wipe the unit. Be careful not to let liquid pool around the display window or other places. Allow the unit to air dry before use.

Special Cleaning Notes

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

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 up to the customer's discretion due to the varied environments in which the mobile devices are used. They may be cleaned as frequently as required, but it is advisable to clean the camera window periodically when used in dirty environments to ensure optimum performance.

Cleaning the TC70x

Housing

Using the alcohol wipes, wipe the housing including buttons.

Display

The display can be wiped down with the alcohol wipes, 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.

Camera and Exit Window

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

Connector Cleaning

To clean the connectors:

1. Remove the main battery from mobile computer.
2. Dip the cotton portion of the cotton-tipped applicator in isopropyl alcohol.
3. Rub the cotton portion of the cotton-tipped applicator back-and-forth across the connector. Do not leave any cotton residue on the connector.
4. Repeat at least three times.
5. Use the cotton-tipped applicator dipped in alcohol to remove any grease and dirt near the connector area.
6. Use a dry cotton-tipped applicator and repeat steps 4 through 6.



CAUTION: Do not point nozzle at yourself and others, ensure the nozzle or tube is away from your face.

7. Spray compressed air on the connector area by pointing the tube/nozzle about ½ inch away from the surface.
8. Inspect the area for any grease or dirt, repeat if required.

Cleaning Cradle Connectors

To clean the connectors on a cradle:

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.



CAUTION: Do not point nozzle at yourself and others, ensure the nozzle or tube is pointed away from your face.

5. Spray compressed air in the connector area by pointing the tube/nozzle about ½ inch away from the surface.
6. Remove any lint left by the cotton-tipped applicator.
7. If grease and other dirt can be found on other areas of the cradle, use a lint-free cloth and alcohol to remove.
8. 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 dry humidity requires less drying time.

Troubleshooting

The following tables provides typical problems that might arise and the solution for correcting the problem.

TC70x/TC75x

Table 22 Troubleshooting the TC70x/TC75x

Problem	Cause	Solution
When pressing the power button the TC70x/TC75x does not turn on.	Battery not charged.	Charge or replace the battery in the TC70x/TC75x.
	Battery not installed properly.	Install the battery properly.
	System crash.	Perform a reset.
When pressing the power button the TC70x/TC75x does not turn on but two LEDs blink.	Battery charge is at a level where data is maintained but battery should be re-charged.	Charge or replace the battery in the TC70x/TC75x.
Battery did not charge.	Battery failed.	Replace battery. If the TC70x/TC75x still does not operate, perform a reset.
	TC70x/TC75x removed from cradle while battery was charging.	Insert TC70x/TC75x in cradle. The 4,620 mAh battery fully charges in less than five hours at room temperature.
	Extreme battery temperature.	Battery does not charge if ambient temperature is below 0°C (32°F) or above 40°C (104°F).
Cannot see characters on display.	TC70x/TC75x not powered on.	Press the Power button.
During data communication with a host computer, no data transmitted, or transmitted data was incomplete.	TC70x/TC75x removed from cradle or disconnected from host computer during communication.	Replace the TC70x/TC75x in the cradle, or reattach the communication cable and re-transmit.
	Incorrect cable configuration.	See the system administrator.
	Communication software was incorrectly installed or configured.	Perform setup.
During data communication over Wi-Fi, no data transmitted, or transmitted data was incomplete.	Wi-Fi radio is not on.	Turn on the Wi-Fi radio.
	You moved out of range of an access point.	Move closer to an access point.

Table 22 Troubleshooting the TC70x/TC75x (Continued)



Problem	Cause	Solution
During data communication over WAN, no data transmitted, or transmitted data was incomplete.	You are in an area of poor cellular service.	Move into an area that has better service.
	APN is not set up correctly.	See system administrator for APN setup information.
	SIM card not installed properly.	Remove and re-install the SIM card.
	Data plan not activated.	Contact your service provider and ensure that your data plan is enable.
During data communication over Bluetooth, no data transmitted, or transmitted data was incomplete.	Bluetooth radio is not on.	Turn on the Bluetooth radio.
	You moved out of range of another Bluetooth device.	Move within 10 meters (32.8 feet) of the other device.
No sound.	Volume setting is low or turned off.	Adjust the volume.
TC70x/TC75x shuts off.	TC70x/TC75x is inactive.	The display turns off after a period of inactivity. Set this period to 15 seconds, 30 seconds, 1, 2, 5, 10 or 30 minutes.
	Battery is depleted.	Replace the battery.
Tapping the window buttons or icons does not activate the corresponding feature.	The device is not responding.	Reset the device.
A message appears stating that the TC70x/TC75x memory is full.	Too many files stored on the TC70x/TC75x.	Delete unused memos and records. If necessary, save these records on the host computer (or use an SD card for additional memory).
	Too many applications installed on the TC70x/TC75x.	Remove user-installed applications on the TC70x/TC75x to recover memory. Select  >  Apps > Downloaded . Select the unused program and tap Remove .

Table 22 Troubleshooting the TC70x/TC75x (Continued)

Problem	Cause	Solution
The TC70x/TC75x does not decode with reading barcode.	Scanning application is not loaded.	Load a scanning application on the TC70x/TC75x or enable DataWedge. See the system administrator.
	Unreadable barcode.	Ensure the symbol is not defaced.
	Distance between exit window and barcode is incorrect.	Place the TC75x within proper scanning range.
	TC70x/TC75x is not programmed for the barcode.	Program the TC70x/TC75x to accept the type of barcode being scanned. Refer to the EMDK or DataWedge application.
	TC70x/TC75x is not programmed to generate a beep.	If the TC70x/TC75x does not beep on a good decode, set the application to generate a beep on good decode.
	Battery is low.	If the scanner stops emitting a laser beam upon a trigger press, check the battery level. When the battery is low, the scanner shuts off before the TC70x/TC75x low battery condition notification. Note: If the scanner is still not reading symbols, contact the distributor or the Global Customer Support Center.
TC70x/TC75x cannot find any Bluetooth devices nearby.	Too far from other Bluetooth devices.	Move closer to the other Bluetooth device(s), within a range of 10 meters (32.8 feet).
	The Bluetooth device(s) nearby are not turned on.	Turn on the Bluetooth device(s) to find.
	The Bluetooth device(s) are not in discoverable mode.	Set the Bluetooth device(s) to discoverable mode. If needed, refer to the device's user documentation for help.
Cannot unlock TC70x/TC75x.	User enters incorrect password.	If the user enters an incorrect password eight times, the user is requested to enter a code before trying again. If the user forgot the password, contact system administrator.

Technical Specifications

Introduction

The following sections provide technical specification for the device.

TC70x/TC75x

Table 23 TC70x/TC75x Technical Specifications

Item	Description
Physical Characteristics	
Dimensions	Height: 161 mm (6.3 in.) Width: 84 mm (3.3 in.) Depth: 28 mm (1.1 in.)
Weight	376 g (13.3 oz)
Display	4.7 in. High Definition (1280 x 720); exceptionally bright image; optically bonded to touch panel with Gorilla Glass™ protection
Touch Panel	Capacitive touch
Backlight	Light Emitting Diode (LED) backlight
Battery Pack	Rechargeable Lithium Ion 3.7V, 4,620 mAh battery
Expansion Slot	User accessible microSD up to 32 GB SDHC and up to 128 GB SDXC support
Connection Interface	Universal Serial Bus (USB) 2.0 High Speed (host and client)
Notification	Audible tone plus multi-color LEDs, vibration
Voice and Audio	Three microphone support with noise cancellation; vibrate alert; speaker; Bluetooth wireless headset support. High quality speaker phone with up to 108 db SPL volume; PTT headset support; Cellular circuit switch voice; HD Voice
Performance Characteristics	
CPU	1.8 GHz hex core 64 bit processor (Snapdragon 650)

Table 23 TC70x/TC75x Technical Specifications (Continued)

Item	Description
Operating System	Android 7.1.2 Nougat
Memory	2 GB RAM/16 GB Flash
Output Power	USB - 5 VDC @ 500 mA max
User Environment	
Operating Temperature	-20°C to 50°C (-4°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 Specification	8 ft./2.4 m to concrete at room temperature; 6 ft./1.8 m over the operating temperature range
Tumble	2,000 3.2 ft./1.0 m tumbles; meets and exceeds IEC tumble specifications
Electrostatic Discharge (ESD)	+/-15kVdc air discharge, +/-8kVdc direct discharge, +/-8kVdc indirect discharge
Sealing	IP67 per applicable IEC sealing specifications
Vibration	4 g's PK Sine (5 Hz to 2 kHz); 0.04g2/Hz Random (20 Hz to 2 kHz); 60 minute duration per axis, 3 axis
Thermal Shock	-40° C to 70° C (-40° F to 158° F) rapid transition
Interactive Sensor Technology (IST)	
Motion Sensor	3-axis accelerometer provides motion-sensing for dynamic screen orientation and power management
Light Sensor	Ambient light sensor to auto adjust display backlight brightness
Wireless WAN Data and Voice Communications (TC75x only)	
Frequency band	Worldwide: LTE: 700,800/850/900/1800/2100/2600 (FDD 28,20,5,8,3,1,7); UMTS/HSPA/HSPA+: 850/900/1900/2100; GSM/GPRS/EDGE: 850/900/1800/1900 Americas: LTE: 700/850/1900/AWS/2100, (FDD 13,12,17,5,26,2,25,4,1); UMTS/HSPA/HSPA+: 850, 900, AWS, 1900, 2100 GSM/GPRS/EDGE: 850/900/1800/1900; CDMA: 850,1900 (BC0, BC10, BC1)
GPS	Integrated, Autonomous, Assisted GPS (A-GPS), Navstar, GLONASS, Beidou, Galileo
Wireless LAN Data and Voice Communications	
Radio	2x2 MIMO; IEEE® 802.11a/b/g/n/ac/d/h/i/r

Table 23 TC70x/TC75x Technical Specifications (Continued)

Item	Description
Data Rates Supported	5GHz: 802.11a/n/c - up to 866.7 Mbps 2.4GHz: 802.11b/g/n - up to 144 Mbps
Operating Channels	Chan 1 - 13 (2412 - 2472 MHz), Chan 36 - 165 (5180 - 5825 MHz) Channel Bandwidth: 20, 40, 80 MHz Actual operating channels/frequencies depend on regulatory rules and certification agency
Security	WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA/WPA2 Enterprise (TKIP and AES) - EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC and LEAP
Wireless PAN Data and Voice Communications	
Bluetooth	Bluetooth v4.1 Low Energy
Data Capture Specifications	
2D Imager	SE4750-SR – 1D and 2D barcodes.
Camera	Rear: 13 Mega pixel auto focus with flash Front: 1.3 Mega pixel fixed focus
Near Field Communications (NFC)	ISO 14443 Type A and B, FeliCa, and ISO 15963 cards. P2P mode and Card Emulation via UICC and Host.
Communication and Messaging	
Workforce Connect PTT Express (included) provides instant push-to-talk (PTT) small group communications across Wi-Fi networks. Workforce Connect PTT Pro (supported) provides a scalable network agnostic push-to-talk solution which also includes messaging, location services and two-way radio integration. Workforce Connect Voice client (supported) enables the TC75x to function as a full featured mobile telephone with multi-line capability across Wi-Fi networks.	
2D Imager Engine (SE4750-SR) Specifications	
Field of View	Horizontal - 48.0° Vertical - 36.7°
Image Resolution	1280 horizontal X 960 vertical pixels
Roll	360°
Pitch Angle	+/- 60° from normal
Skew Tolerance	+/- 60° from normal
Ambient Light	Sunlight: 10,000 ft. candles (107,639 lux)
Focal Distance	From front of engine: 17.7 cm (7.0 in.)

Table 23 TC70x/TC75x Technical Specifications (Continued)

Item	Description
Laser Aiming Element	Visible Laser Diode (VLD): 655 nm +/- 10 nm Central Dot Optical Power: 0.6 mW (typical) Pattern Angle: 48.0° horizontal, 38.0° vertical
Illumination System	LEDs: Warm white LED Pattern Angle: 80° at 505 intensity

Table 24 Data Capture Supported Symbologies

Item	Description
1D barcodes	Code 128, EAN-8, EAN-13, GS1 DataBar Expanded, GS1 128, GS1 DataBar Coupon, UPCA, Interleaved 2 of 5, UPC Coupon Code
2D barcodes	PDF-417, QR Code

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